

RNIB RF Trigger Board



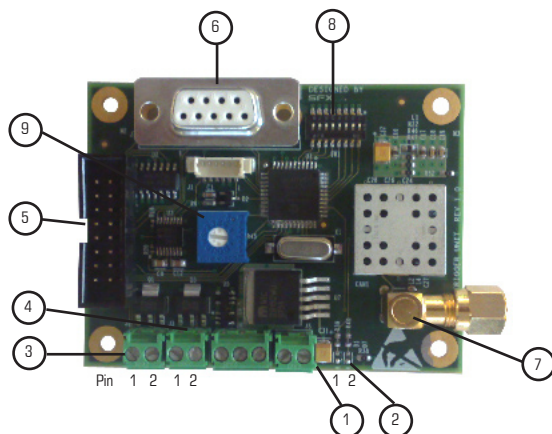
Introduction

As Real Time Passenger Information (RTPI) display signs are being installed in city centres in greater numbers, the need to announce transport information audibly to the visually impaired has been recognised. In a move to make RTPI displays RNIB compliant, the RNIB React Trigger Board has been developed.

The RNIB React Trigger Board is designed to receive the RNIB advanced protocol signals of the RNIB RF Fob, and provides pre-determined trigger signals to the RTPI display. The RNIB RF fob carried by the visually impaired person transmits three signals of the RNIB protocol. The three signals are:

1. Primary - when the fob is switched on the fob transmits this signal continually. The RNIB React trigger board receives this and sends a trigger signal to the RTPI sign to play an audio primary location message.
2. Secondary - on pressing the left hand button of the fob, the RNIB React trigger board receives this and sends a new trigger signal to the RTPI sign to play a secondary level audio message, if available.
3. RTI - on pressing the right hand button of the fob, the RNIB React trigger board receives this and sends a trigger signal to the RTPI sign to play the audio real time information.

The RNIB React Trigger board is installed inside the RTPI display enclosure and receives a signal from an external aerial.



Programmable Functions

- Adjustable Replay Delay (0-12 mins)
- Adjustable Baud Rate (1200 or 9600)
- Fully programmable matrix
- Textual Debug Mode available via serial port using Hyperterminal
- Variable activation range possible (0-8 metres)

Choice of Data Output Connection

- Open Collector
- RS 232 / RS 485
- Serial TTL
- Generic 16 way Ribbon Connector

Functionality

- 433 Mhz Receiver (Decodes RNIB RF Fob transmissions)
- DC Power Supply (3.3 to 15V DC)
- High Quality SMA Antenna Connector
- Matched Length Cable design for optimum performance (up to 2m cable length)
- Screw terminal power connection

Board Layout

Physical Dimensions: 73mm x 55mm

Overall Board Height: 19mm

Mounting Details: 4 x M3 Holes

1.	Power	J5
2.	Power LED	R40
3.	Open Collector 1	J2
4.	Open Collector 2	J3
5.	Serial TTL	J6
6.	RS232 / 485	J7
7.	Antenna	J4
8.	Mode Switch	SW1
9.	Range Adjustment	R40