

MAGNATRACK®
DRUM TRIGGERS

DST-1
DUAL SIDED TRIGGER



MAGNETIC DRUM TRIGGERING SYSTEM

USERS MANUAL

www.magnatrack.com



TO ENSURE PROPER HANDLING AND CARE PLEASE READ



THE DST-1 IS UNLIKE ANY OTHER DRUM TRIGGER YOU HAVE OWNED. IT UTILIZES POWERFUL NEODYMIUM MAGNETS THAT IF MISHANDLED COULD RESULT IN DAMAGE TO THE TRIGGER, OR POSSIBLE INJURY TO SELF. TO ENSURE PROPER HANDLING AND CARE PLEASE READ THE SAFETY INFORMATION BELOW.

WARNING – STRONG MAGNET

This equipment includes one or more extremely powerful magnetic circuits. The magnetic field may be much stronger than the Earth's background field at a distance of several times the largest dimension of the equipment.

If you use a heart pacemaker or similar device you must never approach the equipment because your device may malfunction in the magnetic field, with consequences up to and including death.

Children should NEVER handle the magnets. Risk of swallowing or danger if magnets placed near electrical socket. If two or more magnets are swallowed they could be stuck together resulting in serious injury and cause dangerous complications.

To avoid serious pinch-type injuries caused by objects attracted to the magnet, keep all steel and iron objects well away from the equipment. Do not allow hands, fingers, and other body parts to be caught between the equipment and the "work-piece" being lifted.

Keep credit cards, computer disks, and other magnetic storage devices away from the equipment because magnetically stored information may be corrupted by the magnetic field.

Keep electronic devices, such as computers or monitors, away from the equipment because exposure to the magnetic field may result in malfunction or permanent damage to such devices.



How Does It Work?

Tired of the limitations offered by the stagnant current technology, Retired Army Infantry Sergeant, and lifelong sound engineer Steve Riley Suitor was determined to simply find a better way. All triggers sense energy transferred once a drum is struck and convert the vibrations into an electronic signal. The advantage of Magnatrack's Thru-Head design is the elimination of foam or other cushioning that ultimately hinder the

Magnatrack doesn't rely on foam or cushioning materials that may ultimately reduce sensitivity and playing articulation. The DST-1's Thru-Head capture technology injects a large dose of humanity directly into the bloodstream of drum triggering that has been long overdue. Simply put, the DST-1 is the missing link between man and machine.

Drum modules and samples have vastly improved over the last two decades whereas drum triggers have remained stagnant, both in design and less than desirable performance. Magnatrack's DST-1 into a single trigger model, that trigger your entire drum kit with unrivaled precision."

DST-1 Special Features

- Just 3/4" top component width
- Compatible with any drum module
- Move freely about the shell for sensitivity and focus
- Highly responsive and "pre-EQ'ed"
- Free from annoying hot spots
- Designed for rugged use
- Comes with custom cable for easy installation

Warranty

Any parts



Limited Warranty

RARE EARTH DYNAMICS provides a 30-Day Return Window (see Return of Non-Defective Products below) and the following limited warranty. This limited warranty extends only to the original purchaser.

Please note that any warranty services or questions must be accompanied by the order number from the transaction through which the warranted product was purchased. The order number serves as your warranty number and must be retained. RARE EARTH DYNAMICS will offer no warranty service without this number.

RARE EARTH DYNAMICS warrants this product and its parts against defects in materials or workmanship for one year parts from the original ship date. During this period, RARE EARTH DYNAMICS will repair or replace defective parts with new or reconditioned parts at RARE EARTH DYNAMICS's option, without charge to you.

Shipping fees incurred from returns for under-warranty service in the first 30-days will be paid by RARE EARTH DYNAMICS. All shipping fees both to and from RARE EARTH DYNAMICS following this 30-day period must be paid by the customer. All returns, both during and following the 30-day period, must be affected via the Procedures for Obtaining Warranty Service described below.



RARE EARTH DYNAMICS makes no other warranty, either express or implied, including but not limited to implied warranties of merchantability, fitness for a particular purpose, or conformity to any representation or description, with respect to this computer other than as set forth below. RARE EARTH DYNAMICS makes no warranty or representation, either express or implied, with respect to any other manufacturer's product or documentation, its quality, performance, merchantability, fitness for a particular purpose, or conformity to any representation or description.

Except as provided below, RARE EARTH DYNAMICS is not liable for any loss, cost, expense, inconvenience or damage that may result from use or inability to use the computer. Under no circumstances shall RARE EARTH DYNAMICS be liable for any loss, cost, expense, inconvenience or damage exceeding the purchase price of the computer.

The warranty and remedies set forth below are exclusive and in lieu of all others, oral or written, expressed or implied. No reseller, agent or employee is authorized to make any modification, extension or addition to this warranty.

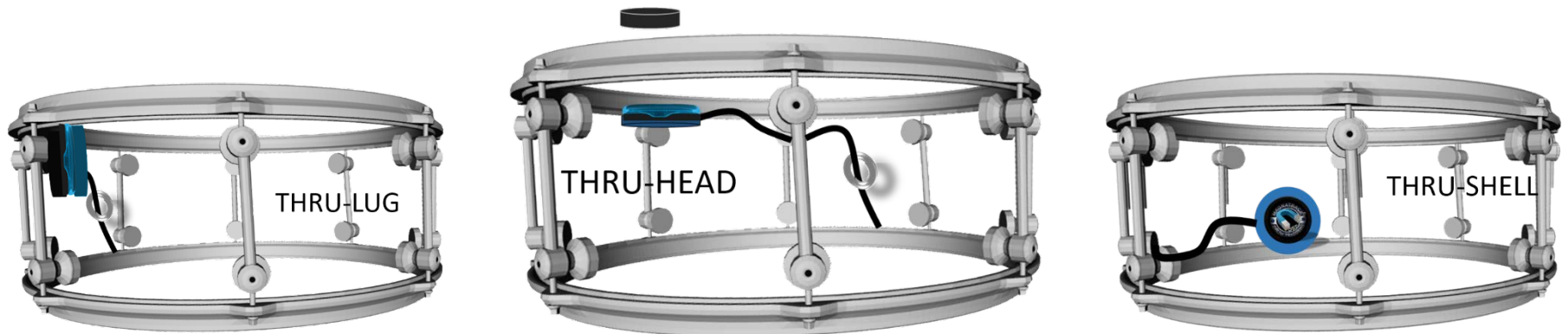
Return of Non-Defective Products

A non-defective product may be returned to RARE EARTH DYNAMICS within thirty (30) days of the invoice date for a refund of the original purchase price with the following amendments/fees:

RARE EARTH DYNAMICS will refund neither the original shipping cost nor the shipping and handling fees incurred from the products return. If the original purchase was made under a "Free Shipping" promotion then a standard \$40 fee will be deducted from any return in counter to that offer.

