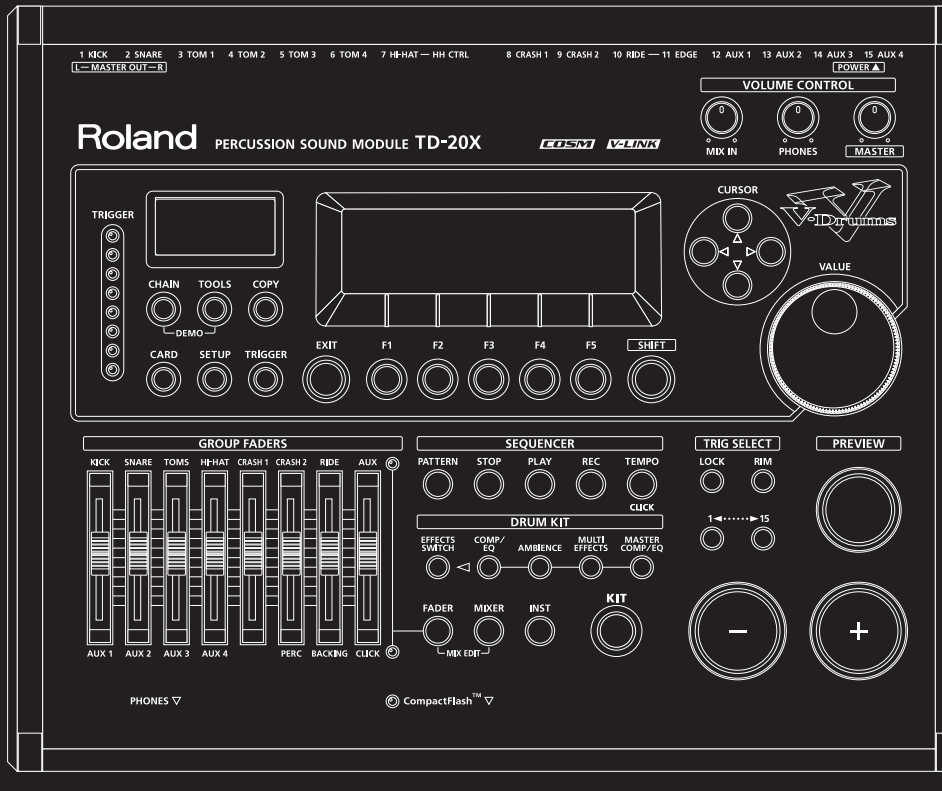



V-Drums

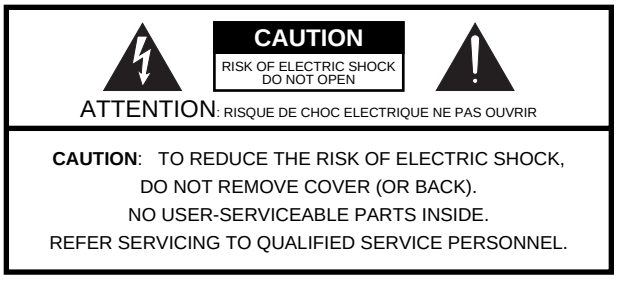
# TD-20X

## PERCUSSION SOUND MODULE

Owner's Manual

Roland

**WARNING:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.




The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS.

# IMPORTANT SAFETY INSTRUCTIONS
# SAVE THESE INSTRUCTIONS

**WARNING** - When using electric products, basic precautions should always be followed, including the following:

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any of the ventilation openings. Install in accordance with the manufacturers instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Unplug this apparatus during lightning storms or when unused for long periods of time.
13. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

**For the U.K.**

**WARNING:** THIS APPARATUS MUST BE EARTHED
**IMPORTANT:** THE WIRES IN THIS MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE.
GREEN-AND-YELLOW: EARTH, BLUE: NEUTRAL, BROWN: LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured GREEN-AND-YELLOW must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ or coloured GREEN or GREEN-AND-YELLOW.

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

# USING THE UNIT SAFELY

## INSTRUCTIONS FOR THE PREVENTION OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS

About ⚠WARNING and ⚠CAUTION Notices

| | |
|---|---|
| **⚠WARNING** | Used for instructions intended to alert the user to the risk of death or severe injury should the unit be used improperly. |
| **⚠CAUTION** | Used for instructions intended to alert the user to the risk of injury or material damage should the unit be used improperly.<br>* Material damage refers to damage or other adverse effects caused with respect to the home and all its furnishings, as well to domestic animals or pets. |

About the Symbols

| | |
|---|---|
| ⚠ | The △symbol alerts the user to important instructions or warnings.The specific meaning of the symbol is determined by the design contained within the triangle. In the case of the symbol at left, it is used for general cautions, warnings, or alerts to danger. |
| ⃠ | The ⃠symbol alerts the user to items that must never be carried out (are forbidden). The specific thing that must not be done is indicated by the design contained within the circle. In the case of the symbol at left, it means that the unit must never be disassembled. |
| ● | The ●symbol alerts the user to things that must be carried out. The specific thing that must be done is indicated by the design contained within the circle. In the case of the symbol at left, it means that the power-cord plug must be unplugged from the outlet. |

## ALWAYS OBSERVE THE FOLLOWING

### ⚠WARNING

- Connect mains plug of this model to a mains socket outlet with a protective earthing connection.

- Do not open or perform any internal modifications on the unit.

- Do not attempt to repair the unit, or replace parts within it (except when this manual provides specific instructions directing you to do so). Refer all servicing to your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page.

- Never install the unit in any of the following locations.
  - Subject to temperature extremes (e.g., direct sunlight in an enclosed vehicle, near a heating duct, on top of heat-generating equipment); or are
  - Damp (e.g., baths, washrooms, on wet floors); or are
  - Exposed to steam or smoke; or are
  - Subject to salt exposure; or are
  - Humid; or are
  - Exposed to rain; or are
  - Dusty or sandy; or are
  - Subject to high levels of vibration and shakiness.

- Make sure you always have the unit placed so it is level and sure to remain stable. Never place it on stands that could wobble, or on inclined surfaces.

### ⚠WARNING

- The unit should be connected to a power supply only of the type described as marked on the bottom of unit.

- Use only the attached power-supply cord. Also, the supplied power cord must not be used with any other device.

- Do not excessively twist or bend the power cord, nor place heavy objects on it. Doing so can damage the cord, producing severed elements and short circuits. Damaged cords are fire and shock hazards!

- This unit, either alone or in combination with an amplifier and headphones or speakers, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level, or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should immediately stop using the unit, and consult an audiologist.

- Do not allow any objects (e.g., flammable material, coins, pins); or liquids of any kind (water, soft drinks, etc.) to penetrate the unit.

## ⚠WARNING

- Immediately turn the power off, remove the power cord from the outlet, and request servicing by your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page when:
  - The power-supply cord or the plug has been damaged; or
  - If smoke or unusual odor occurs
  - Objects have fallen into, or liquid has been spilled onto the unit; or
  - The unit has been exposed to rain (or otherwise has become wet); or
  - The unit does not appear to operate normally or exhibits a marked change in performance.

- In households with small children, an adult should provide supervision until the child is capable of following all the rules essential for the safe operation of the unit.

- Protect the unit from strong impact.
  (Do not drop it!)

- Do not force the unit's power-supply cord to share an outlet with an unreasonable number of other devices. Be especially careful when using extension cords—the total power used by all devices you have connected to the extension cord's outlet must never exceed the power rating (watts/amperes) for the extension cord. Excessive loads can cause the insulation on the cord to heat up and eventually melt through.

- Before using the unit in a foreign country, consult with your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page.

- Do not put anything that contains water (e.g., flower vases) on this unit. Also, avoid the use of insecticides, perfumes, alcohol, nail polish, spray cans, etc., near the unit. Swiftly wipe away any liquid that spills on the unit using a dry, soft cloth.

- Never expose Lithium Battery to excessive heat such as sunshine, fire or the like.

## ⚠CAUTION

- The unit should be located so that its location or position does not interfere with its proper ventilation.

- Always grasp only the plug on the power-supply cord when plugging into, or unplugging from, an outlet or this unit.

- At regular intervals, you should unplug the power plug and clean it by using a dry cloth to wipe all dust and other accumulations away from its prongs. Also, disconnect the power plug from the power outlet whenever the unit is to remain unused for an extended period of time. Any accumulation of dust between the power plug and the power outlet can result in poor insulation and lead to fire.

- Try to prevent cords and cables from becoming entangled. Also, all cords and cables should be placed so they are out of the reach of children.

- Never climb on top of, nor place heavy objects on the unit.

- Never handle the power cord or its plugs with wet hands when plugging into, or unplugging from, an outlet or this unit.

- Before moving the unit, disconnect the power plug from the outlet, and pull out all cords from external devices.

- Before cleaning the unit, turn off the power and unplug the power cord from the outlet (p. 24).

- Whenever you suspect the possibility of lightning in your area, pull the plug on the power cord out of the outlet.

- Should you remove the screws from the bottom panel of the unit, keep them in a safe place out of children's reach, so there is no chance of them being swallowed accidentally.

# IMPORTANT NOTES

## Power Supply

- Do not connect this unit to same electrical outlet that is being used by an electrical appliance that is controlled by an inverter (such as a refrigerator, washing machine, microwave oven, or air conditioner), or that contains a motor. Depending on the way in which the electrical appliance is used, power supply noise may cause this unit to malfunction or may produce audible noise. If it is not practical to use a separate electrical outlet, connect a power supply noise filter between this unit and the electrical outlet.
- Before connecting this unit to other devices, turn off the power to all units. This will help prevent malfunctions and/or damage to speakers or other devices.
- Although the LCD and LEDs are switched off when the POWER switch is switched off, this does not mean that the unit has been completely disconnected from the source of power. If you need to turn off the power completely, first turn off the POWER switch, then unplug the power cord from the power outlet. For this reason, the outlet into which you choose to connect the power cord's plug should be one that is within easy reach and readily accessible.

## Placement

- Using the unit near power amplifiers (or other equipment containing large power transformers) may induce hum. To alleviate the problem, change the orientation of this unit; or move it farther away from the source of interference.
- This device may interfere with radio and television reception. Do not use this device in the vicinity of such receivers.
- Noise may be produced if wireless communications devices, such as cell phones, are operated in the vicinity of this unit. Such noise could occur when receiving or initiating a call, or while conversing. Should you experience such problems, you should relocate such wireless devices so they are at a greater distance from this unit, or switch them off.
- Do not expose the unit to direct sunlight, place it near devices that radiate heat, leave it inside an enclosed vehicle, or otherwise subject it to temperature extremes. Excessive heat can deform or discolor the unit.
- When moved from one location to another where the temperature and/or humidity is very different, water droplets (condensation) may form inside the unit. Damage or malfunction may result if you attempt to use the unit in this condition. Therefore, before using the unit, you must allow it to stand for several hours, until the condensation has completely evaporated.
- Depending on the material and temperature of the surface on which you place the unit, its rubber feet may discolor or mar the surface.
  You can place a piece of felt or cloth under the rubber feet to prevent this from happening. If you do so, please make sure that the unit will not slip or move accidentally.

## Maintenance

- For everyday cleaning wipe the unit with a soft, dry cloth or one that has been slightly dampened with water. To remove stubborn dirt, use a cloth impregnated with a mild, non-abrasive detergent. Afterwards, be sure to wipe the unit thoroughly with a soft, dry cloth.
- Never use benzine, thinners, alcohol or solvents of any kind, to avoid the possibility of discoloration and/or deformation.

## Repairs and Data

- Please be aware that all data contained in the unit's memory may be lost when the unit is sent for repairs. Important data should always be backed up on a DATA card, in another MIDI device (e.g., a sequencer), or written down on paper (when possible). During repairs, due care is taken to avoid the loss of data. However, in certain cases (such as when circuitry related to memory itself is out of order), we regret that it may not be possible to restore the data, and Roland assumes no liability concerning such loss of data.

## Memory Backup

- This unit contains a battery which powers the unit's memory circuits while the main power is off. When this battery becomes weak, the message shown below will appear in the display. Once you see this message, have the battery replaced with a fresh one as soon as possible to avoid the loss of all data in memory. To have the battery replaced, consult with your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page.
- "Backup Battery Low!"

## Additional Precautions

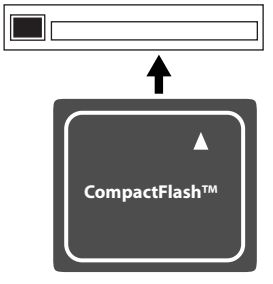
- Please be aware that the contents of memory can be irretrievably lost as a result of a malfunction, or the improper operation of the unit. To protect yourself against the risk of loosing important data, we recommend that you periodically save a backup copy of important data you have stored in the unit's memory on a DATA card, or in another MIDI device (e.g., a sequencer).
- Unfortunately, it may be impossible to restore the contents of data that was stored in the unit's memory, on a DATA card, or in another MIDI device (e.g., a sequencer) once it has been lost. Roland Corporation assumes no liability concerning such loss of data.
- Use a reasonable amount of care when using the unit's buttons, sliders, or other controls; and when using its jacks and connectors. Rough handling can lead to malfunctions.
- Never strike or apply strong pressure to the display.

- When connecting / disconnecting all cables, grasp the connector itself—never pull on the cable. This way you will avoid causing shorts, or damage to the cable's internal elements.
- A small amount of heat will radiate from the unit during normal operation.
- To avoid disturbing your neighbors, try to keep the unit's volume at reasonable levels. You may prefer to use headphones, so you do not need to be concerned about those around you (especially when it is late at night).
- This instrument is designed to minimize the extraneous sounds produced when it's played. However, since sound vibrations can be transmitted through floors and walls to a greater degree than expected, take care not to allow these sounds to become a nuisance to neighbors, especially when performing at night and when using headphones.
- When you need to transport the unit, package it in the box (including padding) that it came in, if possible. Otherwise, you will need to use equivalent packaging materials.
- Some connection cables contain resistors. Do not use cables that incorporate resistors for connecting to this unit. The use of such cables can cause the sound level to be extremely low, or impossible to hear. For information on cable specifications, contact the manufacturer of the cable.

## Before Using Cards

### Using DATA Cards

- Carefully insert the DATA card all the way in—until it is firmly in place.




- Never touch the terminals of the DATA card. Also, avoid getting the terminals dirty.
- This unit's CompactFlash card slot accepts CompactFlash CompactFlash cards. Microdrive storage media are not compatible.
- CompactFlash cards are constructed using precision components; handle the cards carefully, paying particular note to the following.
  - To prevent damage to the cards from static electricity, be sure to discharge any static electricity from your own body before handling the cards.
  - Do not touch or allow metal to come into contact with the contact portion of the cards.
  - Do not bend, drop, or subject cards to strong shock or vibration.
  - Do not keep cards in direct sunlight, in closed vehicles, or other such locations (storage temperature: -25 to 85C).
  - Do not allow cards to become wet.
  - Do not disassemble or modify the cards.
- Never insert or remove a CompactFlash card while this unit's power is on. Doing so may corrupt the unit's data or the data on the CompactFlash card.
- The explanations in this manual include illustrations that depict what should typically be shown by the display. Note, however, that your unit may incorporate a newer, enhanced version of the system (e.g., includes newer sounds), so what you actually see in the display may not always match what appears in the manual.



**Before using this unit, carefully read the sections entitled: "IMPORTANT SAFETY INSTRUCTIONS" (p. 3), "USING THE UNIT SAFELY" (p. 4), and "IMPORTANT NOTES" (p. 6). These sections provide important information concerning the proper operation of the unit. Additionally, in order to feel assured that you have gained a good grasp of every feature provided by your new unit, Owner's manual should be read in its entirety. The manual should be saved and kept on hand as a convenient reference.**

# Contents

# Features

## About the TD-20X

The TD-20X is the most advanced drum & percussion sound module in the world. (It is the same as a TD-20 with the TDW-20 Expansion Board installed.)

## Superior Expression

Roland's COSM based Variable Drum Modeling technology produces the full dynamic range of the sounds being played, from the most gentle ghost notes to powerful rim shots. Positional sensing, cymbal chokes, cross-sticking on the snare and delicate buzz rolls are all possible. And of course you can play with brushes too (plastic only).

### Dynamic Interval Control Function

This simulates the physical behavior of drums. Sounds will respond naturally, depending on variations in playing dynamics, speed and position.

- **Snare Roll/Playing Position**

  If you tap the head or play a roll and then move your sticks towards the edge of the head, you will notice the difference in sound.

- **Smooth Response for Cymbal Edge Rolls**

  If you want to play a dynamic cymbal roll that gradually crescendos, the sound will remain smooth and constant.

- **Positional Sensing on the Ride Cymbal**

  As with an acoustic cymbal, depending on where you play the sound will be different. Tap the cymbal near the center of the bow and gradually move towards the edge and you will notice less attack and the increased presence of the rich mid-low frequencies.

### Natural Hi-Hat Response

Closed hi-hat dynamics, edge shot accents, and even loose half-open sounds are all reproduced faithfully, with the sound changing in a completely smooth way from closed to fully open. By detecting pedal position and speed of the pedal movement, very fast open-close-open movements are perfectly detected. Foot splash techniques can also be used with a very natural feel. When using the V-Hi-Hat VH-12, even the pressure of the two cymbals closing tighter will provide slight changes in the nuance of the sound, just like with an acoustic hi-hat (p. 33).

## A Rich and Wide Variety of Sounds

### 100 Different Drum Kits

The wide range of drum kits cover numerous musical styles, including raw-sounding acoustic drums, historical vintage drums finely tuned sounds, ambient sounds, percussion from around the world and processed, electronic sounds indispensable for today's club music. Some of the kits include pre-set Tap-Sequences that allow you to play pitched melodies and/or chords (p. 52).

MEMO The 100 preset kits are the same as those of a TD-20 with the TD-20 Expansion board installed.

### 920 Different Sounds (Instruments)

Even before you start customizing the sounds for your particular playing style or sonic needs, there is an amazing variety of sounds to work with.

- **Acoustic Drum Sounds with Rich Presence**

  Solid-sounding kick, snare, and tom sounds that won't get buried in the mix of your song.

  Cymbal sounds with rich resonance, presence and natural sustain.

  There are also stacked cymbals, splashes, and 10-inch snare drums for use as a sub-snare, etc.

- **Processed & Electronic Sounds**

  These include classic TR-808 and TR-909 sounds for hip-hop and club music, and electronic sounds that will change pitch depending on your playing dynamics (Dynamic Pitch Bend function, p. 51)

- **Special Effect Sounds**

  These include reverse cymbals, scratch sounds, claps and many special effects.

- **Percussion Sounds**

  These include a selection of world percussion like large gongs, cajon, Latin & African percussion and traditional Japanese drums.

- **Sounds for Use with Drum Triggers (RT-10 series)**

  Acoustic or processed sounds can be easily used to enhance an acoustic drum set equipped with triggers.

MEMO The 920 instruments are the same as those of a TD-20 with the TD-20 Expansion board installed.

## Friendly User Interface

Access to all the editing parameters and operations is very simple and easy to understand. All functions are clearly illustrated in the display, with easy-to-understand icons to help with the editing process (V-Edit, etc.). TD-20X gives you superior control and allows you to easily customize the sounds to your specific needs.

## Sound Design Power!

Like with acoustic drums, you can tune, add muffling (mute), change the heads and even adjust the tension of the snares (or even turn them off). You can change the shell depths or the material of the snare drum shell.

You can place sizzles on the cymbals, put a tambourine on the hi-hat, hand claps on the snare drum rim and much more. You can even adjust the overall kit resonance.

### Ambiences Designed and Tuned for Drums

There are 25 different room types to choose from. You can choose the wall material, room size and shape and even move the ambient microphones to further enhance the sound. This helps to create the perspective of listening to the drums from a different part of the room, or hearing the precise, finished sound quality like in a recording studio control room.

### Professional Sound Processing

Each pad has an individual 3-band equalizer and a compressor. There's also a multi-effect section providing reverb, flanger, chorus, delay, pitch shifter, phaser, overdrive, and ring modulator. You can virtually move the microphone on specific sounds as well as select the type microphone being used. And for the overall kit, there's a master compressor and master equalizer (P.65) that you can use to even further fine-tune the overall sound. All of these sound design tools are the same as what is found in professional recording or PA system consoles.

## Superior Triggering Response

Roland's advanced triggering system, which allows you to easily set the type of pad you are using, including all parameters, guarantees a very natural dynamic response, no matter what style of music you are performing.

MEMO Previous models of Roland pads are compatible with the TD-20X. Please see the chart on page 96.

### 15 Trigger Inputs Allow Expansion Possibilities

As up to 15 pads can be connected, it is easy to add on extra pads to have more sounds available at once. You can also assign special functions to a pad such as switching drum kits, turning the snares on and off, setting the hi-hat to a fixed position, playing patterns etc. (Pad Switch, P.111, Pad Pattern, P.52).

### Playing with Brushes

You can play with brushes, using normal "sweep" techniques, but only if you are using the following pads as the snare drum. PD-125XS, PD-125X, PD-105X & PD-120 (P.40).

## On Board Sequencer and Backing Instruments

The preset patterns contain four backing parts (262 instruments) and one percussion part, and the patterns have been selected to represent not just a variety of musical styles, but to give you an idea of what you can do with it, whether using for practice or performance purposes.

By connecting a MIDI keyboard, you can create your own patterns.

## Optimized Functions for Stage or Studio

- **The master and headphone volume knobs are independent.**
- **The group faders allow quick volume adjustments even while you perform (P.30).**
- **The Drum Kit Chain function lets you play kits in any order you like. Perfect for live performances (P.43).**
- **Click and Tempo Functions**
- You can set the metronome (click) sound to be output ONLY from the headphones for self monitoring (P.81).
- Each kit can have its own Kit Tempo setting, helpful as well in a live situation (P.40).
- The tempo Indicator led lets you verify the tempo silently (P.81).
- The tap Tempo function lets you set the tempo from a pad (P.80).
- **Multiple Output Configurations**

  By taking full advantage of Master Out L/R and Direct Outs 1–8, you can use a total of ten outputs. This is ideal for live or multi-track recording situations. The Master Out L/R, Phones, and Direct 7/8 can be used as three sets of stereo outputs. The Digital Out is a coaxial type, 44.1 kHz / 24-bit.
- **MIX IN Jack (Stereo)**

  The MIX IN has its own, independent volume control.

  You can choose between stereo and mono, or even mute just one of the channels. This is ideal for using with drum practice CDs (with the click in one channel, and the backing in the other channel) as well as personal monitoring needs (P.113).

## Use CompactFlash Cards for Storing Data

### Backup Functions

All of the TD-20X's settings, including 100 drum kits, can be saved (backed up) on a CompactFlash card. Up to 99 sets of backup data (100 kits x 99 = 9900 kits) can be stored. This assures that you can always have backups of your favorite kits, that you might want to slightly change now and then.

Backup data that was created on the TD-20 is compatible with the TD-20X, and can be imported into the TD-20X and used (P.93).

### Kit Selection Function

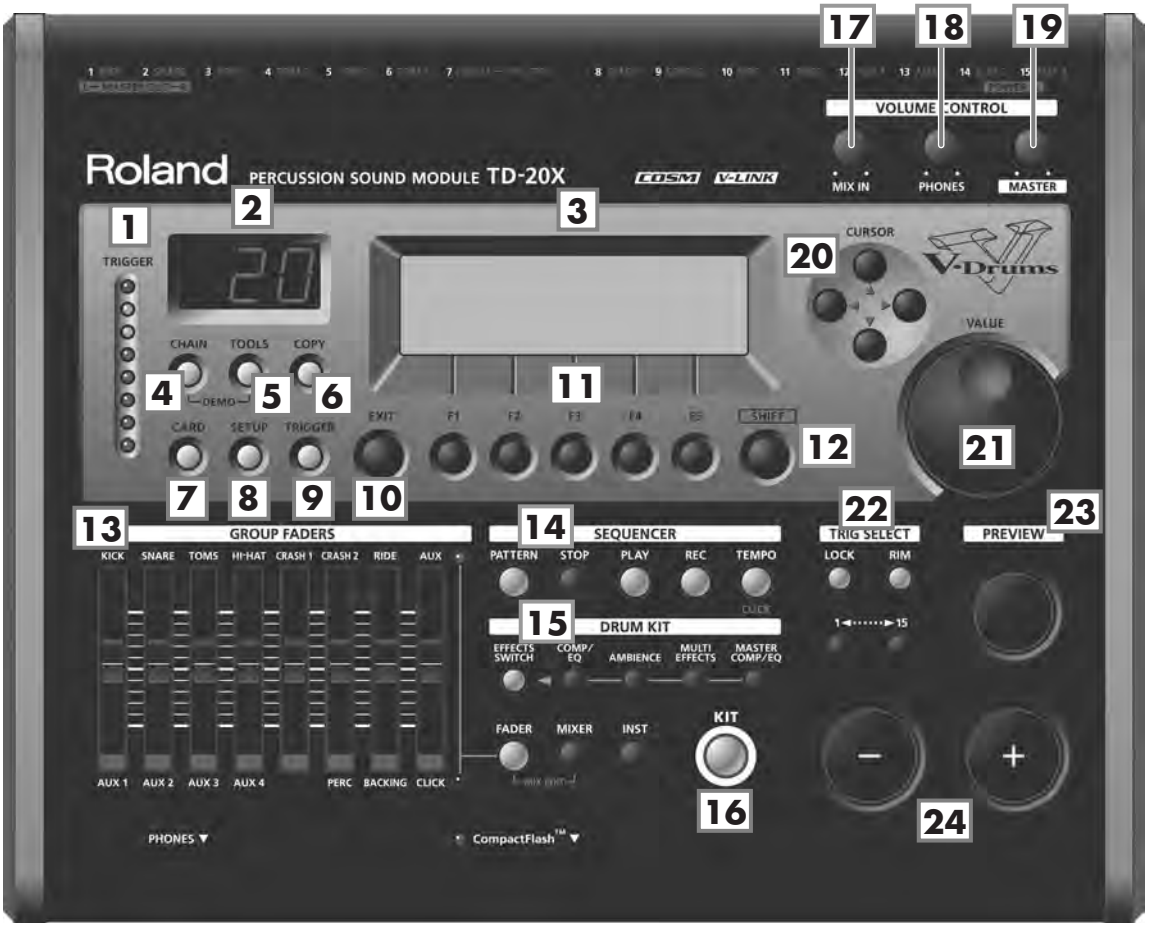
The Kit Selection function allows you to play preset kits or kits that are saved on a CompactFlash card without having to load the drum kit into user memory (P.121).

## Use the TD-20X As a MIDI Sound Module

You can use the TD-20X as a MIDI drum sound module. In addition to the drum kit section the TD-20X also has a full percussion set. The factory settings mean that the drum kit part uses MIDI channel 10 and the percussion part uses channel 11. You can assign and edit instruments to each note number from #0–#127 of the percussion part.

# Panel Descriptions

## Top Panel




**1. Trigger Level Indicator**

This lights up and moves each time a trigger signal is received from a pad. It monitors the pad connection and is helpful when customizing trigger parameters.

**2. Number Display**

Displays the Kit number (currently selected drum kit).

**3. Display**

During normal performance, you see the kit name and other information. When editing, relative graphics and text will appear depending on the edit mode you are in.

**4. [CHAIN] Button**

A Drum Kit Chain allows you to set up a customized order for playing your kits (p. 43).

**5. [TOOLS] Button**

This button is used when you want to check various information (Output Monitor/Trigger Monitor), or when you want to use functions such as “Kit Selection” (p. 121).

**6. [COPY] Button**

Copy or exchange data between drum kits, instruments, etc. (p. 42, p. 44, p. 54, p. 57, p. 68, p. 75, p. 106).

**7. [CARD] Button**

For access to a CompactFlash card functions such as saving/loading data etc. (p. 91).

**8. [SETUP] Button**

For access to functions that affect the TD-20X globally, such as MIDI parameters or Output Assign function etc. (p. 108).

**9. [TRIGGER] Button**

For access to trigger parameters (p. 96).

**10. [EXIT] Button**

Press this to return to the previous screen. Repeated pressing takes you back to the "DRUM KIT" screen.

**11. [F1]–[F5] Buttons (Function Buttons)**

These buttons change their function depending on the contents of the display. The lower part of the display will indicate the function of each button (p. 28).

**12. [SHIFT] Button**

Used in combination with other buttons. How this functions is explained in respective parts of this manual.

**13. GROUP FADERS**

The faders are switchable, allowing you to adjust the volume of the kick, snare, toms, hi-hat, cymbals, percussion and backing instruments, and the click sound (p. 30).

**14. SEQUENCER**

These provide access to and control of sequencer functions (pattern playback/recording, percussion set) etc. (p. 69, p. 83).

**15. DRUM KIT**

Here's where to start when you want to perform operations related to drum kits, such as editing the instruments (p. 46), or making settings for things such as mixing (p. 56) or effects (p. 58).

**16. [KIT] Button**

One touch brings you back to the basic display screen (p. 39).

**17. [MIX IN] Knob**

Adjusts the level of the audio source connected to the MIX IN jack (p. 25).

**18. [PHONES] Knob**

Adjusts the headphone volume (p. 25). Plugging in headphones does not affect the master output (like other audio device).

**19. [MASTER] Knob**

Adjusts the volume of the MASTER OUT jacks (p. 25).

**20. [CURSOR] Buttons**

Used to move the cursor in the display (p. 28).

**21. [VALUE] Dial**

This dial functions like the [+] and [-] buttons. Use it to scroll quickly or make large changes in edited values (p. 28).

**22. TRIG SELECT**

Use the [1] and [15] buttons to select the trigger number (pad) you want to access. Press the [RIM] button to select the rim of a pad. (The [RIM] button lights (p. 29).

If you press the [LOCK] button so its indicator is lit, the pad for which settings are being made will remain selected even if you strike a pad (p. 46).

**23. [PREVIEW] Button**

This velocity sensitive button allows you to audition an instrument after you have chosen it with the TRIG SELECT buttons or after you have played a pad/pedal (p. 29).

**24. [-], [+] Buttons**

These buttons are used to switch drum kits or to change values when editing. The [+] button increases the value, and the [-] button decreases it (p. 28).

# Rear Panel


### 1. [POWER] Switch

This switch turns the power on/off (p. 24).

**NOTE**

If you need to turn off the power completely, first turn off the [POWER] switch, then unplug the power cord from the power outlet. Refer to "Power Supply" (p. 6).

### 2. AC IN

Connect the included AC power cable to this inlet.

**MEMO**

For details on the power consumption, refer to p. 146.

The unit should be connected to a power source only of the type marked on the bottom of the unit.

### 3. TRIGGER INPUT jacks

Use these jacks for connecting your pads to the TD-20X (p. 21). Use a stereo (TRS) cable if you're connecting a dual-trigger type pad.

### 4. MIDI OUT/THRU Connector

For using the TD-20X pads to play sounds in an external MIDI sound module, or recording/saving data to an external MIDI sequencer (bulk dump; p. 115–120).

### 5. MIDI IN Connector

To connect an external MIDI source (sequencer, pad controller, keyboard, computer, etc.) to play the TD-20X's sounds, or to load data (p. 115–119).

### 6. MIX IN Jack

You can connect a CD player or portable audio player to this jack, or use it as a monitor input during your live performance. As the output destination of the sound being input from this jack, you can choose the MASTER OUT jacks, the PHONES jack, or DIRECT OUT 5–8 jacks (p. 108). Although the MIX IN jack is normally used as a stereo input, you are free to use it as two monaural inputs (p. 113).

### 7. FOOT SW Jack

Optional footswitches (such as BOSS FS-5U) give you access to a variety of functions like selecting drum kits, sequencer start/stop, etc. Using an optional PCS-31 cable (standard insert cable).

### 8. DIRECT OUT jacks (unbalanced)

Connect these jacks if you're using an external mixer. You can make settings in SETUP to specify which of the DIRECT 1–8 jacks each instrument will be sent from (p. 108).

### 9. MASTER OUT Jacks (unbalanced)

For connecting to your amp/audio system. For monaural output, use the MASTER OUT L/MONO jack.

### 10. DIGITAL OUT Connector

This coaxial-type digital out connector sends the same audio signal as is output from MASTER OUT jacks.

Provides output of a 44.1 kHz, 24 bit version of the audio signal that is output from the MASTER OUT jack.

### 11. Security Slot ( )

For retail store use.

http://www.kensington.com/

# Front Panel


**1. PHONES Jack**

A pair of stereo headphones can be connected to this jack. Connecting the headphones will not mute the output from the MASTER OUT jacks (p. 23).

**2. CompactFlash Card Slot**

Accepts a CompactFlash card (optional). Each CompactFlash card can store all settings of the TD-20X, such as drum kits and sequencer performance data, etc. (p. 91).

The TD-20X supports 3.3V CompactFlash cards (Type I) in a range of 16 MB–4 GB capacities.

**NOTE** Microdrives and other Type II cards cannot be used.

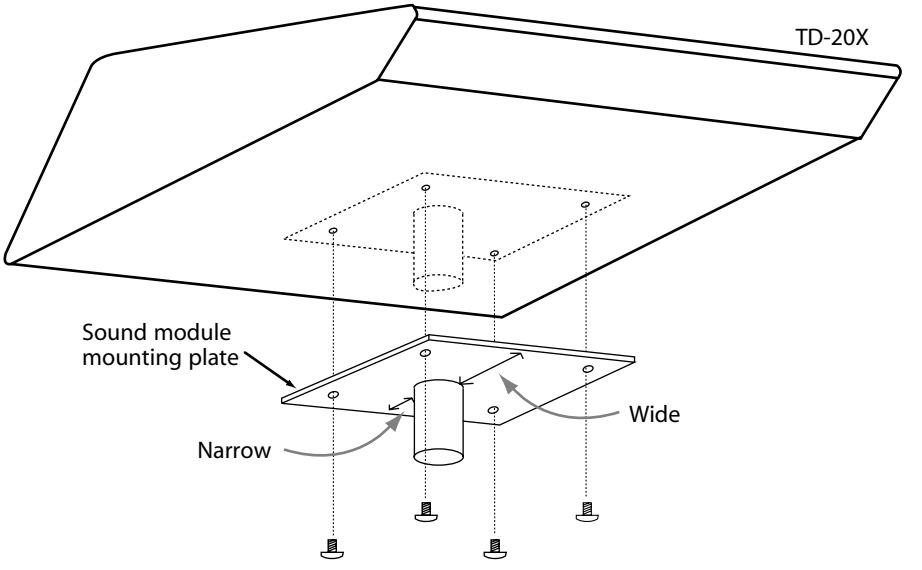
**NOTE** Even if a card meets the requirements given above, it may not be usable in some cases depending on that particular card's design or the conditions of use. We cannot guarantee the operation of all cards that meet the above requirements.

## Mounting the TD-20X on the Stand

**1. Attach the sound module mounting plate (included with the optional drum stand) to the TD-20X.**

Using the four screws attached to the bottom panel, attach the holder so the unit is oriented as shown in the diagram.

**NOTE** ONLY use the 12 mm screws (M5 x 12) provided with the TD-20X. Other screws may damage the unit.




**NOTE**

- When turning the unit upside-down, get a bunch of newspapers or magazines, and place them under the four corners or at both ends to prevent damage to the buttons and controls. Also, you should try to orient the unit so no buttons or controls get damaged.
- When turning the unit upside-down, handle with care to avoid dropping it, or allowing it to fall or tip over.

**2. Mount the TD-20X and sound module mounting plate to the drum stand (such as the optional MDS-25).**

See the owner's manual for the stand for details on assembling the drum stand and mounting the TD-20X.

This unit should be used only with a stand that is recommended by Roland.

When using the unit with a stand recommended by Roland, the stand must be carefully placed so it is level and sure to remain stable. If not using a stand, you still need to make sure that any location you choose for placing the unit provides a level surface that will properly support the unit, and keep it from wobbling.

This TD-20X is designed for use only with Roland stand MDS series. Use with other stands is capable of resulting in instability causing possible injury.

**MEMO** The optional APC-33 All Purpose Clamp can be attached to a pipe of 10.5–28.6 mm radius in case you want to mount the TD-20X on a cymbal stand or other such stand.

# Connecting the Pads

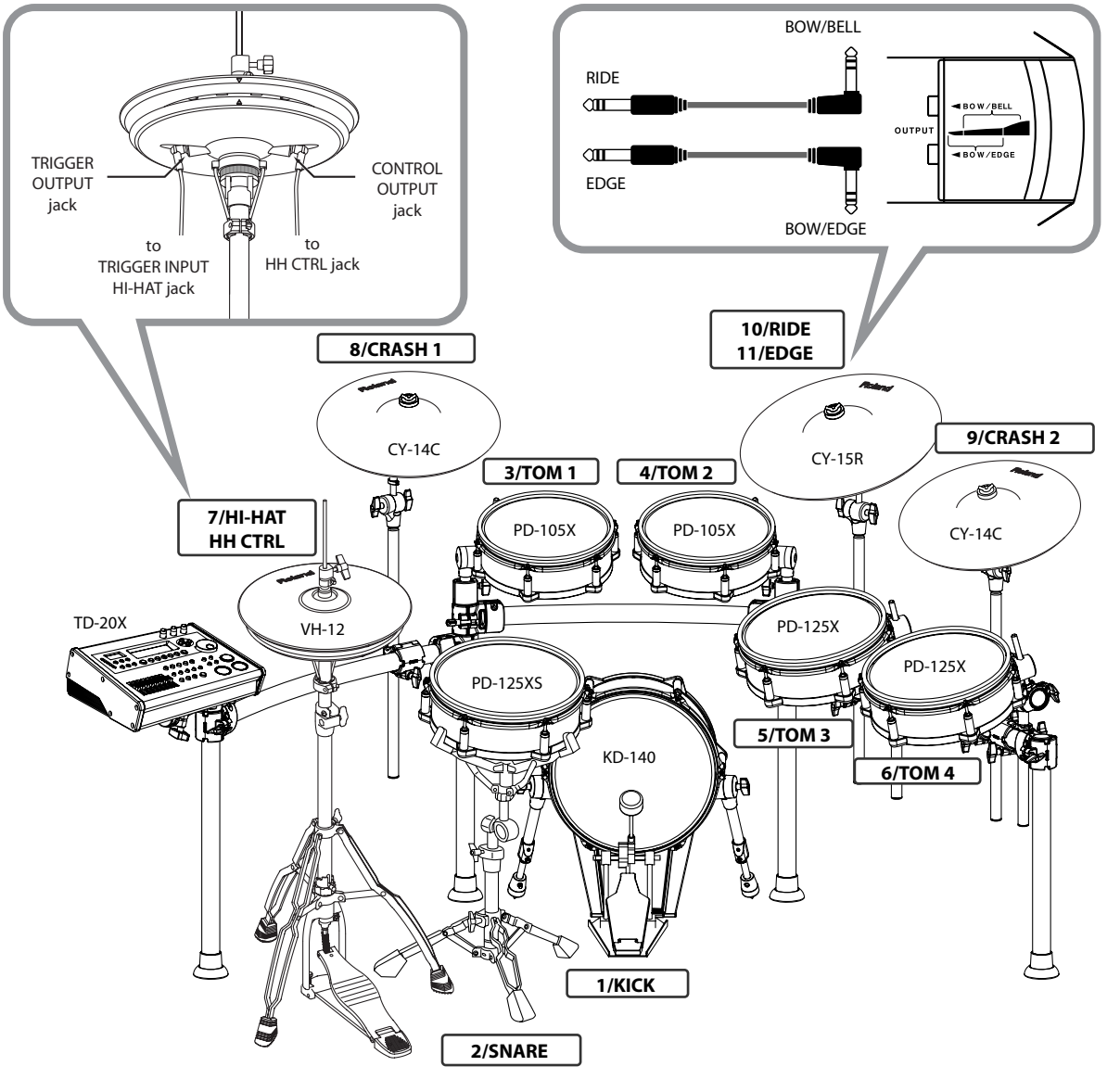
Using the provided cables, connect the pads, cymbals, hi-hat, and kick trigger.

MEMO When mounting a TD-20X on an MDS-25 drum stand, use the built-in connection cables.

## Set up example

Connect the various pads to the TD-20X's TRIGGER INPUT jacks.

The names of the corresponding TRIGGER INPUT jacks on the TD-20X are enclosed with a solid line in the illustration below.




NOTE The HI-HAT and RIDE cymbal use two cables each.

## Check after making connections

### Kick "Sensitivity" setting

Adjust "Sensitivity" in order to take full advantage of the TD-20X's capabilities such as the dynamic response of the kick sounds.

The "Sensitivity" setting is significantly influenced by differences in the particular pad you're using, your kick pedal, and your playing style.

While you watch the TD-20's Trigger LED indication, adjust this setting so that the red LED lights only for the strongest hits.

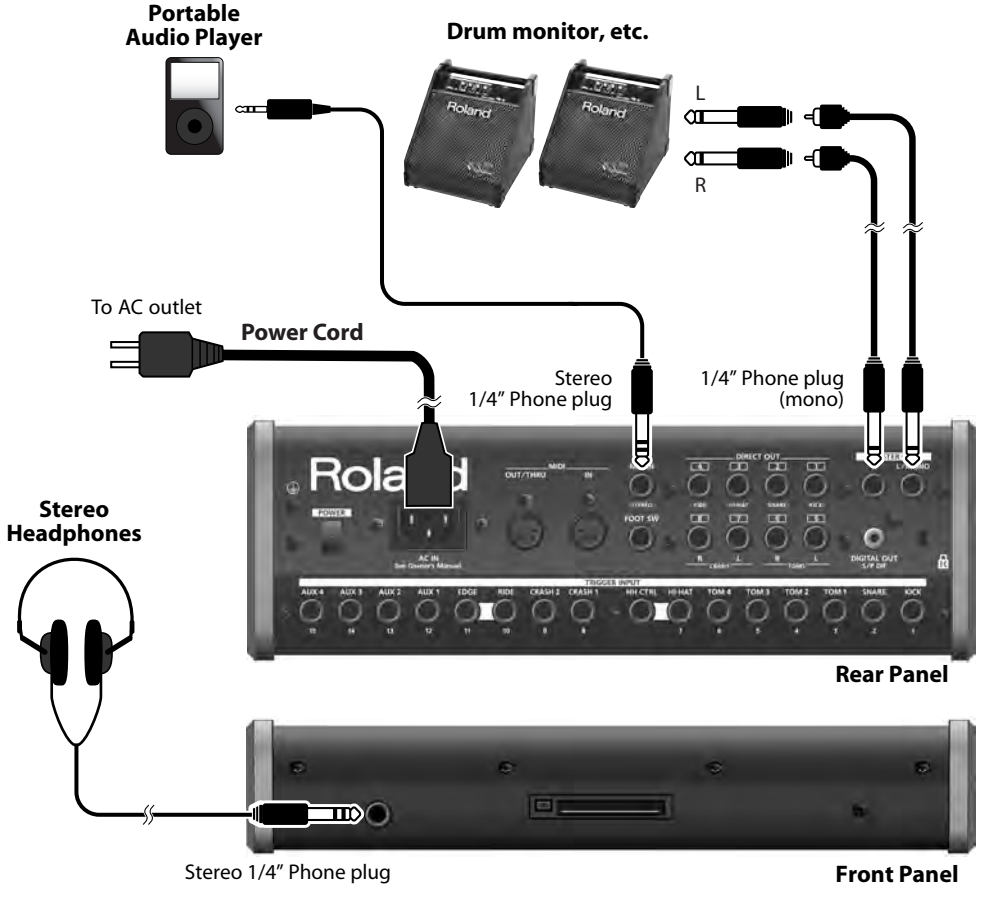
Operation: Press the [TRIGGER] button and press the [F2 (BASIC)] button (p. 97).

### Hi-hat setting

Please make the following adjustments to ensure comfortable performance.

- If you're using the "VH-12 V-Hi-Hat," you must adjust the hi-hat offset. This is required in order to correctly detect open/close operation and pedal movement.
  Access: See "Making Hi-hat (VH-12) Settings" (p. 25).
- "Foot Splash Sens" is also important. Try adjusting it.
  Access: Press the [TRIGGER] button and press the [F3 (HI-HAT)] button (p. 99).
- "Pedal HH Volume" can be adjusted for each drum kit.
  Access: Press the [KIT] button and press the [F2 (FUNC)] button and press the [F1 (VOLUME)] button (p. 40).
- The hi-hat's bow and edge volume can be adjusted independently.
  Access: Press the [MIXER] button and press the [F1 (VOLUME)] button (p. 56).
  Turn the [F5 (H&R)] button off before you make adjustments.

# Connecting Headphones, Audio Equipment




**1. Turn off the power of all devices before you make connections.**

**NOTE**

To prevent malfunction and/or damage to speakers or other devices, always turn down the volume, and turn off the power on all devices before making any connections.

**2. Connect the MASTER OUT L/MONO and R jacks on the rear panel to your drum monitor. Headphones should ONLY be connected to the PHONES jack.**

**3. Connect the supplied power cord to the AC inlet.**

**4. Plug the power cord plug into an AC outlet.**

**MEMO**

By using the MIX IN jack you can perform along with music from a CD or your portable audio player.

- To adjust the volume of the device connected to the MIX IN jack, turn the [MIX IN] knob on the TD-20X's top panel.
- The sound input from the MIX IN jack can be output from the MASTER OUT, PHONES, or DIRECT OUT 5–8 jacks (p. 108).
- The MIX IN jack is normally used as a stereo input, but you are also free to use it as two monaural inputs (p. 113).

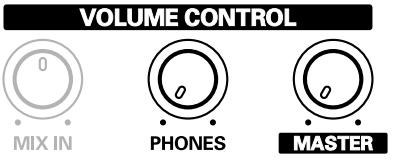
**NOTE**

When connection cables with resistors are used, the volume level of equipment connected to the MIX IN jack may be low. If this happens, use connection cables that do not contain resistors.

# Turning On/Off the Power

**NOTE**

Once the connections have been completed (p. 21–p. 23), turn on power to your various devices in the order specified. By turning on devices in the wrong order, you risk causing malfunction and/or damage to speakers and other devices.




1. **Turn the [MASTER] and [PHONES] knobs completely to the left to lower the volume to "0."**
2. **Turn down the volume control on the connected audio equipment.**
3. **Push the [POWER] switch on the TD-20X's rear panel to turn on the power.**


**NOTE**

This unit is equipped with a protection circuit. A brief interval (a few seconds) after power up is required before the unit will operate normally.

### Precautions when turning on the power

After the power is turned on, do NOT hit any pads or step on the pedals until the drum kit name (following figure) appears in the display. Doing so can cause triggering problems.


4. **Turn on the power to the connected audio equipment.**
5. **While hitting a pad, gradually turn the [MASTER] (or [PHONES]) to the right to adjust the volume level.**

### No sound when hitting the pads or using the pedals?

Check the following points.

**When using audio equipment**

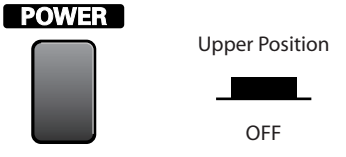
- Is the audio equipment connected to the TD-20X's MASTER OUT jacks?
- Is the input of the audio equipment properly connected?
- Is there a problem with any connection cables?
- Is the volume turned down in the GROUP FADERS sliders?
- Is the [MASTER] knob turned completely to the left?
- Have the input select settings of your audio equipment been made correctly?
- Is the audio equipment volume setting correct?

**When using headphones**

- Are the headphones connected to the PHONES jack?
- Is the [PHONES] knob turned completely to the left?

## Turning off the power

1. **Completely turn down the volume of the TD-20X and the connected audio equipment.**
2. **Turn off the power to the connected audio equipment.**
3. **Push the [POWER] switch on the TD-20X's rear panel to turn off the power.**



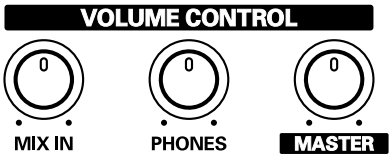

**NOTE**

If you need to turn off the power completely, first turn off the [POWER] switch, then unplug the power cord from the power outlet. Refer to "Power Supply" (p. 6).

# Adjusting the Volume

Use the three VOLUME CONTROL knobs to adjust the volume.

Turning a knob toward the left will decrease the volume, and turning it toward the right will increase the volume.




| Knob | Description |
|---|---|
| **[MASTER]** | Adjusts the volume that is output from the MASTER OUT jacks. |
| **[PHONES]** | Adjusts the volume that is output from the PHONES jack. |
| **[MIX IN]** | Adjusts the volume that is input from the MIX IN jack. As the output destination of the sound that's input from the MIX IN jack, you can choose the MASTER OUT jacks, the PHONES jack, or the DIRECT OUT 5–8 jacks (p. 108). |

# Making Hi-hat (VH-12) Settings

If you're using the VH-12 V-hi-hat, **execute the offset adjustment from the TD-20X** after making connections.

This adjustment is required in order to correctly detect open, close, and pedal operations.

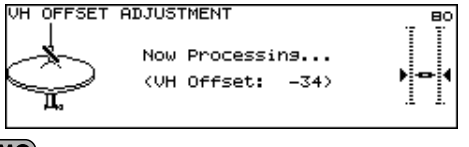
**1. Loosen the clutch screw of the top hi-hat and let it sit on the bottom hi-hat.**

**NOTE** Do NOT touch the hi-hats or the pedal.

**2. Hold down the [KIT] button and press the [TRIGGER] button.**

The "VH Offset" parameter is set automatically (approx. 3 seconds).

The [TRIGGER] button stops flashing and remains lit.




**MEMO** If you need, make further adjustments to the parameters. "Hi-Hat Settings [F3 (HI-HAT)]" (p. 99)

**NOTE** If you do not make VH-12's setting correctly, it may cause malfunction. For details on attaching the hi-hat to the stand, refer to the VH-12 owner's manual.

# Adjusting Mesh Head Tension (PD-125XS/125X/105X)

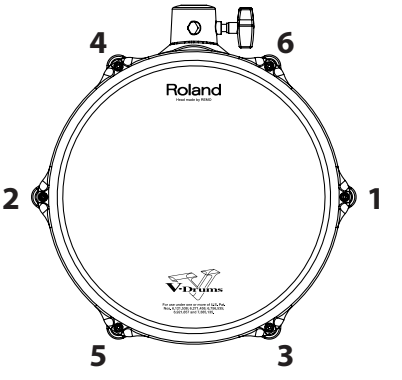
**Before playing you must adjust the pad tension first.**

You can tune/adjust the head tension as you would with an acoustic drum, to get the same dynamic "feel."

**NOTE**

The pad will function at it's best if you are sure to:

- Adjust the head evenly so that it does not sag.
- Adjust the tuning bolts so that they are not loose.




**1. Adjust each tuning bolt little by little, across the head as indicated in the illustration. This assures even tensioning.**

**NOTE**

- Fully tightening a tuning bolt at only a single location produces uneven tensioning, and correct playing dynamics may not be achieved. Even tuning/ tensioning is very important.
- Head tension will not affect the actual tuning of the sound you are playing. For that you need to adjust sound parameters in the sound module you are using.
  Also, head tension may change depending on usage. Adjust as needed.

# Adjusting the Display Contrast

If the position in which the TD-20X is placed makes the display difficult to read, adjust the display contrast as follows.

**1. Holding down the [KIT] button and turning the [VALUE] dial.**

MEMO

You can also adjust it in the screen displayed by pressing the [SETUP] button (p. 113).

# Listening to the Demo Songs

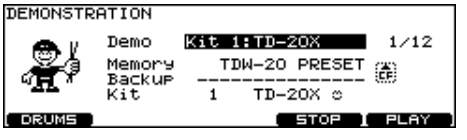
The demo songs introduce the TD-20X's sounds and expressive capability.

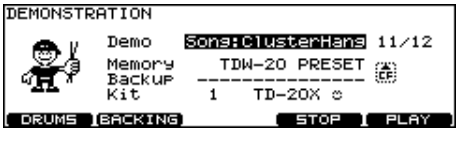
MEMO

The drums on these songs were recorded from the TD-20X to a sequencer in realtime.

**1. Press the [CHAIN] and [TOOLS] button simultaneously.**

The "DEMONSTRATION" screen appears.




**2. Press the [F5 (PLAY)] or [PLAY] button.**

The demo song is played.

All songs will play consecutively.

When the last song has finished playing, playback will return to the first song and continue.

While the song plays, you can use the function buttons to mute a specific part.

| Function button | |
|---|---|
| **[F1 (DRUMS)]** | You can MUTE the entire drum track. |
| **[F2 (BACKING)]** | You can MUTE all the backing instruments. |

**3. To stop the playback mid-way through a song, press the [F4 (STOP)] or [STOP] button.**

MEMO

- When you press the button, you'll return to the beginning of the song that was playing.
- You can change the volume balance with GROUP FADERS (p. 30).
- Hold down the [SHIFT] button and press the [TEMPO] button to turn the metronome click (p. 81) on/off. The click sounds with the settings which you set before you enter the "DEMONSTRATION" screen.

**4. Press the [EXIT] button to return to the "DRUM KIT" screen.**

NOTE

**Caution Concerning Volume**

When playing back the demo song, turn the [MASTER] and [PHONES] knobs to the left (counterclockwise) to bring the volume level down. The sound levels (volume) of the instruments may be louder when the demo song is played back.

## Changing the drum kit used

Normally, the demo songs will be played using the drum kit recommended for each song. However, you are free to listen to the demo songs played using a different drum kit.

**1. In the "DEMONSTRATION" screen, select the kit that you want to use.**
**Use the [CURSOR (up/down)] buttons, [-] [+] buttons, and [VALUE] dial to select a drum kit.**

| Parameter | Value | Description |
|---|---|---|
| Memory | TD-20 PRESET | The TD-20's preset drum kit |
| | TDW-20 PRESET | The TDW-20's preset drum kit |
| | USER | A drum kit in user memory |
| | CARD | A backup drum kit saved on a CompactFlash card |
| BackUp | 1–99 | If you selected "CARD" for "Memory," select a backup. |
| Kit | Select the kit that you want to use. | |

You can change the drum kit while the demo song is either playing or stopped.

If you switch songs, the song will play with the recommended drum kit specified for that song.

## Demo Songs

| No. | Title | Copyright |
|---|---|---|
| 1 | Kit 1:TD-20X | Copyright ©2009, Roland Corporation |
| 2 | Kit 4:MetalCore | Copyright ©2009, Roland Corporation |
| 3 | Kit 6:40s Bop | Copyright ©2009, Roland Corporation |
| 4 | Kit 7:process | Copyright ©2009, Roland Corporation |
| 5 | Kit 2:50s King | Copyright ©2009, Roland Corporation |
| 6 | Kit15:TechFusion | Copyright ©2009, Roland Corporation |
| 7 | Kit 8:Cajon | Copyright ©2009, Roland Corporation |
| 8 | Kit10:melodious | Copyright ©2009, Roland Corporation |
| 9 | Kit21:D-N-B | Copyright ©2009, Roland Corporation |
| 10 | Kit 3:CtrlRoom | Copyright ©2009, Roland Corporation |
| 11 | Song:Cluster Hang | Copyright ©2004, Roland US |
| 12 | Song:Hatter | Copyright ©2005, Roland US |

**NOTE**

- All rights reserved. Unauthorized use of this material for purposes other than private, personal enjoyment is a violation of applicable laws.
- No data for the music that is played will be output from the MIDI OUT connector.

