

Generation Signalling Device (GSD) Installer's Manual



BEFORE YOU START

SAFETY SYMBOLS USED IN THE GUIDE



Mandatory Action - This symbol indicates the action must be taken to avoid a hazard. Any information that follows this symbol must be obeyed to avoid possible harm.

QUALIFIED PERSON

This is a Type 1 DRED according to AS4755.1 and as such shall only be installed by a qualified person i.e. electrician. A qualified person is one who is familiar with the installation, construction, operation or maintenance of the equipment and the hazards involved. In addition, this person is competent, trained and authorized to undertake the work involved in accordance with established safety and working procedures.

GENERAL PRECAUTIONS



Read and understand this guide before operating this equipment.

Read and understand this guide before operating this equipment. The PENTA AUSTRALIA HYLEC TMAC Generation Signalling Device (GSD) is to be used only by qualified personnel and must be used in conjunction with the user's own working and safety procedures, without compromising the integrity of the PENTA AUSTRALIA HYLEC TMAC product supplied.

Follow all safety instructions contained within this guide.

DESCRIPTION

The PENTA AUSTRALIA HYLEC TMAC GSD receives control signals via the mains power input from the electricity supplier and allows the electricity distributor to maintain a stable electricity supply system by instructing the connected Inverter to control its electrical generation output (compliant with Australian Standard AS4777.2:2015 or later).

INSTALLATION INSTRUCTIONS

- The PENTA AUSTRALIA HYLEC TMAC GSD shall be mounted within the main switchboard or the distribution board with the protective device for the inverter supply.
- The PENTA AUSTRALIA HYLEC TMAC GSD's "POWER CABLE" is connected to the Mains Switch Inverter Supply (MSIS) and in accordance with the wiring rules (AS/NZS 3000) and can have an extended length of no more than 3 metres.
- The PENTA AUSTRALIA HYLEC TMAC GSD's "CONTROL CABLE" connects between the GSD and the Inverter's dedicated Demand Response Mode (DRM) connection terminals. If this cable requires extending it must be joined within the switchboard using a suitable Cat5e (or better) extension cable. The method of extension must comply with the requirements of AS/NZ4755.1 and RJ45 pin assignment in this standard must be maintained.
- The product is intended to be connected to the fixed wiring.
- The PENTA AUSTRALIA HYLEC TMAC GSD must be installed in a manner such that the cables and casing are not subject to UV, water ingress or mechanical damage.

- An individual inverter shall meet the requirements of G01 and multiple inverters shall meet the requirements of G02 and G03 shown below.
- The internal components within the PENTA AUSTRALIA HYLEC TMAC GSD are factory set and shall never be adjusted.

WIRING OVERVIEW

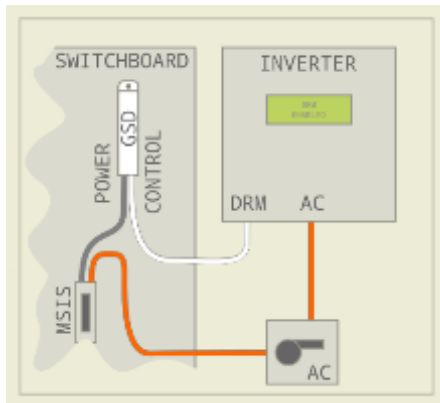


Figure 1 - Wiring Overview

The PENTA AUSTRALIA HYLEC TMAC GSD has two cables to connect, a POWER cable and a CONTROL CABLE.

The power cable is used to supply mains power to the PENTA AUSTRALIA HYLEC TMAC GSD and to receive signals from the electricity network.

The control cable is connected to a special dedicated Demand Response Mode (DRM) connection terminal on the Inverter. Consult the installer's manual for the Inverter to find the location of the DRM connection terminal.

General connection diagram applicable for residential installations only. Refer to local Electricity Distributor's documentation for large multi inverter installations.

