AXSGTR® | Axess Electronics™

User Manual

OTS1™ PATCH-BOX

The AXSGTR® OTS1™ Patch-Box is a nerve centre for your pedalboard. It is where all of its connections get consolidated — which enables a higher density placement of pedals, preserves the life of effect pedal jacks, and accelerates and simplifies, the pedalboard setup and teardown, time and process. It includes a Class-A guitar input buffer, four passive TRS through connections with the ability to switch instantly between 2CM, 4CM, or all isolated, and a DIN8 through connection for MIDI or your amp's multi-button footswitch.

The discrete Class-A input buffer that's included for your guitar has an input impedance and other finely tuned characteristics which mimic that of high quality tube amplifier inputs. It will safeguard, strengthen and prepare your guitar's signal for whatever follows in the signal path.

It presents the guitar with a dynamic and ideal load that remains steadfast, resulting in consistent tone while allowing the guitar to breathe and feel, as if it were plugged directly into the front of a tube amp.

AMPS, FX LOOPS AND CABLE METHODS

The phrase 4 Cable Method (4CM) describes a specific way of connecting effects pedals using both an amplifier's input and its effects loop at the same time. Alternatively, 2CM describes the more traditional method of connecting all of the effects pedals in front of the amplifier's input.

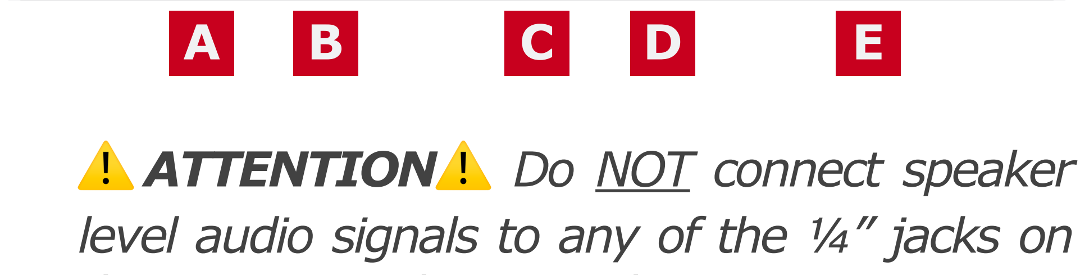
Running effects pedals either into the input of an amplifier, or in its effects loop (using the amplifier's send and return jacks) gives different tonal results. This is especially true in the case of time-based effects such as delay and reverb because of the way they interact with an overdriven amplifier.

The OTS1™ Patch-Box allows the effects pedals on a pedalboard to be wired-up in advance for the 4CM. Then with the quick and simple press of a button — instantly reconfigure the entire pedalboard depending on if the amplifier being used has an effects loop (4CM) or not (2CM).

Always use the 2CM no matter what, have absolutely no interest in the 4CM, or require additional ¼″ connectivity?

No problem, use the S-R/TRS push-button to isolate and convert the FROM SEND and TO RTRN jacks to two additional ¼" TRS thru-jack pairs for amplifier foot-switches or other audio signal paths.

AMPLIFIER/GUITAR SIDE DESCRIPTION



⚠ ***ATTENTION*** ⚠ *Do <u>NOT</u> connect speaker level audio signals to any of the ¼″ jacks on the OTS1™ Patch-Box — they are <u>ONLY</u> meant for instrument level, line level, and amplifier foot-switch and control signals.*

A. **FROM GUITAR** is a ¼" TS input that has a switchable (on/off) buffer and serves as the primary guitar input. When the buffer is off (bypassed), this jack can be used as a passive ¼" TRS input.

B. **BUF/BYP** is a push-button switch that either activates [IN] the FROM GUITAR input buffer or bypasses it [OUT].

C. **4CM/2CM** is a push-button switch that reconfigures the pedalboard signal path when using an amplifier with an effects loop, the 4CM [IN], or one without, the 2CM [OUT].

D. **TO AMP IN** is a passive ¼" TRS jack that feeds the pedalboard signal (from the FROM GT-FX jack) to the amplifier's input.

   ***Note**: Always use the TO AMP IN jack as a pedalboard's primary output to an amp.*

E. **POWER ON** indicates the OTS1™ Patch-Box is receiving power, when it's illuminated.

F. **FROM SEND** is a passive ¼" TRS jack that accepts the signal from the amplifier's effects loop send jack.

G. **TO RTRN** is a passive ¼" TRS jack that feeds the pedalboard signal (from the FROM LP-FX jack) back to the amplifier's effects loop return jack.

H. **S-R/TRS** is a push-button switch that isolates [OUT] the FROM SEND and TO RTRN jacks to instantly configure them as two additional ¼" TRS thru-jack-pairs, in either direction, for amplifier foot-switches or other audio signal paths, instead of configuring them as effects loop send and return jacks [IN].