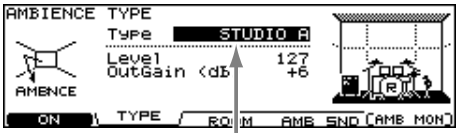
# Basic Operation

## Changing a Value

### Saving your settings

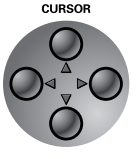
Every time you change a value during the editing process, it's automatically stored in the TD-20X's memory. There's no "write/save" process.

### Moving the cursor ([CURSOR] buttons)

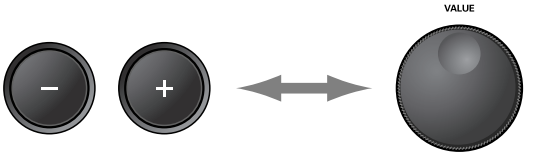



Cursor

Cursor refers to the highlighted characters indicating an on-screen parameter that can be set. When there is more than one possibility within the screen, use the [CURSOR] buttons to move it.




### Changing data values ([-] [+] buttons/[VALUE] dial)




The [-] and [+] buttons and the [VALUE] dial are both used to change the values of settings. Both methods have advantages.

#### [-] [+] buttons

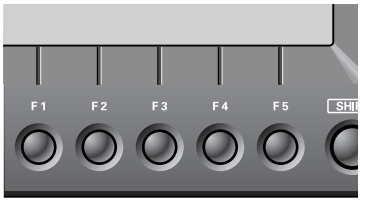
- Each time the [+] button is pressed, the value increases. Each time the [-] button is pressed, the value decreases. This is convenient for fine adjustments.
- When making an on/off setting, the [+] button will turn the setting on and the [-] button will turn it off.
- If you hold down the [+] button and press the [-] button, the value will increase rapidly. If you hold down the [-] button and press the [+] button, the value will decrease rapidly.
- If you hold down the [SHIFT] button and press the [-] or [+] button, the value will change even more rapidly.

#### [VALUE] dial

The dial allows you to make quick changes to the value.

- If you hold down the [SHIFT] button and turn the [VALUE] dial, the value will change even more rapidly.

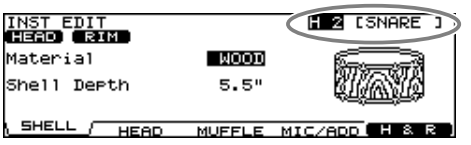
### Selecting a function to edit (Function buttons)




The [F1]–[F5] buttons are called "function buttons." The bottom part of the display will show the names of the functions available for the [F1]–[F5] buttons. For example, if this owner's manual makes reference to the [F2 (EDIT)] button, press [F2] button (in this case, "EDIT" is displayed above the [F2] button).

## Choosing a Pad to Edit

### About the upper right display screen indications




In screens that allow you to edit specific settings for each pad, the upper right of the display will show the trigger number and name of the TRIGGER INPUT jack to which the selected pad is connected.

The initial "H" or "R" indicates whether the settings are for the pad's head (HEAD) or rim (RIM). Pressing the [PREVIEW] button will play either the head or rim sound depending on whether "H" or "R" is displayed.

The position indicated in the illustration below tells you whether the edit screen is for the head or the rim.


### Choosing by hitting a pad

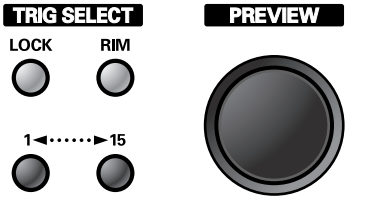
To edit the settings for a pad, strike that pad to select it.

To select the rim of a pad, strike the rim.

TIP

By pressing the [LOCK] button to make it light, you can prevent the edited pad from being switched even if you accidentally touch a different pad (p. 46).

### Choosing pads from the TD-20X's top panel




You can use the TRIG SELECT buttons to select a pad/sound without needing to hit a pad and/or when a pad is not connected.

Pressing the [1] button will select the next lower-numbered trigger. Pressing the [15] button will select the next higher-numbered trigger.

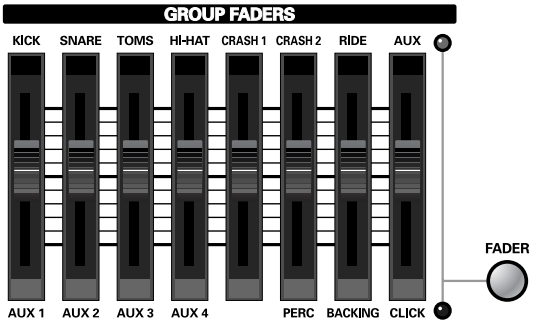
When using a dual trigger pad (with rim trigger) the [RIM] button selects whether you're making settings for the head or the rim of the selected pad.

When rim is selected, the [RIM] button will light.

### Auditioning the sound of a pad ([PREVIEW] button)

Press the [PREVIEW] button to hear the sound of the selected pad/sound using the TRIG SELECT buttons.

## Using The Group Faders (GROUP FADERS/[FADER])




Use the GROUP FADERS sliders to adjust the volume.

By pressing the [FADER] button, the function of the faders changes as shown in the chart below. An LED will light up at the upper and lower right of the faders, indicating which set of sounds is active.

### When upper indicator is lit

You can adjust the volume of following trigger inputs.

| | |
|---|---|
| **KICK** | 1 KICK |
| **SNARE** | 2 SNARE |
| **TOMS** | 3 TOM 1, 4 TOM 2, 5 TOM 3, 6 TOM 4 |
| **HI-HAT** | 7 HI-HAT |
| **CRASH 1** | 8 CRASH 1 |
| **CRASH 2** | 9 CRASH 2 |
| **RIDE** | 10 RIDE, 11 EDGE |
| **AUX** | 12 AUX 1, 13 AUX 2, 14 AUX 3, 15 AUX 4 |

### When lower indicator is lit

You can adjust the volume of following trigger inputs and sequencer parts.

| | |
|---|---|
| **AUX 1** | 12 AUX 1 |
| **AUX 2** | 13 AUX 2 |
| **AUX 3** | 14 AUX 3 |
| **AUX 4** | 15 AUX 4 |
| **PERC** | Percussion part (p. 73) |
| **BACKING** | Backing part (p. 72) |
| **CLICK** | Metronome click (p. 81) |

### Example: Adjusting the Snare Volume

1. **Press the [FADER] button so the upper indicator is lit.**

2. **Move the GROUP FADERS [SNARE] slider.**

   The slider position shows the current snare volume.

**NOTE** After switching with the [FADER] button, the values for the GROUP FADERS sliders may not reflect the actual volume of the sound assigned to that fader. So after switching, be sure to move the faders a bit before making your setting.

**TIP** This will NOT affect the independent volume balance for each kit in: Mixer Settings (p. 56).

## Turning the Click On/Off

Hold down the [SHIFT] button and press the [TEMPO] button to turn the click on and off.

**TIP** The [TEMPO] button indicator can also be used as a visual metronome (p. 81).

## Changing the Tempo ([TEMPO])


To adjust the tempo of the sequencer and click, use the [-] [+] buttons or the [VALUE] dial in the screen displayed by pressing the [TEMPO] button.

# About Memory

Memory is the area in which settings such as kits and patterns are stored.

## User memory

The memory area in the TD-20X is rewritable.

All settings are stored as soon as you edit them.

When you load or copy data from a CompactFlash card or from preset memory, and edit the settings, they will be stored in the user memory.

### Settings saved in user memory

- Setup (p. 108)
- Drum kits (p. 39)
- Percussion sets (p. 73)
- Trigger settings (p. 96)
- Drum kit chains (p. 43)
- User patterns (p. 69)

MEMO

Drum kits include settings for the instruments. For details, refer to "Drum kit" (p. 35).

## CompactFlash

The settings in user memory can be stored (backed up) on a CompactFlash card as a "set," and a single card can hold up to 99 such sets.

Separately from these backups, you can also store up to 100 patterns on a card.

Data saved on a CompactFlash card can be loaded or copied into user memory, and modified as desired.

For details, refer to "Chapter 7. Using CompactFlash Cards [CARD]" (p. 91).

## Preset memory

This is non-rewritable memory inside the TD-20X.

You can copy preset memory data to user memory, and then edit it as desired. The factory settings are stored in preset data.

The preset memory's drum kits are organized into two groups: TD-20 and TDW-20.

### Settings stored in preset memory

- Drum kits (p. 39)
- Percussion sets (p. 73)
- Trigger settings (p. 96)
- Preset patterns (p. 69)

MEMO

Drum kits include settings for the instruments. For details, refer to "Drum kit" (p. 35).

# Playing Methods

MEMO

The available performance techniques will depend on the trigger input. Positional sensing will also depend on the trigger input.
For details on the performance techniques and striking points supported by each trigger input, refer to "Trigger Inputs and Playing Methods Corresponding Chart" (p. 97).

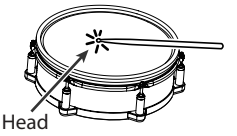
cf.

About the instruments corresponding to each playing method, refer to "Drum Instrument List" (p. 131).

## Pad (PD-125XS/125X/105X)

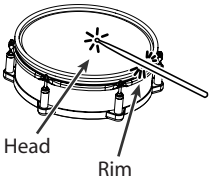
### Head shot

Hit only the head of the pad. With certain snare sounds, playing position will change the nuance of the sound.




### Rim shot

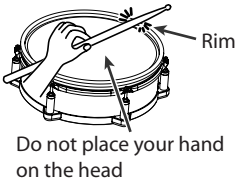
Strike the head and the rim of the pad simultaneously.




### Cross stick

Only strike the rim of the pad.

Depending on the instrument assigned to the rim you can play rim shots and/or cross stick sounds.




NOTE

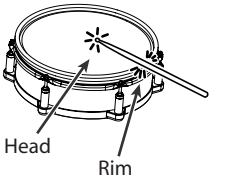
To play the cross stick, be sure that you only strike the rim of the pad. Placing your hand on the head of the pad might prevent the cross stick sound from being played properly.

### Change the nuance of the rim shot

With certain snare and tom sounds, slight changes in the way you play rim shots changes the nuance.

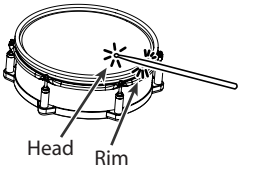
#### Normal rim shot (Open rim shot)

Strike the head and rim simultaneously.




#### Shallow rim shot

Simultaneously strike the head near the rim and the rim itself.




### Playing with brushes

With the TD-20X, you can "swish" or "sweep" using brushes with the PD-125XS, 4PD-125X, or PD-105X connected to TRIGGER INPUT 2 (SNARE).

When playing with brushes, turn the Brush Switch to "ON" (p. 40).

MEMO

Use ONLY nylon brushes.

## Hi-Hat (VH-12)

### Open/closed

The hi-hat tone changes smoothly and continuously from open to closed in response to how far the pedal is pressed.

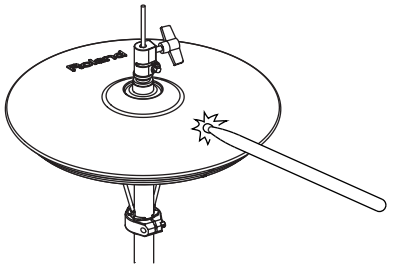
You can also play the foot closed sound (playing the hi-hat with the pedal completely pressed down) and foot splash sound (playing the hi-hat with the pedal fully pressed and then instantly opening it).

### Pressure

When you strike the hi-hat while pressing on the pedal with the hi-hat closed, you can then change the closed tone in response to the pressure you place on the pedal.

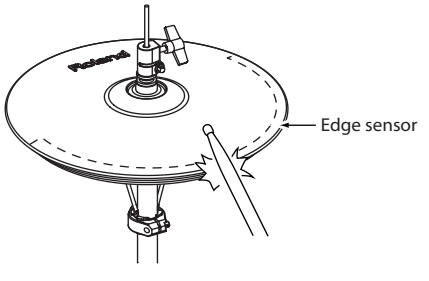
### Bow shot

This playing method involves striking the middle area of the top hi-hat. It corresponds to the sound of the "head-side" of the connected trigger input.



### Edge shot

This playing method involves striking the edge of the top hi-hat with the shoulder of the stick. When played as shown in the figure, the "rim-side" sound of the connected trigger input is triggered.

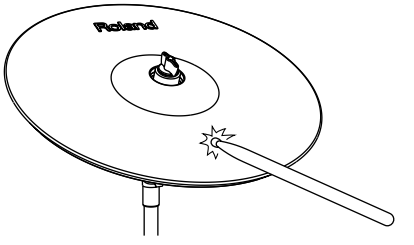



**NOTE** Do not strike the bottom hi-hat or the underside of the top hi-hat.

## Cymbal (CY-15R/14C)

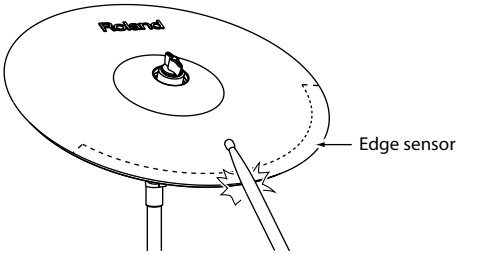
### Bow shot

This is the most common playing method, playing the middle area of the cymbal. It corresponds to the sound of the "head-side" of the connected trigger input.



### Edge shot

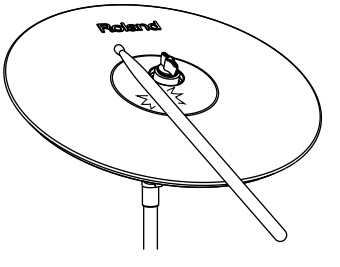
This playing method involves striking the edge with the shoulder of the stick. When played as shown in the figure, the "rim-side" sound of the connected input is triggered.




### Bell shot (CY-15R)

This playing method involves striking the bell. On the CY-15R, when played as shown in the figure, the "rim-side" sound of the connected input is triggered.

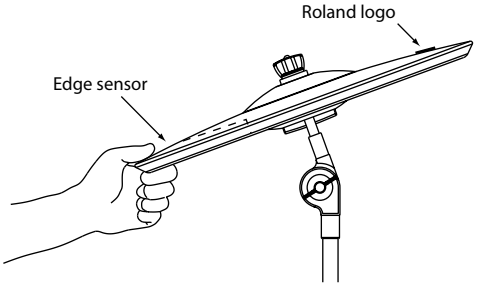
Strike the bell somewhat strongly with the shoulder of the stick.



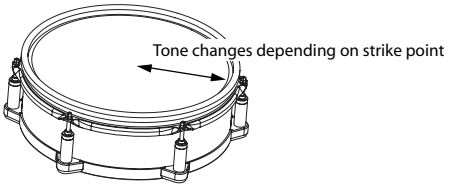
**NOTE** On the CY-14C, bell shots are not supported.

### Choke play

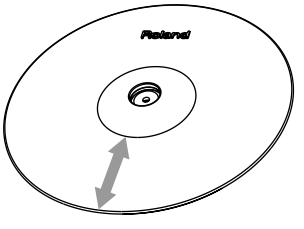
Choking (pinching) the cymbal's edge with the hand immediately after hitting the cymbal makes the sound stop. Choke the location of the edge sensor shown in the figure. If you choke an area where there is no sensor, the sound does not stop.




## Positional Sensing



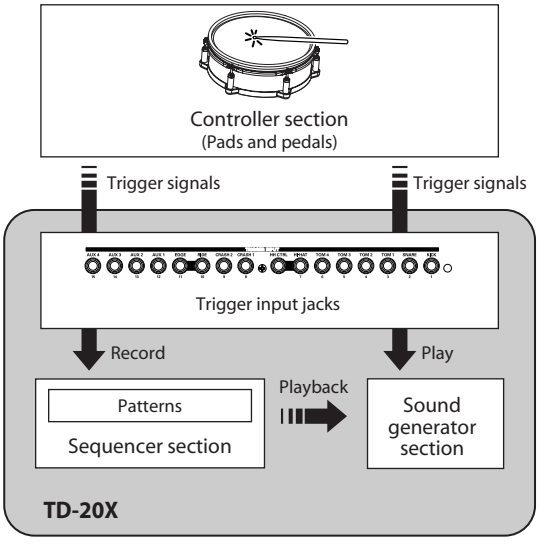

For a snare drum, the tone will change naturally as you move the strike location from the center of the head toward the rim.



With certain ride sounds, playing position will change the nuance of the sound.

# Basic Structure

Broadly speaking, the TD-20X consists of a controller section, sound generator section, and sequencer section.




### Controller section

This consists of the pads and pedals on which you perform.

When you strike a pad, it outputs a "trigger signal."

The trigger signal is input to a TRIGGER INPUT jack on the rear panel of the TD-20X, and is received by the sound generator section.

### Sound generator section

This section produces the sound.

It receives trigger signals from the controller, and plays the instruments (instrumental sounds) accordingly.

Signals from the sequencer can be used to play patterns, and MIDI messages from an external MIDI device can be received to play sounds.

### Sequencer section

This section records the performance of the controllers, and sends the recorded performance data (patterns) to the sound generator section.

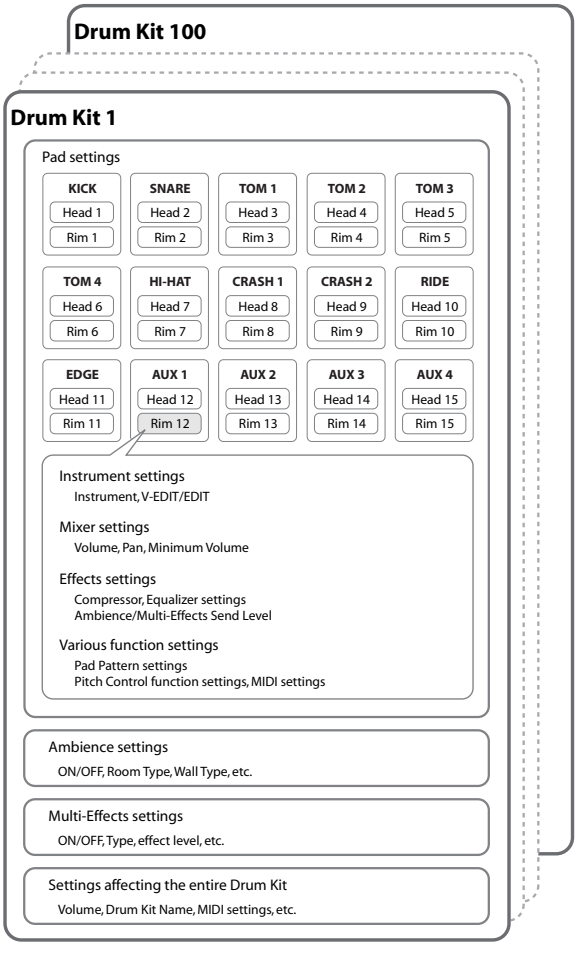
MIDI messages recorded on the sequencer can also be transmitted from the MIDI OUT connector to control an external MIDI device.

## Main Functions (Terminology)

### Drum kit

A "drum kit" contains instrument (instrumental sound) settings for each pad, effect settings, and settings for the entire kit.

When the TD-20X is shipped, it contains drum kits 1–100. Each drum kit has distinctive instruments and effects for each pad, and by switching drum kits you can enjoy playing a wide variety of drum sounds.




MEMO

**Preset drum kits**

With the factory settings, user memory contains drum kit numbers 1–100.

These factory-set drum kits are called the "preset drum kits."

When you edit the settings of a drum kit, the contents of the preset drum kit will be overwritten.

If you want to restore the preset drum kit settings to their original condition, you can copy the corresponding TD-20 or TDW-20 drum kit from preset memory (p. 42), or execute the "Factory Reset" (p. 114) operation to return the TD-20X to its factory-set condition.

Each drum kit contains the following settings.

#### Instruments

Each instrumental sound such as a snare drum or kick drum is called an "instrument."

An instrument is assigned to each part of a pad that can be struck separately, such as the "head" and the "rim."

You can create the desired sound by editing the settings of each instrument. By using "V-EDIT" you can also reproduce the tonal change caused by changes in the material and depth of the drum body of the selected instrument. For more about "V-EDIT" refer to "What is V-EDIT?" (p. 48).

#### Mixer

Within each drum kit, you can adjust the volume balance and pan (stereo position) of each pad.

The "mixer" is where you make volume and pan settings for each pad.

### Effects

The sound can be processed in a wide variety of ways by applying "effects."

The TD-20X provides the following effects; some effects can be applied to individual pads, while other effects apply to the entire drum kit.

- **Compressor/equalizer (COMP/EQ)**

  A "compressor" is an effect that reduces the volume peaks, thus modifying the attack and the sense of loudness.

  An "equalizer" divides the sound into separate frequency ranges such as high, mid, and low, allowing you to adjust the balance of these ranges.

  The TD-20X provides a pad compressor/equalizer that can be applied to each pad individually, and a master compressor/equalizer that applies to the entire drum kit.

- **Ambience**

  Ambience is an effect that simulates the acoustics of the location in which you're performing.

  You can vary the effect that's applied by adjusting the size of the room, the material of the walls, and the position of the microphone.

  You can make ambience settings for each drum kit, and specify the amount of effect that's applied to each instrument.

- **Multi-effects**

  This allows you to apply effects such as reverb or delay.

  Numerous types of "multi-effect" are provided, each with its own distinctive character.

  You can make multi-effect settings for each drum kit, and specify the amount of effect that's applied to each instrument.

## Trigger settings

Trigger settings ensure that the trigger signals from the pads and pedals are appropriately conveyed to the sound generator section so that you'll get the performance you expect.

In addition to specifying the type of pad that's connected to each trigger input jack, you can also make detailed settings to adjust each pad's sensitivity. Make trigger settings if you want to use an acoustic drum trigger.

## Sequencer (pattern/part)

The term "sequencer" generally refers to a digital music device or computer software that lets you record and play back a performance.

The TD-20X's sequencer lets you play and record "patterns."

### Patterns/part

A "pattern" contains performance data for six "parts:" drum, melody, bass, backing 1, backing 2, and percussion.

You can use patterns to create the backing of a song you'll use for drum practice, or assign short phrases to patterns and recall them when desired.

There are preset patterns already provided, and you can play back these preset patterns while you practice the drums.

Patterns that you record are saved as user patterns.

To record a pattern, you'll use "realtime recording" — the method in which your playing on the pads or on an external MIDI keyboard is recorded just as you play it.

# Convenient Functions

## Auditioning the sound of a drum kit

You can audition the currently selected drum kit by using a phrase to play its sounds.

For convenient auditioning, the TD-20X provides various drum and backing phrases ("preset patterns").

Select a drum kit, and then play one of the following patterns to hear its sounds, such as its kick and snare or snare and toms.

| Pattern no. | Name | Purpose |
|---|---|---|
| 1 | Preview | Audition the sounds of the entire kit |
| 2 | Preview Jazz | |
| 3 | Drum Basic | Audition the kick, snare, hi-hat, and ride cymbal sounds |
| 4 | Drum Fill | Audition the tom, and crash cymbal sounds |

For details on the procedure, refer to "Choosing a Pattern [PATTERN]" (p. 70) and "Playing Back a Pattern [PLAY]" (p. 71).

TIP You can also use the GROUP FADERS to adjust the volume balance or to mute unwanted instruments (p. 30).

## Recalling drum kits in a specified order (Drum Kit Chain)

By specifying the desired drum kit for each step of a 32-step chain, you can specify the order in which you want drum kits to be recalled. This function is called "Drum Kit Chain."

This is convenient for a live performance, since it provides an easy way for you to specify and then recall drum kits in the order you need to use them.

For more about this function, refer to "Specifying the Order in Which Drum Kits will be Recalled [CHAIN]" (p. 43).

## Returning edited drum kits to their factory settings

### Returning all settings to their factory-set state

If desired, you can return the drum kits and all other settings to their factory-set state (Factory Reset).

For details on the procedure, refer to "Restoring the Factory Settings [F5 (F RESET)]" (p. 114).

### Returning an individual kit to its factory setting

An individual drum kit whose instrument or effect settings you've edited can be returned to the factory-set state by using the Copy function.

Select "PRESET" as the copy-source, and then select the drum kit whose settings you want to return to the factory-set state.

For details on the procedure, refer to "Copying a Drum Kit" (p. 42).

## Playing a pattern by striking a pad (Pad Pattern function)

You can start playback of a specified pattern by striking a pad.

For details on the procedure, refer to "Playing a Pattern by Hitting a Pad (Pad Pattern) [F1 (PATTERN)]" (p. 52).

## Switching drum kits by striking a pad (Pad Switch function)

Pads connected to TRIGGER INPUT jacks 14 AUX 3 and 15 AUX 4 can be used to switch drum kits or patterns.

For details on the procedure, refer to "Using Pads as Switches [F2 (PAD SW)]" (p. 111).

## Using cross-stick techniques

For each drum kit, you can specify whether cross-stick techniques can or cannot be used.

For details on the procedure, refer to "Playing Cross Stick [F5 (XSTICK)]" (p. 41).

MEMO As the rim sound for the snare, select an instrument marked by "*X" in "Drum Instrument List" (p. 131).

## Playing along with a pattern

The TD-20X provides a variety of "patterns"—drum sound and backing phrases. It's easy to play along with these patterns.

You can also create your own patterns (User Patterns).

For details on the procedure, refer to "Chapter 5. Playing Patterns—Sequencer" (p. 69).

## Using the Copy function

Settings such as the instrument set (with or without COMP/EQ), ambience, multi-effect, volume, pan, and trigger settings can be copied from preset memory or from a backup on a CompactFlash card.

| Settings to copy | | See page |
|---|---|---|
| Drum Kit | | p. 42 |
| Drum Kit Chain | | p. 44 |
| Instrument | INST | p. 54 |
| | PAD COMP/EQ | |
| Mixer | VOLUME | p. 57 |
| | PAN | |
| Effect | AMBIENCE | p. 68 |
| | MFX | |
| Trigger Bank | | p. 106 |

## Settings for an added pad (Trigger Parameters)

You'll need to make trigger settings if you connect an additional pad to the TD-20X.

Specify the model (trigger type) of the pad you've connected.

For details on the procedure, refer to "Selecting the Pad Type [F1 (BANK)]" (p. 96).

## Backing up data to a CompactFlash card

By using a separately sold CompactFlash card, you can save (back up) 99 sets of the contents of user memory.

A specified drum kit or instrument can also be copied from the backup data into user memory.

For details on the procedure, refer to "Using CompactFlash Cards [CARD]" (p. 91).

## Using a CompactFlash card drum kit without loading it (Kit Selection)

Preset drum kits of the TD-20 or TDW-20 or backed-up drum kits saved on a CompactFlash card can be played without loading them. This is called the "Kit Selection" function.

This is a convenient way to perform without rewriting the contents of user memory.

If desired, you can also copy this data to a drum kit in user memory.

For details on the procedure, refer to "Playing a Kit from the CompactFlash without Loading It (Kit Selection) [F1 (KIT SEL)]" (p. 121).

## Specifying a sound's output destination (Output Assign)

You can specify the output jack from which the sound of each pad will be output. This is called the "Output Assign" function.

You can also specify that only the ambience component will be output from the MASTER OUT jacks.

For details on the procedure, refer to "Output Assignments [F2 (OUTPUT)]" (p. 108).

# Chapter 1. Drum Kit Settings [KIT]

A “drum kit” consists of a sound selection for each pad, together with effect settings, etc. (p. 35).

## Choosing a Drum Kit

**1. Press the [KIT] button.**

The [KIT] button lights, and the “DRUM KIT” screen appears.


**2. Use the [-] [+] buttons or the [VALUE] dial to select drum kits.**

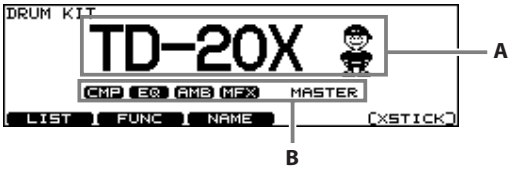
MEMO

Footswitches or pads can be programmed to make selections (p. 110).

MEMO

The selected or current kit number is indicated at all times in the number display at the left of the display.

### About the “DRUM KIT” Screen




| | |
|---|---|
| **A** | Drum kit name |
| **B** | Overall kit effects on/off status (p. 58) |

| **Function button** | |
|---|---|
| **[F1 (LIST)]** | Displays the drum kit list. |
| **[F2 (FUNC)]** | Edits settings for each drum kit (p. 40). |
| **[F3 (NAME)]** | Assigns a name to the drum kit (p. 41). |
| **[F5 (XSTICK)]** | Selects whether cross-stick techniques can be used (p. 41). |

MEMO

Regardless of which screen is displayed, you can press the [KIT] button to access the “DRUM KIT” screen. However, this will not work from the “PATTERN REC STANDBY” screen or the “PATTERN RECORDING” screen (p. 84), or during a bulk dump (p. 119).

## Selecting a Drum Kit from the List [F1 (LIST)]

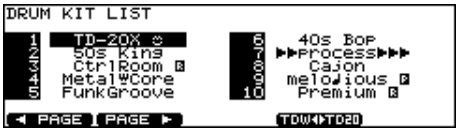
You can select a drum kit by accessing the list of available kits.

**1. Press the [KIT] button.**

The “DRUM KIT” screen appears.

**2. Press the [F1 (LIST)] button.**

The “DRUM KIT LIST” screen appears.




| **Function button** | |
|---|---|
| **[F1 (< PAGE)]** | The previous page of the list appears. |
| **[F2 (PAGE >)]** | The next page of the list appears. |
| **[F4 (TDW<>TD20)]** | Switches between drum kit numbers 1–50 (with the factory settings, these contain the TDW-20’s preset drum kits) and drum kit numbers 51–100 (with the factory settings, these contain the TD-20 preset drum kits). |

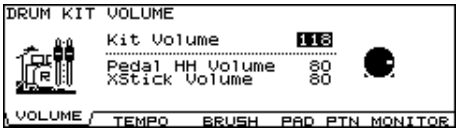
**3. Use the [VALUE] dial, the [-] [+], or [CURSOR] buttons to select a drum kit.**

**4. Press the [EXIT] button to return to the “DRUM KIT” screen.**

# Making Settings for Each Drum Kit [F2 (FUNC)]

1. **Press the [KIT] button.**
   The "DRUM KIT" screen appears.
2. **Press the [F2 (FUNC)] button.**
3. **Use the [F1]–[F5] buttons to select the setting that you want to make.**
4. **Use the [CURSOR (up/down)] button to select a parameter.**
5. **Use the [-] [+] buttons or [VALUE] dial to specify the value.**
6. **Press the [EXIT] button to return to the previous screen.**

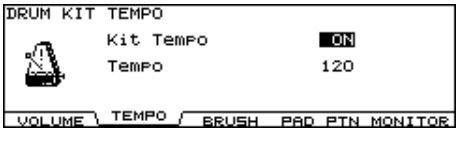
## Adjusting the Volume [F1 (VOLUME)]




| Parameter | Value | Description |
|---|---|---|
| **Kit Volume** | 0–127 | Volume of the entire drum kit |
| **Pedal HH Volume** | 0–127 | Volume of the hi-hat's foot closed sound |
| **XStick Volume** | 0–127 | Volume of cross stick sound |

## Assigning a Tempo for Each Kit [F2 (TEMPO)]

When you select a drum kit of which Kit Tempo is set to "ON," the tempo you define here will be set automatically.




| Parameter | Value | Description |
|---|---|---|
| **Kit Tempo** | OFF | Tempo is not defined |
| | ON | Tempo is defined |
| **Tempo** | 20–260 | Defined tempo |

**MEMO** When you select a kit of which "Kit Tempo" is set to "ON," the defined tempo appears in the upper right of the "DRUM KIT" screen.


## Playing Brushes [F3 (BRUSH)]

In each kit, you can choose whether sticks or brushes will be used.


| Parameter | Value | Description |
|---|---|---|
| **Brush Switch** | OFF | For using sticks |
| | ON | For using brushes |

**MEMO** When "Brush Switch" is set to "ON," the brush icon appears in the "DRUM KIT" screen.


## Turning the Pad Pattern Function On/Off [F4 (PAD PTN)]

This function allows you to turning the Pad Pattern function on/off.
For more about the Pad Pattern function, refer to "Playing a Pattern by Hitting a Pad (Pad Pattern) [F1 (PATTERN)]" (p. 52).

## Viewing the Output Level (OUPUT MONITOR) [F5 (MONITOR)]

You can view the volume that is being output from the MASTER OUT, PHONES, or DIRECT OUT jacks.

Use the [-] [+] buttons or the [VALUE] dial to choose the jacks.


# Naming a Drum Kit [F3 (NAME)]

You can rename the currently selected kit; the maximum is 12 characters.

**1. Press the [KIT] button.**

The "DRUM KIT" screen appears.

**2. Press the [F3 (NAME)] button.**

The "DRUM KIT NAME" screen appears.


| Function button | |
|---|---|
| **[F1 (INSERT)]** | A blank space is inserted at the cursor position, and characters after this point are moved to the right one space. |
| **[F2 (DELETE)]** | Character at the cursor position is deleted, and characters after this point are moved to the left one space. |
| **[F3 (SPACE)]** | Character at the cursor position is replaced by a blank space. |
| **[F4 (CHAR)]** | Type of character at the cursor position changes between uppercase/lowercase alphabet, or numbers and symbols. |

**3. Use the [CURSOR (left/right)] buttons to move the cursor to the character to be changed.**

**4. Use the [VALUE] dial, the [-] [+], or [CURSOR (up/down)] buttons to change the character.**

**5. Press the [EXIT] button to return to the previous screen.**

# Playing Cross Stick [F5 (XSTICK)]

For each kit, you can specify whether cross-stick techniques can be used.

**1. Press the [KIT] button.**

The "DRUM KIT" screen appears.

**2. Press the [F5 (XSTICK)] button.**

Each time you press the button, cross-stick will alternate between enabled and disabled.

- Cross stick can be played


- Cross stick not possible


TIP

When using the cross-stick technique, you can specify the velocity at which the cross-stick sound will be switched with the open rim shot sound. If this "XStick Thrshld" setting is set to "127," only the cross-stick sound will play every time. For more about making this setting, refer to "Detailed Settings for Rim Shots [F2 (RIM)]" (p. 104).

# Copying a Drum Kit

You can copy a drum kit from preset memory or from a CompactFlash card.

For user memory, you can rearrange the data by exchanging the copy-source and copy-destination drum kits.

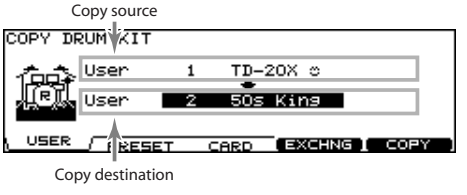
**NOTE** Be aware that when you execute the copy, the contents of the copy-destination will be overwritten.

**1. Press the [COPY] button.**

The [COPY] button will light, and the "COPY A" screen will appear.

If a CompactFlash card (p. 91) is inserted in the CompactFlash card slot, the CompactFlash indicator will also light.


**2. Press the [F1 (KIT)] button to select the drum kit.**




**TIP** The screen above can be accessed from the "DRUM KIT" screen (p. 39) by pressing the [COPY] button while you hold down the [SHIFT] button.

**3. Use the [F1]–[F3] buttons to select the copy-source.**

| Function button | |
|---|---|
| **[F1 (USER)]** | Copy from user memory.<br>Exchanging the copy-source and copy-destination is possible only if the copy-source is user memory. |
| **[F2 (PRESET)]** | Copy from preset memory.<br>You can choose from TDW-20's preset data or TD-20 preset data. Select this if you want to return to the factory-set kit settings. |
| **[F3 (CARD)]** | Copy from backup data saved on a CompactFlash card. |

**4. Use the [CURSOR] buttons, [-] [+] buttons, and [VALUE] dial to specify the copy-source and copy-destination.**

If you selected [F2 (PRESET)] in step 3, specify whether you're copying from TD-20 or from TDW-20.

If you selected [F3 (CARD)] in step 3, select the copy-source backup number.

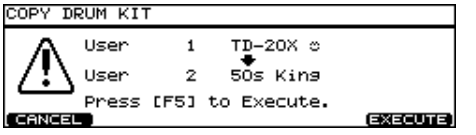
**5. Press the [F4 (EXCHNG)] or [F5 (COPY)] button.**

If you selected [F1 (USER)] in step 3, you can exchange the copy-source and copy-destination by pressing the [F4 (EXCHNG)] button.

Press the [F5 (COPY)] button to execute the copy.

A confirmation message will appear.

(Example: Copying a user memory drum kit)




If you decide to cancel the copy or exchange, press the [F1 (CANCEL)] button.

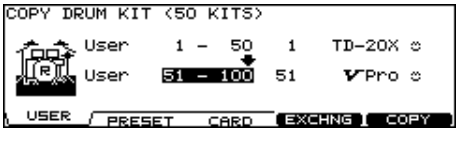
**6. Press the [F5 (EXECUTE)] button to execute.**

## Copying Fifty Drum Kits at a Time

You can copy fifty drum kits in a single operation.

Proceed as described in "Copying a drum kit," but change steps 2 as follows.

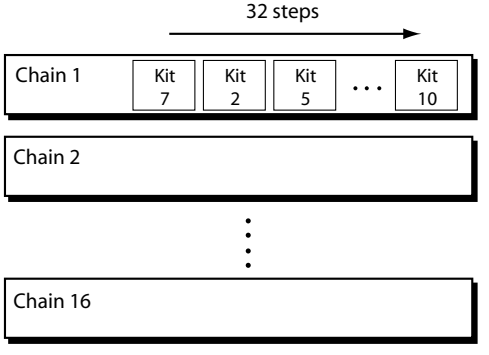
In **step 2**, choose [F4 (50 KITS)].



# Specifying the Order in Which Drum Kits will be Recalled [CHAIN]

"Drum Kit Chain" allows you to step through the drum kits of your choice and in the order you want. The TD-20X lets you create and store 16 different chains of up to 32 steps each.

You can specify the order in which you'll be using drum kits in your live performance; this makes it easy for you to step through them as desired.




## Creating a Drum Kit Chain

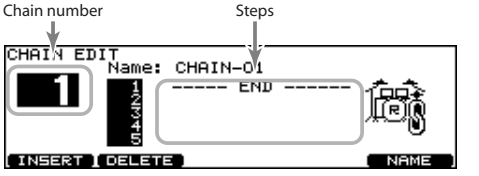
**1. Press the [CHAIN] button to switch drum kit chain on.**

The [CHAIN] button lights, and the "DRUM KIT CHAIN" screen appears.


| Function button | |
|---|---|
| **[F1 (C EDIT)]** | Create, modify, or rename a drum kit chain. |
| **[F2 (FUNC)]** | Edit the settings of each drum kit (p. 40). |
| **[F3 (NAME)]** | Rename a drum kit (p. 41). |
| **[F5 (XSTICK)]** | Specify whether cross-stick technique will be enabled (p. 41). |

**2. Press the [F1 (C_EDIT)] button.**

The "CHAIN EDIT" screen appears.




| Function button | |
|---|---|
| **[F1 (INSERT)]** | A step with the same kit is inserted at the cursor position, and steps after this point are moved back one place. |
| **[F2 (DELETE)]** | Step at the cursor position is deleted, and steps after this point are moved forward one place. |
| **[F5 (NAME)]** | You can name a drum kit chain (p. 44). |

**3. Press the [CURSOR (left)] button to move the cursor to the chain number.**

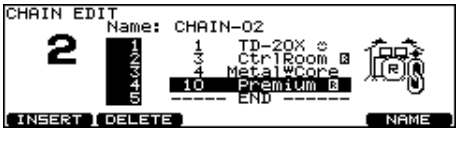
**4. Use the [-] [+] buttons or the [VALUE] dial to select the chain number.**

**5. Press the [CURSOR (right)] button to move the cursor to the step (the order in which the drum kits will be selected) in the right area of the display.**

**6. Use the [CURSOR (up/down)] buttons to select the step.**

**7. Use the [-] [+] buttons or the [VALUE] dial to select the drum kit.**

**8. Repeat steps 6 and 7 to create the drum kit chain.**




**9. Press the [EXIT] button.**

The "DRUM KIT CHAIN" screen appears.

## Naming a Drum Kit Chain [F5 (NAME)]

Each chain's name can use up to 12 characters.

1. **Select the drum kit chain you want to name in the "DRUM KIT CHAIN" screen.**

2. **Press the [F1 (C EDIT)] button.**

3. **Press the [F5 (NAME)] button.**

   The "CHAIN NAME" screen appears.


| Function button | |
|---|---|
| **[F1 (INSERT)]** | A blank space is inserted at the cursor position, and characters after this point are moved to the right one space. |
| **[F2 (DELETE)]** | Character at the cursor position is deleted, and characters after this point are moved to the left one space. |
| **[F3 (SPACE)]** | Character at the cursor position is replaced by a blank space. |
| **[F4 (CHAR)]** | Type of character at the cursor position changes between upper case/lowercase alphabet, or numbers and symbols. |

4. **Use the [CURSOR (left/right)] buttons to move the cursor to the character to be changed.**

5. **Use the [VALUE] dial, the [-] [+], or [CURSOR (up/down)] buttons to change the character.**

6. **When you're finished, press the [EXIT] button twice to return to the "DRUM KIT CHAIN" screen.**

## Copying a Drum Kit Chain

You can copy a drum kit chain from preset memory or from a CompactFlash card.

For user memory, you can rearrange the data by exchanging the copy-source and copy-destination drum kit chains.

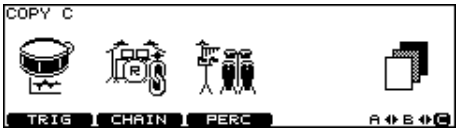
**NOTE** Be aware that when you execute the copy, the contents of the copy-destination will be overwritten.

1. **Press the [COPY] button.**

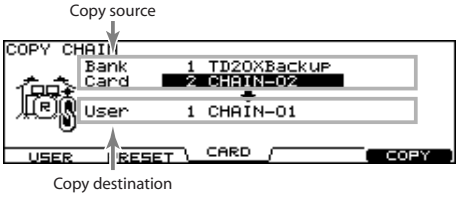
   The [COPY] button will light, and the "COPY A" screen will appear.

   If a CompactFlash card (p. 91) is inserted in the CompactFlash card slot, the CompactFlash indicator will also light.

2. **Press the [F5 (A<>B<>C)] button twice to access the "COPY C" screen.**




3. **Press the [F2 (CHAIN)] button.**




4. **Use the [F1]–[F3] buttons to select the copy-source.**

| Function button | |
|---|---|
| **[F1 (USER)]** | Copy from user memory.<br>Exchanging the copy-source and copy-destination is possible only if the copy-source is user memory. |
| **[F2 (PRESET)]** | Copy from preset memory.<br>**MEMO**<br>All drum kit chains in preset memory are empty. |
| **[F3 (CARD)]** | Copy from backup data saved on a CompactFlash card. |

**5. Use the [CURSOR] buttons, [-] [+] buttons, and [VALUE] dial to specify the copy-source and copy-destination.**

If you selected [F3 (CARD)] in step 4, select the copy-source backup number.

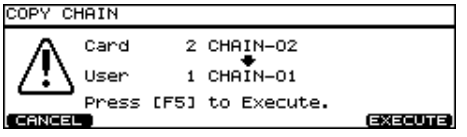
**6. Press the [F4 (EXCHNG)] or [F5 (COPY)] button.**

If you selected [F1 (USER)] in step 4, you can exchange the copy-source and copy-destination by pressing the [F4 (EXCHNG)] button.

Press the [F5 (COPY)] button to execute the copy.

A confirmation message will appear.

(Example: Copying a drum kit chain from a CompactFlash card)




If you decide to cancel the copy or exchange, press the [F1 (CANCEL)] button.

**7. Press the [F5 (EXECUTE)] button to execute.**

## Using a Drum Kit Chain

Here's how to select a drum kit chain you've created, and step through the drum kits in the order you want to use them.

### Selecting a drum kit chain

**1. Press the [CHAIN] button to make it light.**

The drum kit chain function will turn on.


**2. Use the [CURSOR (up/down)] buttons to select the chain number that you want to use.**

### Switching drum kits

**3. Use the [-] [+] buttons or the [VALUE] dial to recall the drum kits in the step order you specified.**

**4. When you've finished performing, press the [CHAIN] button to make it go dark, or press the [EXIT] button.**

The drum kit chain function will turn off.

TIP You can assign a footswitch or pad to recall a drum kit chain or a drum kit. For details, refer to "Assigning a Function to a Footswitch or Pad [F3 (CONTROL)]" (p. 110).

MEMO If differences in volume levels between kits is a problem, press the [MIXER] button and adjust "Kit Volume" (the overall kit volume (p. 56)).

# Chapter 2. Instrument Settings [INST]

Here's how to select and edit sounds, such as the snare drum and kick drum.

## Choosing a Pad to Edit

There are two basic ways to select the sound you want to edit.

### Choose by hitting a pad

**1. Press the [INST] button.**

The [INST] button lights, and the "INST" screen appears.


**2. Strike a pad.**

The settings screen for the struck pad appears.

To select a pad's rim, strike the rim.

### Choose with the trigger select buttons

**1. Press the [INST] button.**

The [INST] button lights, and the "INST" screen appears.

**2. Press the TRIG SELECT [1] or [15] button to select the pad (the trigger input number).**

The trigger input number is indicated in the upper part of the screen.

**3. Press the TRIG SELECT [RIM] button to select the head or rim.**

Head: The [RIM] button is unlit.

Rim: The [RIM] button is lit.


MEMO When MIDI note number corresponding to a pad is received, the pad is selected and shown in the screen (p. 53).

## Lock the Pad You are Editing (EDIT LOCK)

When editing instruments, you can prevent the screen from being switched inadvertently even if you hit another pad.

**1. Select the pad to be locked.**

The settings screen for the pad appears.

**2. Press the TRIG SELECT [LOCK] button to make it light.**

The pad is locked and other pads cannot be selected.

**3. To release the lock, press the [LOCK] button to make it go off.**

MEMO You can change the pad to be locked by pressing the TRIG SELECT [1] or [15] button even if the [LOCK] button is lit.

## Assign an Instrument to a Pad

All the TD-20X sounds are referred to as "instruments (INST)."

You can choose an instrument from the TD-20 instruments or the TDW-20 instruments. In this case, choose TD-20 instruments from "INT" and TDW-20 instruments from "EXP."

**1. Press the [INST] button.**

The [INST] button lights, and the "INST" screen appears.


| | |
|---|---|
| **Group** | Type of instrument |
| **Inst** | Name of instrument |

- For the "EXP" instrument group, an "EXP" icon is shown before the name.
- The "V-EDIT" icon is shown in edit screens that allow V-EDIT (p. 48).

| Function button | |
|---|---|
| **[F1 (LIST)]** | Displays the instrument list. |
| **[F2 (EDIT)]** | Edits instrument settings (p. 48). |
| **[F3 (CONTROL)]** | Lets you use the pads and pedal as controllers (p. 52). You can use the pads to play patterns, or make MIDI settings for the pads and pedal. |
| **[F4 (INT<>EXP)]** | Switches between TD-20 (INT) and TDW-20 (EXP) instruments. |
| **[F5 (H&R)]** | Switches between selecting the head and rim instruments as a set, or selecting them independently. |

**2. Select the pad that you want to edit.**

Strike the desired pad, or use the TRIG SELECT buttons to select it.

The edit screen for the selected pad will appear.

**3. Use the [CURSOR (up/down)] buttons to move the cursor to "Group" or "Inst."**

**4. Use the [-] [+] buttons or the [VALUE] dial to select the Inst group/instrument.**

**5. Press the [EXIT] button to return to the "DRUM KIT" screen.**

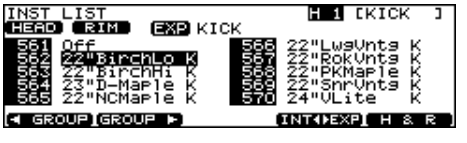
## Selecting an Instrument from the List [F1 (LIST)]

Here you can select from the list of all available instruments.

**1. Press the [INST] button.**

**2. Press the [F1 (LIST)] button.**

The "INST LIST" screen appears.




| Function button | |
|---|---|
| **[F1 (< GROUP)], [F2 (GROUP >)]** | Selects the Inst Group. |
| **[F4 (INT<>EXP)]** | Switches between TD-20 (INT) and TDW-20 (EXP) instruments. |
| **[F5 (H & R)]** | Switches to select the head and rim instruments simultaneously or individually. |

**3. Select the pad that you want to edit.**

Strike the desired pad, or use the TRIG SELECT buttons to select it.

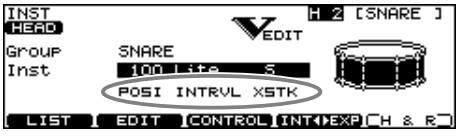
The "INST LIST" screen for the selected pad will appear.

**4. Use the [VALUE] dial, the [-] [+], or [CURSOR] buttons to select the instrument.**

**5. Press the [EXIT] button to return to the "INST" screen.**

### The indication below the instrument name

If you turn the [F5 (H&R)] button off, the following information will be shown below the instrument name. You'll be able to obtain the effects that are shown.




| | |
|---|---|
| **POSI** | The tone will change according to the striking position. For a rim sound, the tone will change depending on the depth at which the stick strikes the rim.<br>Use the "Position Ctrl" setting to turn this effect on/off. You can specify this only for specific trigger inputs (p. 53). |
| **INTRVL** | Smoothes the interval between notes according to the performance technique used, such as a roll or flam. |
| **XSTK** | If the cross-stick switch is on (p. 41), you'll be able to play rim shots and cross-stick separately. |

MEMO This information can also be seen in "Drum Instrument List" (p. 131).

# Editing Drum Sounds [F2 (EDIT)]

Editing methods differ according to the type of instrument.

## Editing Acoustic Drum Sounds (V-EDIT)

### What is V-EDIT?

This is a function that allows you to simulate the tonal changes produced by differences in the material, shape, and size of an instrument. By choosing and tuning a favorite head, or attaching muffling (a mute), you can create your sound in an intuitive way just as when adjusting an acoustic drum.

### When V-EDIT can be used

V-EDIT is possible in the following instrument groups "KICK," "SNARE," "TOM," "HI-HAT," "CRASH," "SPLASH," "CHINA," "STACKED CYMBAL," or "RIDE."

The following icon appears to indicate instruments which are V-EDIT compatible.


## Editing Other Instruments

Other instruments only allow "Pitch," "Decay Time," and "Dynamic Pitch Bend" adjustment (p. 51).

## Editing Procedure

1. **Press the [INST] button.**
2. **Press the [F2 (EDIT)] button.**

   The "INST EDIT" screen appears.
3. **Select the pad that you want to edit.**

   Strike the desired pad, or use the TRIG SELECT buttons to select it.

   The edit screen for the selected pad will appear.
4. **Use the [F1]–[F4] and [CURSOR (up/down)] buttons to select the parameter.**
5. **Use the [-] [+] buttons or the [VALUE] dial to adjust the setting.**
6. **When finished, press the [EXIT] button to return to the "INST" screen.**

TIP

You can return the settings of the currently selected instrument to their standard values. In the "INST EDIT" screen or "INST" screen, hold down the [SHIFT] button and press the [F4] button; a confirmation message will appear. Press the [F5 (EXECUTE)] button to return the instrument settings to the standard values for that instrument.

MEMO

You can edit the head and rim instruments as a pair. Each time you press the [F5 (H&R)] button, you will alternate between editing the head and rim simultaneously or separately. However if instruments from different instrument groups are selected for the head and the rim, they will be edited separately even if you've turned on the [F5 (H&R)] button. This setting is shown by the "HEAD" and "RIM" icons in the upper left of the screen.

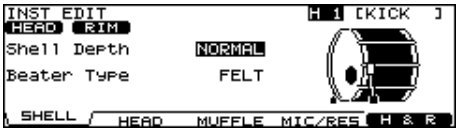
NOTE

For some instruments, raising or lowering the value beyond a certain point may not produce further change.

- KICK/SNARE/TOM: "Head Tuning"
- CRASH/SPLASH/CHINA/RIDE: "Sustain"
- Other Instruments: "Pitch" and "Decay Time"

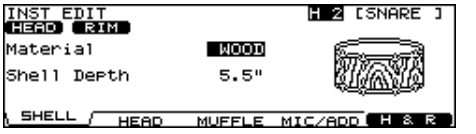
## The edit screens for each pad

### KICK




| Parameter | Value | Description |
|---|---|---|
| **[F1 (SHELL)] button** | | |
| **Shell Depth** | NORMAL, DEEP1–2 | Depth of the shell |
| **Beater Type** | FELT, WOOD, PLASTIC | Type of beater |
| **[F2 (HEAD)] button** | | |
| **Head Type** | CLEAR, COATED, PINSTRIPE | Type of head |
| **Head Tuning** | -480–+480 | Tuning of the head |
| **[F3 (MUFFLE)] button** | | |
| **Muffling** | OFF, TAPE1–2, BLANKET, WEIGHT | Muffling (muting) setting |
| **Snare Buzz** | OFF, 1–8 | Resonance to the snare |
| **[F4 (MIC/RES)] button** | | |
| **Mic Position** | OUTSIDE4–1, STANDARD, INSIDE1–4 | Tonal change caused by microphone position |
| **Mic Size** | NORMAL, LARGE | Emphasizes the low-frequency portion of the attack |
| **Kit Resonance** | OFF, 1–8 | Amount of resonance for the entire drum kit |

### SNARE

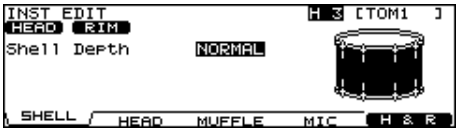



| Parameter | Value | Description |
|---|---|---|
| **[F1 (SHELL)] button** | | |
| **Material** | WOOD, STEEL, BRASS | Material of the shell |
| **Shell Depth** | 1.0"–20.0" | Depth of the shell |
| **[F2 (HEAD)] button** | | |
| **Head Type** | CLEAR, COATED, PINSTRIPE | Type of head |
| **Head Tuning** | -480–+480 | Tuning of the head |
| **[F3 (MUFFLE)] button** | | |
| **Muffling** | OFF, TAPE1–2, DOUGHNUTS1–2 | Muffling (muting) setting |
| **Strainer Adj.** | OFF, LOOSE, MEDIUM, TIGHT | Tension of the strainer (resonating cords) |
| **[F4 (MIC/ADD)] button** | | |
| **Mic Position** | OUTSIDE4–1, STANDARD, INSIDE1–4 | Tonal change caused by microphone position |
| **Add Rim Sound** | OFF, TAMB, 909 CLAPS, GATE HIT | Sound added to the rim shot sound<br>If this is "OFF," only the rim shot sound will be heard. |
| **Level** | -3–+3 | Adjusts the volume balance of the sound added by "Add Rim Sound." |

**NOTE** For some instruments, "Material" and "Strainer Adj." cannot be edited.

**MEMO** You can assign the footswitch or a pad to turn off the snare's strainer (Strainer Adj. = OFF). Please refer to "Assigning a Function to a Footswitch or Pad [F3 (CONTROL)]" (p. 110).

