

Installation Note



PERTRONIC INDUSTRIES LTD

20 Eastern Hutt Road, Wingate, Lower Hutt

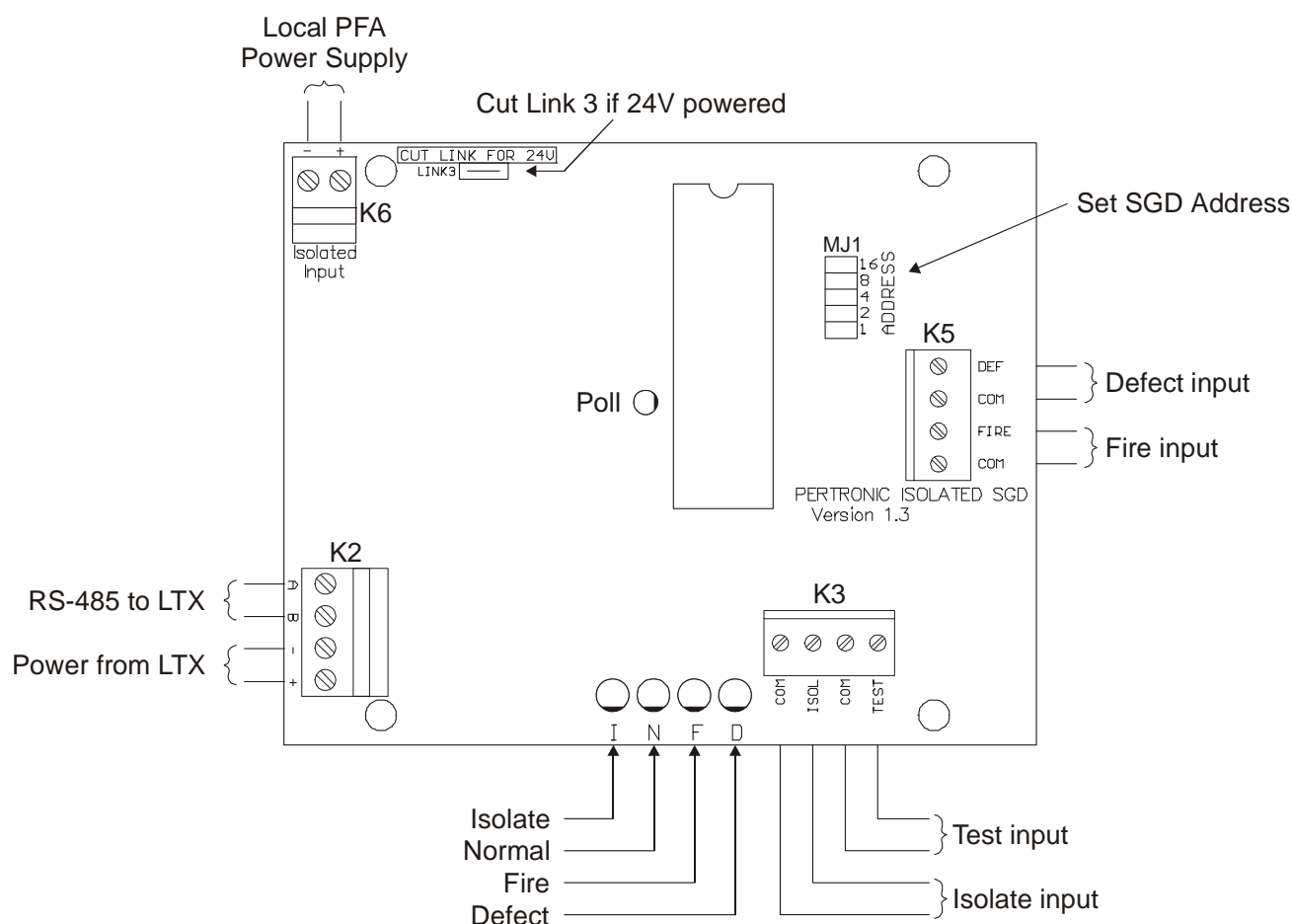
Telephone: (64) 4 567 3229 Fax: (64) 4 567 3644