No refund will be granted for software which has been opened, used, or tampered with in any way which jeopardized RARE EARTH DYNAMICS's ability to remarket or resell the product. RARE EARTH DYNAMICS maintains full discretion in decisions regarding a products fitness for return. Any non-defective returns are subject to a 15% restocking fee, which percentage is taken from the final purchase price less any shipping or handling charges.

Quantity purchases of five systems or more are not eligible for return.



THRU-HEAD TRIGGERING

MAGNATRACKS DST-1 CAN BE PLACED ONTO THE TOP AND BOTTOM OF THE DRUM HEAD IN A MATTER OF SECONDS. NO ADHESIVES, OR RIM MOUNTING ALLOWS THE DST-1 TO FINALLY BREAK FREE FROM THE RIM OF THE DRUM AND ONTO THE DRUM HEAD, TURNING ANY DRUM HEAD INTO A HIGHLY ACCURATE ZONE. THE TRIGGERS ABILITY TO MOVE IN UNISON WITH THE DRUM HEAD INSTANTLY RECTIFIES A MULTITUDE OF ISSUES THAT PLAUGE PREVIOUS TRIGGER DESIGNS. THE DST-1 PROVED AT NAMM 2017 THAT EVEN A 22" SINGLE PLY MESH HEAD IS NO MATCH AGAINST IT'S POWERFUL MAGNETIC DESIGN.

THRU-SHELL TRIGGERING

THE DST-1 APPROACHES DUAL ZONES AS EXACTLY THAT DUAL ZONES. PREVIOUS DESIGNS HAVE ALWAYS USED A SINGLE ENCLOSURE TO TRY AND CAPTURE BOTH THE HEAD AND RIM OF A DRUM WHILE DOING NEITHER EXCEPTIONALLY. THE DST-1 TAKES FULL ADVANTAGE OF IT'S MAGNETIC DESIGN BY USING THE THRU-SHELL METHOD TO CAPTURE THE RIM SHOTS AND SIDE STICKING ACTION. NO NEED FOR RIM SILENCERS HERE TO PREVENT CROSS-TALK ISSUES. JUST USE ONE THRU-HEAD AND ONE THRU-SHELL TO TURN ANY DRUM INTO YOUR VERSION OF THE PERFECT HYBRID OR ELECTRONIC DRUM.

THRU-LUG TRIGGERING

SOUND ENGINEERS AND ACOUSTIC PURISTS HAVE HAD A LONG TERM HATE RELATIONSHIP WITH DRUM TRIGGERS IMPACT ON A DRUMS TONALITY AND OBLITERATION OF A DRUMS SUSTAIN. DRUMMERS AND ENGINEERS CAN CHOOSE ANY OF THE THREE METHODS TO INSTANTLY COMBAT THE UNRELENTING GAME OF TONES. INSTALLING MAGNATRACKS MT-TLTM (MAGNATRACK THRU-LUG-TRIGGER-MOUNT) TAKES ONLY A FEW MINUTES TO INSTALL ON ANY ACOUSTIC SNARE, TOM, OR KICK DRUM. THE TLTM REPLACES ONE OF YOUR DRUMS INNER LUG BOLTS AND REPLACES THE TOP MAGNET BY ACTING AS A RECEIVER FOR THE DST-1 MAIN TRIGGER ASSEMBLY. ONCE INSTALLED THE DST-1 IS ABLE TO CAPTURE THE MOST SUBTLE STROKES TO BOMBASTIC HITS ON THE DRUM HEAD. BY USING THE ENERGY TRANSFERRED DOWN THROUGH THE DRUMS LUG ASSEMBLY THE THRU-LUG METHOD PROVIDES A HIGHLY ACCURATE METHOD FOR CAPTURING ACOUSTIC DRUMS WHILE LEAVING THE DRUMS TONALITY UNTOUCHED.



SET-UP

CONNECTIONS

The DST-1 operates like other drum triggers or electronic drum pads. The trigger itself contains no samples or data internally. The DST-1 requires a connection to a drum module, VST, or audio sample source. Due to the exclusive two piece design it is necessary to mount the trigger inside the drum shell. We provide a THRU-SHELL Cable with every trigger to "down size" the standard 1/4 inch connection used in most triggering systems.

Connecting your drum module to a DST-1 drum triggers could not be easier. Whether your module has stand alone inputs Fig. A, or a proprietary harness Fig. B you can configure your inputs to maximize the number of triggers your drum module will accommodate.

One of the many features that sets the DST-1 apart from the crowd is each trigger is a single zone. This means that in order to take full advantage of your modules TRS (dual zone) inputs you can add a TRS breakout cable at the end of the male 1/4" connector. If your module like Fig. A accepts analog inputs, you can insert a breakout cable at the input source. See diagram.



FIGURE A



FIGURE B



TRS MALE CABLE



SET-UP

CONNECTIONS

CONTINUED

Most drum modules have dual zone toms as shown. A popular option is to use the rim inputs for the toms for additional floor tom, cymbals, or sample layer. By using a TRS Breakout Cable or a DST-1 Dual Zone Adapter you can reallocate unused trigger inputs for purposes more suited to your specific needs.

