

Remote Monitoring & Communications

Emergency Lighting Inverter Products

- FastLITE Model FST
- UltraLITE Model ELC
- UltraLITE Model ELU
- eLITE Model ELN
- eLITE Model ELE
- EON Model EL3



CONTROLLED POWER COMPANY

Table of Contents

Click on any section heading below to ‘jump’ to that section.

Lighting Inverter Products with Local Monitor & NetMinder™ Adapter

NetMinder Series of Communication Adapters	3
Available Alarms, Status Indications, and Electrical Parameters	4
UltraLITE Model ELC	4
UltraLITE Model ELU	5
eLITE Model ELN	6
eLITE Model ELE	6
Peripherals & Accessories	7

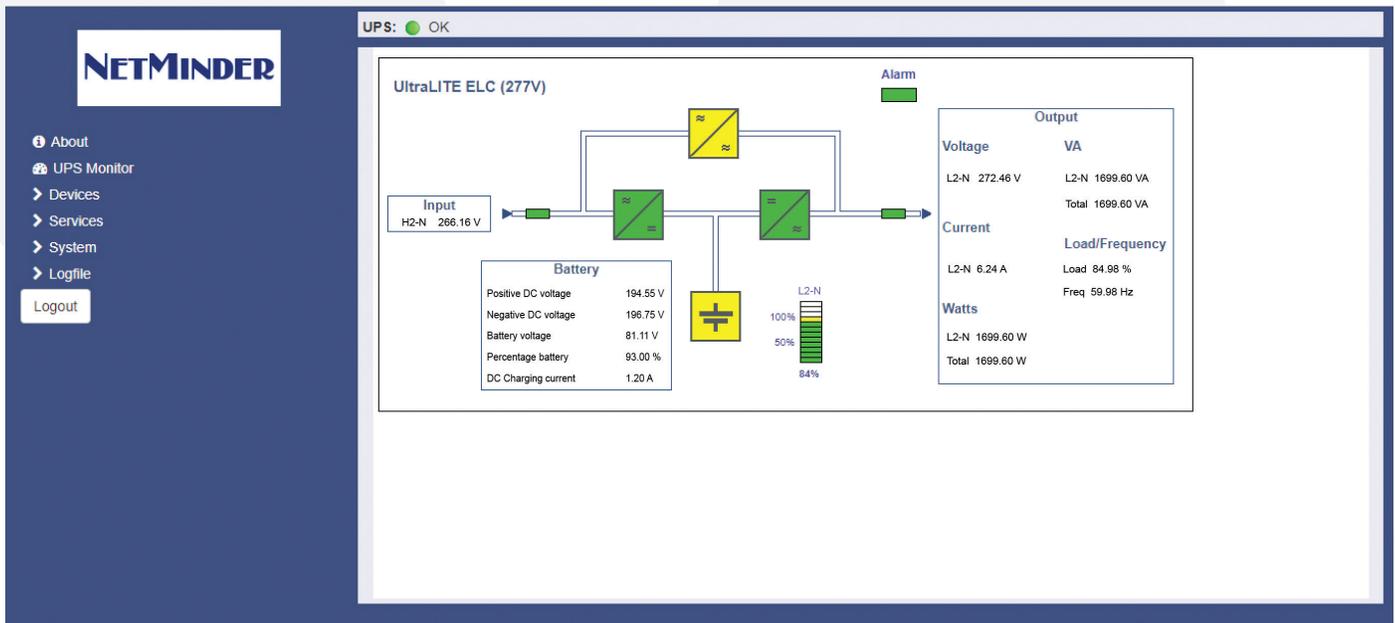
Lighting Inverter Products with Intellistat TS™ Network Communications

Intellistat TS Network Communications.....	8
Available Alarms, Status Indications, and Electrical Parameters	9
FastLITE Model FST (with optional “Intellistat TS” monitor)	9
UltraLITE Model ELU (with optional “Intellistat TS” monitor)	10
EON Model EL3	11
Peripherals & Accessories	12

NetMinder CS141 Series Of Communication Adapters



The **NetMinder CS141** series of adapters integrate a Controlled Power Company emergency lighting inverter into an Ethernet TCP/IP, MODBUS TCP, or MODBUS RS485 network. These adapters provide remote monitoring of inverter status, alarm conditions and electrical measurements via a web browser, without the need for any external software. Remote notification of alarms, battery tests and status are available via SNMP and e-mail; and are also viewable on a webpage. When used with emergency lighting inverters, the **NetMinder CS141** adapters will report the inverter's battery test pass / fail results to satisfy NFPA life safety system requirements.



