

V-Cymbal Ride **CY-15R**

V-Cymbal Crash **CY-14C**

V-Cymbal Hi-Hat **CY-12H**

Owner's Manual

Thank you and congratulations on your choice of the Roland V-Cymbal CY-15R/CY-14C/CY-12H.

Before using this unit, carefully read the sections entitled: "USING THE UNIT SAFELY" (p. 2) and "IMPORTANT NOTES" (p. 3). 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.

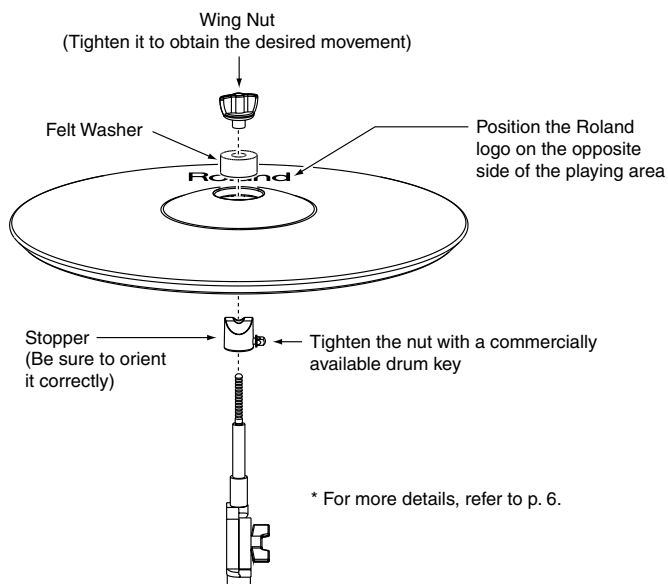
Before You Begin

When using a TD-10:

1. Make sure you are using a TDW-1 version that includes "with V-Cymbal Control" (see p. 4).
2. Select **TRIGGER BANK 2** in the TD-10 for use with the V-Cymbals (see p. 9).

* If you are using another sound module, you have to set the trigger parameters. Refer to "Trigger Parameter Settings for the Sound Module" (p. 10)."

How to mount the CY-15R (Ride)/CY-14C (Crash)



* For more details, refer to p. 6.

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. * 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

- 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.

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

- When using the unit with a rack or stand recommended by Roland, the rack or stand must be carefully placed so it is level and sure to remain stable. If not using a rack or 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. 

⚠ WARNING

- 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. 
- Do not drop it! 

⚠ CAUTION

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

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. Also, do not allow lighting devices that normally are used while their light source is very close to the unit (such as a piano light), or powerful spotlights to shine upon the same area of the unit for extended periods of time. Excessive heat can deform or discolor the unit.
- To avoid possible breakdown, do not use the unit in a wet area, such as an area exposed to rain or other moisture.

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 jacks. 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.
- 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.
- Use the included cable to make connections. If using some other make of connection cable, please note the following precautions.
 - Some connection cables contain resistors. Do not use cables that incorporate resistors for connecting to this unit. Since the sensitivity of the pad will be diminished, the sound may become extremely soft or even inaudible. For information on cable specifications, contact the manufacturer of the cable.

Getting Started

Features

Similar touch and feel as with acoustic cymbals

The superior design has taken into account not only the shape of the cymbal, 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 cymbal.

They're quiet!

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

Edge shots and choking are possible

Sensors in the edge portion make it possible to get different sounds by striking the bow (upper surface) and the edge. Choke play—stopping the sound by grasping the edge portion—is also possible (p. 8). On the CY-15R (Ride), sensors in the bell portion make it possible to get different sounds by striking the bow (upper surface) and the bell (p. 8).

Three way triggering and positional sensing are possible (When using the TDW-1 with V-Cymbal Control)

Using the CY-15R (Ride) together with the TD-10 upgraded with the "TDW-1 with V-Cymbal Control" makes it possible to get different tones from the positional sensing of the bow portion (p. 8), and from three play methods: bow shot, bell shot, and edge shot (Three Way Triggering, see p. 9).

Compatible with all Roland sound modules

Compatible models: TD-20, TD-12, TD-10 + TDW-1, TD-10, TD-8, TD-7, TD-6V/6, TD-5, TD-3, SPD-20/11/S, and HPD-15

Roland sound modules support methods of play such as edge shots and choke play (p. 11).

