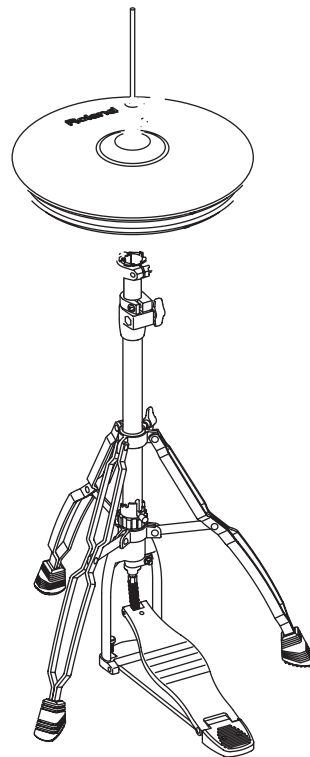# Roland®

V·Drums

V-Hi-Hat
VH-12

Owner's Manual

The VH-12 V-Hi-Hat is to be used in combination with the Roland TD-20 or TD-12 Percussion Sound Module.

> **When using the VH-12, you will need to make the settings for the sound module. Refer to p. 8**

* **Hi-hat stand is not included.**
  For details on compatible stands, refer to p. 10.

USING THE UNIT SAFELY

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

	Used for instructions intended to alert the user to the risk of death or severe injury should the unit be used improperly.
	Used for instructions intended to alert the user to the risk of injury or material damage should the unit be used improperly. * 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.

The

- **ALWAYS OBSERVE THE FOLLOWING** -

- Before using this unit, make sure to read the instructions below, and the Owner's Manual.
....

- 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 use or store the unit in places that are:
  - 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
  - Humid; or are
  - Exposed to rain; or are
  - Dusty; or are
  - Subject to high levels of vibration.
....

- 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.
....

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

....

- 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!)

....

- 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.
....

- Install the unit only on the hi-hat stand which satisfies the specifications described on p. 10. Remove only the specified screws during the installation.
....

- Should you remove clutch/clamp bolts, make sure to put them in a safe place out of children's reach, so there is no chance of them being swallowed accidentally.
....

- Be careful not to allow your fingers or hands to be caught between the top and bottom hi-hat.
....

▌IMPORTANT NOTES

In addition to the items listed under "USING THE UNIT SAFELY" on page 2, please read and observe the following:

Placement

• 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.

• Do not allow rubber, vinyl, or similar materials to remain on the unit for long periods of time. Such objects can discolor or otherwise harmfully affect the finish.

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.

Additional Precautions

• 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.

• 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.

• 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.

• The hi-hat stand is supported by means of a tripod. When installing the hi-hat, make sure the legs of the tripod are opened wide enough to keep the equipment from falling over.

• The hi-hat's rubber surface may turn white, but this has no effect on the hi-hat's function.

• The section indicated by the arrows in the figure below contains high-precision sensors. Take care not to subject this to excessive shock, and do not allow any foreign objects to enter the gap.

Top Hi-Hat

Bottom Hi-Hat

Getting Started

Features

Similar Touch and Feel as with an Acoustic Hi-Hat

The superior design has taken into account not only the shape of the hi-hat, but also the bounce of the stick, and even the movement caused by playing, making it possible to play with the same feel as an acoustic hi-hat.

Smooth Transition Between Closed and Open Tones

When you strike the pad while gradually opening the pedal, the tone smoothly opens in response to how much the pedal is opened.

Pressure Sensitive

You can alter the closed tone by continuing to press harder on the pedal after it is closed (p. 10).

Allows Foot Splashes

You can play foot splashes by pressing the pedal and then instantly opening it.

Quick-Open Tone Changes

Get realistic tonal changes by hitting the closed hi-hat and immediately opening it.

Natural-Feeling Action

The top hi-hat weight, gap between the top and bottom cymbals, and hi-hat stand tension gives the pedal action an extremely natural feel.

Dual Trigger Capability

Sensors in both the top and edge portion make it possible to get different sounds by striking the bow (upper surface) and the edge (p. 10).

They're Quiet!

Rubber is used on the striking surface for a damping effect.

