

4612

Reference Guide



Compatible Equipment


All 4600 transmitters.


4594UK-00	1/4 Wave Whip Aerial for indoor use
4595UK-00	Four Element Yagi Directional Aerial
4597UK-01	1/2 Wave Base Loaded Vertical Aerial for outdoor use.
4598UK-00	1/4 Wave Helical Aerial for indoor use
4599UK-00	1/4 Wave Helical Aerial With 90 Degree Bend for indoor use

Introduction

The 4612 is a two channel receiver that can be used either as a stand alone unit, or the radio interface for a wired alarm panel. The unit works with a range of Scantronic transmitters and can be fitted with a range of aerials.

The four LEDs visible through the front panel indicate the following:

 **Power** glows if the DC power supply is at the correct voltage. The LED flashes if the DC supply voltage is too low.

 **Transmitter Low Battery** is normally OFF. The LED flashes if a transmitter battery is losing power. To stop this LED flashing you must reset the 4612.

A Channel A glows if relay A is ON.

B Channel B glows if relay B is ON.

The 4612 provides three output relays: Channel A, Channel B and Low Transmitter Battery. Each relay provides voltage free change over contacts. The 4612 activates the Low Transmitter Battery relay if a transmitter's battery is losing power. To turn this relay off you must reset the 4612.

Technical Specification

Dimensions	h x w x d 152 x 103 x 32 mm (without aerial)
Input supply	11 -15 VDC. Protected against reverse connection for five minutes.
Low battery threshold	10.5V.
Current rating	30mA typical, 130mA with all relays ON.
Relays A and B	Max switching voltage: 24VDC. Max switching current: 2A.
Lid tamper switch	Max switching voltage: 24VDC. Max switching current: 100mA.
Aerial	BNC (standard Scantronic) 50 Ohm input impedance.
Temperature	-10° to +55°C, humidity 0 - 80% non condensing.
Radio receiver	FM narrow band crystal controlled superhet receiver.
Frequency	173.225 MHz. Fully DTI approved - no licence required. BS6799 Class 2.

Connection

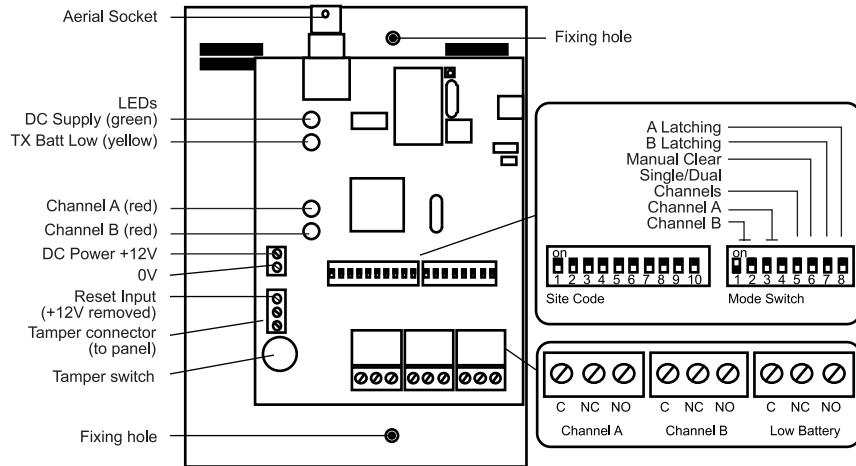


Figure 1. Internal Layout

Programming

General

The 4612 has two modes: Dual channel or single channel. Use single channel mode for two separate single channel transmitters, each working its own relay. Use dual channel mode for one two-channel transmitter.

Switch 5 on the Mode Switch selects the mode. With switch 5 OFF the receiver works with two single channels. With switch 5 ON the receiver uses one dual channel.

Switches 6 to 8 control how the 4612 operates in both modes:

Mode Switch 6. **Clear.** When this switch is ON then you must reset the 4612 to turn any relay OFF. (Note that when this switch is ON it overrides Mode Switches 7 and 8).

Mode Switch 7. **Channel B.** When this switch is ON then relay B stays in its last position until the transmitter sends a Restore signal. (This is called Latching mode.)
When this switch is OFF the 4612 turns the relay ON when the transmitter sends a signal, and then turns the relay OFF four seconds later. (This is called Momentary mode.)

Mode Switch 8. **Channel A.** This works in the same way as Mode Switch 7, but controls relay A.

