SoundPlus® T3 - POE KT1 & KT2

POWER OVER ETHERNET WIRING GUIDE

Introduction

The SoundPlus® T3 (IR T3) is shipped with Williams AV's TFP 057 (48VDC power supply). The IR T3 is also compatible with the Williams AV POE 001 Power over Ethernet injector, and with most POE switches.

Note: When using a POE switch, POE cannot be used/connected directly. The POE KT2 is still required.

Note: The IR T3 is NOT compatible with POE+ power supplies unless they are backwards compatible with POE standards.

Note: We cannot guarantee the audio quality of IR T3 units powered from a third-party POE switch, as they may introduce noise into the system.

POE KT1

This kit should be used for applications using the power supply included with the IR T3 (TFP 057). The kit includes:

- WCA 131
- WCA 133

POE KT2

This kit should be used for applications using POE 001 or a POE Switch. The kit includes:

- WCA 131
- WCA 132

Using POE

Williams AV has tested RS-232 control and balanced audio configurations with up to 300 ft. [91 m.] of CAT5 cable. Environmental interference can limit the length of cable depending on how it is being used. Unbalanced audio setups in excess of 20 ft. [6 m.] of cable are not recommended.

CAT5 cable contains four twisted pairs of wires, two of which are used for POE. Using Williams AV's passive POE injector kits (POE KT1 or POE KT2) allows the installer to use the remaining two pairs of wire for one of the following three options:

- 1 channel of balanced line level audio
- 1 or 2 channels of unbalanced line level audio
- RS-232 control and monitoring signal

If using 2 channels of balanced line level audio, control/monitoring, and power, POE KT1 or POE KT2 will need to be used along with an additional CAT5 cable. One CAT5 cable will be connected to the POE injector kit and provide power and control, while the other CAT5 cable will provide audio.

Input Diagrams

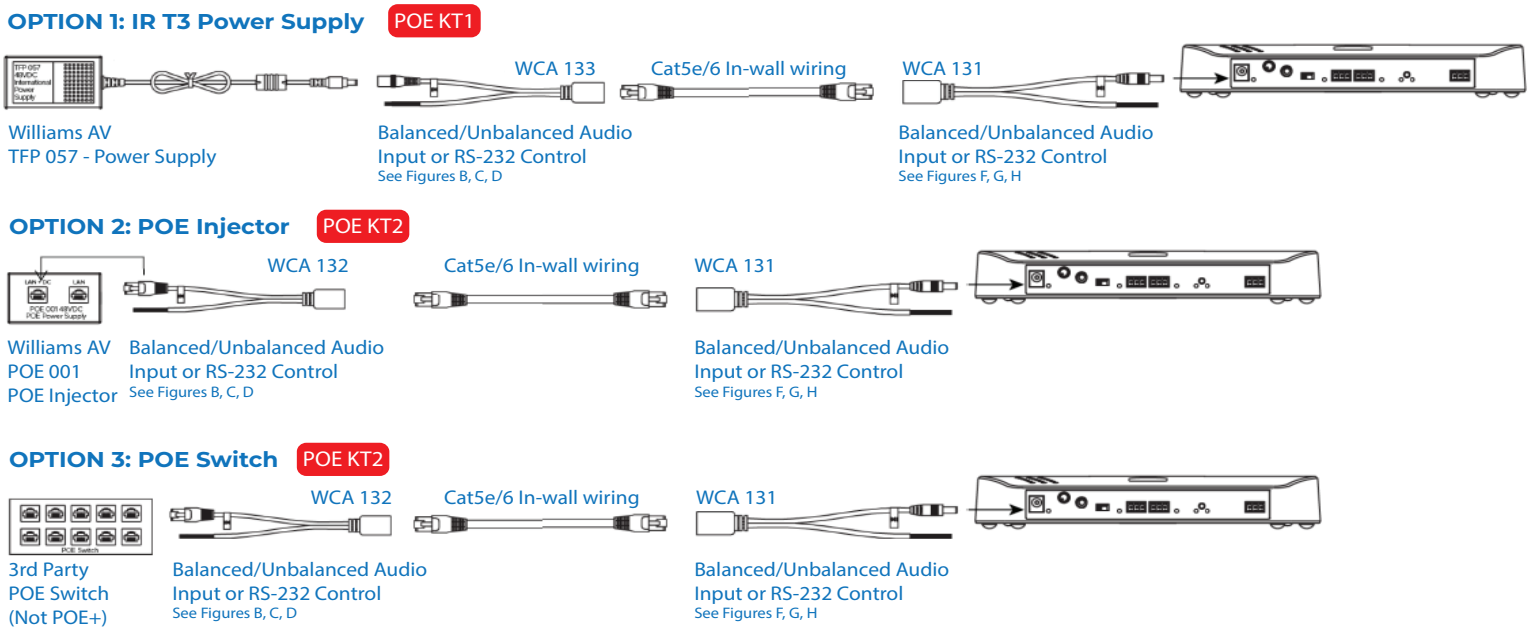

Figure A: Options Diagram

Cabling for Inputs

If using the POE 001 power over Ethernet injector, connect either the RJ-45 plug on the WCA 132 or a CAT5 cable directly to the port labeled LAN + DC (See Figure A).

Note that the WCA 132 can be plugged directly into the LAN port, which may not leave enough of a cable run to connect to the audio.

In all the figures below, check the color coding for the type of CAT5 cable used to determine wire colors if terminating a CAT5 cable.

Input Wiring

Note: The figures below are shown using a WCA 133, but a WCA 132 can be used with the same wiring. In some cables, the yellow wire may be colored green.

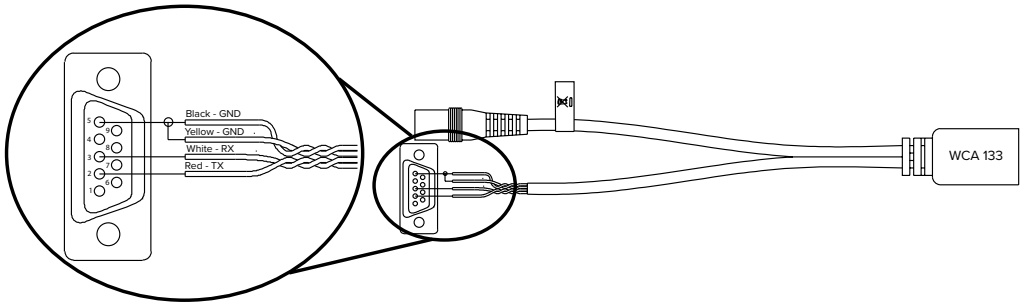

Figure B: RS-232 Control Input

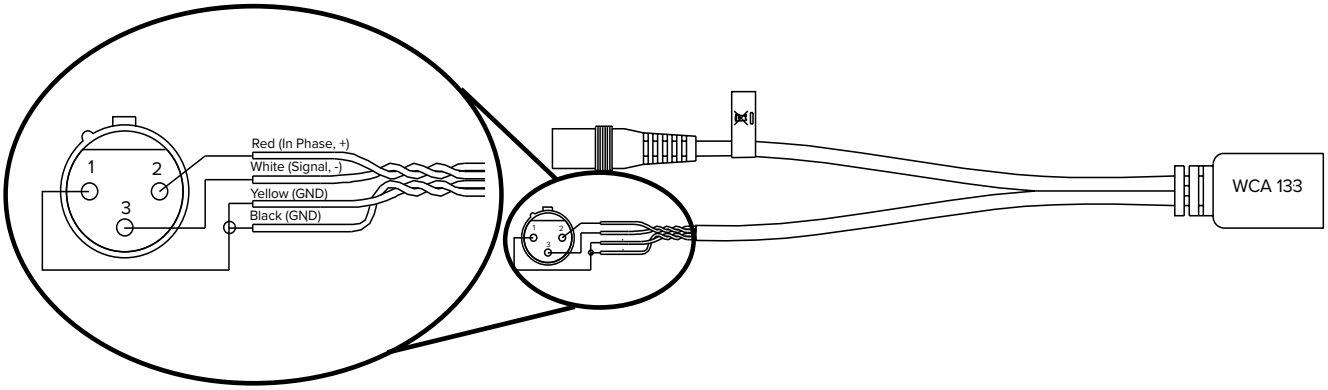

Figure C: Balanced Line Level Audio for Input

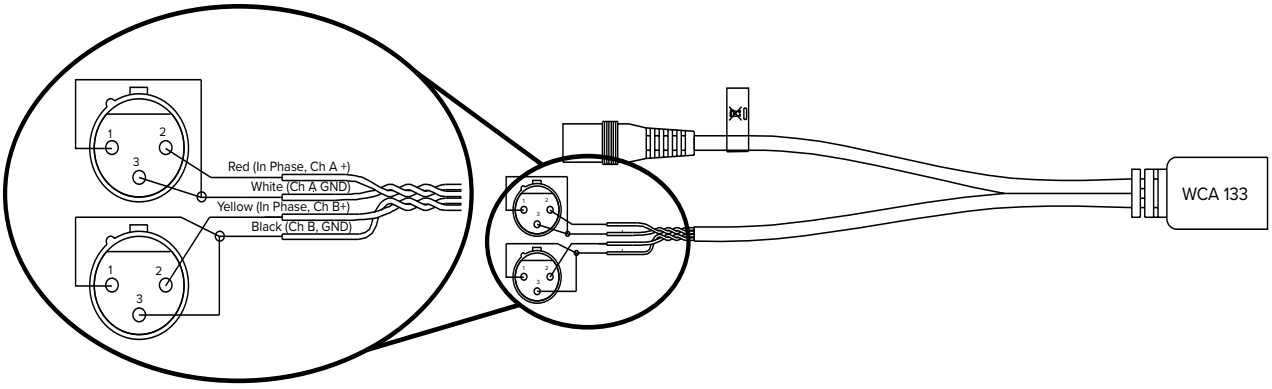

Figure D: Unbalanced Line Level Audio for Input

Output Diagrams

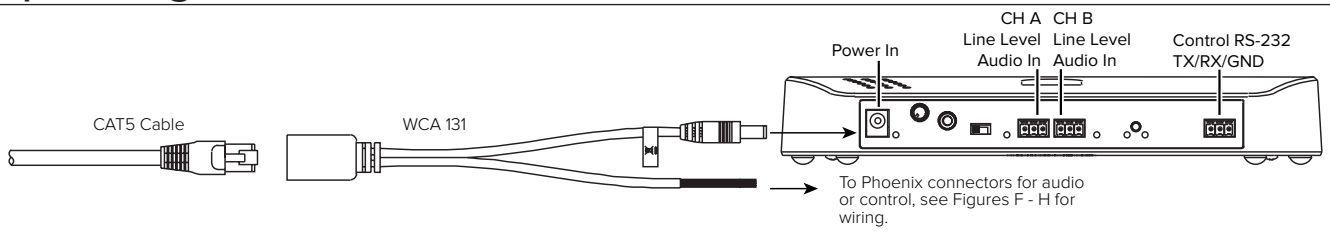

Figure E: POE Output Setup using a WCA 131 Adapter Cable and the IR T3 back panel.

Output Wiring

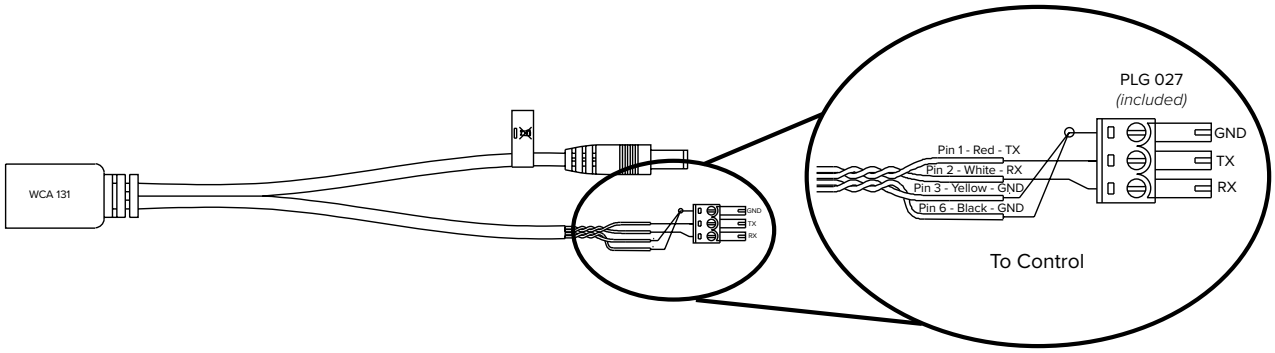

Figure F: RS-232 Control Output

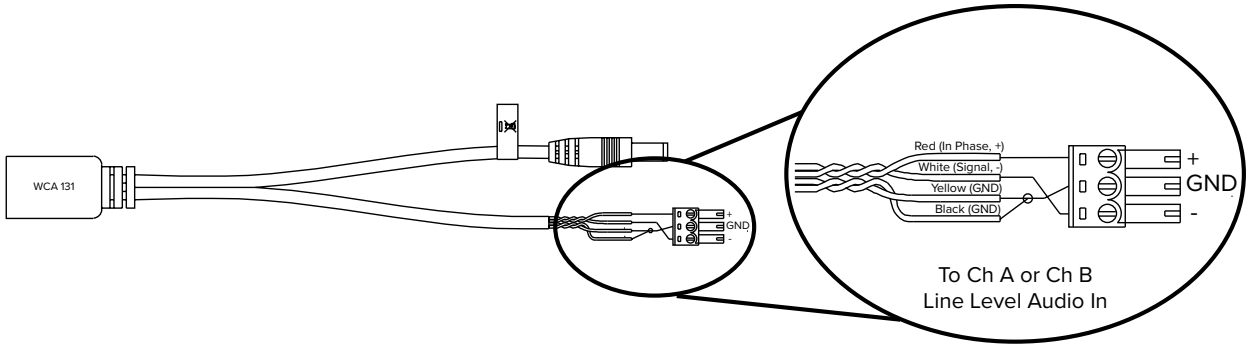

Figure G: Balanced Line Level Audio Output

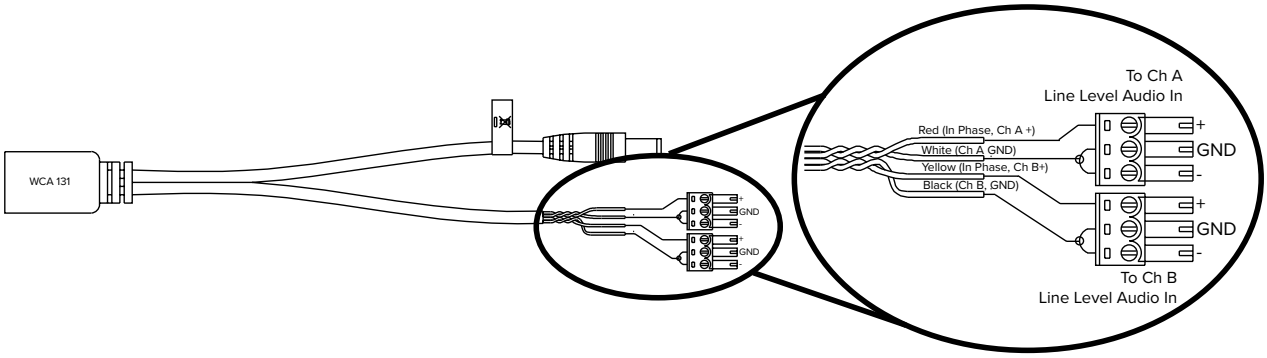

Figure H: Unbalanced Line Level Audio Output

Connecting Audio, Power and Control

Providing power, audio and control options simultaneously requires two CAT5 cable runs. Power will only need to be provided on one of the adapters.

Note: Use of this product with power supplies not provided by the manufacturer voids the warranty of the product (see IR T3 user manual for further details about warranty coverage).

For additional technical support, please contact Tech Services & Design at +1-800-328-6190 or visit www.williamsav.com.