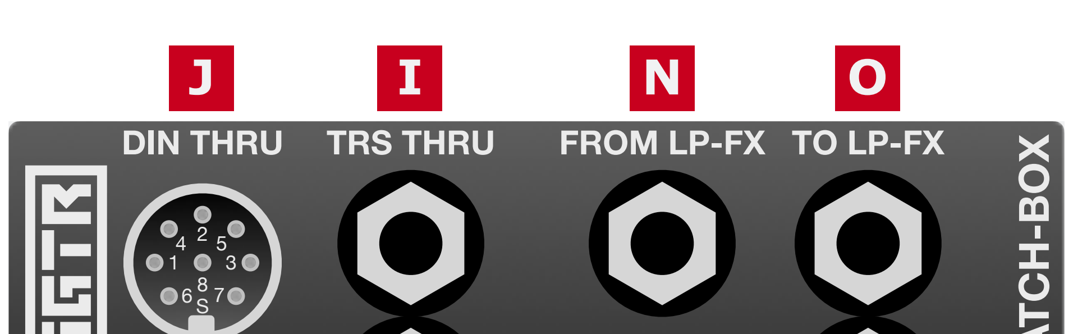
   ***Note**: When TRS [OUT] is selected, the 4CM/2CM push-button switch must be in the 4CM [IN] position.*

I. **TRS THRU** is a pair of passive ¼" TRS jacks that are meant for an amplifier foot-switch or other audio signal path.

J. **DIN THRU** is a pair of 8-pin DIN jacks that are meant to be used for MIDI or a multi-pin amplifier foot-switch connection.

   ***Note**: Typically MIDI DIN plugs do not have a ground connection on the outer shield, but some amplifier multi-pin DIN foot-switch plugs might. As such, adding a heat-shrink sleeve or equivalent insulation/tape around the body of DIN plugs, to ensure they do <u>NOT</u> short circuit to the OTS1™ Patch-Box enclosure, is recommended.*

EFFECTS/PEDALBOARD SIDE DESCRIPTION



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K. **9VDC** is the external power supply jack and it accepts a standard 2.1mm x 5.5mm male barrel plug from a 9VDC wall-wart power adapter or pedalboard power supply with a NEGATIVE CENTER plug. Refer to the SPECIFICATIONS section for additional information and higher operating voltages.

   ⚠ ***ATTENTION*** ⚠ *Do <u>NOT</u> connect any other DC Voltage or AC Voltage power supply to this jack, other than that specified in this section and in the SPECIFICATIONS section. Doing so will result in damage — voiding the warranty.*

L. **FROM GT-FX** is a passive ¼" TRS jack that accepts the signal from the last effect, in the chain of effects on the pedalboard, that is run in front of the amplifier's input.

M. **TO GT-FX** is a ¼" TS output that feeds the input of the first effect (from the FROM GUITAR jack), in the chain of effects on the pedalboard, that is run in front of the amplifier's input. When the OTS1™ input buffer is off (bypassed), this jack can be used as a passive ¼" TRS output.

N. **FROM LP-FX** is a passive ¼" TRS jack that accepts the signal from the last effect, in the chain of effects on the pedalboard, that is run in the amplifier's effects loop.

   ***Note**: The FROM LP-FX jack and the TO RTRN jack can also be used as a ¼" TRS thru-jack-pair, in either direction, for an amplifier ft-sw or other audio signal path.*

O. **TO LP-FX** is a passive ¼" TRS jack that feeds the input of the first effect (from the FROM SEND jack), in the chain of effects on the pedalboard, that is run in the amplifier's effects loop.

   ***Note**: The TO LP-FX jack and the FROM SEND jack can also be used as a ¼" TRS thru-jack-pair, in either direction, for an amplifier ft-sw or other audio signal path.*

SPECIFICATIONS

Input Impedance: 1MΩ
Output Impedance: 100Ω
Operating Voltage: 9VDC (to 18VDC)
Power Jack: 2.1x5.5mm Barrel ⊕-C-⊖
Current Draw: Less than 100mA@9VDC
Dimensions (LxWxH): 4.41x2.38x1.68inch
112x60.5x42.7mm

***Note**: The ¼″ jacks are spaced for 'stubby' Switchcraft #380 plugs, standard straight ¼" plugs, and solderless ¼" plugs.*

Specifications subject to change without notice.

⚠ ***ATTENTION*** ⚠ *Some switched-mode power supplies (SMPS) and wall-wart power adapters are noisier than others, which can result in an audible high-pitch "whine". Trying to run too many devices from a single adapter or power supply output can also result in noise and/or an audible "whine". If this occurs, we recommend either trying another wall-wart power adapter or a pedalboard power supply with enough isolated outputs to power every device/effect on your pedalboard individually; better power equals less noise = more tone!!*

CONNECTION DIAGRAMS

Click the links below (to our site) for hi-res PDF diagrams of the OTS1™ Patch-Box in action.

<u>Instant 2↔4 Cable Method Switching (TRS F/S)</u>

<u>Instant 2↔4 Cable Method Switching (DIN F/S)</u>

<u>Pre-Buffer Fuzz and 2CM Pedals In Front</u>

<u>Fuzz Pedal Un-Buffer and 4CM Multi-Effects</u>

<u>Pedals & Stereo Multi-Effects and Two Amps</u>

<u>Pre-Buffer Fuzz and MIDI W/D/W Rack Rig</u>

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<u>info@axesselectronics.com</u> *<u>axesselectronics.com</u>*

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