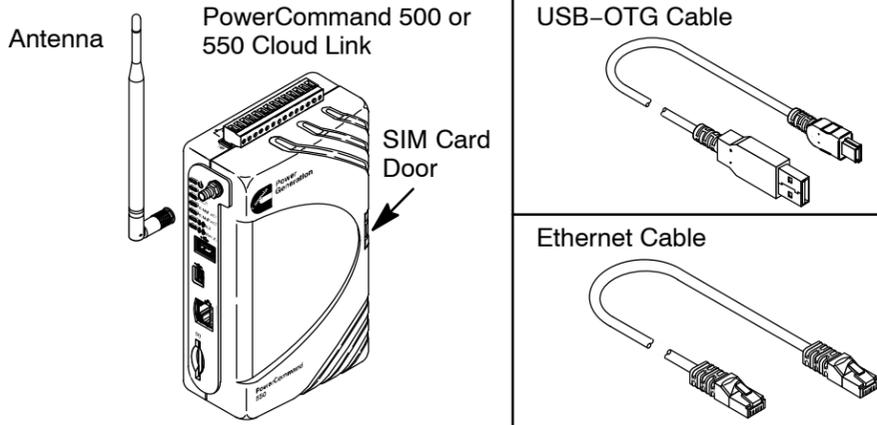


Verify Hardware Contents



Connections

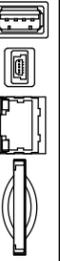
PORTS:

External USB Memory: Not Used.

USB Mini: This direct connection to PC is used to access User Interface during initial configuration.

Ethernet: Used to connect to the network; it supports both IEEE 10 BASE-T and 100 BASE-TX standards.

SD Card Slot: Not Used.



TB1 – INPUT/OUTPUT CONNECTIONS:

Input +: 9–32 VDC power supply or B+ battery.

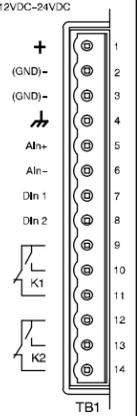
Negative Ground (GND)-: GND from power supply or B- battery.

Chassis Ground: Connect to an earth grounded metal surface.

Analog Resistive Input (AIn+ and AIn-): Connection for a resistive sensor into the PowerCommand 500/550 Cloud Link (600–2500 ohms).

Discrete Inputs (DIn 1 and DIn 2): Two isolated ‘open-collector’ type discrete inputs. These inputs are activated when connected to the PowerCommand 500/550 Cloud Link GND (B- or power supply ground).

Discrete Outputs: Discrete outputs are used to support a “wired generator” configuration. See the Owners Manual for more information on configuring a wired generator.



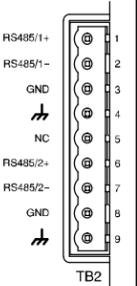
TB2 – COMMUNICATIONS TERMINAL:

RS485/1+ and RS485/1-, RS485/2+ and RS485/2-: Two sets of connections are used to support Modbus communications with PowerCommand controls on generator sets, transfer switches, or AUX 101/102. Both the control and the PowerCommand 500/550 Cloud Link must have the same Modbus configuration (baud rate, parity bit, and stop bit). Connections are made using the Modbus communication cable.

GND (Ground): Ground reference between PowerCommand 500/550 Cloud Link and controls, depending on power supply configuration (see **External Connectivity Diagrams**).

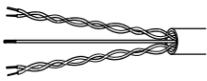
Chassis Ground: Connect to shield of the Modbus cable.

NC: Not used



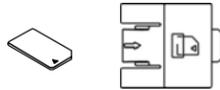
Verify Additional Hardware Needed

Modbus Cable – Required shielded twisted pair cable, 24 AWG or larger, used to connect PowerCommand 500/550 to monitored device.

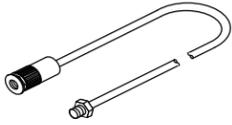


Sierra ProtoNode (A054V134) or ModLon II Gateway Kit and ModLon Connection Cable (A040T087) – Required for legacy controls (PCC2100, 3100, 3200, and 3201 generator set controls and OTPC, BTPC, OHPC, and CHPC transfer switch controls).

SIM Card – Required for 3G GSM Cellular internet connection. (Needs to be obtained from your local service provider.)



Power Supply (9–32 VDC) – Required for all installations.



Antenna Extension – Required for cabinet installations.

Verify System Requirements

- PC or Macintosh computer
- Operating System: Microsoft Windows, Mac OS X, or Linux
- Minimum Screen Resolution: 1024 x 768
- Windows Mobile Device Center

1 Connect to Power Supply

5. Connect the PowerCommand 500/550 Cloud Link to a 9–32V DC power supply. Ensure that the Cloud Link remains powered in the event of an outage.
6. Check the Power LED to confirm power is available.



2 Create the Customer Account and Site (DEALER OR DISTRIBUTOR)

1. Navigate to <https://Portal.PowerCommandCloud.com> and sign in using the link for employees/Dealers. Register for an employee/ Dealer account if you do not have one.
2. Add a new Customer Account, this will generate an email invitation to the customer for their account.
3. The customer must accept their invitation before you can add a Site to their account.
4. Add a Site to the customers account. This will generate a Gateway Access Key that you will need to establish Cloud Connectivity in section 6.

