



Liebert® MBX Busway System

Optional Busway System Monitoring

Installer/User Guide

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Technical Support Site

If you encounter any installation or operational issues with your product, check the pertinent section of this manual to see if the issue can be resolved by following outlined procedures. Visit <https://www.Vertiv.com/en-us/support/> for additional assistance.

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1 INSTALLATION

Vertiv™ offers optional monitoring packages for the Liebert® MBX Busway System End Feed Box and Tap-Off Box using Socomec DIRIS Digiware.

- **End Feed Box Only Package:** Includes DIRIS Digiware G-30, I-45 and U-30
- **End Feed Box and Tap-Off Box Package:** Includes DIRIS Digiware G-30, I-45, U-30, I-30 and C-31 interface module.

1.1 End Feed Box Monitoring Setup

NOTE: Before beginning to test or program any Digiware components in the Tap-Off Box, ensure that your G-30 and U-30 Modules are configured.

For the G-30 Module ensure:

- All settings are set to default unless otherwise required by the client.
- Set the address to 1.

For the U-30 Module ensure:

- All settings are set to **default** unless otherwise required by the client.
- Set the address to 2.

NOTE: The addresses for the G-30 Module and the U-30 Module must not conflict.

NOTE: The G-30 must be programmed first, followed by the U-30, then any I-modules. The U-30 Module governs all I-modules' baud rate and parity. Always check when testing I-modules that the baud rate programmed into the U-30 carried over to the I-module.

1.2 End Feed Box Ethernet Configuration

1. Power ON the *End Feed Box*.
2. Connect the *G-30 Module* to your laptop using a standard straight through CAT5 ethernet cable.
3. Browse to www.Socomec.us, download and install the latest Easy Config software.
4. Click the *Change Profile Button* in the upper right corner of Easy Config.
5. Log in to the *Super User* profile using password "sOcOmeC".
6. Click *Add a Device*.
7. Enter a Name for the End Feed Box.
8. Select *DIRIS G-30/G-40/G-50/G60* from the Type drop down menu.
9. Enter the IP address. The default address is *192.168.0.2*.
10. Click *Save*.
11. Click *Connect To Device*.
12. Check the following settings:
 - a. Verify that the latest firmware is installed on the device. You can check the latest firmware version on the "Socomec" website. If firmware needs updated, see [Firmware Update](#) on page 9 for instructions.
 - b. Set the IP address and set the address (Slave ID) to 1.

- c. Set the Baud rate, Stop bits and Parity. The default settings are 38400/1/N. On the U-30 Modules, click the *Network Tab*. Confirm the power system settings are correct for the customer site:
 - Network Type
 - Nominal Voltage
 - Frequency
 - Phase Rotation

NOTE: Record the serial number of each G-30 Module for future reference.

13. **G-30 Only:** Click the *Device Detection Tab*.
14. **G-30 Only:** Click the *New Discovery Button* and wait till discovery is complete, approximately 3 minutes.
15. After checking all the settings, click *Final Action*, then click *Send to Device*.
16. Select the *G-30* or *U-30 Module* being programmed, then click *Connect to Device*.
17. Click *Select All*, then click *OK*.
18. Wait for the configuration to be sent to the device. When the successful operation message pops up, click *OK*.
19. Return to the home screen in Easy Config. Click *Get From Device*.
20. Select the *U-30 Module* and Repeat **Step 11** through **Step 17**, changing the address (Slave ID) to 2 for the U-30 Device.

1.3 End Feed Box USB Configuration

NOTE: Micro-USB cable must be a data and power cable. Power-only cables will not function.

To configure the End Feed Box monitoring device:

1. Power On the End Feed Box and ensure that the G-30 and U-30 Modules are On.
2. Connect the G-30 Module to your laptop using USB – micro USB lead.
3. Browse to www.Socomec.us, download and install the latest Easy Config software.
4. Click the *Change Profile* Button in the upper right corner of Easy Config.
5. Log in to the Super User profile using password "sOcOmec".
6. Open the *Easy Config* software and select *Get Configuration from Device*.
7. Click the device to configure, then click *Connect to Device*. If no device is visible, verify that the G-30 Module is powered On and that the USB – Micro USB lead is connected correctly.
8. Check these settings:
 - a. Verify that the latest firmware is installed on the device. You can check the latest firmware version on the "Socomec" website. If firmware needs updated, see [Firmware Update](#) on page 9 for instructions.
 - b. Set the IP address and set the address (Slave ID) to 1.
 - c. Set the baud rate, stop bits and parity. The default settings are 38400/1/N. On U-30 Modules, click the *Network Tab*. Confirm the power system settings are correct for the customer site:

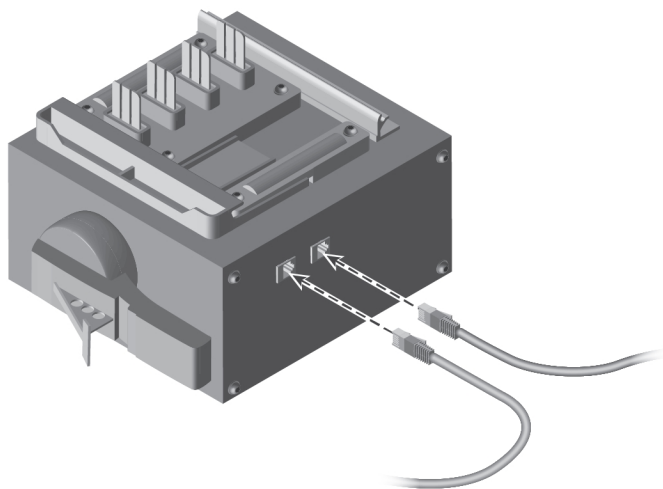
- Network Type
- Nominal Voltage
- Frequency
- Phase Rotation

NOTE: Record the serial number of each G30 Module for future reference.

9. **G-30 Only:** Click the *Device Detection Tab*.
10. **G-30 Only:** Click the *New Discovery Button* and wait till the discovery is complete, approximately 3 minutes.
11. After checking all settings, click *Final Action*, then click *Send to Device*.
12. Select the G-30 or U-30 Module being programmed, then click *Connect to Device*.
13. Click *Select All*, then click *OK*.
14. Wait for the configuration to be sent to the device. When the successful operation message pops up, click *OK*.
15. Remove the micro USB from the G-30 Module and insert it into the U-30 Module to configure the U-30 Module.
16. Repeat **Step 6** through **Step 14**, changing the address (Slave ID) to **2** for the U-30 Device.

NOTE: Record the serial number of each U-30 Module for future reference. The C-31 interface module provides RS-485 Modbus and Digiware Bus communication support to an external network.

Figure 3.1 Optional Ethernet Connection



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2 TAP-OFF BOX MONITORING

If your Tap-Off Box is equipped with a monitoring option, there will be two RJ-45 jacks on the side of the enclosure. The Tap-Off Box RJ-45 connections must be daisy-chained from Tap-Off Box to Tap-Off Box with the final connection made at the End Feed Box that houses the gateway device. The last Tap-Off Box in the daisy-chain must have a "Socomec" termination plug installed in the final RJ-45 jack.

NOTE: You can daisy-chain a maximum of 26 Tap-Off Boxes to the network gateway device, located in the End Feed Box. If you need to daisy chain more than 26, a repeater Tap-Off Box is required. Consult your sales representative for information on repeater Tap-Off Boxes.

NOTE: Before beginning to test or program any Digiware components in the Tap-Off Boxes, ensure that your G-30 Module and U-30 Module are configured. The U-30 Module governs the baud rate and parity for all I-modules. Always check when testing I-modules that the baud rate programmed into the U-30 carried over to the I-module.

To configure Tap-Off Boxes:

1. Power On the I-30 or I-60 using a Socomec RJ-45 cable, which is looped out from the U-30 Module. A green light appears on the I-30 or I-60 Module to indicate it is powered On.
2. Connect the I-module to your laptop via USB – micro USB lead.
3. Click the *change profile button* in the upper right corner of Easy Config.
4. Log in to the Super User profile using password "sOcOmec".
5. Click *Get from Device*.
6. Click the *Device* to configure, then click *Connect to Device*.
7. Select the *Product* Tab and verify the following information:
 - **Identification** – I-30 OR I-60 Serial Number
 - **Type** – Device Connected
 - **Firmware Version** – Latest firmware installed. You can check the latest firmware version on the "Socomec" website. If firmware needs updated, see [Firmware Update](#) on page 9 for instructions.
 - The 'Communication Configuration' shown is :
 - **Type** – RS485.
 - **Address** – Set a unique Modbus address. The G-30 is 1, U-30 is 2, I-45 (if present) is 5. Continue numbering I-modules starting at 10.
 - **Baud Rate** – Confirm match to U-30 settings.
 - **Stop Bits** – Confirm match to U-30 settings.
 - **Parity** – Confirm match to U-30 settings.
8. Select *Load* and confirm the following information:
 - **Load Enabled** – If CTs are connected, option to change settings.
 - **Load Type** – Select number of phases and amount of CTs.
 - **Nominal Current** – circuit rating associated with each CT.
 - **CT Direction** – If the CTs are reading an incoming or outgoing supply.
9. After the settings are updated, click *Final Action*, then click *Send to Device*.

10. Select the *I-module* being programmed, then click *Connect to Device*.
11. Click *Select All*, then click *OK*.
12. Wait for the configuration to be sent to the device. When the successful operation message pops up, click *OK*.

NOTE: After completing all the I-module configurations or after adding new Tap-Off Box Modules to a busway run, you must log into the G-30 module and re-perform device discovery.

1. Connect to the G-30 via Ethernet or USB.
2. Click *Device Detection* Tab.
3. Click *New Discovery*. All newly configured I-modules should appear.
4. Click *Final Action*.
5. Click *Send to Device*.
6. Select the G-30 Module and click *Connect To Device*.
7. Click *Select All* then Click *Ok*.
8. Wait for the configuration to be sent. Click *Ok*.

