

## 6500RS Conventional Beam Interface - Installation Note

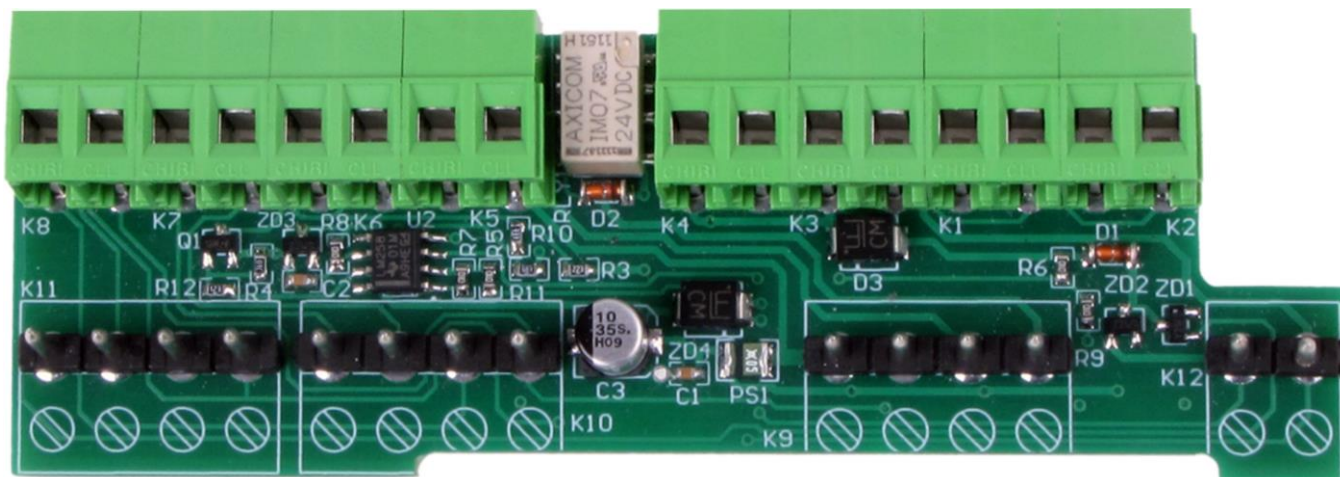
### Overview:

The **6500RS Conventional Beam Interface (6500RS Interface) board** provides an interface between the System Sensor 6500RS Conventional Beam Detector (6500RS Beam Detector) and a **Pertronic Loop Responder, F16e** or **F4** conventional panel.

This supplementary board connects directly to the connectors inside the Beam Detector without compromising an existing **6500RTS-KEY** Remote Annunciator and Control Unit.

The **6500RS Interface** operates from 24VDC, sourced from either the Panel supply or from an independent power supply – this may be isolated or non-isolated.

The **6500RS Interface** complies with NZS 4512:2010.



### Features:

- Fits inside the 6500RS Beam Detector.
- 4-wire connection: conventional zone circuit and power supply.
- Connects to 20V conventional zone circuit.
- Powered from isolated or non-isolated 24VDC power supply
  - F16e or local Loop Responder - powered from panel supply
  - F4 or remote Loop responder - powered from independent, isolated power supply
- Uses 'Smoke' and 'Defect' regions for 'Off-Normal' indication.
- The 6500RS Beam Detector automatically Resets with the conventional zone circuit.
- Provides Form C 'Defect' contacts : N/C, COM, N/O for external signaling.
- Supports connection of a **6500RTS-KEY** Remote Annunciator and Control Unit.

### Specification:

Dimensions:	102 x 45	L x W (mm)
Supply Voltage:	20 to 30VDC	
Supply Current:	Normal/Alarm:	30mA
	Defect:	8mA
Maximum Through-Current	2A	
- Note : limit the supply current feed with a 1A in-line fuse, or similar.		
Maximum Number of 6500RS per Circuit	8	
Relay Contact Rating:	2A @ 24VDC	