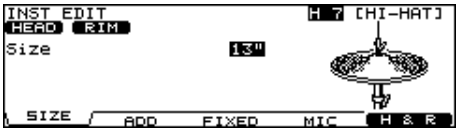
## TOM




| Parameter | Value | Description |
|---|---|---|
| **[F1 (SHELL)] button** | | |
| **Shell Depth** | NORMAL, DEEP1–2 | Depth of the shell |
| **[F2 (HEAD)] button** | | |
| **Head Type** | CLEAR, COATED, PINSTRIPE | Type of head |
| **Head Tuning** | -480–+480 | Tuning of the head |
| **[F3 (MUFFLE)] button** | | |
| **Muffling** | OFF, TAPE1–2, FELT1–2 | Muffling (muting) setting |
| **Snare Buzz** | OFF, 1–8 | Resonance to the snare |
| **[F4 (MIC)] button** | | |
| **Mic Position** | OUTSIDE4–1, STANDARD, INSIDE1–4 | Tonal change caused by microphone position |

* PINSTRIPE is a registered trademark of Remo Inc., U.S.A.

## HI-HAT

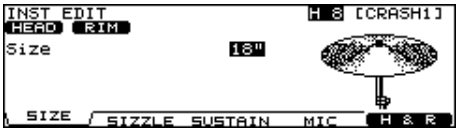



| Parameter | Value | Description |
|---|---|---|
| **[F1 (SIZE)] button** | | |
| **Size** | 1"–40" | Hi-hat diameter |
| **[F2 (ADD)] button** | | |
| **Add Sound** | OFF, TAMBOURINE, CABASA, COWBELL | Allows you to add tambourine, cabasa, or cowbell to the hi-hat. The percussion groove will be added to the hi-hat. |
| **Level** | -3–+3 | Adjusts the volume balance of the added sound. |
| **[F3 (FIXED)] button** | | |
| **Fixed Hi-Hat** | NORMAL | The openness will be controlled by the pedal. |
| | FIXED1–4 | The openness will be fixed. |
| **[F4 (MIC)] button** | | |
| **Mic Position** | OUTSIDE2–1, STANDARD, INSIDE1–2 | Tonal change caused by microphone position |

**NOTE** For some instruments, "Mic Position" cannot be edited.

**MEMO** The "Fixed Hi-Hat" position can be enabled by pressing an optional footswitch or hitting a pad switch. Please refer to "Assigning a Function to a Footswitch or Pad [F3 (CONTROL)]" (p. 110).

### CRASH/SPLASH/CHINA/STACKED CYMBAL/RIDE




| Parameter | Value | Description |
|---|---|---|
| **[F1 (SIZE)] button** | | |
| **Size** | 1"–40" | Cymbal diameter |
| **[F2 (SIZZLE)] button** | | |
| **Sizzle Type** | OFF, RIVET, CHAIN, BEADS | Type of sizzle |
| **Sizzle Amount** | -3–+3 | Amount of sizzle |
| **[F3 (SUSTAIN)] button** | | |
| **Sustain** | -31–+31 | Length of sustain |
| **[F4 (MIC)] button** | | |
| **Mic Position** | OUTSIDE2–1, STANDARD, INSIDE1–2 | Tonal change caused by microphone position |

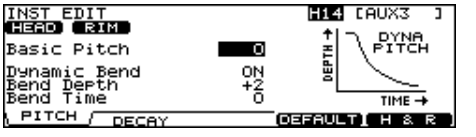
## Instruments for which V-EDIT is not available

### Electronic instruments (Dynamic Pitch Bend)

"Dynamic Pitch Bend" is a function that you can use with the electronic instruments that were added on the TDW-20.

You can make the following settings when you've selected the "SNARE ELEC," KICK ELEC," or "TOM ELEC" instrument from the "EXP" instrument group.

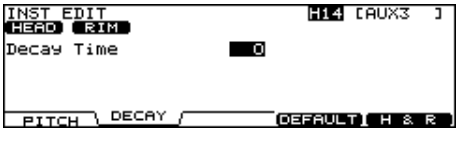
If "Dynamic Pitch Bend" is on, you'll be able to change the pitch by varying the force (velocity) with which you strike the pad.




| Parameter | Value | Description |
|---|---|---|
| **[F1 (PITCH)] button** | | |
| **Basic Pitch** | -480 – +480 | Pitch |
| **Dynamic Bend** | OFF, ON | Turns dynamic pitch bend on/off |
| **Bend Depth** | -24 – +24 | Amount of pitch change controlled by velocity |
| **Bend Time** | -31 – +31 | Time over which currently controlled pitch change will occur |
| **[F2 (DECAY)] button** | | |
| **Decay Time** | -31 – +31 | Length of the decay |

**NOTE** Depending on the "Basic Pitch" setting of the instrument, there may be cases in which raising (or lowering) a value does not produce further change.

### Other instruments




| Parameter | Value | Description |
|---|---|---|
| **Pitch** | -480–+480 | Pitch |
| **Decay Time** | -31–+31 | Duration of the sound (decay time) |

# Using Pads/Pedal as Controllers [F3 (CONTROL)]

1. **Press the [INST] button.**
2. **Press the [F3 (CONTROL)] button.**
3. **Select the pad that you want to edit.**

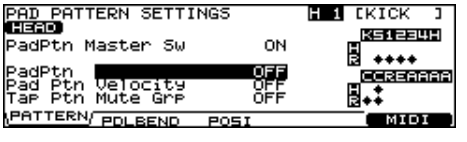
   Strike the desired pad, or use the TRIG SELECT buttons to select it.

   The edit screen for the selected pad will appear.
4. **Press the [F1]–[F5] and [CURSOR (up/down)] buttons to select the parameter.**
5. **Use the [-] [+] buttons or the [VALUE] dial to adjust settings.**
6. **When finished, press the [EXIT] button to return to the "INST" screen.**

## Playing a Pattern by Hitting a Pad (Pad Pattern) [F1 (PATTERN)]

The Pad Pattern function starts playback of a pattern when a pad is struck. This function provides a very convenient way to use patterns during a live performance.

If different patterns have been assigned to two or more pads, striking another pad while a pattern is playing back will cause pattern playback to switch to the newly selected pattern.




**NOTE** The performance of a pattern played back by the Pad Pattern function cannot be recorded into the sequencer.

| Parameter | Value | Description |
|---|---|---|
| **PadPtn Master Sw** | OFF, ON | Specifies whether the Pad Pattern function will be used (ON) or not used (OFF). |
| **Pad Ptn** | OFF, P 1–150, U 101–200 | Selects the played back pattern when the pad is struck.<br>If all pads are set to "OFF," NO PTN icon appears. |
| **Pad Ptn Velocity** | OFF | The pattern plays back at the velocity set for the pattern, regardless of the strength with which the pad is struck. |
| | ON | The pattern plays back with the velocity changing in response to the strength with which the pad is struck. |
| **Tap Ptn Mute Grp** | OFF, 1–8 | This setting is valid only if "TAP" (p. 78) has been selected as the "Play Type" for a multiple number of pads. If one sound (pattern) is set to play before the previous sound (pattern) has finished playing, this setting allows you to either have the previous sound stop and the subsequent sound start playing or have the two sounds layered.<br>• **Patterns set to the same number**<br>The previous sound stops while in progress, and the subsequent sound (pattern) starts playing.<br>• **Patterns set to the different numbers**<br>The previous sound continues to play to the end, while the subsequent sound (pattern) is superimposed on it. |

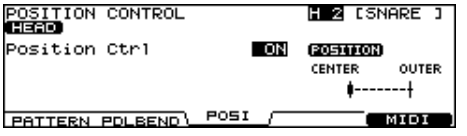
**MEMO** For more about patterns, refer to "Chapter 5. Playing Patterns—Sequencer" (p. 69).

## Using the Hi-Hat Pedal to Change an Instrument's Pitch [F2 (PDLBEND)]


| Parameter | Value | Description |
|---|---|---|
| **Pedal Bend Range** | -24–0–+24 | Specifies the amount of pitch change produced by the hi-hat pedal.<br>You can set this for each pad (head and rim separately) in semitone units. |

## Enabling/Disabling Tonal Change Controlled by Strike Position or Rim Shot Nuance [F3 (POSI)]

MEMO You can set this for the snare (head, rim), tom (rim), ride (bow), and AUX (rim) trigger inputs.




| Parameter | Value | Description |
|---|---|---|
| **Position Ctrl** | OFF, ON | Each of these settings enables (ON) or disables (OFF) tonal change controlled by the respective strike position or rim shot nuance.<br>**SNARE (Head):**<br>Strike position<br>**SNARE (Rim):**<br>Rim shot nuance<br>**TOM (Rim):**<br>Rim shot nuance<br>**RIDE (Bow):**<br>Strike position<br>**AUX (Rim):**<br>Rim shot nuance |

## Making MIDI Settings for Each Pad [F5 (MIDI)]


### MIDI settings for each pad [F1 (MIDI)]

| Parameter | Value | Description |
|---|---|---|
| **Tx Channel** | CH1–CH16 | MIDI transmit channel for each pad. |
| | GLOBAL | Transmits on the same channel as the drum kit part (p. 115). |
| **Note No.** | 0 (C -)–127 (G 9) | Transmitted MIDI note number |
| | OFF | Note messages are not transmitted. |
| **Gate Time** | 0.1–8.0 (s) | Duration of the note sent from each pad (See the text box "About gate time") |

### MIDI note numbers transmitted by hi-hat [F2 (HH MIDI)]

| Parameter | Value | Description |
|---|---|---|
| **Open (Bow)** | | Bow shot of open hi-hat |
| **Note No.** | 0 (C-)–127 (G9) | Transmitted MIDI note number |
| | OFF | Note messages are not transmitted. |
| **Gate** | 0.1–8.0 (s) | Duration of the note sent from each pad (See the text box "About gate time") |
| **Closed (Bow)** | | Bow shot of closed hi-hat |
| **Note No.**<br>**Gate** | 0 (C-)–127 (G9) | Transmitted MIDI note number |
| | OFF | Note messages are not transmitted. |
| | 0.1–8.0 (s) | Duration of the note sent from each pad |
| **Open (Edge)** | | Edge shot of open hi-hat |
| **Note No.** | 0 (C-)–127 (G9) | Transmitted MIDI note number |
| | OFF | Note messages are not transmitted. |
| **Gate** | 0.1–8.0 (s) | Duration of the note sent from each pad |
| **Closed (Edge)** | | Edge shot of closed hi-hat |
| **Note No.** | 0 (C-)–127 (G9) | Transmitted MIDI note number |
| | OFF | Note messages are not transmitted. |
| **Gate** | 0.1–8.0 (s) | Duration of the note sent from each pad |
| **Pedal** | | Pedal hi-hat (Foot closed) |
| **Note No.** | 0 (C-)–127 (G9) | Transmitted MIDI note number |
| | OFF | Note messages are not transmitted. |
| **Gate** | 0.1–8.0 (s) | Duration of the note sent from each pad |

### MIDI note number transmitted by brush sweep/cross stick [F5 (BR MIDI)]

| Parameter | Value | Description |
|---|---|---|
| **Brush Note No.** | 0 (C -)–127 (G 9) | MIDI note number transmitted by brush sweep |
| | OFF | Note messages are not transmitted. |
| **XStick Note No.** | 0 (C -)–127 (G 9) | MIDI note number transmitted by cross stick |
| | OFF | Note messages are not transmitted. |

### When setting multiple pads to the same note number

When the note number is set to be more than one pad received, the instrument assigned to the pad with the lowest TRIGGER INPUT number is played. When note numbers for the head and rim are duplicated, the head instrument is played.

**MEMO** An asterisk (*) appears at the right of the note number for TRIGGER INPUTS that are not sounded.

**Example:**

Note number "38 (D 2)" is set for the head and rim of trigger input 2 SNARE and the head of trigger input 3 TOM 1. In this case, when note number 38 (D2) is received, the instrument assigned to the head of trigger input 2 SNARE is played.

### About the Gate Time

Percussion sound modules normally produce sound only in response to "Note on" messages, and ignore "Note off" messages. However general-purpose sound modules or samplers do receive the note-off messages that are transmitted and respond by turning off the sound.

For example, if you are triggering a "loop" in a sampler, or other sounds then the gate time parameter is very important. With the factory defaults (preset values), the transmitted gate time is set to the minimum value.

## Copying an Instrument

You can copy an instrument from preset memory or from a CompactFlash card.

When copying an instrument, you can choose whether to include the COMP/EQ settings (p. 59).

For user memory, you can rearrange the data by exchanging the copy-source and copy-destination instruments.

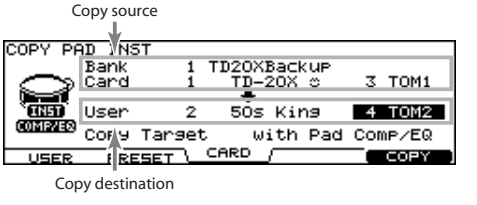
**NOTE** Be aware that when you execute the copy, the contents of the copy-destination will be overwritten.

**1. Press the [COPY] button.**

The [COPY] button will light, and the "COPY A" screen will appear.

If a CompactFlash card (p. 91) is inserted in the CompactFlash card slot, the CompactFlash indicator will also light.


**2. Press the [F2 (INST)] button.**




**TIP** The screen above can be accessed from the "INST" screen (p. 46) or the [COMP/EQ] button setting screen (p. 59) by pressing the [COPY] button while you hold down the [SHIFT] button.

**3. Use the [F1]–[F3] buttons to select the copy-source.**

| Function button | |
|---|---|
| **[F1 (USER)]** | Copy from user memory.<br>Exchanging the copy-source and copy-destination is possible only if the copy-source is user memory. |
| **[F2 (PRESET)]** | Copy from preset memory.<br>You can choose from TDW-20's preset data or TD-20 preset data. Select this if you want to return to the factory-set kit settings. |
| **[F3 (CARD)]** | Copy from backup data saved on a CompactFlash card. |

**4. Use the [CURSOR] buttons, [-] [+] buttons, and [VALUE] dial to specify the copy-source and copy-destination.**

If you selected [F2 (PRESET)] in step 3, specify whether you're copying from TD-20 or from TDW-20.

If you selected [F3 (CARD)] in step 3, select the copy-source backup number.

**5. Use the [CURSOR] buttons, [-] [+] buttons, and [VALUE] dial to select the copied content (Copy Target).**

| Value | Description |
|---|---|
| **with Pad Comp/EQ** | The pad's instrument settings (Instrument, V-Edit), Pad Compressor, and Pad EQ settings (p. 59) will be copied. |
| **Inst V-Edit Only** | Only the pad's instrument settings (Instrument, V-Edit) will be copied. |
| **Pad Comp/EQ Only** | Only the Pad Compressor and Pad EQ settings (p. 59) will be copied. |

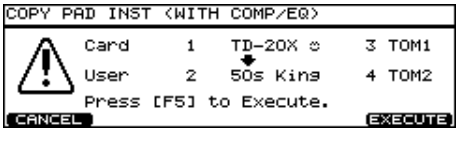
**6. Press the [F4 (EXCHNG)] or [F5 (COPY)] button.**

If you selected [F1 (USER)] in step 3, you can exchange the copy-source and copy-destination by pressing the [F4 (EXCHNG)] button.

Press the [F5 (COPY)] button to execute the copy.

A confirmation message will appear.

(Example: Copying an instrument from a CompactFlash card)




If you decide to cancel the copy or exchange, press the [F1 (CANCEL)] button.

**7. Press the [F5 (EXECUTE)] button to execute.**

## Copying a Set of Multiple Instruments

You can copy multiple instruments to another drum kit in a single operation.

Proceed as described in "Copying an instrument," but do the following in steps 2 and 4.

In **step 2**, choose [F3 (INST SET)].

In **step 4**, move the cursor to the far right of the copy-source, and select the instrument set that you want to copy.

| Value | Description |
|---|---|
| **KICK/SNR** | Copy Kick and Snare. |
| **TOMS 1–4** | Copy Tom 1, 2, 3, and 4. |
| **CYM SET** | Copy Hi-Hat, Crash1, 2, Ride, and Edge. |
| **AUX 1–4** | Copy AUX 1, 2, 3, and 4. |

# Chapter 3. Mixer Settings

For each drum kit, settings such as the volume and pan (stereo position) of each pad can be stored together.

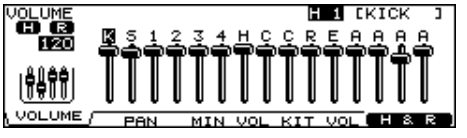
Settings such as volume and pan are made in the "mixer."

## Setting the Volume and Pan of Each Pad [MIXER]

Here's how to set the volume or pan (position in sound field) on an individual pad basis.

**1. Press the [MIXER] button.**

The [MIXER] button lights.




**2. Use the [F1]–[F4] buttons to select the parameter.**

**3. Select the pad that you want to edit.**

Strike the pad, or use the TRIG SELECT buttons to select it.

You can also use the [CURSOR (left/right)] buttons to select a pad.

**4. Use the [VALUE] dial, the [-] [+], or [CURSOR (up/down)] buttons to make the setting.**

| Parameter | Value | Description |
|---|---|---|
| **[F1 (VOLUME)] button** | | |
| **VOLUME** | 0–127 | Volume of each pad |
| **[F2 (PAN)] button** | | |
| **PAN** | L15–CTR–R15 | Pan of each pad |
| **[F3 (MIN VOL)] button** | | |
| **MINIMUM VOLUME** | 0–15 | Minimum volume of each pad<br>This allows you to increase the volume of the weakest strike while maintaining the volume of the strongest strike. You can use this to make a snare's "ghost notes" or cymbal legato strikes more easily audible. |
| **[F4 (KIT VOL)] button** | | |
| **Kit Volume** | 0–127 | Volume of the entire drum kit |
| **Pedal HH Volume** | 0–127 | Volume of the hi-hat's foot closed sound |
| **XStick Volume** | 0–127 | Volume of cross stick sound |

**MEMO** Pressing the [F5 (H & R)] (H & R) button in the [F1 (VOLUME)], [F2 (PAN)], or [F3 (MIN VOL)] setting screen, you can choose to set the head and rim simultaneously or individually.

**5. Press the [EXIT] button to return to the "DRUM KIT" screen.**

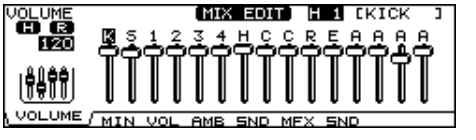
## Editing with the Group Faders (MIX EDIT)

Normally, the GROUP FADERS are used to adjust the volume balance of the TD-20X's output. However, you can also use these faders temporarily to edit the drum kit's mixer settings. This state is called "MIX EDIT."

**1. Press the [MIXER] and [FADER] buttons simultaneously.**

The [MIXER] button lights, and the [FADER] button flashes.

The upper indicator of the sliders will be lit (p. 30). (You can't make the lower indicator light.)




**2. Press the [F1]–[F3] buttons to select the parameter.**

**3. Move the fader which corresponds to the pad you wish to adjust.**

You can also use the [VALUE] dial, the [-] [+], or [CURSOR (up/down)] buttons.

| Parameter | Value | Description |
|---|---|---|
| **[F1 (VOLUME)] button** | | |
| **VOLUME** | 0–127 | Volume of each pad |
| **[F2 (MIN VOL)] button** | | |
| **MINIMUM VOLUME** | 0–15 | Minimum volume of each pad |
| **[F3 (AMB SND)] button** | | |
| **AMB SEND LEVEL** | 0–127 | Send level to the ambience for each pad |
| **[F4 (MFX SND)] button** | | |
| **MFX SEND LEVEL** | 0–127 | Send level to the multi-effects for each pad |

**MEMO** These settings are always common to the head and rim.

**4. Press the [EXIT] or [FADER] button to return to the "DRUM KIT" screen.**

**NOTE**

After pressing the [EXIT] or [FADER] button, the values for the GROUP FADERS sliders may not reflect the actual volume of the sound assigned to that fader. Be sure to move the faders a bit before making your setting.

# Copying Mixer Settings

The drum kit mixer's "VOLUME" (volume of each pad) and "PAN" (stereo position of each pad) settings can be copied to another drum kit in a single operation. You can also copy from a drum kit in preset memory or a CompactFlash card.

If you're copying from user memory, you can exchange the copy-source and copy-destination settings.

**NOTE**

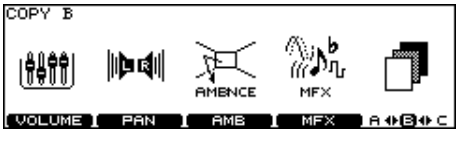
Be aware that when you execute the copy, the contents of the copy-destination will be overwritten.

**1. Press the [COPY] button.**

The [COPY] button will light, and the "COPY A" screen will appear.

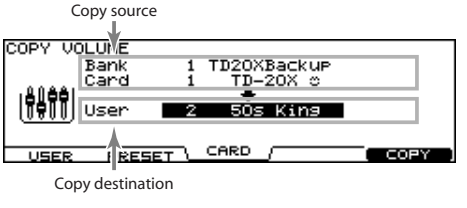
If a CompactFlash card (p. 91) is inserted in the CompactFlash card slot, the CompactFlash indicator will also light.

**2. Press the [F5 (A<>B<>C)] button to access the "COPY B" screen.**




**3. Press the [F1 (VOLUME)] or [F2 (PAN)] button to select the settings that you want to copy.**

(Example: When [F1 (VOLUME)] is selected)




**TIP**

The screen above can be accessed from the VOLUME or PAN setting screen (p. 56) by pressing the [COPY] button while you hold down the [SHIFT] button.

**4. Use the [F1]–[F3] buttons to select the copy-source.**

| Function button | |
|---|---|
| **[F1 (USER)]** | Copy from user memory.<br>Exchanging the copy-source and copy-destination is possible only if the copy-source is user memory. |
| **[F2 (PRESET)]** | Copy from preset memory.<br>You can choose from TDW-20's preset data or TD-20 preset data. Select this if you want to return to the factory-set kit settings. |
| **[F3 (CARD)]** | Copy from backup data saved on a CompactFlash card. |

**5. Use the [CURSOR], [-] [+] buttons, and the [VALUE] dial to specify the copy-source and copy-destination.**

If you selected [F2 (PRESET)] in step 4, specify whether you're copying from TD-20 or from TDW-20.

If you selected [F3 (CARD)] in step 4, select the copy-source backup number.

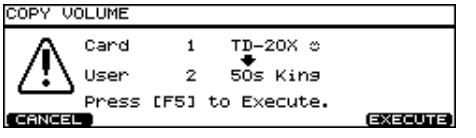
**6. Press the [F4 (EXCHNG)] or [F5 (COPY)] button.**

If you selected [F1 (USER)] in step 4, you can exchange the copy-source and copy-destination by pressing the [F4 (EXCHNG)] button.

Press the [F5 (COPY)] button to execute the copy.

A confirmation message will appear.

(Example: Copying mixer settings from a CompactFlash card)




If you decide to cancel the copy or exchange, press the [F1 (CANCEL)] button.

**7. Press the [F5 (EXECUTE)] button to execute.**

# Chapter 4. Effect Settings

The TD-20X provides the following effects, and allows you to make detailed settings for each effect.

### The TD-20X's effects

- **COMP/EQ (Pad compressor/equalizer):**
  These settings are made for each pad. They are called "pad compressor/equalizer" in order to distinguish them from the master compressor/equalizer.
- **AMBIENCE:**
  These settings are made for each drum kit, and you can specify how deeply the effect will apply to each instrument.
- **MULTI EFFECTS:**
  These settings are made for each drum kit, and you can specify how deeply the effect will apply to each instrument.
- **MASTER COMP/EQ:**
  This is a compressor and equalizer that are applied to the final output of the sound. These settings are made for each drum kit.

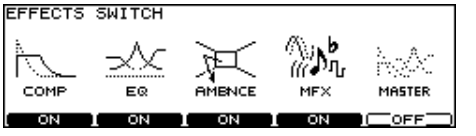
**cf.** See also the section "Effects" (p. 36) in "An overview of the TD-20X."

## Turning Effects On/Off [EFFECTS SWITCH]

These switches allow you to turn the Pad Comp/EQ, ambience, multi effects, and master comp/EQs on/off within each drum kit.

**1. Press the [EFFECTS SWITCH] button.**

The [EFFECTS SWITCH] button lights, and the "EFFECTS SWITCH" screen appears.



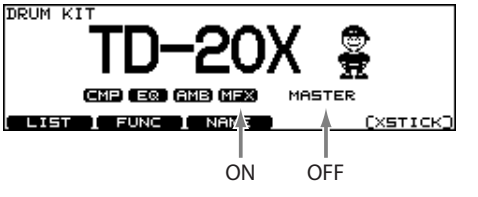

**2. Press the [F1]–[F5] buttons to turn the following on/off.**

| | |
|---|---|
| **[F1]** | Pad Compressor (*1) |
| **[F2]** | Pad Equalizer (*1) |
| **[F3]** | Ambience |
| **[F4]** | Multi-effects |
| **[F5]** | Master comp/EQ |

*1: All pad compressors or pad equalizers are turned on/off simultaneously.

**3. Press the [EXIT] button to return to the "DRUM KIT" screen.**

Effect on/off status appears in the "DRUM KIT" screen.



# Adjusting Volume Change and Tone [COMP/EQ]

Here's how to adjust the volume change and tone for each pad.

**1. Press the [COMP/EQ] button.**

The [COMP/EQ] button lights.

**2. Select the pad that you want to edit.**

Strike the desired pad, or use the TRIG SELECT buttons to select it.

**3. Use the [F2], [F3], or [CURSOR] buttons to select the parameter.**

| Function button | |
|---|---|
| **[F2 (COMP)]** | Pad compressor parameters appear. |
| **[F3 (EQ)]** | Pad equalizer parameters appear. |
| **[F5 (H & R)]** | You can choose to set the head and rim simultaneously or individually. |

**4. Use the [-] [+] buttons or the [VALUE] dial to adjust the setting.**

**NOTE** The sound may be distorted in a certain setting.

## Adjusting the Volume Change (Compressor) [F2 (COMP)]

A compressor adjusts the envelope (changes in the volume over time) and changes the character of the sound in response to playing dynamics.

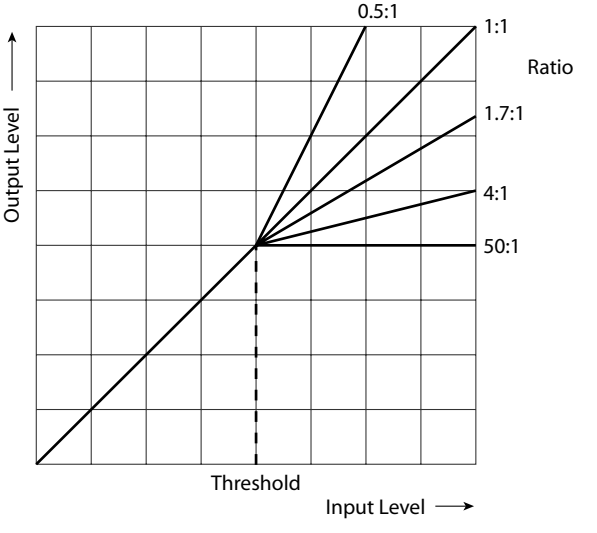

| Parameter | Value | Description |
|---|---|---|
| **Attack** | EMPHASIS | The "Time" setting will be set to emphasize the attack. |
| | CRUSH | The "Time" setting will be set to restrain the attack. |
| **Type** | COMP SOFT 1–2, COMP MED, COMP HARD, LIMITER, EXPANDER | This changes "Thre" and "ratio" values. |
| **Time** | KICK 1–3, SNARE1–3, TOM 1–3, CYM 1–2, OTHER1–3 | This changes "Atck," "Hold," and "Rels" values. |

For more detailed setting, adjust the parameters below.

| Parameter | Value | Description |
|---|---|---|
| **Gain** | -15– +20 (dB) | Output level of the compressor |
| **Thre (Threshold)** | -30–0 (dB) | Volume level at which compression begins |
| **Ratio** | 0.5:1–50:1 | Compression ratio |
| **Atck (Attack)** | 0–255 (ms) | Time from when the volume goes up the threshold level until the compressor effect applies |
| **Hold** | 2–9999 (ms) | Time compression is kept |
| **Rels (Release)** | 2–9999 (ms) | Time from when the volume falls below the threshold level until the compressor effect no longer applies |

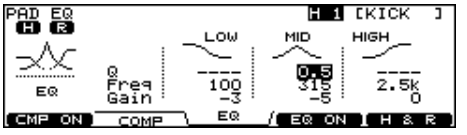
### About threshold and ratio

As shown in the diagram below, these parameters determine how the volume is to be compressed.



## Adjusting the Tone (Equalizer) [F3 (EQ)]

You can use three-band equalizers (for high, middle, and low frequency ranges) to adjust the sound.




| Parameter | Value | Description |
|---|---|---|
| **Q** | 0.5–8.0<br>(only for MID) | Width of the frequency range<br>A higher Q narrows the affected area. |
| **Freq (Frequency)** | 20–1k (LOW),<br>20–8k (MID),<br>1k–8k (HIGH) | Point at which the boost/cut will occur |
| **Gain** | -15– +15 (dB) | Amount of boost/cut |

## Turning the Compressor/Equalizer On/Off for Each Pad

**1. Press the [COMP/EQ] button.**

The [COMP/EQ] button lights.

**2. Select the pad that you want to edit.**

Strike the desired pad, or use the TRIG SELECT buttons to select it.

**3. Press the [F1] button to turn the compressor on/off for each pad.**

**4. Press the [F4] button to turn the equalizer on/off for each pad.**

| Indication | Description |
|---|---|
| CMP ON, EQ ON | The COMP/EQ settings are on, and the "EFFECTS SWITCH" (p. 58) is on. Effects will be applied. |
| [CMP ON], [EQ ON] | The COMP/EQ settings are on, and the "EFFECTS SWITCH" (p. 58) is off. Effects will not be applied. |
| [OFF] | The COMP/EQ settings are off. Effects will not be applied. |

MEMO

Pressing the [F5 (H & R)] button, you can choose to set the head and rim simultaneously or individually.

# Type of Acoustics for the Room (Ambience) [AMBIENCE]

You can choose the type of room where the drums are to be played and modify the sound.

**1. Press the [AMBIENCE] button.**

The [AMBIENCE] button lights.


**2. Use the [F2]–[F4] buttons or the [CURSOR] buttons to select the parameter.**

**3. Use the [-] [+] buttons or the [VALUE] dial to adjust the setting.**

| Parameter | Value | Description |
|---|---|---|
| **[F2 (TYPE)] button** | | |
| **Type** | BEACH,<br>LIVING ROOM,<br>BATH ROOM,<br>STUDIO,<br>GARAGE,<br>LOCKER ROOM,<br>THEATER,<br>CAVE,<br>GYMNASIUM,<br>DOME<br>STADIUM,<br>BOOTH A,<br>BOOTH B,<br>STUDIO A,<br>STUDIO B,<br>BASEMENT,<br>JAZZ CLUB,<br>ROCK CLUB,<br>BALLROOM,<br>GATE,<br>CONCERT HALL,<br>SPORTS ARENA,<br>EXPO HALL,<br>[FX]BOTTLE,<br>[FX] CITY<br>[FX] SPIRAL | Type of acoustics for the room |
| **Level** | 0–127 | Total ambience level |
| **OutGain (dB)** | 0, +6 | Boosts the amount of ambience. |

| Parameter | Value | Description |
|---|---|---|
| **[F3 (ROOM)] button** | | |
| **Room Size** | TINY, SMALL, MEDIUM, LARGE, HUGE | Room size |
| **Room Shape** | 0–100 | Shape of room and length of reverberation |
| **Wall Type** | CURTAIN CLOTH, WOOD, PLASTER, CONCRETE, GLASS | Wall material |
| **Mic Position** | NEXT DOOR, LOW FLOOR, LOW, MID LOW, MID, MID HIGH, HIGH, CEILING A, CEILING B | Ambience mic position |
| **[F4 (AMB SND)] button** | | |
| **Send Level** | 0–127 | Ambience send level for each instrument |

MEMO When in the "F3 (ROOM)" screen, pressing [SHIFT] button plus [F4] button resets all the parameters.

MEMO Pressing the [F5 (H & R)] button in the [F4 (AMB SND)] setting screen, you can choose to set the head and rim simultaneously or individually.

## Turning the Ambience switch on/off

**1. Press the [AMBIENCE] button.**

The [AMBIENCE] button will light.

**2. Press the [F1] button to turn ambience on/off.**

This is the same setting as turning ambience on/off in the "EFFECTS SWITCH" screen (p. 58).

## Auditioning the Ambience Effect [F5 (AMB MON)]

In the ambience edit screen, pressing the [F5 (AMB MON)] button will cause the MASTER OUT jacks and PHONES jack to output only the sound with ambience applied. This is a convenient way to audition the effect while you edit the settings.

You can use this while setting the [F2 (TYPE)] or [F3 (ROOM)] button.

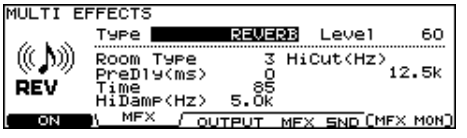
NOTE This is a temporary function that works only in the ambience edit screen. It will automatically be defeated when you access a different screen.

# Applying Effects to the Sound (Multi-Effects) [MULTI EFFECTS]

The multi-effects allow you to further customize your sound and also provides a choice of output configurations.

**1. Press the [MULTI EFFECTS] button.**

The [MULTI EFFECTS] button lights.




**2. Use the [F2]–[F4] and [CURSOR] buttons to select the parameter.**

**3. Use the [-] [+] buttons or the [VALUE] dial to adjust the setting.**

| Parameter | Value | Description |
|---|---|---|
| **[F2 (MFX)] button** | | |
| **Type** | REVERB, GATE REVERB, DELAY, PANNING DELAY, BEAT DELAY, FLANGER, PHASER, CHORUS, ENHANCER, PITCH SHIFT, OVERDRIVE, DISTORTION, LO-FI, RING MOD | Type of multi-effects |
| **Level** | 0–127 | Total effect level |
| **[F3 (OUTPUT)] button** | | |
| **OutGain (dB)** | 0, +6 | Boosts the volume of the effect. |
| **[F4 (MFX SND)] button** | | |
| **Send Level** | 0–127 | Effect send level for each instrument |

**MEMO** Pressing the [F5 (H & R)] button in the [F4 (MFX SND)] setting screen, you can choose to set the head and rim simultaneously or individually.

## Turning the multi-effects switch on/off

**1. Press the [MULTI EFFECTS] button.**

The [MULTI EFFECTS] button will light.

**2. Press the [F1] button to turn multi-effects on/off.**

This is the same setting as turning multi-effects on/off in the "EFFECTS SWITCH" screen (p. 58).

## Auditioning the Multi-Effects [F5 (AMB MON)]

In the multi-effects edit screen, pressing the [F5 (MFX MON)] button will cause the MASTER OUT jacks and PHONES jack to output only the sound with multi-effects applied. This is a convenient way to audition the effect while you edit the settings.

You can use this while setting the [F2 (MFX)] or [F3 (OUTPUT)] button.

**NOTE** This is a temporary function that works only in the multi-effects edit screen. It will automatically be defeated when you access a different screen.

## Multi-Effects Parameters

### REVERB

Adds reverberation to the sound, simulating an acoustic space.

| Parameter | Value | Description |
|---|---|---|
| **Room Type** | 1–5 | Type of reverb<br>1: Lite<br>2: Medium<br>3: Deep<br>4: Shallow<br>5: Thin |
| **PreDly** | 0–100.0 (ms) | Time until the reverb is heard |
| **Time** | 0–127 | Duration of reverberation |
| **HiDamp** | 4.0 k–12.5 k (Hz), THRU | Frequency above which the reverb is reduced in level |
| **HiCut** | 160–12.5k (Hz), THRU | Frequency above which the high-frequency content of the reverb sound is filtered out |

### GATE REVERB

This is a special type of reverb in which the reverb is cut off without being allowed to decay naturally.

| Parameter | Value | Description |
|---|---|---|
| **Room Type** | 1–5 | Type of reverb<br>1: Lite<br>2: Medium<br>3: Deep<br>4: Shallow<br>5: Thin |
| **Time** | 0–127 | Duration of reverberation |
| **HiCut** | 160–12.5k (Hz), THRU | Frequency above which the high-frequency content of the reverb sound is filtered out |
| **HiDamp** | 4.0k–12.5k (Hz), THRU | Frequency above which the reverb is reduced in level |
| **Thre (Threshold)** | -60– +12 (dB) | Volume level at which the reverb starts to be gated |
| **Hold** | 0.05–2.00 (s) | Time from when the reverb level falls below the "Threshold" until the gate starts to close |
| **Rels (Release)** | 0–200 (ms) | Time from the start to the completion of the gate closing process |

### DELAY

Adds the delay sound.

| Parameter | Value | Description |
|---|---|---|
| **Time** | 0–2000 (ms) | Time until the delay sound is heard |
| **Feedback** | -98–98 (%) | Amount of the delay sound that is fed back into the effect (minus: inverts the phase) |

### PANNING DELAY

This is a delay effect with echoes that pan left and right.

| Parameter | Value | Description |
|---|---|---|
| **TimeL** | 0–1500 (ms) | Time until the delay sound is heard |
| **TimeR** | | |
| **Level L** | 0–127 | Volume level of the delay sound |
| **Level R** | | |
| **Feedback** | -98–98 (%) | Amount of the delay sound that is fed back into the effect (minus: inverts the phase) |

### BEAT DELAY

This is a delay effect that synchronizes with a tempo in sequencer.

| Parameter | Value | Description |
|---|---|---|
| **Time** | 32th note–half note | Time until the delay sound is heard |
| **Shift** | -half note–±0–+half note | Time of shifting the interval between the 1st and 2nd delay |
| **Level 1** | 0–127 | Volume level of the delay sound |
| **Level 2** | | |
| **Pan 1** | L15–CTR–R15 | Stereo position of the delay sound |
| **Pan 2** | | |
| **Feedback** | -98–98 (%) | Amount of the delay sound that is fed back into the effect (minus: inverts the phase) |

**NOTE** If you set the pattern tempo, "Time," and "Shift" to make the delay time over 1500 ms, the delay time cannot be more than 1500 ms.

## FLANGER

Produces a metallic resonance that rises and falls somewhat like a jet airplane taking off or landing.

| Parameter | Value | Description |
|---|---|---|
| **Delay** | 0–15.0 (ms) | Tone of the flanger |
| **LFO Rate** | 1–128 | Frequency of modulation |
| **Depth** | 0–127 | Depth of modulation |
| **Feedback** | -98–98 (%) | Amount of the flanger sound that is fed back into the effect (minus: inverts the phase) |
| **Phase** | 0–180 | Spatial spread of the sound |

## PHASER

Adds a phase-shifted sound to the original sound, producing a swirling modulation.

| Parameter | Value | Description |
|---|---|---|
| **Freq** | 100–8000 (Hz) | Basic frequency at which the sound will be modulated |
| **LFO Rate** | 1–128 | Frequency of modulation |
| **Depth** | 0–127 | Depth of modulation |
| **Resonance** | 0–127 | Amount of feedback |

## CHORUS

Gives richness and spaciousness to the sound.

| Parameter | Value | Description |
|---|---|---|
| **Delay** | 8.0–30.0 (ms) | Tone of the chorus |
| **LFO Rate** | 1–128 | Frequency of modulation |
| **Depth** | 0–127 | Depth of modulation |
| **Phase** | 0–180 | Spatial spread of the sound |

## ENHANCER

Controls the overtone structure of the high frequencies, adding sparkle and brightness to the sound.

| Parameter | Value | Description |
|---|---|---|
| **Sens** | 0–127 | Sensitivity of the enhancer |
| **LF Level** | 0–127 | Volume level of the low frequency range of the direct sound |

## PITCH SHIFT

Shifts the pitch of the original sound.

| Parameter | Value | Description |
|---|---|---|
| **Mode** | 1–5 | Setting a higher value results in a slower response, but steadier pitch. |
| **Delay** | 0–100.0 (ms) | Time until the pitch-shifted sound is heard |
| **Coarse** | -24–12 | Amount of pitch shift (semitone steps) |
| **Fine** | -100–100 | Amount of pitch shift (2-cent steps) |
| **Feedback** | -98–98 (%) | Amount of the pitch-shifted sound that is fed back into the effect (minus: inverts the phase) |

## OVERDRIVE

Creates a soft distortion similar to that produced by vacuum tube amplifiers.

| Parameter | Value | Description |
|---|---|---|
| **Drive** | 0–127 | Amount of distortion |
| **HF Level** | 0–127 | Level of high frequency range |
| **LF Bypass** | OFF, ON | Bypass for the low frequency range<br>When this is set to "OFF," the low frequency range also has a distortion sound. |
| **Expanse** | OFF, ON | Adding the spatial spread of the sound |

## DISTORTION

Produces a more intense distortion than Overdrive.

| Parameter | Value | Description |
|---|---|---|
| **Gain** | 0–127 | Amount of distortion |
| **HF Level** | 0–127 | Level of high frequency range |
| **LF Bypass** | OFF, ON | Bypass for the low frequency range<br>When this is set to "OFF," the low frequency range also has a distortion sound. |
| **Expanse** | OFF, ON | Adding the spatial spread of the sound |

### LO-FI

Intentionally degrades the sound quality for creative purposes.

| Parameter | Value | Description |
|---|---|---|
| **Fs Rate** | OFF, 1/2–1/32 | Sample rate |
| **Bit** | OFF, 15–1 | Number of bits in data |
| **BPF Cutoff** | 0–100 | Cutoff frequency of the BPF (Band Pass Filter) |
| **BPF Mix** | 0–127 | Amount of mixing the sound that goes through the BPF |

### RING MOD

Applies amplitude modulation (AM) to the input signal, producing bell-like sounds.

| Parameter | Value | Description |
|---|---|---|
| **Freq** | 0–127 | Frequency at which modulation is applied |

# Adjusting the Overall Sound [MASTER COMP/EQ]

You can make settings for the stereo compressor/limiter and three-band parametric EQ (equalizer) that are applied to the final stage of the master output. These settings can be used for individual kits and/or all kits.

## Using the Master Comp/EQ

### Using the master compressor

- When used as a compressor, this allows you to raise the overall loudness of the drums by compressing brief peaks in the sound. This lets the sound project better, without being buried in the mix by the other instruments.
- When used as a comp-limiter, this lets you increase the recording level while limiting the maximum input to the recording device.
- If you're using a small monitor amp, you can use this effect as a limiter so that the peaks of the drum sound are limited, making the sound less likely to distort.

### Using the master EQ

- This lets you adjust the tonal character by boosting or cutting each of the three bands (low, mid, and high-frequencies).
- You can also use this to make compensations in the tone when using the master comp.

## Turning the Master Comp/EQ Switch On/Off

1. **Press the [MASTER COMP/EQ] button.**

   The [MASTER COMP/EQ] button will light.

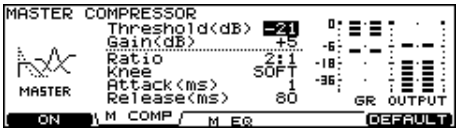
2. **Press the [F1] button to turn the MASTER COMP/EQ on/off.**

   This is the same setting as turning MASTER COMP/EQ on/off in the "EFFECTS SWITCH" screen (p. 58).

## Editing the Master Comp/EQ Settings

**1. Press the [MASTER COMP/EQ] button.**

The [MASTER COMP/EQ] button lights.




**2. Use the [F2], [F3], or [CURSOR] buttons to select the parameter.**

**3. Use the [-] [+] buttons or the [VALUE] dial to adjust the setting.**

| Parameter | Value | Description |
|---|---|---|
| **[F2 (M COMP)] button** | | |
| **Threshold** | -48–0 (dB) | Volume level at which compression begins |
| **Gain** | -24– +24 (dB) | Output volume of compressor |
| **Ratio** | 1:1, 2:1, 3:1, 4:1, 8:1, ∞:1 | Compression ratio |
| | **MEMO** If "Ratio" is set to "1:1" the master comp effect will not be applied (only the Gain setting will be valid), regardless of the other settings. | |
| **Knee** | SOFT, HARD | The sound's attack at the moment compression begins. |
| **Attack** | 0.1, 0–100 (ms) | Time from when the volume goes up the threshold level until the compressor effect applies |
| **Release** | 10–100 (ms) | Time from when the volume falls below the threshold level until the compressor effect no longer applies |
| **[F3 (M EQ)] button** | | |
| **Type** | SHELV (Shelving), | Entire range above/below the selected frequency range is boosted/cut |
| | PEAK (MID: fixed to "PEAK") | The vicinity of the selected frequency range is boosted/cut |
| **Q** | 0.5–8.0 (only when Type is set to "PEAK") | Width of the frequency range A higher Q narrows the affected area. |
| **Freq (Frequency)** | 20–1k (LOW), 20–16K (MID), 1k–16k (HIGH) (Hz) | Point at which the boost/cut will occur |
| **Gain** | -12– +12 (dB) | Amount of boost/cut |

**NOTE** The sound may be distorted in a certain setting.

**MEMO** You can choose whether the master compressor/equalizer settings will be independent for each kit, or be shared for all kits (p. 112).

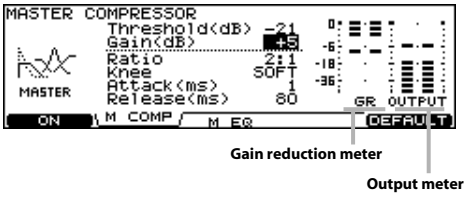
## Gain Reduction Meter and Output Meter

In the "F2 (M COMP)" screen, the "Gain Reduction Meter" and the "Output Meter" are displayed.

The "gain reduction meter" shows the change in level (dB) produced by the master compressor.

The "output meter" shows the output level following the master compressor and EQ.

Adjust the master compressor's "Gain" so that the output meter does not exceed 0 dB (i.e., so that it does not clip).




**NOTE** The output meter shows only the level of the output signal from the MASTER OUT jacks and DIGITAL OUT jack. It does not show the level of the output signal from the PHONES jack or the DIRECT OUT jacks.

## Restoring the Settings to Their Default Values

Here's how to restore the master compressor settings to the default state (an appropriate amount of effect). For details on the actual values, refer to the "Master compressor setting examples" below.

**1. Press the [MASTER COMP/EQ] button.**

The [MASTER COMP/EQ] button will light.

**2. Press the [F5 (DEFAULT)] button.**

A confirmation screen will appear.

**3. Press the [F5 (EXECUTE)] button to execute.**

**MEMO** In the "M EQ" screen, pressing the [F5 (DEFAULT)] button will set the master EQ "Gain" to "0."

## Master compressor setting examples

Here are some example settings for using the master compressor in various ways.

Based on these settings, you can adjust the "Threshold" and "Gain" values appropriately.

### Increasing the loudness

| Parameter | Value |
|---|---|
| **Threshold** | -22 |
| **Gain** | +6 |
| **Ratio** | 2:1 |
| **Knee** | Soft |
| **Attack** | 1 |
| **Release** | 100 |

**MEMO** These settings are the defaults that can be obtained by pressing the [F5 (DEFAULT)] button when "Master Comp/EQ" (p. 112) is set to "EACH KIT."

### Compressing the volume peaks to limit excessive input levels

This is useful when you're sending the sound to an external mixer or monitor amp for recording or live performance.

| Parameter | Value |
|---|---|
| **Threshold** | -15 |
| **Gain** | +3 |
| **Ratio** | 4:1 |
| **Knee** | Hard |
| **Attack** | 20 |
| **Release** | 50 |

### Restricting the maximum volume to below the Threshold level

This is useful when you're sending the sound from the MASTER OUT jacks or DIGITAL OUT jack to be recorded directly, or when you want to prevent your monitor amp sound from distorting.

| Parameter | Value |
|---|---|
| **Threshold** | -10 |
| **Gain** | 0 |
| **Ratio** | ∞:1 |
| **Knee** | Hard |
| **Attack** | 0.1 |
| **Release** | 30 |

**MEMO** These settings are the defaults that can be obtained by pressing the [F5 (DEFAULT)] button when "Master Comp/EQ" (p. 112) is set to "GLOBAL."

**MEMO** The TD-20X's preset memory drum kits are adjusted so that if you turn the master comp/EQ on, the loudness will increase without appreciably changing the peak levels.

**MEMO** You can specify whether the master comp/EQ settings will be independent for each drum kit, or will be used by all kits in common (p. 112).

**NOTE** The master comp/EQ effect is applied to the sound that is sent from the MASTER OUT jacks, the DIGITAL OUT jack, and the PHONES jack.
The master comp/EQ effect is not applied to the DIRECT OUT 1–8 jacks.

# Copying Effect Settings

Here's how a drum kit's ambience settings (AMBIENCE) or multi-effect settings (MFX) can be copied to another drum kit in a single operation. You can also copy from a drum kit that's in preset memory or on a CompactFlash card.

If you're copying from user memory, you can exchange the copy-source and copy-destination settings.

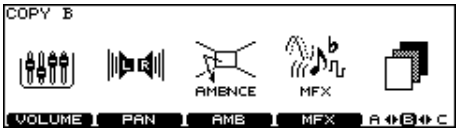
**NOTE** Be aware that when you execute the copy, the contents of the copy-destination will be overwritten.

**1. Press the [COPY] button.**

The [COPY] button will light, and the "COPY A" screen will appear.

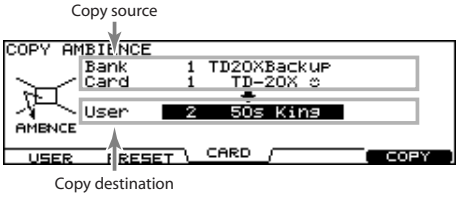
If a CompactFlash card (p. 91) is inserted in the CompactFlash card slot, the CompactFlash indicator will also light.

**2. Press the [F5 (A<>B<>C)] button to access the "COPY B" screen.**




**3. Press the [F3 (AMB)] or [F4 (MFX)] button to select the settings that you want to copy.**

(Example: When [F3 (AMB)] is selected)




**TIP** The screen above can be accessed from the ambience setting screen (p. 60) or the multi-effects setting screen (p. 62) by pressing the [COPY] button while you hold down the [SHIFT] button.

**4. Use the [F1]–[F3] buttons to select the copy-source.**

| Function button | |
|---|---|
| **[F1 (USER)]** | Copy from user memory.<br>Exchanging the copy-source and copy-destination is possible only if the copy-source is user memory. |
| **[F2 (PRESET)]** | Copy from preset memory.<br>You can choose from TDW-20's preset data or TD-20 preset data. Select this if you want to return to the factory-set kit settings. |
| **[F3 (CARD)]** | Copy from backup data saved on a CompactFlash card. |

**5. Use the [CURSOR] buttons, [-] [+] buttons, and [VALUE] dial to specify the copy-source and copy-destination.**

If you selected [F2 (PRESET)] in step 4, specify whether you're copying from TD-20 or from TDW-20.

If you selected [F3 (CARD)] in step 4, select the copy-source backup number.

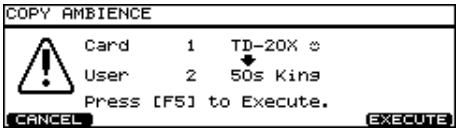
**6. Press the [F4 (EXCHNG)] or [F5 (COPY)] button.**

If you selected [F1 (USER)] in step 4, you can exchange the copy-source and copy-destination by pressing the [F4 (EXCHNG)] button.

Press the [F5 (COPY)] button to execute the copy.

A confirmation message will appear.

(Example: Copying effect settings from a CompactFlash card)




If you decide to cancel the copy or exchange, press the [F1 (CANCEL)] button.

**7. Press the [F5 (EXECUTE)] button to execute.**

**MEMO** The "Send Level" (p. 61) is included in the ambience settings copied by this operation.
Similarly, the "Send Level" (p. 62) is also included in the multi-effect settings copied by this operation.

**MEMO** The comp/EQ settings for each pad (instrument) can be copied as described in "Copying an Instrument" (p. 54).

# Chapter 5. Playing Patterns—Sequencer

The TD-20X's sequencer organizes music into six "parts." The Drum Kit part is used to record/play back what is played on the pads. Additionally, Melody Part, Bass Part, Backing 1 Part, and Backing 2 Part are the four backing instrument parts, and there is another Percussion part.

The collective performance of these six parts is called a "pattern."

### Preset Patterns (Pattern P 1–150)

Settings in Preset patterns cannot be modified. These patterns are provided for use in practicing or live performances. You cannot erase nor make changes in the performance data of a Preset pattern. Recording to them is also not allowed.

### User Patterns (Pattern U 151–250)

These are patterns for you to use as you wish. You can record directly from the pads or an external MIDI keyboard in real time (p. 83). User pattern settings are saved automatically.

## Using Preset Patterns

As you cannot record over a preset pattern, the following appears in the display if you press the [REC] button.

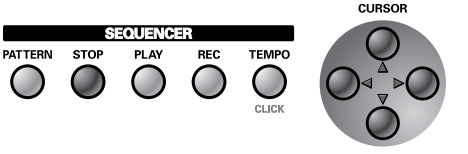

If you want to change, edit, or record any Preset pattern settings, copy them to a User pattern (p. 86).

### About Preset Pattern Copyright

The sounds, phrases and patterns contained in this product are sound recordings protected by copyright. Roland hereby grants to purchasers of this product the permission to utilize the sound recordings contained in this product for the creation and recording of original musical works; provided however, the sound recordings contained in this product may not be sampled, downloaded or otherwise re-recorded, in whole or in part, for any other purpose, including but not limited to the transmission of all or any part of the sound recordings via the internet or other digital or analog means of transmission, and/or the manufacture, for sale or otherwise, of any collection of sampled sounds, phrases or patterns, on CD-ROM or equivalent means.

The sound recordings contained in this product are the original works of Roland Corporation. Roland is not responsible for the use of the sound recordings contained in this product, and assumes no liability for any infringement of any copyright of any third party arising out of use of the sounds, phrases and patterns in this product.

## Basic Operation



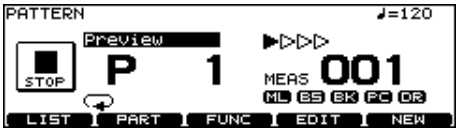

| Button | Description |
|---|---|
| **[PATTERN]** | Selects patterns. This displays the basic screen for the sequencer. |
| **[STOP]** | Stops playback of the pattern. When pressed while the pattern is stopped, this returns you to the beginning of the pattern. |
| **[PLAY]** | Starts playback of the pattern. |
| **[REC]** | Enters record-standby mode. |
| **[TEMPO]** | Sets the Tempo (p. 79). |
| **[CURSOR (up)]** | When pressed while the pattern is stopped, this returns you to the beginning of the pattern. |
| **[CURSOR (left)]** | When pressed while the pattern is stopped, this returns you to the previous measure in the pattern. |
| **[CURSOR (right)]** | When pressed while the pattern is stopped, this advances you to the next measure in the pattern. |
| **[CURSOR (down)]** | When pressed while the pattern is stopped, this advances you to the end of the pattern. |

MEMO The [CURSOR] buttons cannot be used while the pattern is played back.

# Choosing a Pattern [PATTERN]

**1. Press the [PATTERN] button.**

The [PATTERN] button lights, and the "PATTERN" screen appears.

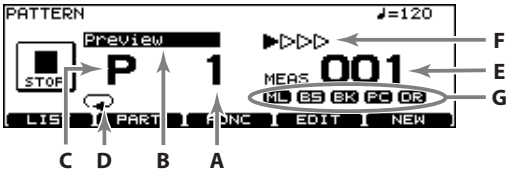



**2. Use the [-] [+] buttons or the [VALUE] dial to select the pattern.**

MEMO

If you press the [F5 (NEW)] button, an empty pattern with the lowest number is called up.