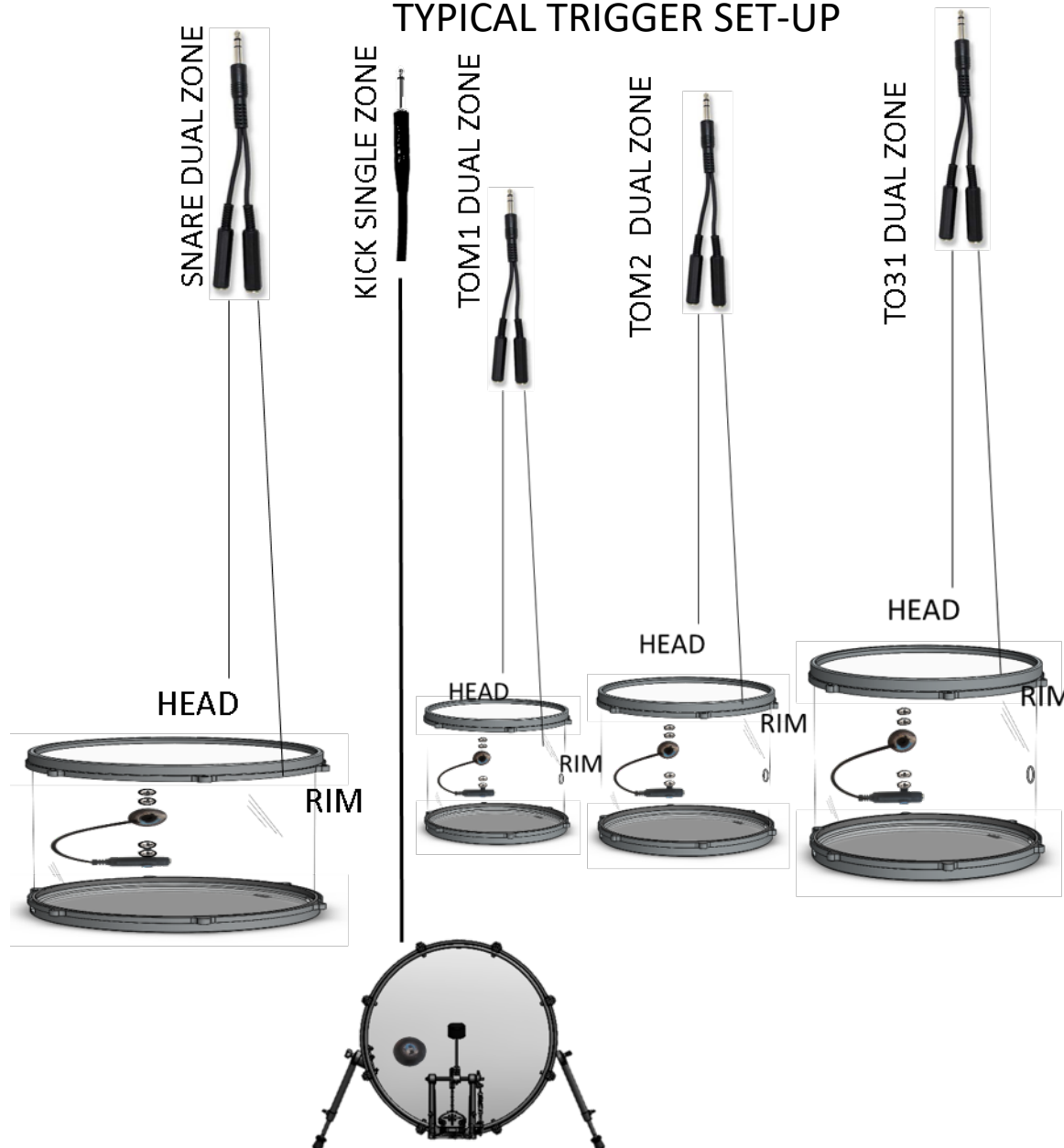


DUAL ZONE BOX



TRS BREAKOUT CABLE
*NOT INCLUDED UNLESS
SPECIFIED

TYPICAL TRIGGER SET-UP





SET-UP

DUAL ZONE SET-UP

STEP 1

REMOVE TOP AND BOTTOM HEAD



STEP 2

REMOVE LUG BOLT NEAREST AIR VENT



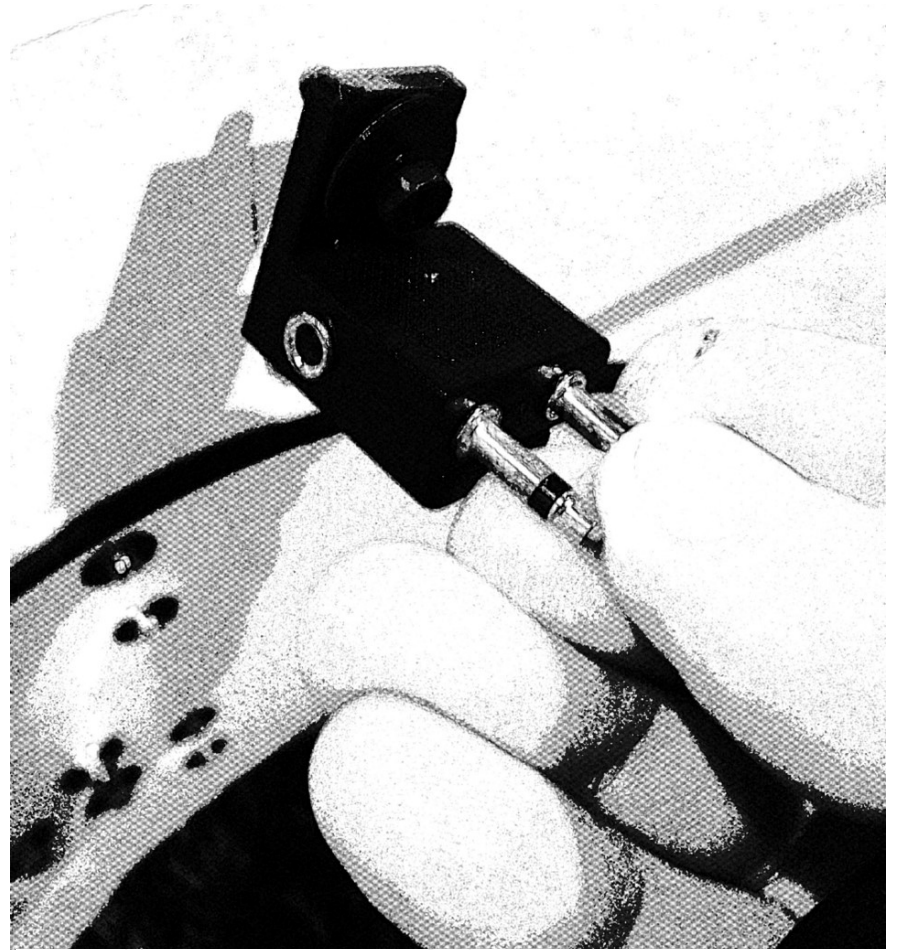


SET-UP

DUAL ZONE SET-UP

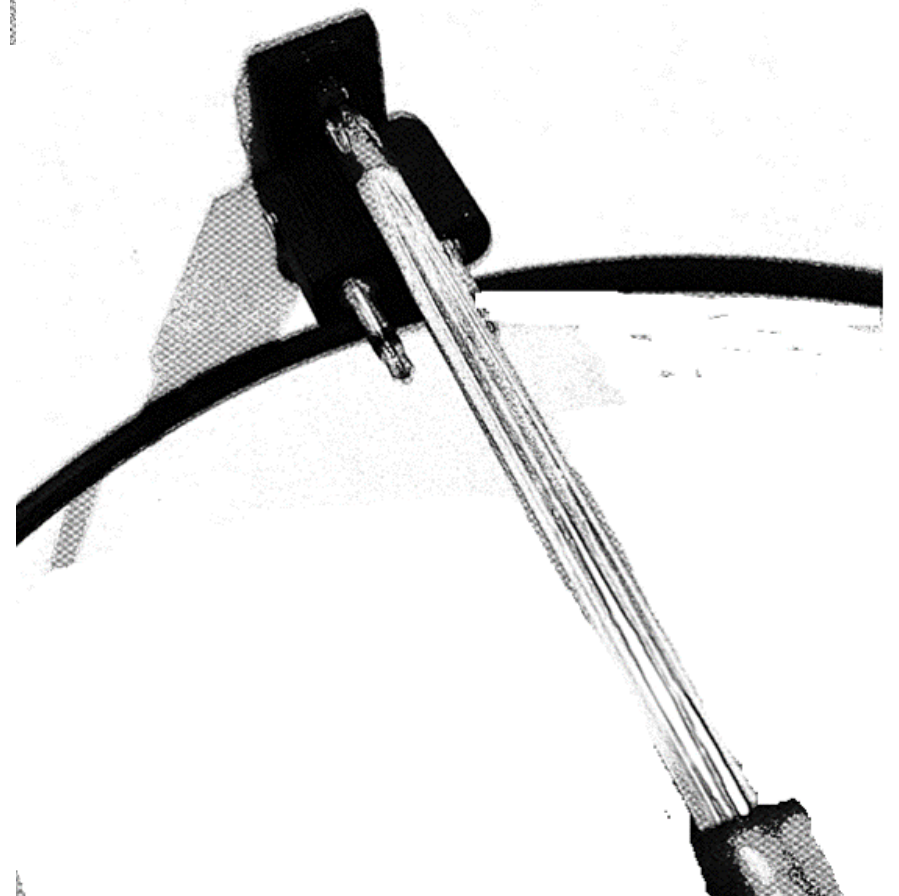
STEP 3

INSERT ADAPTER
INTO LUG YOU REMOVED



STEP 4

TURN UNTIL
BOLT IS TIGHT
*DO NOT OVERTIGHTEN





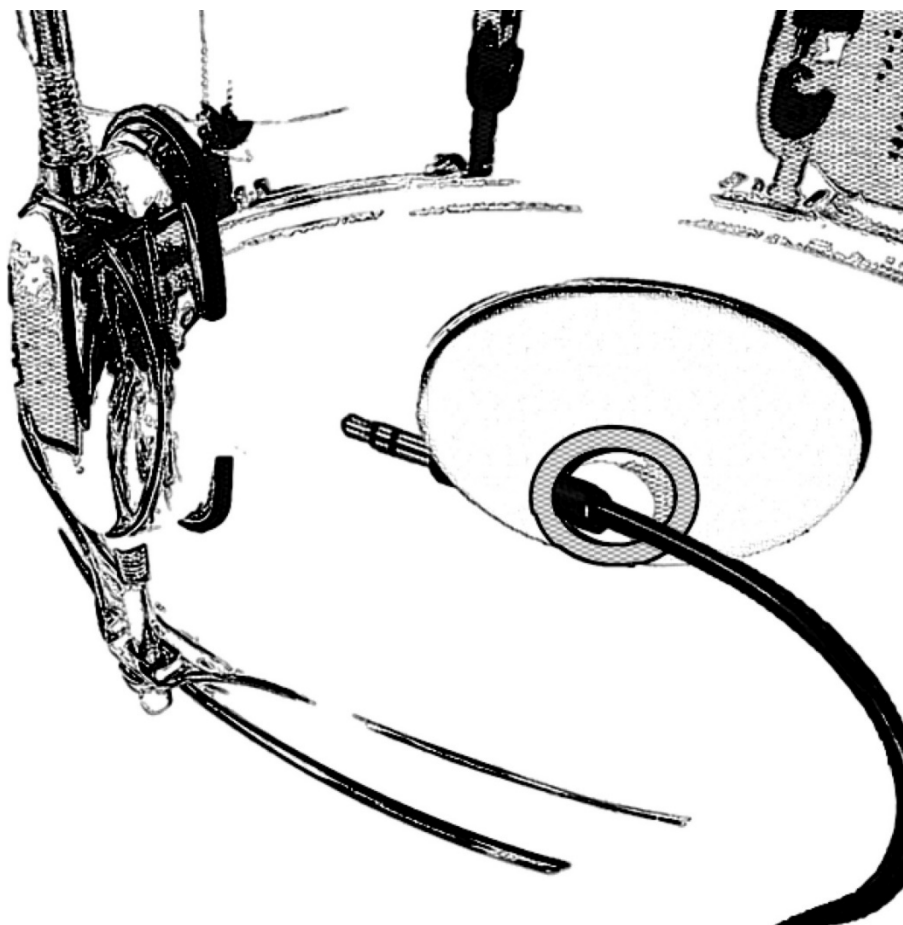
SET-UP

DUAL ZONE SET-UP