**NOTE:** BEAM 6500RS and OSID should be connected on different circuits

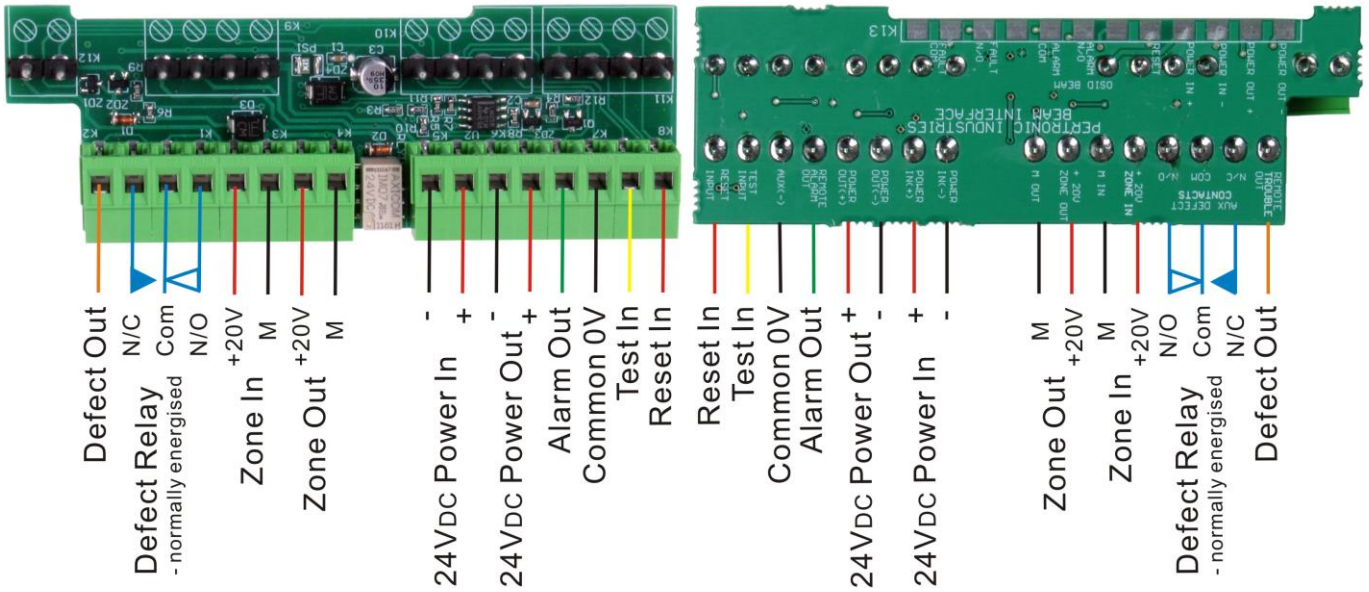
### Product Codes:

Product Code	Description
6500RSCI	6500RS Conventional Beam Detector Interface

**Board Layout:**

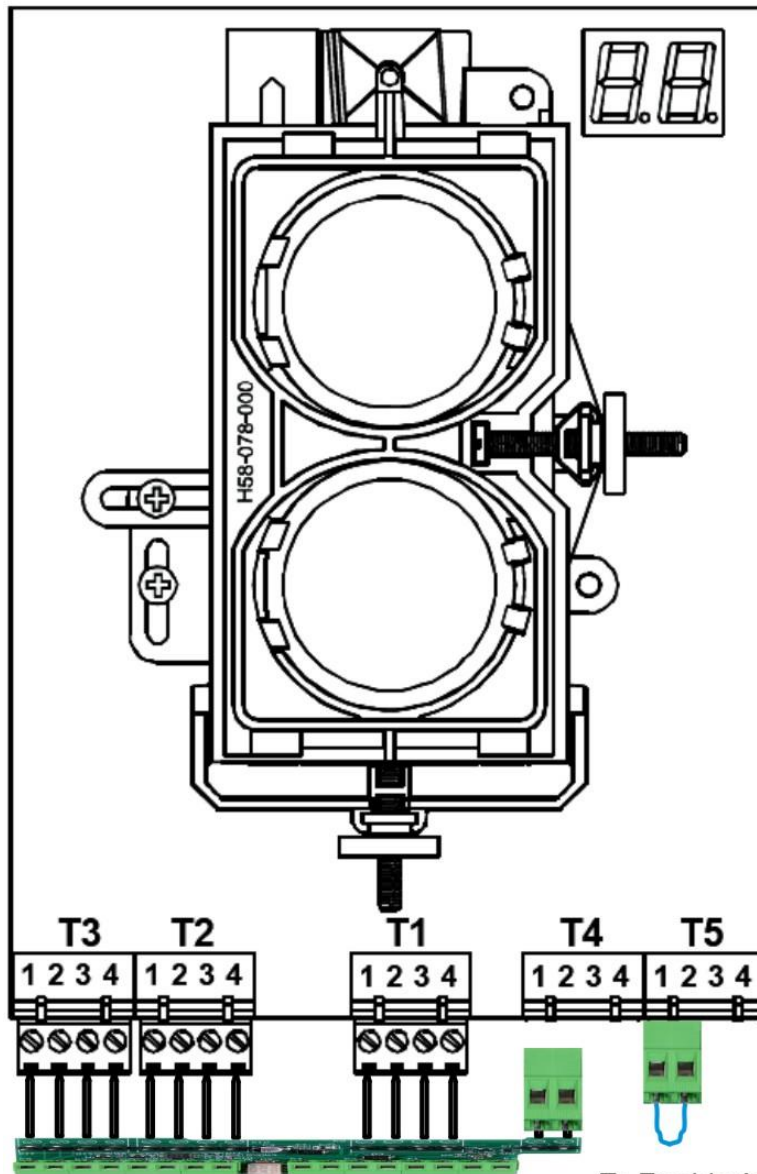
**Top View**

**Bottom View**



**PCB Location Diagram:**

**6500RS Beam Detector**

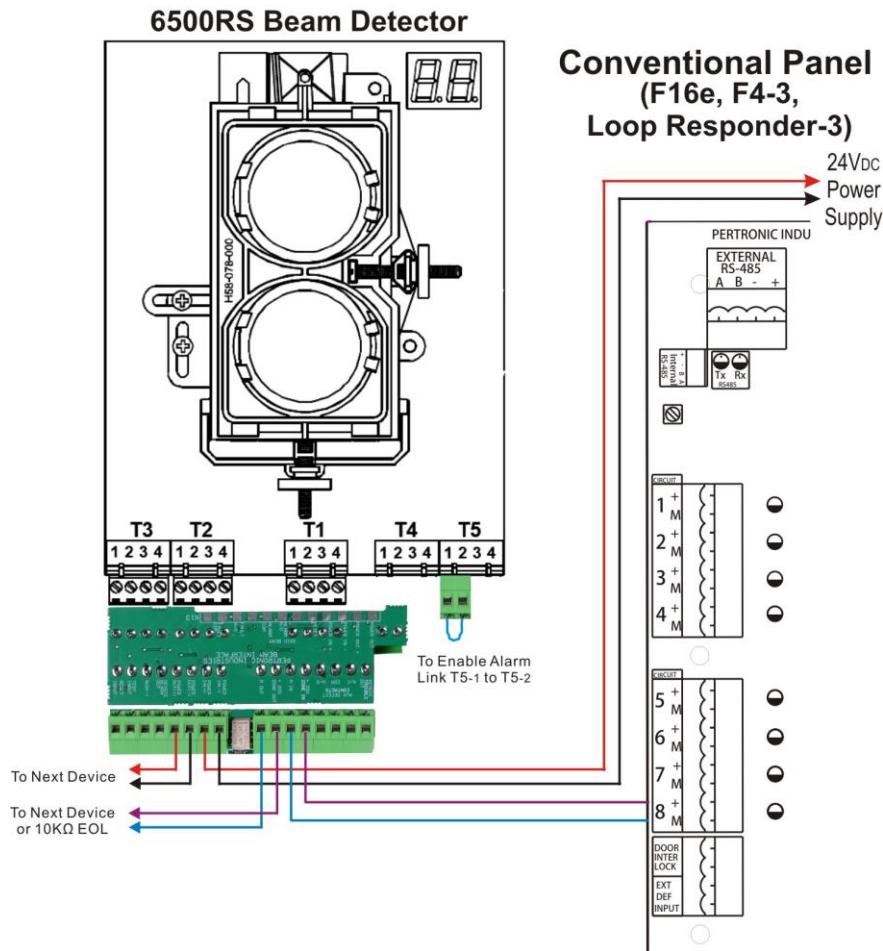


To Enable Alarm  
Link T5-1 to T5-2

**NOTE:** to enable Alarm signaling, link 6500RS Beam Detector connector T5 pin 1 to pin 2

## Installation and Commissioning:

### 6500RS Beam Detector with Interface Board



#### Before installation:

- verify the 6500RS Conventional Beam Interface is available, not the similar OSID Conventional Beam Interface.
- identify the Power Supply and Zone cables, but ensure they are not connected at this time.
- do not fit the 6500RS Interface board inside the 6500RS Beam Detector at this time.

