PREMIER EX

2 + 1 EXTINGUISHANT CONTROL PANEL

OPERATION AND INSTALLATION MANUAL

Premier EX 2+1 Extinguishing Panel

Electrical Specifications

Mains Voltage	230 Vac. 59/60Hz +15%, -10%.
Charger Voltage	25 – 30 Vdc (set internally to 27.6V)
Battery Voltage	24V SLA (2 x 12V)
Battery Space	6.0 AH maximum
Mains Supply Protection	3.15 AF HRC 20 x5mm fuse
Charger Voltage Protection	2 AF 20 x 5mm glass fuse
Battery Supply Protection	1.6 AF 20 x 5mm glass fuse
Reverse battery protection	Battery fuse
Sounder Output (1st and 2nd stage)	24 Vdc nominal
Sounder Output protection	200mAF 20 x 5 mm glass fuse
Auxiliary Supply Output	24 Vdc nominal
Auxiliary Supply protection	400mAF 20 x 5 mm glass fuse
Auxiliary Relay contacts (1st and 2nd stage)	30Vac / dc 1.0 A each
Bottle Output	24 Vdc nominal
Bottle Output protection	1.0AF 20 x 5 mm glass fuse
Zone Voltage	20 Vdc nominal C/W 10K eol only
Quiescent Zone current	2mA per circuit
Max Zone circuit resistance	100 R
Max sounder circuit resistance	25 R
Max resistance other circuits	100 R
Quiescent battery current (tone muted)	45 mA nominal
Quiescent bat current (tone not muted)	75 mA nominal
Max total load current (Snd, Bottle and Aux +ve)	1.6 A (although each may be to fuse rating)
Circuits monitored for O/C and S/C	Bottle output, 1st and 2nd stage snd outputs, Zones 1 and 2.
Circuits monitored for O/C only	Hold/Abort, Auto/Manual, Gas fired, and Manual release. (S/C gives active condition although a resistance of up to 500 R will still give an active condition)

For guidance only :-

Battery capacitance required   7AH (tone muted)

Switches   Reset, Silence, Evacuate and Auto/Manual are
                                        push buttons through front panel label.
                                        Activation of these controls are via a 2position
                                        Key switch.

F/P Manual Release   MCP (yellow gas release) C/W flap cover

Premier EX control panel indications

* Power ''On''	Green	* 2nd Stage sounder fault		Yellow
* Charger fault	Yellow	* Timer fault		Yellow
* Battery fault	Yellow	* Bottle fault		Yellow
* Zone 1 fire	Red	* Zone 1 fault		Yellow
* Zone 2 fire	Red	* Zone 2 fault		Yellow
* Manual release fault	Yellow	* Hold/Abort fault		Yellow
* Auto/Manual fault	Yellow	* Gas Fired fault		Yellow
* Manual Release	Red	* Hold/Abort		Green
* Automatic	Green	* Manual		Yellow
* 1st Stage Alarm	Red	* 2nd Stage Alarm		Red
* Gas Imminent	Red	* Gas Fired		Red
* 1st Sounder fault	Yellow			

CONTROLS

* Activate controls (2 position key switch). * Auto/Manual (toggle action).

* Reset/LED test button.   * Start 1st stage alarm (evacuate).

* Silence (tone and/or 1st stage alarm).

System Description

This Gaseous Extinguishing Control Panel is for use with all fire extinguishing systems.
It is a single unit of detection and control for alarm and release of an extinguishant in a specified area.
          Two (2) zones are arranged for double knock operation, (a detector on each zone must be in alarm condition before the extinguishant can be release procedure can be initiated). A monitored input circuit is provided for connection of ''Manual Release'' units, for 2nd stage operation and release of extinguishant.

<u>PREMIER EX 2 + 1 EXTINGUISHANT PANEL</u>

<u>Operating Instructions</u>

Normal Operations

With the "CONTROL" Key in the "ON" position and under normal conditions the system will be silent and the green "POWER LED" illuminating the system may either be in "Automatic" or "Manual" mode of operation. This will be evident by the illumination of either the "Automatic" or "Manual" LED. In automatic or manual mode, an alarm can be silenced and the relevant LED will be illuminated.