STEP 5

**INSERT
THRU-VENT CABLE**

**TIP
YOU MAY NEED TO REMOVE THE VENT BY
LOOSENING THE NUT
ON THE INSIDE OF SHELL**



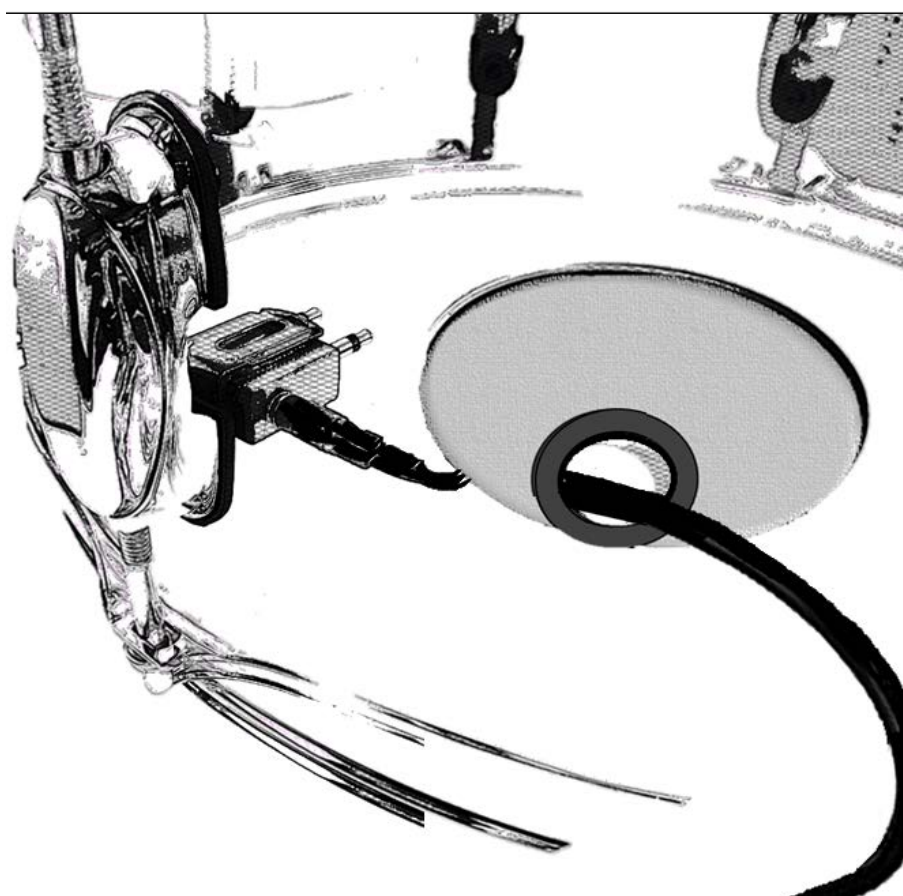
STEP 6

PLUG CABLE INTO ADAPTER



DUAL ZONE BOX

**THE DUAL ZONE BOX
SPLITS THE INCOMING
STEREO SIGNAL INTO
TWO SEPARATE MONO
CONNECTIONS
EXAMPLE:
HEAD/RIM - BELL/BOW**





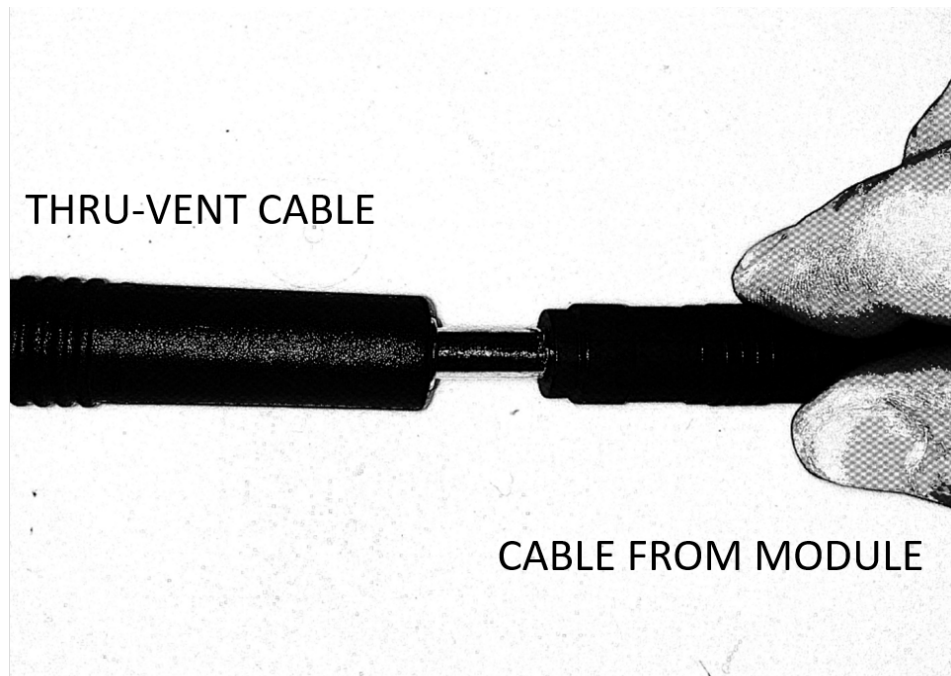
SET-UP

DUAL ZONE SET-UP

STEP 7

**MAKE CONNECTION TO
DRUM MODULE**

**ENSURE THAT YOUR DRUM MODULE IS SET
FOR TO A DUAL ZONE BEFORE PROCEEDING