#### Wiring:

- feed the cabling inside the 6500RS Beam Detector.
- connect the Power Supply cables to the 6500RS Interface board 24VDC POWER IN observing correct polarity (and 24VDC POWER OUT, if required).
- connect the Zone cabling to 'Zone IN +20V' and 'Zone IN M', observing correct polarity.
- connect additional Zone wiring or ensure a 10KΩ EOL Resistor is connected between 'Zone OUT +20V' and 'Zone OUT M' of the final device.

#### Fit the 6500RS Interface board into the 6500RS Beam Detector:

- mount the 6500RS Interface board inside the 6500RS Beam Detector.
  - o first loosely fit all 4-way connectors, before inserting the board, then firmly fasten all connector screws.

#### Connection to the Conventional Circuit:

- connect the Zone wiring to the conventional circuit, observing correct polarity – do not power the 6500RS Beam Detector ON.
- confirm that the Conventional Zone displays with a Defect – High
  - o measure Mvoltage = 4.2V to 7.1V - for F4 or F16e reference panel 0V
  - o measure Mvoltage = 4.5V to 8.0V - for Loop Responder reference Loop negative.

#### Set up

- power 6500RS Beam Detector ON, then set up the Beam Detector per manufacturer's instructions.

#### Commissioning:

- when the 6500RS Beam Detector is ready, verify the conventional zone responds to:
  - o Normal 6500RS Beam Detector / Zone both Normal
  - o Alarm 6500RS Beam Detector / Zone in Alarm
  - o Defect remove power from 6500RS Beam Detector
- 6500RS Beam Detector Alarms are Reset by the conventional zone - or if available using the method described/recommended in the System Sensor 6500RS Beam Detector Installation Note

# 6500RS Beam Detector Interface Connections

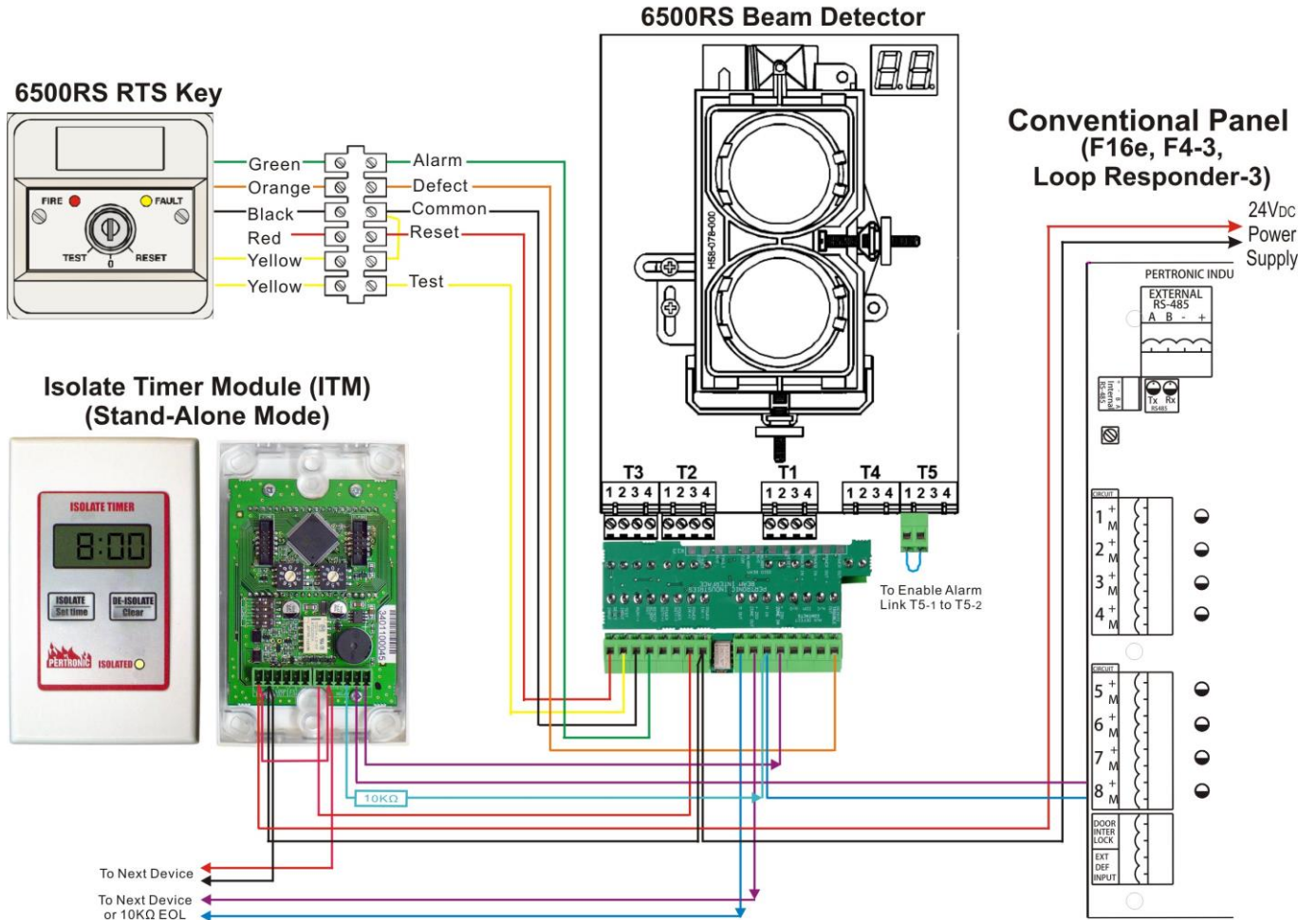
The 6500RS Beam detector can be interfaced with the 6500 RTS Key Box and/or the Isolate Timer Module (ITM)

