

Using ListenTALK with Pro Intercom

Overview:

The purpose of this tech note is to provide details and instructions to interface a ListenTALK system with the Pro Intercom AD903 adapter to allow communication between a wired intercom system and the wireless ListenTALK transceivers.

Products Needed:

These components are required for interfacing ListenTALK with an existing intercom system:

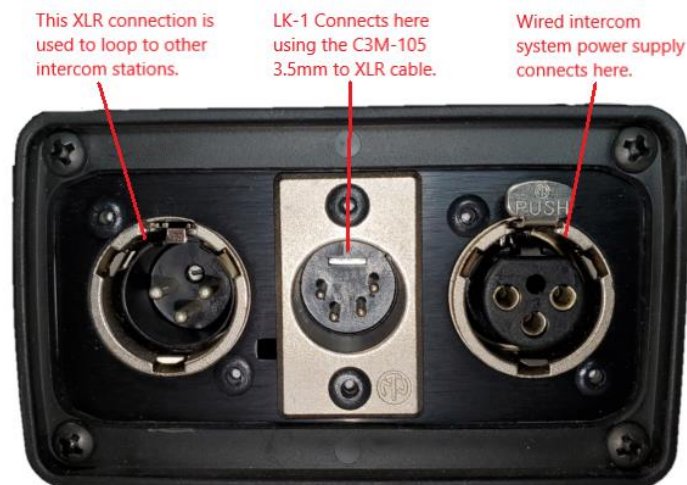
- [LK-1](#) ListenTALK Transceivers
- *AD903 Input/Output (I/O) Adapter
- *C3M-105 3.5mm TRRS male to 4-pin XLR female
- XLR Cable (not provided by Listen)

**The AD903 adapter and C3M-105 cable are both products supplied by Pro Intercom.*

Setup Instructions:

Wiring & Interconnection:

- Connect the LK-1 transceiver to the male 4-pin XLR I/O connection of the AD903 adapter using the Pro Intercom C3M-105 cable.
 - The LK-1 that connects to the AD903 must be the Leader unit.
- Connect the AD903 adapter to the intercom power supply with an XLR cable using the female 3-pin XLR connection of the AD903 adapter.
- The male 3-pin XLR connection can be used to loop back to other intercom stations.



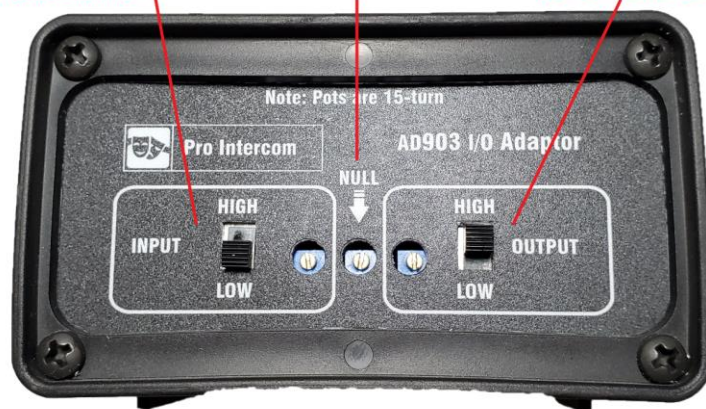
Settings & Configuration:

- LK-1:
 - Disable the Neck Loop Compatibility setting on the Leader unit.
 - This setting is enabled by default and must be disabled to ensure proper functionality of the system. Disabling this setting requires the use of the ListenTALK Software Suite, available for download here: <https://www.listentech.com/listentalk-software-suite-download/>
 - Volume level on the Leader unit that is connected to the AD903 should be set between 40-50%; Participant/Receiver units can remain at the default 35% volume level.
- AD903:
 - Set the OUTPUT switch to HIGH with the pot turned 12-14 turns clockwise from the fully counterclockwise (mute) position.
 - Set the INPUT switch to LOW with the pot turned 3-5 turns clockwise from the fully counterclockwise (mute) position.
 - It is recommended to leave the NULL setting in its default position. This controls the sidetone level and its effects are unnoticeable.

Adjusts output level from the Pro Intercom system to the ListenTALK units. Set switch to LOW and turn pot 3-5 turns clockwise.

Adjusts sidetone level performance. Recommended to leave at default.

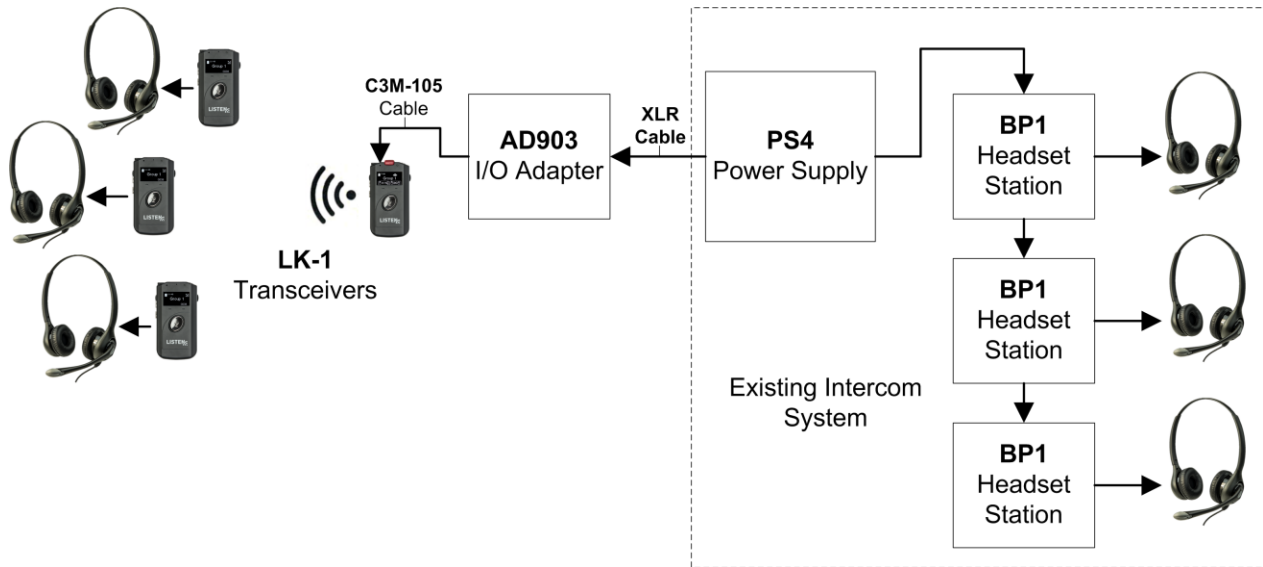
Adjusts output level from the ListenTALK system to the Pro Intercom stations. Set switch to HIGH and turn pot 12-14 turns clockwise.



Note: Turning the pots completely counter clockwise effectively mutes that output/input.

System Overview:

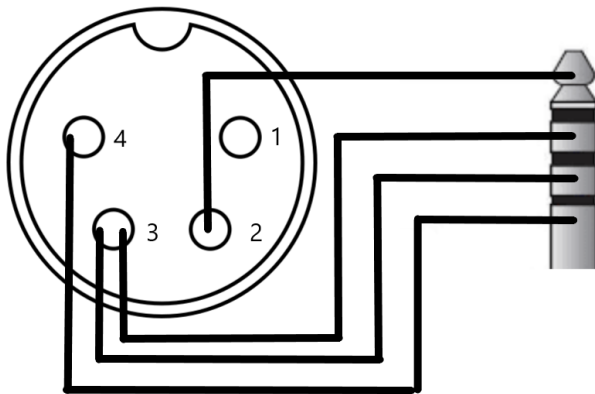
The diagram on the next page shows an example of a setup using the ListenTALK transceivers with the AD903 adapter to connect to a Pro Intercom system. The AD903 is powered by the supply of the intercom system it connects to, which is the **Pro Intercom PS4** in the example diagram. Pro Intercom states the AD903 is compatible with ClearCom and other intercom systems.



Note: The Pro Intercom C3M-105 cable must be used to interconnect the LK-1 Leader unit and the AD903 adapter. An XLR cable is needed to interface the AD903 with the existing intercom's power supply.

Building your own adaptor cable:

If you want to make your own Tip Ring Ring Sleeve (TRRS) to 4-pin female XLR cable, use the following wiring diagram.



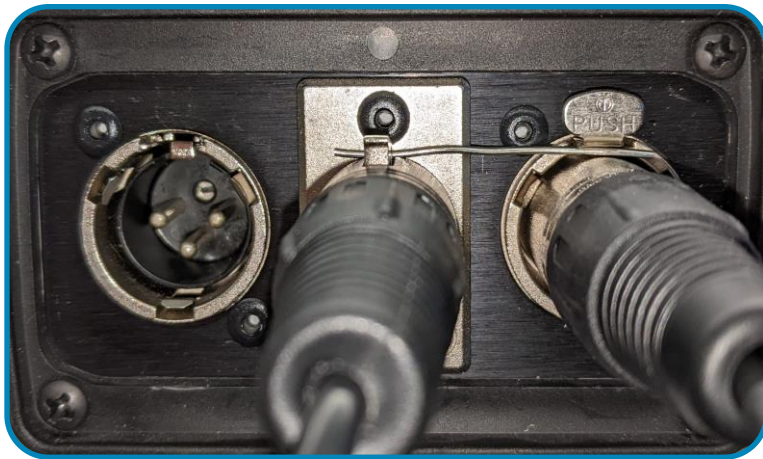
This view is the front face of the female side of the 4-pin XLR

TRRS pinout		4-pin XLR pinout
T	Left	2
R	Right	3
R	Ground	3
S	Mic	4

Powering the LK-1 while connected to the AD903

If the LK-1 Leader that is attached to the AD903 is charging while in use, you may experience a significant amount of noise in the system. To eliminate this noise, attach a conductive wire from the exterior of the 4-pin XLR connector to the exterior of one of the other 3-pin XLR connectors. An 18-gauge wire fits nicely between the push release tab and the exterior shield.

The photo is only an example, any solution that bridges the ground potential between the XLR connectors will work.



It is very important that the conductor is only touching the outside shielding of the XLR cables. DO NOT stick the conductor into the XLR conductors.

For more information on the AD903 adapter, please refer to Pro Intercom's product page here: <https://prointercomllc.com/technical-information>. The AD903 is under accessories.

Pro Intercom sells their product through authorized dealers. For information on pricing & purchasing, contact McCormick (Pro Intercom's parent company) at sales@mccormicksnet.com.

Should you have any questions or need further assistance in setup for this application, please contact Listen's Technical Services team at 801.233.8992 or support@listentech.com.