Making a Custom Insert Cable

We often get questions on how to use our compressors as inserts on a mixer. Usually the issue that arises is that users need to route a balanced compressor from and back to an unbalanced TRS style insert point. This document is aimed at giving the user a list of materials and instructions to make up custom insert cables to utilize balanced devices in unbalanced insert points.

What you will need:

- 1 Female XLR cable connector
- 1 Male XLR cable connector
- 1 1/4” TRS cable connector
- Light gauge unbalanced microphone cable
- 22 Gauge bus wire

Step 1: Cut two lengths of audio cable suitable to reach from the compressor to the insert point on your mixer. The light gauge cable is to allow the two cables to comfortably fit inside a TRS jack.

Step 2: With each XLR connector, use bus wire to tie pins 1(cold) and 3(ground) together. Only solder pin 3, as you will also need to solder an audio lead into pin 1.

Step 3: Solder hot (red) lead into pin 2, solder cold (black) lead into pin 1, on both XLRs.
Step 4: Solder the hot(red) lead from the cable connected to the male XLR to the tip connection point of the TRS jack. Solder the hot(red) lead from the cable connected to the female XLR to the ring connection point of the TRS jack. Combine cold and the shielding together at the ground point.

Figure 1: Step 4 completed
Step 5: Be sure to check continuity with a voltmeter or test light before use, to ensure proper grounding and signal flow.

Figure 2: Finished Insert Cable