Compatible with Commercially Available Hi-Hat Stands (p. 10)
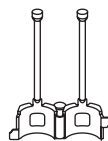
Package Contents

Top Hi-Hat

Bottom Hi-Hat

Special VH-12 Clutch

  * *The clutch included with the hi-hat stand will not be used.*

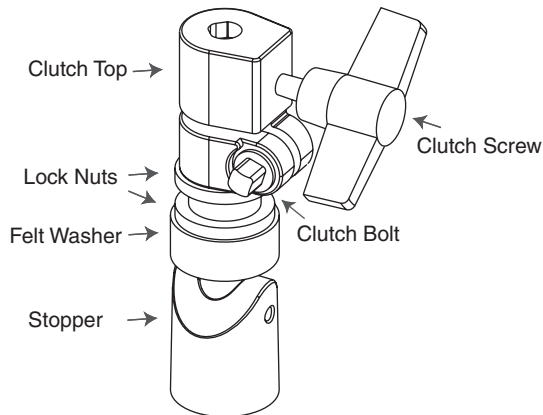Clamp

Holder (3 types)

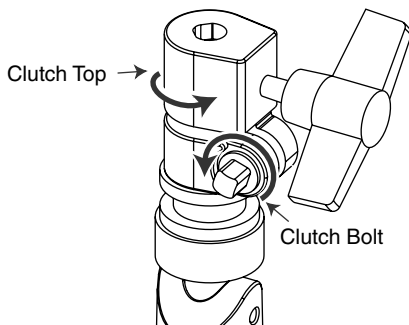Link Cable

Cable Tie

Tuning Key

Mounting on the Hi-Hat Stand
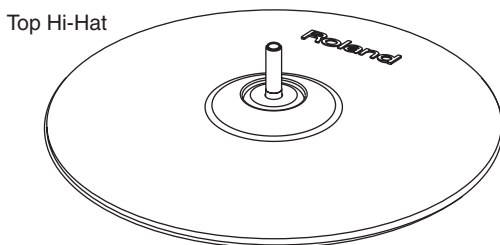
(1) Assembling the Top Hi-Hat

* *Due to the different shape, the clutch included with the hi-hat stand cannot be used with the VH-12. Be sure to use the special VH-12 clutch.*
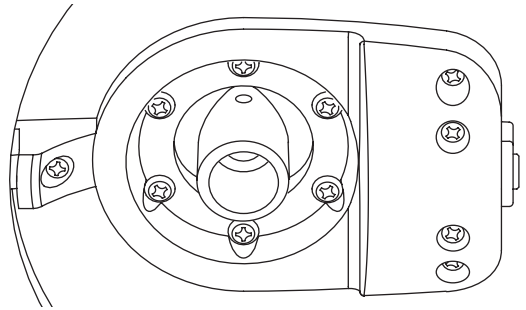
Clutch Top →
← Clutch Screw
Lock Nuts →
Felt Washer →   Clutch Bolt
Stopper →

1. Use the tuning key included with the VH-12 to loosen the clutch bolt, then simultaneously turn and remove the clutch top.
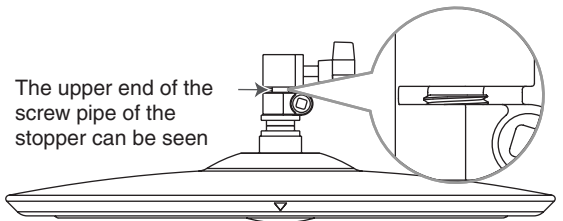
Clutch Top →
Clutch Bolt

2. Remove the two lock nuts and the felt washer.

3. Pass the screw pipe of the stopper through from the underside of the top hi-hat.
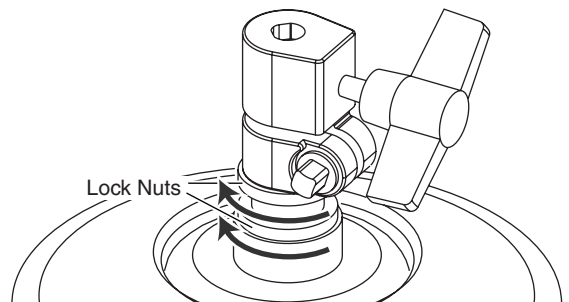
Top Hi-Hat

* *Orient the stopper so that it matches the groove in the top hi-hat.*

4. Attach the felt washer, the two lock nuts, and the clutch top, in that order, above the top hi-hat.

5. Confirm that the upper end of the screw pipe of the stopper can be seen through the slit of the clutch top, as shown in the figure.

