

OneConnect™

for Nautel V5 & V10 Transmitters

USER MANUAL

BURK
TECHNOLOGY

OneConnect User Manual
For Nautel V5 & V10 Transmitters
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Introduction

The OneConnect provides a direct interface between the Nautel V5 and V10 transmitters and the GSC3000 transmitter remote control system, eliminating external parallel wiring to the transmitter.

FEATURES & BENEFITS

- Allows total site management from one platform
- Duplicates local control capability
- Accessible via software and optional telephone and Web Interface
- Eliminates external parallel wiring to transmitter
- Channels are pre-configured with labels and calibration

TRANSMITTER MONITORING & CONTROL

- Individual monitoring of power modules
- Individual fan speed and internal temperature monitoring
- DC current and voltage monitoring
- Power meters and alarm management
- Management of power level presets

REQUIREMENTS

To utilize the monitoring and control functions of the OneConnect, you will need the following:

- Minimum one (1) GSC3000 I/O unit.
- GSC3000 system running 5 series firmware
- Lynx software version 5.1 or higher

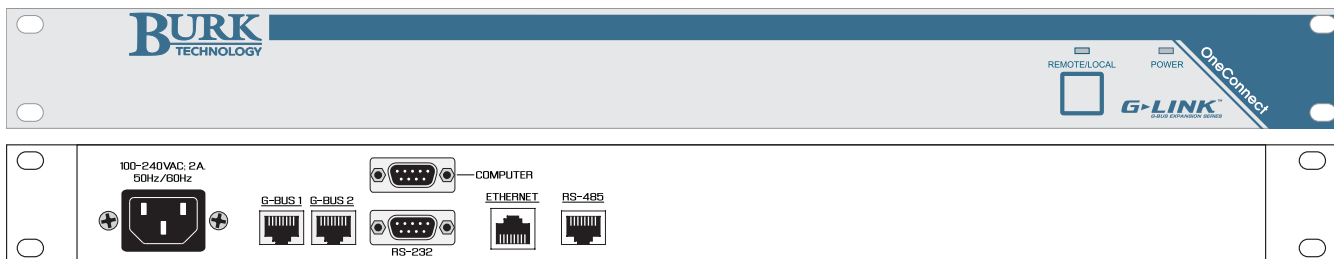
VIRTUAL I/O UNITS

Although the OneConnect physically takes the space of one rack unit, it actually functions in the system like four individual I/O units. Each virtual I/O unit will have its own unit number and needs to be addressed separately in Lynx when using certain functions, such as unit configuration.

Virtual units can be logged just like physical units, and the channels are available for use in Custom Views.

FRONT & REAR PANEL OVERVIEW

Before you begin setup and configuration, take a moment to familiarize yourself with the indicators and connectors on the OneConnect.



Remote/Local LED

Indicates whether the GSC3000 system is in Remote or Local mode. A solid green LED indicates that all units in the system are in Remote mode, and remote commands are enabled. A flashing red LED indicates that all units in the system are in Local mode, and remote commands are disabled until the operator restores Remote mode from the front panel of the GSC3000 I/O unit.

Power LED

Indicates whether the unit is powered.

Power

Accepts an AC voltage input range of 100-240VAC, 50/60Hz, 15W, without manual switching.

COM1

Used to directly connect a PC to the OneConnect for uploading firmware.

RS-232

Used to directly connect the OneConnect to the transmitter's remote interface connector.

RS-485, Ethernet

Not used with the Nautel V5 and V10 transmitter.

G-Bus 1, G-Bus 2

Connection to G-Bus network. Used to connect to GSC3000 system and other G-Link units.

CONTACTING BURK TECHNOLOGY

Customer Support:

Visit the Support section of our website at www.burk.com/support/ for troubleshooting tips, documentation and downloads. If you still need help, please contact Burk Technology Customer Support:

Phone: 978-486-3711
Fax: 978-486-0081
Email: support@burk.com

Sales:

For information on Burk Technology's line of transmitter remote control systems and accessories, please visit our website at www.burk.com, or contact a sales representative:

Phone: 800-255-8090 (Main Office)
800-736-9165 (Broadcast Sales)
609-886-1733 (International & Government Sales)
Email: sales@burk.com

Installation

CONNECTING TO THE NAUTEL V5/V10 TRANSMITTER

The OneConnect connects to the Nautel V5/V10 transmitter using a serial cable. To connect the OneConnect to your transmitter:

1. Connect one end of the provided DB9 serial cable to the RS-232 port on the OneConnect.
2. Connect the other end to the Remote Interface on the Nautel transmitter. The Remote Interface connector is J8 on board assembly A44.

CONNECTING TO THE GSC3000

The OneConnect connects to your GSC3000 system through the G-Bus network, just as your I/O and Voice Interface units do.

To add your OneConnect to the G-Bus:

1. Using the supplied G-Bus cable, or a straight-through CAT5 cable with RJ-45 connectors, connect an available G-Bus port on the OneConnect to a free G-Bus port on an I/O, Voice, or G-Link unit. It makes no difference whether you link G-Bus 1 to G-Bus 2 or vice-versa. The G-Bus network supports equipment connected together over a maximum length of 1000 feet end to end.
2. After linking the units together, connect a G-Bus terminator to the unused G-Bus port on the first unit and to the unused G-Bus port on the last unit in the network.

Once the OneConnect has been added to the G-Bus network, it will function in your site like multiple I/O units even though it is one physical unit.

ASSIGNING UNIT NUMBERS

Like an I/O unit, each OneConnect unit on the G-Bus network must be assigned a unique unit number. The G-Bus network allows up to sixteen monitoring and control units numbered 0-15, which includes I/O 16, I/O 8, and G-Link units. The G-Bus network additionally supports one Voice Interface, which is assigned unit number 16.

