

Model: GENII VIEWPORT**GENII VIEWPORT RS485****Human Machine Interface****Overview**

The *GENII VIEWPORT* is a network device that allows a user to externally access the Human Machine Interface (HMI) of a *GENESIS* Series or *Maxim* Controller located on the network. Connected to the “*GENII Net Comms*”, the *GENII VIEWPORT* can be used to search for controllers present on the network. A user may then use the *GENII VIEWPORT* to log onto any one of the available controllers.

The *GENII VIEWPORT* is designed for surface mounting and allows easy access to networked controllers that are located in remote or inaccessible areas.

Features

- Access to up to 40 primary networked *GENESIS* or *Maxim* Controllers
- Access to up to 62 Sub Network devices per Sub System Gateway on Primary Network
- 6400 data points assessable from single location
- Back-Lit 4 line, 80 character Liquid Crystal Display
- Isolated RS485 Communications
- Various Setup Modes permanently saved even after power down
- Network Display Mode
- Network Searching Facilities
- Button layout consistent with *GENESIS* II Digital Controllers
- Log On Button allows User to Connect and Disconnect from an individual INNOTECH Controller
- Operates on 24VAC or 24VDC
- All wire connections use removable terminals
- A single point of access to any *GENESIS* or *Maxim* Controller on the Net Comms Network
- Mount on panel doors to give easy access to a group of Controllers within the control panel
- Wall mounted device
- Used as a monitoring device
- 57600 or 9600 baud comms rate

**Applications**

The *GENII VIEWPORT* can be used in a variety of situations. Its main advantage is allowing easy access to a number of controllers from a single point. This enables the user to access a controller without requiring physical access to the chosen controller.

NOTE: For the Viewport to work correctly, the *GENESIS* II controller must be loaded with firmware version 4.10 or greater (only standard versions are supported, upgrade CE and NCE versions are not supported).

Approvals

The Innotech *GENII VIEWPORT* conforms to:

- EN61326-1:2013 for CE & RCM Labelling
- Title 47 CFR, Part 15 Class A for FCC Marking
- UL listed to UL916, File Number E242628

Specifications

Power Supply

- 24VAC $\pm 10\%$ @ 50/60Hz
- 24VDC $\pm 10\%$
- Power Consumption: 1.8W (Max)

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.

Terminal Identification

Power Supply

1	24VAC Supply
2	0VAC Supply
3	EARTH

TERMINAL 3 NOTE: This connection is for the protection of the communication circuitry. It must be connected to a good quality electrical bonded EARTH. This may be the EARTH bus bar of the switchboard or the point that connects the chassis of the equipment the module is in, to electrical EARTH. This point should not be wired to terminal 2.

Comms Connection

SHLD1	Shield from incoming comms cable
+	RS485 (+) signal
-	RS485 (-) signal
SHLD2	Shield from outgoing comms cable

Temperature Ratings

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

Enclosure & Mounting

Plastic Enclosure manufactured from flame retardant polycarbonate / ABS plastic listed under UL94.

Colour: Mist Grey.
Dimensions: 200mm X 164mm X 25mm.
Mounting: Wall Mounted (Cutout included with product).

Wiring

- The cable used for RS485 Comms must be shielded single twisted pair, 120 ohms characteristic impedance, 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 along it. 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 SHLD1 and SHLD2 respectively. Refer to the Innotech Cabling Manual DS99.04 for more information.

Interface

The interface of the *GENII VIEWPORT* has the same physical layout as a *Genesis II* Controller with the addition of the Log On button. The basic operation is shown in the block diagram on page 4.

Modes

The Viewport has three separate configurable modes of operation.

The first Mode is "**Sleep Mode**". When the Viewport is in this mode and the device detects no activity for greater than the "sleep delay", the Viewport goes into Sleep Mode. Sleep is where the Viewport disconnects from the Innotech network and allows other devices the ability to connect. **Note:** the sleep delay time can be programmed via the setup menu.

The second Mode is "**Master Mode**". While the Viewport is in this mode, the Viewport remains connected to one predetermined controller on a network. If the Viewport detects no activity for a fixed period of time it will go into a standby mode where the network is polled every 10 seconds. This provides an opportunity for other devices to log on to the network while still displaying the current data of the selected controller. Should the Viewport detect activity on the network, the Viewport will go into sleep mode. Once the Viewport detects no activity it reverts to its previous state displaying the information of the one predetermined controller.

The third Mode is "**Slave Mode**". In this mode the display will show whatever is displayed on the Viewport designated as the master. Should the Viewport detect activity on the network, the Viewport will go into sleep mode. Once the Viewport detects no activity it reverts to its previous state displaying the information of the Master *GENII VIEWPORT*.

States

The Viewport can be in three states of operation. These states are Sleep, Configuring and Communicating.

