VECTOR

Network Printer

V4.1 and above

Installation & Commissioning Manual

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INTRODUCTION

The Vector printer is an add-on option for the Vector analogue addressable fire alarm system .

The printer is integrated into a control panel lid and operates on a network basis. Therefore it can be used to produce print outs for any panel on the network. The Printer can be configured to record all events from a network or just from a local panel only . Up to 16 printers can be connected to any individual network.

The thermal printer produces high speed clear prints. No ink ribbon is required, only a thermal paper roll.

The printer will record all fire events, fault events , alarm log , fault log and user log, control panel parameters and disablements. The printer is also used to log engineer tests and produce a maintenance report.

The printer is complete with a paper feed button and 'paper out' indicator. Two printer options are available via an on board dual in line switch.

1)   system wide or local printing.

2)   suppress fault printing or print all faults.

ESD Precaution

Electronic components are vulnerable to damage by Electrostatic Discharges (ESD). An ESD wrist strap, suitably grounded, should be worn at all times when handling pcbs. These wrist straps are designed to prevent the build up of static charges, not only within a persons body, but on many other materials.
ESD damage is not always evident immediately, faults can manifest themselves at anytime in the future.

All pcbs should be stored in static shielded bags (silvered) for safe keeping, when not mounted in the control panel. Do not use "black" or "pink" bags and **never** allow pcbs to come in contact with bubble wrap or expanded polystyrene (packing chips).

INSTALLATION.

Installing the printer (retro-fit)

Under normal circumstances the printer will be factory fitted to the control panel. If for any reason the printer is being replaced or retro-fitted to the control panel:-

Firstly remove the existing control panel lid. Disconnect the key-switch and earth link cables from the back box, Once removed lift away the lid and fit the new lid in a similar manner, Terminate cables in line with the Drawing S1620 (see back of manual).

Replacing the paper roll

The printer requires special thermal paper which can be obtained from the suppliers. To fit the paper roll:-

PRESS BUTTON TO RELEASE PAPER COVER

PULL DOWN SIDES TO OPEN PAPER ROLL RECEPTACLE

REMOVE EMPTY ROLL HOLDER PLACE NEW ROLL INTO THE MECHANISM, ENSURE THERMAL COATING IS UPPERMOST

CLOSE COVER TO RETAIN THE PAPER AGAINST THE ROLLER. ENSURE LID CLICKS FIRMLY SHUT

INSTRUCTIONS

Powering up the printer

Once all the settings are checked the cabling connected and the paper roll installed, the printer may be powered up (along with the control panel) . The printer will record a message:-

Vector M system (or local) Printer V4.0
Panel xx
Fault printing disabled

This message reflects the switch settings.

In order to reduce traffic on the communications bus, the text messages reside in a memory on the printer interface. These are automatically updated by the system.

After a short time the printer may record a message saying :-

Device names updated, panel xx.

This message will be printed each time a name is changed in any panel on the network either by download or manual editing. If communications are not being received by the printer the message will read :-

Comms disconnected

Network wide events will be printed, but device text is only printed for the local panel. A 'Network Wide' printer will not print individual device text messages.

Indications

Printer Supply
Green light will be illuminated when power is at the printer interface.

No paper
A yellow LED on the printer mechanism will pulse if paper is not present in the printer rollers.

NOTE:- the mechanism will not attempt to print if paper is not fitted.

Paper feed button
Pressing this button will advance the paper. .

Print options

In the Vector control panel menu, item no 7. PRINT OPTIONS, four options are available:-

1. PRINT ALARM LOG. Prints all alarms and evacuations in the form,
                    FIRE ADD 013 OPT ZONE 03   11:39 13/04.
                    alarm   address type zone   time   date dd/mm
2. PRINT FAULT LOG . Prints all faults in the form.
                    UNASSIGNED ADD 013 OPT   11:39 13/04.
                    fault   address   type   time   date dd/mm
3.PRINT USER LOG. Prints type, time and date of user actions.

Print options cont'd

4. PRINT DEVICE PARAMETERS. Prints device information in the form

001 OPT   ZONE 01 G****
address type   zone   groups
SMOKE DETECTOR GROUND FLOOR
text message.

This print will report all devices assigned to the panel selected.

With one option above chosen, select the required panel and loop number on the network by scrolling the panel number from 00 to 15, and scrolling the loop number 1 - 4. The selection should default to the local panel. Press button 5 to print . Press menu button to exit.

Other printouts

The printer will print all alarms and faults (if selected) in real time in the form:-

**********FIRE**********
FIRE PANEL 00   LOOP 01   ZONE 04
TYPE MAN   ADDRESS 020   22:48 04/01
MANUAL CALL POINT TEXT MESSAGE HERE

Test mode . When test mode is used the printer will record the devices tested:-

TEST   ADD 020 MAN ZONE 04 22:43 04/01
TEST   ADD 019 OPT ZONE 04 22:41 04/01

Maintenance check. When this engineering mode is used, the printer will record devices with an analog value above the threshold selected, They are printed as the display is manually scrolled.