The upper end of the screw pipe of the stopper can be seen

6. Orient the clutch screw so it's in a convenient location, then tighten the clutch bolt with the tuning key.

7. Securely tighten down the felt washer and two lock nuts.

Lock Nuts

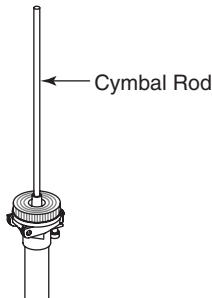* *Looseness or play in the clutch may prevent the hi-hat from operating properly.*

(2) Assembling the Bottom Hi-Hat

1. Remove the clutch included with the hi-hat stand from the cymbal rod.

   * *The clutch included with the hi-hat stand will not be used.*

   * *It is not necessary to remove the felt (or rubber) pad on the hi-hat stand used for supporting the bottom cymbal.*
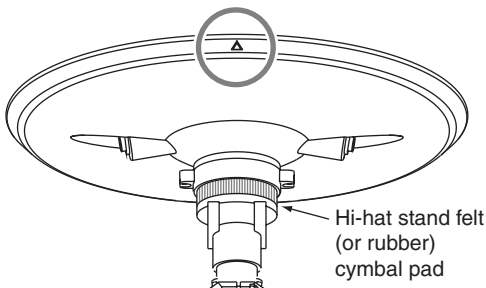
2. Confirm that the cymbal rod is firmly secured.

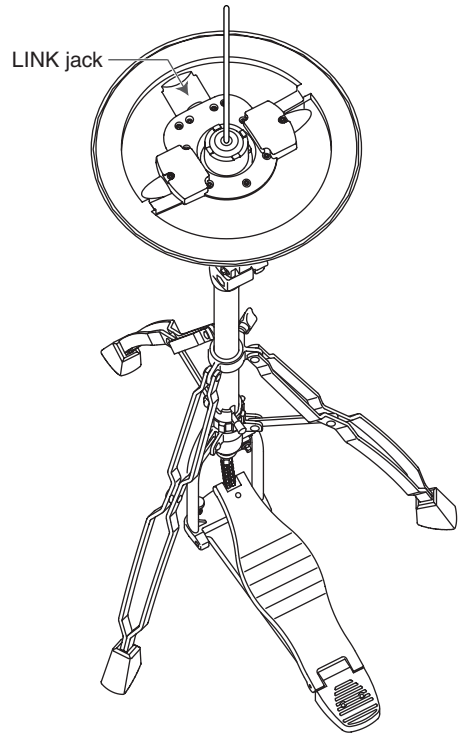   For instructions on tightening the cymbal rod, refer to the owner's manual for your cymbal stand.

   ← Cymbal Rod

   * *Looseness or play in the cymbal rod can make the top hi-hat unstable, causing it to shake or turn, and prevent proper functioning.*

3. Place the bottom hi-hat on the hi-hat stand with the cymbal rod passing through the bottom hi-hat hole.

   At this point, position the "▲" mark so it's facing the performer.

   ← Hi-hat stand felt (or rubber) cymbal pad

At this point, position the LINK jack so it's on the far side of the unit, facing away from the performer.