The *GENII VIEWPORT* will enter the first state, "**Sleep Mode**", after a period of inactivity defined by the user. In this mode it remains dormant, while monitoring the network for activity. If it detects network activity it prevents user access until the network is free, otherwise the user may activate the Viewport in another mode. This is because only one device may take control of the Net Comms Network at any one time. This device could be a computer, DDC, Maxim II, MPI (Modem Printer Interface) or a *GENII VIEWPORT*.

When the Viewport is sleeping, the "Log On" button may be pressed to present a list of available devices on the network. The user can then select the desired unit with the < and > arrows and press "Log On" again to connect to the selected device. Alternatively the user can press the "ESC" button which provides access to the setup menu.

The second state "**Configuring**" is when the user presses the ESC button. In this state, a menu is displayed giving the option to "Search", "Setup", "Devices" or "Reconnect".

See "Setting up the *GENII VIEWPORT*" for further details.

The third state “**Communicating**” is when the user presses the “Log On” button, to log onto a remote *GENESIS* or *Maxim II* Controller. Once the user has connected to a controller using the “Log On” button, the user can view watch pages and system information, change variables, and operate all other functions in the usual manner. See the *GENESIS* or *Maxim II* Controllers’ data sheet for details on the Controller.

When finished interrogating the *GENESIS* or *Maxim II* Controller, the “Log On” button is used to log off, or disconnect from the controller. When pressed, the *GENII VIEWPORT* automatically escapes out of the current page, logs off and reverts back to the list of available devices on the network. The user can then select another device with the < and > arrows, and press “Log On” again to connect to the selected device. Alternatively the user can press the “ESC” button which provides access to the setup menu.

Setting Up the GENII VIEWPORT

The *GENII VIEWPORT* set up menu has four options, “**Search**”, “**Setup**”, “**Devices**” and “**Reconnect**”.

The **Search** option, simply searches the network to produce a list of available devices for connection via the log on screen.

The **Setup** option, has a sub menu consisting of the following parameters: Mode, Default Device, Sleep Delay, Search Start and Search Stop.

The **Device** option, will display a list of the active devices found connected to the *GENII VIEWPORT* as found by the Search option, subject to the start search and stop search parameters.

The **Reconnect** option, will log the user onto the device last connected.

Set Up Parameters

Mode: sets the mode as defined earlier.

Default Device: is the address of the device selected as either the Master or Default device.

Sleep Delay: is the time in seconds that the unit will wait after detecting no activity before going into its default mode. This may be set between 30 and 300 seconds in 30 second steps. The default setting is 30 seconds.

Start Search: is the start address for the *GENII VIEWPORT* to begin its search for active devices on the network.

Stop Search: is the end address for the *GENII VIEWPORT* to terminate its search for active devices on the network.

FCC Class A Notice

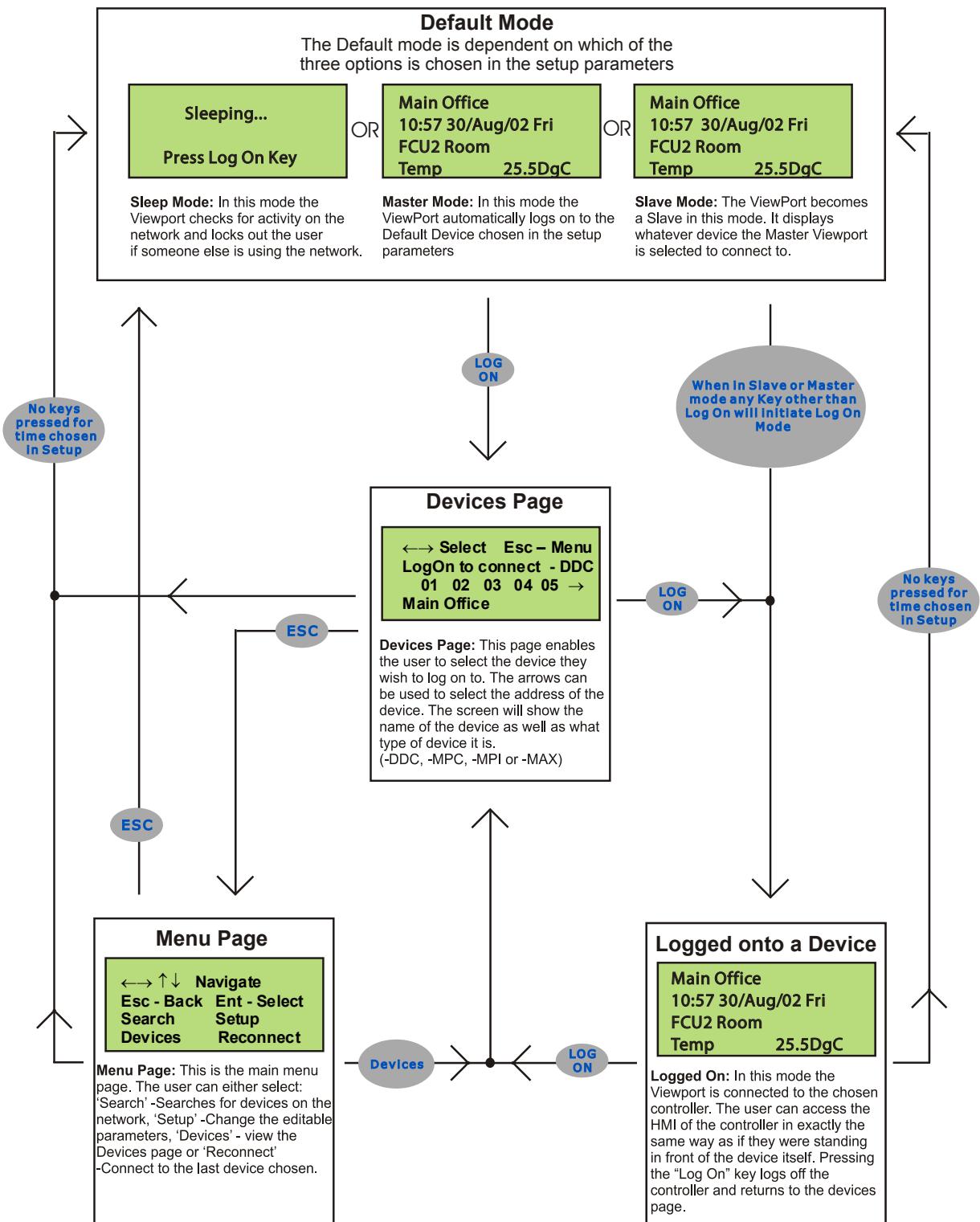
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