Example of a NetMinder inverter monitoring screen, via the adapter's internal web interface.

These adapters are available in three different versions:

- **NetMinder CS141B** – Basic Ethernet / SNMP / TCP/IP / MODBUS TCP communications used in inverter applications.
- **NetMinder CS141L** – Advanced version, includes all functionality of the basic version, plus the addition of 4 auxiliary contact closure inputs.
- **NetMinder CS141L-485** – Adds MODBUS RS485 communications to the advanced version of the NetMinder CS141L.

BACnet Communications Capability

The **NetMinder CS141** adapters are able to communicate over a BACnet/IP or MS/TP network with the addition of customized hardware provided by Controlled Power Company. All objects including parameters, alarms, status, and test results can be monitored and stored by building management systems (BMS) ... thereby improving connectivity and simplifying maintenance.

BACnet compatibility is available with all Controlled Power Company emergency lighting inverters. The required hardware for BACnet is internally-mounted within Models "ELC", "ELU", and "EON". Models "ELN" and "ELE" require external hardware.

[Return to Table of Contents](#)

UltraLITE Model ELC

Available Alarms and Status Indications

Note: The NetMinder adapter displays some alarm events as “UPS”, however these also refer to the “Inverter”.

CS141B / CS141L / CS141L-485 Alarms

- On Battery
- Loss of AC Input Power
- UPS OK (*Inverter OK*)
- Power Restored
- UPS Connection Lost (*Inverter Connection Lost*)
- UPS Connection Restored (*Inverter Connection Restored*)
- UPS Battery Old (*Inverter Battery Old*)
- Overload
- Load Normal
- Bypass On
- Bypass Off
- Battery Low
- Load >80%
- Load >90%
- Battery Time Remaining
- Battery Test Running
- Battery Test Pass
- Battery Test Fail
- Battery Test Cancelled

CS141L / CS141L-485 Only Alarms

- AUX Port 1 High
- AUX Port 2 High
- AUX Port 3 High
- AUX Port 4 High
- AUX Port 1 Low
- AUX Port 2 Low
- AUX Port 3 Low
- AUX Port 4 Low

Any alarm function may be assigned to a specific AUX port. Usage of AUX Ports requires an additional circuit board. Consult factory for details.

Device Functions

- Manual Battery Test (Web Interface Only)
- Battery Test Cancel (Web Interface Only)

Electrical Parameters Displayed

- Input Voltage
- Output Voltage
- Output Frequency
- % Load
- % Battery Capacity
- Charger Current
- Battery Voltage
- Output VA
- Output Watts
- Output Current
- +/- DC Bus Voltage (Web Interface Only)

Return to Table of Contents

UltraLITE Model ELU

Available Alarms and Status Indications

Note: The NetMinder adapter displays some alarm events as “UPS”, however these also refer to the “Inverter”.

CS141B / CS141L / CS141L-485 Alarms

- On Battery
- Loss of AC Input Power
- UPS OK (*Inverter OK*)
- Power Restored
- UPS Connection Lost (*Inverter Connection Lost*)
- UPS Connection Restored (*Inverter Connection Restored*)
- UPS Battery Old (*Inverter Battery Old*)
- Overload
- Load Normal
- Bypass On
- Bypass Off
- Battery Low
- Load >80%
- Load >90%
- Battery Time Remaining
- Battery Test Running
- Battery Test Pass
- Battery Test Fail
- Battery Test Cancelled

CS141L / CS141L-485 Only Alarms

- AUX Port 1 High
- AUX Port 2 High
- AUX Port 3 High
- AUX Port 4 High
- AUX Port 1 Low
- AUX Port 2 Low
- AUX Port 3 Low
- AUX Port 4 Low

Any alarm function may be assigned to a specific AUX port. Usage of AUX Ports requires an additional circuit board. Consult factory for details.