LINK jack

4. Select the holder that matches the diameter of the pipe at the top of the hi-hat stand.
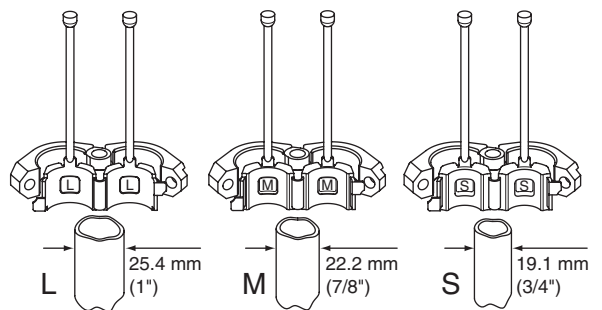
   There are three holders to match different pipe diameters.
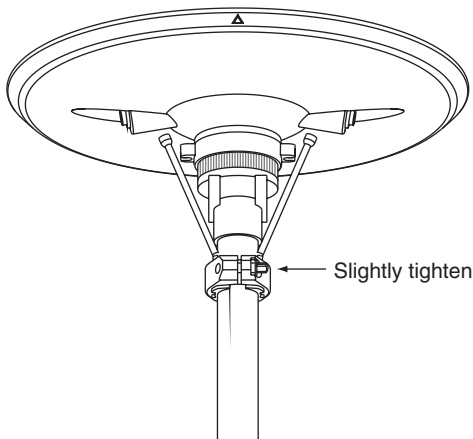
   L: 25.4 mm (1")
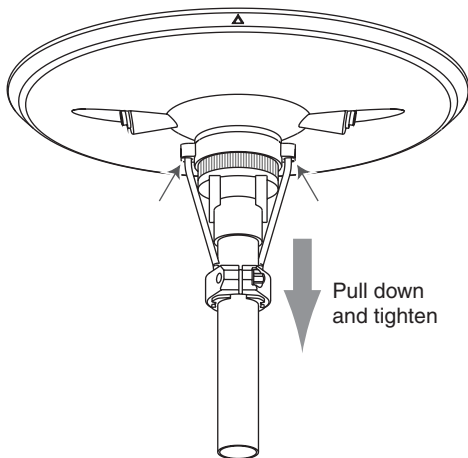   **M:** 22.2 mm (7/8")
   S: 19.1 mm (3/4")

5. Remove the clamp bolt, then fit the holder and the clamp so they are nested together.

   L 25.4 mm (1")
   M 22.2 mm (7/8")
   S 19.1 mm (3/4")

6. **Attach the clamp and holder to the pipe on the upper part of the hi-hat stand, then slightly tighten the assembly with the tuning key.**

← Slightly tighten

7. **Pass the ends of the holder through the grooves in the metal portion of the bottom hi-hat, then while strongly pulling the clamp downward, secure it with the tuning key.**

Pull down and tighten

* *Not pulling strongly enough on the clamp can make the bottom hi-hat unstable, causing it to shake or turn, and prevent proper functioning.*

* *After extended use of the hi-hat stand, the stand's felt (or rubber) pad on which the bottom cymbal rests becomes compressed, which may cause the bottom hi-hat to become unstable. If this occurs, loosen the clamp bolt and perform Step* **7** *again.*
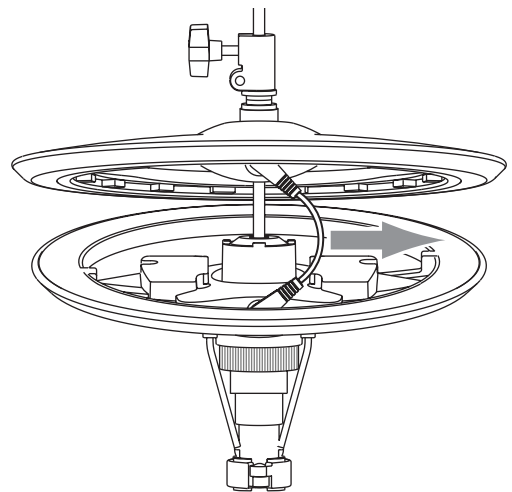
(3) Assembling the Overall Unit

1. **Place the top hi-hat assembly on the hi-hat stand with the cymbal rod passing through the top hi-hat hole.**

At this point, position the "Roland" logo on the farther side, as viewed from the performer.

2. **Use the link cable to connect the bottom hi-hat and the top hi-hat LINK jacks.**

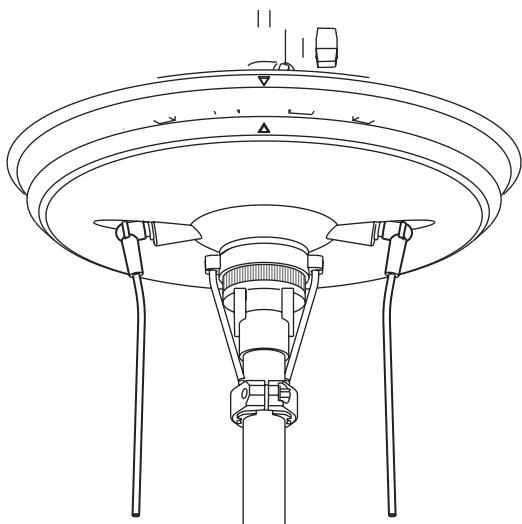**3.** **Pull the bend of the cable softly with your fingers.**

* *Make sure that both the top hi-hat and bottom hi-hat can be closed smoothly.*

(4) Connecting to a Sound Module

*   *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.*

1. **Connect the VH-12's TRIGGER OUTPUT jack to the sound module's TRIGGER INPUT HI-HAT jack, and the VH-12's CONTROL OUTPUT jack to the sound module's HH CTRL jack.**

*   *Use stereo (TRS) cables to make the connections. If monaural cables are used, edge shots cannot be supported.*

2. **Secure the cables in place with the cable tie, while leaving some slack in the cables.**

When using the VH-12, you will need to make the settings for the sound module.