* You have to set the trigger parameters. For details, refer to **Trigger Parameter Settings for the Sound Module** (p. 10).

About the TDW-1

TDW-1 is an expansion board for TD-10. This adds new sounds (360 tones and 50 kits) and functions to TD-10. There are two versions of the TDW-1 (Original version and "TDW-1 with V-Cymbal Control" version). The TDW-1 with V-Cymbal Control provides trigger types exclusively for the V-Cymbals. This makes it possible to use three way triggering and positional sensing on the CY-15R (Ride), enabling the expressive power of the V-Cymbal to be used to the fullest. When using the V-Cymbals, Roland suggests using the TD-10 + TDW-1 with V-Cymbal Control as the sound module.

* The screen displayed when powering up with the TDW-1 with V-Cymbal Control installed, is different than the Original version.

Original Version



TDW-1 with V-Cymbal Control



What's in the Package

CY-15R (Ride)

CY-15R unit, Wing nut, Felt washer, Stopper, Connection cable (stereo) x 2, Cable tie, Owner's manual (this document)

CY-14C (Crash)

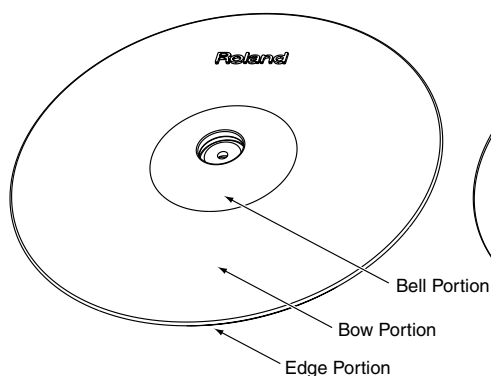
CY-14C unit, Wing nut, Felt washer, Stopper, Connection cable (stereo), Cable tie, Owner's manual (this document)

CY-12H (Hi-Hat)

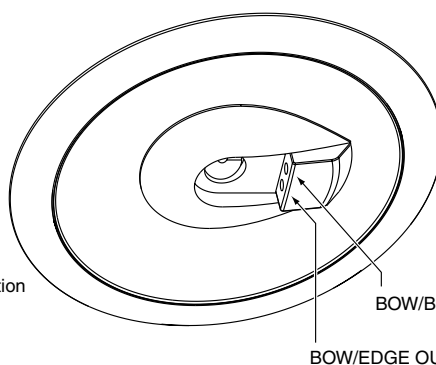
CY-12H unit, Connection cable (stereo), Owner's manual (this document)

Definitions & Names of Parts

CY-15R (Ride)



Diameter: 15 inches



Wing Nut

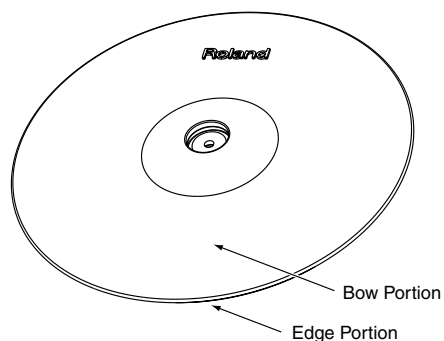


Felt Washer

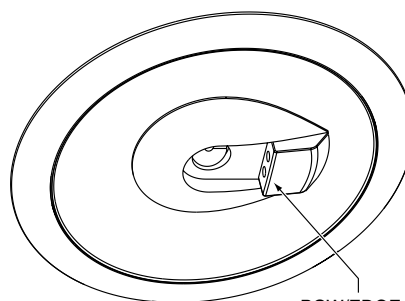


Stopper

CY-14C (Crash)



Diameter: 14 inches



Wing Nut



Felt Washer

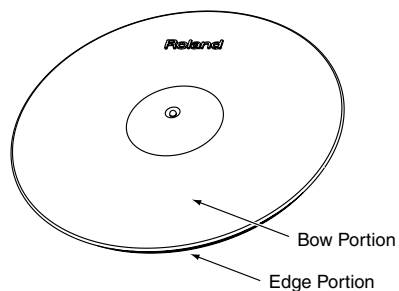


Stopper

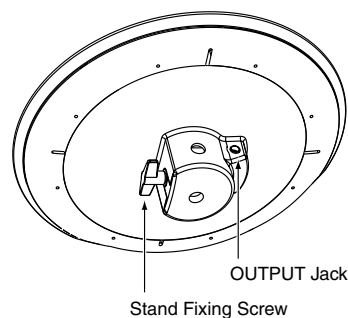
BOW/EDGE OUTPUT Jack

* The CY-14C has no BOW/BELL OUTPUT Jack.