## About the "PATTERN" screen




| | | |
|---|---|---|
| **A** | Pattern Number | Currently selected pattern number. |
| **B** | Pattern Name | The name of the currently selected pattern. |
| **C** | Pattern Type | "P" is displayed for preset patterns, and "U" is displayed for user patterns. When choosing an empty pattern, an asterisk (*) appears. |
| **D** | Pattern Playback Type (p. 78) | |
| **E** | Measure Number | Playback begins from the measure indicated here when the [PLAY] button is pressed. |
| **F** | Beat | |
| **G** | Part Mute Status (p. 71) | |

| Function button | |
|---|---|
| **[F1 (LIST)]** | View the pattern list. |
| **[F2 (PART)]** | Make settings for each part of the pattern (p. 71). |
| **[F3 (FUNC)]** | Make settings for a user pattern (p. 77). |
| **[F4 (EDIT)]** | Edit a user pattern (p. 85). |
| **[F5 (NEW)]** | Select an empty pattern (p. 83). Use this when you want to record a new pattern. |

MEMO

When you have finished making the settings, press the [PATTERN] button to bring up the "PATTERN" screen. This prevents data from being overwritten inadvertently during performance.

# Selecting a Pattern from the List [F1 (LIST)]

Here you can select patterns from a list of pattern names.

Pattern number, pattern name, beat, measure length, pattern playback type, and tempo are displayed.

**1. Press the [PATTERN] button.**

The "PATTERN" screen appears.

**2. Press the [F1 (LIST)] button.**

The "PATTERN LIST" screen appears.


| Function button | |
|---|---|
| **[F1 (▲ PAGE)]** | The previous page of the list appears. |
| **[F2 (PAGE ▼)]** | The next page of the list appears. |
| **[F4 (PRE<>USR)]** | Switches between preset patterns and user patterns. |
| **[F5 (NEW)]** | An empty pattern with the lowest number is called up. |

**3. Use the [VALUE] dial, the [-] [+], or [CURSOR (up/down)] buttons to select the pattern.**

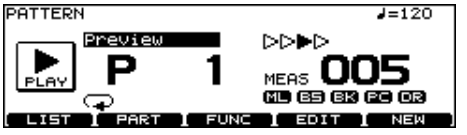
**4. Press the [EXIT] button to return to the "PATTERN" screen.**

# Playing Back a Pattern [PLAY]

1. **Select the pattern to play.**

2. **Press the [PLAY] button.**

   The [PLAY] button lights, and playback of the pattern begins.




3. **Press the [STOP] button to stop playback of the pattern.**

   The [PLAY] button goes off, and returns to the beginning of the measure played at that moment.

4. **Press the [STOP] button once again to return to beginning of the pattern.**

**MEMO** For details on the tempo settings for playing a pattern, refer to "Specifying the Tempo [TEMPO]" (p. 79).

# Making Settings for Each Part [F2 (PART)]

If you want to change the settings for each part of a pattern (mainly for a user pattern), access the "PATTERN PART" screen as follows.

1. **Press the [PATTERN] button.**

   The "PATTERN" screen appears.

2. **Press the [F2 (PART)] button.**

   The "PATTERN PART" screen appears.
   Pressing the [EXIT] button will take you back to the "PATTERN" screen.


| Function button | |
|---|---|
| **[F1 (MUTE)]** | Mute (silence) a specific part. |
| **[F2 (BACKING)]** | Make instrument settings for the backing parts (p. 72). |
| **[F3 (PERC)]** | Make settings for the percussion part (p. 73). |
| **[F4 (MIXER)]** | Make volume and pan settings for each part (p. 76). |
| **[F5 (REV/CHO)]** | Make reverb/chorus settings for the backing parts (p. 77). |

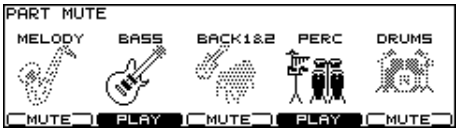
**NOTE** If a preset pattern is selected, you won't be able to change any settings other than [F1 (MUTE)]. Unavailable editing icons are shown as "🔒".

## Muting a Specific Part [F1 (MUTE)]

You can mute specific parts in patterns.

1. **In the "PATTERN PART" screen, press the [F1 (MUTE)] button.**

   The "PART MUTE" screen appears.

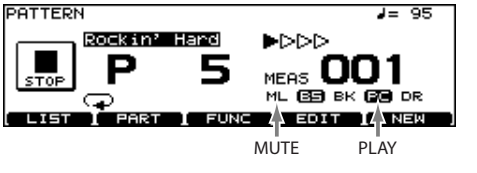



2. **Press the [F1]–[F5] buttons to turn each part muted or played.**

| Function button | |
|---|---|
| **[F1]** | Melody Part |
| **[F2]** | Bass Part |
| **[F3]** | Backing 1 Part + Backing 2 Part |
| **[F4]** | Percussion Part |
| **[F5]** | Drum Kit Part |

3. **Press the [EXIT] button to return to the "PATTERN PART" screen.**

**MEMO** You can check the part mute status in the "PATTERN" screen.



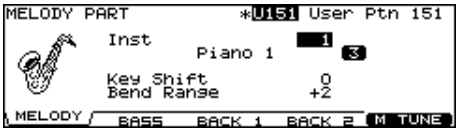

| Display | Part |
|---|---|
| **ML** | Melody Part |
| **BS** | Bass Part |
| **BK** | Backing Part |
| **PC** | Percussion Part |
| **DR** | Drum Kit Part |

## Specifying the Instruments for the Backing Parts [F2 (BACKING)]

Here's how to select the instruments to be used by backing parts (parts other than the drum and percussion parts), and make settings for the Key Shift (change pitch in semitone steps).

**1. In the "PATTERN PART" screen (p. 71), press the [F2 (BACKING)] button.**

The "MELODY (BASS, BACKING 1, BACKING 2)PART" screen appears.




**2. Press the [F1]–[F4] buttons to select the part you wish to set.**

| Function button | |
|---|---|
| **[F1]** | Melody Part |
| **[F2]** | Bass Part |
| **[F3]** | Backing 1 Part |
| **[F4]** | Backing 2 Part |

**3. Use the [CURSOR (up/down)] buttons to select the parameter.**

**4. Use the [-] [+] buttons or the [VALUE] dial to make settings.**

| Parameter | Value | Description |
|---|---|---|
| **Inst** | Refer to "Backing Instrument List" (p. 138) | Part Instrument |
| **Key Shift** | -24–0– +24 | Shifts the overall pitch (in semitone steps). |
| **Bend Range** | 0– +24 | Amount of change in pitch with pitch bend at the maximum level (in semitone steps). |

**5. Press the [EXIT] button to return to the "PATTERN PART" screen.**

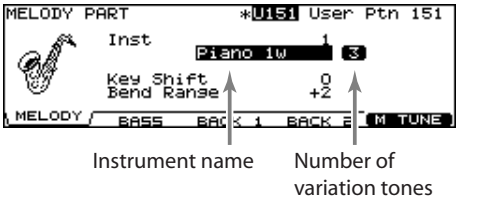
### Instrument Numbers/Instrument Names

You can change the tone by changing the instrument number. Selecting different variations within each instrument number changes the instrument name, with a different tone being selected.

Instrument numbers correspond to the program numbers (1-128).

### Variation Tones

These are slightly varied tone types found in an instrument number. The number of variation tones varies with the instrument number.



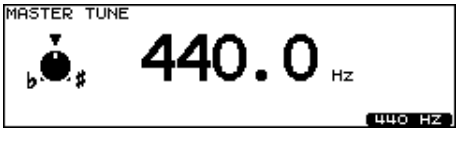

## Tuning Settings for the Backing Parts (Master Tuning)

Here you can adjust the overall tuning for the backing parts.

**1. In the "PATTERN PART" screen (p. 71), press the [F2 (BACKING)] button.**

**2. Press the [F5 (M TUNE)] button.**

The "MASTER TUNE" screen appears.




**3. Use the [-] [+] buttons or the [VALUE] dial to make setting.**

| Parameter | Value |
|---|---|
| **Master Tune** | 415.3–466.2Hz |

You can set this to 440.0 Hz by pressing the [F5 (440 Hz)] button.

**4. Press the [EXIT] button twice to return to the "PATTERN PART" screen.**

## Percussion Part Settings [F3 (PERC)]

### Choosing a Percussion Set

An assembled group of different percussion instruments is called a "percussion set." Since each note number has been assigned a different percussion instrument, a multiple number of instruments can be played at one time.

**1. In the "PATTERN PART" screen (p. 71), press the [F3 (PERC)] button.**

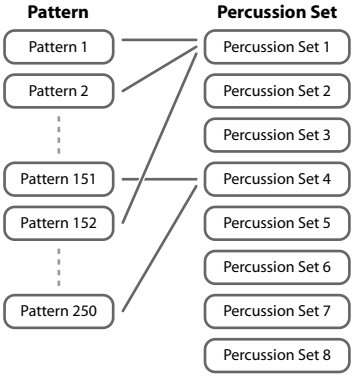
The "PERCUSSION PART" screen appears.


**2. Use the [-] [+] buttons or the [VALUE] dial to select the percussion set.**

#### About the Percussion Sets

The TD-20X features eight percussion sets.

You can select which percussion set is to be used in each pattern in the "PERCUSSION PART" screen.




Changing a percussion set's instrument settings simultaneously changes the percussion instruments in patterns using the same percussion sets.

MEMO

The preset patterns use percussion sets 1–5. If you change the percussion set settings, it is recommended that you first copy the percussion set you want to change to percussion set 6 or other percussion set, then change the settings in the copy.

## Percussion Set Settings

**1. In the "PERCUSSION PART" screen, press the [F5 (EDIT)] button.**

The "PERCUSSION SET EDIT" screen appears.


**2. Make settings of the percussion set.**

**3. When finished, press the [EXIT] button to return to the "PERCUSSION PART" screen.**

### Selecting a percussion instrument

Select an instrument for each note number.

**1. In the "PERCUSSION SET EDIT" screen, use the [CURSOR (up/down)] buttons to select the note number.**

**2. Use the [VALUE] dial or the [-] [+] buttons to select the instrument.**

MEMO

You can listen the sound of instrument by pressing the [PREVIEW] button.

## Selecting a percussion instrument from the list [F1 (LIST)]

Here you can select from the list of all available instruments.

1. **In the "PERCUSSION SET EDIT" screen (p. 73), use the [CURSOR (up/down)] buttons to select the note number.**

2. **Press the [F1 (LIST)] button.**

   The "PERCUSSION SET INST LIST" screen appears.


| Function button | |
|---|---|
| **[F1 (< PAGE)]** | Previous page of the list appears. |
| **[F2 (PAGE >)]** | The next page of the list appears. |
| **[F5 (OFF)]** | Selects the instrument #561 (OFF). |

3. **Use the [VALUE] dial, the [-] [+], or [CURSOR] buttons to select the instrument.**

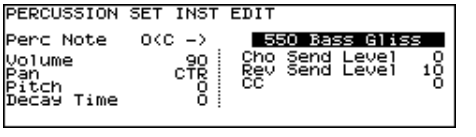
4. **Press the [EXIT] button to return to the "PERCUSSION SET EDIT" screen.**

## Settings the volume and pan for each percussion instrument [F2 (EDIT)]

Set the volume, pan, pitch, decay, etc. for each percussion instrument.

1. **In the "PERCUSSION SET EDIT" screen (p. 73), press the [F2 (EDIT)] button.**

   The "PERCUSSION SET INST EDIT" screen appears.




2. **Use the [CURSOR] buttons to select the parameter.**

3. **Use the [-] [+] buttons or the [VALUE] dial to make settings.**

| Parameter | Value | Description |
|---|---|---|
| **Perc Note** | 0 (C -)–127 (G 9) | Note number to be set |
| **(Inst)** | Refer to "Drum Instrument List" (p. 131). | Instrument |
| **Volume** | 0–127 | – |
| **Pan** | L15–CTR–R15 | Stereo position |
| **Pitch** | -480–+480 | – |
| **Decay Time** | -31–+31 | – |
| **Cho Send Level** | 0–127 | Amount of chorus |
| **Rev Send Level** | 0–127 | Amount of reverb |
| **CC** | 0–127 | Specifies how the instrument which changes the tone like a snare (striking position) or hi-hat (pedal position) sounds. |

4. **Press the [EXIT] button to return to the "PERCUSSION SET EDIT" screen.**

## Naming a percussion set [F3 (NAME)]

Each percussion set can be named (up to 12 characters).

**1. In the "PERCUSSION SET EDIT" screen (p. 73), press the [F3 (NAME)] button.**

The "PERCUSSION SET NAME" screen appears.


| Function button | |
|---|---|
| **[F1 (INSERT)]** | A blank space is inserted at the cursor position. |
| **[F2 (DELETE)]** | Character at the cursor position is deleted. |
| **[F3 (SPACE)]** | Character at cursor position is replaced by a blank space. |
| **[F4 (CHAR)]** | Character at the cursor position changes between uppercase/lowercase alphabet, or numbers and symbols. |

**2. Use the [CURSOR (left/right)] buttons to move the cursor to the character to be changed.**

**3. Use the [VALUE] dial, the [-] [+], or [CURSOR (up/down)] buttons to change the character.**

**4. Press the [EXIT] button to return to the "PERCUSSION SET EDIT" screen.**

## Copying a percussion set

You can copy a percussion set from preset memory or from a CompactFlash card.

For user memory, you can rearrange the data by exchanging the copy-source and copy-destination percussion sets.

**NOTE**

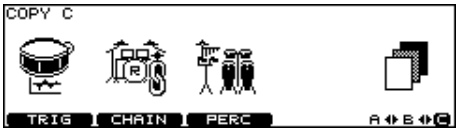
Be aware that when you execute the copy, the contents of the copy-destination will be overwritten.

**1. Press the [COPY] button.**

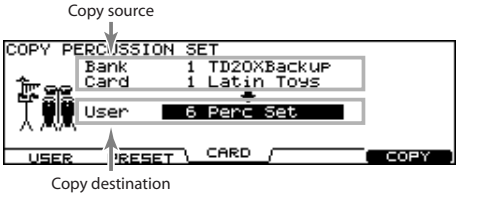
The [COPY] button will light, and the "COPY A" screen will appear (p. 91).

If a CompactFlash card (p. 91) is inserted in the CompactFlash card slot, the CompactFlash indicator will also light.

**2. Press the [F5 (A<>B<>C)] button twice to access the "COPY C" screen.**




**3. Press the [F3 (PERC)] button.**




**4. Use the [F1]–[F3] buttons to select the copy-source.**

| Function button | |
|---|---|
| **[F1 (USER)]** | Copy from user memory.<br>Exchanging the copy-source and copy-destination is possible only if the copy-source is user memory. |
| **[F2 (PRESET)]** | Copy from preset memory.<br>Choose this if you want to return to the factory settings. |
| **[F3 (CARD)]** | Copy from backup data saved on a CompactFlash card. |

**5. Use the [CURSOR], [-] [+] buttons, and [VALUE] dial to specify the copy-source and copy-destination.**

If you selected [F3 (CARD)] in step 4, select the copy-source backup number.

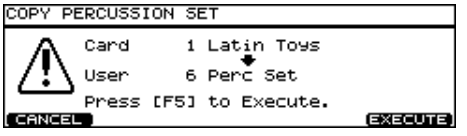
**6. Press the [F4 (EXCHNG)] or [F5 (COPY)] button.**

If you selected [F1 (USER)] in step 4, you can exchange the copy-source and copy-destination by pressing the [F4 (EXCHNG)] button.

Press the [F5 (COPY)] button to execute the copy.

A confirmation message will appear.

(Example: Copying settings from a CompactFlash card)




If you decide to cancel the copy or exchange, press the [F1 (CANCEL)] button.

**7. Press the [F5 (EXECUTE)] button to execute.**

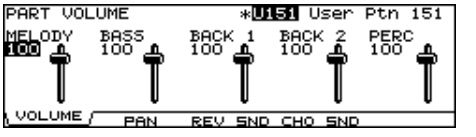
## Setting the Volume and Pan of Each Part [F4 (MIXER)]

MEMO

- Drum part cannot be set here. Set in the MIXER settings (p. 56).
- To adjust volume/pan settings for each instrument of the percussion part, refer to p. 73.

**1. In the "PATTERN PART" screen (p. 71), press the [F4 (MIXER)] button.**

The "PART VOLUME", "PART PAN", "PART REVERB SEND LEVEL", or "PART CHORUS SEND LEVEL" screen appears.




**2. Press the [F1]–[F4] buttons to select the parameter.**

**3. Use the [CURSOR (left/right)] buttons to select the part you wish to set.**

**4. Use the [VALUE] dial, the [-] [+], or [CURSOR (up/down)] buttons to make settings.**

| Parameter | Value | Description |
|---|---|---|
| **[F1 (VOLUME)] button** | | |
| PART VOLUME | 0–127 | Volume of each part<br>The percussion part (PERC) specifies the volume of the entire part. |
| **[F2 (PAN)] button** | | |
| PART PAN | L15–CTR–R15 | Panning of each part |
| **[F3 (REV SND)] button** | | |
| PART REVERB SEND LEVEL | 0–127 | Reverb depth of each part |
| **[F4 (CHO SND)] button** | | |
| PART CHORUS SEND LEVEL | 0–127 | Chorus depth of each part |

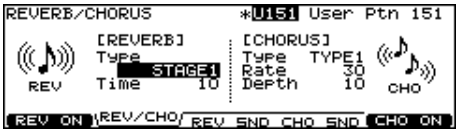
**5. Press the [EXIT] button to return to the "PATTERN PART" screen.**

## Applying Reverb/Chorus to the Backing Parts [F5 (REV/CHO)]

Set the amount of reverb and chorus for each backing part.

**1. In the "PATTERN PART" screen (p. 71), press the [F5 (REV/CHO)] button.**

The "REVERB/CHORUS" screen appears.




**2. Press the [F2]–[F4] buttons to select the parameter.**

**3. Use the [CURSOR] buttons to select the parameter.**

**4. Use the [-] [+] buttons or the [VALUE] dial to make settings.**

| Parameter | Value | Description |
|---|---|---|
| **[F2 (REV/CHO)] button** | | |
| **REVERB** | | |
| **Type** | ROOM1, ROOM2, STAGE1, STAGE2, HALL1, HALL2, DELAY, PAN-DELAY | Type of reverb |
| **Time** | 0–127 | Reverb length/delay time |
| **CHORUS** | | |
| **Type** | TYPE1–3 | Type of chorus |
| **Rate** | 1–64 | Speed of modulation |
| **Depth** | 1–64 | Depth of modulation |
| **[F3 (REV SND)] button** | | |
| **PART REVERB SEND LEVEL** | 0–127 | Amount of reverb applied to each part |
| **[F4 (CHO SND)] button** | | |
| **PART CHORUS SEND LEVEL** | 0–127 | Amount of chorus applied to each part |

**5. Press the [F1] and/or [F5] buttons to turn the reverb/chorus ON or OFF.**

| Function button | |
|---|---|
| **[F1]** | Reverb On/Off |
| **[F5]** | Chorus On/Off |

**6. Press the [EXIT] button to return to the "PATTERN PART" screen.**

# Making Settings for a User Pattern [F3 (FUNC)]

Set various settings for a user pattern.

**NOTE** If a preset pattern is selected, you won't be able to change. Unavailable editing icons are shown as "🔒".

## Specifying the Number of Measures, Time Signature, and Tempo [F1 (SETUP)]

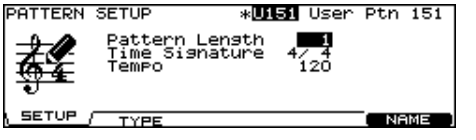
**1. Press the [PATTERN] button.**

The "PATTERN" screen appears.

**2. Press the [F3 (FUNC)] button.**

**3. Press the [F1 (SETUP)] button.**

The "PATTERN SETUP" screen appears.




**4. Use the [CURSOR] buttons to select the parameter.**

**5. Use the [-] [+] buttons or the [VALUE] dial to make settings.**

| Parameter | Value | Description |
|---|---|---|
| **Pattern Length** | 1–999 | Number of measures |
| **Time Signature** | Numerator: 1–15<br>Denominator: 2, 4, 8, 16 | Beat |
| **Tempo** | 20–260 | – |

**NOTE** "Time Signature" can be set on an empty pattern. You cannot set 1/8 and 1/16-3/16.

## Specifying the Playback Type [F2 (TYPE)]

1. **Press the [PATTERN] button.**
   The "PATTERN" screen appears.

2. **Press the [F3 (FUNC)] button.**

3. **Press the [F2 (TYPE)] button.**
   The "PATTERN TYPE" screen appears.


4. **Use the [CURSOR (up/down)] buttons to select the parameter.**

5. **Use the [-] [+] buttons or the [VALUE] dial to make settings.**

| Parameter | Value | Description |
|---|---|---|
| **Play Type** | This specifies how the pattern will play back. | |
| | LOOP | After the pattern is played back all the way to the end, playback then repeats, starting at the beginning of the pattern. Playback continues until the [STOP] button is pressed. Loop is useful for practicing and live performance. |
| | ONESHOT | Playback stops once the end of the pattern is reached. This is a convenient feature to use when assigning patterns to the pads (Pad Pattern; p. 52). Each time you hit the pad to which the pattern is assigned, it will automatically start from the beginning of the pattern. |

| Parameter | Value | Description |
|---|---|---|
| **Play Type** | TAP | When set to Pad Pattern (p. 52), the sounds are played back in sequence each time the pad is pressed. (You can use the [PLAY] button instead of a pad.) For example if you specify "TAP" for a pattern which contains a melody line and assign this pattern to a pad, you can play the notes of the melody in order each time you strike the pad. You can set the "Tap Reset Time" so that the pattern will automatically return to the beginning if that time interval elapses without that pad being hit again. You can play a bass line with your kick drum, too. MEMO When using Realtime Recording (p. 83) to record patterns used for TAP playback, make the Quantize settings (p. 84) before you begin recording. |
| | V-LINK | This is a "TAP" setting dedicated to the V-LINK function (p. 123). You will switch to the next image each time you strike the pad or press the [PLAY] button. |
| **Tap Reset Time** | OFF, 0.2–4.0 (sec) | This function automatically returns to the beginning of the pattern if that pattern has not been played for a certain length of time during Tap Play. When the time specified here has elapsed after the pattern was played most recently, the pattern will return to its beginning the next time you play it. If it is set to "OFF," this function will be disabled. |
| **Quick Play** | OFF, ON | Turns on/off the function that will start playback at the first actual note in cases where there is an empty area at the beginning of the playback data. If this function is on, playback will begin immediately even if blank space occurred during recording. This is convenient when you've selected "LOOP" or "ONESHOT" as the "Play Type." |

**NOTE** If you've selected an empty pattern, "Play Type" cannot be set to "TAP" or "V-LINK."

6. **Press the [EXIT] button to return to the "PATTERN" screen.**

**MEMO** You can have the velocity of the pattern being played change according to the force with which the pad is tapped (Pad Pattern Velocity). Refer to p. 52.

## Naming a Pattern [F5 (NAME)]

Each pattern can be named (up to 12 characters).

1. **Press the [PATTERN] button.**
   The "PATTERN" screen appears.
2. **Press the [F3 (FUNC)] button.**
3. **Press the [F5 (NAME)] button.**
   The "PATTERN NAME" screen appears.


| Function button | |
|---|---|
| **[F1 (INSERT)]** | A blank space is inserted at the cursor position. |
| **[F2 (DELETE)]** | Character at the cursor position is deleted. |
| **[F3 (SPACE)]** | Character at cursor position is replaced by a blank space. |
| **[F4 (CHAR)]** | Character at the cursor position changes between upper case/lowercase alphabet, or numbers and symbols. |

4. **Use the [CURSOR (left/right)] buttons to move the cursor to the character to be changed.**
5. **Use the [VALUE] dial, the [-] [+], or [CURSOR (up/down)] buttons to change the character.**
6. **Press the [EXIT] button to return to the "PATTERN" screen.**

# Specifying the Tempo [TEMPO]

1. **Press the [TEMPO] button.**
   The [TEMPO] button lights, and the "TEMPO" screen appears.


| Function button | |
|---|---|
| **[F1 (CLICK)]** | Make click settings (p. 81). |
| **[F2 (SYNC)]** | Specify synchronization with external MIDI devices (p. 80). |
| **[F3 (TAP)]** | Specify the tempo by striking a pad or button (p. 80). |
| **[F4]** | Make the [TEMPO] button blink in time with the tempo (p. 81). |
| **[F5]** | Sound the click (p. 81). |

2. **Use the [-] [+] buttons or the [VALUE] dial to select the tempo.**
3. **Press the [EXIT] button to return to the "DRUM KIT" screen.**

## Setting the Tempo by Hitting a Pad (Tap Tempo) [F3 (TAP)]

You can set the tempo by hitting a pad or the [PREVIEW] button two or more times at quarter-note intervals of the desired tempo.

**1. Press the [TEMPO] button.**

The [TEMPO] button lights, and the "TEMPO" screen appears.

**2. Press the [F3 (TAP)] button.**

The "TAP TEMPO" screen appears.


**3. Press the [CURSOR (up)] button to move the cursor to "Tap Switch."**

**4. Use the [-] [+] buttons or the [VALUE] dial to set to "ON."**

**5. Press the [CURSOR (down)] button to move the cursor to "Tap Pad."**

**6. Use the [-] [+] buttons or the [VALUE] dial to select the pad (or the [PREVIEW] button) to use for Tap Tempo function.**

**7. Press the [EXIT] button to return to the "TEMPO" screen.**

When you strike the pad selected in step 6 (or the [PREVIEW] button) two or more times, the tempo will change to the corresponding interval.

## Synchronizing with an External MIDI Device [F2 (SYNC)]

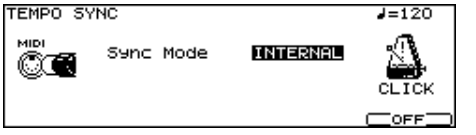
This section discusses the settings that allow an external MIDI sequencer and the TD-20X's sequencer to be synchronized. The device that is playing back is called the "master" and the device that is synchronizing to the playback is called the "slave."

**1. Press the [TEMPO] button.**

The [TEMPO] button lights, and the "TEMPO" screen appears.

**2. Press the [F2 (SYNC)] button.**

The "TEMPO SYNC" screen appears.




**3. Use the [-] [+] buttons or the [VALUE] dial to make settings.**

| Parameter | Value | Description |
|---|---|---|
| Sync Mode | INTERNAL | The TD-20X's tempo setting will be used for playback/recording. The TD-20X will be the master. When shipped from the factory, this setting is selected. |
| | EXTERNAL | The TD-20X's sequencer will operate in accordance with tempo data (MIDI Clock) from the external device. The TD-20X will be the slave. |
| | AUTO | This is a convenient setting that combines features of both the "INTERNAL" and "EXTERNAL" settings. When no synchronization signal is being received, the TD-20X's tempo setting will be used for playback/recording. When a synchronization signal is being received from an external device, the TD-20X will sync to that signal. |
| | REMOTE | The TD-20X will obey start/pause/stop messages from an external device, but will playback according to its own tempo setting. |

**4. Press the [EXIT] button to return to the "TEMPO" screen.**

### Synchronizing to the playback of an external sequencer

In this case, the TD-20X will be the slave and an external sequencer will be master.

**1. Connect the TD-20X's MIDI IN connector with a MIDI cable to the MIDI OUT connector of the external sequencer.**

**2. Set "Sync Mode" to "EXTERNAL."**

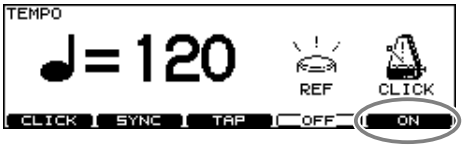
**3. Begin playback on the external sequencer.**

Synchronized playback will begin.

## Starting and Stopping the Metronome (Click) On/Off [F5]

1. **Press the [TEMPO] button.**
   The [TEMPO] button lights, and the "TEMPO" screen appears.

2. **Press the [F5] button to turn the click ON and OFF.**




3. **Press the [EXIT] button to return to the "DRUM KIT" screen.**

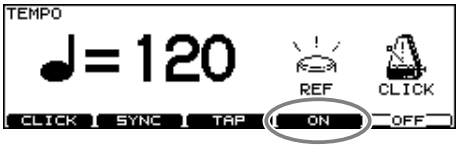
MEMO You can also turn the click on/off by holding down the [SHIFT] button and pressing the [TEMPO] button.

## Viewing the Tempo as a Blinking Button [F4]

You can make the [TEMPO] button blink in time with the tempo.

1. **Press the [TEMPO] button.**
   The [TEMPO] button lights, and the "TEMPO" screen appears.

2. **Press the [F4] button to turn the [TEMPO] button flashing (ON) or going off (OFF).**

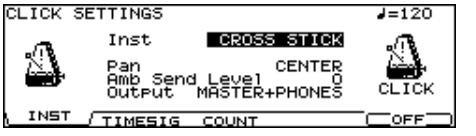



3. **Press the [EXIT] button to return to the "DRUM KIT" screen.**

## Making Click Settings [F1 (CLICK)]

1. **Press the [TEMPO] button.**

2. **Press the [F1 (CLICK)] button.**
   The "CLICK SETTINGS" screen appears.




3. **Use the [F1]–[F3] buttons to select the parameter you want to set.**

4. **Use the [CURSOR] buttons to select the parameter.**

5. **Use the [-] [+] buttons or the [VALUE] dial to make settings.**

| Parameter | Value | Description |
|---|---|---|
| **[F1 (INST)] button** | | |
| **Inst** | VOICE, CLICK, BEEP, METRONOME, CLAVES, WOOD BLOCK, STICKS, CROSS STICK, TRIANGLE, COWBELL, CONGA, TALKING DRUM, MARACAS, CABASA, CUICA, AGOGO, TAMBOURINE, SNAPS, 909 SNARE, 808 COWBELL | Sound for the click |
| **Pan** | L15–CENTER–R15 | Stereo position of the click |
| **Amb Send Level** | 0–127 | Amount of ambience<br>The click sound will be easier to hear if you apply ambience.<br>MEMO<br>You have to turn the ambience on (p. 60). |
| | When "---" is displayed, this level is set to "0" automatically to prevent the click sound from leaking. | |

| Parameter | Value | Description |
|---|---|---|
| **Output** | MASTER<br>+PHONES,<br>PHONES ONLY,<br>DIRECT 5,<br>DIRECT 6,<br>DIRECT 5+6,<br>DIRECT 7,<br>DIRECT 8,<br>DIRECT 7+8<br>MASTER+DIR56,<br>MASTER+DIR78 | Output destination for the click<br>**MEMO**<br>This setting can also be made by pressing the [SETUP] button and pressing the [F2 (OUTPUT)] button (p. 108). |
| **[F2 (TIMESIG)] button** | | |
| **Time Signature** | Numerator:<br>0–15<br>Denominator:<br>2, 4, 8, 16 | When the numerator is set to "0," no accent is added to the first beat. |
| **Interval** | 1/2 (half note), 3/8 (dotted quarter note), 1/4 (quarter note), 1/8 (eighth note), 1/12 (eighth-note triplet), 1/16 (16th note) | |
| **[F3 (COUNT)] button** | | |
| **Count In Play** | OFF, 1 MEAS,<br>2 MEAS | Adds a count in before playback. |
| **Count In Rec** | OFF, 1 MEAS,<br>2 MEAS | Adds a count in before recording. |
| **During Play** | OFF, ON | Sets the click to play during pattern playback. |
| **During Rec** | OFF, ON | Sets the click to play during recording. |

**MEMO** To adjust the click level, move the GROUP FADERS [CLICK] slider (p. 30).

**6. Press the [EXIT] button to return to the "TEMPO" screen.**

## Recording a Pattern [REC]

What is played on the pads or on an external MIDI keyboard can be recorded (Realtime Recording).

Your performance will be recorded exactly as you play it, including hi-hat control pedal movements and Positional Sensing.

**NOTE** Please keep in mind that even though there are 100 user patterns, the amount of memory available will be determined by how much data is recorded into TD-20X.

**MEMO** Storing performance data that describes every instance where the Hi-Hat Control Pedal is used, and that includes strike position detection rapidly consumes the User memory.

**MEMO** You can use the [TOOLS] button to check the state of memory usage. For more information, refer to "Viewing the Remaining Memory and the Program Version [F1 (INFO)]" (p. 125).

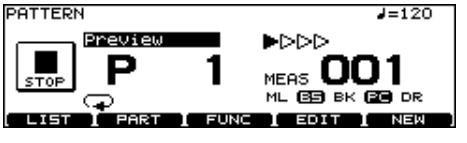
### How to Record

The procedure is the same when recording with pads or with a MIDI keyboard.

#### (1) Select an empty pattern

**1. Press the [PATTERN] button.**

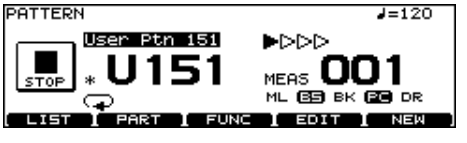
The [PATTERN] button lights, and the "PATTERN" screen appears.




**2. Press the [F5 (NEW)] button.**

An empty pattern is automatically selected.

You can also select by using the [-] [+] buttons or the [VALUE] dial.




**NOTE** If all the patterns have been used, pressing the [F5 (NEW)] button will have no effect. Delete an unneeded pattern (p. 88) before you record.

#### (2) Set the time signature, the number of measures, and the tempo

**1. In the "PATTERN" screen, press the [F3 (FUNC)] button, and then press the [F1 (SETUP)] button.**

The "PATTERN SETUP" screen appears.


**2. Use the [CURSOR] buttons to select the parameter.**

**3. Use the [-] [+] buttons or the [VALUE] dial to make settings.**

| Parameter | Value | Description |
|---|---|---|
| **Pattern Length** | 1–999 | Number of measures |
| **Time Signature** | Numerator: 1–15<br>Denominator: 2, 4, 8, 16 | Time signature<br>This can be specified only for an empty pattern. |
| **Tempo** | 20–260 | – |

**NOTE** "Time Signature" can be set on an empty pattern. You cannot set 1/8 and 1/16–3/16.

**MEMO** If "REC Mode" (p. 84) is set to "Replace," it is not necessary to specify the "Pattern Length." Recording will continue until you press the [STOP] button, and the number of measures recorded will automatically become the "Pattern Length" setting.

**MEMO** You can have a count sound (click) inserted before recording begins by setting "Count In Rec."
For more information, refer to "Making Click Settings [F1 (CLICK)]" (p. 81).

**If you are recording from the pads, disregard paragraphs (3) and (4) of this section.**

## (3) Select a MIDI channel

Be sure that the transmit channel on your keyboard corresponds to the MIDI channel of the part you wish to record.

Each part has it's own MIDI channel. The factory preset channels are as follows:

| Part | MIDI Channel |
|---|---|
| **Drum Kit part** | CH 10 |
| **Percussion part** | CH 11 |
| **Melody part** | CH 1 |
| **Bass part** | CH 2 |
| **Backing 1 part** | CH 3 |
| **Backing 2 part** | CH 4 |

**MEMO** You can change the MIDI channel by pressing the [SETUP] button. For more information, refer to "MIDI Channel Settings [F1 (MIDI CH)]" (p. 115).

**MEMO** If you set "Local Control" to "ON (PERC)," you'll be able to use the pads to record the percussion part. For more information, refer to "MIDI Channel Settings for the Entire TD-20X [F2 (GLOBAL)]" (p. 116).

## (4) Part Setting

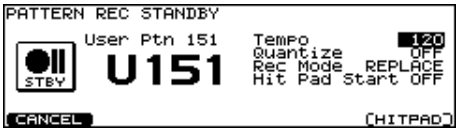
Follow the procedures described in "Making Settings for Each Part [F2 (PART)]" (p. 71) to make settings of the parts.

## (5) Set the recording method

**1. In the "PATTERN" screen, press the [REC] button.**

The [PLAY] button flashes, and the [REC] button lights.

The "PATTERN REC STANDBY" screen appears, and the click sound begins to play.




**2. Use the [CURSOR (up/down)] buttons to select the parameter.**

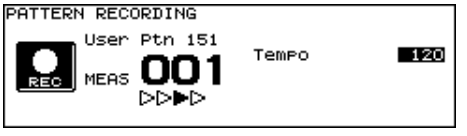
**3. Use the [-] [+] buttons or the [VALUE] dial to make settings.**

| Parameter | Value | Description |
|---|---|---|
| **Tempo** | 20–260 | – |
| **Quantize** | 8th note–64th note, OFF | "Quantize" is a function that corrects timing inaccuracies while you record. Set the note value before you begin recording and everything you play will be quantized automatically.<br>The value should be set to the shortest note appearing in the phrase. When set to "OFF," the pattern is recorded exactly as played.<br>**NOTE**<br>When using Tap Playback to play back a pattern you have created, first make sure that this is not set to "OFF," then quantize. If set to "OFF," then Tap Playback (p. 78) cannot be executed correctly. |
| **Rec Mode** | LOOP ALL | The entire pattern will be repeated in loop mode and you can continually record (like overdubbing). |
| | LOOP 1–2, | Recording in a one or two measure loop mode. |
| | REPLACE | Recording will continue until you press the [STOP] button. Any previously recorded data for all Parts will be erased. |
| **Hit Pad Start** | OFF, ON | When "ON," recording starts the instant you strike a pad in recording stand-by mode. Press the [F5 (HITPAD)] button to turn on/off.<br>This function can be used only when "Local Control" (p. 117) is set to "ON (DRUM)." |

### (6) Recording

1. **Press the [PLAY] button to begin recording.**

   The [PLAY] button stops flashing and remains lit, and the "PATTERN RECORDING" screen appears.




2. **Play with pads or MIDI keyboards to record.**

3. **Press the [STOP] button to stop recording.**

   The [PLAY] and [REC] button go off.

MEMO You can name the recorded pattern (p. 79).

## Checking the Tones and Phrases During Recording (Rehearsal)

The Rehearsal function temporarily suspends recording during the recording process, allowing you to rehearse and then quickly resume recording.

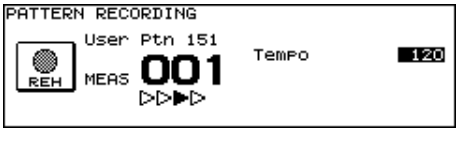
1. **Start recording (p. 83).**

   The recording icon ( REC ) appears.

2. **While recording is underway, press the [REC] button.**

   The [REC] button flashes, and the rehearsal icon ( REH ) appears.

   Now, data from pads or keyboard cannot be recorded.




3. **Press the [REC] button to resume recording.**

   The [REC] button lights.

# Editing a Pattern [F4 (EDIT)]

When you want to edit a pattern, for example by copying a pattern or joining two patterns, access the "PATTERN EDIT" screen as follows.

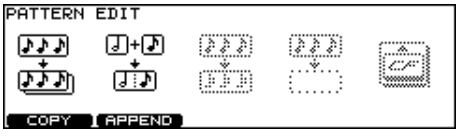
1. **Press the [PATTERN] button.**

   The "PATTERN" screen will appear.

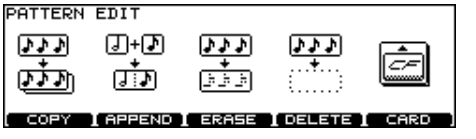
2. **Press the [F4 (EDIT)] button.**

   The "PATTERN EDIT" screen will appear.

**"PATTERN EDIT" screen (Preset Pattern)**




**"PATTERN EDIT" screen (User Pattern)**

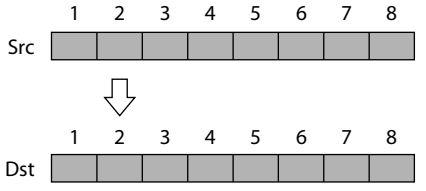



| Function button | |
|---|---|
| **[F1 (COPY)]** | Copies the pattern to a user pattern. You can also copy specified parts or measures (p. 86). |
| **[F2 (APPEND)]** | Joins two patterns into one pattern (p. 87). |
| **[F3 (ERASE)]** | Erases the performance data from a pattern. You can also erase the performance data from specified measures (p. 87). |
| **[F4 (DELETE)]** | Deletes a pattern. You can also delete specified measures from a pattern (p. 88). |
| **[F5 (CARD)]** | Saves the pattern to a CompactFlash card (p. 89). |

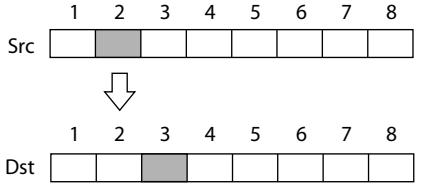
3. **Pressing the [EXIT] button return to the "PATTERN" screen.**

## Copying a Pattern [F1 (COPY)]

Copy the pattern as is to the user patterns.

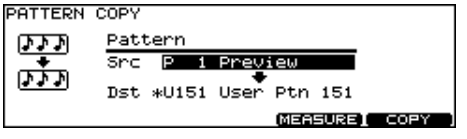



You can copy selected measures of a part or pattern. Unlike copying an entire pattern, settings such as instrument and part volume etc. will not be copied.



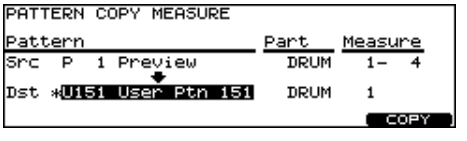

**1. In the "PATTERN EDIT" screen, press the [F1 (COPY)] button.**

The "PATTERN COPY" screen appears.




**2. When you want to copy selected measures or part, press the [F4 (MEASURE)] button.**

The "PATTERN COPY MEASURE" screen appears.



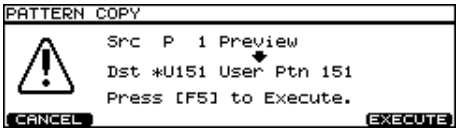

**3. Use the [CURSOR] buttons to select the parameter.**

**4. Use the [-] [+] buttons or the [VALUE] dial to select the pattern, part, and measures.**

| | Pattern | Part | Measure |
|---|---|---|---|
| **Src** | Copy-source pattern | Copy-source part | Measures to be copied (First Measure–Last Measure) |
| **Dst** | Copy-destination pattern | Copy-destination part | First measure of the copy-destination |

**5. Press the [F5 (COPY)] button.**

The confirmation screen appears.




To cancel, press the [F1 (CANCEL)] button.

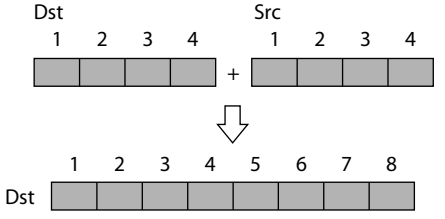
**6. Press the [F5 (EXECUTE)] button.**

MEMO

- If the number of measures in the copy-source pattern and the copy-destination pattern differ, the number of measures in the copy-destination pattern may increase or decrease according to this difference.
- When "ALL" is specified in "Src part," then only "ALL" may be specified in "Dst Part." Additionally, if other than "ALL" is specified in "Src part," then "ALL" cannot be specified in "Dst Part."
- When copying between drum kit parts and percussion parts or backing parts, copy takes place in accord with the predetermined correspondence between note numbers and trigger inputs. Only note numbers assigned to trigger inputs will be copied.
  For more on note numbers and trigger inputs, refer to "Note Number (Factory Settings)" (p. 137).

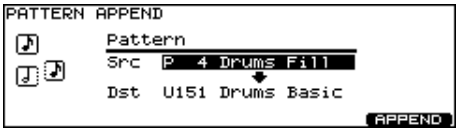
## Connecting Two Patterns [F2 (APPEND)]

This connects two patterns to create one pattern. The pattern specified as "Dst" will be first, and the pattern specified as "Src" will be connected to it. The new pattern will be created in "Dst."




**1. In the "PATTERN EDIT" screen (p. 85), press the [F2 (APPEND)] button.**

"PATTERN APPEND" screen appears.




**2. Press the [CURSOR (up)] button to move the cursor to "Src."**

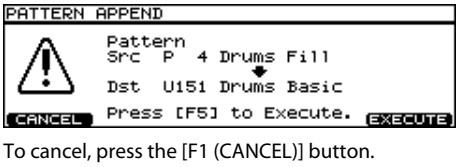
**3. Using the [-] [+] buttons or the [VALUE] dial, select the pattern that is to form the latter part of the conjoined result.**

**4. Press the [CURSOR (down)] button to move the cursor to "Dst."**

**5. Using the [-] [+] buttons or the [VALUE] dial, select the pattern that is to form the first part of the conjoined result.**

**6. Press the [F5 (APPEND)] button.**

The confirmation screen appears.

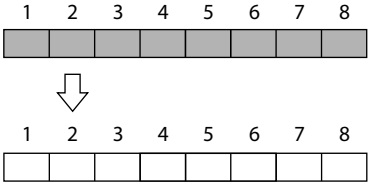



To cancel, press the [F1 (CANCEL)] button.

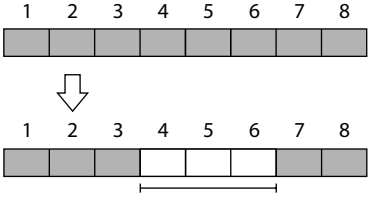
**7. Press the [F5 (EXECUTE)] button.**

## Erasing a Pattern [F3 (ERASE)]

This erases the pattern. Performance data is erased, while beat, measure length, and other settings are left intact.




You can erase portions of the pattern, in measure units. The erased portions become blank measures.



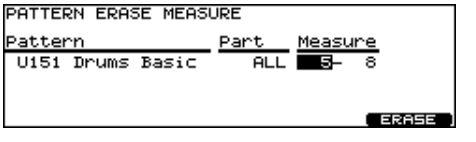

**MEMO** Although the data is erased, the pattern length is unchanged.

**1. In the "PATTERN EDIT" screen (p. 85), press the [F3 (ERASE)] button.**

The "PATTERN ERASE" screen appears.


**2. When you want to erase selected measures or part, press the [F4 (MEASURE)] button.**

The "PATTERN ERASE MEASURE" screen appears.



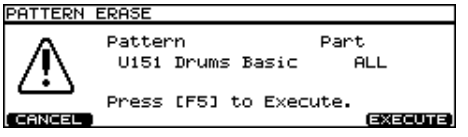

**3. Use the [CURSOR (left/right)] buttons to select the parameter.**

**4. Use the [-] [+] buttons or the [VALUE] dial to select the pattern, part, and measures.**

| Pattern | Part | Measure |
|---|---|---|
| Pattern to be erased | Part to be erased | Measures to be erased (first measure–last measure) |

**5. Press the [F5 (ERASE)] button.**

The confirmation screen appears.

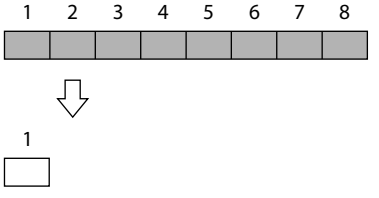



To cancel, press the [F1 (CANCEL)] button.

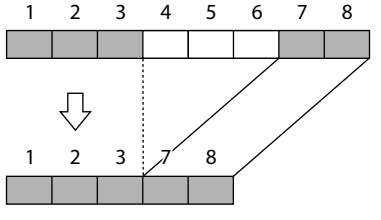
**6. Press the [F5 (EXECUTE)] button.**

## Deleting a Pattern [F4 (DELETE)]

This deletes the pattern performance, beat, measure length, part, and all other settings, creating a empty pattern.




You can delete unneeded measures from the pattern, then connects the portions before and after the resulting gap.




MEMO

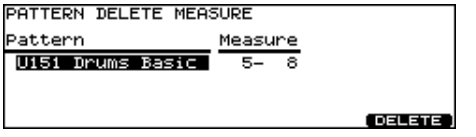
- The performance data following the deleted range is moved forward (and the performance data for that part is shortened).
- When all parts in the targeted range are specified, deletion results in the pattern itself becoming shorter.
- When all measures for all parts are deleted, the pattern itself is deleted, resulting in a pattern containing no performance data (an empty pattern). Settings, including beat and measure length, are restored to their initial values as well.

**1. In the "PATTERN EDIT" screen (p. 85), press the [F4 (DELETE)] button.**

The "PATTERN DELETE" screen appears.


**2. When you want to delete selected measures, press the [F4 (MEASURE)] button.**

The "PATTERN DELETE MEASURE" screen appears.



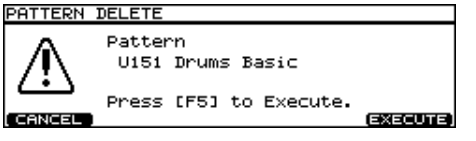

**3. Use the [CURSOR (left/right)] buttons to select the parameter.**

**4. Use the [-] [+] buttons or the [VALUE] dial to select the pattern and measures.**

| Pattern | Measure |
|---|---|
| Pattern to be deleted | Measures to be deleted (first measure–last measure) |

**5. Press the [F5 (DELETE)] button.**

The confirmation screen appears.



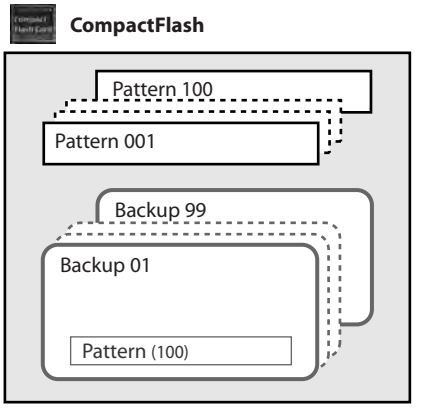

To cancel, press the [F1 (CANCEL)] button.

**6. Press the [F5 (EXECUTE)] button.**

# Saving a Pattern [F5 (CARD)]

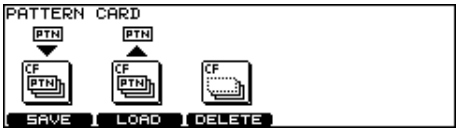
You can use an optional CompactFlash card to save pattern data.

User patterns can be saved or loaded individually. This provides a convenient way to handle just the patterns you need.




**MEMO** When creating a backup on a CompactFlash card (p. 92), user patterns are handled in sets of 100 patterns.

**"PATTERN CARD" screen**




**NOTE**

- Never remove a CompactFlash card while the CompactFlash indicator on the TD-20X's top panel is lit. Doing so may corrupt the unit's data or the data on the CompactFlash card.
- Carefully insert the CompactFlash card all the way in—until it is firmly in place.
- The TD-20X can use CompactFlash cards rated for 3.3V in a capacity range of 16 MB–4 GB (type 1). Other cards cannot be used.

**cf.** You can check the amount of CompactFlash card available by pressing the [TOOLS] button (p. 125).

## Saving a Pattern to a CompactFlash Card [F1 (SAVE)]

Patterns will be saved up to 100.

1. **Insert a CompactFlash card into the CompactFlash card slot on the TD-20X's front panel.**

2. **Press the [PATTERN] button.**

3. **Press the [F4 (EDIT)] button.**

   The "PATTERN EDIT" screen appears.

4. **Press the [F5 (CARD)] button.**

   The CompactFlash indicator light, and the "PATTERN CARD" screen appears.

**MEMO** If you insert a card being used for the first time by the TD-20X, display shows "Unformatted!" Refer to "Formatting a CompactFlash Card [F1 (FORMAT)]" (p. 94) and initialize it.

5. **Press the [F1 (SAVE)] button.**

   The "PATTERN SAVE" screen appears.

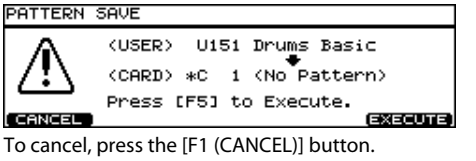

6. **Press the [CURSOR (up)] button, and then use the [-] [+] buttons or the [VALUE] dial to select the pattern you want to save.**

7. **Press the [CURSOR (down)] button, and then use the [-] [+] buttons or the [VALUE] dial to select a backup pattern to which you want to save the pattern.**

   You can select an empty backup pattern with the lowest number by pressing the [F4 (NEW)] button.

8. **Press the [F5 (SAVE)] button.**

   The confirmation screen appears.



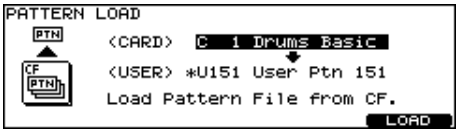

To cancel, press the [F1 (CANCEL)] button.

9. **Press the [F5 (EXECUTE)] button to save the pattern.**

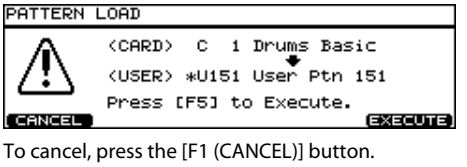
## Loading a Pattern from a CompactFlash Card [F2 (LOAD)]

Patterns saved on a CompactFlash card can be loaded into the TD-20X.

1. **Insert a CompactFlash card into the CompactFlash card slot on the TD-20X's front panel.**
2. **Press the [PATTERN] button.**
3. **Press the [F4 (EDIT)] button.**
   The "PATTERN EDIT" screen appears.
4. **Press the [F5 (CARD)] button.**
   The CompactFlash indicator light, and the "PATTERN CARD" screen appears.
5. **Press the [F2 (LOAD)] button.**
   The "PATTERN LOAD" screen appears.




6. **Press the [CURSOR (up)] button, and then use the [-] [+] buttons or the [VALUE] dial to select the backup pattern you want to load.**
7. **Press the [CURSOR (down)] button, and then use the [-] [+] buttons or the [VALUE] dial to select the user pattern to which the backup pattern will be copied.**
8. **Press the [F5 (LOAD)] button.**
   The confirmation screen appears.

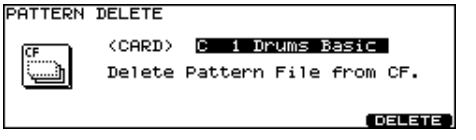



   To cancel, press the [F1 (CANCEL)] button.
9. **Press the [F5 (EXECUTE)] button to load the pattern.**

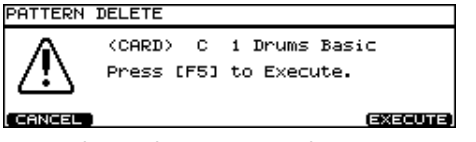
## Deleting a Pattern from a CompactFlash Card [F3 (DELETE)]

You can delete the unneeded pattern from a CompactFlash card.

1. **Insert a CompactFlash card into the CompactFlash card slot on the TD-20X's front panel.**
2. **Press the [PATTERN] button.**
3. **Press the [F4 (EDIT)] button.**
   The "PATTERN EDIT" screen appears.
4. **Press the [F5 (CARD)] button.**
   The CompactFlash indicator light, and the "PATTERN CARD" screen appears.
5. **Press the [F3 (DELETE)] button.**
   The "PATTERN DELETE" screen appears.




6. **Use the [-] [+] buttons or the [VALUE] dial to select the unneeded backup pattern.**
7. **Press the [F5 (DELETE)] button.**
   The confirmation screen appears.




   To cancel, press the [F1 (CANCEL)] button.
8. **Press the [F5 (EXECUTE)] button to delete the backup pattern.**

# Chapter 7. Using CompactFlash Cards [CARD]

You can use a CompactFlash card to do the following.