When Using with the TD-20

1. **Loosen the clutch screw, and set the hi-hat in the closed position.**

2. **Hold down the TD-20's [KIT] button and press the [TRIGGER] button.**
    The offset is adjusted automatically.

When Using with the TD-12

1. **Press the TD-12's [TRIGGER] button, then press the [F1 (BANK)] button.**

2. **Press the [CURSOR] buttons to move the cursor to the trigger type for TRIGGER INPUT 6.**

3. **Use the [+/-] buttons or the [VALUE] dial to select "VH12."**

4. **Press the [F3 (HI-HAT)] button.**

5. **Press the [CURSOR (up/down)] to move the cursor to "Hi-Hat Type."**

6. **Use the [+/-] buttons or the [VALUE] dial to set the Hi-Hat Type to "VH12."**

7. **Loosen the clutch screw, and set the hi-hat in the closed position.**

8. **Hold down the TD-12's [KIT] button and press the [TRIGGER] button.**
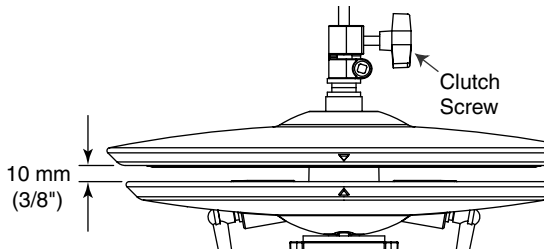   The offset is adjusted automatically.

☞

For details, refer to the TD-12 owner's manual.

(6) Adjusting the Hi-Hat

1. **Adjust the gap between the top hi-hat and bottom hi-hat to a clearance of approximately 10 mm, then tighten the clutch screw.**

Clutch Screw

10 mm (3/8")

*   * *Although the gap can be adjusted to a clearance that makes playing the hi-hat easier, setting too narrow or wide a gap can cause improper function of the unit and prevent the hi-hat from sounding as you intend. Setting the gap to* **10 mm** *provides the most natural feel when playing the VH-12.*
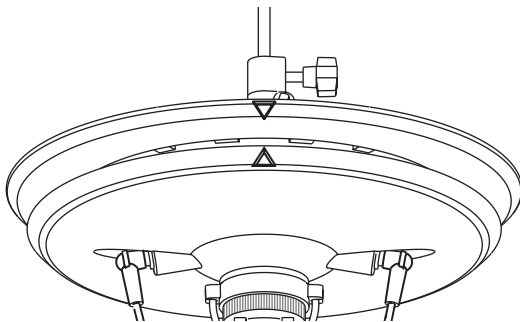
2. **Change the spring tension by adjusting the hi-hat stand.**

For instructions on adjusting the tension, refer to the owner's manual for your hi-hat stand.

*   * *The tension may not be adjustable on some stands.*

NOTE

While playing, always align the marks on the top hi-hat and bottom hi-hat (▼ and ▲) to prevent malfunction.
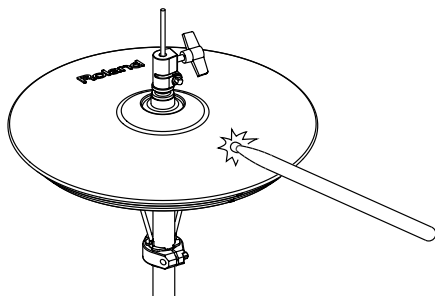
Playing Methods

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.
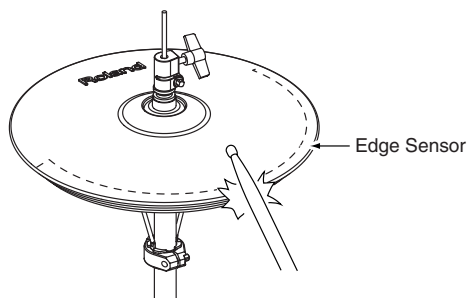
Bow Shot