CONTROL CABLE WIRING DIAGRAM

The PENTA AUSTRALIA HYLEC TMAC GSD "CONTROL CABLE" connects between the PENTA AUSTRALIA HYLEC TMAC GSD and the Inverter's dedicated DRM connection terminals. If this cable requires extending it should be joined within the switchboard using an RJ45 extension cable with a suitable voltage rating. The method of extension must comply with the requirements of AS/NZ4755.1 and RJ45 pin assignment in this standard must be maintained

NOTE: THE DRM CONNECTION TERMINAL IS ALWAYS SEPARATE FROM THE AC POWER CABLE CONNECTIONS

NOTE: NEVER CONNECT THE CONTROL CABLE TO THE AC POWER CABLE CONNECTIONS.

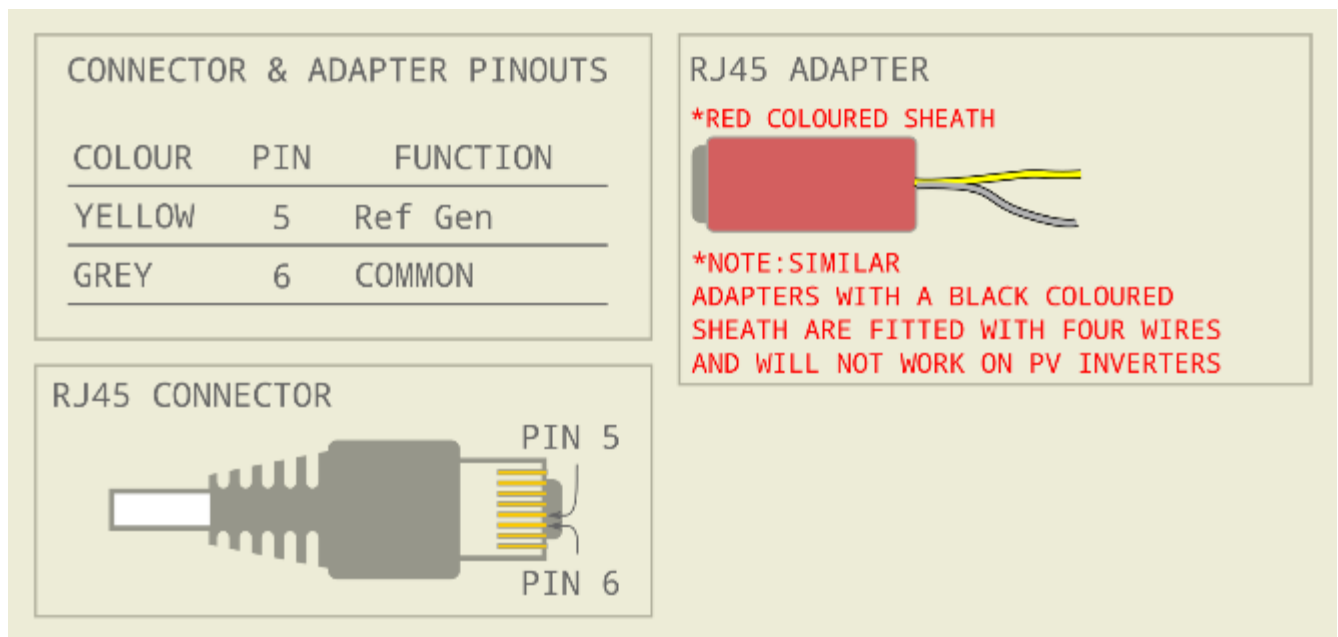


Figure 2 - Control Cable Wiring Diagram

POWER CABLE WIRING DIAGRAM

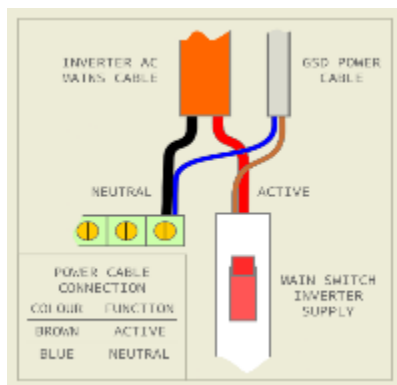


Figure 3 - Power Cable Wiring Diagram

The PENTA AUSTRALIA HYLEC TMAC GSD POWER CABLE supplies mains power to the PENTA AUSTRALIA HYLEC TMAC GSD. The POWER CABLE is connected to the Main Switch Inverter Supply (MSIS) within the switchboard.