3 WEB PORTAL CONFIGURATION

After completing all the I-module configurations or after adding a new Tap-Off Box Module to a busway run, you must log in into the Socomec web portal and update the configuration.

1. Click the *Change Profile* Button in the upper right corner.
2. Select *Admin* and enter password *Admin*.
3. Click the *Settings Gear* Icon on the top left.
4. Click *Devices*.
5. Click *Read Configuration*.
6. Confirm all modules appear.
7. Click *Save Configuration*.

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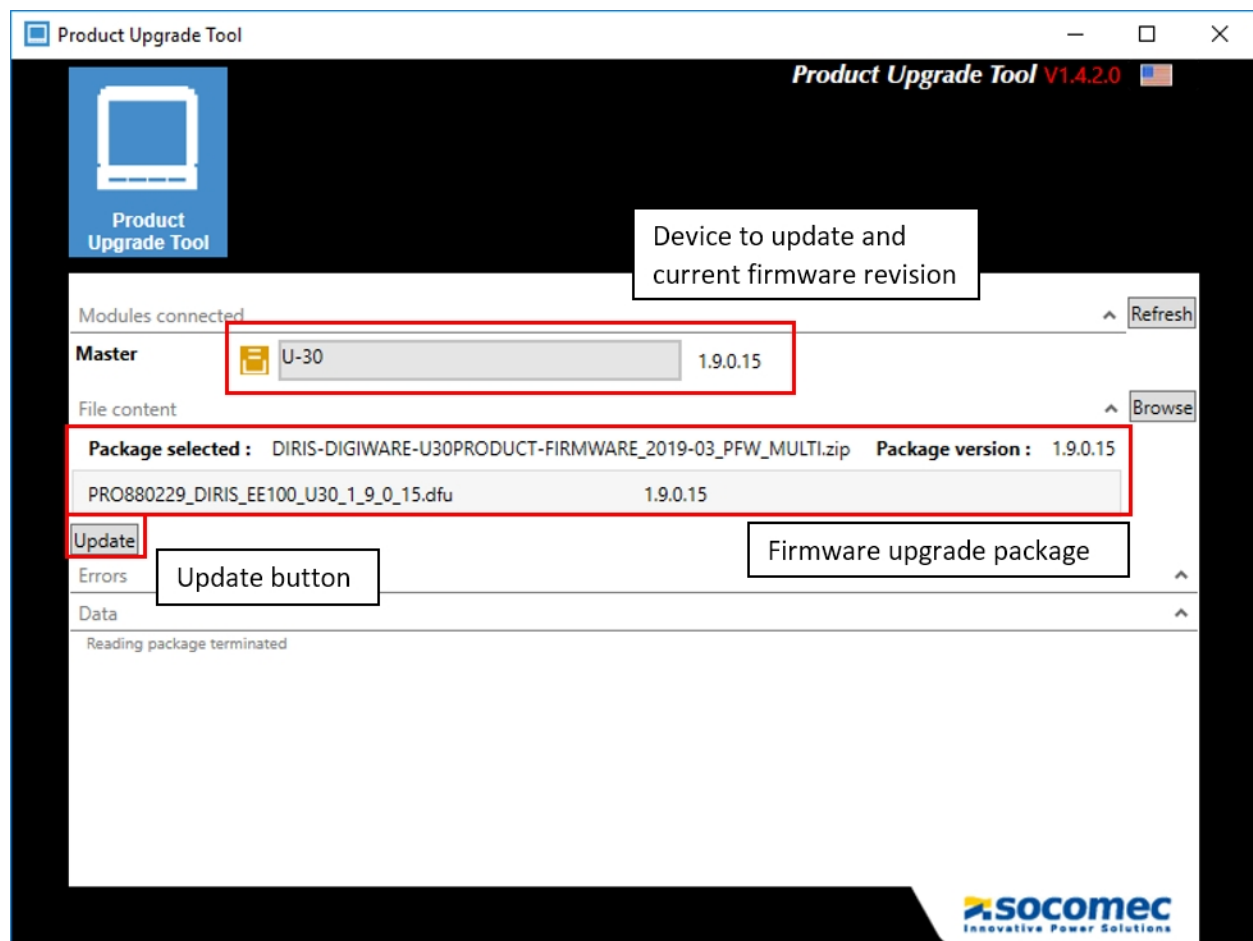
4 FIRMWARE UPDATE

If the firmware for each device is not the latest available on the Socomec website, download the firmware ZIP file for the module(s) to be updated. Firmware versions may be checked on the Socomec website: https://www.socomec.com/product-upgrade-tool-software_en.html.

To update a Socomec Digiware module firmware, perform the following steps:

1. Download the latest version of Socomec's Product Upgrade Tool and firmware version from the page above.
2. Install the Product Upgrade Tool on your laptop.
3. Connect the module to your laptop via USB – micro USB lead.
4. Open the Product Upgrade Tool program.
5. Verify the module to be upgraded is displayed in the Master field.
6. Click the *Browse* button and select the firmware ZIP file for the module.
7. Click *Update* and wait for the firmware upgrade to complete.
8. Configure the module per the instructions in section 1 or 2.

Figure 6.1 Product Upgrade Tool



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