V Expressions Ltd

METAL BENDER Expansion Pack

a sound enhancing expansion pack for the Roland TD-27 Version 2.0 Drum Module

TD-27 v2

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Introduction

Thank you for purchasing V Expressions Ltd's **METAL BENDER for the Version 2.0 TD-27**!
The **METAL BENDER** Kits are optimized with enhancements from the TD-27 Version 2 Firmware.
You must have a Version 2 Firmware TD-27 for Metal Bender to load properly into your module.

This expansion pack for the TD-27 provides 11 unique and specialized stereo drum kit selections optimized for Gigging and Recording use.

Go on a Metal Bender and add these great kits to your collection. The pack is built for the metal heads, rockers, thrashers: basically, drummers that like it hard and grinding! We took the approach to build a drum kit sound that will cut through a metal thrashing song and provide great projection and low/mid punch. The drum kits in this pack are programmed for direct mic'ing punchy sound along with added yet carefully selected ambience and hard compression built for punch. Most of the kit models will larger room environments.

For all experience levels and functionality, this pack will deliver a great enhancement to the TD-27. It supplies pre-programmed support of Crash Two with respect to the kit and other cymbals in the model. All three AUX triggers have been programmed and optimized for a 3-tom setup (T1/2/3) with three additional cymbals.

The **METAL BENDER** expansion pack has been ear-created on the V2 TD-27 from scratch on a highly expressive platform.

Exclusively created V Expressions Ltd sample .WAV data has been utilized. These samples have been used in the sub layer instrument setting to supply the kits with unique sounds without affecting performance, dynamic feel, and adaptive response.

METAL BENDER Kit Listing

Kit descriptions:

89. **Metal Bender**
90. **Mine Sweeper**
91. **Grinding Hard**
92. **Mixed Metal**
93. **Catastrosphere**
94. **ABYSS**
95. **Gut Crusher**
96. **Everest**
97. **Midnite Jam**
98. **ElectrMotion**
99. **Nite Shade**
100. **Rocker 4 Life**

Getting Started

To increase customer understanding and awareness, we proudly offer this step-by-step instruction manual to ensure quick and smooth implementation with our expansions.

Comprised of both Roland's and our very own streamlined step-by-step instructions, this helpful document will answer all your questions and get you on your way to playing your new kits.

IMPORTANT - READ BEFORE CONTINUING!!

Accidents can always happen!

We highly recommend backing up your current module to save personal modifications before loading any expansion from V Expressions Ltd. It is important you follow our steps in this guide to achieve the best results during the processes of module back-up, file preparation, and loading of your new V Expressions Ltd expansion.

NOTE: To preserve your pad setup, user sample list, 28 channel driver input settings including all local/vendor custom settings for DAW use, and any custom kits you've created – Make a backup of your setup configuration to the SD card.

Custom user kits **WILL BE ERASED during a load of your expansion backup file**. However, your module's **factory reset data is never touched**, and this original factory state of your module can always be reset at any time. You can load **METAL BENDER** as a Backup or individually load each kit one by one.

Please take a moment to read all procedures below before attempting them. If you have questions before attempting any of the procedures below, please refer to your Roland TD-27 Reference or Quick Guide manual, or feel free to email **V Expressions Ltd** from the appropriate link on our website at www.vexpressionsltd.com

When you are ready to begin, start with Section I below.

Section I: Apply Latest Updates

FOR YOUR INSTALLATION AND EXPANSION TO WORK PROPERLY, YOUR MODULE MUST HAVE THE LATEST FIRMWARE UPDATE(S) IMPLEMENTED BEFORE YOU BEGIN!

Version 2 firmware is required to load these files.

Section II: Formatting your SD Card in the TD-27 *See page 24 in your TD-27 manual*

Skip to Section III if you have already used SD Card with your module!

If you have never used your SD Card with your module, and have no data on it, you may format the stick in the module to create your Roland folder structure.

IMPORTANT! Any data on the SD Card WILL BE deleted by formatting the stick in the module!