- Save (back up) 99 sets of the settings in user memory.
- Save 100 patterns (separately from the backups).
- Load backup data from a CompactFlash card into the TD-20X, or copy specified settings such as drum kits or instruments into user memory.
- Drum kits that you backed-up on a CompactFlash card can be played without loading them into the TD-20X (Kit Selection: p. 121).
- Backups you saved on the TD-20 can be imported into the TD-20X and used.

**NOTE**

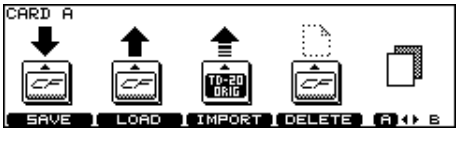
- Never remove a CompactFlash card while the CompactFlash indicator on the TD-20X's top panel is lit. Doing so may corrupt the unit's data or the data on the CompactFlash card.
- Carefully insert the CompactFlash card all the way in—until it is firmly in place.
- Only CompactFlash cards that are designed for 3.3 V and have a capacity of 16 MB–4 GB (Type 1) can be used with the TD-20X. Other types cannot be used.
- If a CompactFlash card of larger than 2 GB capacity is formatted (p. 94) on the TD-20X, it will be formatted to 2 GB.

## Using CompactFlash Cards [CARD]

**1. Insert a CompactFlash card into the CompactFlash card slot on the TD-20X's front panel.**

**2. Press the [CARD] button.**

The [CARD] button and the CompactFlash indicator light, and the "CARD A" screen appears.



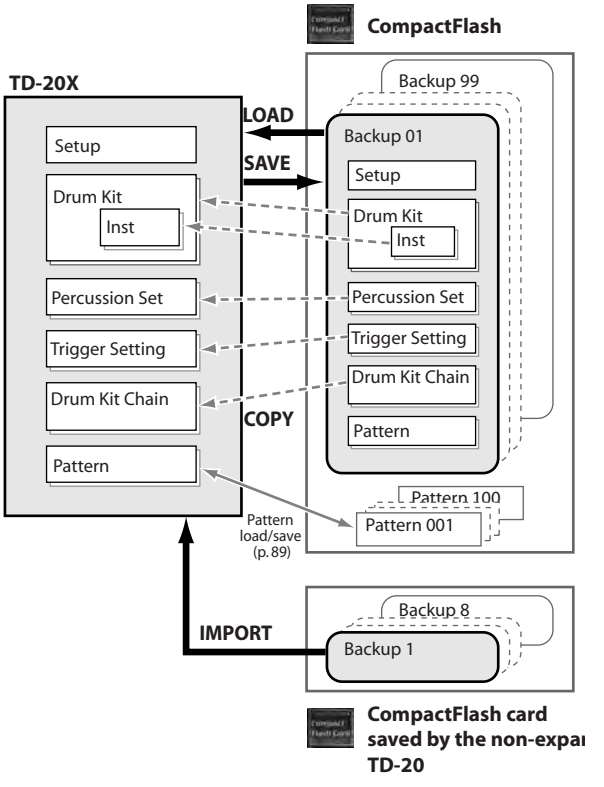


| Function button ("CARD A" screen) | |
|---|---|
| **[F1 (SAVE)]** | Saves the TD-20X's data as a backup. |
| **[F2 (LOAD)]** | Loads data from the CompactFlash card (p. 93). |
| **[F3 (IMPORT)]** | Imports TD-20 data into the TD-20X (p. 93). |
| **[F4 (DELETE)]** | Deletes data from the CompactFlash card (p. 94). |
| **[F5 (A<>B)]** | Switches between the "CARD A" screen and "CARD B" screen. |
| **Function button ("CARD B" screen)** | |
| **[F1 (FORMAT)]** | Initializes the CompactFlash card (p. 94). |
| **[F2 (INFO)]** | Displays the usage status of the CompactFlash card (p. 95). |
| **[F5 (A<>B)]** | Switches between the "CARD A" screen and "CARD B" screen. |

**MEMO**

If you insert a card being used for the first time by the TD-20X, display shows "Unformatted!" Refer to "Formatting a CompactFlash Card [F1 (FORMAT)]" (p. 94) and initialize it.

### Save/Load and Copy Functions of the TD-20X



# Saving Data to a CompactFlash Card [F1 (SAVE)]

All user memory data (p. 31) will be saved up to 99 sets.

**1. Insert a CompactFlash card into the CompactFlash card slot on the TD-20X's front panel.**

**2. Press the [CARD] button.**

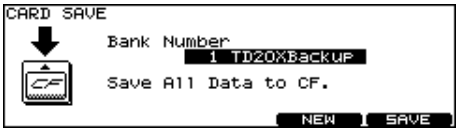
The [CARD] button and the CompactFlash indicator light, and the "CARD A" screen appears.

MEMO

If you insert a card being used for the first time by the TD-20X, display shows "Unformatted!" Refer to "Formatting a CompactFlash Card [F1 (FORMAT)]" (p. 94) and initialize it.

**3. Press the [F1 (SAVE)] button.**

The "CARD SAVE" screen appears.

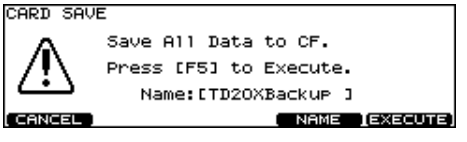



**4. Use the [-] [+] buttons or the [VALUE] dial to select a backup number to which you want to save the data.**

You can select an empty backup area with the lowest number by pressing the [F4 (NEW)] button.

**5. Press the [F5 (SAVE)] button.**

The confirmation screen appears.




To cancel, press the [F1 (CANCEL)] button.

**6. If you want to change the name of the backup area, press the [F4 (NAME)] button.**

**7. Press the [F5 (EXECUTE)] button to save the data.**

## Naming a Backup [F4 (NAME)]

Each backup area can be given a name of up to 12 characters.

**1. In the "CARD SAVE" confirmation screen, press the [F4 (NAME)] button.**

The "CARD SAVE NAME" screen appears.


| Function button | |
|---|---|
| **[F1 (INSERT)]** | A blank space is inserted at the cursor position, and characters after this point are moved to the right one space. |
| **[F2 (DELETE)]** | Character at the cursor position is deleted, and characters after this point are moved to the left one space. |
| **[F3 (SPACE)]** | Character at the cursor position is replaced by a blank space. |
| **[F4 (CHAR)]** | Type of character at the cursor position changes between upper case/lowercase alphabet, or numbers and symbols. |
| **[F5 (SAVE)]** | Pressed to save the data. |

**2. Use the [CURSOR (left/right)] buttons to move the cursor to the character to be changed.**

**3. Use the [VALUE] dial, the [-] [+], or [CURSOR (up/down)] buttons to change the character.**

**4. When you're finished, press the [F5 (SAVE)] button to return to the confirmation screen.**

# Loading Data from a CompactFlash Card [F2 (LOAD)]

Data saved on a CompactFlash card can be loaded into the TD-20X.

You can also load data from a TD-20 that has a TDW-20 installed.

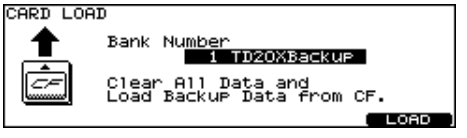
1. **Insert the CompactFlash card into the CompactFlash card slot on the TD-20X's front panel.**

2. **Press the [CARD] button.**

   The [CARD] button and the CompactFlash indicator light, and the "CARD A" screen appears.

3. **Press the [F2 (LOAD)] button.**

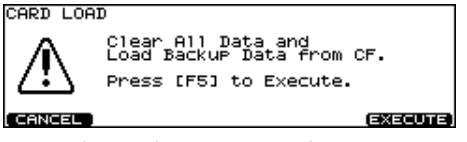
   The "CARD LOAD" screen appears.




4. **Use the [-] [+] buttons or the [VALUE] dial to select the backup area containing the data you want to load.**

5. **Press the [F5 (LOAD)] button.**

   The confirmation screen appears.




   To cancel, press the [F1 (CANCEL)] button.

6. **Press the [F5 (EXECUTE)] button to load the data.**

MEMO

- You can also load individual drum kits, percussion sets, etc. from a CompactFlash card. To do so, use the Copy function (p. 42, p. 75).
- You can audition the drum kits saved on a CompactFlash card before loading data from the CompactFlash card. For details, refer to "Playing a Kit from the CompactFlash without Loading It (Kit Selection) [F1 (KIT SEL)]" (p. 121).

# Loading TD-20 Backup Data [F3 (IMPORT)]

Data that was backed up by the (non-expanded) TD-20 can be imported into the TD-20X and used.

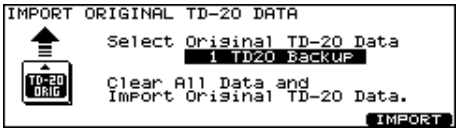
1. **Insert the CompactFlash card containing data saved by the TD-20 into the TD-20X's front panel CompactFlash slot.**

2. **Press the [CARD] button.**

   The [CARD] button and the CompactFlash indicator light, and the "CARD A" screen appears.

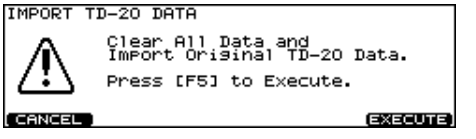
3. **Press the [F3 (IMPORT)] button.**

4. **Use the [-] [+] buttons and [VALUE] dial to select the backup that you want to import.**




5. **Press the [F5 (IMPORT)] button.**

   The confirmation screen appears.




   To cancel, press the [F1 (CANCEL)] button.

6. **Press the [F5 (EXECUTE)] button; the data will be imported from the card.**

MEMO

Drum kits backed up by the TD-20 will be loaded into drum kit numbers 51–100. The TDW-20's preset kits will be loaded into drum kit numbers 1–50. The program change numbers specified for the drum kits will return to their initial values.

# Deleting Data from a CompactFlash Card [F4 (DELETE)]

You can delete the unneeded data from a CompactFlash card.

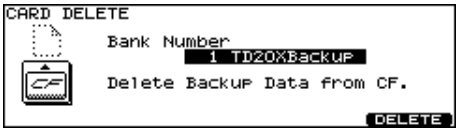
1. **Insert the CompactFlash card into the CompactFlash card slot on the TD-20X's front panel.**

2. **Press the [CARD] button.**

   The [CARD] button and the CompactFlash indicator light, and the "CARD A" screen appears.

3. **Press the [F4 (DELETE)] button.**

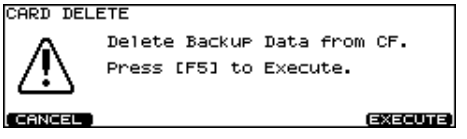
   The "CARD DELETE" screen appears.




4. **Use the [-] [+] buttons or the [VALUE] dial to select the backup area containing the unneeded data.**

5. **Press the [F5 (DELETE)] button.**

   The confirmation screen appears.




   To cancel, press the [F1 (CANCEL)] button.

6. **Press the [F5 (EXECUTE)] button to delete the backup.**

# Formatting a CompactFlash Card [F1 (FORMAT)]

When a card is being used for the first time by the TD-20X, you must execute the following procedure to initialize the card.

**NOTE**

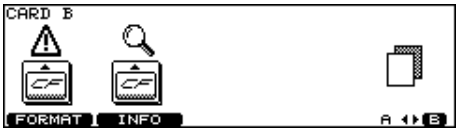
- When a card is initialized, all data on that card will be lost. Make sure that it does not contain data you wish to keep.
- If a CompactFlash card of larger than 2GB capacity is formatted on the TD-20X, it will be formatted to 2GB.

1. **Insert a CompactFlash card into the CompactFlash card slot on the TD-20X's front panel.**

2. **Press the [CARD] button.**

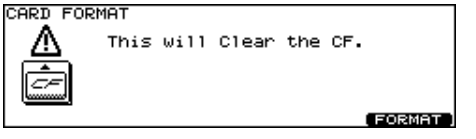
   The [CARD] button and the CompactFlash indicator light, and the "CARD A" screen appears.

3. **Press the [F5 (A<>B)] button to access the "CARD B" screen.**



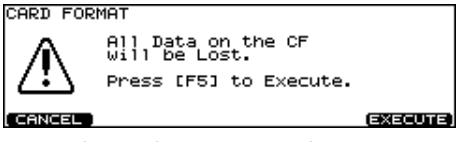

4. **Press the [F1 (FORMAT)] button.**

   The "CARD FORMAT" screen appears.




5. **Press the [F5 (FORMAT)] button.**

   The confirmation screen appears.




   To cancel, press the [F1 (CANCEL)] button.

6. **Press the [F5 (EXECUTE)] button again to start formatting.**

# Checking the State of a CompactFlash Card [F2 (INFO)]

1. **Insert a CompactFlash card into the CompactFlash card slot on the TD-20X's front panel.**

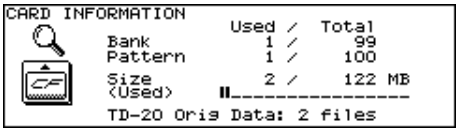
2. **Press the [CARD] button.**

   The [CARD] button and the CompactFlash indicator light, and the "CARD A" screen appears.

3. **Press the [F5 (A<>B)] button to access the "CARD B" screen.**

4. **Press the [F2 (INFO)] button.**

   The "CARD INFORMATION" screen appears.




| Parameter | Description |
|---|---|
| **Bank** | Number of saved backups |
| **Pattern** | Number of saved patterns |
| **Size** | Used memory size/total memory size |
| **TD-20 Org Data** | Number of backups saved by the TD-20 (unexpanded). |

5. **Press the [EXIT] button twice (or just press the [KIT] button) to return to the "DRUM KIT" screen.**

   The CompactFlash indicator goes off.

MEMO

For details on saving patterns, refer to "Saving a Pattern to a CompactFlash Card [F1 (SAVE)]" (p. 89).

## Backup file names

This is important for those who might want to organize their data in their computers or share data with other TD-20X users.

### How names appear

Though you can give a name to your backup file that you can see when loading/saving with a CompactFlash card in the TD-20X, the name that appears when looking at it in your computer is different.

### Backups saved by a TD-20X

Backup 1 appears like **"TDW2BK01.TD0."**

"TDW2" indicates the upgraded version.

The "BK01" means Backup No.1, "BK99" would mean backup No.99.

MEMO

Backups that have been saved by a TD-20 that has been upgraded with a TDW-20 expansion card will have similar filenames.

### Backups saved by an unexpanded TD-20 (without TDW-20)

Backup 1 appears like **"TD20BK01.TD0."**

"TD20" indicates the original version.

The "BK01" means Backup No.1, "BK08" would mean backup No.08.

### Pattern files

This refers to patterns saved independently on the CompactFlash Card.

Pattern No.1 (on the card) will appear as **"TD20P001.TD0."**

The "P001" means pattern No.1. Pattern No.100 appears as "TD20P100.TD0."

# Chapter 8. Trigger Settings for Each Pad [TRIGGER]

Here's how to make trigger settings to ensure that the trigger signals from the pads and pedals are appropriately conveyed to the sound generator section.

If you specify the model (type) of pad that is connected to each trigger input jack, the settings suitable for each pad will be made. To specify the pad type, use the [TRIGGER] button [F1 (BANK)].

If you want to make additional fine adjustments for each pad to further adjust the sensitivity etc., you can use the [F2 (BASIC)] or [F5 (ADVANCE)] button to do so.

## Selecting the Pad Type [F1 (BANK)]

To ensure that the signals from the pads can be processed appropriately by the TD-20X, you must specify the type of pad you're using (the trigger type) for each trigger input.

### Trigger Type

A trigger type is a group of trigger settings with values optimally adjusted for a particular pad.

In order to make the most suitable settings for the pad connected to each trigger input, specify the model (type) of the pad that is connected.

Only when factors unrelated to the selection of the proper trigger type prevent you from getting good results in performance should you fine-tune the individual parameters for the pad you are using.

### Trigger Bank

Trigger Banks allow you to store the 15 trigger settings as a single unit of information. The large number at the left edge of the above display is the Trigger Bank number. Move the cursor to this area to select the Trigger Bank.

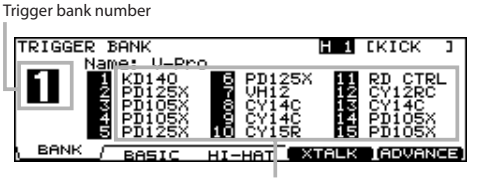
**1. Press the [TRIGGER] button.**

The [TRIGGER] button lights.

**2. Press the [F1 (BANK)] button.**

The "TRIGGER BANK" screen will appear.

Trigger bank number




Trigger Type

**3. Press the [CURSOR (left)] button to move the cursor to the trigger bank number.**

**4. Use the [-] [+] buttons or the [VALUE] dial to select the Trigger Bank.**

**5. Press the [CURSOR (right)] button to move the cursor to a trigger type.**

**6. Select the pad for which you want to make settings.**

Strike the pad, or use the TRIG SELECT buttons to select it.

You can also use the [CURSOR] buttons to select the pad.

**7. Use the [-] [+] buttons or the [VALUE] dial to select the trigger type.**

| Used Modes | Trigger Type | Rim Shot | Positional Sensing | | Choke play |
|---|---|---|---|---|---|
| | | | Head | Rim | |
| **KD-140** | KD140 | × | × | × | × |
| **KD-120** | KD120 | × | × | × | × |
| **KD-85**<br>**KD-80** | KD85 | × | × | × | × |
| **KD-8** | KD8 | × | × | × | × |
| **KD-7** | KD7 | × | × | × | × |
| **PD-125X**<br>**PD-125XS**<br>**PD-125** | PD125X | ❍ | ❍ | ❍ | × |
| **PD-120** | PD120 | ❍ | ❍ | × | × |
| **PD-105X**<br>**PD-105**<br>**PD-100** | PD105X | ❍ | ❍ | ❍ | × |
| **PD-85**<br>**PD-80R**<br>**PD-80** | PD85 | ❍ | ❍ | ❍ | × |
| **PDX-8** | PDX8 | ❍ | × | × | × |
| **PD-9** | PD9 | ❍ | ❍ | × | ❍ |
| **PD-8** | PD8 | ❍ | ❍ | × | ❍ |
| **PD-7** | PD7 | ❍ | ❍ | × | ❍ |
| **CY-15R** | CY15R | ❍ | ❍ | × | ❍ |
| **CY-14C** | CY14C | ❍ | ❍ | × | ❍ |
| **CY-12R/C** | CY12RC | ❍ | ❍ | × | ❍ |
| **CY-8** | CY8 | ❍ | × | × | ❍ |
| **CY-5**<br>**CY-6** | CY5/6 | ❍ | × | × | ❍ |
| **CY-12H** | CY12H | ❍ | × | × | ❍ |
| **VH-12** | VH12 | ❍ | × | × | ❍ |
| **VH-11** | VH11 | ❍ | × | × | ❍ |
| **Non-Roland pad** | PAD1 | ❍ | × | × | ❍ |
| **Non-Roland pad** | PAD2 | ❍ | × | × | × |
| **RT-10K** | RT10K | × | × | × | × |
| **RT-10S** | RT10S | ❍ | × | × | × |
| **RT-10T** | RT10T | × | × | × | × |

**MEMO** When you select the trigger type, the trigger parameters (except the crosstalk cancel parameters) are automatically set to the most efficient values for each pad. Make settings for the parameter as needed.

**NOTE** When "3Way Trigger" (p. 105) is set to "ON," "RD CTRL" is displayed for the trigger type for trigger input 11 EDGE. It cannot be changed.

## Trigger Inputs and Playing Methods Corresponding Chart

| Trigger Input | Dual Trigger Mesh Pad | Head Positional Sensing | Rim Shot Nuance |
|---|---|---|---|
| **KICK** | × | × | × |
| **SNARE** | ❍ | ❍ | ❍ |
| **TOM 1–4** | ❍ | × | ❍ |
| **HI-HAT** | × | × | × |
| **CRASH 1, 2** | × | × | × |
| **RIDE** | × | ❍ | × |
| **EDGE** | × | × | × |
| **AUX 1–4** | ❍ | × | ❍ |

**MEMO**

- Brush sweep and Cross Stick can be used only SNARE.
- Each playing method can be used with the instruments corresponding to it (p. 131).

# Pad Sensitivity Settings [F2 (BASIC)]

When you set the trigger type (p. 96), the following settings (basic trigger parameters) are automatically changed to values that are appropriate for each pad; this means that you will not normally need to change these settings.

Adjust the following parameters if you want to make settings in more detail, or if you're using acoustic drum triggers.

**1. Press the [TRIGGER] button.**

The [TRIGGER] button lights.

**2. Press the [F2 (BASIC)] button.**

The "TRIGGER BASIC" screen will appear.


The graph in the right side of the screen is a "velocity monitor" that shows the force (velocity) of your strike. It shows the velocities of the sixteen most recent strikes.

**3. Use the [CURSOR (up/down)] buttons to select the parameter.**

**4. Select the pad that you want to edit.**

Strike the desired pad, or use the TRIG SELECT buttons to select it.

You can also use the [CURSOR] buttons to select the pad.

The edit screen for the selected pad will appear.

**5. Use the [-] [+] buttons or the [VALUE] dial to adjust the setting.**

**6. When you're finished, press the [EXIT] button to return to the "DRUM KIT" screen.**

| Parameter | Value | Description |
|---|---|---|
| **Trig Type** | refer to p. 96 | |
| **Sensitivity** | 1–32 | Pad sensitivity |
| **Threshold** | 0–31 | Minimum level for the pad |
| **Curve** | LINEAR, EXP1, EXP2, LOG1, LOG2, SPLINE, LOUD1, LOUD2 | How playing dynamics changes the volume |

## Adjusting the Pad Sensitivity (Sensitivity)

You can adjust the sensitivity of the pads to accommodate your personal playing style.

This allows you to have more dynamic control over the sound volume, based on how hard you play.

**Sensitivity:** 1–32

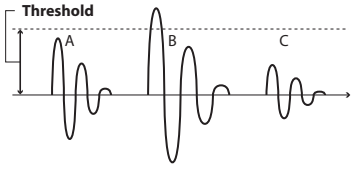
Higher sensitivity allows the pad to produce a loud volume even when played softly.

Lower sensitivity will keep the pad producing a low volume even when played forcefully.

## Adjusting the Pad's Minimum Sensitivity (Threshold)

This setting allows a trigger signal to be received only when the pad is above a determined force level (velocity). This can be used to prevent a pad from sounding because of vibrations from other pads.

In the following example, B will sound but A and C will not sound.




**Threshold:** 0–31

When set to a higher value, no sound is produced when the pad is struck lightly.

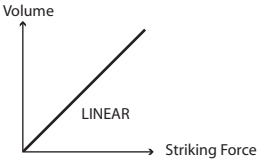
Gradually raise the "Threshold" value while striking the pad. Check this and adjust accordingly. Repeat this process until you get the perfect setting for your playing style.

## Specifying How Volume Responds to Velocity (Velocity Curve)

This setting allows you to control the relation between playing velocity (striking force) and changes in volume. Adjust this curve until the response feels as natural as possible.

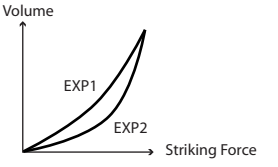
**Curve:** LINEAR

The standard setting. This produces the most natural correspondence between playing dynamics and volume change.



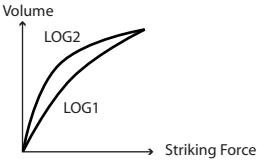

**Curve:** EXP1, EXP2

Compared to "LINEAR," strong dynamics produce a greater change.



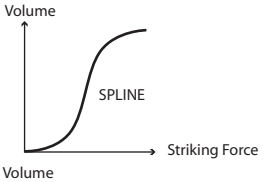

**Curve:** LOG1, LOG2

Compared to "LINEAR," a soft playing produces a greater change.



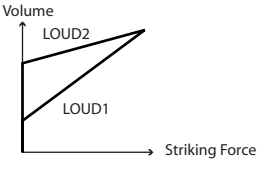

**Curve:** SPLINE

Extreme changes are made in response to playing dynamics.




**Curve:** LOUD1, LOUD2

Very little dynamic response, making it easy to maintain strong volume levels. If using drum triggers, these settings help maintain stable levels.



# Hi-Hat Settings [F3 (HI-HAT)]

**1. Press the [TRIGGER] button.**

The [TRIGGER] button lights.

**2. Press the [F3 (HI-HAT)] button.**

The [TRIGGER] button lights, and the "TRIGGER HIHAT" screen will appear.


**3. Use the [CURSOR (up/down)] buttons to select the parameter.**

The editable parameters will depend on the "Hi-Hat Type" setting.

**4. Use the [-] [+] buttons or the [VALUE] dial to adjust the setting.**

**5. When you're finished, press the [EXIT] button to return to the "DRUM KIT" screen.**

| Parameter | Value | Description |
|---|---|---|
| **Hi-Hat Type** | Used Hi-Hat Controller | |
| | VH12 | VH-12 |
| | VH11/FD | VH-11, FD-8 |

## Settings for the VH-12

- **Set the Hi-Hat Type to "VH12"**

| Parameter | Value | Description |
|---|---|---|
| **Offset** | -100– +100 | Extent of Opening Hi-Hat<br>The bigger the value is, the wider the opening extent is. |
| **Foot Splash Sens** | -10– +10<br>(Initial Value: +5) | Amount of how easy to make the Foot Splash |
| **Noise Cancel** | 1–3<br>(Initial Value: 1) | Amount of strength to cancel the bow and edge noise when you play "Foot Close."<br>The bigger the value is, the more difficult to have a noise excluding the "Foot Close." |
| **CC Resolution** | NORMAL, HIGH<br>(Initial Value: NORMAL) | Amount of Data Resolution that is transmitted from Hi-Hat Pedal.<br>**MEMO**<br>When you control the pitch by Hi-Hat Pedal (p. 52), the pitch can be changed smoothly if you set "High." |

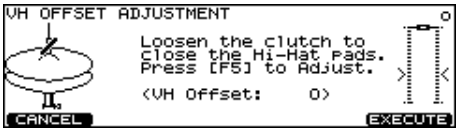
## Adjusting the offset of VH-12 automatically

If you're using the VH-12 V-hi-hat, **execute the offset automatically adjustment from the TD-20X** after making connections.

This adjustment is required in order to correctly detect open, close, and pedal operations.

**1. In the "TRIGGER HI-HAT" screen, press the [F5 (OFFSET)] button.**

The "VH OFFSET ADJUSTMENT" screen will appear.

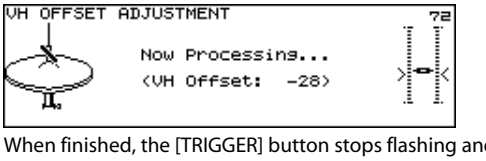



**2. Loosen the clutch screw of the top hi-hat and let it sit on the bottom hi-hat.**

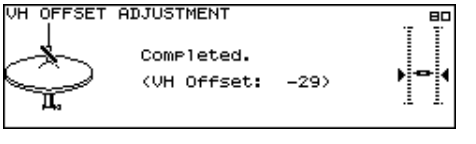
**NOTE** Do NOT touch the hi-hats or the pedal.

**3. Press the [F5 (EXECUTE)] button.**

The [TRIGGER] button flashes, and the "VH Offset" parameter is set automatically.




When finished, the [TRIGGER] button stops flashing and remains lit, and the following screen appears.




**MEMO** You can also perform this operation by holding down the [KIT] button and pressing the [TRIGGER] button (p. 25).

## Settings for the VH-11

- **When Hi-Hat Type is set to "VH11/FD"**

| Parameter | Value | Description |
|---|---|---|
| **Foot Splash Sens** | -10– +10 (Initial Value: +8) | Amount of how easy to make the Foot Splash |
| **CC Max** | 90, 127 (Initial Value: 90) | Amount of Control Change that is transmitted in stepping the pedal down completely. |
| **CC Resolution** | NORMAL, HIGH (Initial Value: NORMAL) | Amount of Data Resolution that is transmitted from Hi-Hat Pedal.<br>**MEMO**<br>When you control the pitch by Hi-Hat Pedal (p. 52), the pitch can be changed smoothly if you set "High." |

### Adjusting the offset of VH-11

If you're using the VH-11 V-hi-hat, **execute the offset adjustment from the TD-20X** after making connections.

This adjustment is required in order to correctly detect open, close, and pedal operations.

1. **Connect the VH-11 and TD-20X.**
2. **After making the hi-hat settings, release your foot from the pedal, and while keeping your foot off the pedal, turn on the power to the TD-20X.**
3. **Loosen the clutch screw and let the hi-hat rest naturally on the motion sensor unit.**
4. **Press the [TRIGGER] button.**
5. **Press the [F1 (BANK)] button.**

   The [TRIGGER] button lights, and the "TRIGGER BANK" screen appears.
6. **Set the trigger type for hi-hat to "VH11" (p. 96).**
7. **Press the [F3 (HI-HAT)] button.**

   The "TRIGGER HI-HAT" screen appears.
8. **Set the TD-20X's parameters as described below.**

| Parameter | Value |
|---|---|
| **Hi-Hat Type** | VH11/FD |
| **Foot Splash Sens** | +8 |
| **CC Max** | 90 |
| **CC Resolution** | NORMAL |

9. **While reading the meter displayed on the right side of the TD-20X's screen, adjust the offset with the VH-11's VH offset adjustment screw.**

   Adjust the offset so that the black ▶◀ appear in the meter.


**MEMO**

For detailed descriptions regarding the VH-11, instructions on connections, and other information, refer to the VH-11 Owner's Manual.

## Settings for the FD-8

- **When Hi-Hat Type is set to "VH11/FD"**

| Parameter | Value | Description |
|---|---|---|
| **Foot Splash Sens** | -10– +10 (Initial Value: +8) | Amount of how easy to make the Foot Splash |
| **CC Max** | 90, 127 (Initial Value: 90) | Amount of Control Change that is transmitted in stepping the pedal down completely. |
| **CC Resolution** | NORMAL, HIGH (Initial Value: NORMAL) | Amount of Data Resolution that is transmitted from Hi-Hat Pedal.<br>**MEMO**<br>When you control the pitch by Hi-Hat Pedal (p. 52), the pitch can be changed smoothly if you set "High." |

# Eliminate Crosstalk Between Pads [F4 (XTALK)]

When two pads are mounted on the same stand, hitting one pad may trigger the sound from another pad unintentionally. (This is called "crosstalk.") Eliminate this by adjusting Xtalk Cancel on the pad that is sounding inadvertently.

**MEMO** In some cases, you can prevent crosstalk between two pads by increasing the distance between them.

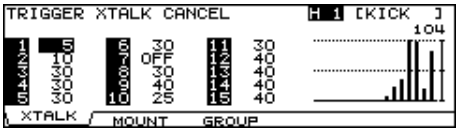
**1. Press the [TRIGGER] button.**

The [TRIGGER] button lights.

**2. Press the [F4 (XTALK)] button.**

If [F4 (XTALK)] is not shown, press the [F1 (BANK)] button once to access the "TRIGGER BANK" screen.

**3. Use the [F1]–[F3] buttons to select the parameter.**




The graph in the right side of the screen is a "velocity monitor" that shows the force (velocity) of your strike. It shows the velocities of the sixteen most recent strikes.

**4. Select the pad for which you want to make settings.**

Strike the pad, or use the TRIG SELECT buttons to select it.

You can also use the [CURSOR] buttons to select the pad.

**5. Use the [-] [+] buttons or the [VALUE] dial to adjust the setting.**

| Parameter | Value | Description |
|---|---|---|
| **[F1 (XTALK)] button** | | |
| **XTALK CANCEL** | 5–80 | Strength of crosstalk cancelling (steps of 5) |
| | OFF | Crosstalk cancellation will be turned off |
| **[F2 (MOUNT)] button** | | |
| **MOUNT TYPE** | Select the pad mount type here. | |
| | SEPARATE | Set independently |
| | PAD | Using a pad mount |
| | CYMBAL | Using a cymbal mount |
| **[F3 (GROUP)] button** | | |
| **XTALK GROUP** | 1–8 | Crosstalk Cancel affects the pads set to the same number. |

**6. When you're finished, press the [EXIT] button to return to the "DRUM KIT" screen.**

### Crosstalk example: If you hit the snare pad and the tom 1 also sounds

Set the snare and tom 1 to the same group.
Raise the "XTALK CANCEL" for the pad being used for the tom 1. The tom 1 pad will be less prone to receive crosstalk from other pads.
With a setting "OFF," crosstalk prevention will not work.

**NOTE** If the value is set too high, and two pads are played simultaneously, the one that is struck less forcefully may not sound. Be careful and set this parameter to the minimum value required to prevent crosstalk.

# Advanced Trigger Parameters [F5 (ADVANCE)]

The following parameters (advanced trigger parameters) are automatically set to the most efficient values for each pad when you select the Trigger Type (p. 96), and don't require adjustment, except if you experience any of the problems that are discussed in the explanation of each parameter.

1. **Press the [TRIGGER] button.**

   The [TRIGGER] button lights.

2. **Press the [F5 (ADVANCE)] button.**

   If [F5 (ADVANCE)] is not shown, press the [F1 (BANK)] button once to access the "TRIGGER BANK" screen.

3. **Use the [F1]–[F4] buttons to select the parameter.**

4. **Use the [CURSOR (up/down)] buttons to select the parameter.**

5. **Select the pad that you want to edit.**

   Strike the desired pad, or use the TRIG SELECT buttons to select it.

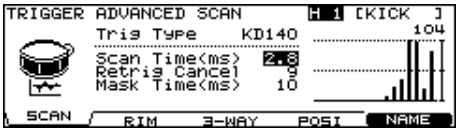
   You can also use the [CURSOR] buttons to select the pad.

   The edit screen for the selected pad will appear.

6. **Use the [-] [+] buttons or the [VALUE] dial to adjust the setting.**

7. **When you're finished, press the [EXIT] button to return to the "DRUM KIT" screen.**

## Detailed Settings for Trigger Signal Detection [F1 (SCAN)]

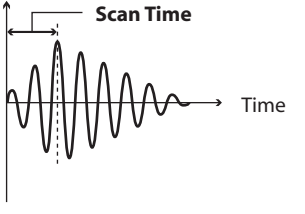



The graph in the right side of the screen is a "velocity monitor" that shows the force (velocity) of your strike. It shows the velocities of the sixteen most recent strikes.

| Parameter | Value | Description |
|---|---|---|
| **Trig Type** | refer to p. 96 | |
| **Scan Time** | 0–4.0 (ms) | Trigger signal detection time |
| **Retrig Cancel** | 1–16 | Detecting trigger signal attenuation |
| **Mask Time** | 0–64 (ms) | Double triggering prevention (p. 103) |

### Trigger signal detection time (Scan Time)

Since the rise time of the trigger signal waveform may differ slightly depending on the characteristics of each pad or acoustic drum trigger (drum pickup), you may notice that identical hits (velocity) may produce sound at different volumes. If this occurs, you can adjust the "Scan Time" so that your way of playing can be detected more precisely.




**Scan Time:** 0–4.0 (ms)

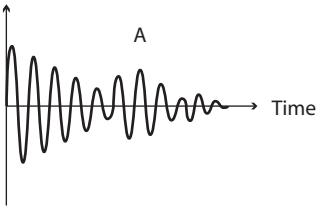
While repeatedly hitting the pad at a constant force, gradually raise the Scan Time value from 0 msec, until the resulting volume stabilizes at the loudest level. At this setting, try both soft and loud strikes, and make sure that the volume changes appropriately.

**NOTE**

As the value is set higher, the time it takes for the sound to be played increases. Set this to the lowest value possible.

## Detecting trigger signal attenuation (Retrigger Cancel)

Important if you are using acoustic drum triggers. Such triggers can produce altered waveforms, which may also cause inadvertent sounding at Point A in the following figure (Retrigger).




This occurs in particular at the decaying edge of the waveform. Retrigger Cancel detects such distortion in and prevents retriggering from occurring.

**Retrig Cancel:** 1–16

While repeatedly striking the pad, raise the "Retrig Cancel" value until retriggering no longer occurs.

**NOTE**

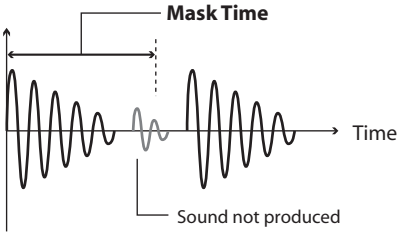
Although setting this to a high value prevents retriggering, it then becomes easy for sounds to be omitted when the drums played fast (roll etc.). Set this to the lowest value possible while still ensuring that there is no retriggering.

**MEMO**

You can also eliminate this problem of retriggering with the Mask Time setting. Mask Time does not detect trigger signals if they occur within the specified amount of time after the previous trigger signal was received. Retrigger Cancel detects the attenuation of the trigger signal level, and triggers the sound after internally determining which trigger signals were actually generated when the head was struck, while weeding out the other false trigger signals that need not trigger a sound.

## Double triggering prevention (Mask Time)

When playing a kick trigger the beater can bounce back and hit the head a second time immediately after the intended note—with acoustic drums sometimes the beater stays against the head—this causes a single hit to "double trigger" (two sounds instead of one). The Mask Time setting helps to prevent this. Once a pad has been hit, any additional trigger signals occurring within the specified "Mask Time" (0–64 msec) will be ignored.




**Mask Time:** 0–64 (ms)

Adjust the "Mask Time" value while playing the pad.

When using a kick trigger, try to let the beater bounce back and hit the head very quickly, then raise the "Mask Time" value until there are no more sounds made by the beater rebound.

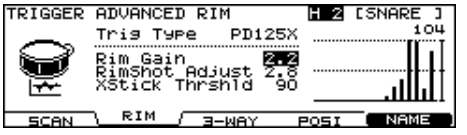
**NOTE**

When set to a high value, it will be difficult to play very quickly. Set this to as low a value as you can.

**MEMO**

If two or more sounds are being produced when you strike the head just once, then adjust Retrig Cancel.

## Detailed Settings for Rim Shots [F2 (RIM)]




The graph in the right side of the screen is a "velocity monitor" that shows the force (velocity) of your strike. It shows the velocities of the sixteen most recent strikes.

| Parameter | Value | Description |
|---|---|---|
| **Trig Type** | refer to p. 96 | |
| **Rim Gain** | 0–3.2 | Rim/Edge dynamic response (p. 104) |
| **RimShot Adjust** | 0–8.0 | Rim shots response (p. 104) |
| **XStick Thrshld** | 0–127 | Cross stick response (p. 104) |

### Rim/Edge dynamic response (Rim Gain)

You can adjust the relation between your playing velocity (force) on the rim/edge and the resulting volume level.

**Rim Gain:** 0–3.2

Higher value allows the rim/edge to produce a loud volume even when played softly. Lower value will keep the rim/edge producing a low volume even when played forcefully.

### Rim shots response (Rim Shot Adjust)

When using a V-pad such as the PD-125X, you can adjust the sensitivity of the rim response.

**RimShot Adjust:** 0–8.0

There are some cases that you have a rim sound unexpectedly when you hit the head strongly. You can improve this situation with decreasing the value of "RimShot Adjust."

When you set the value too small, it might be difficult to play the rim sound.

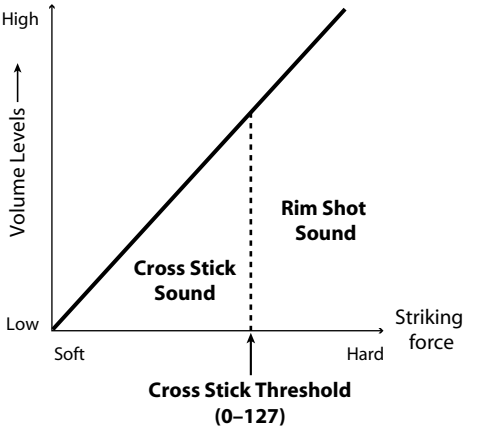
### Cross stick threshold (XStick Thrshld)

When using a V-pad such as the PD-125X, you can adjust the force at which you'll switch between the cross stick sound and the open rim shot sound.

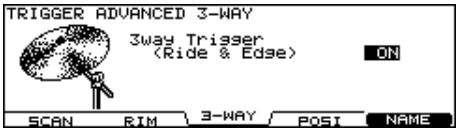
**XStick Thrshld:** 0–127

Setting this to a higher value makes it easier to get cross stick sounds. When set to "0," playing a cross stick produces the open rim shot sound.

**NOTE** Increasing the value excessively may cause the cross stick to sound as well when the open rim shot is played.



## Settings for Separate Triggering of Ride Strikes [F3 (3-WAY)]




| Parameter | Value | Description |
|---|---|---|
| **3Way Trigger (Ride & Edge)** | OFF, ON | Enable/disable separate triggering of bow/bell/edge strikes on the ride cymbal |

### Playing bow, bell, and edge (3Way Triggering)

When using the CY-15R or CY-12R/C for the RIDE, you can three way triggering (bow, bell, and edge shot) performance are possible.

**3Way Trigger:** OFF, ON

Connect as shown in page 21, set 3Way Trigger to "ON."

### Correspondences between playing method and trigger input

| Playing Method | TD-20X TRIGGER INPUT |
|---|---|
| **Bow Shot** | 10 RIDE head |
| **Bell Shot** | 10 RIDE rim |
| **Edge Shot** | 11 EDGE rim |

**NOTE** Head-side tone for the trigger input 11 EDGE cannot be sounded.

**NOTE** When "3Way Trigger" is set to "ON," "RD CTRL" is displayed for the trigger type for trigger input 11 EDGE. It cannot be changed (p. 96).

## Strike Position Detection On/Off [F4 (POSI)]

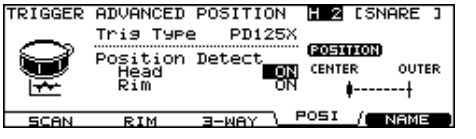
For the pads listed below, strike position detection (p. 34) can be turned on/off.

If you turn strike position detection on, you'll be able to produce tonal change by varying the strike position on the head or by changing the nuance of your rim shots.

### Pads that can detect the strike position

- 2 SNARE (head/rim)
- 3–6 TOM 1–4 (rim)
- 10 RIDE (bow)
- 12–15 AUX 1–4 (rim)

**NOTE** If you select a "Trig Type" that does not support positional sensing, the value will be shown as "- - -", and you won't be able to edit the setting.




| Parameter | Value | Description |
|---|---|---|
| **Trig Type** | See p. 96. | |
| **Position Detect** | | |
| **Head** | ON, OFF | Positional sensing on/off |
| **Rim** | | |

# Naming a Trigger Bank [F5 (Name)]

Each trigger bank can be named (up to 12 characters).

1. **In the "TRIGGER BANK" screen (p. 96), select the trigger bank you want to name.**

2. **Press the [F5 (ADVANCE)] button.**

3. **Press the [F5 (NAME)] button.**

   The "TRIGGER BANK NAME" screen appears.


| Function button | |
|---|---|
| **[F1 (INSERT)]** | A blank space is inserted at the cursor position. |
| **[F2 (DELETE)]** | Character at the cursor position is deleted. |
| **[F3 (SPACE)]** | Character at the cursor position is replaced by a blank space. |
| **[F4 (CHAR)]** | Character at the cursor position changes between uppercase/lowercase alphabet, or numbers and symbols. |

4. **the [CURSOR (left/right)] buttons to move the cursor to the character to be changed.**

5. **Use the [VALUE] dial, the [-] [+], or [CURSOR (up/down)] buttons to change the character.**

6. **When finished, press the [EXIT] button.**

# Copying a Trigger Bank

You can copy a trigger bank from preset memory or from a CompactFlash card.

For user memory, you can rearrange the data by exchanging the copy-source and copy-destination trigger banks.

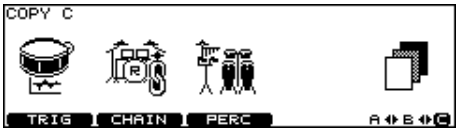
**NOTE** Be aware that when you execute the copy, the contents of the copy-destination will be overwritten.

1. **Press the [COPY] button.**

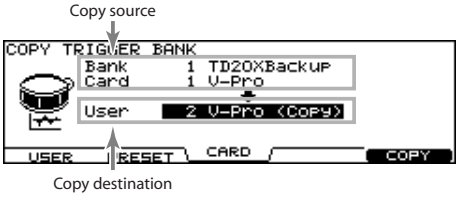
   The [COPY] button will light, and the "COPY A" screen will appear.

   If a CompactFlash card (p. 91) is inserted in the CompactFlash card slot, the CompactFlash indicator will also light.

2. **Press the [F5 (A<>B<>C)] button twice to access the "COPY C" screen.**




3. **Press the [F1 (TRIG)] button.**




4. **Use the [F1]–[F3] buttons to select the copy-source.**

| Function button | |
|---|---|
| **[F1 (USER)]** | Copy from user memory.<br>Exchanging the copy-source and copy-destination is possible only if the copy-source is user memory. |
| **[F2 (PRESET)]** | Copy from preset memory.<br>Choose this if you want to return to the factory settings. |
| **[F3 (CARD)]** | Copy from backup data saved on a CompactFlash card. |

**5. Use the [CURSOR] buttons, [-] [+] buttons, and [VALUE] dial to specify the copy-source and copy-destination.**

If you selected [F3 (CARD)] in step 4, select the copy-source backup number.

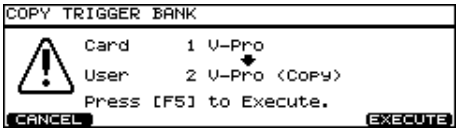
**6. Press the [F4 (EXCHNG)] or [F5 (COPY)] button.**

If you selected [F1 (USER)] in step 4, you can exchange the copy-source and copy-destination by pressing the [F4 (EXCHNG)] button.

Press the [F5 (COPY)] button to execute the copy.

A confirmation message will appear.

(Example: Copying a trigger bank from a CompactFlash card)




If you decide to cancel the copy or exchange, press the [F1 (CANCEL)] button.

**7. Press the [F5 (EXECUTE)] button to execute.**

# Chapter 9. Settings for the Entire TD-20X [SETUP]

The "setup" settings apply to the entire TD-20X; they include the output destination assignments for the TD-20X's sounds, and footswitch.

To edit the setup settings, proceed as follows to access the "SETUP" screen.

**1. Press the [SETUP] button.**

The "SETUP" screen will appear.


| Function button | |
|---|---|
| **[F1 (MIDI)]** | Make MIDI settings (p. 115). |
| **[F2 (OUTPUT)]** | Specify the output destination for the sounds |
| **[F3 (CONTROL)]** | Assign functions to the footswitch or pads (p. 110). |
| **[F4 (OPTION)]** | Make settings for the preview button, master comp/EQs, MIX IN jack, and the display (p. 112). |
| **[F5 (F RESET)]** | Return the TD-20X to its factory-set state (p. 114). (Factory Reset) |

**2. In the "SETUP" screen, press the [EXIT] button to return to the "DRUM KIT" screen.**

## Output Assignments [F2 (OUTPUT)]

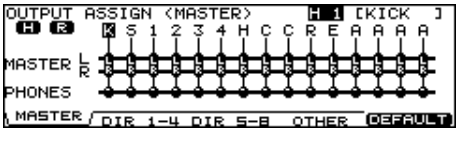
Here is where you can choose how the outputs will function. You can use the PHONES jack as a monitor output, or the MASTER OUT to only output the Ambience or Multi Effects or use DIRECT OUTS 7/8 to output the combined signals of the DIRECT OUT jacks.

All sounds are always output from the Phones Jack.

**1. From the "SETUP" screen, press the [F2 (OUTPUT)] button.**

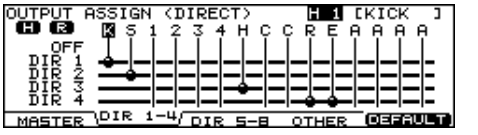
One of the following screens will appear.

**[F1 (MASTER)] button**



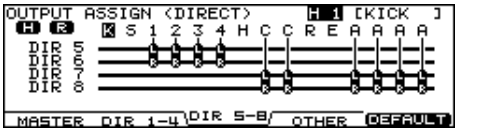

Output assignments from each pad to the MASTER OUT jacks.

**[F2 (DIR 1-4)] button**




Output assignments from each pad to the DIRECT OUT 1–4 jacks.

**[F3 (DIR 5-8)] button**




Output assignments from each pad to the DIRECT OUT 5–8 jacks.

**[F4 (OTHER)] button**


Output assignments from ambience and MFX etc. to the MASTER and DIRECT OUT 5–8 jacks.

**[F5 (DEFAULT)] button**

When one of the [F1]–[F4] screens are displayed, pressing this button will return all displayed output assignments to their default settings (p. 109).

**2. Use the [F1]–[F4] buttons to select the assignments you want to make.**

**3. Use the [CURSOR (left/right)] buttons to select the output assignment you want to change.**

In the [F1 (MASTER)]–[F3 (DIR 5-8)] button screens, you can also make a selection by striking a pad or using the TRIG SELECT buttons.

- [F1 (MASTER)], [F2 (DIR 1-4)], and [F3 (DIR 5-8)] screens

| Trigger input | Indication | Trigger input | Indication | Trigger input | Indication |
|---|---|---|---|---|---|
| **KICK** | K | **HI-HAT** | H | **AUX 1** | A |
| **SNARE** | S | **CRASH 1** | C | **AUX 2** | A |
| **TOM1** | 1 | **CRASH 2** | C | **AUX 3** | A |
| **TOM2** | 2 | **RIDE** | R | **AUX 4** | A |
| **TOM3** | 3 | **EDGE** | E | | |
| **TOM4** | 4 | | | | |

- [F4 (OTHER)] screen

| Indication | Description |
|---|---|
| **AMB** | Ambience (p. 60) |
| **MFX** | Multi-effects (p. 62) |
| **BACK** | The pattern's backing parts (p. 72) |
| **PERC** | The pattern's percussion part (p. 73) |
| **CLICK** | Metronome click (p. 81) |
| **MIXIN** | The sound being input to the MIX IN jack |

**4. Use the [VALUE], the [-] [+], or [CURSOR (up/down)] buttons to select the output destination.**

**5. Press the [EXIT] button to return to the "SETUP" screen.**

cf. "Block Diagram" (p. 144)

## Example Settings

MEMO The MASTER OUT L/R jacks and the DIRECT OUT 1–8 jacks are unbalanced.

### Default settings

As the chart below illustrates, the PHONES jack and the MASTER OUT L/ R jacks will output all sounds. Individual sounds are assigned to DIRECT OUTS 1-8 for individual sound control with a PA system.

| Jack | Output | Example destination |
|---|---|---|
| **PHONES** | All | Monitor headphones |
| **MASTER** | All | Drum monitor |
| **DIRECT OUT 1** | KICK | PA (external mixer) |
| **DIRECT OUT 2** | SNARE | |
| **DIRECT OUT 3** | HI-HAT | |
| **DIRECT OUT 4** | RIDE, EDGE | |
| **DIRECT OUT 5/6** | TOM1–4 (Stereo) | |
| **DIRECT OUT 7/8** | CRASH1, 2, AUX1–4 (Stereo) | |

### Sending the same audio for monitoring and PA

With these settings, the same sound will be output from the PHONES jack, the MASTER OUT L/R jacks, and the DIRECT OUT 7/8 jacks.

The sound being monitored by the performer will be the same as the sound sent to the PA system.

| Jack | Output | Example destination |
|---|---|---|
| **PHONES** | All | Monitor headphones |
| **MASTER** | All | Drum monitor |
| **DIRECT OUT 1** | — | — |
| **DIRECT OUT 2** | — | — |
| **DIRECT OUT 3** | — | — |
| **DIRECT OUT 4** | — | — |
| **DIRECT OUT 5/6** | — | — |
| **DIRECT OUT 7/8** | All | PA (external mixer) |

### Sending Ambience and/or MFX separately

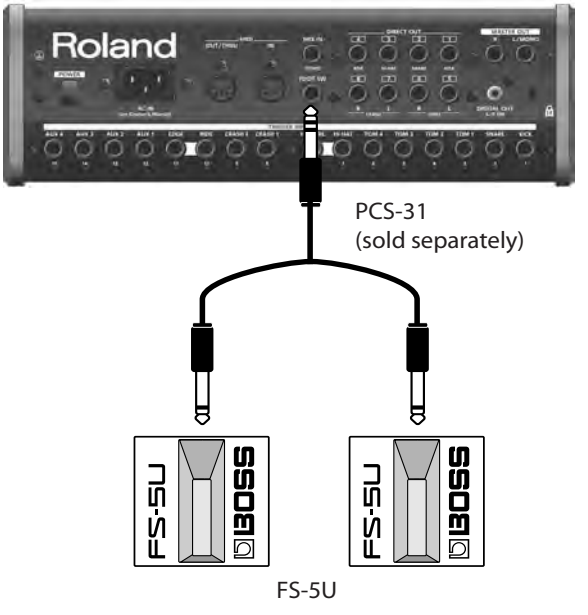
This chart shows how you can use the MASTER OUT L/R jacks. to output the Ambience and/or MFX (multi effects). This allows the PA engineer to balance the effects with the individual sounds.

| Jack | Output | Example destination |
|---|---|---|
| **PHONES** | All | Monitor headphones, drum monitor |
| **MASTER** | Ambience, MFX | PA (external mixer) |
| **DIRECT OUT 1** | KICK | |
| **DIRECT OUT 2** | SNARE | |
| **DIRECT OUT 3** | HI-HAT | |
| **DIRECT OUT 4** | RIDE, EDGE | |
| **DIRECT OUT 5/6** | TOM1–4 (Stereo) | |
| **DIRECT OUT 7/8** | CRASH1, 2, AUX1–4 (Stereo | |

# Assigning a Function to a Footswitch or Pad [F3 (CONTROL)]

## Assigning a Function to a Footswitch [F1 (FOOT SW)]

You can use a special cable (PCS-31: sold separately) to connect two footswitches (BOSS FS-5U: sold separately), and assign the footswitches to various functions such as switching between drum kits or playing patterns.



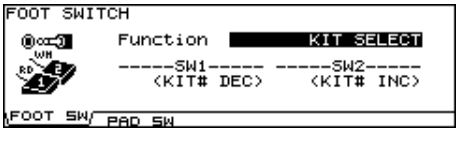

| Footswitch | SW1 | SW2 |
|---|---|---|
| FS-5U x 2 (PCS-31) | o (red plug) | o (white plug) |
| DP-2 | – | o |

o: Functions –: Does not function

**1. In the "SETUP" screen (p. 108), press the [F3 (CONTROL)] button.**

**2. Press the [F1 (FOOT SW)] button.**

The "FOOT SWITCH" screen appears.