SGD-8I Alarm Transmitter

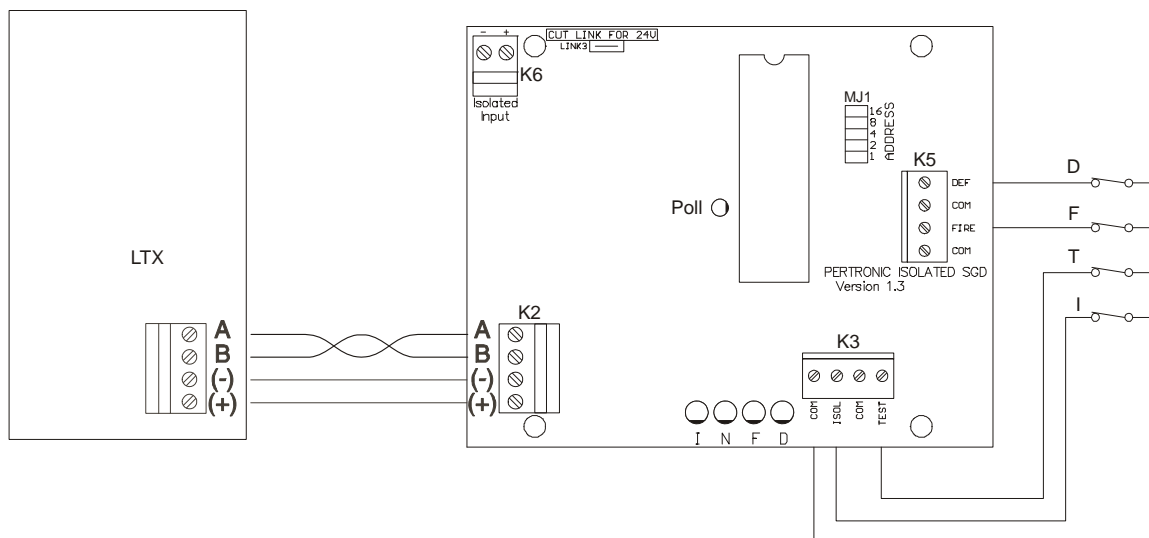
The SGD (Signal Generating Device) is a digital transmitter designed to provide the transmission interface between fire alarm systems (PFA's including DBA's) and an LTX-2, LTX-8, or LTX-16 alarm transmitter provided by NZ Telecom.

The SGD-8I can be powered by the local PFA (or DBA) power supply or by the LTX. When the SGD is powered from the local PFA supply, only 2 data wires are required to be connected to the LTX. The SGD-8I differs from other SGD units because it has an isolated on-board DC-to-DC converter which enables it to operate with DC supplies where the +ve or -ve terminals are connected to earth.

