1. **INTRODUCTION**

The Vigilant 1924-13 2-Wire SGD transmits the Fire, Defect, Isolate and Test signals from a Fire Alarm Panel or DBA (PFA) over 2 wires to the NZ Fire Service via the LTX Interface Unit and ATS System. The SGD derives its power locally from the system and has an on-board reserve supply to ensure signalling for a short time if the main supply fails.

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

   - Distance must be less than 1000m. Use 0.2sq mm or greater for "A" and "B" lines (twisted pair recommended for long lines or noisy environments).
   - Connect SGD J3-"A" to LTX SGD-1 "A".
   - Connect SGD J3-"B" to LTX SGD-1 "B".
   - (Connect SGD to LTX SGD-2 terminals if the 2nd SGD connection etc).

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

   - Connect SGD J3-"+", J3-"-" to Fire Panel supply or DBA Supply (cut LK10 if 24V).
   - Connect to Fire Alarm Panel or DBA using either the input screw terminals, J4 (remove SEG 1/2 link) or plug-on connector J1 (SAFE Transponder compatible—use SEG 1/2 link to select correct segment).
   - If the Brigade test switch has a pole wired in series with the isolate switch, bridge this pole of test switch to prevent simultaneous test and isolate.

4. **ADDRESS SELECTION**

   - Give 1st SGD address 1 i.e. fit address link 1, remove 2, 4, 8, 16 and connect to SGD-1 on LTX. Give 2nd SGD address 2 i.e. fit link 2, remove 1, 4, 8, 16 and connect to SGD-2 on LTX. (Valid addr. 1-16).

5. **MAINS EARTH**

   - In some panels 0V and mains earth are linked together. This link must be broken when a 2-wire 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 LTX. Provided the SGD has been powered up for a few minutes, when the 12/24V supply is disconnected, 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 LTX.
   - 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.

6.3 "DEFECT" INDICATOR

   - SLOW FLASH - in Test Defect mode.
   - FAST FLASH - Test Defect acknowledge received.
   - ON - PFA is in Defect state.

   Continued ........
6.4 "FIRE" INDICATOR
SLOW FLASH - in Test Fire mode.
FAST FLASH - Test Fire acknowledge received.
ON - PFA is in Fire state.

6.5 "ISOLATE" INDICATOR
SLOW FLASH - in Test Isolate mode.
FAST FLASH - Test Isolate acknowledge received.
ON - PFA is in Isolate state.

6.6 ALL INDICATORS EXCEPT "POLLED" FLASH
Power-up initialisation or 15 second warning (buzzer sounds as well) if PFA has been switched or SGD has timed out of Test mode or PFA de-isolated with PFA still in Fire state. Clear Fire or isolate PFA before 15 seconds is up to avoid fire call to brigade.

6.7 BUZZER
Beeps every 10 seconds - Address invalid or SGD faulty (replace).
Beeps every second - Program re-start or 15 second warning if PFA has been switched or SGD has timed out of Test mode or PFA de-isolated with PFA still in Fire state.
Beeps twice/second - Test Fire acknowledge received.
Address Links e.g. for address 13, fit links 8, 4, 1. Links 16, 2 fitted.

Segment Link. Fit link to SEG 1/2 position to select SEG 2. To select SEG 1, no link fitted.

Plug On connector compatible with SAFE Transponder

Screw Terminal for Segment 1 only