Important! Each GSC3000 system must have one I/O unit defined as unit 0. Do not assign unit number 0 to a G-Link unit or to more than one I/O unit.

Note: If you are unsure of the number for an existing unit in your site, you can find it out in Lynx by right-clicking the unit in Site List and choosing Unit Properties. The unit number, firmware version and other important information will be displayed.

The default unit numbers for the OneConnect are 12-15. If any existing units are already number 12, 13, 14, or 15, you must assign them a different number or remove them from the system before adding the OneConnect.

To assign the unit number:

1. Connect the OneConnect unit to the G-Bus network.
2. Launch the Lynx software. When you connect to the site, four new units should appear automatically in the site list. Select the first of the four OneConnect units from the site list. It may initially appear as “Unit 12” until the site list refreshes to show the default name of “Nautel (1)”. You only need to assign the unit number to the first OneConnect unit – the remaining three will automatically update to the next sequential numbers.
3. Right-click the selected unit and choose Set Unit Number.
4. Select the new unit number from the Set Unit Number dialog and press Set. An hourglass cursor will appear while the unit number is being set. The dialog will disappear once the unit number has been changed.

Note: While the unit number is being set, a link loss message may appear indicating that the unit being changed it is no longer present on the G-Bus. This dialog is normal during a unit number change.

Once the unit number change is complete, the units will re-appear in the site list.

Operation

Using the OneConnect with Lynx, the Voice Interface, or the Web Interface is almost identical to using a standard I/O unit, so very little operator training is needed. Configuration, commands, and general monitoring functions are just like the I/O units that you are used to, even though specific features may vary.

MONITORING & CONTROLLING THE ONECONNECT

The OneConnect functions like an I/O unit and is accessible through Lynx, the Voice Interface, and Web Interface.

Accessing the OneConnect using Lynx

The four OneConnect units will appear in the Site List alongside other I/O and Voice Interface units in this site. By default, the units are named "Nautel (1)", "Nautel (2)", "Nautel (3)", and "Nautel (4)".

When selected from the Site List, each OneConnect unit provides different information on-screen. Some will have metering, status, and command channels, whereas others may have only one or any combination of the three. The configuration of each unit is pre-defined, so no configuration is needed. These channels are also accessible through Custom Views. All metering and status is provided by the Nautel transmitter.

If logging is enabled on your site, data from the virtual units will be logged alongside physical units and can be accessed through reports and Data Browser.

Accessing the OneConnect using the Voice Interface

While in a voice session, you are connected to one particular unit at a time, and the commands, readings, status reports, captures, etc. all refer to that unit.

Like an I/O unit, each OneConnect unit has a number associated with it. To switch between units, enter 9, followed by the two-digit unit number of the unit you would like to connect to. For example 901 would select unit #1, and 915 would select unit #15. Valid entries are 900-915. If you enter an invalid unit number, the Voice Interface will report that the unit does not exist. For additional help using the Voice Interface please refer to the GSC3000 Installation and Operation Manual.

Note: If you are unsure of the number for an existing unit in your site, you can find it out in Lynx by right-clicking the unit in Site List and choosing Unit Properties. The unit number, firmware version and other important information will be displayed.

Accessing the OneConnect using the Web Interface

The Web Interface displays one unit on-screen at a time and always loads looking at unit 0. To switch to a different unit, use the "Select Unit" drop-down box. For additional help using the Web Interface please refer to the GSC/VRC Web Interface User Manual.

USING TIMED EVENTS & MACROS

The Nautel OneConnect has on-board Timed Events that allows you to schedule certain activities to occur automatically at your site. Timed Events can issue commands to and run macros on any unit in the G-Bus network, including I/O and other G-Link units. Setting up Timed Events on the OneConnect is the same as on an I/O unit. To access the Timed Events configuration, open the Unit Configuration and choose Timed Events.

The OneConnect does not store macros directly on the unit, but you may program macros on your I/O units to control channels on any of the four virtual OneConnect units.

Specifications & Warranty

SPECIFICATIONS

Dimensions (WxDxH):

1 RU; 19" (48.3cm) x 10" (25.4cm) x 1.75" (4.45cm)

Operating Temperature:

0 to 50° C

Front Panel Controls:

Front-panel "remote/local" button to prevent command outputs while in Local Mode.

Rear Panel Connections:

Power:

100 to 240 VAC, 50/60Hz; 15W

COM1, RS-232:

DB-9M; serial communication.

Ethernet:

10BaseT Ethernet port connects to LAN/WAN. LEDs show link status and activity

G-BUS 1, G-BUS 2, RS-485:

RS-485; 115.2kbps; 110ohm impedance

Specifications are subject to change without notice.

WARRANTY

Burk Technology, Inc. warrants the OneConnect to be free of defects in materials and workmanship for a period of 24 months from the date of purchase. Equipment will be repaired or replaced at the option of Burk Technology and returned freight prepaid to the customer. Damage due to abuse or improper operation or installation of the equipment or caused by fire or flood or harsh environment is not to be covered by this warranty. Damage in shipping is not the responsibility of Burk Technology. A return authorization must be obtained before returning any equipment. Materials returned under this warranty must be shipped freight prepaid and insured in the original shipping carton or suitable substitute to Burk Technology, 7 Beaver Brook Road, Littleton, MA 01460. Repairs not covered under this warranty will be made at prevailing shop rates established by Burk Technology, Inc.

THE WARRANTY SET FORTH ABOVE IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. BURK TECHNOLOGY, INC. SHALL NOT BE LIABLE TO ANY PARTY FOR ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF THIS EQUIPMENT.