Device Functions

- Manual Battery Test (Web Interface Only)
- Battery Test Cancel (Web Interface Only)

Electrical Parameters Displayed

- Input Voltage
- Output Voltage
- Output Frequency
- % Load
- % Battery Capacity
- Charger Current
- Battery Voltage
- Output VA
- Output Watts
- Output Current
- +/- DC Bus Voltage (Web Interface Only)

Return to Table of Contents

eLITE Model ELN

Available Alarms and Status Indications

Note: The NetMinder adapter displays some alarm events as “UPS”, however these also refer to the “Inverter”.

CS141B / CS141L / CS141L-485 Alarms

- Powerfail / On Battery
- UPS OK (*Inverter OK*)
- Power Restored
- UPS Connection Lost (*Inverter Connection Lost*)
- UPS Connection Restored (*Inverter Connection Restored*)
- UPS Battery Old (*Inverter Battery Old*)
- Overload
- Load Normal
- Battery Low
- Load >80%
- Load >90%
- Battery Time Remaining

CS141L / CS141L-485 Only Alarms

- AUX Port 1 High
- AUX Port 2 High
- AUX Port 3 High
- AUX Port 4 High
- AUX Port 1 Low
- AUX Port 2 Low
- AUX Port 3 Low
- AUX Port 4 Low

Any alarm function may be assigned to a specific AUX port. Usage of AUX Ports requires an additional circuit board. Consult factory for details.

Electrical Parameters Displayed

- Input Voltage
- Output Voltage
- Frequency
- Output Current (MODBUS only)
- % Load
- % Battery Capacity
- Output VA (MODBUS only)
- Output W (MODBUS only)

[Return to Table of Contents](#)

eLITE Model ELE

Available Alarms and Status Indications

Note: The NetMinder adapter displays some alarm events as “UPS”, however these references do equate to “Inverter”.

CS141B / CS141L / CS141L-485 Alarms

- Powerfail / On Battery
- UPS OK (*Inverter OK*)
- Power Restored
- UPS Connection Lost (*Inverter Connection Lost*)
- UPS Connection Restored (*Inverter Connection Restored*)
- UPS Battery Old (*Inverter Battery Old*)
- Bypass On
- Bypass Off
- Battery Low
- Battery Time Remaining
- General Alarm
- General Alarm Cancelled

CS141L / CS141L-485 Only Alarms

- Battery Test Pass
- Battery Test Fail
- AUX Port 1 High
- AUX Port 2 High
- AUX Port 3 High
- AUX Port 4 High
- AUX Port 1 Low
- AUX Port 2 Low
- AUX Port 3 Low
- AUX Port 4 Low

Any alarm function may be assigned to a specific AUX port. Usage of AUX Ports requires an additional circuit board. Consult factory for details.

[Return to Table of Contents](#)

Multifunction Communication Modem (MCM)



Meeting NFPA standards for system testing is critical in today's business infrastructure. To assist in meeting these standards, Controlled Power Company is offering the Multifunction Communications Modem (MCM). The Multifunction Communications Modem can send a fax, an e-mail, dial a phone number and play a prerecorded message, or report system test results to a web page. On inverters with system test pass/fail contacts, the Multifunction Communications Modem records system test results and automatically sends a written test report which satisfies NFPA guidelines for stored energy emergency lighting system testing. The Multifunction Communications Modem comes standard with 2 contact inputs for battery test pass/fail results, plus options for up to 8 different devices.

Remote Annunciator



Using LEDs and an audible alarm, the Remote Annunciator is a device that connects to the status and alarm contacts within the emergency lighting inverter and notifies key facility personnel of inverter alarm conditions. The Remote Annunciator includes a 50-ft cord (longer cords available in 25-ft increments) that plugs into the inverter. The Remote Annunciator both displays and sounds product-specific alarms; and also includes an Alarm Silence pushbutton which allows system personnel to silence the audible alarm(s).