First Stage Alarm

In automatic and on detection of a "FIRE" in either Zone 1 or Zone 2, as well as the illumination of the Zone alarm and first stage LEDs, the sounder will be initiated. Pressing the "SILENCE" button, provided the "CONTROLS "key is" ON, can silence this alarm. The panel's internal tone and LEDs will remain active until the cause of the alarm has been removed.

With the control key "ON" and pressing the First stage alarm button, sounders will be made active. No LEDs will be illuminated.

Second Stage Alarm

As soon as a "FIRE" is detected in the second Zone, the second stage alarm is initiated. The two-zone alarm LEDs will be illuminated as well as first, second and Gas Imminent LEDs. The second stage cannot be silenced and after a delay period,)set internally) the extinguishing output will be initiated releasing the extinguishing agent. This will be followed by the "GAS FIRED" indication, indicating that the extinguishing agent has been released.

Once the second stage alarm has been initiated, it is advisable to evacuate and Seal the protected area prior to the release of the extinguishing agent.

Operation of the "Manual Release" will initiate the second stage alarm.

Manual Mode
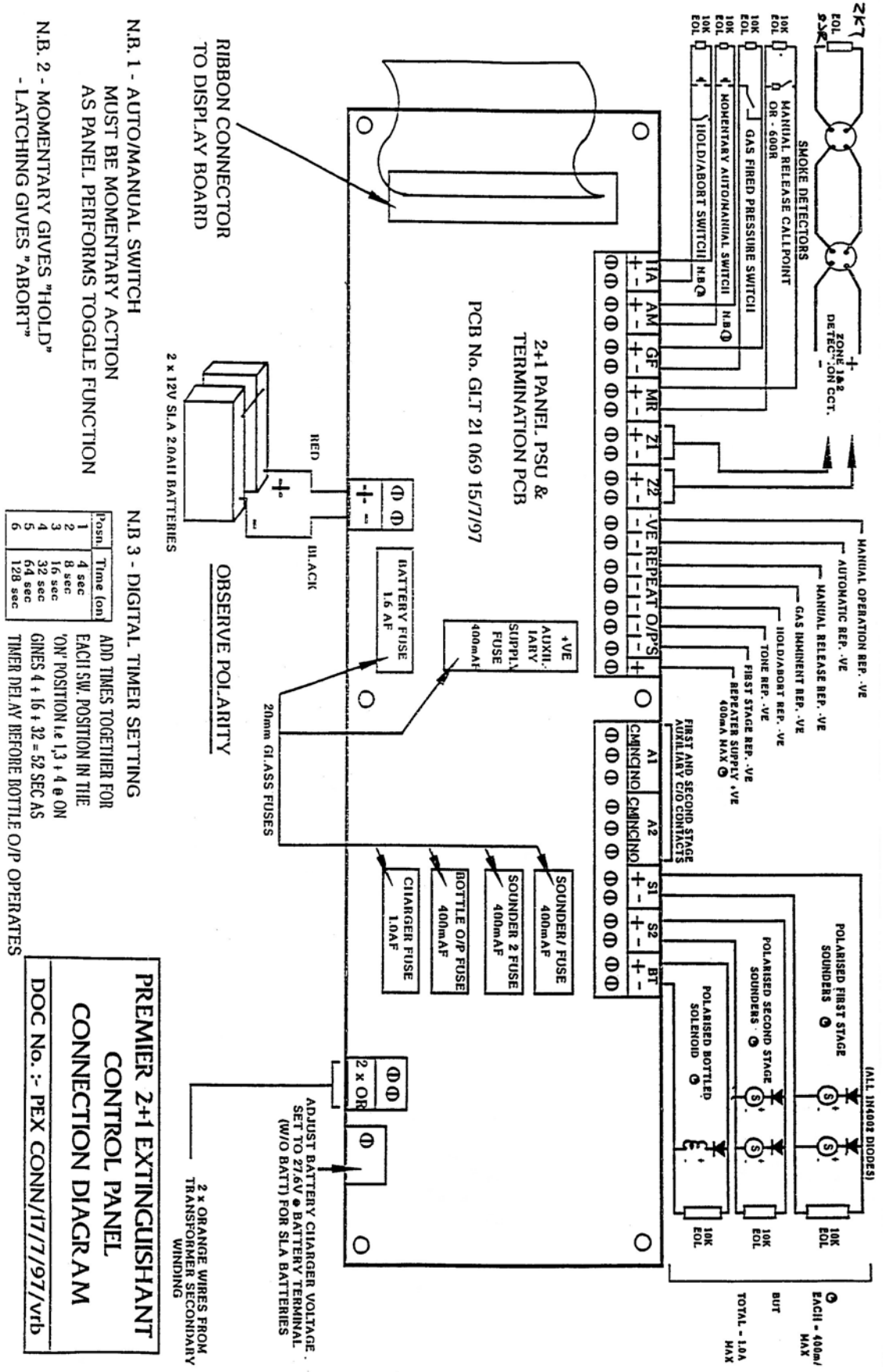
In this mode operation, Zone Fire and Fault alarms are still in operation, but first and second stage actions are inoperative.