TO NEXT STEP**



STEP 8

**WHILE MONITORING AUDIO FROM
MODULE LOCATE HEAD ZONE
*REPEAT FOR RIM**



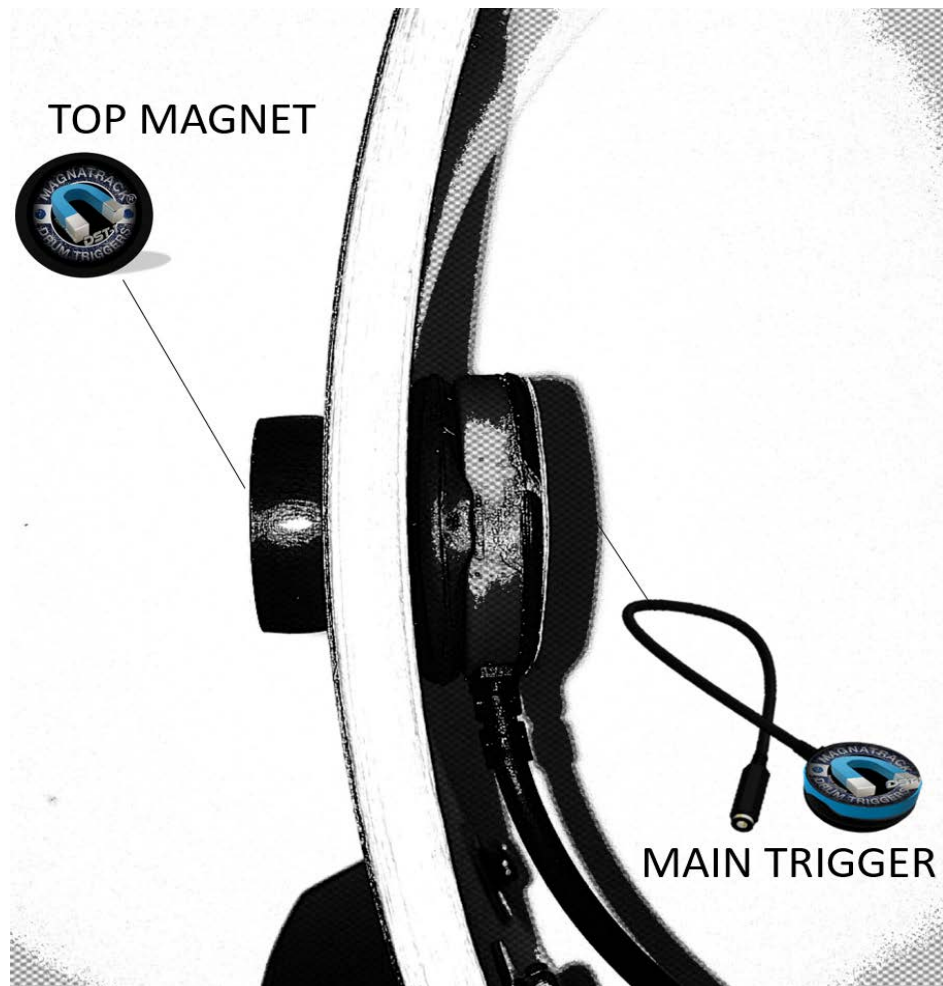


SET-UP

DUAL ZONE SET-UP

STEP 9

TEMPORARILY SECURE THE
TRIGGER BY PLACING TOP
MAGNET ON OUTSIDE OF SHELL
TO HOLD MAIN TRIGGER IN PLACE
*REPEAT FOR RIM



STEP 10

INSTALL MESH HEAD

ENSURE EVEN TENSION
AROUND DRUM HEAD
WHEN TIGHTENING





SET-UP

TRIGGER LOCATIONS

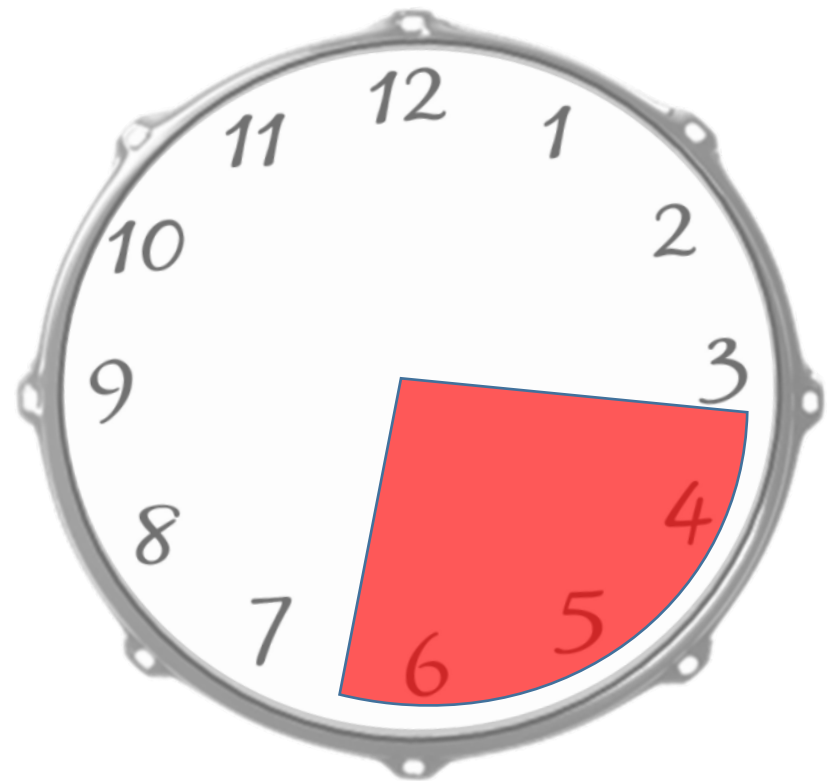
STEP 11

VIEWING THE DRUM AS A CLOCK
FACE THE TYPICAL HEAD TRIGGER
