

LDM-519-LP LHDC MONITOR / CONTROLLER

Installation and Unit Configuration

1. Introduction to operating modes. The unit has two principal modes of operation :-

Line Powered (Low Power)

In this mode the unit obtains its supply solely from a two wire Trigger Circuit or Address Loop interface module, and signals to the associated Fire Panel (via this circuit) in a similar manner to a conventional smoke or heat detector. When operated in this mode the unit's relays are disabled.

Direct Powered

In this mode the unit derives its supply directly from a 24 Vdc power circuit. The unit's relays are enabled, and signalling of Fire & Fault conditions is by means of volt free contacts. The unit has additional 24V switched Fire & Fault outputs which may only be used when the module's relays are enabled.

2. Configuration jumpers / selectors

The unit is fitted with five jumper/selectors (S1 to S5), the positioning of which determine the operational parameters of the unit. The jumpers are accessible from the front of the module, and detailed on a label to the rear. Fig.1 Appropriate jumper/selector settings are shown in the following sections.

		a b c	a b c		a b c	a b c
Fire Relay	OFF		S1		ON	
Fault Loop	EXT		S2		+VE	
Fault Relay	OFF		S3		ON	
Supply Fault	OFF		S4		ON	
Reset	MAN		S5		AUTO	

Fig.1

3. Line Powered Operation—Basic

Fig.2 shows a typical configuration.

In normal conditions the *Monitor* resistor at TMs 6 & 7 is presented across the trigger circuit, and acts as the trigger circuit "End of Line" resistor.

If an LHDC fault is detected the *Monitor* resistor is switched out, and the current drawn from the trigger circuit drops to less than 250 uA.

A fault is also signalled if the trigger circuit voltage is too low for correct operation of the unit. (Enabled by S4)

If a Fire condition is detected the *Alarm* resistor at TMs 3 & 4 is presented to the trigger circuit.

Actual *Alarm* & *Monitor* resistor values must be selected as appropriate to the Fire Panel or Address Loop interface.

The repeat signal relays are disabled in *Line Powered* mode, by means of selectors S1 and S3, and the contacts at TMs 11 to 16 are not employed.

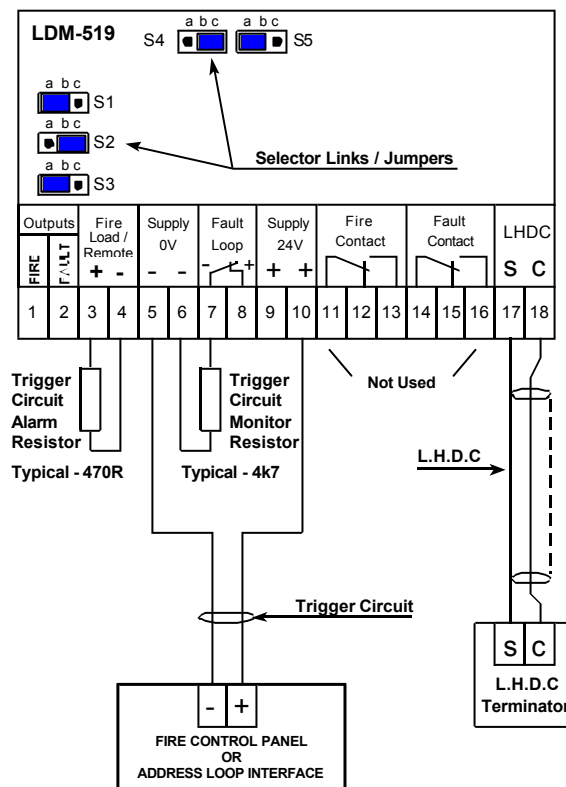


Fig.2

4. Line Powered Operation — Multiple

Two or more LDM-519 units may be configured to operate from a single trigger circuit whilst maintaining fault monitoring and signalling. It is necessary to set the jumpers for the first, last and intermediate unit(s) as shown in Fig.3.