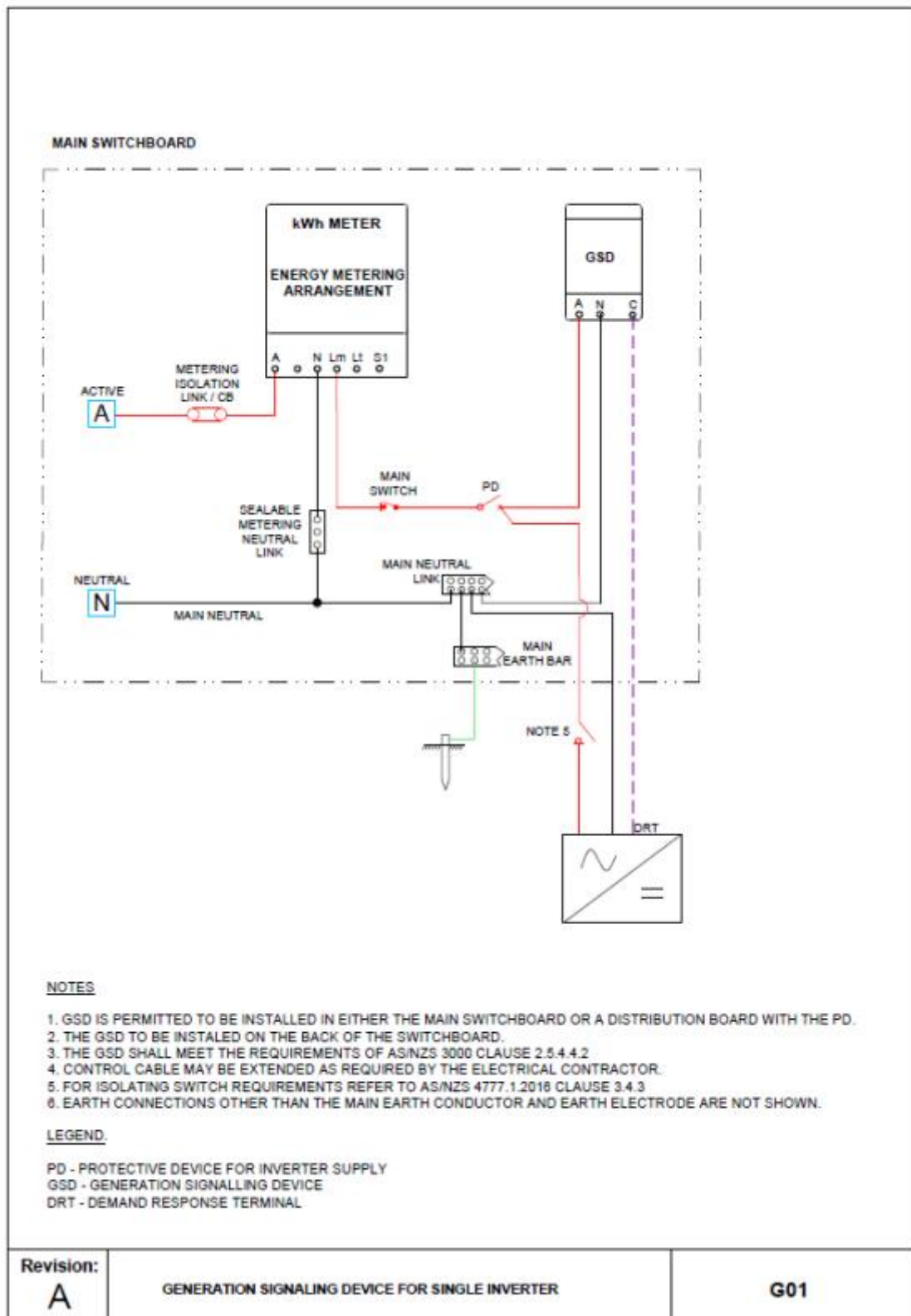
ADDITIONAL RECOURCES

[Energex Emergency Backstop Link](#)