Step 1: Carefully insert your SD Card into the TD-27 module.
Step 2: Press the **SYSTEM** Button.
Step 3: Scroll to SD Card and Press Enter
Step 4: Use the dial to select SD Card Format and Press FORMAT
Step 5: Arrow Right and Press **ENTER** (OK) to confirm and execute the format.

Note: Press Cancel if you do not wish to Format your SD Card.

Section III: Backing Up the TD-27 *See page 25 in your TD-27 manual*

Make a backup of your module before you continue!

Step 1: With SD Card in the TD-27 module, Press the **SYSTEM** button
Step 2: Press SD Card, then **ENTER**.
Step 3: Use the dial to choose Save, then **ENTER**.
Step 4: Use the dial and arrow buttons to make backup settings – choose a backup other than Bank 9.
Step 5: Press **SAVE** F5 *(Press F4 at this time if you want to NAME backup once done Press EXIT)*
Step 6: Press **EXECUTE**, Arrow Right and then Press **ENTER**.

Note: Press Cancel at any time if you do not wish to Save a backup to your SD Card.

IMPORTANT: Once saved, remove your SD Card from TD-27 and insert into your computer/laptop. Copy the Roland folder to your Desktop. Do not move it there, only copy it, so it leaves the Roland folder on the SD Card as well. This will preserve a copy of your module on your computer before any V Expressions changes have taken place.

Section III: Preparing Your Expansion

Memory Loading Requirements: Minimum 64mb SD CARD and a computer/laptop with an SD Card reader.

Backup File Information

- **METAL BENDER** Kits are optimized with enhancements from the TD-27 Version 2 Firmware.
- One backup file (expansion) included. **BKUP-009.TD0:** This is **Bank 9**, and will read as: **MTLBV2**
- **All METAL BENDER** Kits are optimized for stereo headphone use.
- Kit 89 appears first upon loading.
- Roland Digital Pads, Crash 2 (CY-12c), and all Aux triggers are supported.
- Crash 2: Mostly China Cymbal modeling.
- AUX 1 and 2: Mostly Crash Cymbal modeling's.
- Aux 3: Cymbals / Element Effects / Tom 4. Models will differ.
- Original Stock Roland Default Sets you received with your TD-27 Version 2.0 are preserved.
- **METAL BENDER** Drum kits will load in as Kits # 89-100.
- All **METAL BENDER** Drum kits are supplied with the Snare Crosstick active using the PD140-DS.
- To best optimize your trigger performance, please read the Performance Settings Guide on pages xi / xii of this manual

Roland Digital Pads:

The Roland VH14D Digital Hi Hat Explained.

The Roland VH14D, with an update from Roland, will work with your TD-27.

Please Note: The performance of the VH14D hat was specifically tailored for the TD50X with certain Hi Hat samples only found in that module. There is no operational benefit with the Hi Hat samples in the TD-27 Version 2.0. While a VH14D will operate with the TD-27 VH14D update - you may not notice a performance difference versus a VH10 or Pedal/pad setup.

All V Expressions packs have been tested with the VH14D for proper operation. They key is to calibrate your VH Hi Hats when you load Third Party data and then calibrate regularly.

Digital Snare and Ride perform normally.

Sample Data Information

- **METAL BENDER** is supplied with **custom recorded V Expressions Ltd sample .wav files: 44.1 / 24BIT**
- These samples are embedded in the backup and kit files you downloaded and will load automatically.
- Avoid: Renaming or Optimizing the **METAL BENDER** Sample Data after it loads. Doing so may harm the model.

  Make sure you have enough space if you are already using a lot of samples.

  Also: It is recommended load kits individually to avoid losing your current sample data list

Section III: Preparing Your Expansion ***Continued***

Remember! To properly load the files from V Expressions Ltd successfully to your TD-27 Module, your SD Card **MUST** be properly structured.

If you have never used your SD Card, you must format your new SD Card in the TD-27. This will create the proper file system.

If you have previously made a backup of your module, double check the folders are available on your SD Card. (see your download file structure for an example)

We recommend Sony and SanDisk SD CARDS.

Copying your EXPANSION FILE to your SD Card.

