

TyrePal TCRR Signal Repeater

The Smart Signal Repeater can either be used as a signal repeater to boost sensor signals from a single trailer, or in a fleet application, it can simplify exchanging trailers by storing the trailer settings. A push button on the repeater sets up communication of the trailer tyre data to the monitor in the cab of the tractor vehicle.

For trailer fleets, an alternative product, TCRB simplifies trailer swap further and requires no manual intervention. It automatically connects to an enabled in-cab monitor or to a TeleTPMS module on the tractor vehicle when the trailer is hooked up and the brake pedal is pressed.

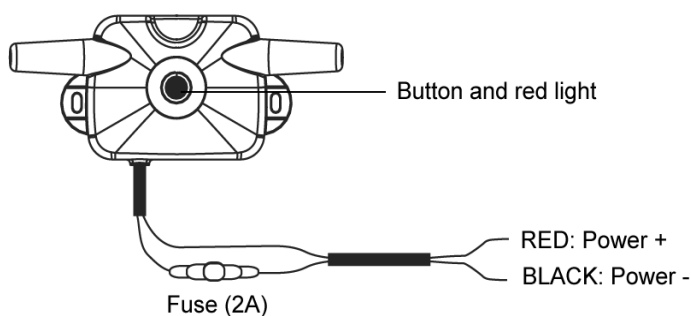
Installation

The Repeater should be positioned so it can receive radio signals from the tyre sensors with the minimum of metallic screening. The Repeater is sealed to IP65, and can be safely positioned under the vehicle.

- For caravans and light trailers towed by cars and vans, position it either on the trailer or at the rear of the towing vehicle.
- For rigid vehicles like motorhomes and buses, position it near the back axle of the vehicle.
- For HGVs, one repeater may be required at the rear axle of the tractor unit and another at the rear of the trailer.
- In applications where trailers are to be exchanged between tractors, position the trailer repeater where the button can be reached.

Where possible, keep the antenna clear of metallic parts.

Fix it in place with screws through the lugs and connect it to the vehicle power supply (12 to 24V) with the red wire to + positive, and the black to - negative. The cable has an in-line 2A fuse.



Operation as a signal repeater

The repeater requires no programming to operate as a signal repeater. The red light stays on while power is connected and flashes while data is being transmitted or received.

Operation for trailer exchange

Where multiple trailers are in use, a repeater is fitted to each trailer and programmed with the sensor IDs and pressure alert levels. If required, a 6-digit number can be stored in the Repeater and used as the trailer ID.

When a new trailer is connected, the settings are transferred to the monitor in the truck by pressing the button on the TCRR Repeater and the LINK button on the monitor.

The following refers to programming the Repeater from the TC215 monitor. For details of programming from the TyrePal Hand Held Reader, please refer to the Hand Held Reader manual.

1. Enter tractor and trailer IDs from a monitor

- 1.1. In standby mode, press the **LINK** button on the monitor. A six-digit ID is shown for the current tractor. Press the button again to see the six-digit ID of the trailer.
- 1.2. Press the **LINK** button a 3rd time to enter tractor ID coding mode and a 4th time to enter trailer ID coding mode.
- 1.3. Press the + or - buttons to scroll through numbers and press the **CODE** button to set the digit and move on to the next digit.
- 1.4. Press and hold the CODE button for three seconds to store the ID. If no action is taken, for one minute, the system returns to the standby mode without making any changes.

2. Code the Repeater for trailer exchange

- 2.1. In standby mode, press and hold the **LINK** button on the monitor for 6 seconds and release it after the second beep to enter sending mode. (Do not release it after the first beep). A flashing **SEnd** is displayed on the monitor.
- 2.2. On the Repeater, press and hold the button for 3 seconds until it beeps. The monitor sends the trailer ID, sensor IDs and pressure alert levels to the Repeater. On successful transmission, the monitor gives a long beep and shows the trailer ID and tyre icons.
- 2.3. On error, or if the communication is not completed within three minutes, the monitor gives a double beep and shows a flashing **FAIL** message.
- 2.4. Press any button or wait to return to standby mode.
- 2.5. Note: The Repeater can only store one set of data. Any previous data will be erased.

3. Exchanging a trailer

4. On the TCRR Repeater, press and hold the button for 3 seconds until the second beep and the LED is lit. (Do not release it after the first beep)
5. On the Monitor, press and hold the **LINK** button for 3 seconds. All the tyre icons are displayed on the monitor with a flashing **ACCEPT** message. The monitor is now in the receiving ID mode.
6. The Repeater sends the trailer alert settings, sensor IDs and current values to the monitor.
7. On receiving the data, the monitor displays all the trailer tyre icons and the trailer ID. The trailer icon flashes for three minutes and then exits with the new trailer linked.
8. To escape and cancel the operation, press any button within the three minutes.
9. On error, or if the communication is not completed within two minutes, a flashing **FAIL** message is shown on the monitor with the trailer tyre icons.

Please refer to our web site www.tyrepal.co.uk for technical support and additional information.