General Specifications		
Transmitter		
Height	-	125 mm
Width	-	70 mm
Depth	-	21 mm
Weight	-	135 gms
Protection	-	IP54
Supply	-	9 vDC PP3 Battery
Range	-	up to 20 Metres
Operational Angle	-	"45° of Receiver Centre Line

Control		
Height	-	100 mm
Width	-	180 mm
Depth	-	90 mm
Weight	-	670 gms
Protection	-	IP 66
Supply	-	110/240 vAC 12-24 vDC
Power consumption	-	Less than 3 Watt
Output Contact Rating	-	10A@ 125vAC 7A @ 240vAC 7A @ 30vDC

CAUTION:

Due to the 'line of sight' feature of Infra-Red Remote Control Systems, care should be taken not to permit any unmonitored function with an output contact configured in the **Latching** mode.

For maximum efficiency and trouble free operation, the Receiver should not be pointed directly at the sun or other sources of high light intensity.

To fulfill the requirements of EN 60204, this control unit must be earthed using the terminal provided. See Section 2.

Installation and Maintenance Instructions for 249-9913 Remote Control & 249-9907 Infra-Red Transmitter

1.0 Control Installation

To allow the greatest flexibility in installation, the control housing is not fitted with any cable glands.
By unscrewing the four lid retaining screws of the control housing, the lid, complete with the control electronics, may be removed. This allows unhindered machining of the housing for suitable cable glands to be fitted.
Various mounting options are available, through the base of the housing or through the corners. When mounting through the base of the housing, the sealing caps provided must be used. Both these options allow the high enviromental protection to be maintained.

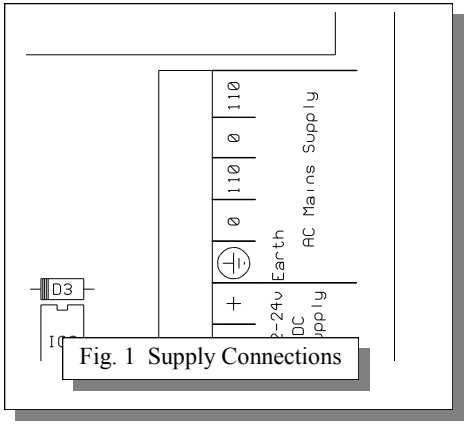

Fig. 1 Supply Connections

Mounting Dimensions	
Base Mounting	Corner Mounting
120 x 50 mm	165 x 95 mm

2.0 Power Supplies

This control must be earthed using the terminal provided

This control can be powered from;

i) Mains 110 or 220/240 volts AC

or

ii) Low voltage 12 to 24 volts DC

For 110 volts AC, the supply is connected to both 0 and 110 volt terminals of the AC Mains Supply, i.e. parallel connection of the transformer.

For 220/240 volts AC, the supply is connected to the lower 0 volt terminal and the upper 110 volt terminal and a shorting wire connected between the middle 0 and 110 volt terminals of the AC Mains Supply, i.e. series connection of the transformer.

For 12 to 24 volts DC, the supply is connected with the negative (-) supply to the - terminal and the positive (+) supply to the + terminal of the 12-24 vDC input.

2.1 Supply Fusing

110 volts AC	315 mAmp
220/240 volts AC	150 mAmp
12-24 volts DC	500 mAmp

3.0 Output Connections

The output relays have a single pole Changeover contact available .
This contact configuration permits a variety of control functions and/or interlocking to be achieved.

3.1 Output Functions

Individual relay outputs can be configured to be Momentary or Latching. The default

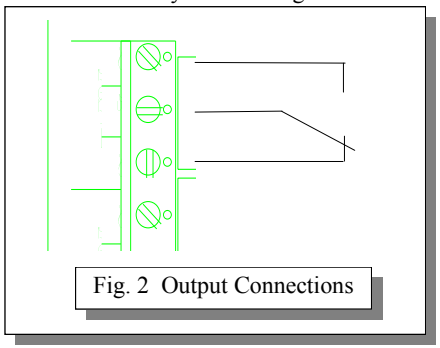

Fig. 2 Output Connections

function, from the factory, is set to Momentary.