Step 1: Carefully insert your SD CARD into your computer's SD CARD Reader.
Step 2: From your Desktop, locate the files: BKUP-009.TD0
Step 3: Open your SD Card.
Step 4: Open the Roland Folder.
Step 5: Open the TD-27 Folder.
Step 6: Open the Backup Folder. (*Roland→TD-27→Backup*)
Step 7: Copy or Drag the backup TD0 file INTO the Backup folder.
Step 8: Once verified the file is INSIDE THE BACKUP FOLDER, you may close & eject the SD Card.

Section IV: Loading Your Expansion ***See page 24 in your TD-27 manual***

IMPORTANT – PLEASE READ.

This is the easiest and fastest loading method. Use this method of loading kits (backup) if you don't have any custom trigger settings or daw settings integrated into the module. VAD users that are using a default trigger bank setup you may use this method, but will need to reload your bank settings. Customized v drum setups – Skip to option B below.

Note: Do not rename the Backup files. They must remain in the original TD0 format.

Before loading, please read the "My Pad and Trigger Settings" section on page x of this manual.

Reminder! Loading the entire backup will overwrite your kits, current sample list, and pad settings.
Remember to Backup your module…

Option A: Loading your kits via the Backup TD0 file-

Step 1: Carefully insert your SD CARD into the TD-27 module.
Step 2: Press **SYSTEM**, and then scroll to **SD CARD**.
Step 3: Select **Load** and Press **ENTER**.
Step 4: Use up/down arrows and dial to specify settings –look that User Sample is checked - ☑ (it will be automatically for Bank 9)
Step 5: Use the turn dial to select **Bank 9 (named: MTLBV2)**
NOTE: *If you are not using any AUX trigger inputs yet or the Roland Digital pads: you can continue loading without any pack issues*
Step 6: Press **LOAD** (F3).
Step 7: Arrow Right then Press **ENTER** to load backup.

If it says "No Backup Data" – You need to scroll the dial and select Bank 9
If it says, Card Error /Data Error – Make sure your firmware is 2.0 or newer.

Repeat Step 6/7 *(or) if not working: the pack on SD card is not properly loaded – read Section III and perform steps.*

If Screen says: "Processing" it's working! This will take about 1 Minute as all the sample data loads in.

continued on next page…

Once the load completes: You are NOT done!

Note: Perform these following steps to align the pack properly to your kit!

Step 8: Recalibrate your VH10 or 11/12/13/14D Hi Hat – if you have a floor pedal with pad setup then skip this.
Step 9: Make sure your pad settings match your kit's pad types:

Press SYSTEM, arrow to TRIGGER, arrow to BANK and Press ENTER. Check and correct all your pad settings.
-OR-
Select your corresponding BANK Set by: Arrowing up: To BANK

Bank 1 is a Standard TD-27 KV Setup with the Digital Pads
Bank 2 is a Standard TD-27 VAD 503/506 Setup with the Digital Pads
You can custom create your set on any of the Banks

Step 10: Re-save a copy of **METAL BENDER** to your SD Card with your corrected pad settings.

OR -

Option B: Loading your kits individually: from the SD Card

IMPORTANT – PLEASE READ. This loading procedure is recommended for most advanced users.

Use this method of loading the kits:

1) **Most VAD users / acoustic & third-party trigger users**
2) **When custom trigger settings have been created**
3) **When you are using the USB output to connect to DAW using local/vendor settings and drivers**
4) **When you have a fully custom trigger setup/pad configuration**

To load kits individually from your SD Card: Carefully insert your SD Card into the TD-27

1. Press Kit Edit
2. Press F5 OTHER
3. Select F5 COPY
4. Press Enter
5. Select COPY KIT
6. Press ENTER
7. Press F3 SD CARD
8. Scroll to Bank and Select Bank 9 (MTLBV2)
9. Keep "with user sample" when available (Not all kits have samples so you won't be able to select it for those kits).
10. Use Cursor and Dial to make load selections
11. Once Selected, Press COPY
12. Arrow Right and Select OK, then Press ENTER

Repeat Steps 10-12 until all kits you want are completed

METAL BENDER Kits File Description: See page iii of this manual for details

Pad Configuration

The pad assignments and trigger information are set to standard Roland TD-27 KV w/ default trigger settings for the following pads:

Kick:	KD-10
Snare:	PD-140DS
Tom(s) 1-3:	PDX-100
HH:	VH-14D
Ride:	CY-18DR
CR1/2:	CY-16T/R
Aux 1-3:	PDX100 / CY12c

If your pad setup is different than the above-mentioned groupings you will need to write down any/all of your pad types and/or custom trigger settings you may have adjusted. The TD-27 does not allow you to load kit and pad settings separately. After loading **METAL BENDER**, you may need to recreate all the custom pad settings you have made (pad type, sensitivity, re-trig, etc.)

This will help align **METAL BENDER** with your kit configuration.

Note: Try not to overdrive your pad triggers. Lower Sensitivity as much as possible without losing all your volume.

My Pad & Trigger Settings

IMPORTANT: If your pad setup is different than the above, you will need to write down any/all of your pad types and/or custom trigger settings you may have adjusted. After loading, you may need to recreate all the custom pad settings you have made. (pad type, sensitivity, re-trig, etc.)

Note: If you are using a standard Roland Default Bank setup ie: Bank 1: TD-27KV or Bank2: 503/506 VAD – then you can skip this step

If you are using custom trigger, older Roland pads, or other hardware: Please take a moment to write down your personal pad and trigger settings before loading your expansion.

IE: Kick drum is a KD-10, Snare is a PD-140 DS, Tom 1 is a PDX-100……

Kick: _____

Snare : _____

Hi Hat: _____

Ride: _____

Tom 1 : _____

Tom 2: _____

Tom 3: _____

Crash 1: _____

Crash 2: _____

Aux 1: _____

Aux 2: _____

Aux 3: _____

Performance Settings

Trigger Sensitivities…

Roland Default TD-27 Sensitivities range from 6-9 depending on which pad you strike. The rule is: the higher the sensitivity setting, the louder the sound will be, but you lose dynamics.

By adjusting the Sensitivity and Threshold settings, this will help prevent mis-triggers, velocity issues, and playability concerns you may be having.

To adjust up or down: go to Pad Settings and mess with the Sensitivity values. Remember: Increasing this value increases the sensitivity, so that even soft strikes on the pad are sounded at high volume (less dynamic). Decreasing this value too much reduces sensitivity, so that even strong strikes on the pad are sounded at low volume (less dynamic). Finding the middle road while you play your drum kit is key.

Note: Try not to overdrive the pad sensitivities with your playing. Look at the meter on the module and try to keep the hardest strikes just below max velocity

Trigger Threshold…

Threshold pertains to the minimum sensitivity of the pad. This setting allows a trigger signal to be received only when the pad is hit above a determined force level (a.k.a. velocity). Threshold can be used to generally prevent a pad from mis-triggering because of vibrations from other drums/pads. Check this with your pads and adjust accordingly. Usually a setting ranging from 2 to 6 is acceptable, but if you still find mis-triggering happening, keep adjusting up. This setting works in tandem with the XTALK setting.

Advanced Trigger Settings…

SCAN TIME: 1.4 is optimal / 2.0 is standard

Strike Force: You may notice that identical hits (velocity) you play may produce sound at different volumes. Adjust the “Scan Time” so your way of hitting/playing can be detected more precisely by the module. While repeatedly hitting the pad at a constant force, gradually raise the Scan Time value from 0ms, until the resulting volume stabilizes at the loudest level. At this setting, try both soft and loud strikes to make sure that the volume changes appropriately. With higher settings, latency increases so set this to the lowest value possible you are comfortable with

RETRIG CANCEL: 1 for Roland Pads is standard – 6 for all types of Roland CY Cymbals is standard.

Correcting mis triggering:

Important when you are especially using acoustic drum triggers or “non” Roland brand triggers.
Many aftermarket triggers produce altered waveforms, which may also cause mis-triggering. This occurs at the decaying edge of the waveform which is annoying when you hear it. Retrig Cancel detects this and prevents it from occurring. To Adjust: while repeatedly striking the pad, raise the “Retrig Cancel” value until retriggering no longer occurs. Although setting this to a high value prevents retriggering, it then becomes easy for sounds to be omitted when the drum is played fast (roll etc.). Set this to the lowest value possible while still ensuring that there is no retriggering.