LOCATIONS ARE SHOWN IN RED



STEP 12

FOR OPTIMAL RIM TRIGGER
LOCATION MOVE THE
TRIGGER ON THE SHELL OF
THE DRUM WHILE PLAYING
BOTH RIMSHOT AND
SIDE STICK SAMPLES



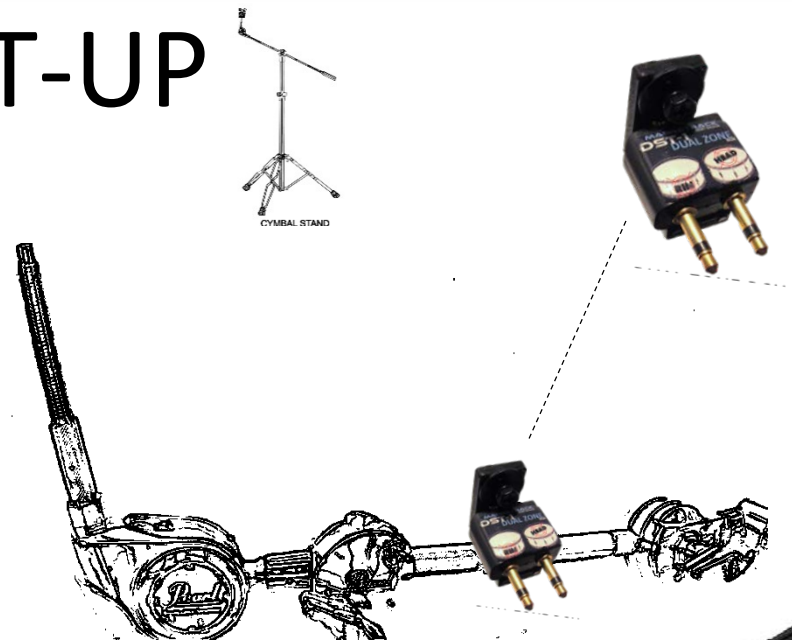


RIDE SET-UP

TRIGGER LOCATIONS

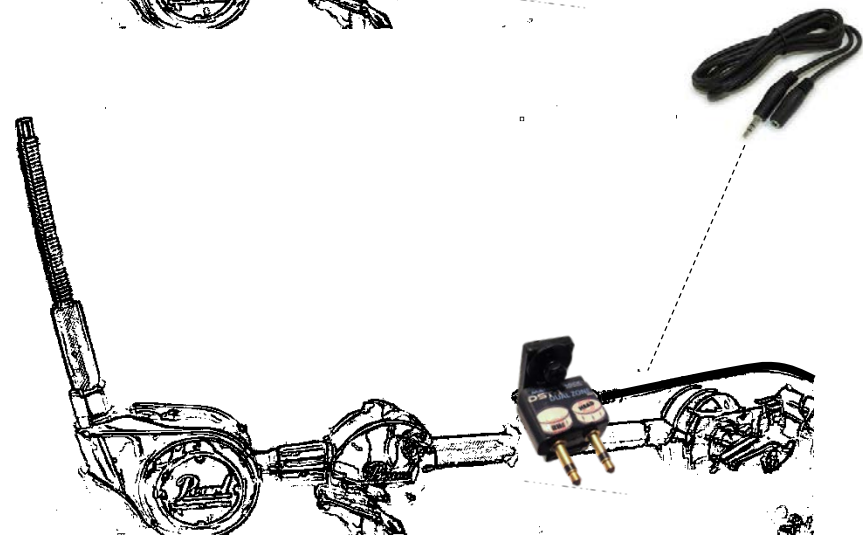
STEP 1

LOCATE THE DUAL ZONE ADAPTER FOR CYMBAL STANDS AND INSTALL ONTO BOOM ARM AS SHOWN.



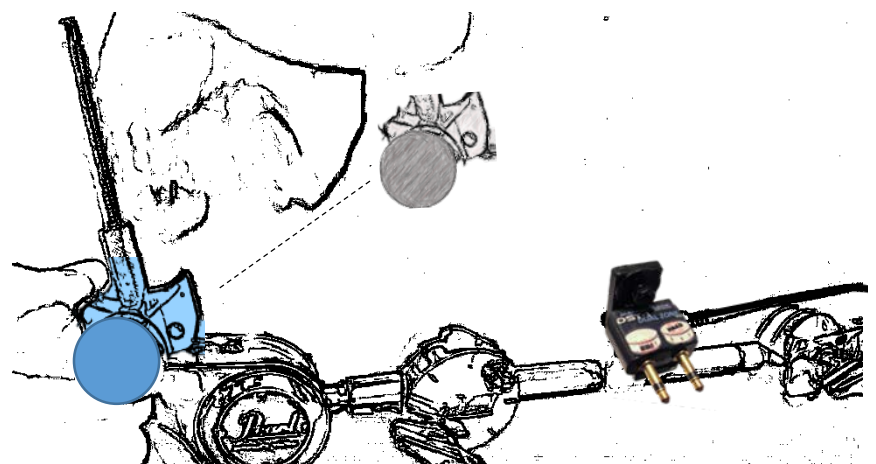
STEP 2

LOCATE THE 6' 3.5MM M/F CABLE AND INSERT MALE END INTO THE ADAPTER AS SHOWN.