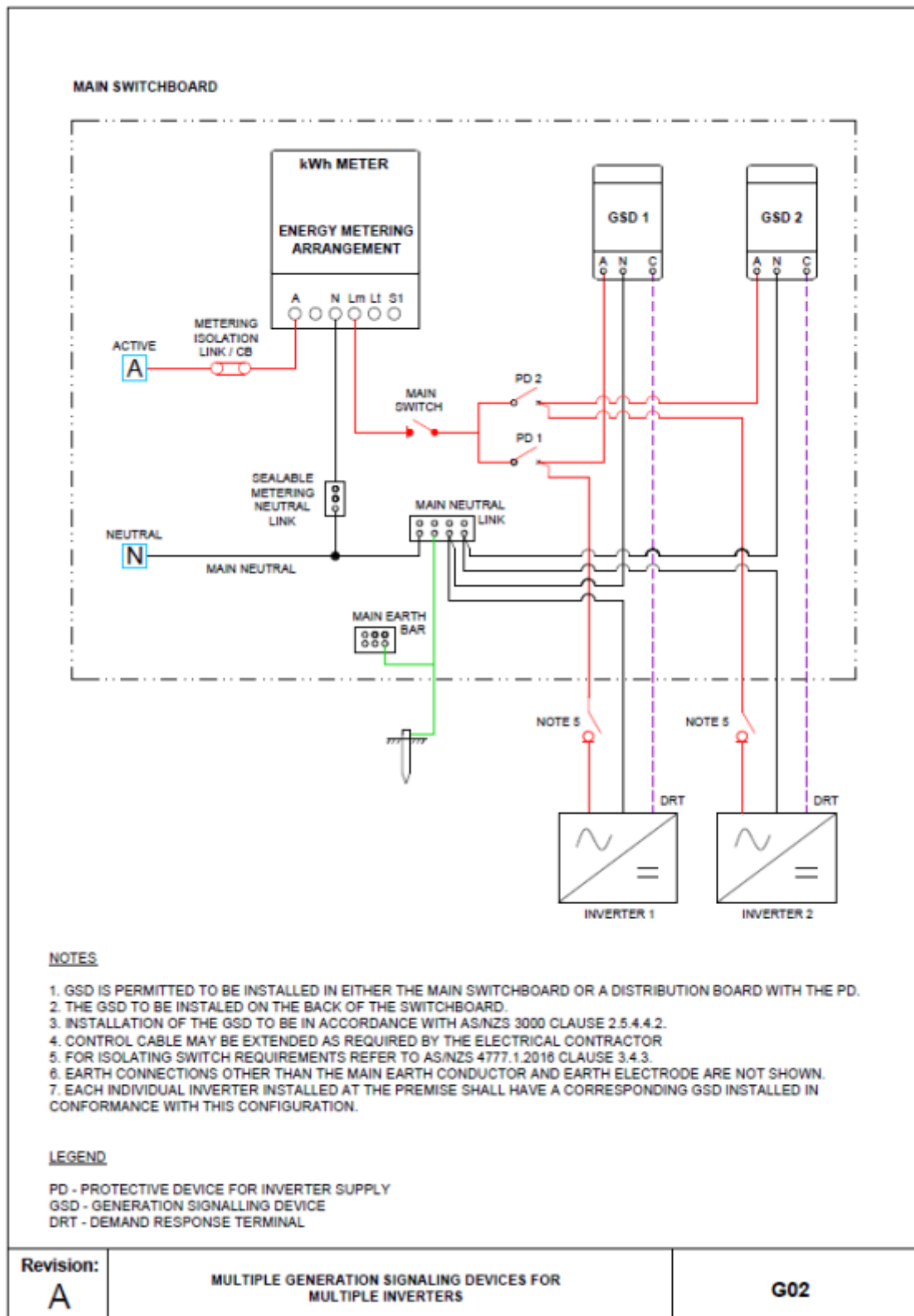
[Ergon Emergency Backstop Link](#)

[Emergency Backstop Mechanism Supplement Link](#)