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. Retrig 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.

MASK TIME: 4-8ms is optimal / 8-10ms is standard.

Double triggering prevention: When playing a kick trigger – it is quite common for the beater to bounce back and hit the head a second time immediately after the intended strike. Many times, on acoustic drums the beater stays against the head and you do not hear it. Anyway, this bounce back causes a single hit to "double trigger." The Mask Time setting helps to avoid this extra dbl trigger. Once a pad has been hit, any additional trigger signals occurring within the specified "Mask Time" will be ignored.

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 is no more sound made by the beater rebound.

XTALK CANCEL: 15-30 is optimal / 30-80 is standard and will depend on your setup.

Do not be afraid to max these values out. When multiple pads/drums/cymbals are attached to the same stand, this Crosstalk Cancel setting prevents vibrations produced by a strike from falsely triggering the other pads/drums/cymbals. For example, if Crash 2 is falsely triggered when you strike TOM 2, you will increase the XTalk Cancel value of Crash 2 until crosstalk no longer occurs.

Note: If the setting is too high, a strike played on Crash 2 **might** be omitted when Tom 2 and Crash 2 are played simultaneously. If you experience this lower both XTALK values on both pads.

Tips & Tricks

Using METAL BENDER with a live PA…

The **METAL BENDER** expansion kits are programmed to define the original source as closely as possible by the TD-27 drum module.

METAL BENDER kits 79-100 are optimized for STEREO/HEADPHONE USE. The settings below will help dial in your drum sound thru speakers.

Room/OverHeads/MFX Reverbs: Avoid the larger hall settings when gigging. Most of time: Less is more. **To adjust: Press "KIT EDIT", then "ROOM – OVERHEADS - MFX"**

PAN: Tom and cymbal separation can also be adjusted using the PAN edit feature to widen or reduce the depth of your instruments without harming the kit model. Keeping a tighter pan will sound better through the PA.

Master EQ: Reduce or Add low/hi eq frequency amounts to even out your kit models on the PA. Use PAD EQ settings to help fine tune the sounds of the kit. Sometimes reducing Bass is the way to add Treble. Subtractive EQing works well with Boomy PA's.

SNARE EQ/VOL: To help your Snare cut through the mix…. Snare depth is at 160-250 HZ, Snare body is at 400-630, Snare clarity is at 2 kHZ. Adjust the EQ frequencies in your snare channel until your Snare is cutting while guitars and vocals are present. Crank the output volume level of the snare in the TD-27 to assist. **To adjust: Press "KIT EDIT", then "PAD EQ"**

LOW XSTICK / HI HAT PEDAL VOL: To adjust: Press "KIT VOL (F5)", then arrow down ↓ to these settings and adjust as necessary

STEREO L/R OUT: It is highly recommended that the TD-27 be connected to the mixing console in stereo, and then adding / reducing the desired effects to accommodate the current environment. Additionally, **METAL BENDER** has been optimized to source the entire kit from the Master L/R outputs or route the KICK and SNARE out of Direct Outs 1 & 2 and TOMS/CYMBALS/AUX out of the Master L/R Channels. When using the Direct Outs you would want to remove Kick and Snare from the Master L/R outputs to avoid phasing.

**** MONO L Output:** If in Mono, send your signal via the L MONO OUT. We suggest panning to L30 on all triggers for your particular gig kit. This should greatly enhance your drum set's power in the PA. (kik, snr, toms, hh, rd, cr1, cr2, aux1/2/3). Panning this way should give you much stronger/ punchier audio and help curb the "drown in effects" wash sound.

Contact & Support

If you have questions before attempting any of the procedures above, please refer to your Roland TD-27 owner's manual, or feel free to email **V Expressions Ltd** from the appropriate link on our website at www.vexpressionsltd.com

Contact Information:

Expansion Pack	Programmer	Contact
METAL BENDER TD-27 Version 2.0	Chris Blood	email: fiddlebak@gmail.com

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