Single Channel Mode

(Mode Switch 5 OFF.) When using single channel transmitters 4601 and 4602 set the transmitter switches as follows:

- Set switches 1 to 10 to the site code.
- Set switches 11 to 12 to match Mode Switches 1 and 2 if you wish to use relay B. For relay A set switches 11 to 12 to match Mode Switches 3 and 4.

In the 4612:

- Set the Site Code switch to match the transmitter site code switches 1 to 10.
- Set Mode Switches 1 and 2 (or 3 and 4) to match switches 11 and 12 on the transmitter.
- Set Mode Switches 7 and 8 to OFF (momentary mode).

You may set Mode Switch 6 to manual clear if you require.

If using the 4609 transmitter please refer to the 4609 section.

If using the 4603, see the opposite page.

Dual Channel Mode

(Mode Switches 5 ON; 1,2,3,4 OFF.) Dual channel transmitters have 10 site code setting switches. Set these switches to match the Site Code Switch in the 4612.

The 4612 has different Mode Switch settings for each transmitter, as follows:

- 4604 Contact Transmitter. Set Mode Switches 7 and 8 ON (both latching). Channel A is alarm, and channel B is tamper.
- 4605 Dual Channel. Set Mode Switches 7 and 8 OFF (both momentary). Channel A is the top button, and channel B is the side button.
- 4606 Personal Attack and Tilt. Set Mode Switch 7 ON and 8 OFF (channel B latching, A momentary). Channel A is the side buttons, and channel B is the tilt switch.
- 4608 PIR. Set Mode Switch 7 ON and 8 OFF (channel B latching and A momentary). Channel A is alarm, and channel B is tamper.
- 4624 See 4624 instructions.

4603 General Purpose Transmitter

The 4603 has a single channel and two dual channel modes. For the 4603 modes listed set the 4612 as follows:

Modes 4 (dual channel). Set Mode Switch 5 ON. Set Mode Switches 7 and 8 ON.

Mode 3 (Boat/Caravan panel). Set Mode Switch 5 ON. Set Mode Switches 7 ON and 8 OFF.

Mode 1 (single channel). Set Mode Switch 5 OFF. Set Mode Switches 7 and 8 OFF.

NOTE: Other combinations of transmitter and mode may appear to work, but Scantronic will not accept responsibility for equipment used in this manner, or any consequent loss.

Reset

There are two ways to reset the 4612:

- Turn the unit OFF, then ON again (by applying DC power).
- Use the external reset connector (see Fig 1).

To use the external reset connector to reset the unit apply and then remove 12VDC at the RST terminal (you can use a switch).

The usual method of supplying a reset signal is to connect the detector reset output from an alarm panel to the reset connector of the 4612 (see Fig 2). When you set the alarm panel the resulting signal also resets the 4612.

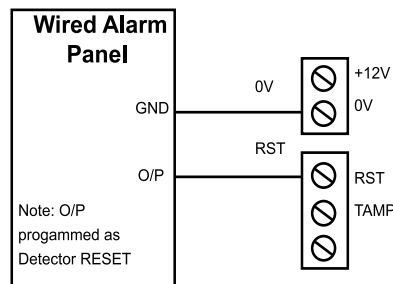


Figure 2 External Reset Connection.

On reset the 4612 switches all relays and LEDs OFF (except for the Power LED).

TESTING

Sensor/Transmitter Tests

After completing the initial installation, check that the 4612 is receiving signals from all the transmitters allocated to it. Carry out the following steps for all transmitters:

- a) Activate the transmitter and check that the correct channel LEDs glow.
- b) Check that the channel LEDs go out after 4 secs for momentary channels.
- c) Check that the channel LEDs go out on a RESTORE signal for latched channels.
- d) Activate the tamper on a transmitter, check that the correct channel LED glows.
- e) Restore the tamper and check that the correct channel LED goes out.

Other Checks

Check that the tamper switch on the case is wired and operates as intended. If you have installed an external reset connection then check that it works. All units should reset when the external reset operates.

FAULT FINDING

- a) Doesn't power up. The DC cable may not be connected correctly. Check the polarity of the connection.
- b) Channel LED not glowing. You may have set the site code incorrectly. Check the site code switches on receiver and transmitter.
- c) Incorrect Channel LED glowing. You may have set the wrong mode. Check the 4612 mode switch. A single channel transmitter may be set to the wrong device number. Check switches 11 and 12 on the transmitter.