**3. Use the [-] [+] buttons or the [VALUE] dial to select the function for footswitches.**

When setting to "USER," use the [CURSOR] buttons to move the cursor to "SW1" or "SW2."

| Function | | Indication | Description |
|---|---|---|---|
| **KIT SELECT** | **SW1** | KIT# DEC | Calls up the previous kit. |
| | **SW2** | KIT# INC | Calls up the next kit. |
| **CHAIN SELECT** | **SW1** | CHAIN# DEC | Calls up the previous drum kit chain. |
| | **SW2** | CHAIN# INC | Calls up the next drum kit chain. |
| **PATTERN SELECT** | **SW1** | PTN# DEC | Calls up the previous pattern. |
| | **SW2** | PTN# INC | Calls up the next pattern. |
| **PATTERN PLAY** | **SW1** | PTN# INC | Calls up the next pattern. |
| | **SW2** | STOP/PLAY | Plays back/stops the pattern. |
| **FIXED HH/ STRAINER** MEMO When this function is selected, the "FIX HH STNR" icon will appear in the "DRUM KIT" screen. | **SW1** | FIXED HH | Specifies whether the hi-hat's "Fixed Hi-Hat" setting (p. 50) will be set to "FIXED 2." |
| | **SW2** | STRAINER | Specifies whether the snare's "Strainer Adj." setting (p. 49) will be turned "OFF." |
| **AMB/MFX SW** | **SW1** | AMBIENCE SW | Turns the ambience effect switch (p. 61) on/off. |
| | **SW2** | MFX SW | Turns the multi-effect switch (p. 62) on/off. |
| **USER** | | Selects the function assigned to SW1 and SW2. | |

### Functions that can be assigned only if "Function" is set to "USER"

| Indication | Description |
|---|---|
| **PTN PLAY** | Plays back the pattern. |
| **PTN STOP** | Stops the pattern. |
| **XSTICK SW** | Switches to use/not use cross stick (p. 32). |

TIP When using footswitches to switch kits in a Drum Kit Chain (p. 43), "Function" should be set to "KIT SELECT," and you need to press the [CHAIN] button, so its indicator is lit. (The Drum Kit Chain settings need to be made beforehand.)

**4. Press the [EXIT] button to return to the "SETUP" screen.**

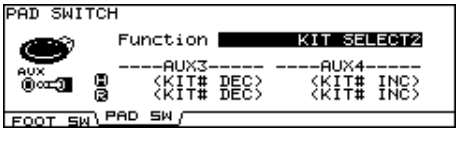
## Using Pads as Switches [F2 (PAD SW)]

Pads connected to trigger input 14 AUX3 and/or 15 AUX4 can be set to switch drum kits and play back patterns.

**1. In the "SETUP" screen (p. 108), press the [F3 (CONTROL)] button.**

**2. Press the [F2 (PAD SW)] button.**

The "PAD SWITCH" screen appears.




**3. Use the [-] [+] buttons or the [VALUE] dial to select the function.**

When setting to "USER," use the [CURSOR] buttons to move the cursor to "AUX3" and "AUX4" and select the functions for the heads and rims.

| Function | AUX | | | Description |
|---|---|---|---|---|
| **OFF** | **3** | OFF | | - |
| | **4** | OFF | | - |
| **KIT SELECT1** | **3** | OFF | | - |
| | **4** | **Head** | KIT# INC | Calls up the next kit |
| | | **Rim** | KIT# DEC | Calls up the previous kit |
| **KIT SELECT2** | **3** | KIT# DEC | | Calls up the previous kit |
| | **4** | KIT# INC | | Calls up the next kit |

| Function | AUX | | | Description |
|---|---|---|---|---|
| **CHAIN SELECT1** | **3** | OFF | | - |
| | **4** | **Head** | CHAIN# INC | Calls up the next drum kit chain |
| | | **Rim** | CHAIN# DEC | Calls up the previous drum kit chain |
| **CHAIN SELECT2** | **3** | CHAIN# DEC | | Calls up the previous drum kit chain |
| | **4** | CHAIN# INC | | Calls up the next drum kit chain |
| **PATTERN SELECT1** | **3** | OFF | | - |
| | **4** | **Head** | PTN# INC | Calls up the next pattern |
| | | **Rim** | PTN# DEC | Calls up the previous pattern |
| **PATTERN SELECT2** | **3** | PTN# DEC | | Calls up the previous pattern |
| | **4** | PTN# INC | | Calls up the next pattern |
| **FIXED HH/ STRAINER1** MEMO When this function is selected, the "FIX HH STNR" icon will appear in the "DRUM KIT" screen. | **3** | OFF | | - |
| | **4** | **Head** | FIXED HH | Specifies whether the hi-hat's "Fixed Hi-Hat" setting (p. 50) will be set to "FIXED 2." |
| | | **Rim** | STRAINER | Specifies whether the snare's "Strainer Adj." setting (p. 49) will be turned "OFF." |
| **FIXED HH/ STRAINER2** MEMO When this function is selected, the "FIX HH STNR" icon will appear in the "DRUM KIT" screen. | **3** | **Head** | FIXED HH | Specifies whether the hi-hat's "Fixed Hi-Hat" setting (p. 50) will be set to "FIXED 2." |
| | | **Rim** | FIXED HH | |
| | **4** | **Head** | STRAINER | Specifies whether the snare's "Strainer Adj." setting (p. 49) will be turned "OFF." |
| | | **Rim** | STRAINER | |
| **KIT AMB/MFX SW1** | **3** | OFF | | - |
| | **4** | **Head** | AMBIENCE SW | Turns the ambience effect switch (p. 61) on/off. |
| | | **Rim** | MFX SW | Turns the multi-effect effect switch (p. 62) on/off. |
| **KIT AMB/MFX SW1** | **3** | **Head** | AMBIENCE SW | Turns the ambience effect switch (p. 61) on/off. |
| | | **Rim** | AMBIENCE SW | |
| | **4** | **Head** | MFX SW | Turns the multi-effect effect switch (p. 62) on/off. |
| | | **Rim** | MFX SW | |
| **USER** | Select from the table below. | | | |

### Functions that can be assigned only if "Function" is set to "USER"

| Indication | Description |
|---|---|
| XSTICK SW | Switches to use/not use cross stick (p. 41). |

TIP

- If you don't want sound from the pad used as a pad switch, press the [MIXER] button and then press the [F1 (VOLUME)] button, and set the volume level for AUX4 and/or AUX3 to "0" (p. 56). Or press the [INST] button and select "561 Off" for AUX4 and/or AUX3 (p. 46).
- When using pad switches to switch kits in a Drum Kit Chain (p. 43), FUNCTION should be set to "KIT SELECT 1" or "KIT SELECT 2," and you need to press the [CHAIN] button, so its indicator is lit. (The Drum Kit Chain settings need to be made beforehand.)

**4. Press the [EXIT] button to return to the "SETUP" screen.**

# Other Settings [F4 (OPTION)]

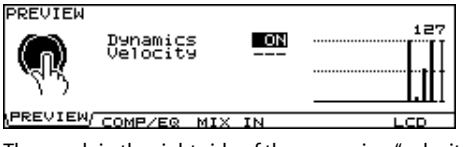
## Specifying the Preview Velocity [F1 (PREVIEW)]

Here, the [PREVIEW] button velocity can be set.

**1. In the "SETUP" screen (p. 108), press the [F4 (OPTION)] button.**

**2. Press the [F1 (PREVIEW)] button.**

The "PREVIEW" screen appears.




The graph in the right side of the screen is a "velocity monitor" that shows the force (velocity) of your strike.

**3. Use the [CURSOR (up/down)] buttons to select the parameter.**

**4. Use the [-] [+] buttons or the [VALUE] dial to make settings.**

| Parameter | Value | Description |
|---|---|---|
| **Dynamics** | OFF | No velocity. Level is fixed. |
| | ON | Button responds to velocity. |
| **Velocity** | 1–127 | Velocity when Dynamics is set to "OFF." |

**5. Press the [EXIT] button to return to the "SETUP" screen.**

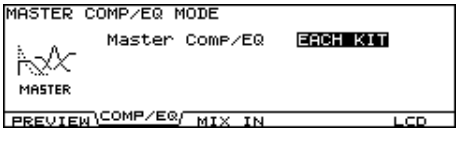
## Making the Master Comp/EQ Settings Identical for All Kits [F2 (COMP/EQ)]

You can specify which is used for the master comp/EQ (p. 65), individual settings for each drum kit or common settings to all kits.

**1. In the "SETUP" screen (p. 108), press the [F4 (OPTION)] button.**

**2. Press the [F2 (COMP/EQ)] button.**

The "MASTER COMP/EQ MODE" screen appears.




**3. Use the [-] [+] buttons or the [VALUE] dial to make settings.**

| Parameter | Value | Description |
|---|---|---|
| **Master Comp/EQ** | EACH KIT | Master comp/EQ for each kit, individually. |
| | GLOBAL | Master comp/EQ common to other drum kits is used. |

When this is set to "GLOBAL," "GLOBAL" appears on the icon at the left part of the master comp/EQ setting screen.


**4. Press the [EXIT] button to return to the "SETUP" screen.**

## Using the MIX IN Jacks as Two Monaural Inputs [F3 (MIX IN)]

The MIX IN jacks can handle mono or stereo signal.

If it occurs that the audio signal going to the MIX IN jack has a click on the Right side, and the backing track on the Left side, you can use this function to merge the signals.

1. **In the "SETUP" screen (p. 108), press the [F4 (OPTION)] button.**

2. **Press the [F3 (MIX IN)] button.**

   The "MIX IN SETTING" screen appears.


3. **Use the [CURSOR (up/down)] buttons to select the parameter.**

4. **Use the [-] [+] buttons or the [VALUE] dial to make settings.**

| Parameter | Value | Description |
|---|---|---|
| **Input** | Selects the jack(s) to use as an input. | |
| | L + R | Use both channels |
| | L ONLY | Use only the left channel |
| | R ONLY | Use only the right channel |
| **Mode** | STEREO | Use as stereo input |
| | MONO | Use as monaural x 2 |
| **Gain (dB)** | 0, +6, +12 | Adjusts the input level |

5. **Press the [EXIT] button to return to the "SETUP" screen.**

## Adjusting the Display Contrast [F5 (LCD)]

The display contrast is strongly influenced by the location of the TD-20X and the lighting of the room it's in. Adjust this parameter when needed.

1. **In the "SETUP" screen (p. 108), press the [F4 (OPTION)] button.**

2. **Press the [F5 (LCD)] button.**

   The "LCD CONTRAST" screen appears.


3. **Use the [-] [+] buttons or the [VALUE] dial to adjust.**

TIP You can also adjust it by holding the [KIT] button and turning the [VALUE] dial.

4. **Press the [EXIT] button to return to the "SETUP" screen.**

# Restoring the Factory Settings [F5 (F RESET)]

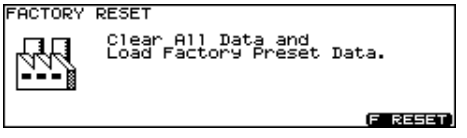
This restores the TD-20X to the original factory settings (Factory Reset).

**NOTE** All data and settings stored in the TD-20X are lost in carrying out this operation. So if necessary, save your data to a CompactFlash card or an external MIDI device before executing the factory reset (p. 92, p. 119).

**1. Press the [SETUP] button.**

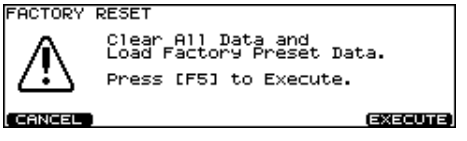
**2. Press the [F5 (F RESET)] button.**

The "FACTORY RESET" screen appears.




**3. Press the [F5 (F RESET)] button.**

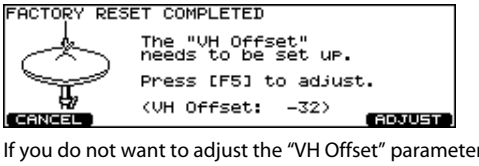
The confirmation screen appears.




To cancel, press the [F1 (CANCEL)] button.

**4. Press the [F5 (EXECUTE)] button to execute Factory Reset.**

When Factory Reset is finished, the following screen appears.

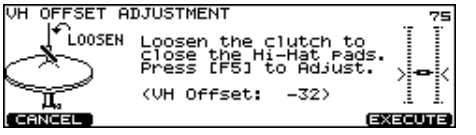



If you do not want to adjust the "VH Offset" parameter, press the [F1 (CANCEL)] button.

**MEMO** The offset adjustment is necessary in order to correctly detect open/close and pedal movements.

**5. Press the [F5 (ADJUST)] button.**

The "VH OFFSET ADJUSTMENT" screen appears.

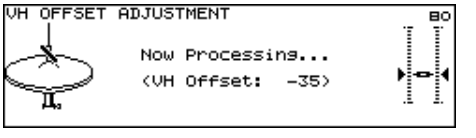



**6. Loosen the clutch screw of the top hi-hat and let it sit on the bottom hi-hat.**

**NOTE** Do NOT touch the hi-hats or the pedal.

**7. Press the [F5 (EXECUTE)] button.**

The "VH Offset" parameter is set automatically.




When finished, the "DRUM KIT" screen appears.

**MEMO** When Factory Reset is carried out, the GROUP FADERS settings values are set to the maximum volume, regardless of the slider positions.

# Chapter 10. MIDI Settings

## About MIDI

MIDI (Musical Instrument Digital Interface) is a standard specification that allows musical data to be transferred between electronic musical instruments and computers. If a MIDI cable is connected between devices equipped with MIDI connectors, you'll be able to play multiple devices from a single MIDI keyboard, perform ensembles using multiple MIDI instruments, program the settings to change automatically as the song progresses, and more.

### About MIDI Connectors

The TD-20X is equipped with the following two types of MIDI connectors, each of which has the following role.

#### MIDI IN Connector

This connector receives MIDI messages that are sent from an external MIDI device. When the TD-20X receives MIDI messages, it can respond by playing notes, switching sounds, etc.

#### MIDI OUT/THRU connector

This connector transmits MIDI messages to an external MIDI device. Use it when you want to control an external MIDI device.

If the "Soft Through" setting (p. 116) is turned "ON," this connector will operate as a MIDI THRU connector. Messages received at the MIDI IN connector will be re-transmitted without change from this connector to an external MIDI device. Use this when you want multiple MIDI devices to receive the same stream of messages.

## MIDI Channel Settings [F1 (MIDI CH)]

For each part, you can specify the channel on which the TD-20X will receive and transmit MIDI messages.

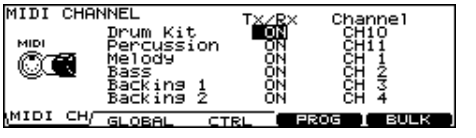
**1. Press the [SETUP] button.**

The [SETUP] button lights, and the "SETUP" screen appears.

**2. Press the [F1 (MIDI)] button.**

**3. Press the [F1 (MIDI CH)] button.**

The "MIDI CHANNEL" screen appears.




**4. Use the [CURSOR (up/down)] buttons to select the part you wish to set.**

**5. Use the [CURSOR (left/right)] buttons to select the parameter.**

**6. Use the [-] [+] buttons or the [VALUE] dial to make settings.**

| Parameter | Value | Description |
|---|---|---|
| **Tx/Rx** | OFF, ON | Turns the transmitting and receiving MIDI messages ON or OFF. |
| **Channel** | CH1–CH16 | Transmit and receive channel |

MEMO

- Drum kit part and percussion part can be overlaid and set to "CH10." When a duplicate note number is received, the instrument assigned to the drum kit part (the pad instrument) sounds.
- Other parts and MIDI channels cannot be overlaid.

**7. Press the [EXIT] button twice to return to the "DRUM KIT" screen.**

# MIDI Channel Settings for the Entire TD-20X [F2 (GLOBAL)]

1. **Press the [SETUP] button.**

   The [SETUP] button lights, and the "SETUP" screen appears.

2. **Press the [F1 (MIDI)] button.**

3. **Press the [F2 (GLOBAL)] button.**

   The "MIDI GLOBAL" screen appears.


4. **Use the [CURSOR (up/down)] buttons to select the parameter.**

5. **Use the [-] [+] buttons or the [VALUE] dial to make settings.**

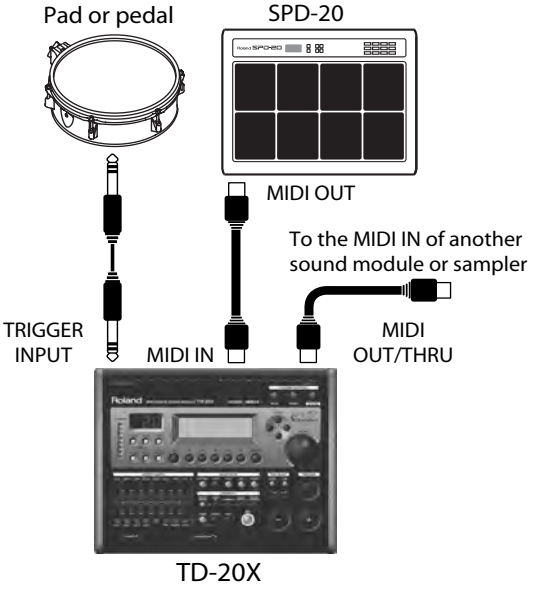
| Parameter | Value | Description |
|---|---|---|
| **Soft Thru** | OFF, ON | Soft Through on/off |
| **Local Control** | OFF, ON (DRUM), ON (PERC) | Local Switch on/off (p. 117) |
| **Device ID** | 1–32 | Device ID setting (p. 117) |
| **V-LINK MIDI Ch** | CH1–CH16 | V-LINK transmit channel (p. 118) |
| **V-LINK Device ID** | 1–32, 128 | V-LINK device ID (p. 118) |

6. **Press the [EXIT] button twice to return to the "DRUM KIT" screen.**

## Playing an External MIDI Sound Module from Another MIDI Controller (Soft Through)

This section explains how you can use the Roland SPD-20 (a MIDI controller) together with the TD-20X's pads to play internal sounds and an external sound module.

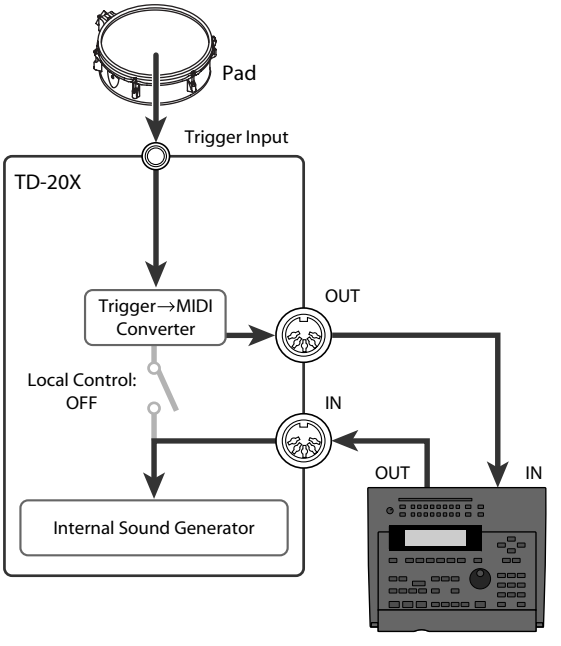
When "Soft Thru" is set to "ON," the messages received at MIDI IN will also be transmitted from the MIDI OUT/THRU connector.



## Recording the Pad Performance on an External Sequencer (Local Control)

This is required when you want to trigger sounds in an external sound module and/or record your performance on an external MIDI sequencer, and NOT use the TD-20X's internal sounds. If that is your need, then turn "Local Control" to "OFF." The trigger signals from the pads go directly to the MIDI OUT/THRU connector.

The TD-20X's default mode is with Local Control "ON."




External MIDI Sequencer
(Soft Thru: ON)

If you make connections and record as shown, with a setting of "Local Control" "ON," duplicate notes will be re-transmitted to the TD-20X and will not be played correctly.

**ON (DRUM):**

The performance data from the pad is sent to the drum kit part. Normally set to this.

**ON (PERC):**

The performance data from the pad is sent to the percussion part and drum kits cannot be played. Select this only when you record the percussion part with pads.

**NOTE**

When "Local Control" is set to "ON (PERC)," the sound does not change if you switch drum kits because drum kits cannot be played with pads.

## Setting the Device ID

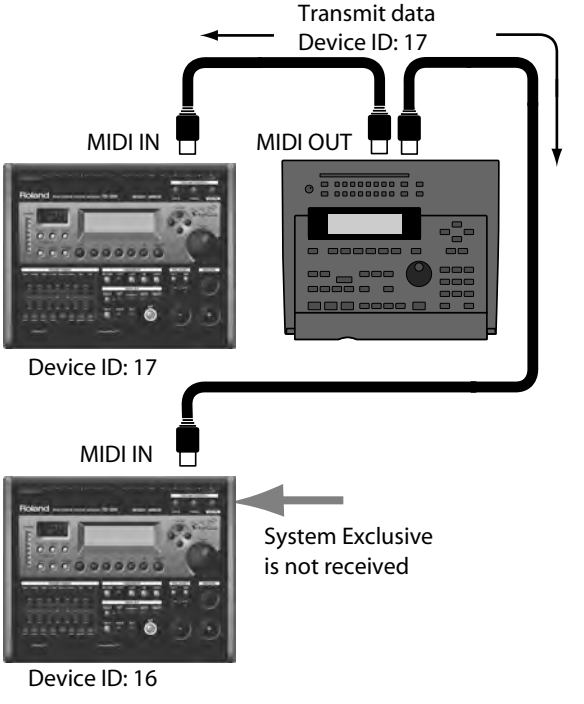
The setting described here is necessary only when you wish to transmit separate data to two or more TD-20X units at the same time. Do not change this setting in any other case. (At the factory settings, the device ID is set to "17.")

**NOTE**

If you lose track of the Device ID setting that was used when saving data via a bulk dump, it will no longer be possible to reload the bulk data that was saved.

**Example:**

Suppose that when data was saved via bulk dump (p. 119), the TD-20X's Device ID was set to "17." When re-transmitting this data back to the TD-20X, it won't receive if the Device ID is set to something other than "17."



## MIDI Settings for V-LINK

### V-LINK MIDI Ch (V-LINK MIDI Channel)

When V-LINK function (p. 123) is on, the performance data recorded in the backing part of the sequencer is transmitted on this channel.

At the factory settings, this is set to "CH16."

### V-LINK Device ID

Set this ID to match the device ID number of the device which is controlled by the TD-20X. If this is set to "128," you can control the device regardless of the device ID number of it.

At the factory settings, this is set to "128."

# MIDI Message Settings for Detailed Performance Expression [F3 (CTRL)]

**1. Press the [SETUP] button.**

The [SETUP] button lights, and the "SETUP" screen appears.

**2. Press the [F1 (MIDI)] button.**

**3. Press the [F3 (CTRL)] button.**

The "MIDI CONTROL" screen appears.


**4. Use the [CURSOR (up/down)] buttons to select the parameter.**

**5. Use the [-] [+] buttons or the [VALUE] dial to make settings.**

| Parameter | Value | Description |
|---|---|---|
| **Pedal CC** | OFF, MODULATION(1), BREATH(2), FOOT(4), EXPRESSION(11), GENERAL1(16)–GENERAL4(19) | Control change used for transmitting/receiving the depth to which the hi-hat pedal pressed |
| **Snare CC** | | Control change used for transmitting/receiving the strike position of the snare, ride, and tom 1–4 |
| **Ride CC** | | |
| **Toms CC** | | |
| **HH Note# Border** | 0–127 | **The only time you would need to change this setting is when you are triggering an external sound module.** The note number transmitted when you strike the hi-hat will change depending on the amount of pressure on the hi-hat pedal. Hi-Hat Note Number Border allows you to adjust the pedal position at which the note number switches from the open hi-hat to the closed hi-hat. At the factory default value (127), the closed hi-hat note number will be transmitted only if the hi-hat pad is played with the pedal completely depressed. If you want this note number to be transmitted when the pedal is slightly raised, set this to a value such as 90. **NOTE** If you change the hi-hat note number border setting, the actual hi-hat performance may not match the playback of the recorded pattern. |

**MEMO** When a control change is set to be more than one parameter, an asterisk (*) appears at the right of the unavailable parameter.

**6. Press the [EXIT] button twice to return to the "DRUM KIT" screen.**

# Specifying the Drum Kits Recalled by Program Changes [F4 (PROG)]

Each drum kit/percussion set has its own program change number.

1. **Press the [SETUP] button.**

   The [SETUP] button lights, and the "SETUP" screen appears.

2. **Press the [F1 (MIDI)] button.**

3. **Press the [F4 (PROG)] button.**

   The "MIDI PROGRAM CHANGE (DRUM KIT)" or "MIDI PROGRAM CHANGE (PERC SET)" screen appears.



| Function button | |
|---|---|
| **[F1 (RX ON)]** | Turns program change reception on/off. |
| **[F2 (TX ON)]** | Turns program change transmission on/off. |
| **[F3 (DRM KIT)]** | Specifies the program change for each drum kit. |
| **[F4 (PRC SET)]** | Specifies the program change for each percussion set. |

4. **Press the [F3] or [F4] button to select the function.**

5. **Use the [CURSOR (up/down)] buttons to select the drum kit or percussion set you wish to set.**

6. **Use the [-] [+] buttons or the [VALUE] dial to make settings.**

   The drum kits/percussion sets will switch when a Program Change message is received from an external MIDI device.

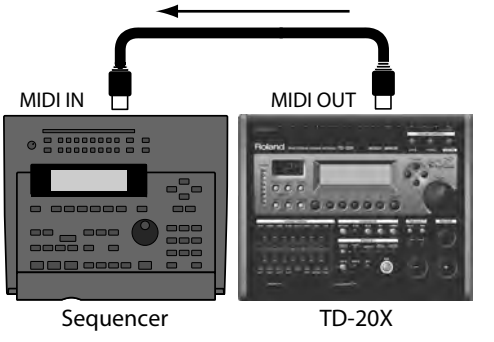
   When you switch TD-20X's drum kits/percussion sets, the Program Change number set here is transmitted.

# Saving Data to an External MIDI Device (Bulk Dump) [F5 (BULK)]

## Saving data

To save data, use the external sequencer as you would when recording musical data, and perform the following steps on the TD-20X as shown in the following diagram.

1. **Connect the TD-20X's MIDI OUT connector with a MIDI cable to the MIDI IN connector of the external sequencer.**



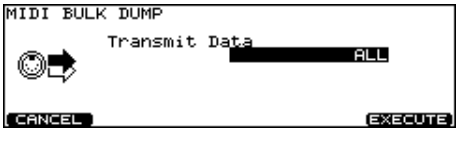

2. **Press the [SETUP] button.**

   The [SETUP] button lights, and the "SETUP" screen appears.

3. **Press the [F1 (MIDI)] button.**

4. **Press the [F5 (BULK)] button.**

   The "MIDI BULK DUMP" screen appears.



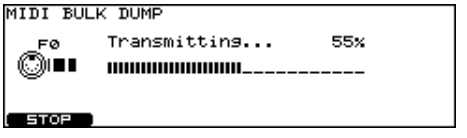
**5. Use the [VALUE] dial, the [-] [+], and [CURSOR (up/down)] buttons to select the content to be sent.**

| Transmit Data | Description |
|---|---|
| **ALL** | All data, including setup, drum kits, user percussion sets, user patterns |
| **SETUP** | Trigger, pad, and other kinds of settings |
| **ALL DRUM KITS** | All data for drum kits 1–100 |
| **1 DRUM KIT** | Only the data for the selected drum kit |
| **ALL TRIG BANKS** | All settings for trigger banks 1–4 |
| **1 TRIG BANK** | Only the settings for the selected trigger bank |
| **ALL PERC GROUPS** | All data for the user percussion sets 1–8 |
| **1 PERC GROUP** | Only the data for the selected percussion set |
| **ALL PATTERNS** | All data for the user patterns 151–250 |

**6. Start the recording process of the external sequencer.**

**7. Press the [F5 (EXECUTE)] button to begin sending the data.**

If you want to stop sending, press the [F1 (STOP)] button.




**8. When finished, the following screen appears.**

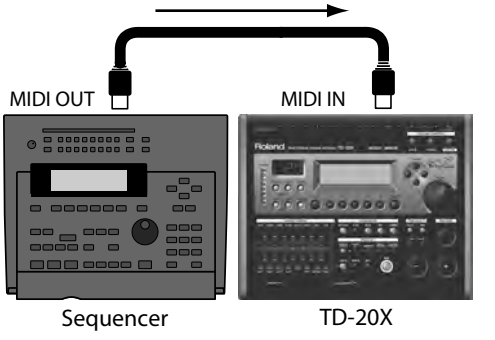

**9. Press [EXIT)] button to return to the previous screen.**

**NOTE** Bulk Dump is one kind of System Exclusive message. Be sure to use an external MIDI sequencer that is capable of recording System Exclusive messages. In addition, confirm that the sequencer is not set to "Do not receive System Exclusive messages."

## Loading data to the TD-20X

**NOTE** At this time, all the TD-20X's current data is overwritten. Make sure you have made the needed backup.

**1. Connect the TD-20X's MIDI IN connector with a MIDI cable to the MIDI OUT connector of the external sequencer.**




**2. Get your external sequencer to start sending the settings data that was previously bulk dumped to it.**

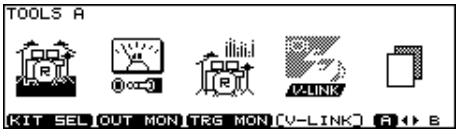
Received data is written into the TD-20X.

# Chapter 11. Other Functions [TOOLS]

Press the [TOOLS] button to see various parameters or use functions such as "Kit Selection" or "V- LINK"

**1. Press the [TOOLS] button.**

The [TOOLS] button lights, and the "TOOLS A" screen appears.





| Function button ("TOOLS A" screen) | |
|---|---|
| **[F1 (KIT SEL)]** | Allows you to play a drum kit saved on a CompactFlash card without loading the kit. (Kit Selection) |
| **[F2 (OUT MON)]** | Displays the output volume of each jack (p. 122). |
| **[F3 (TRG MON)]** | Displays the trigger data of each pad (p. 123). |
| **[F4 (V-LINK)]** | Allows you to control images from the TD-20X (p. 123). (V-LINK) |
| **[F5 (A<>B)]** | Switches between the "TOOLS A" screen and "TOOLS B" screen. |
| **Function button ("TOOLS B" screen)** | |
| **[F1 (INFO)]** | Displays the usage status of the TD-20X's memory and of the CompactFlash card, and displays the version of the TD-20X's operating program (p. 125). |
| **[F5 (A<>B)]** | Switches between the "TOOLS A" screen and "TOOLS B" screen. |

**2. In the "TOOLS A" or "TOOLS B" screen, press the [EXIT] or [KIT] button to return to the "DRUM KIT" screen.**

## Playing a Kit from the CompactFlash without Loading It (Kit Selection) [F1 (KIT SEL)]

A TD-20 or TDW-20 preset drum kit or any kit saved on a CompactFlash card can be played without loading it. This function is called "Kit Selection." It's an easy way to "audition" kits before loading them into the internal memory.

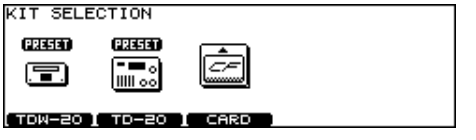
If desired, you can also copy the drum kit from the card to a drum kit in user memory.

**NOTE** In this mode kits can not be edited and the Pad Pattern function (p. 52) will not work.

If you want to use a drum kit from a CompactFlash card, insert the card into the TD-20X before you continue.

**1. In the "TOOLS A" screen, press the [F1 (KIT SEL)] button.**

The "KIT SELECTION" screen will appear.




| Function button | |
|---|---|
| **[F1 (TDW-20)]** | TDW-20 preset drum kits |
| **[F2 (TD-20)]** | TD-20 preset drum kits |
| **[F3 (CARD)]** | Drum kit from a backup saved on the CompactFlash card |

**2. Use the [F1]–[F3] buttons to select the location of the desired drum kit.**

**3. Use the function buttons, [CURSOR], [-] [+] buttons, and [VALUE] dial to select the desired drum kit.**

| Function button | |
|---|---|
| **[F1 (LIST)]** | Displays a list of drum kits. |
| **[F5 (COPY)]** | Copies the selected drum kit to a drum kit in user memory. |
| **If you selected [F3 (CARD)] in step 2** | |
| **[F2 (BANK -)]** | Selects the next-numbered backup. |
| **[F3 (BANK +)]** | Selects the previous-numbered backup. |

TIP By holding down the [SHIFT] button and pressing the [KIT] button, you can access a screen where the CompactFlash card is selected as the drum kit selection location.

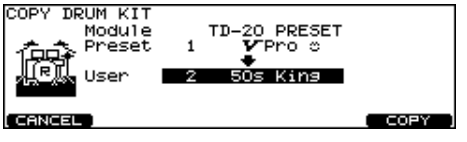
**4. Play the drum kit.**

Now you can play the drum kit that shows in the screen.

This function is cancelled if you exit the "KIT SELECTION" screen.

## Copying the Drum Kit Chosen in Kit Selection

**1. Select a drum kit as described in steps 1–3 of "Playing a Kit from the CompactFlash without Loading It (Kit Selection) [F1 (KIT SEL)]" (p. 121).**

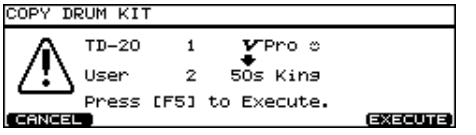



**2. Press the [F5 (COPY)] button.**

**3. Use the [-] [+] buttons or [VALUE] dial to select the copy-destination drum kit.**

**4. Press the [F5 (COPY)] button.**

A confirmation message will appear.




If you decide to cancel the copy or exchange, press the [F1 (CANCEL)] button.

**5. Press the [F5 (EXECUTE)] button to execute.**

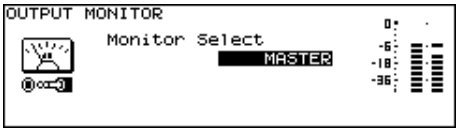
When copying has been completed, Kit Selection will be cancelled, and the "DRUM KIT" screen will appear with the copied drum kit selected.

# Viewing the Output Level (OUPUT MONITOR) [F2 (OUT MON)]

You can view the volume that is being output from the MASTER OUT, PHONES, or DIRECT OUT jacks.

**1. In the "TOOLS A" screen (p. 121), press the [F2 (OUT MON)] button.**

The "OUTPUT MONITOR" screen appears.




**2. Use the [-] [+] buttons or the [VALUE] dial to select the output.**

**3. Press the [EXIT] button to return to the "TOOLS A" screen.**

MEMO You can also access the "OUTPUT MONITOR" screen by pressing the [KIT] button and then pressing the [F2 (FUNC)] button (p. 41).

# Viewing Trigger Information for Each Pad [F3 (TRG MON)]

You can view realtime information that shows the force (velocity) with which each pad is struck, how far the hi-hat is open, and the strike position on the snare, ride cymbal, toms, and AUX.

MEMO

Performance data received from the drum part of the pattern that's playing and performance data received from the MIDI IN connector is also shown.

**1. In the "TOOLS A" screen (p. 121), press the [F3 (TRG MON)] button.**

The "TRIGGER MONITOR" screen appears.


**2. Strike the pads.**

The meter indications in the screen will move in realtime, allowing you to view the following information.

| Indication | Description |
|---|---|
| **VELOCITY** | Shows the force of the strike on each pad. |
| **HI-HAT** | Shows how far the hi-hat is open. The indicator will move toward "OPEN" as the hi-hat opens, and toward "PRESS" as it closes. |
| **POSITION** | Indicates the rim strike position on the snare, ride cymbal, toms, and AUX. The indicator will move toward "CENTER" as the strike is closer to the center of the pad, and toward "OUTER" as the strike is closer to the edge of the pad. |
| **INTERVAL** | Indicates the time interval at which the pad is struck. The indicator will move toward the right to indicate a shorter time interval. The cymbal or snare roll sound will change smoothly depending on the interval between repeated strikes. |
| **CHOKE** | The "CHOKE" icon appears when the cymbal is choked. |

**3. Press the [EXIT] button to return to the "TOOLS A" screen.**

# Using the TD-20X to Control Images [F5 (V-LINK)]

## What is V-LINK?

V-LINK ( V-LINK ) is a function that allows music and images to be performed together. By using MIDI to connect two or more V-LINK compatible devices, you can easily enjoy performing a wide range of visual effects that are linked to the expressive elements of a music performance.

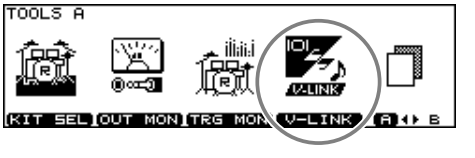
## Using V-LINK

### Turning V-LINK on/off

**1. Press the [TOOLS] button.**

The [TOOLS] button lights, and the "TOOLS A" screen appears.

**2. Press the [F4 (V-LINK)] button to turn the V-LINK function ON and OFF.**




**3. Press the [KIT] or [EXIT] button to display the "DRUM KIT" screen.**

When V-LINK is on, the V-LINK icon appears in the "DRUM KIT" screen.


MEMO

The V-LINK function will always be OFF when you turn the TD-20X's power on.

## V-LINK functions that the TD-20X can Control and MIDI messages

When playing a pattern by hitting a pad (Pad Pattern; p. 52), you can assign the following functions to the note messages recorded in the backing parts of the pattern to control the V-LINK-compatible video equipment.

**MEMO**

- The backing parts are the parts other than the drum part and percussion part of the internal sequencer.
- Set "Play Type" (p. 78) of the pattern to "VLINK."
- The Performance data recorded in the backing part of the sequencer is transmitted on "V-LINK MIDI Ch" (p. 118).
- Set "V-LINK Device ID" (p. 118) to match the device ID number of the video equipment which is controlled by the TD-20X (p. 118).

| V-LINK function | | Transmitted MIDI messages |
|---|---|---|
| Palette 1–20 | Selecting a palette | Note On (*1) |
| Clip 1–28 | Selecting a clip | Note On (*2) |
| Dissolve Time | Changing the time of the transition between clips | Note On (*2) (Velocity) |

| *1 | | *2 | |
|---|---|---|---|
| **Palette No.** | **Note No.** | **Clip No.** | **Note No.** |
| Palette 1 | 37 (C#2) | Clip 1 | 36 (C2) |
| Palette 2 | 39 (D#2) | Clip 2 | 38 (D2) |
| Palette 3 | 42 (F#2) | Clip 3 | 40 (E2) |
| Palette 4 | 44 (G#2) | Clip 4 | 41 (F2) |
| Palette 5 | 46 (A#2) | Clip 5 | 43 (G2) |
| Palette 6 | 49 (C#3) | Clip 6 | 45 (A2) |
| Palette 7 | 51 (D#3) | Clip 7 | 47 (B2) |
| Palette 8 | 54 (F#3) | Clip 8 | 48 (C3) |
| Palette 9 | 56 (G#3) | Clip 9 | 50 (D3) |
| Palette 10 | 58 (A#3) | Clip 10 | 52 (E3) |
| Palette 11 | 61 (C#4) | Clip 11 | 53 (F3) |
| Palette 12 | 63 (D#4) | Clip 12 | 55 (G3) |
| Palette 13 | 66 (F#4) | Clip 13 | 57 (A3) |
| Palette 14 | 68 (G#4) | Clip 14 | 59 (B3) |
| Palette 15 | 70 (A#4) | Clip 15 | 60 (C4) |
| Palette 16 | 73 (C#5) | Clip 16 | 62 (D4) |
| Palette 17 | 75 (D#5) | Clip 17 | 64 (E4) |
| Palette 18 | 78 (F#5) | Clip 18 | 65 (F4) |
| Palette 19 | 80 (G#5) | Clip 19 | 67 (G4) |
| Palette 20 | 82 (A#5) | Clip 20 | 69 (A4) |
| | | Clip 21 | 71 (B4) |
| | | Clip 22 | 72 (C5) |
| | | Clip 23 | 74 (D5) |
| | | Clip 24 | 76 (E5) |
| | | Clip 25 | 77 (F5) |
| | | Clip 26 | 79 (G5) |
| | | Clip 27 | 81 (A5) |
| | | Clip 28 | 83 (B5) |

**MEMO**

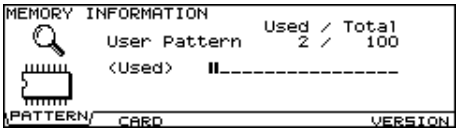
Refer to the owner's manual that came with the equipment you're connecting for details concerning clips, pallets, dissolve times, etc.

# Viewing the Remaining Memory and the Program Version [F1 (INFO)]

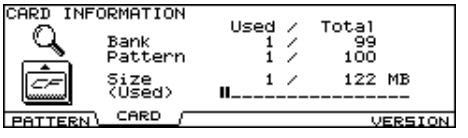
1. **In the "TOOLS B" screen (p. 121), press the [F1 (INFO)] button.**

2. **Use the [F1], [F2], or [F5] button to display the status you want to see.**

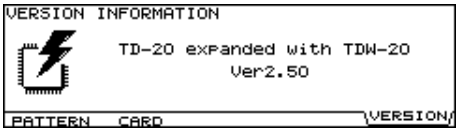
   **[F1 (MEMORY)] button:** Information of the internal memory




   **[F2 (CARD)] button:** CompactFlash card information




   **[F5 (VERSION)] button:** TD-20X's internal program version




3. **Press the [EXIT] button to return to the "TOOLS B" screen.**

# Messages and Error Messages

This section lists the messages (error messages) that the TD-20X produces and explains the meaning of each message, giving you the appropriate action to take.

**MEMO** When an indication of "ACCEPT" is shown above the [F5] button as in the figure, pressing that button will close the message window.


## Error Messages

| Message | Meaning | Action |
|---|---|---|
| Backup Battery Low! | The internal backup battery of the TD-20X (a battery that maintains data in the user memory) has run down. | Contact your dealer or a nearby Roland service center to have the battery replaced. |
| System Initialize | Data in the TD-20X's memory may be corrupted. The TD-20X's internal backup battery (the battery used for saving User memory data) is fully drained; internal data has been lost. | Contact your dealer or a nearby Roland service center to have the battery replaced. Follow the messages appearing on the screen to carry out Factory Reset (p. 114); you will then be able to use the unit temporarily. |
| MIDI Communication Error! | It is possible that the power has been turned off for the MIDI device connected to the TD-20X's MIDI IN connector. | Check the power of the connected MIDI device. |
| System Error! | A problem has occurred with the internal system. | Contact your dealer or a nearby Roland service center. |
| Measure Maximum! | The maximum number of measures that can be recorded to one pattern has been exceeded; no further recording or editing that adds measures can be carried out. | Delete unneeded measures from the pattern being recorded or edited (p. 88). |
| Step Maximum! | The maximum number of steps that can be recorded to one chain has been exceeded; no further editing that adds steps can be carried out. | Delete unneeded steps from the chain being edited (p. 43). |
| Data Overload! | Pattern contained an excessive amount of data, and as a result could not be output successfully from MIDI OUT. | Try eliminating a part that has too much data. |
| Not Enough Memory! | Pattern recording or editing could not be carried out because there was not enough internal memory. | Try deleting patterns that are no longer needed (p. 88). |
| No Card! | No card is in the CompactFlash card slot. | Insert a CompactFlash card. |
| No Space! | There are no empty space on the CompactFlash card. | Delete unneeded data (p. 94). |
| No Data! | No data you request on the CompactFlash card. | – |
| Unsupported! | A card the size of which is not supported by TD-20X has been inserted. | Cards supported by TD-20X are 3.3 V CompactFlash cards with the capacity of 16 MB to 4 GB. Check the card. |
| Unformatted! | A card the format of which is not supported by TD-20X has been inserted. | Format the card (p. 94). |
| Card Damaged! | The data stored on the card has been corrupted. | Format the card (p. 94). |
| BULK DUMP Checksum Error! | The checksum value of a system exclusive message was incorrect. | Correct the checksum value. |
| BULK DUMP Receive Address Error! | The receive address of a system exclusive message was incorrect. | Correct the receive address. |
| BULK DUMP Receive Data Error! | A MIDI message was received incorrectly. | If the same error message is displayed repeatedly, there is a problem with the MIDI messages that are being transmitted to the TD-20X. |
| BULK DUMP Receive Time Out! | The interval in receiving system exclusive messages were too long. | Make the interval of the data shorter. |

# Messages

| Message | Meaning | Action |
|---|---|---|
| BULK DUMP<br>Receiving... Please Wait. | Bulk data is now being received. | – |
| BULK DUMP<br>Aborted! | Bulk data transmission was halted. | – |
| Preset Pattern! | You cannot record on the preset pattern. | Copy the pattern onto a user pattern. |
| Empty Pattern! | This pattern contains no performance data; it cannot be edited. | Select the other pattern that contains performance data. |
| No Empty Pattern! | There are no empty patterns for recording. | Delete unneeded pattern (p. 88). |
| MIDI Offline! | A MIDI cable was disconnected. (Or communication with the external MIDI device stopped for some reason.) | Make sure that MIDI cables have not been pulled out or broken. |
| MIDI Buffer Full! | A large amount of MIDI messages were received in a short time, and could not be processed completely. | Confirm that the external MIDI device is properly connected. If the problem persists, reduce the amount of MIDI messages sent to the TD-20X. |
| No Empty Backup! | There are no empty backup area on the CompactFlash card. | Delete unneeded backup (p. 94). |
| No Empty<br>Backup Pattern! | There are no empty backup pattern on the CompactFlash card. | Delete unneeded backup pattern (p. 90). |
| Power On Too Long.<br>Please Turn Off! | The power remains ON for a long time. | Turn the TD-20X's power off, then turn on again. |
| Auto Shutdown<br>Completed.<br>Please Turn Off! | | |

# Preset Drum Kit List

## Preset Drum Kit List

| No. | Kit Name | Pad Ptn | Description |
|---|---|---|---|
| 1 | TD-20X | | Allows you to explore the expressive capabilities of the V-Drums. |
| 2 | 50s King | | This kit features dry and vintage sounds. |
| 3 | CtrlRoom | | A dry, "recording studio" type sounding kit. |
| 4 | Metal Core | | Perfect for heavy metal music. |
| 5 | FunkGroove | | Funk kit with an open-sounding snare. |
| 6 | 40s Bop | | This kit features an 18" jazz kick. |
| 7 | process | | Heavily processed! |
| 8 | Cajon | | This kits features sounds from all over the world. |
| 9 | melodious | TAP | There are melodies everywhere! |
| 10 | Premium | | Great sounding rock kit. |
| 11 | SwingJazz | | Swing jazz kit with a bright sound. |
| 12 | BluesRock | | Blues rock kit with a loose feel. |
| 13 | DryStudio | | Dry studio sound kit with no ambience. |
| 14 | 2HH House | | This kit has a 2nd hi-hat on the 2nd tom. |
| 15 | TechFusion | | Fusion kit with short, bright ambience. |
| 16 | LetitBeat | | A dry and "lo-fi" kit, with a tambourine layered on the hi-hat. |
| 17 | neotype | 1SHOT, TAP | Tap patterns are assigned to the cymbal edges. |
| 18 | jazzbop | | Jazz live kit with room sound. |
| 19 | RawBeat | | Distorted kit featuring the lo-fi multi effect. |
| 20 | Vintage Rock | | Vintage rock kit with a large-diameter kick drum. |
| 21 | D-N-B | LOOP | Pattern is assigned to crash 2, and toms 1 & 2 feature a dynamically controlled, filtered sound. |
| 22 | GarageRock | | A vintage 70's sound. |
| 23 | 80s Funk | | Tight and bright funk kit. |
| 24 | Cashmirror | | Features a phaser effect. |
| 25 | BREAKs | | perfect for break beats & hip hop. |
| 26 | 90s Rock | | Rock kit with a bright ambience and rock toms. |
| 27 | jazzclub | | Featuring one of the new ambiences-jazz club. |
| 28 | Jive | | Jive/jazz/pop kit with an 8-inch tom and tight snare. |
| 29 | AmbRock | | Features a combination of reverb and ambience. |
| 30 | cosmic | | A very non-acoustic sounding kit. |
| 31 | crossover | | Crossover sound of the 70's created with compression and gating. |
| 32 | Vintage Jazz | | Jazz kit marked by a distinctive ride sizzle and open kick/toms. |
| 33 | Coolth | | A very tight and compressed kit. |
| 34 | U-Blue | | A lot of ambience is used on this kit. |
| 35 | FunkyJungle | LOOP | Various patterns are assigned to the crash cymbals. |
| 36 | natural | | Tight, dry and natural sounding kit. |

| No. | Kit Name | Pad Ptn | Description |
|---|---|---|---|
| 37 | LA BeBop | | Typical drum kit for bebop. |
| 38 | MBsHouse | | Perfect for house and trance music. |
| 39 | Bronze | | Kit with compressor and ambience adjusted for tight sound. |
| 40 | DarkComper | | Heavily compressed kit. |
| 41 | Drums&DJ | | A very hybrid kit. |
| 42 | GATED | | This features the new gate ambience. |
| 43 | RotoFXCity | | The hi hat functions as a pitch bender for the toms. |
| 44 | PopDelay | | This uses the sync delay effect. Test it with different tempo settings. |
| 45 | 1985 | | 1980's electronic sound. |
| 46 | Dizzy | | Kit with a distinctive flanger. |
| 47 | BrazilPerc | | Kit containing a collection of Brazilian percussion. |
| 48 | LatinDrums | | Features the new laying function on the hi-hat and snare rim. |
| 49 | AsianV | | Features Asian percussion. |
| 50 | FLANGER | 1SHOT, TAP | Tap patterns on crash 1 & 2 and flanged patterns on the tom rims. |
| 51 | VPro | | Standard drum sound of the original TD-20. |
| 52 | Slamin' | LOOP | Loop pattern is played on Clash 2's bow. |
| 53 | METAL | | Slash metal kit created with suitable EQ, compressor, and ambience. |
| 54 | JazzCombo | | Playing the kick strongly will appropriately mute the open sound. |
| 55 | OverDrive | TAP | Bass is played on the Kick. |
| 56 | Titanium | | Kit containing a snare with a distinctive ring. |
| 57 | RotoKit | LOOP | Loop pattern is played on Clash 2's bow. |
| 58 | UNIVERSE | | Kit that uses ambience to thicken the sound. |
| 59 | Skanky | | Loose-sounding kit with a raw-feeling decay. |
| 60 | Brushes | | You can play this kit with brushes. |
| 61 | Spark | | Sharp, bright sounding kit. |
| 62 | GT | | Dry-sounding vintage-feel kit. |
| 63 | Antique | | Warm vintage-feel kit. |
| 64 | BreakBeats | | Lo-Fi sound kit used in breakbeats. |
| 65 | Studio | | Kit in the drum booth of a recording studio. |
| 66 | Groover | LOOP | Loop pattern is played on Clash 2's bow. |
| 67 | Mallet | | Drum set played with mallets. |
| 68 | Drumline | | Drumline of a marching band. |
| 69 | JazzGig | LOOP | Loop pattern is played on Clash 2's bow. |
| 70 | Airtime | | Kit processed by ambience for a thick sound. |
| 71 | Sploink | | Bright-sounding kit. |
| 72 | Boogaloo | | Kit with unadjusted drums. |
| 73 | Zeppy | | Kit including the reflections of a concert hall. |
| 74 | Arena | | Kit including the reverberation heard in an arena. |
| 75 | Maple | | Kit using a maple snare. |

| No. | Kit Name | Pad Ptn | Description |
|---|---|---|---|
| **76** | Shallow | | Kit with shallow-bodied toms. |
| **77** | Ballad | LOOP | Loop pattern is played on Clash 2's bow. |
| **78** | Raspy | | Dry-sounding kit for jazz. |
| **79** | PopReggae | LOOP | Loop pattern is played on Clash 2's bow. |
| **80** | BrassBiggie | | Kit with a brass snare. |
| **81** | WetBooth | LOOP | Loop pattern is played on Clash 2's bow. |
| **82** | 70s Record | | Simulates the recording techniques popular in the 70's. |
| **83** | Lite | | Light and bright-sounding kit. |
| **84** | Mellow | | Mellow and warm-sounding kit. |
| **85** | Stadium | | Kit including the reverberation of a stadium. |
| **86** | TiteOctas | | Kit with a collection of small melodic toms. |
| **87** | 90s Power | | Power kit that was popular in the rhythm machines of the 90's. |
| **88** | FxJungle | TAP | Chords are played on Crash 2's edge. |
| **89** | Tekno | | Techno sound produced by electronic sounds. |
| **90** | TR-808 | LOOP | Kit from the TR-808 rhythm machine. |
| **91** | TR-909 | | Kit from the TR-909 rhythm machine. |
| **92** | HexDrum | LOOP | Loop pattern is played on Clash 2's bow. |
| **93** | Cosmosis | | Kit created from electronic sounds and processed sounds. |
| **94** | Technology | | Kit created from electronic toms and flanger. |
| **95** | OrchPerc | TAP | Chords are played on the Crash 2's bow & edge. |
| **96** | Survivor | | Effect sounds that take advantage of ambience. |
| **97** | Latin Toys | | A collection of Latin percussion. |
| **98** | African Perc | | A collection of African percussion. |
| **99** | Tabla/Sitar | TAP | Sitar can be played on Crash2's bow. |
| **100** | UserKit | | Settings such as pan and volume are set to their default values. Use this when you're creating a kit from scratch. |

## About the Pad Patterns

**LOOP**: Loop Pattern: Playback starts when the pad to which the pattern is assigned is struck, and stops when hit again.