CY-12H (Hi-Hat)



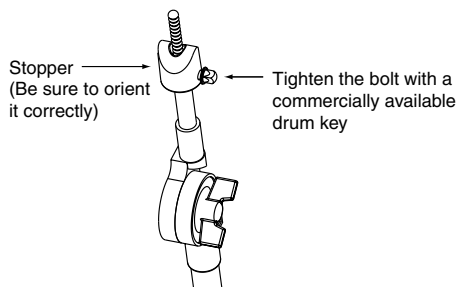
Diameter: 12 inches



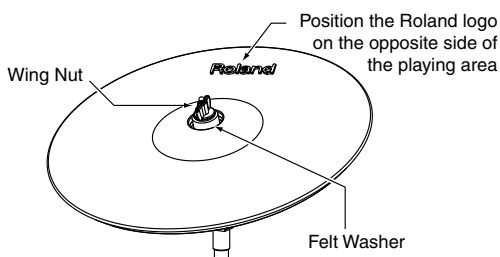
Mounting on the Stand

CY-15R (Ride) CY-14C (Crash)

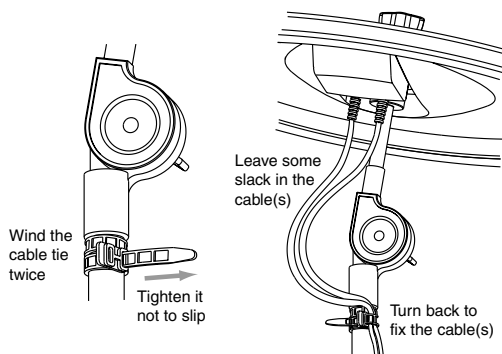
1. Use a commercially available drum key to tighten the stopper bolt.
The stopper keeps the V-Cymbal from turning, and prevents the cables from catching or getting tangled on the stand.



2. Position the Roland logo on the farther side, as viewed from the performer.
3. Tighten the felt washer and the wing nut to obtain the desired movement.



4. Secure the cables in place with the cable tie, while leaving some slack in the cables to ensure that they are not pulled by the movement of the cymbal units when struck.

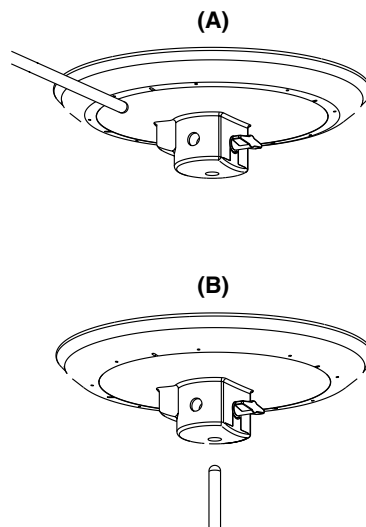


* Take care to ensure that the cables do not touch the cymbal units and/or the stand. A cable touching a cymbal unit or a stand may cause double sounding or other incorrect operation.

* Double sounding may occur if the wing nut is loose.

* Do **NOT** use the washer or felt included with the cymbal mount (MDY-7U or MDY-10U).

CY-12H (Hi-Hat)

