Models:
GENII Converter NT RS232 to RS485 Converter

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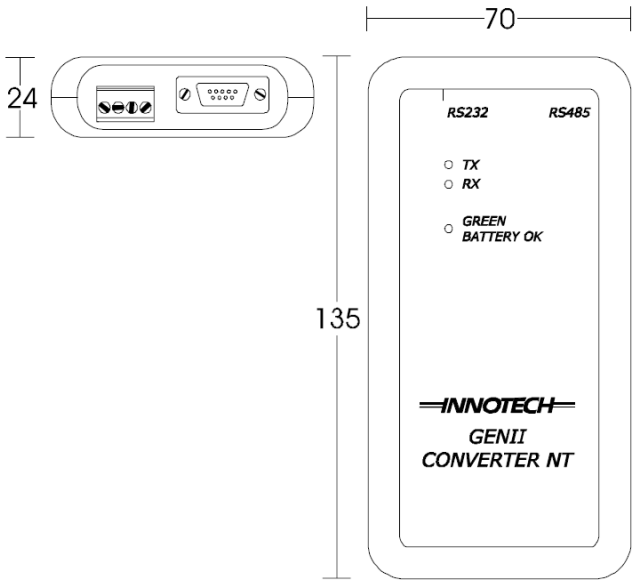
RS232 to RS485 Converter

Overview
The GENII CONVERTER NT is a bi-directional protocol converter between RS232 and RS485. It is intended to act as an intermediate translator between a computer's serial port and a Genesis network. The GENII CONVERTER NT is compatible with Windows XP, NT, 2000, 98 and 95.

Features
- Fully Isolated RS485 Communications
- Supports both the GENESIS II DDC (Digital Direct Controller) and GENII MPC (Mid Points Controller) and other RS485 network devices
- Provides remote network dial in access via modem
- Operates on 9VAC, 9VDC or 2x AA Alkaline cells
- All wire connections by removable terminals
- LED indication of network traffic and battery condition
- Auto Power-up when communication initiated and Auto Power-Down when finished
- Auto Battery-Disconnection when external power applied

Approvals
The GENII CONVERTER NT conforms to:
- EN 55011 Class B Group 1& EN 50082-1 for CE Marking
- AS/NZS 2064:1997 for C-Tick Labelling.
- FCC Title 47 CFR, Part 15 Class A for FCC Marking
- UL listed to UL916, File Number E242628



Applications
The GENII CONVERTER NT connects to the RS232 serial port of a computer or modem, and converts its signals to RS485 format. In this way it can be used to link the PC directly to a Genesis RS485 network. Isolated RS485 circuitry prevents voltage irregularities on the comms cabling from damaging the computer, and reduces the likelihood of communication errors.
- Mobile Service tool
- Permanently situated protocol translator

Specifications

Power Supply

- 2 x AA Alkaline Batteries or
- 9VAC ±10% @ 50/60Hz or
- 9VDC ±10%
- Power Consumption: 0.8W Max

Battery Life Expectancy: 6 hours continuous activation.

Battery life is dependent on the amount of time that the unit is actually communicating. The unit only consumes power during periods when data is being transferred.

The operating voltage must meet the requirements of Safety Extra Low Voltage (SELV) to EN60730. The transformer used must be a Class 2 safety transformer that has the energy and voltage limiting characteristics as described in the National Electrical Code, ANSI/NFPA70. It must also be sized and fused in compliance with local safety regulations.

COMMS Connection

SHLD 1	Shield from incoming Comms Cable.
+	RS 485 (+) signal.
-	RS 485 (-) signal.
SHLD 2	Shield from outgoing Comms Cable.

Temperature Ratings

- Storage 0 to 50°C non-condensing
- Operating 0 to 40°C non-condensing

Battery storage / operating conditions may be different, refer to battery manufacturers specifications.

Enclosure/Mounting

The GENII CONVERTER NT RS232 to RS485 Protocol converter is enclosed in a rectangular hand held plastic case. It allows easy access to Communications connections, Power supply and battery compartment.

Functionality

When powered by batteries, the unit powers up when the computer's communications port is opened. Communication keeps the converter circuitry alive , and when communication ceases, the power supply in the device switches to sleep mode. An external supply will keep the device on permanently. It is safe to use external power even if batteries are installed. Immediately that external power is applied, the internal battery circuitry is automatically shut down. The circuit offers no battery charging function.

