

# OPERATING INSTRUCTIONS FOR RADIOLIGHT / RADIOLIGHT MULTIPHASE

## MASTER CONTROLLER SET THIS AFTER SLAVE IS SET

### SET UP AND PREPARATION

Insert the signal head pole into the sleeve on the battery box so that it faces away from the box.

Insert the batteries, connecting the blue clamps to the negative terminals (marked -) and the red clamps to the positive terminals (marked +).

If the 'term.conf.' red LED (a) illuminates on the controller, the blue and red clamps must be disconnected from the batteries IMMEDIATELY.

When the batteries are connected properly, the 'battery' green LED (b) will illuminate on the controller. Connect the controller lead and socket to the plug at the bottom of the signal head. Place the signals at each end of the construction site. Choose a level, even and firm surface.

### OPERATION

Go to a **SLAVE** controller. Switch it on (d) and select a **FREQUENCY CHANNEL (c)** whereby the **INDICATOR light (q)** *does not illuminate*.

Press 'LIGHT No' (or 'SET') pad (e) and use + or - pads (f) to set the controller to **SIGNAL 2**.

Press the 'ENTER' pad (j).

Repeat this process for setting **SIGNAL 3** and **SIGNAL 4** if required, not forgetting to set 'frequency indicator' (c) if necessary.

At this **MASTER** controller, if necessary, adjust the 'frequency indicator' number (c) to that selected at the SLAVE(S).

Switch ON this MASTER controller (d).

ALL PROGRAMMING IS DONE AT THIS MASTER CONTROLLER.

### LAYOUT

Look at the **TYPE OF LAYOUT** opposite. Decide which layout you require.

Set this MASTER controller to **SIGNAL 1**.

To do this, switch the controller on (d). Press 'SET' pad (e) and use + or - pads (f) to set the controller to **SIGNAL 1**.

Press the 'ENTER' pad (j).

Press 'SET' pad (e) again and use + or - pads (f) to set the **layout** required.

Press the 'ENTER' pad (j).

The signals will now work automatically.

## SETTING RED AND GREEN TIMES

**REMEMBER THAT PHASE No IS NOT THE SAME AS SIGNAL No.**

EACH **PHASE** CAN HAVE MORE THAN ONE **SIGNAL**. SEE **TYPE OF LAYOUT** DIAGRAM FOR GUIDANCE.

ALL PROGRAMMING IS DONE AT THE MASTER CONTROLLER, i.e. **SIGNAL 1**.

At the MASTER controller (SIGNAL 1), press 'TD/PERIODS' pad (g).

Set the RED and GREEN times for each **PHASE** as per the LAYOUT you have chosen.

Adjust the duration times by pressing the associated + and - pads (f) as follows:

### RED TIMES

Measure the length of road works between 'WAIT HERE' signs. Read the RED duration times from **Table 1**.

**Table 1**

Length (metres)	0	50	100	150	200	250	300
All red time (secs)	5	10	15	20	25	30	

On steep gradients, the RED duration times may need to be increased for the uphill approach.

### GREEN TIMES

Read the GREEN duration times from **Table 2**.

**Table 2**

Length (metres)	0	30	75	135	195	300
Green time (secs)		35	40	45	50	

On steep gradients, the GREEN duration times may need to be increased for the uphill approach.

It is important to watch the traffic at regular intervals and if necessary adjust the controller settings.

When you are satisfied with the RED and GREEN duration times for each **PHASE**, press the 'ENTER' pad (j).

The changes you have made will be stored in the controllers and the signals will operate in **AUTOMATIC** mode.

**CHECK THAT ALL SIGNALS ARE CYCLING CORRECTLY AND IN THE DESIRED SEQUENCE.**

**ONLY ONCE YOU HAVE DONE SO SHOULD YOU POSITION THEM ON THE ROAD IN THE CORRECT PLACES.**

## TO OPERATE IN FIXED TIME or VEHICLE ACTUATION MODE

ALL PROGRAMMING IS DONE AT THE MASTER CONTROLLER, i.e. **SIGNAL 1**.

Press 'TD/PERIODS' pad (g).

The display will show the current state of RED and GREEN duration times.

The display will also show the current state of Vehicle Actuation (VA).

If 'VA / YES' is displayed, the signals are operating with the help of the detector - in VEHICLE ACTUATION mode.

If 'VA / NO' is displayed, the signals are operating without the help of the detector - in FIXED TIME mode.

To change modes press the '-' pad below the 'VA' display (h).

When you are satisfied with the correct mode, press the 'ENTER' pad to save the changes (j).

## TO OPERATE IN MANUAL / ALL RED MODE

ALL PROGRAMMING IS DONE AT THE MASTER CONTROLLER, i.e. **SIGNAL 1**.

Press 'MANUAL' pad (i). The green LED will illuminate on the 'MANUAL' pad (j).

The signals will now operate in MANUAL mode and the display will show the current state;

e.g.						
SIG	1	2		MAN		
025	RED	RED		GR1	RED	GR2

Or

e.g.						
SIG	1	2	3	4	GR3	MAN
025	RED	GRN	RED	RED	GR1	RED
					GR4	GR2

Press 'GR1' pad for all GREEN signal(s) on **PHASE 1 (k)**.

Press 'GR2' pad for all GREEN signal(s) on **PHASE 2 (l)**.

Press 'GR3' pad for all GREEN signal(s) on **PHASE 3 (m)** (if appropriate).

Press 'GR4' pad for all GREEN signal(s) on **PHASE 4 (n)** (if appropriate).

Press 'ALL-RED' (o) pad for ALL RED condition at all **PHASES**.

To resume AUTOMATIC mode of operation, press the 'MANUAL' pad (j). The green LED on the 'MANUAL' pad (j) will now go off.

The signals will operate in AUTOMATIC mode.

### ADDITIONAL INFORMATION

Press 'Display' pad (p) to show current signal operating status.

Press 'Display' pad (p) to show battery voltage. Ensure that the battery voltage reads no lower than 10.75 volts.

Should there be any failure of the signals, press the 'Display' pad (p) to show the reason for the failure.

## TYPE OF LAYOUT (SET)