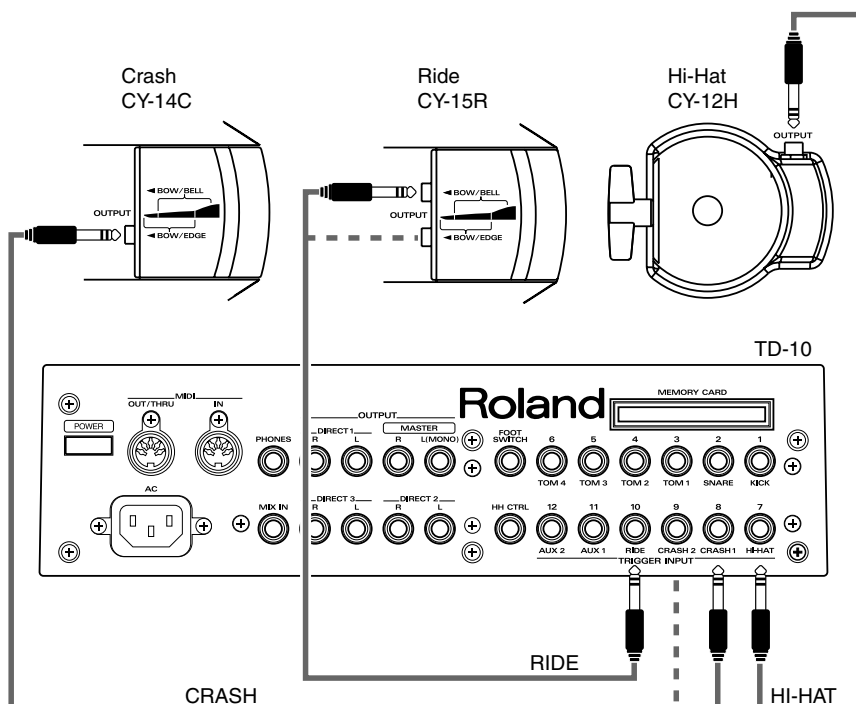


There are two ways to use the drum stand mounting rod. Before changing how the rod fits, fixing screw, then turn the inner bolt 90 degrees.

* When the mounting method B is used, the rod cannot be secured in place correctly unless it is inserted a certain length. Make sure that the unit is not tilted when secured in place with the stand fixing screw. Also, the rod is designed so that it cannot be inserted farther than a certain length, so do not try to force it further than it will go.

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.



Use the supplied connection cables (stereo) to make the connections. If monaural cables are used, edge shots, bell shots, and choke play cannot be supported.

The CY-14C has no BOW/BELL output. Make the connection to the BOW/EDGE output.

Connecting to the CY-15R (Ride)

The CY-15R has two outputs—BOW/BELL and BOW/EDGE—but normally you should use only one or the other (except when using TDW-1 with V-Cymbal Control).

The output used and the corresponding playing methods are as shown below.

Output	Corresponding Play Methods	Tones Sounded
BOW/BELL	Bow Shot	RIDE HEAD
	Bell Shot	RIDE RIM
BOW/EDGE	Bow Shot	RIDE HEAD
	Edge Shot	RIDE RIM

MEMO

The TDW-1 with V-Cymbal Control, which is the version with full support for V-Cymbal, provides trigger types exclusively for the CY-15R. When using the “RIDE” AND the AUX 1 inputs at the same time, it is possible to play BELL, BOW and EDGE areas allowing three way triggering support (different sounds for bow, bell, and edge shots). For more information, refer to “**Playing Different Sounds with the CY-15R’s Bow, Bell, and Edge (Three Way Triggering Feature)** (p. 9).”

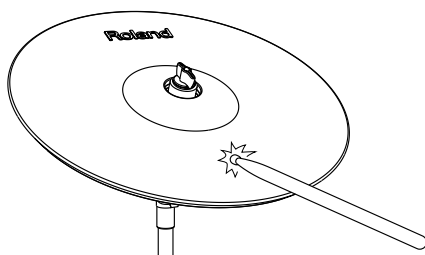
NOTE

If you are using a sound module other than the TD-10 + TDW-1 with V-Cymbal Control (such as a non-expanded TD-10 or the Original version of TDW-1), then use either the BOW/BELL output or the BOW/EDGE output, but NOT both. When the two outputs are used simultaneously, the two connected trigger inputs are sounded at the same time.

Playing Methods

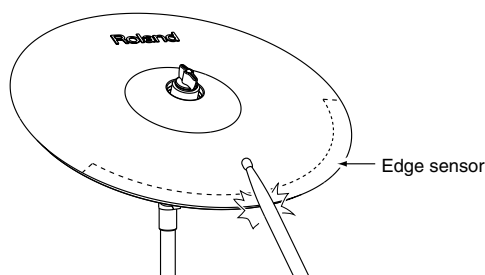
Bow Shot

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

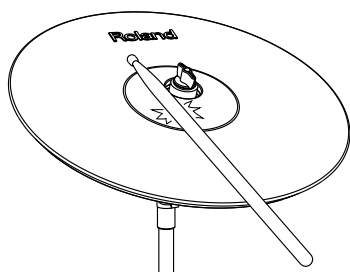
This playing method involves striking the edge with the shoulder of the stick. When played as shown in the figure, the “rim-side” sound of the connected input is triggered.