Automatic Message Dialer



System monitoring is critical. In some cases where e-mail or a computer network is not available, the Automatic Message Dialer fills the gap. The automatic message dialer is an optional device available on our lighting inverters, that provides 24/7 monitoring via a telephone line. In the event there is an alarm condition with the lighting inverter, the Automatic Message Dialer dials up to 4 numbers and plays a customizable pre-recorded voice message.

MIU4 (4X Port Expander)



The MIU 4 is available with the CPC line of lighting inverters. The MIU 4 gives you the flexibility to use the NetMinder CS141, an Automatic Message Dialer, plus 2 other ports for a remote annunciator or another alarm monitoring device from one inverter. With the MIU4, there are no worries about running out of status signals.

[Return to Table of Contents](#)

Intellistat TS™ Monitor

The “Model FST” and the “Model ELU” emergency lighting inverters offer advanced digital monitoring via the optional “Intellistat TS”, located on the unit itself. On the “EON Model EL3”, the “Intellistat TS” monitor is standard on every unit.

This full-featured, user-friendly monitor provides quick and easy access to electrical parameters, system status, and event logs from a touchscreen display. Operational conditions and alarm conditions are displayed on the screen, together with an audible alarm. The color, high-resolution, LCD touchscreen display allows the entry of date / time values, system setpoints, alarm threshold settings, and password information into the monitor.

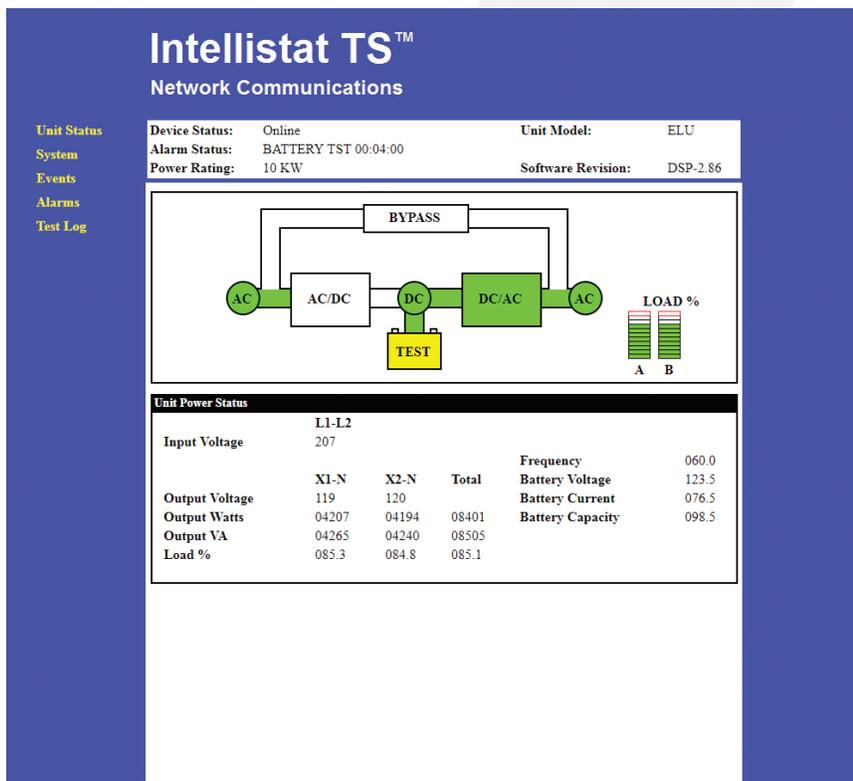
The “Intellistat TS” provides complete system diagnostics, including user-programmable automatic battery testing and time- / date-stamped logging of the results.

Intellistat TS™ Network Communications

The “Intellistat TS” monitor is available with optional “built-in” network communications, which integrate the inverter into a BACnet/IP or BACnet MS/TP, Ethernet TCP/IP, MODBUS TCP, or MODBUS RS485 network with a specific IP address for Ethernet-connected systems.