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.
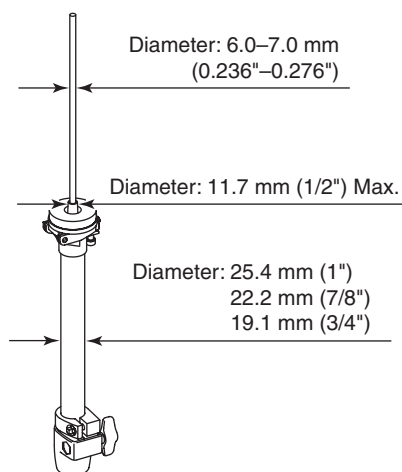
Edge Sensor

NOTE

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

Specifications

Size:	12 inches
Trigger:	2 (Bow/Edge)
Connectors:	TRIGGER OUTPUT Jack
	CONTROL OUTPUT Jack
Dimensions:	314 (W) x 314 (D) x 89 (H) mm
	12-3/8 (W) x 12-3/8 (D) x 3-9/16 (H) inches
Weight:	1.9 kg / 4 lbs 4 oz
Options	Owner's Manual, Clutch, Clamp,
	Holder (3 types), Link Cable,
	Tuning Key, Cable Tie

* *In the interest of product improvement, the specifications and/ or appearance of this unit are subject to change without prior notice.*

Compatible Stand

Diameter: 6.0–7.0 mm
(0.236"–0.276")

Diameter: 11.7 mm (1/2") Max.

Diameter: 25.4 mm (1")
22.2 mm (7/8")
19.1 mm (3/4")

Troubleshooting

Hi-hat not closing

Was the unit adjusted after being connected to the sound module?

When using the VH-12, be sure to run the automatic offset adjustment on your sound module (p. 8).

No sound is heard

Is the TRIGGER OUTPUT connected to the sound module's HH CTRL jack?

Connect the VH-12's TRIGGER OUTPUT jack to the sound module's HI-HAT jack, and the CONTROL OUTPUT to the sound module's HH CTRL (p. 8).

The sound does not change when an edge shot is made

Is a monaural cable being used?

When a monaural cable is used, the sound does not change when an edge shot is made.
Use a stereo (TRS) cable.

Are you striking the area where an edge sensor is located?

The VH-12 has an edge sensor only at the area closest to you, at the front (p. 10).
Align the marks (▼ and ▲) on the top and bottom hi-hat, and position the marks so they face toward the player (p. 9).

Sounds are not triggering properly

Is the trigger type set correctly?

Make the trigger parameter settings for your sound module.

Are you using the special VH-12 clutch?

Clutches included with hi-hat stands are shaped differently than the VH-12's special clutch, so use of such other clutches prevent the sensors within the VH-12 from functioning properly. Be sure to use the clutch designed especially for the VH-12.

Is the clutch correctly attached to the top hi-hat?

Failure of the upper end of the screw pipe of the stopper to be seen through the slit of the clutch top is one cause of double triggering and incorrect opening and closing (p. 5, "Assembling the Top Hi-Hat" Step **5**).

Loose lock nuts can cause improper functioning (p. 5, "Assembling the Top Hi-Hat" Step **7**).

Is the bottom hi-hat attached correctly?

After extended use of the hi-hat stand, the stand's felt (or rubber) pad on which the bottom cymbal rests becomes compressed, which may cause the bottom hi-hat to become unstable. If this occurs, loosen the clamp bolt and perform Step **7** on p. 7 again.

Is the gap between the top and bottom hi-hat correct?

Setting too narrow or wide a gap can cause improper function of the unit and prevent the hi-hat from sounding as you intend. Setting the gap to 10 mm provides the most natural feel when playing the VH-12 (p. 9).

Is the sound module's offset adjusted correctly?

The offset may change somewhat as you perform. If this occurs, run the automatic offset adjustment procedure for the sound module once again (p. 8).

Information

When you need repair service, call your nearest Roland Service Center or authorized Roland distributor in your country as shown below.

EGYPT
Al Fanny Trading Office
9, EBN Hagar A1 Askalany
Street,
ARD E1 Golf, Heliopolis,
Cairo 11341, EGYPT
TEL: 20-2-417-1828