- * On the CY-15R, edge shots are possible when the connection is made to the BOW/EDGE output.
- * When you are using the TD-8 or TD-10 (not installed with the TDW-1 with V-Cymbal Control) as the sound module, tones for edge-shot play are not pre-assigned. Assign and use the tones you want.

Bell Shot (CY-15R Only)

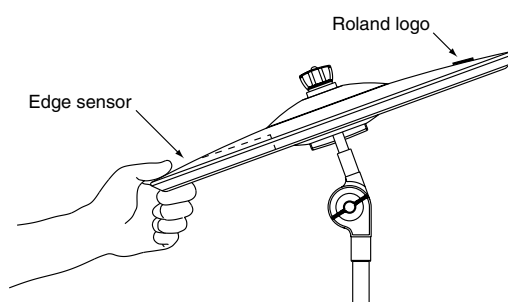
This playing method involves striking the bell. On the CY-15R, when played as shown in the figure, the “rim-side” sound of the connected input is triggered.



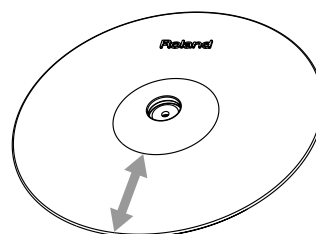
- * Strike the bell somewhat strongly with the shoulder of the stick.
- * Bell shots are possible when the connection is made to the CY-15R's BOW/BELL output.
- * On the CY-12H and the CY-14C, bell shots are not supported.

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



When using the TDW-1 with V-Cymbal Control, positional sensing on the bow portions of the CY-15R/CY-14C is possible.

The trigger type must be set on “RdA” or “CrA.”

IMPORTANT: You need to choose a cymbal tone that is compatible with positional sensing (some TD-10 and TDW-1 ride cymbals). Refer to the instrument list in the owner's manual for the respective sound module.



The CY-15R and CY-14C are capable of the positional detection feature. Positional detection is possible when plugged into the specified input on a Roland sound module with this feature.

For TDW-1 with V-Cymbal Control Users

Playing Different Sounds with the CY-15R's Bow, Bell, and Edge (Three Way Triggering Feature)

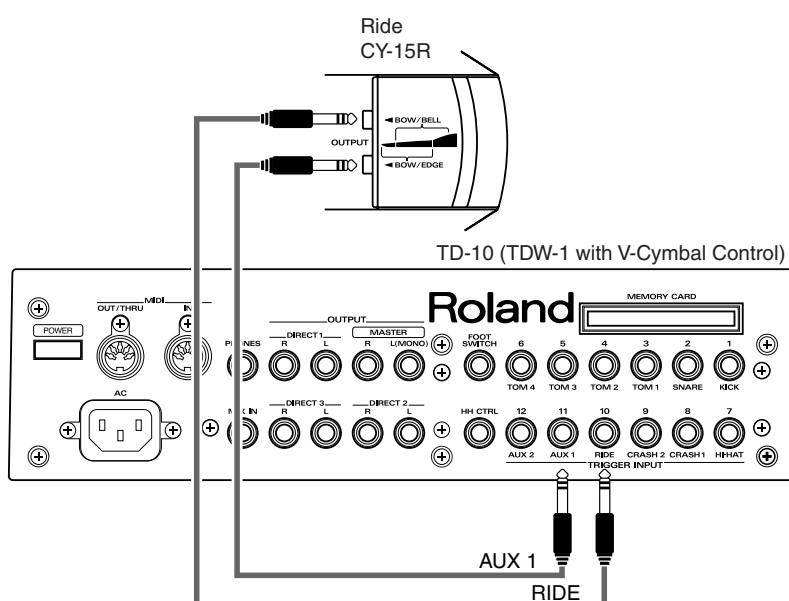
When you use the TDW-1 with V-Cymbal Control, which completely supports the V-Cymbal, three way triggering (bow, bell, and edge shot) performances that use both outputs on the CY-15R are possible.