STEP 3

INSTALL MT-CSMA ONTO STAND AS SHOWN AND TIGHTEN SECURELY.



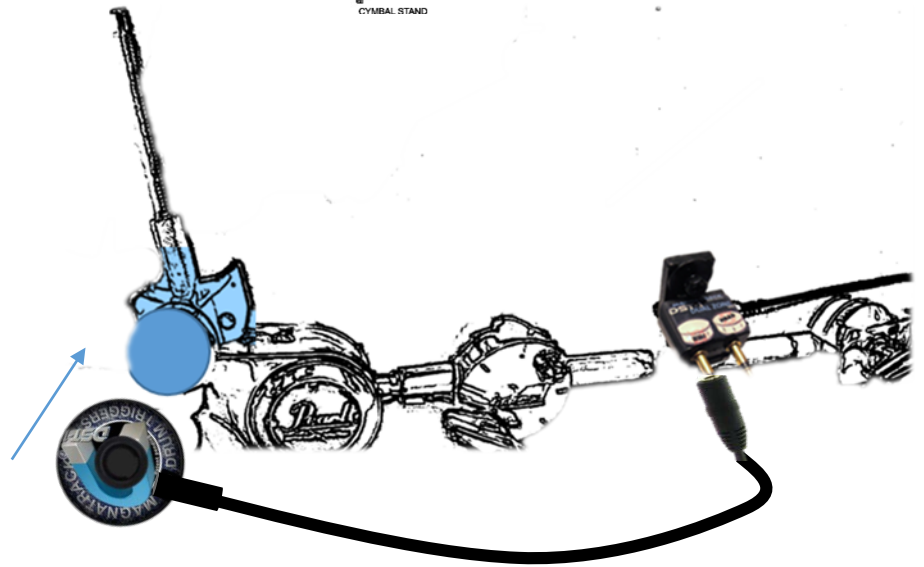


RIDE SET-UP



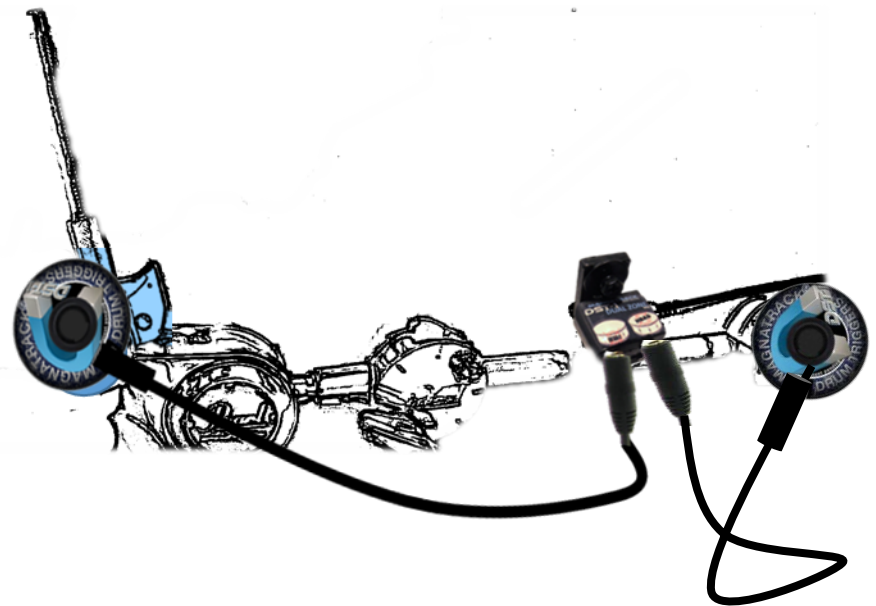
STEP 4

ATTACH A DST-1 TRIGGER TO THE MT-CSMA AND PLUG CABLE INTO THE BELL SIDE OF ADAPTER BOX.



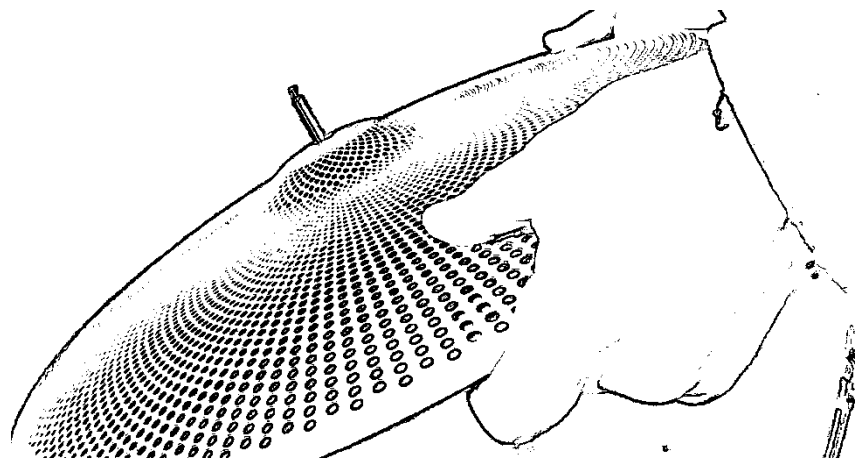
STEP 5

ATTACH A 2ND DST-1 TRIGGER TO THE OPEN PLUG ON THE MT-CSMA ADAPTER BOX. AND TEMPORARILY ATTACH TRIGGER TO STAND.



STEP 6

REPLACE CYMBAL STOPPER, FELTS AND CYMBAL.