Reset

To reset panel, press Silence and Reset together.

Faults

The relevant LED will illuminate and the internal tone will sound. Pressing the "Silence" button, with the control key "ON", will silence the tone. If there are any faults, call an Engineer.

ZKT

SMOKE DETECTORS

ZONE 1 & 2
DETECTION CCT.

10K EOL
10K EOL
10K EOL
10K EOL
10K EOL

MANUAL RELEASE CALLPOINT
OR - 600R

GAS FIRED PRESSURE SWITCH
MOMENTARY AUTO/MANUAL SWITCH   N.B.1
HOLD/ABORT SWITCH   N.B.2

2+1 PANEL, PSU &
TERMINATION PCB

PCB No. GLT 21 069 15/7/97

RIBBON CONNECTOR
TO DISPLAY BOARD

+ HA
+ AM
+ GF
+ MR
+ Z1
+ Z2
- -VE REPEAT O/P'S
+

MANUAL OPERATION REP. -VE
AUTOMATIC REP. -VE
MANUAL RELEASE REP. -VE
GAS IMMINENT REP. -VE
HOLD/ABORT REP. -VE
TONE REP. -VE
FIRST STAGE REP. -VE
REPEATER SUPPLY +VE
400mA MAX

FIRST AND SECOND STAGE
AUXILIARY C/O CONTACTS

A1 C/M C/NO
A2 C/M C/NO

+ S1
- S2
+ BT
-

POLARISED FIRST STAGE
SOUNDERS

POLARISED SECOND STAGE
SOUNDERS

POLARISED BOTTLED
SOLENOID

(ALL IN4002 DIODES)

EACH - 400mA MAX
BUT
TOTAL - 1.0A MAX

10K EOL
10K EOL
10K EOL

+VE
AUXILIARY
SUPPLY
FUSE
400mAF

SOUNDER/ FUSE
400mAF
SOUNDER 2 FUSE
400mAF
BOTTLE O/P FUSE
400mAF
CHARGER FUSE
1.0AF

20mm GLASS FUSES

BATTERY FUSE
1.6 AF

RED
BLACK

2 x 12V SLA 2.0AH BATTERIES

OBSERVE POLARITY

2 x ORG

ADJUST BATTERY CHARGER VOLTAGE.
SET TO 27.6V @ BATTERY TERMINAL
(W/O BAT) FOR SLA BATTERIES

2 x ORANGE WIRES FROM
TRANSFORMER SECONDARY
WINDING

N.B. 1 - AUTO/MANUAL SWITCH
MUST BE MOMENTARY
AS PANEL PERFORMS TOGGLE FUNCTION

N.B. 2 - MOMENTARY GIVES "HOLD"
- LATCHING GIVES "ABORT"

N.B. 1 - AUTO/MANUAL SWITCH
MUST BE MOMENTARY ACTION
AS PANEL PERFORMS TOGGLE FUNCTION

N.B. 2 - MOMENTARY GIVES "HOLD"
- LATCHING GIVES "ABORT"

N.B. 3 - DIGITAL TIMER SETTING
ADD TIMES TOGETHER FOR
EACH SW. POSITION IN THE
'ON' POSITION I.e 1,3 + 4 @ ON
GIVES 4 + 16 + 32 = 52 SEC AS
TIMER DELAY BEFORE BOTTLE O/P OPERATES

Posn	Time (on)
1	4 sec
2	8 sec
3	16 sec
4	32 sec
5	64 sec
6	128 sec

PREMIER 2+1 EXTINGUISHANT
CONTROL PANEL
CONNECTION DIAGRAM

DOC No.:- PEX CONN/17/7/97/vrb