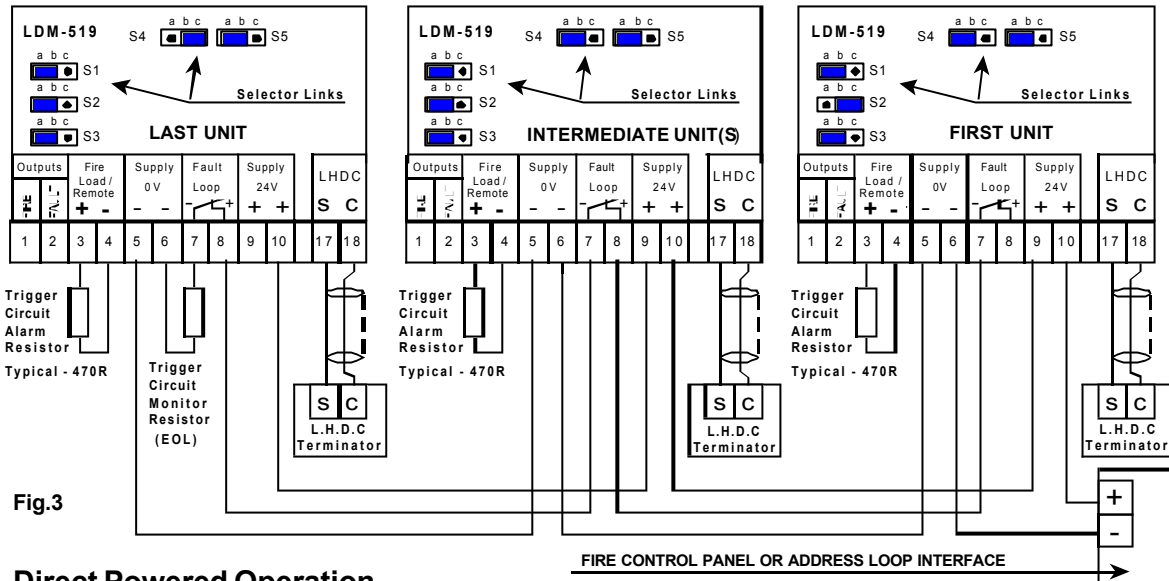


Fig.3

5. Direct Powered Operation

Fig.4 shows a typical configuration.

The relays are enabled by the correct positioning of selectors S1 & S3. S2 must be set as shown for correct fault relay signalling.

The Fire relay is normally de-energised. The Fault relay is normally energised.

Remote 24 Vdc Lamps, LEDs or Relay Coils may be operated by connections at TMs 1 & 2 as shown.

6. Auto Reset

The unit may be configured for non latching operation by setting S5 to position **b** to **c**.

This is not normally recommended when the unit is line (trigger circuit) powered.

7. LHDC Adjustments—Trip Setting

Initial set up may be conducted by connecting the LHDC terminator directly to the unit (LHDC out of circuit). The *Analogue* voltage is measured with respect to *Common* (using a high impedance DVM), and adjusted to zero volts using the *Analogue* potentiometer. The LHDC is then connected and a check made that any change in Analogue voltage is commensurate with ambient conditions. Also see LHDC Characteristics data sheet.

The trip point (Alarm Level) is set using the DVM and the *Trip* test jack & potentiometer. For Alarm settings & further detail refer to the **LHDC Characteristics** data sheet.

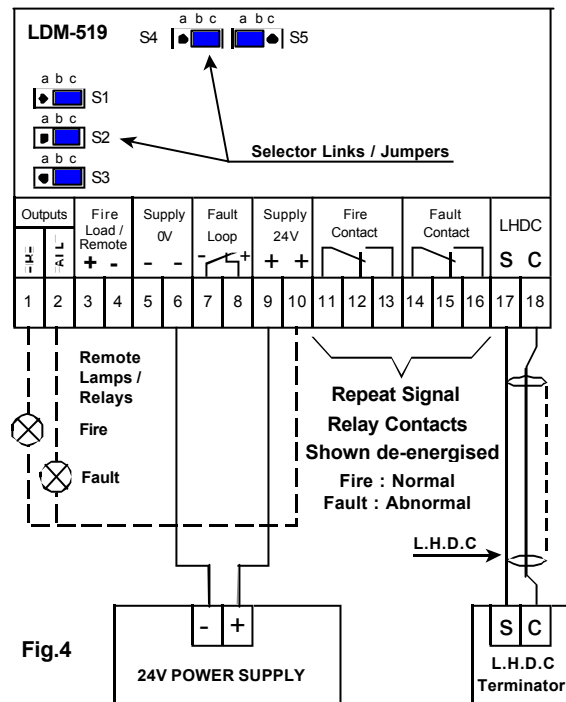


Fig.4