The Original version of the TDW-1 and the non-expanded TD-10 do NOT support three way triggering (p. 11).

Connection Examples

As shown below, connect the two outputs on the CY-15R to the two trigger inputs on the TD-10 (TDW-1 with V-Cymbal Control) and make the settings for the corresponding trigger types.



Trigger Type Settings

TRIGGER BANK 2's factory defaults are set for using the three way triggering feature.

How to Select the Trigger Bank

1. Press [SETUP] - [F1 (TRIG)] - [F1 (BANK)].
2. Select the BANK "2" by turning the VALUE dial.

OUTPUT	TRIG INPUT	TRIGGER TYPE
BOW/BELL	10/RIDE	RdA (CY-15R Position)
BOW/EDGE	11/AUX 1	CTR (CY-15R CONTROL)



If you connect a pad or a V-Cymbal ONLY to the trigger input for which trigger type is set to "CTR" (11/AUX 1), it will NOT work.

Correspondences Between Playing Methods and Trigger Input

Playing Methods	TRIG INPUT
Bow Shot	10/RIDE HEAD
Bell Shot	10/RIDE RIM
Edge Shot	11/AUX 1 RIM

* Head-side tones for the trigger input 11/AUX 1 cannot be sounded.



If you are using a sound module other than the TD-10 + TDW-1 with V-Cymbal Control (such as a non-expanded TD-10 or the Original version of TDW-1), then use either the BOW/BELL output or the BOW/EDGE output, but NOT both (p. 7). When the two outputs are used simultaneously, the two sounds of the connected trigger inputs are sounded at the same time.

* For more details on three way triggering feature, refer to the owner's manual for the TDW-1 with V-Cymbal Control.

Trigger Parameter Settings for the Sound Module

You may need to adjust the value since these are just the reference value.

TD-10 (TDW-1 with V-Cymbal Control)

	CY-12H	CY-14C	CY-15R
Trigger Type	HH	CrB	RdA
Sensitivity	7	8	8
Threshold	2	4	4
Curve	Linear	Linear	Linear

* Trigger parameters of **TRIGGER BANK 2** at the factory defaults are set for using the V-Cymbals.

* TDW-1 with V-Cymbal Control provides trigger types exclusively for the V-Cymbals. Advanced Trigger Parameters (e.g. Scan Time) are set automatically when you set the trigger type.

* When using the CY-15R's three way triggering, refer to p. 9.

TD-10 (TDW-1 Original Version)

	CY-12H	CY-14C	CY-15R
Trigger Type	P7B	P7B	P7B
Sensitivity	7	8	8
Threshold	2	4	4
Curve	Linear	Linear	Linear
Scan Time	1.0	1.0	1.0
Retrigger Cancel	8	10	10
Mask Time	8	8	8
Xtalk Cancel	40	50	50
Mount Type	CymMount	CymMount	CymMount

* You need to set each Advanced Trigger Parameter (e.g. Scan Time) after setting the trigger type.

TD-10 (Non-expanded)

	CY-12H	CY-14C	CY-15R
Trigger Type	PD7	PD7	PD7
Sensitivity	5	5	5
Threshold	3	3	3
Curve	Linear	Linear	Linear
Scan Time	1.0	1.0	1.0
Retrigger Cancel	3	3	3
Mask Time	8	8	8
Crosstalk Cancel	40	40	40

* You need to set each Advanced Trigger Parameter (e.g. Scan Time) after setting the trigger type.

TD-8

	CY-12H	CY-14C	CY-15R
Pad Type (Trigger Type)	PD7	PD7	PD7
Sensitivity	10	10	10
Threshold	3	3	3
Curve	Linear	Linear	Linear
Scan Time	1.0	1.0	1.0
Retrigger Cancel	3	3	3
Mask Time	8	8	8
Crosstalk Cancel	40	40	40

* You need to set each Advanced Trigger Parameter (e.g. Scan Time) after setting the trigger type.