Maintenance P00 OPT Ana 34
Maintenance P00 ION Ana 32

P00 refers to the panel number , Ana 34 refers to the analog value returned by the device.
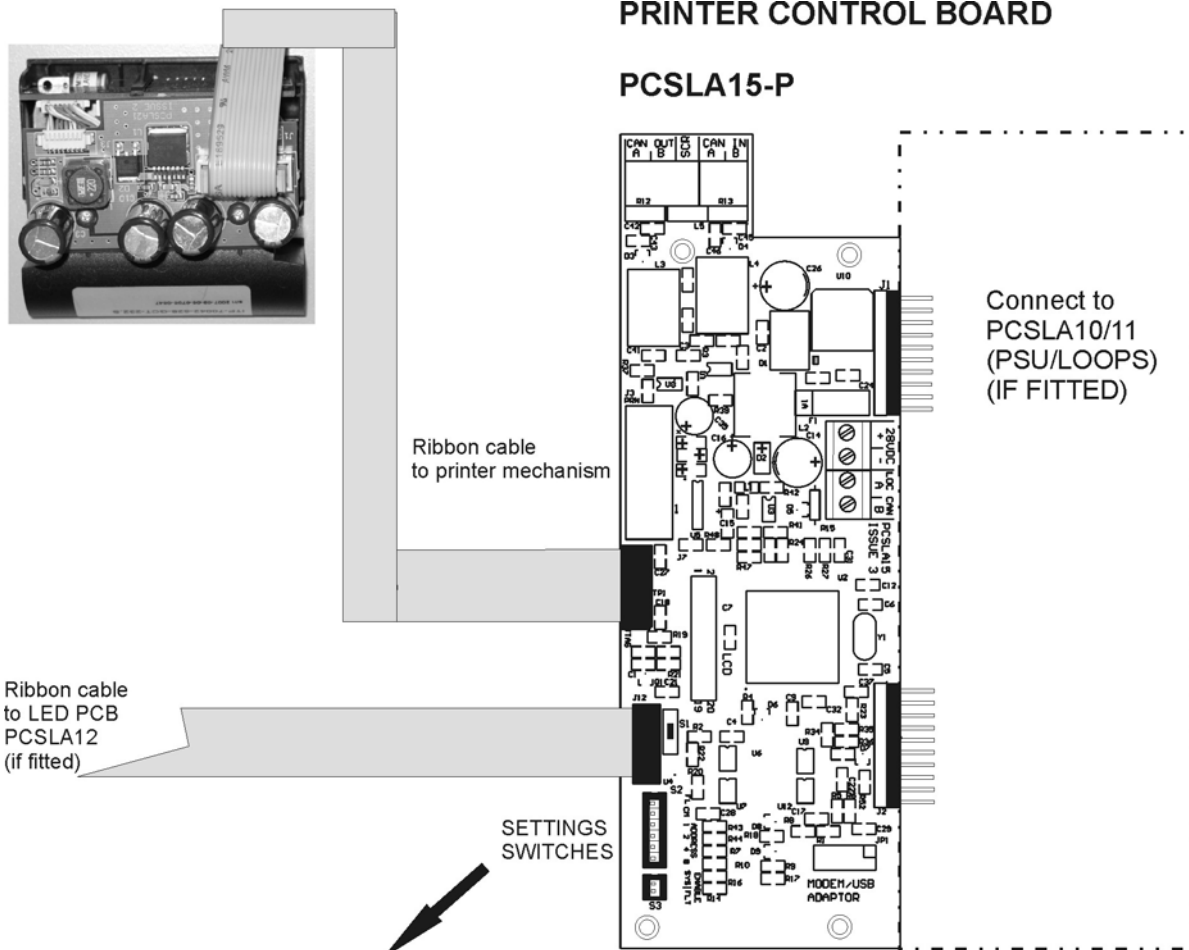
Troubleshooting

The printer will not print :- is there paper available, is the printer address correct. Are dil switch options set correctly. Is panel V4.0 or above, is paper correctly installed.? (i.e. coating upwards).

Comms disconnected:-   Is PCB connected correctly.

'Printer supply' led out:-   Check supply fuse

Drawing S1620 showing printer connection details

PRINTER CONTROL BOARD

PCSLA15-P

Connect to PCSLA10/11 (PSU/LOOPS) (IF FITTED)

Ribbon cable to printer mechanism

Ribbon cable to LED PCB PCSLA12 (if fitted)

SETTINGS SWITCHES

ADDRESS SWITCHES
FL = FLASH PROGRAM MODE
CM=(NOT USED)
1 = (NOT USED)
2 = (NOT USED)
4 = (NOT USED)
8 = (NOT USED)
SYS = SYSTEM WIDE PRINTING ON /OFF
FLT = FAULT PRINTING ON /OFF

TECHNICAL SPECIFICATION

Specification.

Power supply	27.6 V DC ± 2V (15 Watts Max)	
supply fuse	1 Amp quick blow nanofuse	Replace only with similar type
Power consumption	42 milliamps in quiescent	
Power consumption	500 milliamps peak during printing	
Printing method	High speed thermal	
Paper	Thermal coated 58mm x 25 metre roll	THM582512
Signalling	CAN 2.0 data bus	Max 16 printers per network
Dimensions (lid mount)	90mm x 60mm x20mm pod on door front	
Dimensions (stand alone)	320mm high x 160mm wide x 85mm deep	Weight 2.4 Kg
Cabling	FP200 or equivalent (maximum capacitance 1µF, maximum inductance 1 millihenry)	Cable glands must be used.