**TAP**: Tap Pattern: Chords or melodies are played once each time the pad to which the pattern is assigned is struck.

**1SHOT**: One-Shot Pattern: Playback (one time only) starts when the pad to which the pattern is assigned is struck.

# Drum Instrument List

## KICK

| No. | Name |
|---|---|
| 1 | 22″Birch K |
| 2 | 22″Solid K |
| 3 | 22″StdMple K |
| 4 | 22″Maple K |
| 5 | 24″Carbon K |
| 6 | 22″CbnMple K |
| 7 | 22″GT K |
| 8 | 22″TitanHp K |
| 9 | 22″Mahogny K |
| 10 | 20″Lite K |
| 11 | 22″RoseWd K |
| 12 | 22″Oak K |
| 13 | Recording1 K |
| 14 | Recording2 K |
| 15 | Universal K |
| 16 | BigOpen K |
| 17 | JazzCombo1 K |
| 18 | JazzCombo2 K |
| 19 | Cannon K |
| 20 | Roto K |
| 21 | Booth K |
| 22 | Ballad K |
| 23 | Swing K |
| 24 | Heavy K |
| 25 | Can K |
| 26 | Fusion K |
| 27 | Latin K |
| 28 | Meat K |
| 29 | Pillow K |
| 30 | DryMed K |
| 31 | Dry K |
| 32 | Solid K |
| 33 | Reso K |
| 34 | Raw K |
| 35 | Vintage K |
| 36 | OldMple K |
| 37 | Hard K |
| 38 | BigLow K |
| 39 | Hybrid K |
| 40 | Gabba1 K |
| 41 | Gabba2 K |
| 42 | Gabba3 K |

## KICK PROCESSED

| No. | Name |
|---|---|
| 43 | Cartoon K |
| 44 | Chicken K |
| 45 | Jive K |
| 46 | RB K |
| 47 | Layered K |
| 48 | Lazy K |
| 49 | HardLow K |
| 50 | Alley K |
| 51 | DaFloor K |
| 52 | Croak K |
| 53 | Plastic K |
| 54 | Trip K |
| 55 | Gokigen K |
| 56 | FX-Wah K |
| 57 | Lo-Fi K |

## KICK ELEC

| No. | Name |
|---|---|
| 58 | Cosmic K |
| 59 | Hi-Q K |
| 60 | Analog1 K |
| 61 | Analog2 K |
| 62 | Analog3 K |
| 63 | ClascElec1 K |
| 64 | ClascElec2 K |
| 65 | ClascElec3 K |
| 66 | ClascElec4 K |
| 67 | ClascElec5 K |
| 68 | ClascElec6 K |
| 69 | TR808 Kick |
| 70 | TR909 Kick |

## SNARE

| No. | Name | Remark | | |
|---|---|---|---|---|
| 71 | RoundBdge S | *P | *I | |
| 72 | RoundBdge SR | *P | | *X |
| 73 | CoolyMple S | *P | *I | |
| 74 | CoolyMple SR | *P | | *X |
| 75 | 70'sMetal S | *P | *I | |
| 76 | 70'sMetal SR | *P | | *X |
| 77 | WoodBrass S | *P | *I | |
| 78 | WoodBrass SR | *P | | *X |
| 79 | 13″Hole S | *P | *I | |
| 80 | 13″Hole SR | *P | | *X |
| 81 | Aluminum S | *P | *I | |
| 82 | Aluminum SR | *P | | *X |
| 83 | Titanium S | *P | *I | |
| 84 | Titanium SR | *P | | *X |
| 85 | Skanky S | *P | *I | |
| 86 | Skanky SR | *P | | *X |
| 87 | 30'sMaple S | *P | *I | |
| 88 | 30'sMaple SR | *P | | *X |
| 89 | BrassPico S | *P | *I | |
| 90 | BrassPico SR | *P | | *X |
| 91 | Booth S | | *I | |
| 92 | Booth SR | | | *X |
| 93 | Studio S | | *I | |
| 94 | Studio SR | | | *X |
| 95 | Ballad S | | *I | |
| 96 | Ballad SR | | | *X |
| 97 | Swing S | *P | *I | |
| 98 | Swing SR | | | *X |
| 99 | Street S | *P | *I | *X |
| 100 | Lite S | *P | *I | *X |
| 101 | LA Fat S | | *I | *X |
| 102 | Ring S | | *I | *X |
| 103 | Whack S | | *I | *X |
| 104 | Impulse S | | *I | *X |
| 105 | Cruddy1 S | | *I | *X |
| 106 | Cruddy2 S | | *I | *X |
| 107 | HotRod S | | *I | |
| 108 | HotRod SR | | | *X |

## SNARE BRUSH

| No. | Name | Remark | |
|---|---|---|---|
| 109 | Brush1 S | *BRUSH | |
| 110 | Brush1 SR | | *X |
| 111 | Brush2 S | *BRUSH | |
| 112 | Brush2 SR | | *X |

## SNARE PROCESSED

| No. | Name | Remark | |
|---|---|---|---|
| 113 | Basis S | | *X |
| 114 | Chunk S | | *X |
| 115 | ClapTailS | | *X |
| 116 | ClubDry S | | *X |
| 117 | Dump S | | *X |
| 118 | HopRim1 S | | *X |
| 119 | HopRim2 S | | *X |
| 120 | HopRim3 S | | *X |
| 121 | LzrGate S | | *X |
| 122 | Pick S | | *X |
| 123 | Planet S | | *X |
| 124 | RB S | | *X |
| 125 | 2Step S | | *X |
| 126 | Lo-Fi S | | *X |
| 127 | Round XStik | | |
| 128 | Cooly XStik | | |
| 129 | 70's XStik | | |
| 130 | WoodBr XStik | | |
| 131 | 13″ XStik | | |
| 132 | Alumi XStik | | |
| 133 | Titan XStik | | |
| 134 | Skanky XStik | | |
| 135 | 30's XStik | | |
| 136 | Reggae XStik | | |
| 137 | Ballad XStik | | |
| 138 | Studio XStik | | |
| 139 | Swing XStik | | |
| 140 | Hard XStik | | |
| 141 | Maple XStik | | |

## SNARE ELEC

| No. | Name | Remark | |
|---|---|---|---|
| 142 | ClascElec1 S | | *X |
| 143 | ClascElec2 S | | *X |
| 144 | ClascElec3 S | | *X |
| 145 | ClascElec4 S | | *X |
| 146 | ClascElec5 S | | *X |
| 147 | TR808 Snare | | |
| 148 | TR808 SnrRim | | *X |
| 149 | TR909 Snare | | |
| 150 | TR909 SnrRim | | *X |

## TOM

| No. | Name | Remark |
|---|---|---|
| 151 | 12″Birch T1 | |
| 152 | 12″Birch T1R | *P |
| 153 | 13″Birch T2 | |
| 154 | 13″Birch T2R | *P |
| 155 | 16″Birch T3 | |
| 156 | 16″Birch T3R | *P |
| 157 | 18″Birch T4 | |
| 158 | 18″Birch T4R | *P |
| 159 | 12″GT T1 | |
| 160 | 12″GT T1R | *P |
| 161 | 13″GT T2 | |
| 162 | 13″GT T2R | *P |
| 163 | 16″GT T3 | |
| 164 | 16″GT T3R | *P |
| 165 | 18″GT T4 | |
| 166 | 18″GT T4R | *P |
| 167 | 10″Univ T1 | |
| 168 | 10″Univ T1R | *P |
| 169 | 12″Univ T2 | |
| 170 | 12″Univ T2R | *P |
| 171 | 14″Univ T3 | |
| 172 | 14″Univ T3R | *P |
| 173 | 16″Univ T4 | |
| 174 | 16″Univ T4R | *P |
| 175 | 12″Clasc T1 | |
| 176 | 12″Clasc T1R | *P |
| 177 | 13″Clasc T2 | |
| 178 | 13″Clasc T2R | *P |
| 179 | 16″Clasc T3 | |
| 180 | 16″Clasc T3R | *P |
| 181 | 18″Clasc T4 | |
| 182 | 18″Clasc T4R | *P |
| 183 | 12″Fiber T1 | |
| 184 | 12″Fiber T1R | *P |
| 185 | 14″Fiber T2 | |
| 186 | 14″Fiber T2R | *P |
| 187 | 16″Fiber T3 | |
| 188 | 16″Fiber T3R | *P |
| 189 | 18″Fiber T4 | |
| 190 | 18″Fiber T4R | *P |
| 191 | 12″Maple T1 | |
| 192 | 12″Maple T1R | *P |
| 193 | 14″Maple T2 | |
| 194 | 14″Maple T2R | *P |
| 195 | 16″Maple T3 | |
| 196 | 16″Maple T3R | *P |
| 197 | 18″Maple T4 | |
| 198 | 18″Maple T4R | *P |
| 199 | 12″Oak T1 | |
| 200 | 12″Oak T1R | *P |
| 201 | 14″Oak T2 | |
| 202 | 14″Oak T2R | *P |
| 203 | 16″Oak T3 | |
| 204 | 16″Oak T3R | *P |
| 205 | 18″Oak T4 | |
| 206 | 18″Oak T4R | *P |
| 207 | 8″Roto T1 | |
| 208 | 8″Roto T1R | |
| 209 | 10″Roto T2 | |
| 210 | 10″Roto T2R | |
| 211 | 12″Roto T3 | |
| 212 | 12″Roto T3R | |
| 213 | 14″Roto T4 | |
| 214 | 14″Roto T4R | |
| 215 | 16″Roto T5 | |
| 216 | 16″Roto T6 | |
| 217 | 18″Roto T7 | |
| 218 | 18″Roto T8 | |
| 219 | 18″RotoExLo1 | |
| 220 | 18″RotoExLo2 | |
| 221 | Ballad T1 | |
| 222 | Ballad T2 | |
| 223 | Ballad T3 | |
| 224 | Ballad T4 | |
| 225 | Swing T1 | |
| 226 | Swing T2 | |
| 227 | Swing T3 | |
| 228 | Swing T4 | |
| 229 | Pop1 T1 | |
| 230 | Pop1 T2 | |
| 231 | Pop1 T3 | |
| 232 | Pop1 T4 | |
| 233 | Pop2 T1 | |
| 234 | Pop2 T2 | |
| 235 | Pop2 T3 | |
| 236 | Pop2 T4 | |
| 237 | Round T1 | |
| 238 | Round T2 | |
| 239 | Round T3 | |
| 240 | Round T4 | |
| 241 | 80'sDry T1 | |
| 242 | 80'sDry T2 | |
| 243 | 80'sDry T3 | |
| 244 | 80'sDry T4 | |
| 245 | 90'sBig T1 | |
| 246 | 90'sBig T2 | |
| 247 | 90'sBig T3 | |
| 248 | 90'sBig T4 | |
| 249 | 90'sPower T1 | |
| 250 | 90'sPower T2 | |
| 251 | 90'sPower T3 | |
| 252 | 90'sPower T4 | |
| 253 | OctaTom C Hi | |
| 254 | OctaTom B | |
| 255 | OctaTom A | |
| 256 | OctaTom G | |
| 257 | OctaTom F | |
| 258 | OctaTom E | |
| 259 | OctaTom D | |
| 260 | OctaTom C | |
| 261 | Mallet T1 | |
| 262 | Mallet T2 | |
| 263 | Mallet T3 | |
| 264 | Mallet T4 | |
| 265 | Brush T1 | |
| 266 | Brush T2 | |
| 267 | Brush T3 | |
| 268 | Brush T4 | |

## TOM ELEC

| No. | Name |
|---|---|
| 269 | ClscElec1 T1 |
| 270 | ClscElec1 T2 |
| 271 | ClscElec1 T3 |
| 272 | ClscElec1 T4 |
| 273 | ClscElec2 T1 |
| 274 | ClscElec2 T2 |
| 275 | ClscElec2 T3 |
| 276 | ClscElec2 T4 |
| 277 | ClscElec3 T1 |
| 278 | ClscElec3 T2 |
| 279 | ClscElec3 T3 |
| 280 | ClscElec3 T4 |
| 281 | ClscElec4 T1 |
| 282 | ClscElec4 T2 |
| 283 | ClscElec4 T3 |
| 284 | ClscElec4 T4 |
| 285 | TR808 T1 |
| 286 | TR808 T2 |
| 287 | TR808 T3 |
| 288 | TR808 T4 |
| 289 | TR909 T1 |
| 290 | TR909 T2 |
| 291 | TR909 T3 |
| 292 | TR909 T4 |

## HI-HAT

| No. | Name |
|---|---|
| 293 | 14″P-HatHH |
| 294 | 14″P-HatHHEg |
| 295 | 13″Hatz HH |
| 296 | 13″Hatz HHEg |
| 297 | 14″Hatz HH |
| 298 | 14″Hatz HHEg |
| 299 | 14″Dark HH |
| 300 | 14″Dark HHEg |
| 301 | 14″Edge HH |
| 302 | 14″Edge HHEg |
| 303 | TriangleHH |
| 304 | HandCym HH |
| 305 | Brush HH |
| 306 | CR78 HH |
| 307 | TR808 HH |
| 308 | TR909 HH |
| 309 | Tekno HH |
| 310 | Elec HH |

## CRASH

| No. | Name | Remark |
|---|---|---|
| 311 | 16″DarK CrBw | |
| 312 | 16″DarK CrEg | *I |
| 313 | 16″Thin CrBw | |
| 314 | 16″Thin CrEg | *I |
| 315 | 16″PaperCrBw | |
| 316 | 16″PaperCrEg | *I |
| 317 | 16″FsPwrCrBw | |
| 318 | 16″FsPwrCrEg | *I |
| 319 | 18″PowerCrBw | |
| 320 | 18″PowerCrEg | *I |
| 321 | 18″Med CrBw | |
| 322 | 18″Med CrEg | *I |
| 323 | 19″NY CrBw | |
| 324 | 19″NY CrEg | *I |
| 325 | 18″Fast CrBw | |
| 326 | 18″Fast CrEg | *I |
| 327 | 18″Fast CrBl | |
| 328 | Brush Cr | |
| 329 | Brush CrEg | *I |
| 330 | Mallet Cr | *I |

## SPLASH

| No. | Name |
|---|---|
| 331 | 6″SplazhSpBw |
| 332 | 6″SplazhSpEg |
| 333 | 8″Thin SpBw |
| 334 | 8″Thin SpEg |
| 335 | 8″Bell SpBw |
| 336 | 8″Bell SpEg |
| 337 | 8″Open SpBw |
| 338 | 8″Open SpEg |
| 339 | 10″Med SpBw |
| 340 | 10″Med SpEg |

## CHINA

| No. | Name | Remark |
|---|---|---|
| 341 | 12″PgyBack | |
| 342 | 12″PgyBackEg | *I |
| 343 | 16″Swish | |
| 344 | 16″Swish Eg | *I |
| 345 | 18″CB Low | |
| 346 | 18″CB Low Eg | *I |
| 347 | 20″U-China | *I |
| 348 | China PgBack | *I |
| 349 | Crash PgBack | *I |

## RIDE

| No. | Name | Remark |
|---|---|---|
| 350 | 18″PRideRd | *P |
| 351 | 18″PRideRdBl | |
| 352 | 18″PRideRdEg | *I |
| 353 | 18″Bop Rd | *P |
| 354 | 18″Bop RdBl | |
| 355 | 18″Bop RdEg | *I |
| 356 | 20″HeavyRd | *P |
| 357 | 20″HeavyRdBl | |
| 358 | 20″HeavyRdEg | *I |
| 359 | 20″Med Rd | *P |
| 360 | 20″Med RdBl | |
| 361 | 20″Med RdEg | *I |
| 362 | 20″TurkyRd | *P |
| 363 | 20″TurkyRdBl | |
| 364 | 20″TurkyRdEg | *I |
| 365 | 19″NY Rd | *P |
| 366 | 19″NY RdBl | |
| 367 | 19″NY RdEg | *I |
| 368 | 20″Lite Rd | *P |
| 369 | 20″Lite RdBl | |
| 370 | 20″Lite RdEg | *I |
| 371 | 22″CleanRd | *P |
| 372 | 22″CleanRdBl | |
| 373 | 22″CleanRdEg | *I |
| 374 | 18″FormuRd | *P |
| 375 | 18″FormuRdBl | |
| 376 | 18″FormuRdEg | *I |
| 377 | 20″Bell Rd | *P |
| 378 | 20″Bell RdBl | |
| 379 | 20″Bell RdEg | *I |
| 380 | Brush Rd | |
| 381 | Brush RdEg | |
| 382 | Mallet1 Rd | *I |
| 383 | Mallet2 Rd | *I |

## PERCUSSION

| No. | Name |
|---|---|
| 384 | Bongo Hi |
| 385 | Bongo HiSlap |
| 386 | Bongo Lo |
| 387 | Bongo LoSlap |
| 388 | Conga Hi |
| 389 | Conga HiMute |
| 390 | Conga HiSlap |
| 391 | Conga Lo |
| 392 | Conga LoMute |
| 393 | Cajon Bass |
| 394 | Cajon Mute |
| 395 | Cajon Slap |
| 396 | Cowbell Hi |
| 397 | Cowbell Lo |
| 398 | Cowbell Mute |
| 399 | CowbellMambo |
| 400 | Claves |
| 401 | SquareBlock |
| 402 | Block Hi |
| 403 | Block Lo |
| 404 | Maracas |
| 405 | Caxixi |
| 406 | Shaker |
| 407 | Tambourine1 |
| 408 | Tambourine2 |
| 409 | Tambourine3 |
| 410 | Guiro Long |
| 411 | Guiro Short |
| 412 | Timbale Hi |
| 413 | Timbale HiRm |
| 414 | Timbale Lo |
| 415 | TimbalePaila |
| 416 | Agogo Hi |
| 417 | Agogo Lo |
| 418 | Cabasa |
| 419 | Cuica Hi |
| 420 | Cuica Lo |
| 421 | Cuica Acc |
| 422 | Pandeiro |
| 423 | PandeiroMute |
| 424 | PandeiroSlap |
| 425 | Surdo Hi |
| 426 | Surdo HiMute |
| 427 | Surdo Lo |
| 428 | Surdo LoMute |
| 429 | Whistle |
| 430 | WhistleShort |
| 431 | VibraSlap |
| 432 | Tabla Na |
| 433 | Tabla Te |
| 434 | Tabla Ti |
| 435 | Tabla Tin |
| 436 | Tabla Tun |
| 437 | Baya Ge |
| 438 | Baya Gin |
| 439 | Baya Ka |
| 440 | Baya Slide |
| 441 | PotDrum |
| 442 | PotDrum Acc |
| 443 | PotDrum Mute |
| 444 | Djembe Tone |
| 445 | Djembe Slap |
| 446 | Djembe Bass |
| 447 | TalkingDr |
| 448 | TalkingDr Up |
| 449 | Castanet |
| 450 | WoodBlock |
| 451 | Timpani C |
| 452 | Timpani G |
| 453 | ConcertBD |
| 454 | ConcertBD Mt |
| 455 | HandCymbal |
| 456 | HandCymbalMt |
| 457 | Triangle |
| 458 | TriangleCls |
| 459 | Triangle2 |
| 460 | Triangle2Cls |
| 461 | Crotale |
| 462 | BellTree |
| 463 | SleighBell |
| 464 | TreeChimes |
| 465 | ThaiGong |
| 466 | TinyGong |
| 467 | Gong |
| 468 | OrchestraHit |
| 469 | SnareRoll |
| 470 | ConcertSnare |
| 471 | SteelDrum |
| 472 | Celesta |
| 473 | Glockenspiel |
| 474 | Kalimba |
| 475 | Marimba |
| 476 | TubularBell |
| 477 | Vibraphone |
| 478 | Xylophone |

## PERC ANALOG

| No. | Name |
|---|---|
| 479 | CR78Cowbell |
| 480 | CR78Guiro |
| 481 | CR78Maracas |
| 482 | CR78MtlBeat |
| 483 | CR78Tamb |
| 484 | TR808Clap |
| 485 | TR808Claves |
| 486 | TR808Cowbell |
| 487 | TR808Maracas |
| 488 | TR808XStick |
| 489 | TR909Clap |

## SFX

| No. | Name |
|---|---|
| 490 | Hi-Q |
| 491 | Poa |
| 492 | Pyon |
| 493 | Picoon |
| 494 | Byon |
| 495 | Kyun |
| 496 | Psyun |
| 497 | Boom |
| 498 | SuperLow |
| 499 | TimeWarp1 |
| 500 | TimeWarp2 |
| 501 | Transform1 |
| 502 | Transform2 |
| 503 | Transform3 |
| 504 | Tekno FX1 |
| 505 | Tekno FX2 |
| 506 | Tekno FX3 |
| 507 | Ring FX |
| 508 | Drop Out |
| 509 | LaserGun |
| 510 | Spiral |
| 511 | Emergency |
| 512 | Wonderer |

## OTHER

| No. | Name |
|---|---|
| 513 | Click |
| 514 | Beep |
| 515 | Sticks |
| 516 | Sticks2 |
| 517 | MetroBell |
| 518 | MetroClick |
| 519 | FingerSnaps |
| 520 | Clap |
| 521 | R8Slap |
| 522 | Motor |
| 523 | Engine |
| 524 | Glass |
| 525 | Burt |
| 526 | Boing1 |
| 527 | Boing2 |
| 528 | Bounce |
| 529 | VerbyHit |
| 530 | AfroStomp |
| 531 | Bomb! |
| 532 | TuningTom |
| 533 | ReverseCrash |
| 534 | ReverseChina |
| 535 | PhaseCrash |
| 536 | PhaseRide |
| 537 | Scratch1 |
| 538 | Scratch2 |
| 539 | Scratch3 |
| 540 | Scratch4 |
| 541 | TapeStop |
| 542 | TapeRewind |
| 543 | Voice OK |
| 544 | Voice Yeah |
| 545 | Vocoder1 |
| 546 | Vocoder2 |
| 547 | TeknoHit |
| 548 | PhillyHit |
| 549 | FunkHit |
| 550 | Bass Gliss |
| 551 | Guitar Gliss |
| 552 | GuitarScrtch |
| 553 | CutGt Down |
| 554 | CutGt Up |
| 555 | WahGt1 Down |
| 556 | WahGt1 Up |
| 557 | WahGt2 Down |
| 558 | WahGt2 Up |
| 559 | Sine 440Hz |
| 560 | For PadCheck |
| 561 | Off |

## EXP KICK

| No. | Name |
|---|---|
| 562 | 22″BirchLo K |
| 563 | 22″BirchHi K |
| 564 | 23″D-Maple K |
| 565 | 22″NCMaple K |
| 566 | 22″LwgVntg K |
| 567 | 22″RokVntg K |
| 568 | 22″PKMaple K |
| 569 | 22″SnrVntg K |
| 570 | 24″VLite K |
| 571 | 22″Premium K |
| 572 | 22″BirchWetK |
| 573 | 22″GT Vntg K |
| 574 | 22″LooseHd K |
| 575 | 20″TightHd K |
| 576 | 20″GT Open K |
| 577 | 20″BigBand K |
| 578 | 18″Combo K |
| 579 | 18″BeBopLo K |
| 580 | 18″BeBopHi K |
| 581 | Ambience K |

## EXP KICK PROCESSED

| No. | Name |
|---|---|
| 582 | Tight1 K |
| 583 | Tight2 K |
| 584 | Tight3 K |
| 585 | Tight4 K |
| 586 | Tight5 K |
| 587 | Tight6 K |
| 588 | Solid1 K |
| 589 | Solid2 K |
| 590 | Solid3 K |
| 591 | Wild K |
| 592 | Mondo K |
| 593 | Reverb K |
| 594 | Distorted K |
| 595 | BreakBeats K |
| 596 | Woofer K |
| 597 | FX Stomp K |
| 598 | FX Chest K |
| 599 | FX Handle K |
| 600 | FX Door K |

## EXP KICK ELEC

| No. | Name |
|---|---|
| 601 | ClscElec7 K |
| 602 | ClscElec8 K |
| 603 | ClscElec9 K |
| 604 | 808Attack K |
| 605 | 808Low K |
| 606 | 909Power K |
| 607 | 909Low K |
| 608 | AnalogQ1 K |
| 609 | AnalogQ2 K |
| 610 | AnalogQ3 K |
| 611 | Synthy K |
| 612 | Filter1 K |
| 613 | Filter2 K |
| 614 | Filter3 K |
| 615 | Filter4 K |
| 616 | Jungle K |
| 617 | FX Elec1 K |
| 618 | FX Elec2 K |
| 619 | FX Elec3 K |
| 620 | FX Elec4 K |

## EXP SNARE

| No. | Name | Remark | | |
|---|---|---|---|---|
| 621 | CustomWoodS | *P | *I | |
| 622 | CustomWoodSR | *P | | *X |
| 623 | 80s Metal S | *P | *I | |
| 624 | 80s Metal SR | *P | | *X |
| 625 | Bronze S | *P | *I | |
| 626 | Bronze SR | *P | | *X |
| 627 | CraftStl S | *P | *I | |
| 628 | CraftStl SR | *P | | *X |
| 629 | OpenBrass S | *P | *I | |
| 630 | OpenBrass SR | *P | | *X |
| 631 | 50s King S | *P | *I | |
| 632 | 50s King SR | *P | | *X |
| 633 | GT Maple S | *P | *I | |
| 634 | GT Maple SR | *P | | *X |
| 635 | Piccolo S | *P | *I | |
| 636 | Piccolo SR | *P | | *X |
| 637 | 12″Cmpact S | | *I | |
| 638 | 12″Cmpact SR | | | *X |
| 639 | 10″Cmpact S | | *I | |
| 640 | 10″Cmpact SR | | | *X |
| 641 | Skanky2 S | *P | *I | |
| 642 | Skanky2 SR | *P | | *X |
| 643 | StlPhonic S | *P | *I | |
| 644 | StlPhonic SR | *P | | *X |
| 645 | 50sKingMt S | | *I | |
| 646 | 50sKingMt SR | | | *X |
| 647 | WhiteAsh S | | *I | |
| 648 | WhiteAsh SR | | | *X |
| 649 | Popcorn S | | *I | |
| 650 | Popcorn SR | | | *X |

## EXP SNARE PROCESSED

| No. | Name | Remark | |
|---|---|---|---|
| 651 | PrcsWood S | | *X |
| 652 | PrcsWood SR | | *X |
| 653 | PrcsMetal S | | *X |
| 654 | PrcsMetal SR | | *X |
| 655 | PrcsElec1 S | | *X |
| 656 | PrcsElec1 SR | | *X |
| 657 | PrcsElec2 S | | *X |
| 658 | PrcsElec2 SR | | *X |
| 659 | PrcsXStik S | | *X |
| 660 | PrcsNoise S | | *X |
| 661 | DynaFilter S | | *X |
| 662 | ClscFat1 S | | *X |
| 663 | ClscFat1 SR | | *X |
| 664 | ClscFat2 S | | *X |
| 665 | ClscFat2 SR | | *X |
| 666 | SoundFX1 S | | *X |
| 667 | SoundFX2 S | | *X |
| 668 | SoundFX3 S | | *X |
| 669 | SoundFX4 S | | *X |
| 670 | SoundFX5 S | | *X |
| 671 | Distorted1 S | | *X |
| 672 | Distorted2 S | | *X |
| 673 | Wood XStik | | |
| 674 | Steel XStik | | |
| 675 | Brass XStik | | |
| 676 | 80sMtl XStik | | |
| 677 | 50sKingXStik | | |
| 678 | WhtAsh XStik | | |
| 679 | Light XStik | | |
| 680 | Lo-Fi XStik | | |

## EXP SNARE ELEC

| No. | Name |
|---|---|
| 681 | ClscElec6 S |
| 682 | ClscElec7 S |
| 683 | ClscElec8 S |
| 684 | ClscElec9 S |
| 685 | 808Power S |
| 686 | 808Power SR |
| 687 | 909Power S |
| 688 | 909Power SR |
| 689 | 909Dist S |
| 690 | 909Reverb S |

## EXP TOM

| No. | Name | Remark |
|---|---|---|
| 691 | 8″NCMpl T1 | |
| 692 | 8″NCMpl T1R | *P |
| 693 | 10″NCMpl T2 | |
| 694 | 10″NCMpl T2R | *P |
| 695 | 12″NCMpl T3 | |
| 696 | 12″NCMpl T3R | *P |
| 697 | 14″NCMpl T4 | |
| 698 | 14″NCMpl T4R | *P |
| 699 | 16″NCMpl T5 | |
| 700 | 16″NCMpl T5R | *P |
| 701 | 8″PKJaz T1 | |
| 702 | 8″PKJaz T1R | *P |
| 703 | 10″PKJaz T2 | |
| 704 | 10″PKJaz T2R | *P |
| 705 | 12″PKJaz T3 | |
| 706 | 12″PKJaz T3R | *P |
| 707 | 13″PKJaz T4 | |
| 708 | 13″PKJaz T4R | *P |
| 709 | 16″PKJaz T5 | |
| 710 | 16″PKJaz T5R | *P |
| 711 | 10″Rock T1 | |
| 712 | 10″Rock T1R | *P |
| 713 | 12″Rock T2 | |
| 714 | 12″Rock T2R | *P |
| 715 | 14″Rock T3 | |
| 716 | 14″Rock T3R | *P |
| 717 | 16″Rock T4 | |
| 718 | 16″Rock T4R | *P |
| 719 | 18″Rock T5 | |
| 720 | 18″Rock T5R | *P |
| 721 | 8″Pop T1 | |
| 722 | 8″Pop T1R | *P |
| 723 | 10″Pop T2 | |
| 724 | 10″Pop T2R | *P |
| 725 | 12″Pop T3 | |
| 726 | 12″Pop T3R | *P |
| 727 | 13″Pop T4 | |
| 728 | 13″Pop T4R | *P |
| 729 | 16″Pop T5 | |
| 730 | 16″Pop T5R | *P |
| 731 | 8″Antiq T1 | |
| 732 | 8″Antiq T1R | *P |
| 733 | 10″Antiq T2 | |
| 734 | 10″Antiq T2R | *P |
| 735 | 12″Antiq T3 | |
| 736 | 12″Antiq T3R | *P |
| 737 | 13″Antiq T4 | |
| 738 | 13″Antiq T4R | *P |
| 739 | 16″Antiq T5 | |
| 740 | 16″Antiq T5R | *P |

## EXP TOM ELEC

| No. | Name |
|---|---|
| 741 | ClscElec5 T1 |
| 742 | ClscElec5 T2 |
| 743 | ClscElec5 T3 |
| 744 | ClscElec5 T4 |
| 745 | ClscElec6 T1 |
| 746 | ClscElec6 T2 |
| 747 | ClscElec6 T3 |
| 748 | ClscElec6 T4 |
| 749 | ClscElec7 T1 |
| 750 | ClscElec7 T2 |
| 751 | ClscElec7 T3 |
| 752 | ClscElec7 T4 |
| 753 | ClscElec8 T1 |
| 754 | ClscElec8 T2 |
| 755 | ClscElec8 T3 |
| 756 | ClscElec8 T4 |
| 757 | ClscElec9 T1 |
| 758 | ClscElec9 T2 |
| 759 | ClscElec9 T3 |
| 760 | ClscElec9 T4 |

## EXP HI-HAT

| No. | Name |
|---|---|
| 761 | 14″CstmDK HB |
| 762 | 14″CstmDK HE |
| 763 | 14″Medium HB |
| 764 | 14″Medium HE |
| 765 | 13″KZComb HB |
| 766 | 13″KZComb HE |
| 767 | 13″P-Crsp HB |
| 768 | 13″P-Crsp HE |
| 769 | Distorted HB |
| 770 | Distorted HE |
| 771 | Lo-Fi HH |
| 772 | 808Chick HH |
| 773 | 909Power HH |
| 774 | Impulse HH |
| 775 | Super-Q HH |
| 776 | DistJingleHH |
| 777 | MtlCrasherHH |
| 778 | Jingle HH |
| 779 | Beads HH |
| 780 | Ratchet HH |

## EXP CRASH

| No. | Name | Remark |
|---|---|---|
| 781 | 15″PaperCrBw | |
| 782 | 15″PaperCrEg | *I |
| 783 | 16″PoP CrBw | |
| 784 | 16″PoP CrEg | *I |
| 785 | 18″PoP CrBw | |
| 786 | 18″PoP CrEg | *I |
| 787 | 17″DarK CrBw | |
| 788 | 17″DarK CrEg | *I |
| 789 | 18″DarK CrBw | |
| 790 | 18″DarK CrEg | *I |
| 791 | 18″JazZ CrBw | |
| 792 | 18″JazZ CrEg | *I |

## EXP SPLASH

| No. | Name |
|---|---|
| 793 | 4″Paper SpBw |
| 794 | 4″Paper SpEg |
| 795 | 6″Splaz SpBw |
| 796 | 6″Splaz SpEg |
| 797 | 10″UF SpBw |
| 798 | 10″UF SpEg |
| 799 | 10″ChinaSpBw |
| 800 | 10″ChinaSpEg |

## EXP CHINA

| No. | Name | Remark |
|---|---|---|
| 801 | 13″Latin Bw | |
| 802 | 13″Latin Eg | *I |
| 803 | 14″Trash Bw | |
| 804 | 14″Trash Eg | *I |
| 805 | 20″CB Low Bw | |
| 806 | 20″CB Low Eg | *I |

## EXP STACKED CYMBAL

| No. | Name | Remark |
|---|---|---|
| 807 | 16″Stackd Bw | |
| 808 | 16″Stackd Eg | *I |
| 809 | 18″Stackd Bw | |
| 810 | 18″Stackd Eg | *I |

## EXP RIDE

| No. | Name | Remark |
|---|---|---|
| 811 | 20″JazZ Rd | *P |
| 812 | 20″JazZ RdBl | |
| 813 | 20″JazZ RdEg | *I |
| 814 | 20″HvyDKRd | *P |
| 815 | 20″HvyDKRdBl | |
| 816 | 20″HvyDKRdEg | *I |
| 817 | 20″ASpecRd | *P |
| 818 | 20″ASpecRdBl | |
| 819 | 20″ASpecRdEg | *I |
| 820 | 20″KSpecRd | *P |
| 821 | 20″KSpecRdBl | |
| 822 | 20″KSpecRdEg | *I |
| 823 | 20″VntZ Rd | *P |
| 824 | 20″VntZ RdBl | |
| 825 | 20″VntZ RdEg | *I |
| 826 | 19″JzCrsRd | *P |
| 827 | 19″JzCrsRdBl | |
| 828 | 19″JzCrsRdEg | *I |
| 829 | 19″P-CrsRd | *P |
| 830 | 19″P-CrsRdBl | |
| 831 | 19″P-CrsRdEg | *I |

## EXP PERCUSSION

| No. | Name |
|---|---|
| 832 | Timbale2Hi |
| 833 | Timbale2HiRm |
| 834 | Timb2HiPaila |
| 835 | Timbale2Lo |
| 836 | Timbale2LoRm |
| 837 | Timb2LoPaila |
| 838 | Pandeiro2 |
| 839 | Pande2 Slap |
| 840 | Pande2 Close |
| 841 | Pande2 Edge |
| 842 | Pande2 Roll1 |
| 843 | Pande2 Roll2 |
| 844 | Caixa |
| 845 | Caixa Rim |
| 846 | Cajon2 Bass |
| 847 | Cajon2 Close |
| 848 | Cajon2 Open |
| 849 | Cajon2 Slap |
| 850 | Bendir |
| 851 | Darabuka Dom |
| 852 | Darabuka Tak |
| 853 | AnkleBeads |
| 854 | AfricaJingle |
| 855 | Cabasa2 |
| 856 | Tambourine4 |
| 857 | TambStick |
| 858 | TambShake |
| 859 | Sagat Close |
| 860 | Sagat Open |
| 861 | MetalCrasher |
| 862 | ConcertBD2 |
| 863 | ConcertBD2mt |
| 864 | LargeGong |
| 865 | Timpani2 C |
| 866 | Timpani2 G |
| 867 | HiraTaiko |
| 868 | HiraTaikoRim |
| 869 | YaguraTaiko |
| 870 | YaguraTaikoR |
| 871 | NagodoTaiko |
| 872 | NagadoTaikoR |

### EXP SFX

| No. | Name |
|---|---|
| 873 | Tick |
| 874 | Chick |
| 875 | Random |
| 876 | ReverbSlap |
| 877 | Hammer |
| 878 | Anvil |
| 879 | MetalDoor |
| 880 | MetalPhase |
| 881 | RvsMtlFaze |
| 882 | WhiteLazer |
| 883 | CosmicWater |
| 884 | CosmicDrip |
| 885 | CosmicClaps |
| 886 | CosmicChirp |
| 887 | Falling |
| 888 | FlyAway |
| 889 | BounceDown |
| 890 | TimeTunnel1 |
| 891 | TimeTunnel2 |
| 892 | SpaceTrip |
| 893 | Growl |
| 894 | Ripping |
| 895 | SpaceAlien |
| 896 | SpaceWarp |
| 897 | Shake |
| 898 | ShakeDown |
| 899 | Gear |
| 900 | GearLong |

### EXP OTHER

| No. | Name |
|---|---|
| 901 | Group Claps |
| 902 | High Claps |
| 903 | Mid Claps |
| 904 | Low Claps |
| 905 | Hi-Q Claps |
| 906 | Reverb Claps |
| 907 | IronWhip |
| 908 | Ratchet |
| 909 | Drawer |
| 910 | Explosion |
| 911 | ElecRide |
| 912 | ElecRide Bl |
| 913 | ElecRide Eg |
| 914 | Revrs Kick |
| 915 | Revrs Snare |
| 916 | Revrs Crash2 |
| 917 | Revrs China2 |
| 918 | AcousGuitar |
| 919 | FingerBass |
| 920 | SlapBass |

### EXP OFF

| No. | Name |
|---|---|
| 921 | EXP Off |

## About remarks

*P (Position):
Can get various changes of the sound in accordance with the positioning where on the pad you hit with a stick. In rim sounds, can get such various changes of the sound in accordance with the depth of the stick on the rim.

*I (Interval):
Can make the sound so smooth in accordance with a roll or continuous strokes with sticks.

*X (XStick):
When the Cross Stick Switch is turned ON, it makes possible to use both “Rim Shot” and “Cross Stick” on the rim.

*BRUSH:
Can be played using “Brush Sweep.”

## About snare/tom instruments

The last letter of each instrument name means the sound of head shot, or rim shot.

(Example)

| | |
|---|---|
| S: | head sound of Snare |
| SR: | rim sound of Snare |
| T1: | head sound of Tom 1 |
| T1R: | rim sound of Tom 1 |

## About cymbal instruments

The last letter of each instrument name means the sound of bow shot, edge shot, or bell shot.

(Example)

| | |
|---|---|
| HH/HB: | bow sound of hi-hat |
| HHEg/HE: | edge sound of hi-hat |
| CrBw: | bow sound of crash |
| CrEg: | edge sound of crash |
| Rd: | bow sound of ride |
| RdBl: | bell sound of ride |
| RdEg: | edge sound of ride |

* Special thanks to Spectrasonics.

## Copyright

# Note Number (Factory Settings)

## 1. Latin Toys

| Note No. | Percussion Set | Drum Kit |
|---|---|---|
| C-1 0 | Bass Gliss | – |
| 1 | GuitarScrtch | – |
| 2 | WahGt1 Down | – |
| 3 | WahGt1 Up | – |
| 4 | WahGt2 Down | – |
| | WahGt2 Up | – |
| 5 | CR78Guiro | – |
| 6 | CR78Tamb | – |
| 7 | TR808Clap | – |
| 8 | TR808Cowbell | – |
| 9 | TR808Maracas | – |
| 10 | TR909Clap | – |
| 11 | Hi-Q | – |
| C0 12 | R8Slap | – |
| 13 | Scratch2 | – |
| 14 | Scratch3 | – |
| 15 | Sticks | – |
| 16 | Click | – |
| 17 | MetroClick | – |
| 18 | MetroBell | – |
| 19 | Clap | – |
| 20 | VibraSlap | – |
| 21 | SquareBlock | (7) Closed HH Rim |
| 22 | Off | (for_BrushSweep) (p. 54) |
| 23 | Beep | – |
| C1 24 | Crotale | (11) Ride-Edge |
| 25 | SquareBlock | (7) Open HH Rim |
| 26 | 6"SplazhSpEg | (12) AUX1 |
| 27 | 6"SplazhSpBw | (12) AUX1 Rim |
| 28 | Guiro Short | (13) AUX2 |
| 29 | Guiro Long | (13) AUX2 Rim |
| 30 | Cuica Hi | (14) AUX3 |
| 31 | Cuica Lo | (14) AUX3 Rim |
| 32 | Cowbell Hi | (15) AUX4 |
| 33 | Cowbell Lo | (15) AUX4 Rim |
| 34 | Cowbell Lo | (1) Kick Rim |
| 35 | Cowbell Mute | (1) Kick |
| C2 36 | Tambourine1 | (for_X-Stick) (p. 54) |
| 37 | Tambourine2 | (2) Snare |
| 38 | Conga LoMute | (6) Tom4 Rim |
| 39 | Tambourine1 | (2) Snare Rim |
| 40 | Conga Lo | (6) Tom4 |
| 41 | Claves | (7) Closed HH |
| 42 | Conga Hi | (5) Tom3 |
| 43 | Claves | (7) Pedal HH |
| 44 | Bongo Lo | (4) Tom2 |
| 45 | Claves | (7) Open HH |
| 46 | Bongo LoSlap | (4) Tom2 Rim |
| 47 | Bongo Hi | (3) Tom1 |
| C3 48 | Triangle | (8) Crash1 |
| 49 | Bongo HiSlap | (3) Tom1 Rim |
| 50 | SleighBell | (10) Ride |
| 51 | Agogo Lo | (9) Crash2 Rim |
| 52 | BellTree | (10) Ride Rim |
| 53 | Tambourine1 | – |
| 54 | TriangleCls | (8) Crash1 Rim |
| 55 | Cowbell Mute | – |
| 56 | Agogo Hi | (9) Crash2 |
| 57 | Conga HiSlap | (5) Tom3 Rim |
| 58 | TreeChimes | (11) Ride-Edge Rim |
| 59 | | |

## Drum Kit 1–50 (Trigger Inputs)

| Note No. | |
|---|---|
| C4 60 | Bongo Hi |
| 61 | Bongo Lo |
| 62 | Conga Hi |
| 63 | Conga HiSlap |
| 64 | Conga Lo |
| | Timbale Hi |
| 65 | Timbale Lo |
| 66 | Agogo Hi |
| 67 | Agogo Lo |
| 68 | Cabasa |
| 69 | Maracas |
| 70 | WhistleShort |
| 71 | Whistle |
| C5 72 | Guiro Short |
| 73 | Guiro Long |
| 74 | Claves |
| 75 | Block Hi |
| 76 | Block Lo |
| | Cuica Hi |
| 77 | Cuica Lo |
| 78 | TriangleCls |
| 79 | Triangle |
| 80 | Shaker |
| 81 | SleighBell |
| 82 | BellTree |
| 83 | Castanet |
| C6 84 | Surdo LoMute |
| 85 | Surdo Lo |
| 86 | Bongo HiSlap |
| 87 | Bongo LoSlap |
| 88 | Conga HiMute |
| | Conga LoMute |
| 89 | PandeiroMute |
| 90 | Pandeiro |
| 91 | PandeiroSlap |
| 92 | TreeChimes |
| 93 | Crotale |
| 94 | Gong |
| 95 | Cajon Bass |
| C7 96 | Cajon Mute |
| 97 | Cajon Slap |
| 98 | CowbellMambo |
| 99 | SquareBlock |
| 100 | Caxixi |
| 101 | Timbale HiRm |
| 102 | TimbalePaila |
| 103 | Cuica Acc |
| 104 | Surdo Hi |
| 105 | Surdo HiMute |
| 106 | PotDrum |
| 107 | PotDrum Acc |
| C8 108 | PotDrum Mute |
| 109 | Djembe Tone |
| 110 | Djembe Slap |
| 111 | Djembe Bass |
| 112 | TalkingDr |
| 113 | TalkingDr Up |
| 114 | Tabla Na |
| 115 | Tabla Te |
| 116 | Tabla Ti |
| 117 | Tabla Tun |
| 118 | Baya Ge |
| 119 | Baya Gin |
| C9 120 | Baya Ka |
| 121 | Baya Slide |
| 122 | ConcertBD |
| 123 | HandCymbal |
| 124 | Off |
| 125 | |
| 126 | |
| 127 | |

- Up to eight percussion sets can be stored.
- You can change the used instruments in each percussion set.
  For details, refer to "Percussion Set Settings" (p. 73).

# Backing Instrument List

| PC | CC0 | Name | VOICES |
|---|---|---|---|
| **PIANO** | | | |
| **1** | 0 | PIANO 1 | 1 |
| | 8 | PIANO 1W | 2 |
| | 16 | PIANO 1D | 1 |
| **2** | 0 | PIANO 2 | 1 |
| | 8 | PIANO 2W | 2 |
| **3** | 0 | PIANO 3 | 1 |
| | 8 | PIANO 3W | 2 |
| **4** | 0 | HONKY-TONK | 2 |
| | 8 | HONKY-TONK W | 2 |
| **E. PIANO** | | | |
| **5** | 0 | E.PIANO 1 | 1 |
| | 8 | DETUNED EP 1 | 2 |
| | 24 | 60'S E.PIANO | 1 |
| | 64 | FM+SA EP | 2 |
| | 65 | HARD EP | 2 |
| **6** | 0 | E.PIANO 2 | 2 |
| | 64 | BRIGHT FM EP | 2 |
| **CLAVI** | | | |
| **7** | 0 | HARPSICHORD | 1 |
| | 8 | COUPLED HPS. | 2 |
| | 16 | HARPSI.W | 2 |
| | 24 | HARPSI.O | 2 |
| **8** | 0 | CLAV. | 1 |
| | 64 | FUNK CLAV. | 2 |
| **CHROMATIC PERCUSSION** | | | |
| **9** | 0 | CELESTA | 1 |
| **10** | 0 | GLOCKENSPIEL | 1 |
| **11** | 0 | MUSIC BOX | 1 |
| **12** | 0 | VIBRAPHONE | 1 |
| | 8 | VIB.W | 2 |
| **13** | 0 | MARIMBA | 1 |
| **14** | 0 | XYLOPHONE | 1 |
| **15** | 0 | TUBULAR-BELL | 1 |
| | 8 | CHURCH BELL | 1 |
| | 9 | CARILLON | 1 |
| **16** | 0 | SANTUR | 1 |
| **ORGAN** | | | |
| **17** | 0 | ORGAN 1 | 1 |
| | 8 | DETUNED OR.1 | 2 |
| | 16 | 60'S ORGAN 1 | 1 |
| | 32 | ORGAN 4 | 2 |
| | 64 | SC88 ORGAN 4 | 1 |
| | 65 | EVEN BAR | 2 |
| **18** | 0 | ORGAN 2 | 1 |
| | 8 | DETUNED OR.2 | 2 |
| | 32 | ORGAN 5 | 2 |
| **19** | 0 | ORGAN 3 | 2 |
| **20** | 0 | CHURCH ORG.1 | 1 |
| | 8 | CHURCH ORG.2 | 2 |
| | 16 | CHURCH ORG.3 | 2 |
| **21** | 0 | REED ORGAN | 1 |
| **22** | 0 | ACCORDION FR | 2 |
| | 8 | ACCORDION IT | 2 |
| **23** | 0 | HARMONICA | 1 |
| **24** | 0 | BANDONEON | 2 |
| **GUITAR** | | | |
| **25** | 0 | NYLON-STR.GT | 1 |
| **26** | 0 | STEEL-STR.GT | 1 |
| | 8 | 12-STR.GT | 2 |
| | 64 | NYLON+STEEL | 2 |
| **27** | 0 | JAZZ GT. | 1 |
| | 8 | HAWAIIAN GT. | 1 |
| **28** | 0 | CLEAN GT. | 1 |
| | 8 | CHORUS GT. | 2 |
| **29** | 0 | MUTED GT. | 1 |
| | 64 | MUTED GT.2 | 2 |
| | 65 | POP GT. | 1 |
| | 66 | FUNK GT. | 1 * |
| | 67 | FUNK GT.2 | 1 * |
| **30** | 0 | OVERDRIVE GT | 1 |
| | 64 | FDBK.ODRV.GT | 2 |
| **31** | 0 | DISTORTIONGT | 1 |
| | 8 | FEEDBACK GT. | 2 |
| | 64 | HEAVY GT. | 1 |
| | 65 | FDBK. HVY.GT | 2 |
| | 66 | MUTED DIS.GT | 1 |
| | 67 | ROCK RHYTHM | 2 |
| **32** | 0 | GT.HARMONICS | 1 |
| | 8 | GT. FEEDBACK | 1 |

*: VELOCITY SWITCH
The tone switches at velocity 116.

| | | | |
|---|---|---|---|
| **BASS** | | | |
| **33** | 0 | ACOUSTIC BS. | 2 |
| | 64 | ELCTRC.AC.BS | 2 |
| **34** | 0 | FINGERED BS. | 1 |
| | 64 | FUNK BASS | 2 |
| | 65 | REGGAE BASS | 2 |
| **35** | 0 | PICKED BS. | 1 |
| | 64 | MUTE PICKBS1 | 1 |
| | 65 | MUTE PICKBS2 | 1 |
| **36** | 0 | FRETLESS BS. | 1 |
| **37** | 0 | SLAP BASS 1 | 1 |
| | 64 | SLAP BASS 3 | 1 |
| | 65 | RESO SLAP | 1 |
| | 66 | SLAP BASS 4 | 1 |
| **38** | 0 | SLAP BASS 2 | 1 |
| **SYN. BASS** | | | |
| **39** | 0 | SYNTH BASS 1 | 1 |
| | 1 | SYNTHBASS101 | 1 |
| | 8 | SYNTH BASS 3 | 1 |
| | 64 | TB33 BS 1 | 1 |
| | 65 | TB33 BS 2 | 1 |
| | 66 | TB33 BS 3 | 1 |
| **40** | 0 | SYNTH BASS 2 | 2 |
| | 16 | RUBBER BASS | 2 |
| | 64 | SH101 BS 1 | 1 |
| | 65 | SH101 BS 2 | 1 |
| | 66 | SH101 BS 3 | 1 |
| | 67 | MODULAR BASS | 2 |
| **ORCHESTRA** | | | |
| **41** | 0 | VIOLIN | 1 |
| | 8 | SLOW VIOLIN | 1 |
| **42** | 0 | VIOLA | 1 |
| **43** | 0 | CELLO | 1 |
| **44** | 0 | CONTRABASS | 1 |
| **45** | 0 | TREMOLO STR | 1 |
| **46** | 0 | PIZZICATOSTR | 1 |
| **47** | 0 | HARP | 1 |
| **48** | 0 | TIMPANI | 1 |
| **STRINGS** | | | |
| **49** | 0 | STRINGS | 1 |
| | 8 | ORCHESTRA | 2 |
| **50** | 0 | SLOW STRINGS | 1 |
| **51** | 0 | SYN.STRINGS1 | 1 |
| | 8 | SYN.STRINGS3 | 2 |
| | 64 | SYN.STRINGS4 | 2 |
| | 65 | OB STRINGS | 2 |
| **52** | 0 | SYN.STRINGS2 | 2 |
| **53** | 0 | CHOIR AAHS | 1 |
| | 32 | CHOIR AAHS 2 | 1 |
| **54** | 0 | VOICE OOHS | 1 |
| **55** | 0 | SYNVOX | 1 |
| **56** | 0 | ORCHESTRAHIT | 2 |
| **BRASS** | | | |
| **57** | 0 | TRUMPET | 1 |
| **58** | 0 | TROMBONE | 1 |
| | 1 | TROMBONE 2 | 2 |
| **59** | 0 | TUBA | 1 |
| **60** | 0 | MUTEDTRUMPET | 1 |
| **61** | 0 | FRENCH HORN | 2 |
| | 1 | FR.HORN 2 | 2 |
| **62** | 0 | BRASS 1 | 1 |
| | 8 | BRASS 2 | 2 |

## SYN. BRASS

| | | | |
|---|---|---|---|
| **63** | 0 | SYNTH BRASS1 | 2 |
| | 8 | SYNTH BRASS3 | 2 |
| | 16 | ANALOGBRASS1 | 2 |
| | 64 | SYNTH BRASS5 | 2 |
| | 65 | POLY BRASS | 2 |
| | 66 | QUACK BRASS | 2 |
| | 67 | OCTAVE BRASS | 2 |
| **64** | 0 | SYNTH BRASS2 | 2 |
| | 8 | SYNTH BRASS4 | 1 |
| | 16 | ANALOGBRASS2 | 2 |
| | 64 | SOFT BRASS | 2 |
| | 65 | VELO BRASS 1 | 2 |
| | 66 | VELO BRASS 2 | 2 |

## REED

| | | | |
|---|---|---|---|
| **65** | 0 | SOPRANO SAX | 1 |
| **66** | 0 | ALTO SAX | 1 |
| **67** | 0 | TENOR SAX | 1 |
| **68** | 0 | BARITONE SAX | 1 |
| **69** | 0 | OBOE | 1 |
| **70** | 0 | ENGLISH HORN | 1 |
| **71** | 0 | BASSOON | 1 |
| **72** | 0 | CLARINET | 1 |

## PIPE

| | | | |
|---|---|---|---|
| **73** | 0 | PICCOLO | 1 |
| **74** | 0 | FLUTE | 1 |
| **75** | 0 | RECORDER | 1 |
| **76** | 0 | PAN FLUTE | 1 |
| **77** | 0 | BOTTLE BLOW | 2 |
| **78** | 0 | SHAKUHACHI | 2 |
| **79** | 0 | WHISTLE | 1 |
| **80** | 0 | OCARINA | 1 |

## SYN. LEAD

| | | | |
|---|---|---|---|
| **81** | 0 | SQUARE WAVE | 2 |
| | 1 | SQUARE | 1 |
| | 8 | SINE WAVE | 1 |
| **82** | 0 | SAW WAVE | 2 |
| | 1 | SAW | 1 |
| | 8 | DOCTOR SOLO | 2 |
| | 64 | BIG LEAD | 2 |
| | 65 | WASPY SYNTH | 2 |
| **83** | 0 | SYN.CALLIOPE | 2 |
| **84** | 0 | CHIFFER LEAD | 2 |
| **85** | 0 | CHARANG | 2 |
| | 64 | DIST. LEAD 1 | 2 |
| | 65 | DIST. LEAD 2 | 2 |
| | 66 | FUNK LEAD | 2 |
| **86** | 0 | SOLO VOX | 2 |
| **87** | 0 | 5TH SAW WAVE | 2 |
| | 64 | BIG FIVES | 2 |
| **88** | 0 | BASS & LEAD | 2 |
| | 64 | BIG & RAW | 2 |
| | 65 | FAT & PERKY | 2 |

## SYN. PAD

| | | | |
|---|---|---|---|
| **89** | 0 | FANTASIA | 2 |
| **90** | 0 | WARM PAD | 1 |
| | 64 | THICK PAD | 2 |
| | 65 | HORN PAD | 2 |
| **91** | 0 | POLYSYNTH | 2 |
| | 64 | 80'S POLYSYN | 2 |
| **92** | 0 | SPACE VOICE | 1 |
| **93** | 0 | BOWED GLASS | 2 |
| **94** | 0 | METAL PAD | 2 |
| | 64 | PANNER PAD | 2 |
| **95** | 0 | HALO PAD | 2 |
| **96** | 0 | SWEEP PAD | 1 |
| | 64 | POLAR PAD | 1 |
| | 65 | CONVERGE | 1 |

## SYN. SFX

| | | | |
|---|---|---|---|
| **97** | 0 | ICE RAIN | 2 |
| **98** | 0 | SOUNDTRACK | 2 |
| | 64 | ANCESTRAL | 2 |
| | 65 | PROLOGUE | 2 |
| **99** | 0 | CRYSTAL | 2 |
| | 1 | SYN MALLET | 1 |
| **100** | 0 | ATMOSPHERE | 2 |
| **101** | 0 | BRIGHTNESS | 2 |
| **102** | 0 | GOBLIN | 2 |
| **103** | 0 | ECHO DROPS | 1 |
| | 1 | ECHO BELL | 2 |
| | 2 | ECHO PAN | 2 |
| | 64 | ECHO PAN 2 | 2 |
| | 65 | BIG PANNER | 2 |
| | 66 | RESO PANNER | 2 |
| **104** | 0 | STAR THEME | 2 |

## ETHNIC MISC

| | | | |
|---|---|---|---|
| **105** | 0 | SITAR | 1 |
| | 1 | SITAR 2 | 2 |
| **106** | 0 | BANJO | 1 |
| **107** | 0 | SHAMISEN | 1 |
| **108** | 0 | KOTO | 1 |
| | 8 | TAISHO KOTO | 2 |
| **109** | 0 | KALIMBA | 1 |
| **110** | 0 | BAGPIPE | 1 |
| **111** | 0 | FIDDLE | 1 |
| **112** | 0 | SHANAI | 1 |

## PERCUSSIVE

| | | | |
|---|---|---|---|
| **113** | 0 | TINKLE BELL | 1 |
| **114** | 0 | AGOGO | 1 |
| **115** | 0 | STEEL DRUMS | 1 |
| **116** | 0 | WOODBLOCK | 1 |
| | 8 | CASTANETS | 1 |
| **117** | 0 | TAIKO | 1 |
| | 8 | CONCERT BD | 1 |
| **118** | 0 | MELO. TOM 1 | 1 |
| | 8 | MELO. TOM 2 | 1 |
| **119** | 0 | SYNTH DRUM | 1 |
| | 8 | 808 TOM | 1 |
| | 9 | ELEC PERC. | 1 |
| **120** | 0 | REVERSE CYM. | 1 |

## GUITAR BASS FX

| | | | |
|---|---|---|---|
| **121** | 0 | GT.FRETNOISE | 1 |
| | 1 | GT.CUT NOISE | 1 |
| | 64 | WAH BRUSH GT | 1 |
| | 65 | GT. SLIDE | 1 |
| | 66 | GT. SCRATCH | 1 |
| | 67 | BASS SLIDE | 1 |

## SFX

| | | | |
|---|---|---|---|
| **122** | 0 | BREATH NOISE | 1 |
| | 1 | FL.KEY CLICK | 1 |
| **123** | 0 | SEASHORE | 1 |
| | 1 | RAIN | 1 |
| | 2 | THUNDER | 1 |
| | 3 | WIND | 1 |
| | 5 | BUBBLE | 2 |
| **124** | 0 | BIRD | 2 |
| | 1 | DOG | 1 |
| | 3 | BIRD 2 | 1 |
| **125** | 0 | TELEPHONE 1 | 1 |
| | 1 | TELEPHONE 2 | 1 |
| | 3 | DOOR | 1 |
| | 5 | WIND CHIMES | 2 |
| **126** | 0 | HELICOPTER | 1 |
| | 2 | CAR-STOP | 1 |
| | 9 | BURST NOISE | 2 |
| | 64 | SPACE TRI. | 1 |
| **127** | 0 | APPLAUSE | 2 |
| | 3 | PUNCH | 1 |
| **128** | 0 | GUN SHOT | 1 |
| | 2 | LASERGUN | 1 |
| | 3 | EXPLOSION | 2 |

**PC:** Program number (Instrument number)

**CC0:** Value of control change number 0

**VOICES:** Number of voices used

* To switch instruments from the external MIDI device, send "0" on the CC32# (Control Change Bank Select) from the external MIDI device to the TD-20.

