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 an alarm transport system. The SGD derives its power locally from the system and has an onboard 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. 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 ASE RS485 PORT A/B "A" terminal
Connect SGD J3-"B" to ASE RS485 PORT A/B "B" Terminal

3. **CONNECTION OF SGD TO PFA** (Refer diagram overleaf)
Connect SGD J3-"+" and 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**
Link selectable. For Multidrop Mode fit ADDRESS 16 link and one or more of ADDRESS 1, 2, 4, 8 link to select valid addresses 1-8 and 9-15 for software versions 4.00 and later. To select multidrop mode address 16 remove all ADDRESS links. For non-multidrop mode valid addresses are 1-16: either fit ADDRESS link 16 (address 16) or one or more ADDRESS 1, 2, 4, 8 links to select address 1-15.

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 ASE. 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 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.

6.3 **"DEFECT" INDICATOR**
SLOW FLASH - in Test Defect mode.
FAST FLASH - Test Defect acknowledge received.
ON - PFA is in Defect state.
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.

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