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AXSGTR AXESS Electronics IsoFormer UNO Transformer RCV

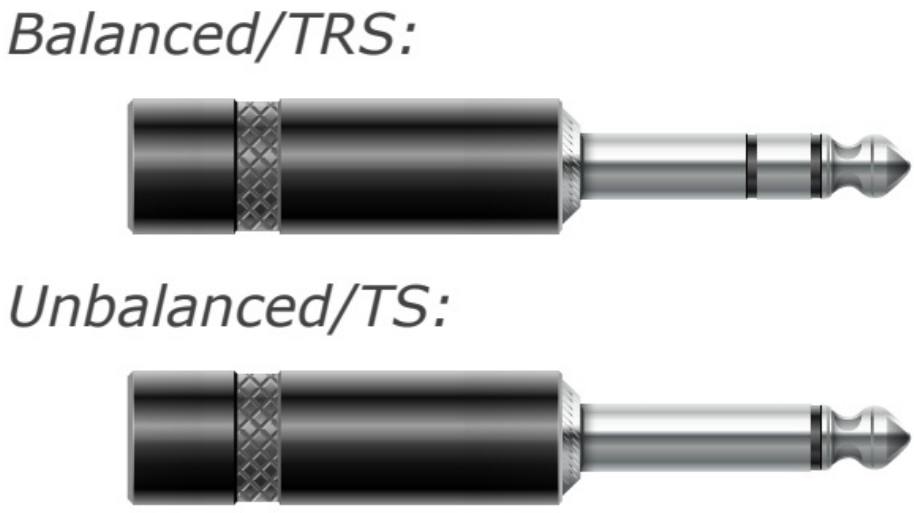
CONTROLS

PHASE push-button inverts the phase of the ISOLATED OUTPUT jack signal in relation to the INPUT jack signal.

Running two or more amplifiers at once can sometimes lead to a phase cancellation issue, which results in a sound best described as hollow, thin, not as loud, lacking bottom end or fullness. The best way to test and fix this is to try and set the amps to the same volume level, individually. Then activate the amps simultaneously, and listen with this push-button in both positions. The best, and correct button position will result in a sound best described as fuller and/or slightly louder.

GROUND push-button lifts (and electrically isolates) the ground (i.e. the sleeve) of the ISOLATED OUTPUT jack in relation to all of the other jacks and the enclosure; eliminating a ground loop and its resulting hum and noise.
Ground loops occur when two or more devices that are grounded by a protective earth conductor (i.e. a 3-prong AC power cord) are connected to each other via audio cables. The audio ground connections and the power cord earth conductors form a loop which picks up external noise and interference, which then finds its way into the audio signal.

CONNECTIONS



- **INPUT** accepts an active audio signal, either instrument or line level, and unbalanced/TS or balanced/TRS. This signal is passed straight through to both the SPLIT OUTPUT and the THRU OUTPUT jacks, both of which are not isolated, and it is also sent to an audio isolation transformer; from there it is passed through to the

ISOLATED OUTPUT jack.

- When using standard ¼” instrument cables (which are also referred to as unbalanced/TS) or ¼” patch-cables, always aim for the best quality and shortest length possible — this will minimize the signal’s susceptibility to noise and interference.
- For balanced input signals, use a shielded ¼” TRS balanced cable, up to 330ft./100m in length.
- **THRU OUTPUT** provides a signal that is derived straight from the INPUT jack, so it is not isolated.
- **SPLIT OUTPUT** provides a signal that is derived straight from the INPUT jack, so it is not isolated. It is meant to feed the input of another IsoFormer™ UNO for multi-isolated splitter applications (see wiring diagrams).
- Use either the THRU OUTPUT or the SPLIT OUTPUT, but not both, since they are not isolated…
- The type of cable connector plugged into either the THRU OUTPUT jack or the SPLIT OUTPUT jack must always match the cable connector that is plugged into the INPUT jack.
- **ISOLATED OUTPUT** provides a signal that is transformer isolated from all of the other jacks when the GROUND push-button is in the LIFT or OUT position.
- The IsoFormer™ UNO’s INPUT and ISOLATED OUTPUT jacks can be used to convert unbalanced signals to and from balanced signals. The ISOLATED OUTPUT can drive a ¼” TRS balanced long-line up to 330ft./100m in length.

ATTENTION Any device that contains an audio isolation transformer is susceptible to the magnetic field generated by a power transformer, such as those found in a guitar amplifier, effect processor, “wall-wart” power adapter or some universal pedalboard power supplies. Even with adequate shielding of the audio transformer itself and the device, there can still be a potential for unexpected hum. So if an unusual hum does occur, which can’t be eliminated by either position of the GROUND push-button, try re-locating or re-positioning the IsoFormer™ UNO. Typically it would only require being rotated and/or moved a small distance in a particular direction to resolve this type of unexpected and unwanted hum.

SPECIFICATIONS

- **Operating Voltage:** Completely Passive
- **Freq. Response:** 20Hz to 20kHz ±0.1dB
- **Max. Input Level:** 20dBu / 22VPP > 20HZ 13dBu / 10VPP @ 20HZ
- **Common Mode Rejection:** 86dB @ 1kHz 106dB @ 60Hz
- **Phase Dev.:** 20Hz to 20kHz +0.3deg, -2deg
- **Total Harmonic Dist..:** 0.0022% @ 1kHz / 0dBu
- **Dimensions (LxWxH):** 4.43×2.38×1.50 112.5×60.5×38.1mm
- Specifications subject to change without notice.

WIRING DIAGRAMS

Click the following link for high-res PDF wiring diagrams of the IsoFormer™ UNO in action.
AXSGTR® Wiring Diagrams

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axesselectronics.com
info@axesselectronics.com

Frequently Asked Questions

- **Q: What should I do if I encounter a phase cancellation issue while running multiple amplifiers?**
  A: Set the amps to the same volume level individually, activate them simultaneously, and listen with the PHASE push-button in both positions. Choose the position resulting in a fuller and slightly louder sound.
- **Q: How can I eliminate ground loops and associated hum and noise?**
  A: Use the GROUND push-button to lift and isolate the ground of the ISOLATED OUTPUT jack in relation to other connections, effectively eliminating ground loops.
- **Q: Can I use both THRU OUTPUT and SPLIT OUTPUT simultaneously?**

A: No, it is recommended to use either THRU OUTPUT or SPLIT OUTPUT since they are not isolated from each other.

Documents / Resources

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User Manual

ISOFORMER™ UNO

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CONNECTIONS

Balanced/TRS:

Unbalanced/TS:

INPUT accepts an active audio signal, either instrument or line level, and unbalanced/TS or balanced/TRS. This signal is passed straight through to both the SPLIT OUTPUT and the THRU OUTPUT jacks, both of which are not isolated, and it is also sent to an audio isolation transformer; from there it is passed through to the ISOLATED OUTPUT jack.

When using standard ¼" instrument cables (which are also referred to as unbalanced/TS) or ¼" patch-cables, always aim for the best quality and shortest length possible — this will minimize the signal's susceptibility to noise and interference.

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THRU OUTPUT provides a signal that is derived straight from the INPUT jack, so it is not isolated.

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AXSGTR® Wiring Diagrams

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AXSGTR, CT4U, AXESS Electronics IsoFormer UNO Transformer RCV, AXESS Electronics IsoFormer UNO, AXESS Electronics, Transformer RCV, RCV

References

- User Manual

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Axess Electronics, AXESS Electronics IsoFormer UNO, AXESS Electronics IsoFormer UNO Transformer RCV, AXSGTR, CT4U, RCV, Transformer RCV

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