3 Access the Home Page



1. Turn on the computer.
2. Connect the USB–OTG cable from the PowerCommand 500/550 Cloud Link to the computer. The computer automatically installs a software driver. If not, install “Windows Mobile Device Center” manually.
3. Open an Internet browser window and go to **Tools > Internet Options > Connections > LAN Settings**. Under **Proxy Server**, uncheck the box for **Use a Proxy server for your LAN**.
4. In Internet browser address bar, enter the following IP address: **https://169.254.0.1** to load PowerCommand 500/550 Cloud Link login screen.
NOTE: TLS is always enabled so https:// must be used to access the device. Your browser may prompt you with a security warning, this is normal and you must click to proceed.
5. Enter the user name (admin) and password (admin).

4 Obtain an Internet Connection Via LAN (For cellular installations, refer to section 5)

1. Select **Network Settings** in the **Setup** menu.
2. Select **Edit**.
3. Enter network setting information obtained from your IT network administrator or local service provider.
4. Select **Save**.
5. Confirm that there is network connectivity (globe icon on top right)



5 Obtain an Internet Connection Via 3G Cellular

Only perform these steps if connecting to a cellular 3G network.

1. Install the included antenna.
2. Insert activated 3G SIM card into the SIM card slot of the PowerCommand 500/550 Cloud Link.
3. Select **Cellular Preferences** in the **Setup** menu.
4. Select **Enable** radio button to enable wireless data.
5. Obtain Access Point Name (APN) associated with your SIM card cellular provider. This may be found online, or by contacting your provider. Enter APN into the APN field.
6. Select **Save**.
7. Confirm that there is network connectivity (globe or 3G icon on top right).

Additional Information

If you have any questions regarding the installation, contact your nearest authorized Cummins distributor or dealer.

For additional information, refer to the PowerCommand 500/550 Cloud Link Owner Manual available on the Technical Publications CD.

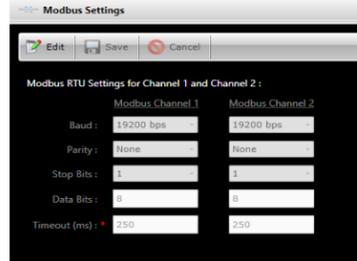
For more information on Cummins products and services, go to www.power.cummins.com.

6 Establish Cloud Connectivity

1. Confirm you have a valid internet connection before trying to connect to the cloud.
2. Select **Cloud Connectivity** in the **Setup** menu.
3. Enter a Gateway Name. This name will identify the gateway on the PowerCommand Cloud.
4. Retrieve the Gateway Access Key from the PowerCommand Cloud. This key is generated when you added a Site in section 2 above.
5. Paste the Gateway Access Key. Hold Ctrl and press V to paste.
6. Select **SAVE**.
7. Confirm that there is connectivity to the PowerCommand Cloud via the cloud icon on the top right.

7 Configure Modbus Settings

1. Select **Modbus Settings** in the **Setup** menu.
2. If any information needs to be changed, select **Edit**.
3. Enter the Modbus Channel-1 and Channel-2 information. Obtain from service tool or applicable control HMI.
4. Select **Save**.
5. All devices connected to same Modbus channel must have same Modbus Configuration (baud rate, parity, stop bits).



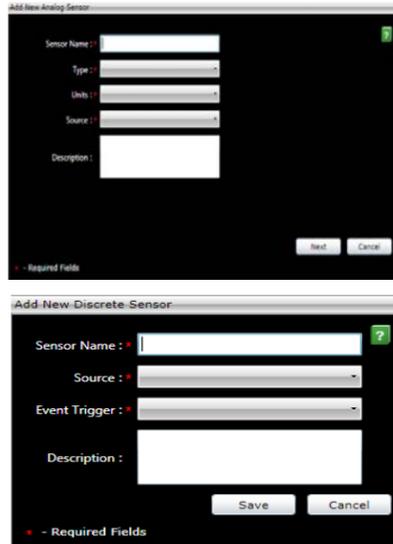
8 Configure Devices

1. Select **Device Configuration** in the **Setup** menu.
2. Select **Add New Device**.
3. Select the device type (Genset, ATS, I/O Device) and enter the required information for setting up the device.
4. Select **Save**.
5. Repeat steps 2 through 4 for each additional Modbus device.
6. Add your Devices on the PowerCommand Cloud by navigating to the account **Sites** and selecting **ADD NEW ASSET**.



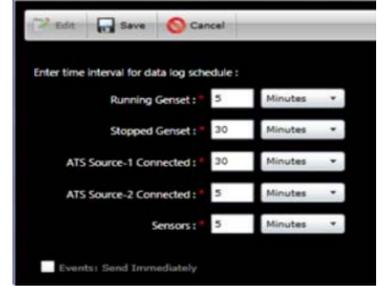
9 Configure Sensors

1. Select **Sensors and Output Controls** in the **Setup** menu.
2. To configure a **Sensor**, click on **Add New Sensor**.
3. Select the Sensor type (Discrete or Analog) and enter the sensor source and information.
4. For Analog sensors, configure Limits and warning thresholds.
5. Repeat steps 2-4 for any additional sensors.