When this option is selected, the use of a NetMinder adapter is no longer necessary for remote monitoring ... however, all the communication protocols listed above are still available.

This “built-in” network communications capability also provides remote monitoring of the inverter’s status, battery test pass/fail results, alarm conditions, and electrical measurements via a [web browser](#), without the need for any external software. Remote notification of alarm and status “Events” are available via SNMP, e-mail, and text messaging; or via the user’s building management system. “Alarms” and battery “Test Logs” each store up to 250 events that are time- and date-stamped, and may be downloaded in a text file.



Example of a “Model ELU” inverter “Unit Status” screen, via the “Intellistat TS” web-based network communications.

FastLITE Model FST (with optional Intellistat TS monitor)

Available Alarms and Status Indications

- General Alarm
- Return to System Normal
- On Battery Power
- Return to AC Power
- Output VA High
- Load Normal
- Output Circuit Breaker Open
- Input Voltage Out Of Range
- Output Voltage Out Of Range
- Low Battery Warning
- Battery Critical (10% or less of capacity remaining)

Device Functions

- Manual Battery Test (Web Interface Only)
- Battery Test Cancel (Web Interface Only)

- Over-temperature
- System Shutdown
- Contact Service
- System Testing
- Battery Test Failed
- Battery Test Passed
- Lighting Integrity Test Failed
- Lighting Integrity Test Passed

Electrical Parameters Displayed

- Input Voltage
- Output Voltage
- Output Watts
- Output VA
- % Load

- Frequency
- Battery Voltage
- Battery Current
- Battery Capacity

[Return to Table of Contents](#)

Model ELU (with optional Intellistat TS monitor)

Available Alarms and Status Indications

- General Alarm
- Return to System Normal
- On Battery Power
- Return to AC Power
- Output VA High
- Load Normal
- On Manual Bypass
- Output Circuit Breaker Open
- Input Voltage Out Of Range
- Output Voltage Out Of Range
- Low Battery Warning
- Battery Critical (10% or less of capacity remaining)
- Over-temperature
- System Shutdown
- Contact Service
- System Testing
- Battery Test Failed
- Battery Test Passed
- Lighting Integrity Test Failed
- Lighting Integrity Test Passed

Device Functions

- Manual Battery Test (Web Interface Only)
- Battery Test Cancel (Web Interface Only)

Electrical Parameters Displayed

- Input Voltage
- Output Voltages L-N, L-L
- Output Watts Per Phase
- Output VA Per Phase
- % Load Per Phase
- Frequency
- Battery Voltage
- Battery Current
- Battery Capacity

[Return to Table of Contents](#)

EON Model EL3

Available Alarms and Status Indications

- General Alarm
- Return to System Normal
- On Battery Power
- Return to AC Power
- Output VA High
- Load Normal
- On Manual Bypass
- Output Circuit Breaker Open
- Input Voltage Out Of Range
- Output Voltage Out Of Range
- Low Battery Warning
- Battery Critical (10% or less of capacity remaining)

- Over-temperature
- System Shutdown
- Contact Service
- System Testing
- Battery Test Failed
- Battery Test Passed
- Lighting Integrity Test Failed
- Lighting Integrity Test Passed
- Manual Restart Required
- Bypass Not Available

Device Functions

- Manual Battery Test (Web Interface Only)
- Battery Test Cancel (Web Interface Only)

Electrical Parameters Displayed

- Input Voltage (Phase A, B, C)
- Output Voltages (Phase A, B, C)
- Output Watts (Phase A, B, C)
- Output VA (Phase A, B, C)
- % Load (Phase A, B, C)
- Frequency
- Battery Voltage
- Battery Current
- Battery Capacity

Return to Table of Contents

PERIPHERALS & ACCESSORIES

Consult factory for availability of peripherals and accessories for use with specific inverter models.

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MIU4 (4X Port Expander)



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[Return to Table of Contents](#)



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