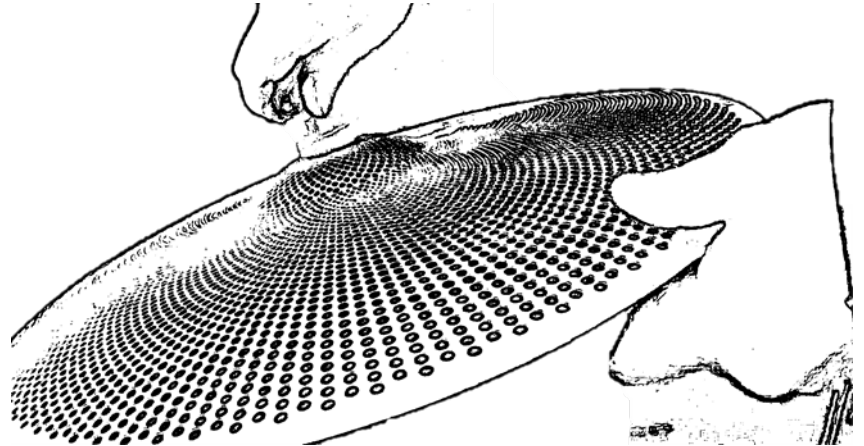


RIDE SET-UP



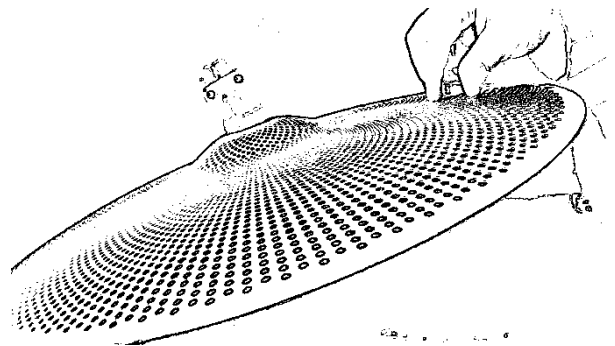
STEP 7

REPLACE CYMBAL UPPER FELT, WASHER AND NUT. TIGHTEN AS YOU WOULD NORMALLY.



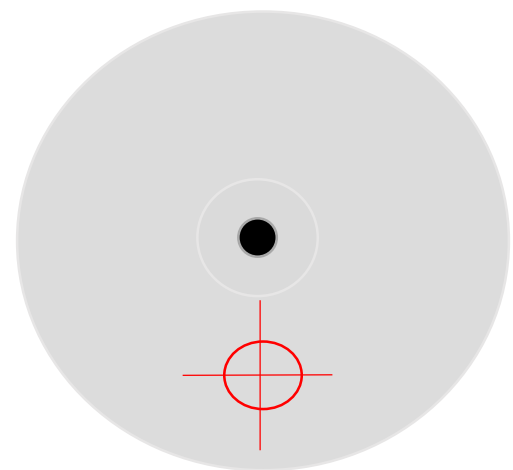
STEP 8

MOVE 2ND TRIGGER (BOW) FROM THE STAND AND PLACE ON EITHER SIDE OF CYMBAL (THRU-CYMBAL).



STEP 9

THE THRU-CYMBAL TRIGGER PLACEMENT SHOULD BE BEHIND THE BELL ROUGHLY 3-4 INCHES FROM EDGE. ENSURE THE PLACEMENT OF THE TRIGGER IS MOUNTED TO FLAT PORTION OF THE CYMBAL.





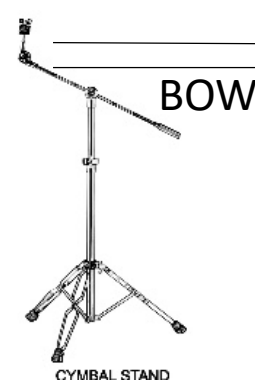
RIDE SET-UP

CONT. CONNECTIONS



STEP 10

WHEN CHOOSING THE TWO MODULE INPUTS ENSURE TO USE TWO SEPARATE CHANNELS NOT A SINGLE TRS OR DUAL ZONE INPUT. THIS WILL ALLOW EACH ZONE TO TRIGGER FREELY WITHOUT X-TALK DROPOUTS. SEE EXAMPLE

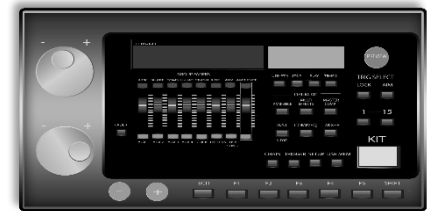


BELL

BOW

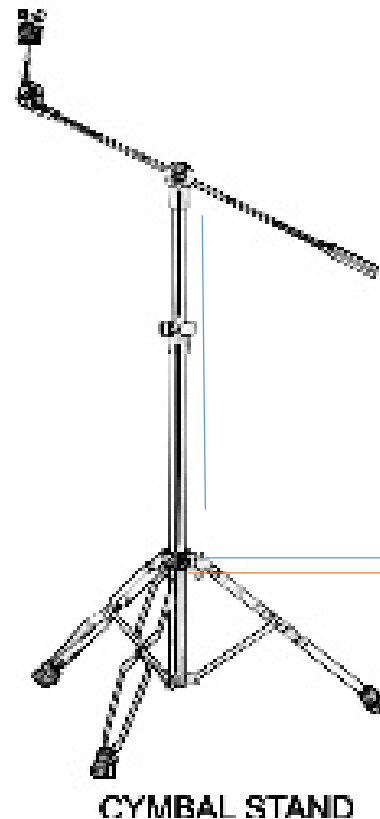
TOM 4 CH INPUT

RIDE CH INPUT



STEP 11

ENSURE BOTH TRIGGER CHANNELS ARE SET FOR A SINGLE ZONE. EX KD-7 (ROLAND) TYPE MODULES. IF CABLES ARE HARDWIRED TO MODULE OR YOU ARE USING A TRS CABLE FOR A SINGLE ZONE IT'S OKAY. THE MODULE SETTING IS WHAT'S ESSENTIAL. AGAIN USE SINGLE ZONE PRESETS ONLY.



CYMBAL STAND

STEP 9

THE THRU-CYMBAL TRIGGER PLACEMENT SHOULD BE BEHIND THE BELL ROUGHLY 3-4 INCHES FROM EDGE. ENSURE THE PLACEMENT OF THE TRIGGER IS MOUNTED TO FLAT PORTION OF



RIDE SET-UP

CONT. CONNECTIONS



CYMBAL STAND

Your connection method will depend on your module and your overall goals. We designed the cabling system to be easily hidden either by routing through the stand or mounting to it directly with Velcro ties.

The example shown will reflect our recommended routing for a Non-cable harness type module (fig. a). Harness = Fixed Cabling (fig. b)

fig a



Standard
1/4" Male
To 1/4"
Male
Mono Or
TRS
Cable

Dual
TRS 1/4"
Female
To
TRS 1/4"
Male

1/4"
Female
TRS To
3.5MM
Male TRS



fig b





MODULE SET-UP

Ex: Settings Roland Module

Use **MT-CSMA** Adapter For Bell

Bell – Kd-8 Preset (Single Zone)

Sens – 22

Thresh – 14

Linear

Scan - 4.0

Retrig - 2

Mask - 22

Xtalk-0

Use **Thru-cymbal** Method For Bow Zone

Bow – Kd-8 Preset (Single Zone)

Sens – 16

Thresh – 3

Linear

Scan – 2.0

Retrig - 6

Mask - 10

Xtalk-30

USING RIDE BELL CHANNEL

USING AUX 1 CHANNEL

*It's Good Practice When Using Single Zones To Set Secondary Or Rim Zone Midi Note Value To Off. Make This Change In Play Mode And Toggle Down Under Instrument And Select Midi Notes.

Ex: **Ride 53 52** (Select 52 And Set Value To Off Or Zero)