10 Configure Telemetry Settings

1. Select **Telemetry Settings** from the **Setup** menu.
2. For each category, specify the desired time intervals that data will be recorded in the Cloud.
NOTE: Shorter intervals lead to higher data usage.
3. Select **Save**.



11 Complete the Installation

1. After all configurations are complete, unplug the USB-OTG cable from the PowerCommand 500/550 Cloud Link. Then move PowerCommand 500/550 Cloud Link to the installation site.
2. For LAN installations, connect the Ethernet cable from the PowerCommand 500/550 Cloud Link to the site's network (Ethernet hub/switch).
3. For 3G cellular installations:
 - Open Installations – Attach antenna to the SMA connector on the PowerCommand 500/550 Cloud Link.
 - Metal Cabinet Installations – Choose a location for the antenna, preferably near the top of the cabinet. Create a 9/32-inch (7mm) hole and install the bulkhead end of the antenna extension cable. Connect the other end to the SMA connector on the PowerCommand 500/550 Cloud Link. Attach the antenna to the connector on the outside of the cabinet.
4. For installations that use legacy controls, install a Sierra ProtoNode or a ModLon II Gateway for interfacing LonWorks to Modbus RTU communications. (See instructions in Instruction Sheet C673.)
5. For wiring up the Modbus communication over RS-485, use 24 AWG or larger, shielded, twisted pair cable. Both Modbus channels are located on the TB2 connector.

Using a twisted pair of the Modbus cable, connect the RS-485 signal wires from the generator set, ATS, or AUX101 control to the corresponding points on the PowerCommand 500/550 Cloud Link terminal block. Either channel is acceptable, provided it is consistent with information from step 7 (Add Devices).

Note: All devices wired to the same Modbus channel must have the same Modbus configuration (baud rate, parity, stop bits). Multiple devices can be wired over daisy chain before connecting to Channel-1 or Channel-2).

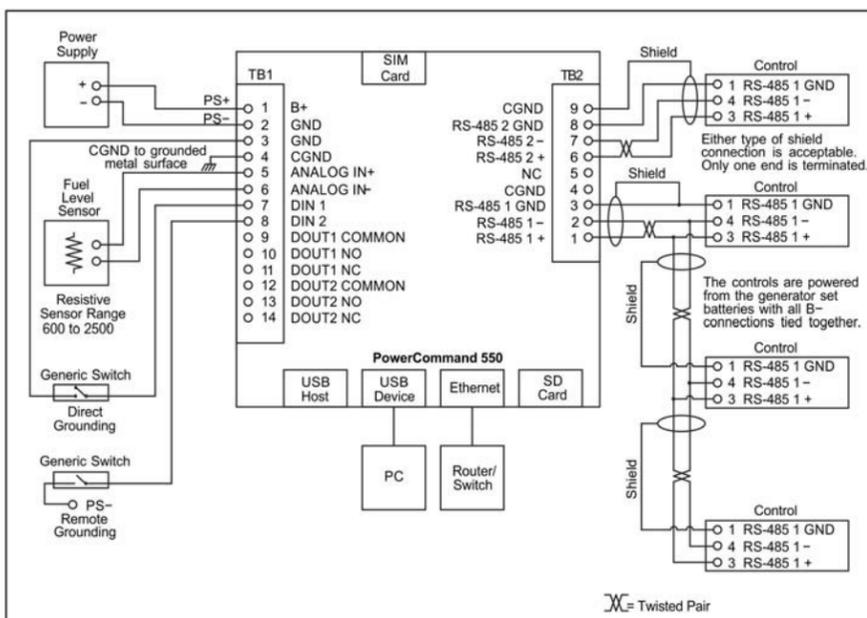
A ground reference wire may be necessary depending on the power supply configuration. If the PowerCommand 500/550 Cloud Link is powered from the same source as the connected PowerCommand Control, a ground wire is not needed. If the PowerCommand 500/550 Cloud Link uses a separate power supply, a ground reference wire should be connected.

Connect the cable shield to either CGND on the PowerCommand 500/550 Cloud Link, or the ground pin on the generator set, ATS or AUX101 control, but not both. Refer to the **External Connectivity Diagrams** for more information.

6. If needed, use standard 24 AWG or larger wire to complete the following PowerCommand 500/550 Cloud Link TB1 connections.
 - Wire the Analog Resistive Inputs to an appropriate sensor (for example, a fuel sensor).
 - Wire Discrete Input(s) and Discrete Output(s) to the desired device(s).
7. Connect the PowerCommand 500/550 Cloud Link to a 12/24VDC generator set battery or an isolated DC power supply.
8. Mount the PowerCommand 500/550 Cloud Link on a DIN rail or place on flat surface (rubber feet are provided underneath base).

External Connectivity Diagrams

Analog and Discrete Sensor Inputs:



Wired Generator:

