

**Figure 6X\*\*\* TR4215 Reader Board**

Figure X\*\*\* shows the specific connectors for the peripherals. \*\* J numbers for the connectors.

### Transmission Line / A1111 Wiring

The A1111 interface board connects to each FX antenna via the 15m (50 ft) transmission line. Apply the ferrite cores as show and tighten the clamp.

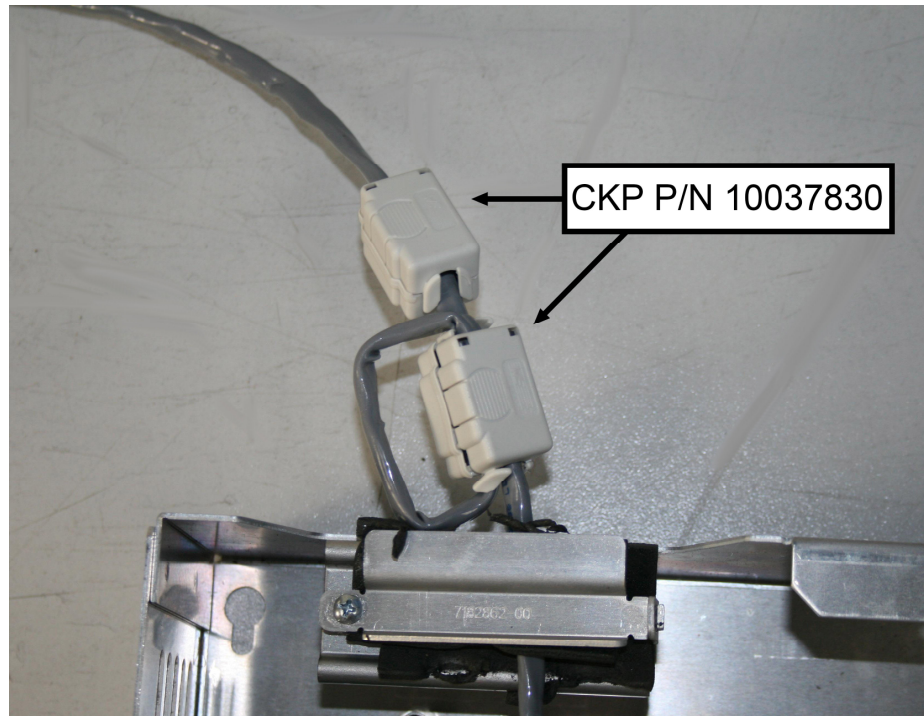
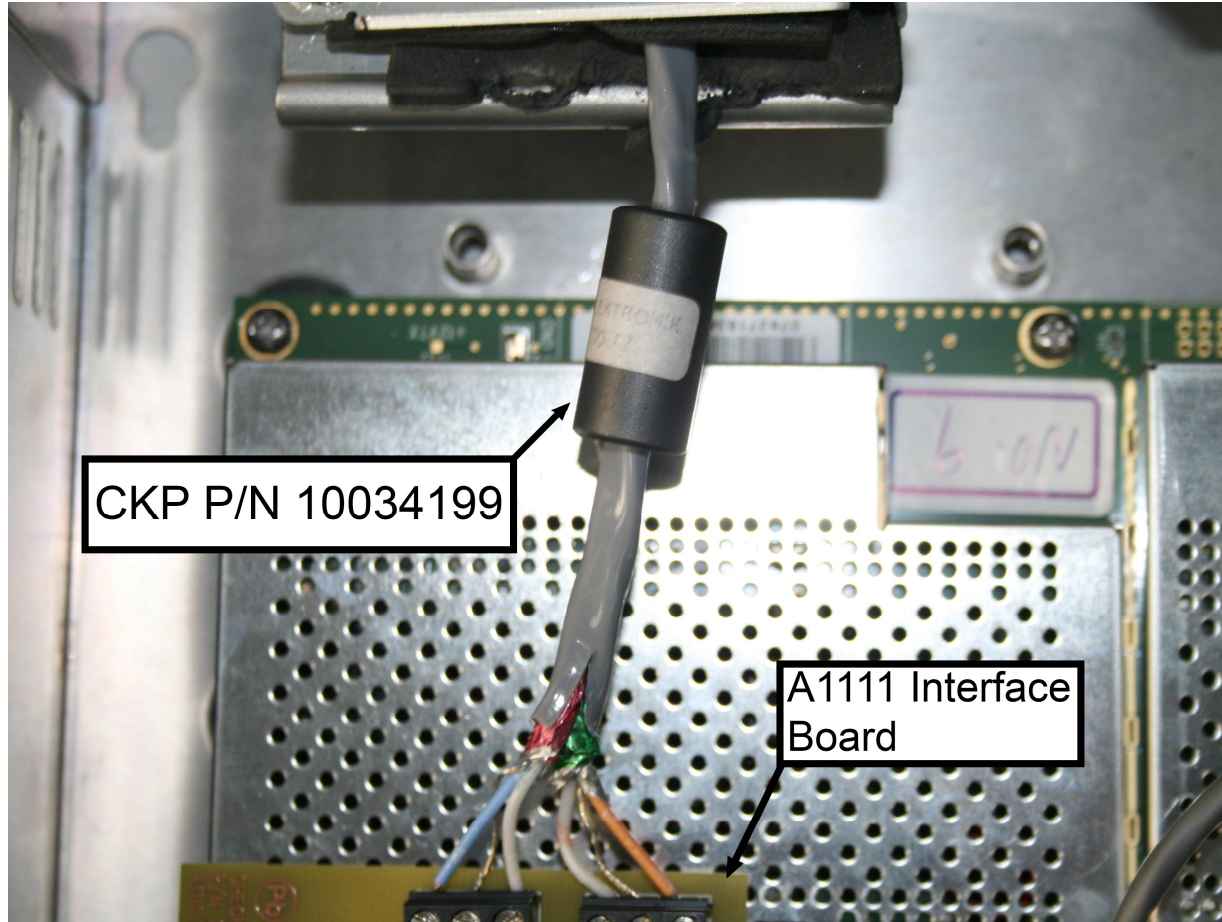
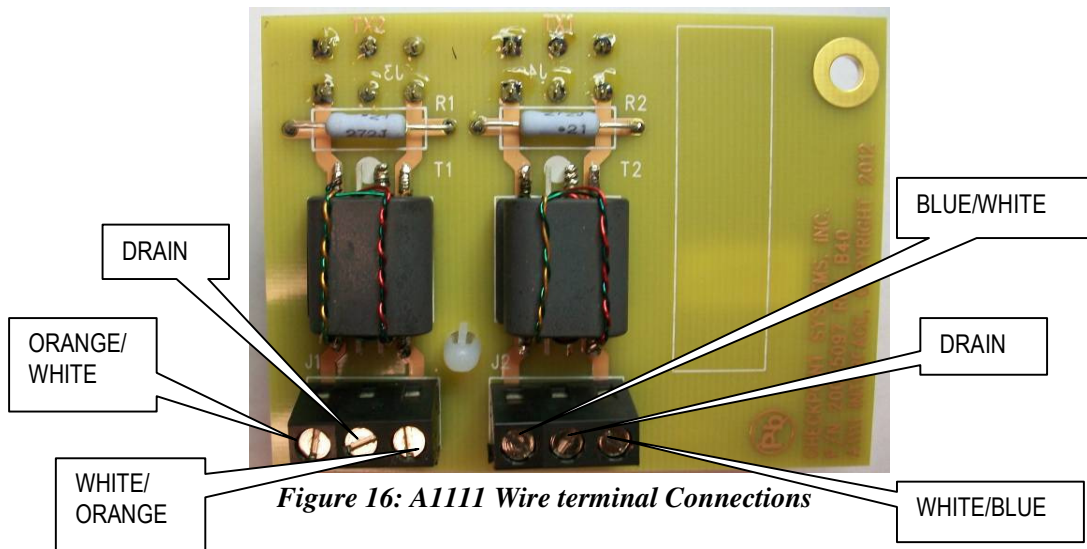


Figure X\*\* displays the interface board and connections.

Before connecting to the A1111 board, slide the ferrite core (P?N) over the transmission cable.



Connect the leads according to the diagram below and tighten clamps that hold the wires to the chassis. \*\*\*Update Graphic.



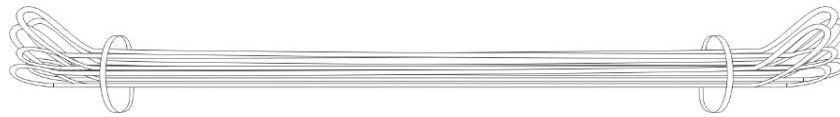
**At Connector Port J1 (TX2):**

- Connect one drain wire from the 15.2m (50-ft) transmission line to the center terminal
- Connect the ORANGE/WHITE lead to the terminal left of this drain wire
- Connect the WHITE/ORANGE lead to the terminal right of this drain wire

**At Connector Port J2 (TX1):**

- Connect the second drain wire from the 15.2m (50-ft) transmission line to the center terminal
- Connect the BLUE/WHITE lead to the terminal left of this drain wire
- Connect the WHITE/BLUE lead to the terminal right of this drain wire

When the length is less than 15.2m  $\pm$  .3 m (50'  $\pm$  1"), you should wrap up the cable so that it looks like a dog bone, with small loops at either end, loosely secured by tie wraps. Place the wrapped cable next to the electronics enclosure. Do not coil the cable as it will appear as a large tag to the antennas.

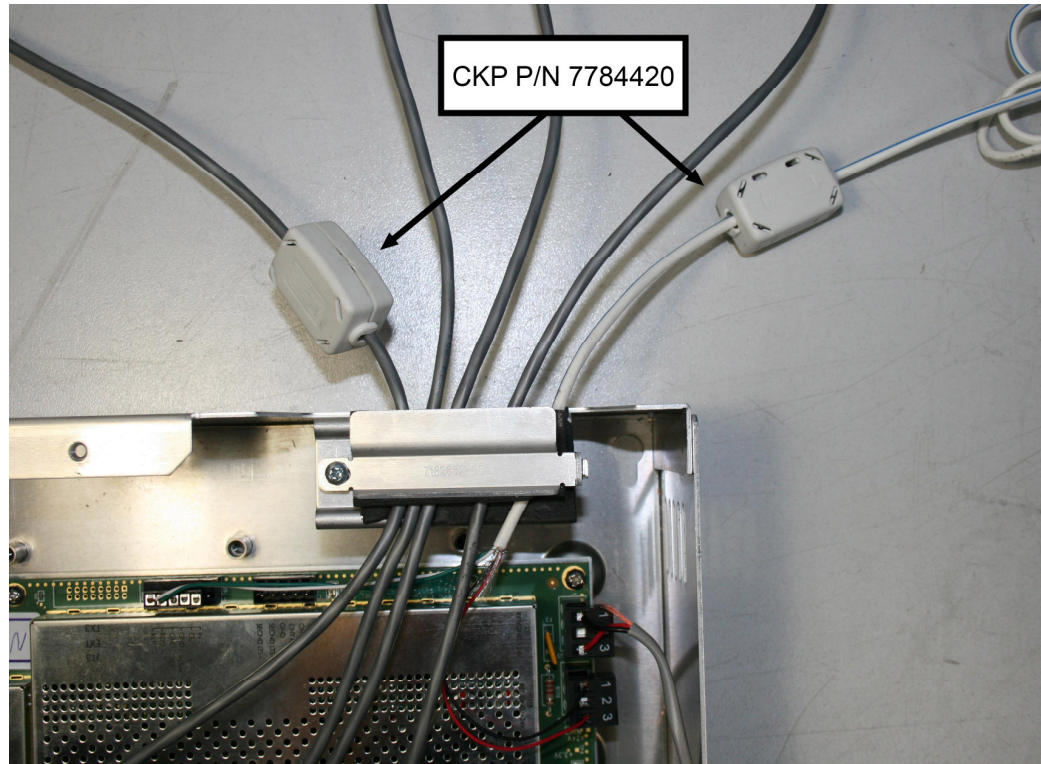


*Figure 10: Wrapped Cable*



## Remote voice alarm or alarm post

Connect the peripheral Lights and Sounder wiring as indicated below. Remote voice alarm or alarm post. White wire connects to the voice alarm.



**Figure 32: Ferrite clip installed on ALG SYNC IN (TR4215 Port J22) & ALG SYNC OUT (TR4215 Port J20) cable**

SAB Light/Sounder Cable Wiring Table ***reflect voice alarm or alarm post wiring		
Wire Color	Primary Antenna (PAB)	Secondary Antenna (SAB)
WHITE	J41-5	LT+
GREEN	J41-4	LT-
RED	J54-1	SD+
BLACK	J54-2	SD-

**Table 1 SAB Light/Sounder Cable Wiring Table**

## Wiring Between FX Systems for Sync

---

Where multiple floor systems are installed, it may be necessary to install sync wire and network communication cable between the aisles.

### Sync Cable

The sync cable (RF Sync) should be installed between FX systems if the distance between aisles is under 40 feet. If two aisles are more than 40 feet apart, no sync cable is needed. Use 22 AWG 4-conductor (STP) (5594) cable for sync cable. Follow the Sync Cable Wiring Table below to wire it to appropriate terminals. Sync cables are wired in daisy chain style. There are two sync cables in a PAB antenna, the input cable and the output cable. The first antenna only uses Sync Output cable, the last has the Input sync cable. The Output cable connects from terminal (J22) to Sync Input terminal (J20) on the synced system.

Please refer the table below for Sync wire terminal connector pin assignment.



**Figure 10 Sync cable with ferrite core**

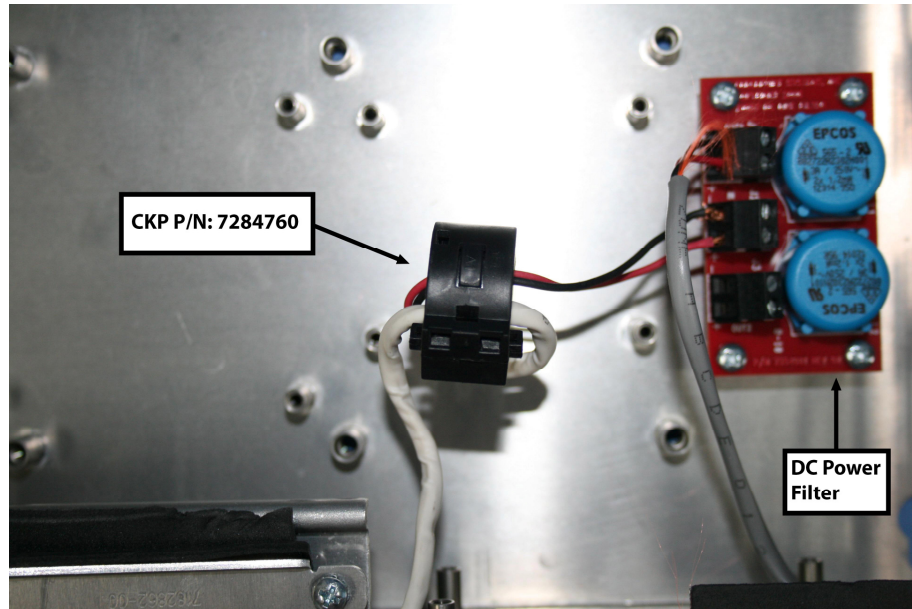
**Note:** A ferrite core with three (3) turns is attached at each end.

Sync Input (5594 4-conductor 22AWG wire)		
Wire Color	Description	J20/J22
White	SYNC -	1
Green	SYNC +	2
Black & Drain	GND	3

**Table 2 Sync Cable Wiring Table**

## Wiring 24VDC power supply

A Checkpoint-certified 24VDC power supply can power up to two (2) FX systems. The cable is plenum rated (MC Armored cable) with AWG18 two (2) conductor cable + ground.



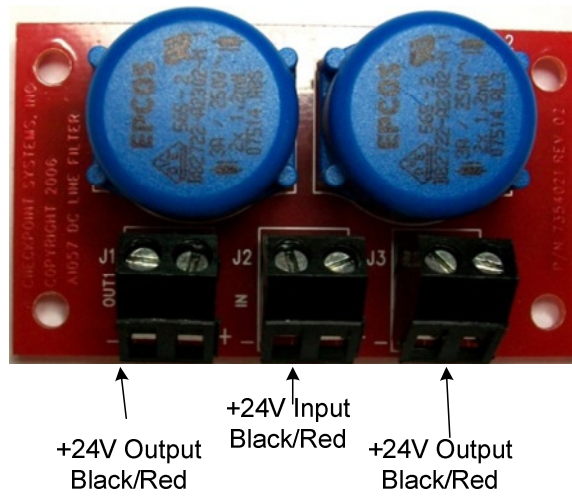
Wire the plenum cable to the DC filter board input according to the Pinout below. Connect the wires from this PAB's filter board to J18 connector on the reader. The other output from the filter board could be wired to other PAB filter board input. \*\*\* fix wiring instruction.

Wire Color	Description
Black	GND
Red	+24 V

Table 3 Power Cable Wiring Table



Figure 11 24 VDC Power Supply Cable



**Figure 12 24 VDC power filter**

## Synchronizing, Slaving and System Proximity

---

Systems operating together as a unit, as opposed to individual floor systems\*\*\*, have to be synchronized or “synced” together using an approved sync cable for the system (i.e., Belden # 8723, Consolidated # 5594, etc.). At minimum there should be a 2 wire and shield. This minimum wire will not give an alarm group function. For alarm grouping, a 2 pair with shield cable must be used.

## Wiring peripherals

---

Follow the appropriate installation manual for wiring peripheral devices.



# CHAPTER

# 5

## NETWORKING AND PERIPHERALS

### Overview

---

This chapter describes the PX/QX with Coupler antennas peripheral device wiring.  
Note: peripheral device wires go to primary antenna only.

### Peripherals

---

Both PX and QX with Coupler systems support following peripheral devices:

- Voice Alarm
- Metal Detection

Please refer the peripheral device's installation manuals for proper installation and wiring

## NGL SYSTEM CONFIGURATION VIA DMS

### Overview

---

This chapter reviews the DMS configuration steps for the FX system using DMS.

Antenna tuning including coupler jumper setting is covered in Chapter 7: NGL Tuning. Please follow this tuning guide to optimize the system performance after completing the system configuration.

**Note:** *Please use DMS version 1.8.31 and later. TR4215 firmware version must be 4.00 and later.*

### System Setup Using DMS

---

The following sections describe the basic NGL setup under two different aisle configurations: Single-Aisle and Multi-Aisle. In either case, the basic setup is similar but an extra step is needed for Multi-Aisle configuration.

The instructions below emphasize which parameters should be setup for the TR4215 board. It does not go into detail about using the DMS tool or how to navigate to the specified setup Windows. A basic knowledge of the DMS tool is assumed.

**Note:** *Please refer Field Service Diagnostic Management User Manual for general help with using the DMS tool.*

### Basic setup

---

The basic setup process consists of following steps:

1. Make a new DMS connection – for new installation
2. Configure PAB/SAB (coupler) operation mode

#### Make a New DMS Connection

3. Connect the service PC laptop to the serial port on the TR4215 board.
4. Launch the DMS program (version 1.8.31 or later) and enter your login information.
5. Make a new Connection for connecting to the TR4215 board. Be sure to select "(Direct) Serial" for the Type and "Evolve" as the Device.

Unlike previous Liberty Systems, NGL does not use the "TR4024/26" Device Connection. Figure X\*\*\* New Connection Setup shows the "Add Connection" window with the appropriate NGL settings.