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

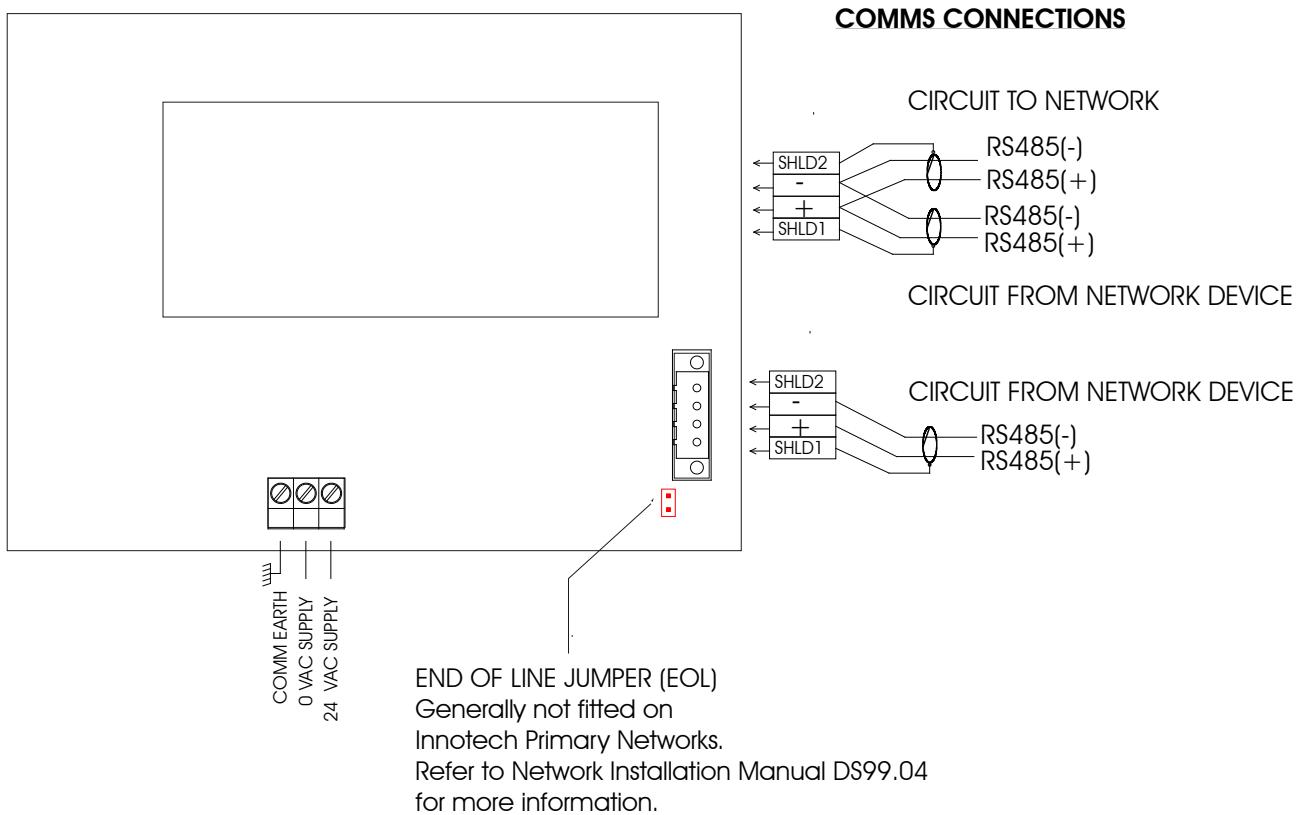
Note – This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment 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.