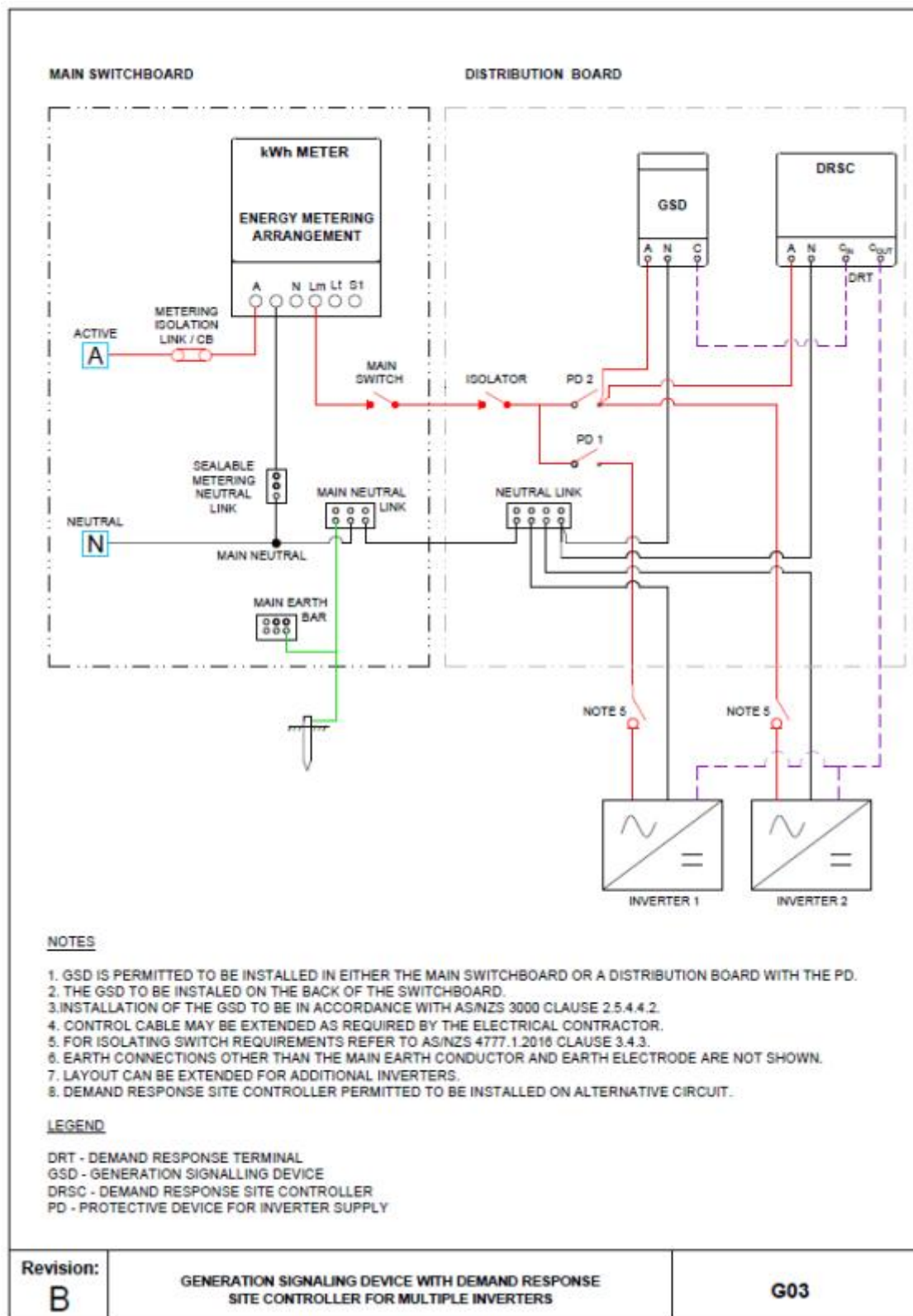
G01 WIRING DIAGRAM



G02 WIRING DIAGRAM



G03 WIRING DIAGRAM



DEFECTS / WARRANTY

DEFECTS

Our goods come with guarantees that cannot be excluded under Australian Consumer Law (ACL). You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if goods fail to be of acceptable quality and the failure does not amount to a major failure.

WARRANTY

In addition to the rights which you have under the ACL (set out above) PENTA AUSTRALIA HYLEC TMAC will provide an additional 12 month warranty for its DCSR from the date of purchase.

Please contact the seller by email sales@pentaesp.com.au, phone (+61) [07 3396 2220](tel:0733962220) for claims related to defective / warranty of goods provided.

FOR FULL DETAILS OF OUR ADDITIONAL WARRANTY, PLEASE REFER TO PENTA AUSTRALIA HYLEC TMAC's WARRANTY STATEMENT AND TERMS AND CONDITIONS LOCATED ON OUR WEBSITE AT <https://tmacgroup.com.au/>