TD-7

	CY-12H	CY-14C	CY-15R
Cross Talk Group	1	1	1
Velocity Curve	Norm3	Norm3	Norm3
Choke	ON	ON	ON
Max Dyna	5	5	5
Min Dyna	1	1	1
Min Velo	1	1	1
Mask Time	0	0	0
Threshold	1	1	1

* Each trigger parameter can be set independently for the "head-side" and "rim-side." Set to the same value for the head and rim. Also trigger parameters can be set in each patch.

TD-5

	CY-12H	CY-14C	CY-15R
Trigger Type	P 1	P 1	P 1
Sensitivity	7	8	8
Threshold	2	2	2
Curve	Lnr	Lnr	Lnr
Scan Time	1.5	1.5	1.5
Retrigger Cancel	4	4	4
Mask Time	12	12	12
Crosstalk Cancel	50	50	50

* You need to set each Advanced Trigger Parameter (e.g. Scan Time) after setting the trigger type.

Trigger Parameter Settings for the Sound Module

SPD-20

	CY-12H	CY-14C	CY-15R
Trig Sens	8	10	10
Trig Threshold	0	0	0
Trig Type	Pd5	Pd5	Pd5
Trig Curve	0	0	0

SPD-11

	CY-12H	CY-14C	CY-15R
Trig Sens	8	9	9
Trig Threshold	2	2	2
Trig Mask Time	8	8	8
Trig Scan Time	10	10	10

HPD-15

	CY-12H	CY-14C	CY-15R
Input Mode	HD/RM	HD/RM	HD/RM
Trig Type	PD-9	PD-9	PD-9
Trig Sens	10	10	10
Curve	Linear	Linear	Linear
Threshold	2	2	2
Scan Time	1	1	1
Retrig Cancel	2	2	2
Mask Time	4	4	4
X-Talk Rate	40	40	40

Playing Techniques Supported by Various Sound Modules

	CY-15R/14C/12H Bow/Edge Shot	CY-15R Bow/Bell Shot	CY-15R Three Way Triggering	CY-15R/14C Positional Sensing	CY-15R/14C/12H Choke Play
TD-10 (TDW-1 with V-Cymbal Control)	o	o	o	o	o
TD-10 (TDW-1 Original Version)	o	o	x	x	o
TD-10 (Non-expanded)	o	o	x	x	o
TD-8/7/5	o	o	x	x	o
SPD-20/11	o	o	x	x	o
HPD-15	o	o	x	x	x

* For more on TDW-1, refer to p. 4.

Troubleshooting

Check these first

Is the trigger type set correctly?

Make the trigger parameter settings for your sound module.

- * Refer to "**Trigger Parameter Settings for the Sound Module** (p. 10)."

Is a monaural cable being used?

When a monaural cable is used, the sound does not change when an edge shot or a bell shot is made. Choke play is not possible, either.

Use a stereo cable.

Ride cymbal sounds odd (Other cymbal sound is heard simultaneously)

Is the TDW-1 with V-Cymbal Control being used?

Use a TD-10 equipped with a TDW-1 with V-Cymbal Control. If using a sound module other than a TD-10 equipped with the TDW-1 with V-Cymbal Control, connect either the CY-15R's Bow/Bell Output, or the Bow/Edge Output, but not both, to the TD-10 (p. 7).

Is TRIGGER BANK 2 selected?

Set to the trigger bank 2 factory settings.

- * Only the factory-default settings of trigger bank 2 can be copied. [SETUP] - [F1 (TRIG)] - [F1 (BANK)] - [TOOLS] - [F1 (COPY)]

No sound is heard

The trigger type is set to CTR (TDW-1 with V-Cymbal Control only).

When the trigger type is set to CTR, the "head-side" sound will not be heard (p. 9).

Set the trigger type to a pad that you are using, such as RdA or CrB.

The sound does not change when an edge shot is made

The connection is to the BOW/BELL output.

Make the connection to the BOW/EDGE output to enable the CY-15R to support edge shots.

Strike an area where an edge sensor is located.

The CY-15R and CY-14C have edge sensors only at the areas closest to you, at the front (p. 8).

The sound does not change when a bell shot is made

The connection is to the BOW/EDGE output.

Make the connection to the BOW/BELL output to enable the CY-15R to support bell shots.

- * The CY-14C and CY-12H do not support bell shots.

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

The sound may not change when the bell is struck with the tip of the stick.

Choke play is not possible

Choke an area where an edge sensor is located.