* The value of the CC32# (Control Change Bank Select) that the TD-20 transmits is always "0."

# Preset Pattern List

| No. | Name | T.Sig | Len | Tempo | PlayT |
|---|---|---|---|---|---|
| 1 | Preview | 4/ 4 | 17 | 120 | LOOP |
| 2 | Preview Jazz | 4/ 4 | 18 | 120 | LOOP |
| 3 | Drums Basic | 4/ 4 | 8 | 112 | LOOP |
| 4 | Drums Fill | 4/ 4 | 2 | 112 | LOOP |
| 5 | Rockin' Hard | 4/ 4 | 18 | 95 | LOOP |
| 6 | Night Groove | 4/ 4 | 4 | 88 | LOOP |
| 7 | Fast Track | 4/ 4 | 4 | 105 | LOOP |
| 8 | Water Fall | 4/ 4 | 4 | 80 | LOOP |
| 9 | Smooth Sail | 4/ 4 | 4 | 89 | LOOP |
| 10 | Bug Juice | 4/ 4 | 4 | 74 | LOOP |
| 11 | Strunk | 4/ 4 | 4 | 82 | LOOP |
| 12 | Faced | 4/ 4 | 4 | 67 | LOOP |
| 13 | 4 & 7 | 15/8 | 4 | 115 | LOOP |
| 14 | Swing A | 4/ 4 | 16 | 212 | LOOP |
| 15 | Swing B | 4/ 4 | 8 | 212 | LOOP |
| 16 | Latin 4 bars | 4/ 4 | 4 | 130 | LOOP |
| 17 | Latin 8 bars | 4/ 4 | 8 | 130 | LOOP |
| 18 | Rockin' | 4/ 4 | 16 | 100 | LOOP |
| 19 | Rollin' | 4/ 4 | 24 | 128 | LOOP |
| 20 | Shufflin' | 4/ 4 | 26 | 140 | LOOP |
| 21 | Minoplis | 4/ 4 | 4 | 118 | LOOP |
| 22 | Grr-unge | 4/ 4 | 4 | 111 | LOOP |
| 23 | Rockmay | 4/ 4 | 8 | 100 | LOOP |
| 24 | Shoot! | 4/ 4 | 4 | 89 | LOOP |
| 25 | Jammin' | 4/ 4 | 8 | 113 | LOOP |
| 26 | Clap Happy | 4/ 4 | 8 | 104 | LOOP |
| 27 | Happy R&B | 4/ 4 | 8 | 104 | LOOP |
| 28 | Holiday | 4/ 4 | 8 | 111 | LOOP |
| 29 | Cruisin' | 4/ 4 | 4 | 110 | LOOP |
| 30 | Festival | 6/ 4 | 4 | 164 | LOOP |
| 31 | Let's Roll | 4/ 4 | 8 | 148 | LOOP |
| 32 | Woa | 4/ 4 | 8 | 114 | LOOP |
| 33 | Pop X | 4/ 4 | 8 | 124 | LOOP |
| 34 | Purplroq | 4/ 4 | 4 | 112 | LOOP |
| 35 | Pop'n Love | 4/ 4 | 4 | 140 | LOOP |
| 36 | In the House | 4/ 4 | 4 | 100 | LOOP |
| 37 | Smoove | 4/ 4 | 2 | 94 | LOOP |
| 38 | Shuffle Bop | 4/ 4 | 4 | 92 | LOOP |
| 39 | Funky Alley | 4/ 4 | 8 | 90 | LOOP |
| 40 | Old Soul | 4/ 4 | 8 | 114 | LOOP |
| 41 | Brown Funk | 4/ 4 | 18 | 132 | LOOP |
| 42 | Thick Funk | 4/ 4 | 12 | 102 | LOOP |
| 43 | Up Shuffle | 4/ 4 | 26 | 130 | LOOP |
| 44 | R&B Shuffle | 4/ 4 | 16 | 112 | LOOP |
| 45 | Shuffle Grv | 4/ 4 | 17 | 96 | LOOP |
| 46 | R&B Groove | 4/ 4 | 12 | 80 | LOOP |
| 47 | Smooth Grv | 4/ 4 | 19 | 73 | LOOP |
| 48 | Slow Fusion | 4/ 4 | 15 | 85 | LOOP |
| 49 | Country Blld | 4/ 4 | 8 | 102 | LOOP |
| 50 | 6/8 Ballad | 6/ 8 | 21 | 50 | LOOP |

| No. | Name | T.Sig | Len | Tempo | PlayT |
|---|---|---|---|---|---|
| 51 | Slow | 4/ 4 | 4 | 69 | LOOP |
| 52 | Reggae | 4/ 4 | 8 | 122 | LOOP |
| 53 | Rastamon | 4/ 4 | 4 | 86 | LOOP |
| 54 | Salsa 1 | 4/ 4 | 17 | 115 | LOOP |
| 55 | Salsa 2 | 4/ 4 | 20 | 102 | LOOP |
| 56 | Songo | 4/ 4 | 16 | 109 | LOOP |
| 57 | Latin Jazz | 4/ 4 | 26 | 167 | LOOP |
| 58 | Afro Jazz | 4/ 4 | 22 | 194 | LOOP |
| 59 | Smooth Jazz | 4/ 4 | 20 | 183 | LOOP |
| 60 | Modern Jazz | 4/ 4 | 28 | 136 | LOOP |
| 61 | Blues Latin | 4/ 4 | 12 | 55 | LOOP |
| 62 | 12Bar Blues | 4/ 4 | 12 | 55 | LOOP |
| 63 | Surfpunk | 4/ 4 | 4 | 130 | LOOP |
| 64 | Rockabilly | 4/ 4 | 24 | 192 | LOOP |
| 65 | Funk Hop | 4/ 4 | 4 | 102 | LOOP |
| 66 | Funk 5/4A | 5/ 4 | 2 | 86 | LOOP |
| 67 | Funk 4/4B | 4/ 4 | 4 | 86 | LOOP |
| 68 | King Strut | 4/ 4 | 4 | 84 | LOOP |
| 69 | Krunkn' | 4/ 4 | 4 | 94 | LOOP |
| 70 | Start & Stop | 4/ 4 | 4 | 112 | LOOP |
| 71 | Prowl | 4/ 4 | 4 | 80 | LOOP |
| 72 | Guttn' | 4/ 4 | 4 | 68 | LOOP |
| 73 | Ambient | 4/ 4 | 8 | 96 | LOOP |
| 74 | Rockin'A8bar | 4/ 4 | 8 | 100 | LOOP |
| 75 | Rockin'B8bar | 4/ 4 | 8 | 100 | LOOP |
| 76 | Shufflin'Itr | 4/ 4 | 8 | 140 | LOOP |
| 77 | Shufflin'A8 | 4/ 4 | 8 | 140 | LOOP |
| 78 | Shufflin'B10 | 4/ 4 | 10 | 140 | LOOP |
| 79 | 4 & 7 A 2bar | 15/8 | 2 | 115 | LOOP |
| 80 | 4 & 7 B 2bar | 15/8 | 2 | 115 | LOOP |
| 81 | Samba | 4/ 4 | 1 | 120 | TAP |
| 82 | Sitar Rag | 4/ 4 | 17 | 100 | TAP |
| 83 | Aco Bass | 4/ 4 | 4 | 160 | TAP |
| 84 | BrassSection | 4/ 4 | 5 | 160 | TAP |
| 85 | Jazz End | 4/ 4 | 6 | 60 | TAP |
| 86 | OrchString1 | 4/ 4 | 8 | 128 | TAP |
| 87 | OrchString2 | 4/ 4 | 8 | 128 | TAP |
| 88 | OrchString3 | 4/ 4 | 8 | 128 | TAP |
| 89 | StrChord | 4/ 4 | 8 | 150 | TAP |
| 90 | DiscoTapBass | 4/ 4 | 1 | 120 | TAP |
| 91 | TrashBass | 4/ 4 | 1 | 120 | TAP |
| 92 | Applause | 4/ 4 | 4 | 120 | TAP |
| 93 | Sweep pad 1 | 4/ 4 | 8 | 80 | TAP |
| 94 | Sweep pad 2 | 4/ 4 | 8 | 80 | TAP |
| 95 | Grv Bass | 4/ 4 | 2 | 120 | TAP |
| 96 | Strings | 4/ 4 | 8 | 128 | TAP |
| 97 | Pad&Bass | 4/ 4 | 8 | 80 | TAP |
| 98 | Synchord1 | 4/ 4 | 3 | 120 | TAP |
| 99 | 7 Notes | 4/ 4 | 7 | 128 | VLINK |
| 100 | 12 Notes | 4/ 4 | 12 | 128 | VLINK |

| No. | Name | T.Sig | Len | Tempo | PlayT |
|---|---|---|---|---|---|
| 101 | Drums POP | 4/ 4 | 10 | 120 | LOOP |
| 102 | Drums JAZZ | 4/ 4 | 13 | 180 | LOOP |
| 103 | Drums BALLAD | 12/8 | 9 | 100 | LOOP |
| 104 | Drums H.ROCK | 4/ 4 | 9 | 152 | LOOP |
| 105 | Roll Snr Rim | 2/ 4 | 1 | 168 | ONE SHOT |
| 106 | Roll Tom1Rim | 2/ 4 | 1 | 168 | ONE SHOT |
| 107 | Roll Tom2Rim | 2/ 4 | 1 | 168 | ONE SHOT |
| 108 | Roll Tom3Rim | 2/ 4 | 1 | 168 | ONE SHOT |
| 109 | AsianRoad 1 | 4/ 4 | 24 | 168 | TAP |
| 110 | AsianRoad 2 | 4/ 4 | 26 | 168 | TAP |
| 111 | AsianRoad 3 | 4/ 4 | 1 | 168 | TAP |
| 112 | Tune Bass | 4/ 4 | 3 | 120 | TAP |
| 113 | Tune Chord | 4/ 4 | 8 | 120 | TAP |
| 114 | Tune Arp A1 | 4/ 4 | 4 | 120 | TAP |
| 115 | Tune Arp A2 | 4/ 4 | 4 | 120 | TAP |
| 116 | Tune Arp B1 | 4/ 4 | 1 | 120 | TAP |
| 117 | Tune Arp B2 | 4/ 4 | 2 | 120 | TAP |
| 118 | Tune Arp C1 | 4/ 4 | 1 | 120 | TAP |
| 119 | Tune Arp C2 | 4/ 4 | 2 | 120 | TAP |
| 120 | Tune Ending | 4/ 4 | 2 | 120 | TAP |
| 121 | Tune Arp Gm6 | 4/ 4 | 28 | 120 | TAP |
| 122 | Melo Arp A1 | 4/ 4 | 6 | 100 | TAP |
| 123 | Melo Arp A2 | 4/ 4 | 6 | 100 | TAP |
| 124 | Melo Arp B1 | 4/ 4 | 2 | 100 | TAP |
| 125 | Melo Arp B2 | 4/ 4 | 1 | 100 | TAP |
| 126 | Melo Arp C1 | 4/ 4 | 2 | 100 | TAP |
| 127 | Melo Arp C2 | 4/ 4 | 1 | 100 | TAP |
| 128 | Melo Cho 1 | 4/ 4 | 8 | 100 | TAP |
| 129 | Melo Cho 2 | 4/ 4 | 8 | 100 | TAP |
| 130 | Melo Cho 3 | 4/ 4 | 2 | 100 | TAP |
| 131 | neo Chord 1 | 4/ 4 | 32 | 168 | TAP |
| 132 | neo Chord 2 | 4/ 4 | 16 | 168 | TAP |
| 133 | neo Chord 3 | 4/ 4 | 17 | 168 | TAP |
| 134 | 8 Chords | 4/ 4 | 16 | 168 | TAP |
| 135 | Jam Fretless | 4/ 4 | 8 | 120 | TAP |
| 136 | Jam SynVibe | 4/ 4 | 36 | 120 | TAP |
| 137 | Jam Vibes | 4/ 4 | 18 | 120 | TAP |
| 138 | Jam Sweep | 4/ 4 | 32 | 120 | TAP |
| 139 | Jam D/E | 4/ 4 | 4 | 120 | ONE SHOT |
| 140 | Rock Rhythm | 4/ 4 | 2 | 112 | LOOP |
| 141 | Rock Bass | 4/ 4 | 3 | 112 | TAP |
| 142 | RockGt Chrds | 4/ 4 | 16 | 112 | TAP |
| 143 | RockGt Lead1 | 4/ 4 | 41 | 112 | TAP |
| 144 | RockGt Lead2 | 4/ 4 | 25 | 112 | TAP |
| 145 | RockGt Lead3 | 4/ 4 | 31 | 112 | TAP |
| 146 | D-N-B BREAK | 4/ 4 | 4 | 160 | LOOP |
| 147 | FunkyJungl 1 | 4/ 4 | 2 | 160 | LOOP |
| 148 | FunkyJungl 2 | 4/ 4 | 2 | 160 | LOOP |
| 149 | FunkySnrRoll | 4/ 4 | 1 | 160 | LOOP |
| 150 | LayerKickRim | 4/ 4 | 1 | 120 | TAP |

**T.Sig:** Time Signature
**Len:** Pattern Length

**Play T (Play Type):** See p. 78.

PERCUSSION SOUND MODULE (SOUND GENERATOR SECTION) Date : July 1, 2009

Model TD-20X

# MIDI Implementation Chart

Version : 1.00

| Function... | | Transmitted | Recognized | Remarks |
|---|---|---|---|---|
| Basic | Default | 1–16, OFF | 1–16, OFF | Memorized |
| Channel | Changed | 1–16, OFF | 1–16, OFF | |
| Mode | Default | Mode 3 | Mode 3 | |
| | Messages | X | X | |
| | Altered | ********** | ********** | |
| Note Number : | | 0–127 | 0–127 | |
| | True Voice | ********** | 0–127 | |
| Velocity | Note On | O 9nH, v = 1–127 | O | |
| | Note Off | O 8nH, v = 64 | O *4 | |
| After Touch | Key's | O *3 | O *3 | |
| | Channel's | X | X | |
| Pitch Bend | | X | O *4 | |
| Control Change | 0, 32 | O | O *4 | Bank Select |
| | 1 | O (Pad, Pedal) *1 *2 *3 | O *1 *2 *3 | Modulation |
| | 2 | O (Pad, Pedal) *1 *2 *3 | O *1 *2 *3 | Breath Controller |
| | 4 | O (Pad, Pedal) *1 *2 *3 | O *1 *2 *3 | Foot Controller |
| | 6, 38 | X | O *4 | Data Entry |
| | 7 | X | O | Volume |
| | 10 | X | O *4 | Panpot |
| | 11 | O (Pad, Pedal) *1 *2 *3 | O *1 *2 *3 | Expression |
| | 16–19 | O (Pad, Pedal) *1 *2 *3 | O *1 *2 *3 | General Purpose Controller 1–4 |
| | 64 | X | O *4 | Hold 1 |
| | 91 | X | O *4 | Effects 1 (Reverb Send Level) |
| | 93 | X | O *4 | Effects 3 (Chorus Send Level) |
| | 100, 101 | X | O *4 | RPN LSB, MSB |
| Program Change | | O 0–127 *5 | O 0–127 *5 | Program No. 1–128 |
| | : True Number | ********** | 0–127 | |
| System Exclusive | | O | O | |
| System Common | : Song Position | X | X | |
| | : Song Select | X | X | |
| | : Tune Request | X | X | |
| System Real Time | : Clock | X | O | |
| | : Commands | X | X | |
| Aux Messages | : All Sound Off | X | O (120, 126, 127) | |
| | : Reset All Controllers | X | O | |
| | : Local On/Off | X | X | |
| | : All Notes Off | X | O (123–127) | |
| | : Active Sensing | O | O | |
| | : System Reset | X | X | |

Notes

*1 One is selected as the strike position.
*2 One is selected as the hi-hat control pedal.
*3 Drum part only.
*4 Backing part only.
*5 O X is selectable.

Mode 1 : OMNI ON, POLY
Mode 2 : OMNI ON, MONO
Mode 3 : OMNI OFF, POLY
Mode 4 : OMNI OFF, MONO

O : Yes
X : No

PERCUSSION SOUND MODULE (SEQUENCER SECTION) Date : July 1, 2009

Model TD-20X

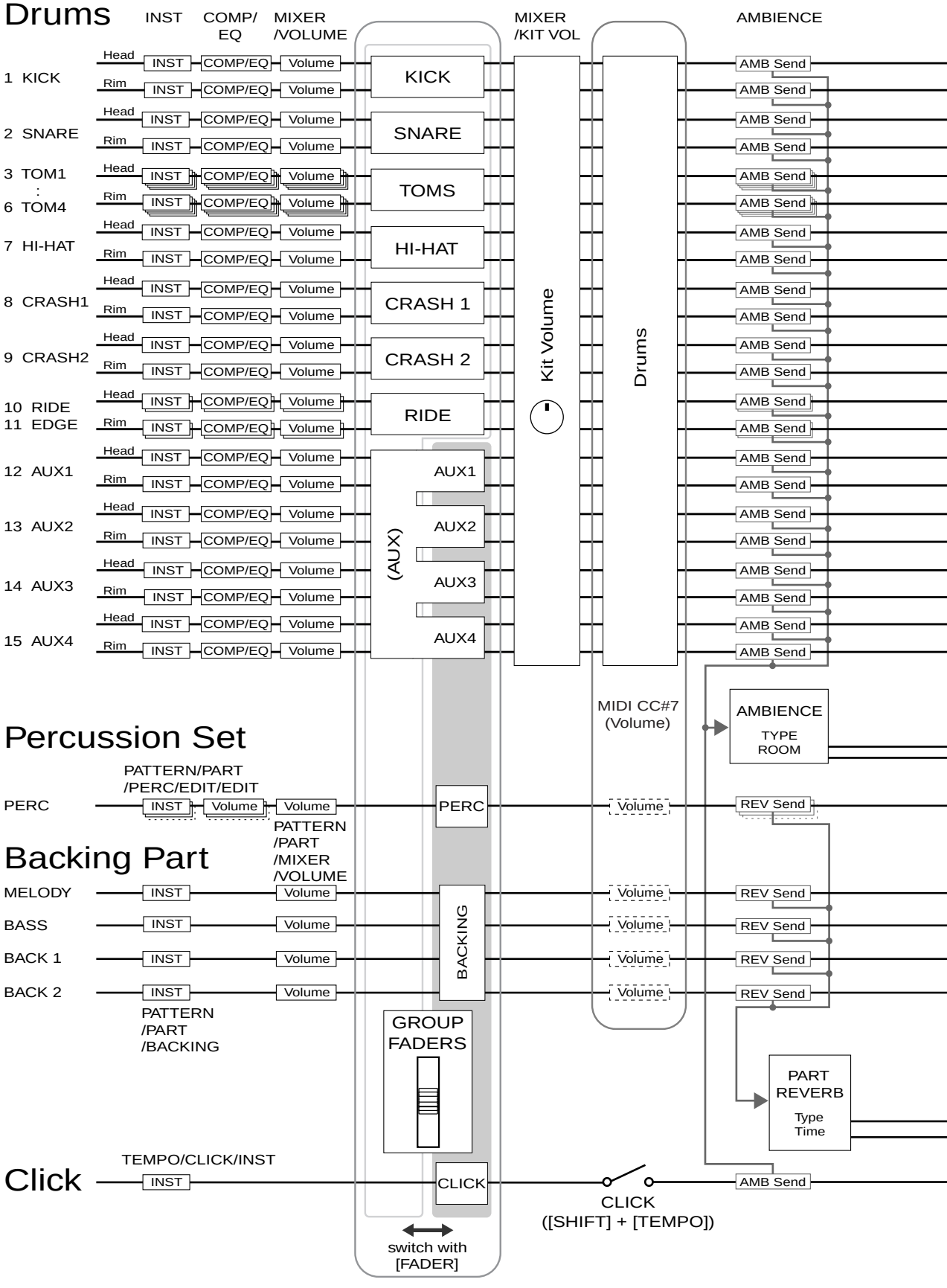
# MIDI Implementation Chart

Version : 1.00

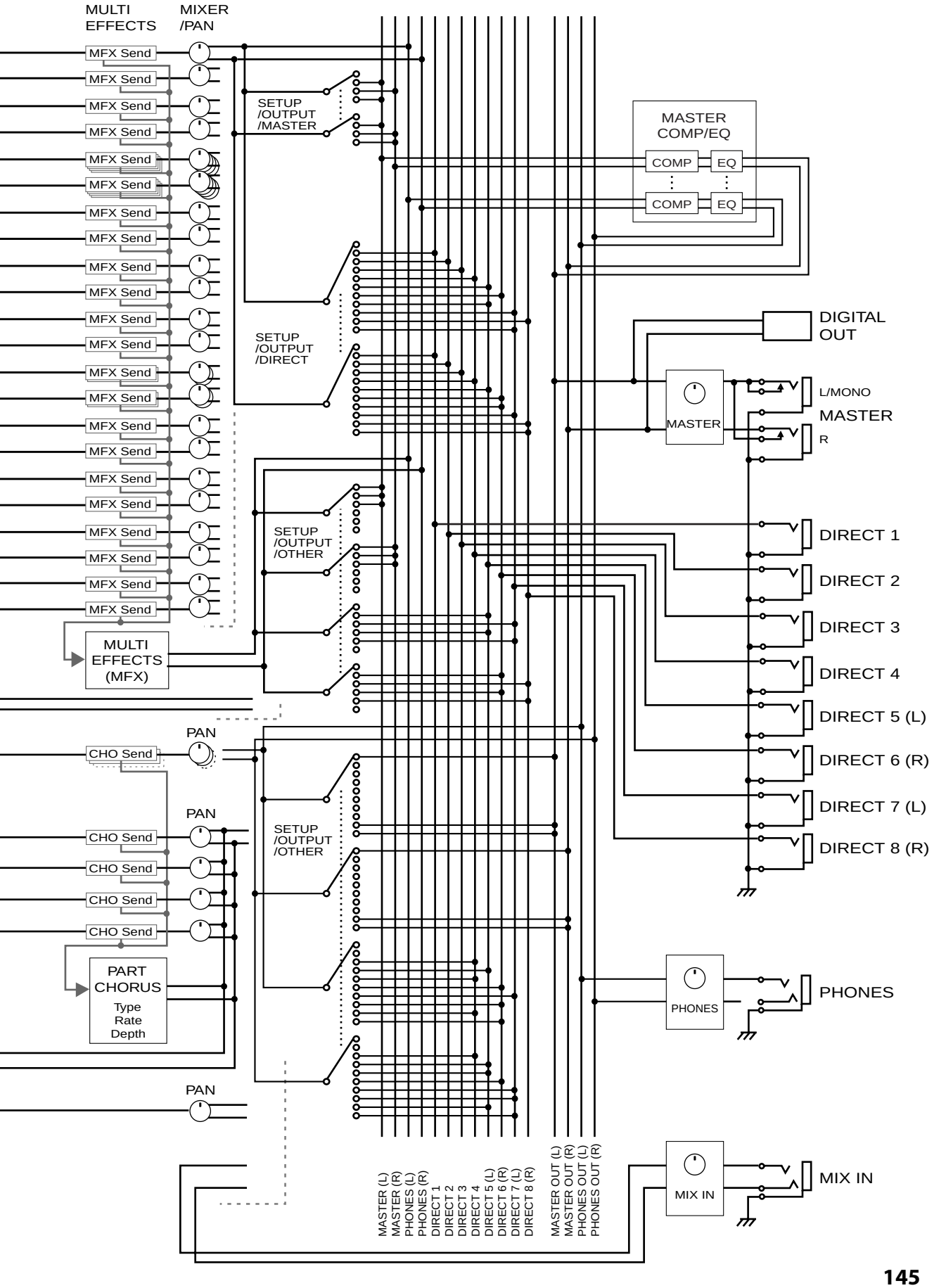
| Function... | | Transmitted | Recognized | Remarks |
|---|---|---|---|---|
| Basic | Default | 1–16, OFF | 1–16, OFF | Memorized |
| Channel | Changed | 1–16, OFF | 1–16, OFF | |
| Mode | Default | Mode 3 | Mode 3 | |
| | Messages | X | X | |
| | Altered | ********** | ********** | |
| Note | | 0–127 | 0–127 | |
| Number : | True Voice | ********** | 0–127 | |
| Velocity | Note On | O 9nH, v = 1–127 | O | |
| | Note Off | O 8nH, v = 64 | O | |
| After | Key's | O *3 | O *3 | |
| Touch | Channel's | X | X | |
| Pitch Bend | | O *4 | O *4 | |
| Control Change | 0, 32 | O *6 *7 | X | Bank Select |
| | 1 | O *1 *2 *3 | O *1 *2 *3 | Modulation |
| | 2 | O *1 *2 *3 | O *1 *2 *3 | Breath Controller |
| | 4 | O *1 *2 *3 | O *1 *2 *3 | Foot Controller |
| | 6, 38 | O *4 *6 *7 | X | Data Entry |
| | 7 | O *6 *7 *10 | X | Volume |
| | 10 | O *4 *6 *7 | X | Panpot |
| | 11 | O *1 *2 *3 | O *1 *2 *3 | Expression |
| | 16–19 | O *1 *2 *3 | O *1 *2 *3 | General Purpose Controller 1–4 |
| | 64 | O *4 | O *4 | Hold 1 |
| | 91 | O *4 *6 *7 | X | Effects 1 (Reverb Send Level) |
| | 93 | O *4 *6 *7 | X | Effects 3 (Chorus Send Level) |
| | 100, 101 | O *4 *6 *7 | X | RPN LSB, MSB |
| Program Change | : True Number | O 0–127 *5 *6 *7<br>********** | X | Program No. 1–128 |
| System Exclusive | | O | O | Only reception/transmission of Bulk Data. |
| System Common | : Song Position | X | X | |
| | : Song Select | X | X | |
| | : Tune Request | X | X | |
| System Real Time | : Clock | O | O *8 | |
| | : Commands | O | O *9 | |
| Aux Messages | : All Sound Off | X | O | |
| | : Reset All Controllers | X | O | |
| | : Local On/Off | X | X | |
| | : All Notes Off | X | O (123–127) | |
| | : Active Sensing | X | X | |
| | : System Reset | X | X | |
| Notes | | *1 One is selected as the strike position.<br>*2 One is selected as the hi-hat control pedal.<br>*3 Drum part only.<br>*4 Backing part only.<br>*5 O X is selectable.<br>*6 Transmits when pattern is selected. | *7 Transmits when modified.<br>*8 Receives when Sync Mode setting is "EXTERNAL" or "AUTO."<br>*9 Receives when Sync Mode setting is "EXTERNAL," "AUTO," or "REMOTE."<br>*10 Except drum part. | |

Mode 1 : OMNI ON, POLY
Mode 2 : OMNI ON, MONO
Mode 3 : OMNI OFF, POLY
Mode 4 : OMNI OFF, MONO

O : Yes
X : No




# TD-20X Block Diagram


MULTI EFFECTS
MIXER /PAN
MFX Send
SETUP /OUTPUT /MASTER
SETUP /OUTPUT /DIRECT
SETUP /OUTPUT /OTHER
MASTER COMP/EQ
COMP
EQ
DIGITAL OUT
MASTER
L/MONO
R
DIRECT 1
DIRECT 2
DIRECT 3
DIRECT 4
DIRECT 5 (L)
DIRECT 6 (R)
DIRECT 7 (L)
DIRECT 8 (R)
MULTI EFFECTS (MFX)
PAN
CHO Send
PART CHORUS
Type
Rate
Depth
PHONES
MIX IN
MASTER (L)
MASTER (R)
PHONES (L)
PHONES (R)
DIRECT 1
DIRECT 2
DIRECT 3
DIRECT 4
DIRECT 5 (L)
DIRECT 6 (R)
DIRECT 7 (L)
DIRECT 8 (R)
MASTER OUT (L)
MASTER OUT (R)
PHONES OUT (L)
PHONES OUT (R)

# Specifications

## TD-20X: Percussion Sound Module

| | |
|---|---|
| **Sound Generator** | Variable Drum Modeling |
| **Maximum Polyphony** | 64 Voices |
| **Instruments** | **Drum Instruments:** 920<br>**Backing Instruments:** 262 |
| **Drum Kits** | 100 |
| **Drum Kit Chains** | 16 chains (32 steps per chain) |
| **Instrument Parameters** | **V-EDIT (KICK):**<br>Shell Depth, Beater Type, Head Type, Head Tuning, Muffling, Snare Buzz, Mic Position, Mic Size, Kit Resonance<br>**V-EDIT (SNARE):**<br>Shell Material, Shell Depth, Head Type, Head Tuning, Muffling, Strainer Adjustment, Mic Position, Add Rim Sound, Add Rim Sound Level<br>**V-EDIT (TOM):**<br>Shell Depth, Head Type, Head Tuning, Muffling, Snare Buzz, Mic Position<br>**V-EDIT (HI-HAT):**<br>Cymbal Size, Add Sound, Add Sound Level, Mic Position, Fixed Hi-Hat<br>**V-EDIT (CYMBAL):**<br>Cymbal Size, Sizzle Type, Sizzle Amount, Sustain, Mic Position<br>**EDIT:**<br>Pitch, Decay, Dynamic Bend, Bend Depth, Bend Time |
| **Ambience Parameters** | Room Type (25 types), Room Size, Wall Type, Mic Position, Room Shape |
| **Mixer Parameters** | Volume, Pan, Minimum Volume, Ambience Send Level, Multi-Effects Send Level, Output Assign |
| **Effect Types** | Pad Equalizer (each pad)<br>Pad Compressor (each pad)<br>Multi-Effects (13 types)<br>Master Compressor<br>Master Equalizer<br>Reverb (for backing part)<br>Chorus (for backing part) |
| **Percussion Sets** | 8 |
| **Sequencer** | **User Patterns:** 100<br>**Preset Patterns:** 150<br>**Parts:** 6<br>**Play Type:** Oneshot, Loop, Tap<br>**Tempo:** 20–260<br>**Resolution:** 192 ticks per quarter note<br>**Recording Method:** Realtime<br>**Maximum Note Storage:** approx. 20,000 Notes<br>**Click Instruments:** 20 |
| **Display** | 64 x 240 dots (backlit graphic LCD)<br>7 segments, 3 characters (LED)<br>Trigger Level Indicator (LED) |
| **Faders** | 8 |
| **Preview Button** | |
| **Connectors** | Trigger Input Jack x 15<br>Hi-Hat Control Jack (VH series, FD series)<br>Master Output Jacks (L/MONO, R)<br>Direct Output Jack x 8<br>Digital Output Jack (COAXIAL type, 44.1 kHz / 24-bit)<br>Headphones Jack (Stereo 1/4 inch phone type)<br>Mix in Jack (Stereo 1/4 inch phone type)<br>MIDI Connectors (IN, OUT/THRU)<br>Footswitch Jack (1/4 inch TRS phone type)<br>CompactFlash Card Slot<br>AC Inlet |
| **Output Impedance** | 1.0 k ohms |
| **Power Consumption** | 16 W |
| **Dimensions** | 307 (W) x 256 (D) x 105 (H) mm<br>12-1/8 (W) x 10-1/8 (D) x 4-3/16 (H) inches |
| **Weight** | 2.7 kg / 6 lbs |
| **Accessories** | Owner's Manual, Power Cord |
| **Options** | Pads (PD series, PDX series)<br>Cymbals (CY series)<br>Kick Triggers (KD series)<br>Hi-Hat (VH series)<br>Hi-Hat Control Pedal (FD series)<br>Stands (MDS series)<br>Cymbal Mount (MDY series)<br>Pad Mount (MDH series) |

**NOTE** In the interest of product improvement, the specifications and/or appearance of this unit are subject to change without prior notice.

# Index

## Symbols



## Numerics



## A



## B



## C



## D

## E



## F



## G



## H



## I



## K



## L



## M

## N



## O



## P

## Q



## R



## S



## T

## U



## V



## W



## X

**For EU Countries**

This product complies with the requirements of EMCD 2004/108/EC and LVD 2006/95/EC.

**For the USA**

# FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

---

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

---

Unauthorized changes or modification to this system can void the users authority to operate this equipment.
This equipment requires shielded interface cables in order to meet FCC class B Limit.

**For Canada**

## NOTICE

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

## AVIS

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

**For C.A. US (Proposition 65)**

## WARNING

This product contains chemicals known to cause cancer, birth defects and other reproductive harm, including lead.

## For EU Countries

**UK** This symbol indicates that in EU countries, this product must be collected separately from household waste, as defined in each region. Products bearing this symbol must not be discarded together with household waste.

**DE** Dieses Symbol bedeutet, dass dieses Produkt in EU-Ländern getrennt vom Hausmüll gesammelt werden muss gemäß den regionalen Bestimmungen. Mit diesem Symbol gekennzeichnete Produkte dürfen nicht zusammen mit den Hausmüll entsorgt werden.

**FR** Ce symbole indique que dans les pays de l'Union européenne, ce produit doit être collecté séparément des ordures ménagères selon les directives en vigueur dans chacun de ces pays. Les produits portant ce symbole ne doivent pas être mis au rebut avec les ordures ménagères.

**IT** Questo simbolo indica che nei paesi della Comunità europea questo prodotto deve essere smaltito separatamente dai normali rifiuti domestici, secondo la legislazione in vigore in ciascun paese. I prodotti che riportano questo simbolo non devono essere smaltiti insieme ai rifiuti domestici. Ai sensi dell'art. 13 del D.Lgs. 25 luglio 2005 n. 151.

**ES** Este símbolo indica que en los países de la Unión Europea este producto debe recogerse aparte de los residuos domésticos, tal como esté regulado en cada zona. Los productos con este símbolo no se deben depositar con los residuos domésticos.

**PT** Este símbolo indica que nos países da UE, a recolha deste produto deverá ser feita separadamente do lixo doméstico, de acordo com os regulamentos de cada região. Os produtos que apresentem este símbolo não deverão ser eliminados juntamente com o lixo doméstico.

**NL** Dit symbool geeft aan dat in landen van de EU dit product gescheiden van huishoudelijk afval moet worden aangeboden, zoals bepaald per gemeente of regio. Producten die van dit symbool zijn voorzien, mogen niet samen met huishoudelijk afval worden verwijderd.

**DK** Dette symbol angiver, at i EU-lande skal dette produkt opsamles adskilt fra husholdningsaffald, som defineret i hver enkelt region. Produkter med dette symbol må ikke smides ud sammen med husholdningsaffald.

**NO** Dette symbolet indikerer at produktet må behandles som spesialavfall i EU-land, iht. til retningslinjer for den enkelte regionen, og ikke kastes sammen med vanlig husholdningsavfall. Produkter som er merket med dette symbolet, må ikke kastes sammen med vanlig husholdningsavfall.

**SE** Symbolen anger att i EU-länder måste den här produkten kasseras separat från hushållsavfall, i enlighet med varje regions bestämmelser. Produkter med den här symbolen får inte kasseras tillsammans med hushållsavfall.

**FI** Tämä merkintä ilmaisee, että tuote on EU-maissa kerättävä erillään kotitalousjätteistä kunkin alueen voimassa olevien määräysten mukaisesti. Tällä merkinnällä varustettuja tuotteita ei saa hävittää kotitalousjätteiden mukana.

**HU** Ez a szimbólum azt jelenti, hogy az Európai Unióban ezt a terméket a háztartási hulladéktól elkülönítve, az adott régióban érvényes szabályozás szerint kell gyűjteni. Az ezzel a szimbólummal ellátott termékeket nem szabad a háztartási hulladék közé dobni.

**PL** Symbol oznacza, że zgodnie z regulacjami w odpowiednim regionie, w krajach UE produktu nie należy wyrzucać z odpadami domowymi. Produktów opatrzonych tym symbolem nie można utylizować razem z odpadami domowymi.

**CZ** Tento symbol udává, že v zemích EU musí být tento výrobek sbírán odděleně od domácího odpadu, jak je určeno pro každý region. Výrobky nesoucí tento symbol se nesmí vyhazovat spolu s domácím odpadem.

**SK** Tento symbol vyjadruje, že v krajinách EÚ sa musí zber tohto produktu vykonávať oddelene od domového odpadu, podľa nariadení platných v konkrétnej krajine. Produkty s týmto symbolom sa nesmú vyhadzovať spolu s domovým odpadom.

**EE** See sümbol näitab, et EL-i maades tuleb see toode olemprügist eraldi koguda, nii nagu on igas piirkonnas määratletud. Selle sümboliga märgitud tooteid ei tohi ära visata koos olmeprügiga.

**LT** Šis simbolis rodo, kad ES šalyse šis produktas turi būti surenkamas atskirai nuo buitinių atliekų, kaip nustatyta kiekviename regione. Šiuo simboliu paženklinti produktai neturi būti išmetami kartu su buitinėmis atliekomis.

**LV** Šis simbols norāda, ka ES valstīs šo produktu jāievāc atsevišķi no mājsaimniecības atkritumiem, kā noteikts katrā reģionā. Produktus ar šo simbolu nedrīkst izmest kopā ar mājsaimniecības atkritumiem.

**SI** Ta simbol označuje, da je treba proizvod v državah EU zbirati ločeno od gospodinjskih odpadkov, tako kot je določeno v vsaki regiji. Proizvoda s tem znakom ni dovoljeno odlagati skupaj z gospodinjskimi odpadki.

**GR** Το σύμβολο αυτό υποδηλώνει ότι στις χώρες της Ε.Ε. το συγκεκριμένο προϊόν πρέπει να συλλέγεται χωριστά από τα υπόλοιπα οικιακά απορρίμματα, σύμφωνα με όσα προβλέπονται σε κάθε περιοχή. Τα προϊόντα που φέρουν το συγκεκριμένο σύμβολο δεν πρέπει να απορρίπτονται μαζί με τα οικιακά απορρίμματα.

## For China

# 有关产品中所含有害物质的说明

本资料就本公司产品中所含的特定有害物质及其安全性予以说明。

本资料适用于 2007 年 3 月 1 日以后本公司所制造的产品。

### 环保使用期限


此标志适用于在中国国内销售的电子信息产品，表示环保使用期限的年数。所谓环保使用期限是指在自制造日起的规定期限内，产品中所含的有害物质不致引起环境污染，不会对人身、财产造成严重的不良影响。

环保使用期限仅在遵照产品使用说明书，正确使用产品的条件下才有效。

不当的使用，将会导致有害物质泄漏的危险。

### 产品中有毒有害物质或元素的名称及含量

| 部件名称 | 有毒有害物质或元素 | | | | | |
|---|---|---|---|---|---|---|
| | 铅(Pb) | 汞(Hg) | 镉(Cd) | 六价铬(Cr(VI)) | 多溴联苯(PBB) | 多溴二苯醚(PBDE) |
| 外壳（壳体） | × | ○ | ○ | ○ | ○ | ○ |
| 电子部件（印刷电路板等） | × | ○ | × | ○ | ○ | ○ |
| 附件（电源线、交流适配器等） | × | ○ | ○ | ○ | ○ | ○ |

○：表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T11363-2006 标准规定的限量要求以下。

×：表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T11363-2006 标准规定的限量要求。

因根据现有的技术水平，还没有什么物质能够代替它。

# Information

When you need repair service, call your nearest Roland Service Center or authorized Roland distributor in your country as shown below.

## AFRICA

### EGYPT
**Al Fanny Trading Office**
9, EBN Hagar Al Askalany Street,
ARD E1 Golf, Heliopolis,
Cairo 11341, EGYPT
TEL: (022)-417-1828

### REUNION
**Maison FO - YAM Marcel**
25 Rue Jules Hermann,
Chaudron - BP79 97 491
Ste Clotilde Cedex,
REUNION ISLAND
TEL: (0262) 218-429

### SOUTH AFRICA
**T.O.M.S. Sound & Music (Pty)Ltd.**
2 ASTRON ROAD DENVER
JOHANNESBURG ZA 2195,
SOUTH AFRICA
TEL: (011)417 3400

**Paul Bothner(PTY)Ltd.**
Royal Cape Park, Unit 24
Londonderry Road, Ottery 7800
Cape Town, SOUTH AFRICA
TEL: (021) 799 4900

## ASIA

### CHINA
**Roland Shanghai Electronics Co.,Ltd.**
5F. No.1500 Pingliang Road
Shanghai 200090, CHINA
TEL: (021) 5580-0800

**Roland Shanghai Electronics Co.,Ltd.**
(BEIJING OFFICE)
10F. No.18 3 Section Anhuaxili
Chaoyang District Beijing 100011
CHINA
TEL: (010) 6426-5050

### HONG KONG
**Tom Lee Music Co., Ltd.** Service Division
22-32 Pun Shan Street, Tsuen Wan, New Territories,
HONG KONG
TEL: 2415 0911

**Parsons Music Ltd.**
8th Floor, Railway Plaza, 39
Chatham Road South, T.S.T,
Kowloon, HONG KONG
TEL: 2333 1863

### INDIA
**Rivera Digitec (India) Pvt. Ltd.**
411, Nirman Kendra Mahalaxmi Flats Compound Off. Dr. Edwin Moses Road, Mumbai-400011,
INDIA
TEL: (022) 2493 9051

### INDONESIA
**PT Citra IntiRama**
Jl. Cideng Timur No. 15J-15O
Jakarta Pusat
INDONESIA
TEL: (021) 6324170

### KOREA
**Cosmos Corporation**
1461-9, Seocho-Dong,
Seocho Ku, Seoul, KOREA
TEL: (02) 3486-8855

### MALAYSIA
**Roland Asia Pacific Sdn. Bhd.**
45-1, Block C2, Jalan PJU 1/39,
Dataran Prima, 47301 Petaling Jaya, Selangor, MALAYSIA
TEL: (03) 7805-3263

### VIET NAM
**VIET THUONG CORPORATION**
386 CACH MANG THANG TAM ST.
DIST.3,
HO CHI MINH CITY
VIET NAM
TEL: 9316540

### PHILIPPINES
**G.A. Yupangco & Co. Inc.**
339 Gil J. Puyat Avenue
Makati, Metro Manila 1200,
PHILIPPINES
TEL: (02) 899 9801

### SINGAPORE
**SWEE LEE MUSIC COMPANY PTE. LTD.**
150 Sims Drive,
SINGAPORE 387381
TEL: 6846-3676

### TAIWAN
**ROLAND TAIWAN ENTERPRISE CO., LTD.**
Room 5, 9fl. No. 112 Chung Shan N.Road Sec.2, Taipei, TAIWAN, R.O.C.
TEL: (02) 2561 3339

### THAILAND
**Theera Music Co. , Ltd.**
100-108 Soi Verng Nakornkasem, New Road,Sumpantawongse,
Bangkok 10100 THAILAND
TEL: (02) 224-8821

## OCEANIA

### AUSTRALIA/ NEW ZEALAND
**Roland Corporation Australia Pty.,Ltd.**
38 Campbell Avenue
Dee Why West. NSW 2099
AUSTRALIA

For Australia
Tel: (02) 9982 8266
For New Zealand
Tel: (09) 3098 715

## CENTRAL/LATIN AMERICA

### ARGENTINA
**Instrumentos Musicales S.A.**
Av.Santa Fe 2055
(1123) Buenos Aires
ARGENTINA
TEL: (011) 4508-2700

### BARBADOS
**A&B Music Supplies LTD**
12 Webster Industrial Park
Wildey, St.Michael, Barbados
TEL: (246)430-1100

### BRAZIL
**Roland Brasil Ltda.**
Rua San Jose, 211
Parque Industrial San Jose
Cotia - Sao Paulo - SP, BRAZIL
TEL: (011) 4615 5666

### CHILE
**Comercial Fancy II S.A.**
Rut.: 96.919.420-1
Nataniel Cox #739, 4th Floor
Santiago - Centro, CHILE
TEL: (02) 688-9540

### COLOMBIA
**Centro Musical Ltda.**
Cra 43 B No 25 A 41 Bododega 9
Medellin, Colombia
TEL: (574)3812529

### COSTA RICA
**JUAN Bansbach Instrumentos Musicales**
Ave.1. Calle 11, Apartado 10237,
San Jose, COSTA RICA
TEL: 258-0211

### CURACAO
**Zeelandia Music Center Inc.**
Orionweg 30
Curacao, Netherland Antilles
TEL:(305)5926866

### DOMINICAN REPUBLIC
**Instrumentos Fernando Giraldez**
Calle Proyecto Central No.3
Ens.La Esperilla
Santo Domingo,
Dominican Republic
TEL:(809) 683 0305

### ECUADOR
**Mas Musika**
Rumichaca 822 y Zaruma
Guayaquil - Ecuador
TEL:(593-4)2302364

### EL SALVADOR
**OMNI MUSIC**
75 Avenida Norte y Final Alameda Juan Pablo II,
Edificio No.4010 San Salvador,
EL SALVADOR
TEL: 262-0788

### GUATEMALA
**Casa Instrumental**
Calzada Roosevelt 34-01,zona 11
Ciudad de Guatemala
Guatemala
TEL:(502) 599-2888

### HONDURAS
**Almacen Pajaro Azul S.A. de C.V.**
BO.Paz Barahona
3 Ave.11 Calle S.O
San Pedro Sula, Honduras
TEL: (504) 553-2029

### MARTINIQUE
**Musique & Son**
Z.I.Les Mangle
97232 Le Lamantin
Martinique F.W.I.
TEL: 596 596 426860

**Gigamusic SARL**
10 Rte De La Folie
97200 Fort De France
Martinique F.W.I.
TEL: 596 596 715222

### MEXICO
**Casa Veerkamp, s.a. de c.v.**
Av. Toluca No. 323, Col. Olivar de los Padres 01780 Mexico D.F.
MEXICO
TEL: (55) 5668-6699

### NICARAGUA
**Bansbach Instrumentos Musicales Nicaragua**
Altamira D'Este Calle Principal de la Farmacia 5ta.Avenida
1 Cuadra al Lago.#503
Managua, Nicaragua
TEL: (505)277-2557

### PANAMA
**SUPRO MUNDIAL, S.A.**
Boulevard Andrews, Albrook,
Panama City, REP. DE PANAMA
TEL: 315-0101

### PARAGUAY
**Distribuidora De Instrumentos Musicales**
J.E. Olear y ESQ. Manduvira
Asuncion PARAGUAY
TEL: (595) 21 492147

### PERU
**Audionet**
Distribuciones Musicales SAC
Juan Fanning 530
Miraflores
Lima - Peru
TEL: (511) 4461388

### TRINIDAD
**AMR Ltd**
Ground Floor
Maritime Plaza
Barataria Trinidad W.I.
TEL: (868) 638 6385

### URUGUAY
**Todo Musica S.A.**
Francisco Acuna de Figueroa 1771
C.P.: 11.800
Montevideo, URUGUAY
TEL: (02) 924-2335

### VENEZUELA
**Instrumentos Musicales Allegro,C.A.**
Av.las industrias edf.Guitar import #7 zona Industrial de Turumo
Caracas, Venezuela
TEL: (212) 244-1122

## EUROPE

### AUSTRIA
**Roland Elektronische Musikinstrumente HmbH.**
Austrian Office
Eduard-Bodem-Gasse 8,
A-6020 Innsbruck, AUSTRIA
TEL: (0512) 26 44 260

### BELGIUM/FRANCE/ HOLLAND/ LUXEMBOURG
**Roland Central Europe N.V.**
Houtstraat 3, B-2260, Oevel (Westerlo) BELGIUM
TEL: (014) 575811

### CROATIA
**ART-CENTAR**
Degenova 3.
HR - 10000 Zagreb
TEL: (1) 466 8493

### CZECH REP.
**CZECH REPUBLIC DISTRIBUTOR s.r.o**
Voctárova 247/16
CZ - 180 00 PRAHA 8,
CZECH REP.
TEL: (2) 830 20270

### DENMARK
**Roland Scandinavia A/S**
Nordhavnsvej 7, Postbox 880,
DK-2100 Copenhagen
DENMARK
TEL: 3916 6200

### FINLAND
**Roland Scandinavia As, Filial Finland**
Elannontie 5
FIN-01510 Vantaa, FINLAND
TEL: (0)9 68 24 020

### GERMANY
**Roland Elektronische Musikinstrumente HmbH.**
Oststrasse 96, 22844 Norderstedt, GERMANY
TEL: (040) 52 60090

### GREECE/CYPRUS
**STOLLAS S.A.**
**Music Sound Light**
155, New National Road
Patras 26442, GREECE
TEL: 2610 435400

### HUNGARY
**Roland East Europe Ltd.**
Warehouse Area 'DEPO' Pf.83
H-2046 Torokbalint, HUNGARY
TEL: (23) 511011

### IRELAND
**Roland Ireland**
G2 Calmount Park, Calmount Avenue, Dublin 12
Republic of IRELAND
TEL: (01) 4294444

### ITALY
**Roland Italy S. p. A.**
Viale delle Industrie 8,
20020 Arese, Milano, ITALY
TEL: (02) 937-78300

### NORWAY
**Roland Scandinavia Avd.**
**Kontor Norge**
Lilleakerveien 2 Postboks 95
Lilleaker N-0216 Oslo
NORWAY
TEL: 2273 0074

### POLAND
**ROLAND POLSKA SP. Z O.O.**
ul. Kty Grodziskie 16B
03-289 Warszawa, POLAND
TEL: (022) 678 9512

### PORTUGAL
**Roland Iberia, S.L.**
**Portugal Office**
Cais das Pedras, 8/9-1 Dto
4050-465, Porto, PORTUGAL
TEL: 22 608 00 60

### ROMANIA
**FBS LINES**
Piata Libertatii 1,
535500 Gheorgheni, ROMANIA
TEL: (266) 364 609

### RUSSIA
**MuTek**
Dorozhnaya ul.3,korp.6
117 545 Moscow, RUSSIA
TEL: (095) 981-4967

### SLOVAKIA
**DAN Acoustic s.r.o.**
Povazská 18.
SK - 940 01 Nové Zámky
TEL: (035) 6424 330

### SPAIN
**Roland Iberia, S.L.**
Paseo García Faria, 33-35
08005 Barcelona SPAIN
TEL: 93 493 91 00

### SWEDEN
**Roland Scandinavia A/S**
**SWEDISH SALES OFFICE**
Danvik Center 28, 2 tr.
S-131 30 Nacka SWEDEN
TEL: (0)8 702 00 20

### SWITZERLAND
**Roland (Switzerland) AG**
Landstrasse 5, Postfach,
CH-4452 Itingen, SWITZERLAND
TEL:(061)975-9987

### UKRAINE
**EURHYTHMICS Ltd.**
P.O.Box: 37-a.
Nedecey Str. 30
UA - 89600 Mukachevo, UKRAINE
TEL: (03131) 414-40

### UNITED KINGDOM
**Roland (U.K.) Ltd.**
Atlantic Close, Swansea
Enterprise Park, SWANSEA
SA7 9FJ,
UNITED KINGDOM
TEL: (01792) 702701

## MIDDLE EAST

### BAHRAIN
**Moon Stores**
No.1231&1249 Rumaytha
Building Road 3931, Manama 339
BAHRAIN
TEL: 17 813 942

### IRAN
**MOCO INC.**
No.41 Nike St., Dr.Shariyati Ave.,
Roberoye Cerahe Mirdamad
Tehran, IRAN
TEL: (021)-2285-4169

### ISRAEL
**Halilit P. Greenspoon & Sons Ltd.**
8 Retzif Ha'alia Hashnia St.
Tel-Aviv-Yafo ISRAEL
TEL: (03) 6823666

### JORDAN
**MUSIC HOUSE CO. LTD. FREDDY FOR MUSIC**
P. O. Box 922846
Amman 11192 JORDAN
TEL: (06) 5692696

### KUWAIT
**EASA HUSAIN AL-YOUSIFI & SONS CO.**
Al-Yousifi Service Center
P.O.Box 126 (Safat) 13002
KUWAIT
TEL: 00 965 802929

### LEBANON
**Chahine S.A.L.**
George Zeidan St., Chahine Bldg.,
Achrafieh, P.O.Box: 16-5857
Beirut, LEBANON
TEL: (01) 20-1441

### OMAN
**TALENTZ CENTRE L.L.C.**
Malatan House No.1
Al Noor Street, Ruwi
SULTANATE OF OMAN
TEL: 2478 3443

### QATAR
**Al Emadi Co. (Badie Studio & Stores)**
P.O. Box 62, Doha, QATAR
TEL: 4423-554

### SAUDI ARABIA
**aDawliah Universal Electronics APL**
Behind Pizza Inn
Prince Turkey Street
aDawliah Building,
PO BOX 2154,
Alkhobar 31952
SAUDI ARABIA
TEL: (03) 8643601

### SYRIA
**Technical Light & Sound Center**
PO BOX 13520 BLDG No.17
ABDUL WAHAB KANAWATI.ST
RAWDA DAMASCUS, SYRIA
TEL: (011) 223-5384

### TURKEY
**ZUHAL DIS TICARET A.S.**
Galip Dede Cad. No.37
Beyoglu - Istanbul / TURKEY
TEL: (0212) 249 85 10

### U.A.E.
**Zak Electronics & Musical Instruments Co. L.L.C.**
Zabeel Road, Al Sherooq Bldg.,
No. 14, Ground Floor, Dubai,
U.A.E.
TEL: (04) 3360715

## NORTH AMERICA

### CANADA
**Roland Canada Ltd.**
**(Head Office)**
5480 Parkwood Way Richmond B. C., V6V 2M4 CANADA
TEL: (604) 270 6626

**Roland Canada Ltd.**
**(Toronto Office)**
170 Admiral Boulevard
Mississauga On L5T 2N6 CANADA
TEL: (905) 362 9707

### U. S. A.
**Roland Corporation U.S.**
5100 S. Eastern Avenue
Los Angeles, CA 90040-2938,
U. S. A.
TEL: (323) 890 3700