The 6500 RTS Key Box provides an accessible means of Testing and Resetting the 6500RS Conventional Beam detector in addition to monitoring the Alarm and Defect status of the detector.

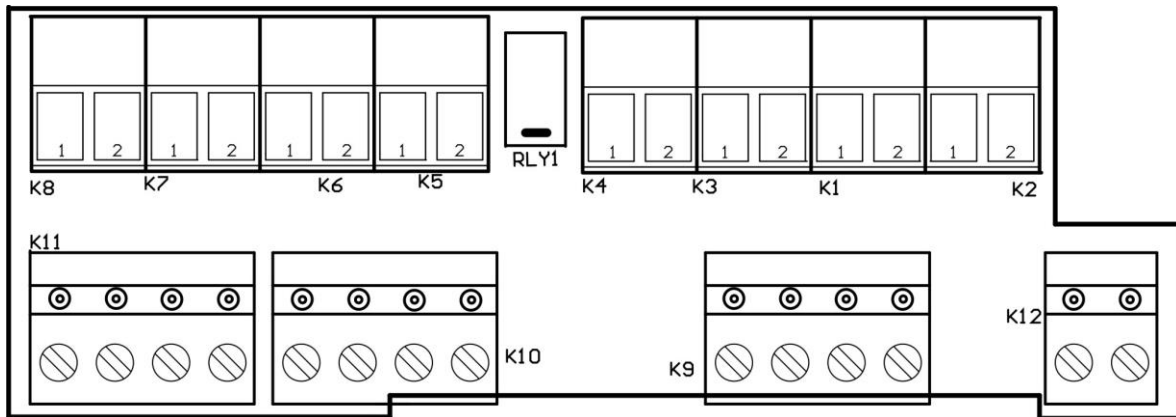
The Isolate Timer Module (ITM) provides a simple means of isolating the 6500RS Beam detector for a pre-determined period

When installing interfaces, ensure correct wiring connections and polarity are observed

## 6500RS Beam Detector with Interface Board, ITM and RTS-Key



- Inter-Device Cables Required:
- Panel to 6500RS : 2 pair
  - 6500RS to RTS Key : 5 conductors
  - 6500RS to ITM : 4 conductors
  - Panel to ITM : 2 conductors



PCB Overlay

### Technical Support:

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