Wiring

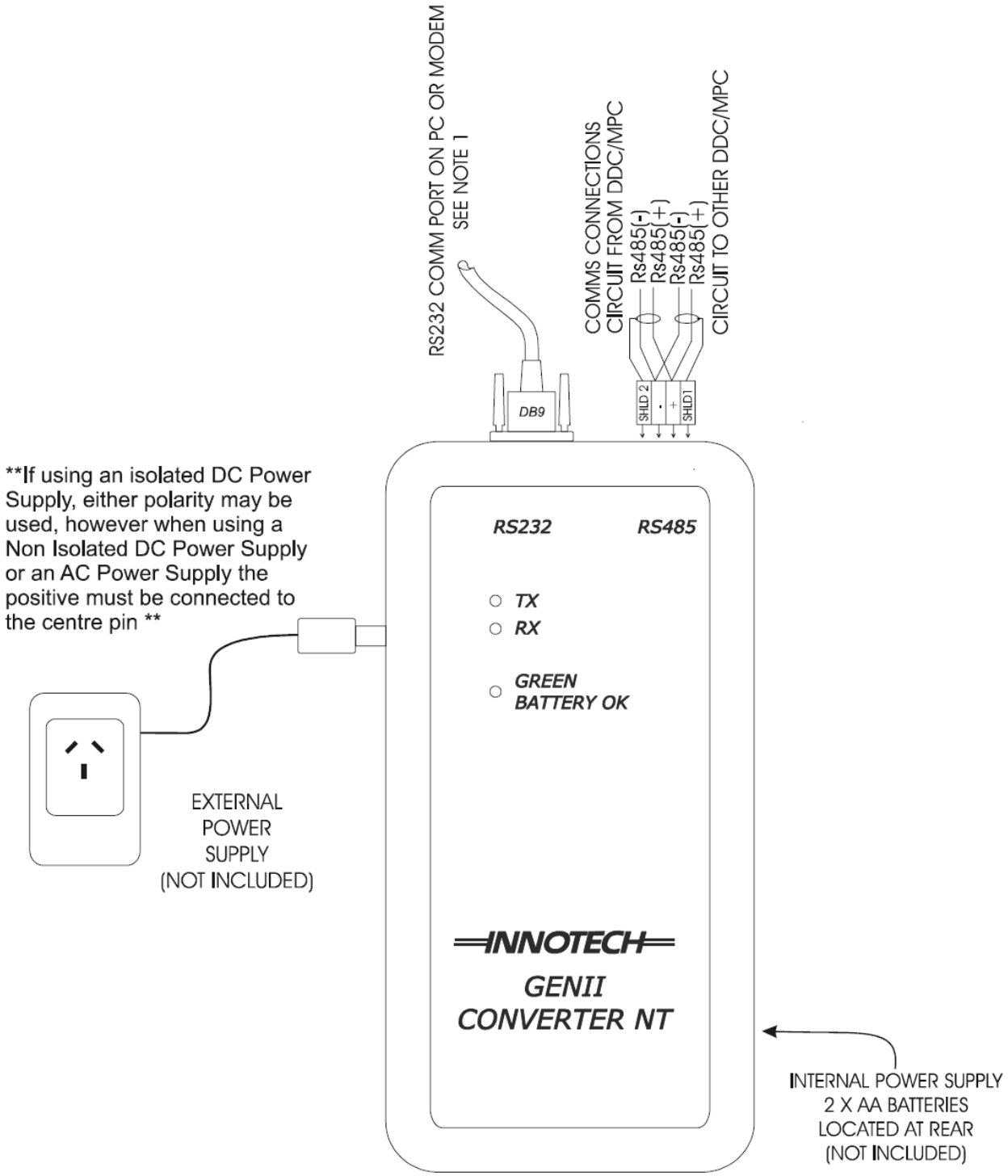
- The cable used for RS485 Comms must be shielded single twisted pair, 120Ω characteristic impedence, 36 to 45pF per metre capacitance between conductors.
- The Comms cable must be organised as a bus topology. That is, starting at one end, devices are connected to it until the other end of the cable is reached. No “stubs” are allowed. To connect a device to the cable, a cut is made in the cable at the point where the device is to be situated. Then, the two new ends of the cable are wired into the device. The shields from the two new ends are then terminated into the terminals marked SHLD 1 and SHLD 2.
- Refer to the Innotech Network Installation Manual DS 99.04 for more information.

FCC Class A Notice

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

Note – This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Modifications to this device, may void the authority granted to the user by the FCC to operate this equipment.



NOTE 1: When using the converter in conjunction with a modem a GENII NM Null Modem is required. The GENII NM must be connected in series with the connecting cable.

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