To convert any output to the Latching function, identify the links on the control Printed Circuit Board marked **M J1 L** to **M J4 L**. Move the shorting link on the required output(s) from the left and centre pins to the centre and right pins.

When the power is switched off, and when the power is switched on all the relays will default to their Normally Closed condition.

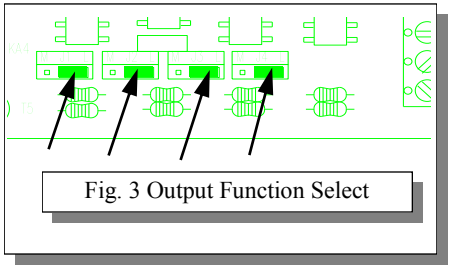

Fig. 3 Output Function Select

4.0 Remote Receiver

Stock Nº 249-9979

If the control is to be used with a Remote Receiver, the cable from the receiver is connected to the Remote Receiver inputs (See Fig. 1).

The cable connections are:

Cable Core		Terminal
Red core	to	+5vDC
Black or Blue core	to	Sig
Screen	to	-volts

More than one Remote Receiver may be used as required; their connections are as above and may be wired directly to the control or connected to a common cable (bus). The connections are in parallel. The cable used must be a twin core screened cable.

5.0 Code Setting

If more than one system is to be used in close proximity, each system can be set to a unique code such that one transmitter will not operate the other control. This facility can also be used for low level security purposes.

There are 256 seperate codes that may be used.

To alter the code setting of a system:

5.1 Setting the Control Code

Locate the 8 pole switch SW1 in the centre of the control Printed Circuit Board. Each of the eight switches can be set **ON** or **OFF**. These switches represent a binary code.

Set each of the switches either **ON** or **OFF** either in a different pattern to those of other systems or in a random pattern as required.
The transmitter must now be set to the same code otherwise the system will not operate.

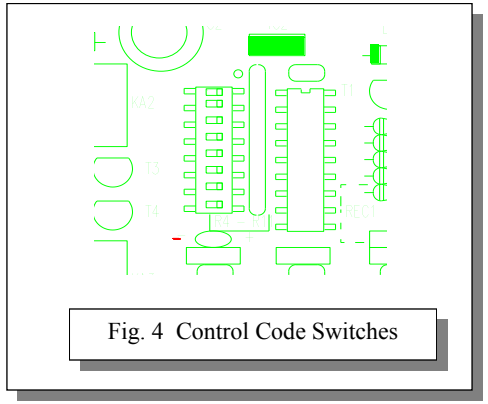

Fig. 4 Control Code Switches

5.2 Setting the Transmitter Code

Open and remove the battery compartment cover and remove the battery.

Unscrew the three screws which clamp the top and base mouldings together.
Locate the 8 pole switch SW1 in the centre of the Printed Circuit Board.(See Fig. 5)

Set the eight switches to the same pattern as the Code Selection switch in the control.
It may be adviseable to reconnect the battery and test the operation of the transmitter with the control before reassembly.

Refit the base of the housing to the cover ensuring that the panel in front of the LEDs locates in its slots and that the battery lead is not trapped.

Refit the three screws which clamp the housing together and tighten securely. Do not apply excessive force to strip the threads.
Reconnect and fit the battery and refit the battery cover.

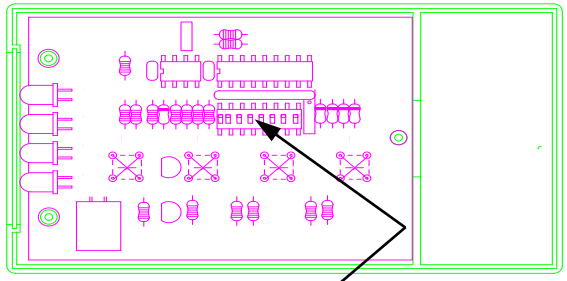

Fig. 5 Transmitter Code Switches