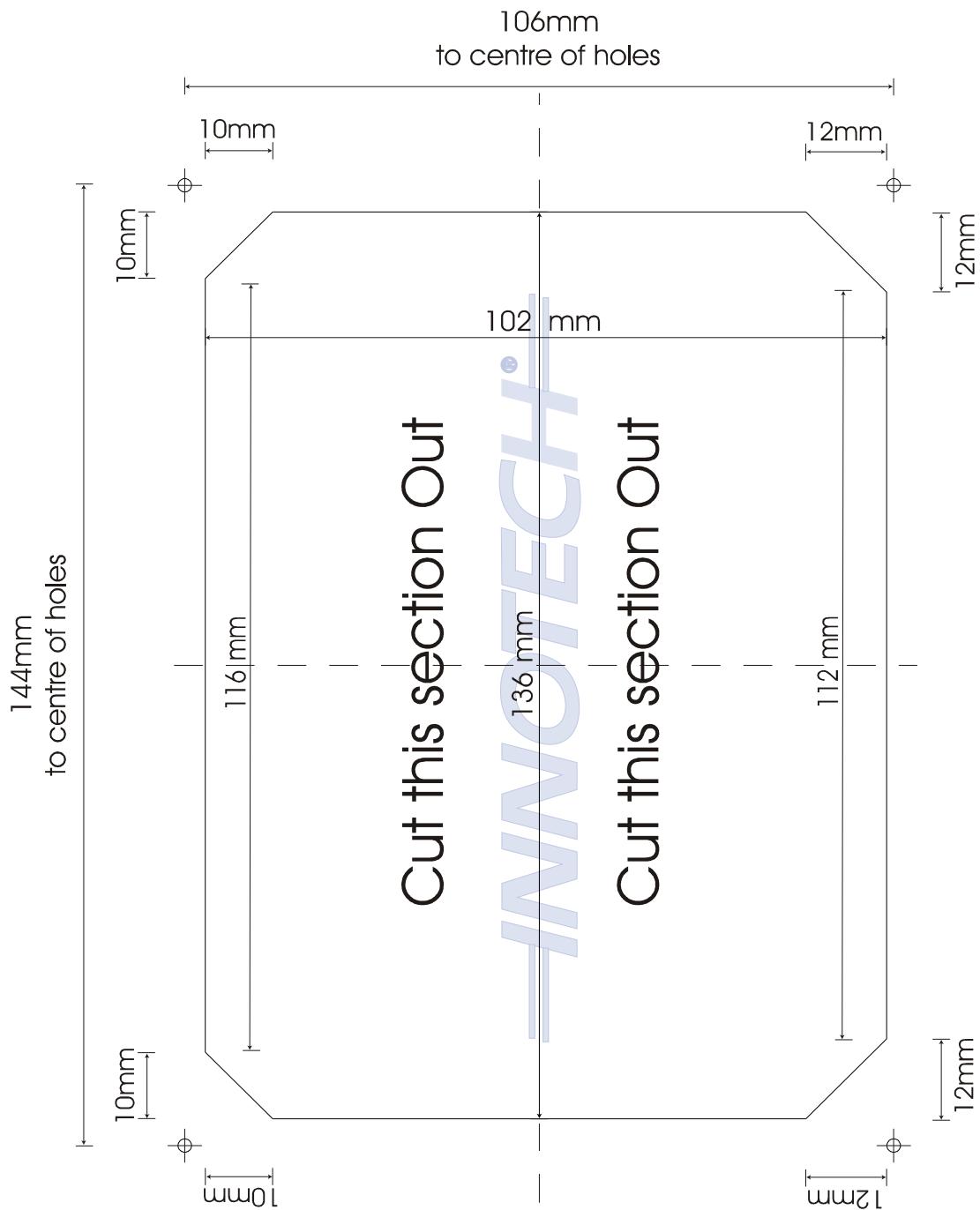
Viewport Interface Operation



Comms Connections Diagram



Cut-Out Template for Viewport



 For accurate measurements for the Cut-Out Template, print this PDF page on A4 paper with scaling set to "None".

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