Connection

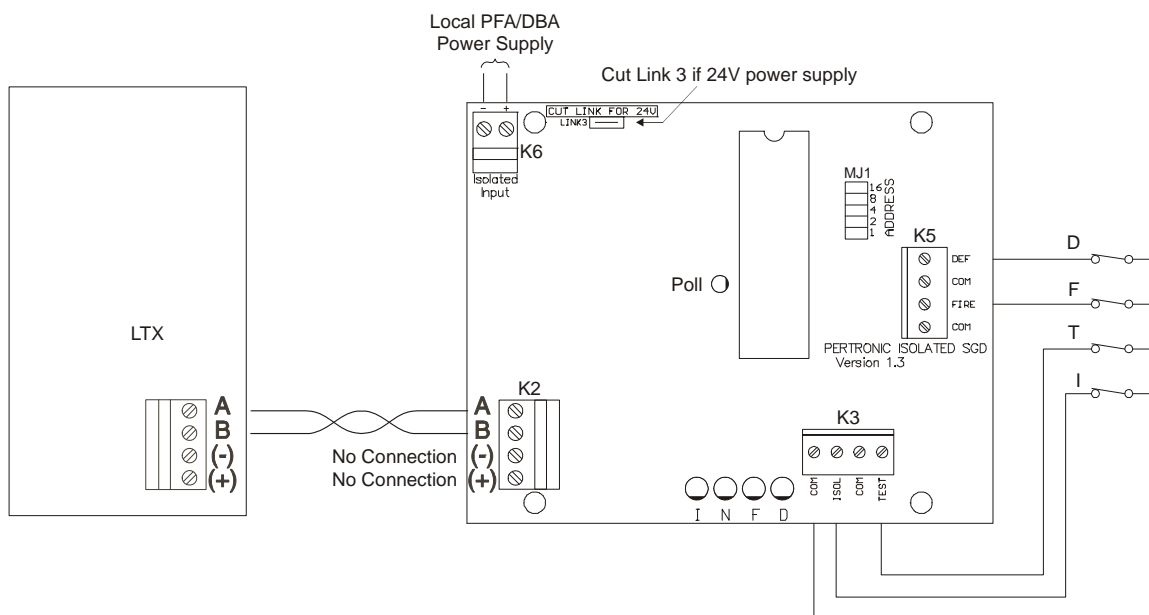


4-wire connection to LTX2, LTX8, LTX16



Connect A at K2 to A on the LTX.
 Connect B at K2 to B on the LTX.
 Connect '-' at K2 to 0V on the LTX.
 Connect '+' at K2 to +12 on the LTX.
 Current consumption from the LTX is approx 5mA.

2-wire connection to LTX2, LTX8, LTX16 plus local power supply



Connect A at K2 to A on the LTX.
 Connect B at K2 to B on the LTX.
 Connect '-' on Isolated Input K6 to -ve on the local power supply.
 Connect '+' on Isolated Input K6 to +12V (or +24V) on the local power supply.
Note: For 24 volt operation, cut link3 next to Isolated Input K6.
 Current consumption from the local power supply is approx 33mA.

Twisted pair cable should be used for all cabling between the SGD and LTX.

Address Selection for Non Multi-Drop Operation

The valid SGD address range is 1–16, selected by inserting links as shown below :

SGD Address	link1	link2	link4	link8	link16
1	1	0	0	0	0
2	0	1	0	0	0
3	1	1	0	0	0
4	0	0	1	0	0
5	1	0	1	0	0
6	0	1	1	0	0
7	1	1	1	0	0
8	0	0	0	1	0
9	1	0	0	1	0
10	0	1	0	1	0
11	1	1	0	1	0
12	0	0	1	1	0
13	1	0	1	1	0
14	0	1	1	1	0
15	1	1	1	1	0
16	0	0	0	0	1
17 Reserved for test mode	1	0	0	0	1

Address Selection for Multi-Drop Operation

SGD Multi-drop Address	link1	link2	link4	link8	link16
1 (21)	1	0	1	0	1
2 (22)	0	1	1	0	1
3 (23)	1	1	1	0	1
4 (24)	0	0	0	1	1
5 (25)	1	0	0	1	1
6 (26)	0	1	0	1	1
7 (27)	1	1	0	1	1
8 (28)	0	0	1	1	1

The SGD-8I is multi-drop capable with pcb version 1.3 or greater and software version 3.00 or greater.

Addresses 21 to 28 are used for multi-drop operation where the addresses correspond to SGD number 1 to SGD number 8. In this mode, SGD numbers 1 to 4 (address 21 to 24) connect to port SGD1-4 on the LTX-8; SGD numbers 5 to 8 (address 25-28) connect to port SGD5-8 on the LTX-8.

Address 17

Address 17 can be used to test the operation of the PFA-to-SGD connections when the SGD is not communicating with an LTX.

Normally (not address 17), the SGD will continually reset if no communication is established with an LTX. Address 17 does not auto-reset.

The PFA (or DBA) state (F, D, T, I) is indicated on the SGD input status LED's.

Poll Lamp

The green Poll LED flashes every time the SGD is polled by the LTX. Under normal conditions, the Poll LED will flash 1 or 2 times a second, depending on the number of SGD's connected to the LTX.

Input Status LED's

The designated LED's show the state of the switches of the connected PFA or DBA. Fire and Defect can be ON together.

When the Test switch is activated, the lamps will flash slowly. If a test signal is now generated (by activating a fire, defect or isolate while in test), the Normal LED will flash rapidly after a 1.2 second delay, indicating that a Test signal has been sent to the LTX.

When a valid Test Acknowledgement has been received by the SGD, the LED associated with that test will flash rapidly for 3 seconds; then, the LED's will revert to the slow flash, showing the state of the PFA or DBA. The buzzer will also sound if the test was a Fire Test.

Note that SGD's will allow only one test of each type (fire, defect or isolate) to be transmitted to the LTX. To repeat transmissions, the test switch must be restored and then operated again.