

**VIGILANT GENERAL PURPOSE 2-WIRE/4-WIRE SGD (WITH SWITCHES) 1924-25****1. INTRODUCTION**

The Vigilant 1924-25 General Purpose 2-Wire/4-Wire SGD transmits the Fire, Defect, Isolate and Test signals from a compatible Fire Alarm Panel or DBA (PFA) over 2 wires to the NZ Fire Service via an alarm transport system. The SGD derives its power either from the ASE (4-wire mode), or locally from the system (2-wire mode) and has an on-board reserve supply to ensure signalling for a short time if the main supply fails. It operates in either single line or multidrop mode.

**2. CONNECTION OF SGD TO ASE (Refer diagram overleaf)**

Distance must be less than 1000m. Wire size for 12V/0V lines :

up to 100m = 0.2sqmm, 101-500m = 0.5sqmm, 501-1000m = 1.0sqmm.

Use 0.2sqmm or greater for "A" or "B" lines (twisted pair recommended for long lines or noisy environments).

Connect SGD "PSU/LTX A" to ASE RS485 Port A/B "A" terminal

Connect SGD "PSU/LTX B" to ASE RS485 Port A/B "B" terminal

Connect SGD "PSU/LTX+" to ASE RS485 "+12V" terminal (4-Wire Mode Only)

Connect SGD "PSU/LTX-" to ASE RS485 "0V" terminal (4-Wire Mode Only)

**3. CONNECTION OF SGD TO PFA (Refer diagram overleaf)**

Connect to compatible fire alarm system via 10 way FRC and J1. Do not fit "SEG1/2" link.

If using fire panel power supply (2-wire mode), connect SGD terminals as follows:

SGD "FIP POWER +V" to SGD "PSU/LTX+"

SGD "FIP POWER 0V" to SGD "PSU/LTX-"

and select Lk11 to correspond to fire alarm power supply voltage, and fit Lk10.

If operating in 4-wire mode, ensure Lk11 is in "4W SGD" position and Lk10 is not fitted.

**4. ADDRESS SELECTION**

Link selectable. For Multidrop Mode fit ADDRESS 16 link and one or more of ADDRESS 1, 2, 4, 8 links to select valid addresses 1-8 (or 9-15 for software version 4.00 or later). To select Multi-Loop address 16, remove all ADDRESS links (software V4.0 and later). For non-multidrop mode valid addresses are 1-16: either fit ADDRESS 16 link or one or more ADDRESS 1, 2, 4, 8 links to select address 1-15. Address must match LTX port number.

**5. MAINS EARTH**

In some panels 0V and mains earth are linked directly together (very low resistance measured on ohm meter). This link must be broken when a 2-wire mode SGD is fitted to such a panel.

**6. OPERATION**

The 5 indicators and buzzer indicate the current status of the PFA, test progress and acknowledgement, and polling by the ASE. In 2-wire mode, provided the SGD has been powered up for a few minutes, when the 12/24V FIP supply fails, the SGD will continue to operate for several minutes in its power-fail-hold-up mode although the indicators will not be visible.

**6.1 "POLLED" INDICATOR**

OFF - SGD is not being polled (or no power).

SLOW FLASH - SGD is being polled by the ASE.

ON - Faulty SGD, replace it.

**6.2 "NORMAL" INDICATOR**

OFF - Invalid address selected, no power or in D, F or I.

SLOW FLASH - in Test Normal mode.

FAST FLASH - waiting for a test acknowledge.

ON - PFA is in Normal state.