The CY-15R and CY-14C have edge sensors only at the areas closest to you, at the front (p. 8).

Sounds play twice

Are any of the cables touching the units (V-Cymbals)?

Secure the cables in place with the cable ties so that they do not touch the units. Also, be careful to make sure that the cables are not pulled by the movement of a cymbal when struck (p. 6).

Are the stopper, felt washer, and wing nut attached correctly?

Double triggering may occur if the stopper and/or wing nut is loose. Use a drum key to tighten properly.

- * If double triggering still occurs, try adjusting trigger parameters, such as Retrigger Cancel, on the sound module you are using (TD-10, etc.).

The sound does not vary when the striking position changes

The CY-15R and CY-14C are capable of the positional detection feature. Positional detection is possible when plugged into the specified input on a Roland sound module with this feature.

Sounds that change according to playing position are certain ride cymbal tones. For more information, refer to the instrument list in the owner's manual for the sound module. With trigger types RdB and CrB, positional sensing is not possible. Use RdA or CrA.

- * The CY-12H does not support positional sensing.

The Volume Level is Too Low

Striking the cymbal units when turning on the power of the sound module (TD-10, etc.) degrades the unit response when the units are struck lightly. Do not strike any cymbal units when turning on the power.

Specifications

CY-15R (Ride)

Size:	15 inches
Trigger:	3 (Bow/Bell/Edge) <i>* When the TDW-1 with V-Cymbal Control is not being used, select "Bow/Bell" or "Bow/Edge."</i>
Connectors:	BOW/BELL Output Jack, BOW/EDGE Output Jack
Dimensions:	376 (W) x 376 (D) x 50 (H) mm 14-13/16 (W) x 14-13/16 (D) x 2 (H) inches
Weight:	1.6 kg 3 lbs 9 oz
Accessories:	Owner's Manual, Wing Nut, Felt Washer, Stopper, Connection Cable x 2, Cable Tie
Options:	Cymbal Mount (MDY-10U)

CY-14C (Crash)

Size:	14 inches
Trigger:	2 (Bow/Edge)
Connector:	BOW/EDGE Output Jack
Dimensions:	352 (W) x 352 (D) x 48 (H) mm 13-7/8 (W) x 13-7/8 (D) x 1-15/16 (H) inches
Weight:	1.4 kg 3 lbs 2 oz
Accessories:	Owner's Manual, Wing Nut, Felt Washer, Stopper, Connection Cable, Cable Tie
Options:	Cymbal Mount (MDY-10U)

CY-12H (Hi-Hat)

Size:	12 inches
Trigger:	2 (Bow/Edge)
Connector:	BOW/EDGE Output Jack
Dimensions:	302 (W) x 302 (D) x 116 (H) mm 11-15/16 (W) x 11-15/16 (D) x 4-5/8 (H) inches
Weight:	1.8 kg 4 lbs
Accessories:	Owner's Manual, Connection Cable
Options:	Pad Mount (MDH-10U)

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

Information

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

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

REUNION

Maison FO - YAM Marcel
25 Rue Jules Hermann,
Chaudron - BP79 97 491
Ste Clotilde Cedex,
REUNION Island, French
TEL: (0262) 218-429

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Johannesburg,
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TEL: (011) 403 4105
FAX: (011) 403 1234

Paul Bothner(PTY)Ltd.

17 Werdmuller Centre,
Main Road, Claremont 7708
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Roland Shanghai Electronics Co., Ltd.

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Chaoyang District Beijing
100011 CHINA
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(GUANGZHOU OFFICE)
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Guangzhou 510600, CHINA
TEL: (020) 8736-0428

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Service Division
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Parsons Music Ltd.
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Chatham Road South, T.S.T.,
Kowloon, HONG KONG
TEL: 2333 1863

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PT Citra IntiRama
Jl. Cideng Timur No. 15J-150
Jakarta Pusat
INDONESIA
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Seocho Ku, Seoul, KOREA
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Bangkok 10100, THAILAND
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Dee Why West, NSW 2099
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San Pedro Sula, Honduras
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Av. Toluca No. 323, Col. Olivar
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Av.las industrias edf.Guitar
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Roland Elektronische Musikinstrumente HmbH.
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Eduard-Bodem-Gasse 8,
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As of January 15, 2005 (ROLAND)