**NMS045 FUNCTIONALITY INSPECTION PROCEDURE**

# PURPOSE AND SCOPE

This document provides the functionality inspection procedure for the NMS045 systems, which may include any of the following items:

831C-045-AC, 831C-045-S

BAT019-045, BAT020-045

COM-RV50-045U, COM-RV50-045E

SEN031-045, SEN032-045

Each of these items has required inspection steps to ensure the quality of the outgoing system as a whole.

# RESPONSIBILITY

A technician has the responsibility to follow this instruction as outlined in 4.0 when inspecting products listed in section 1.0

# MATERIALS AND EQUIPMENT

Windows computer with internet access

“831C-045 NMS045 SLM system with cabling” drawing

# SYSTEM FUNCTIONALITY INSPECTION – PERFORMED BY TECHNICIAN

After the assembly of the 831C-045-AC/S system per the 831C-045 drawing, the following is performed for inspection:

* \*Insert a SIM card into the modem in slot #1 (use the customer’s card if provided).
* \*Verify that the antenna cables are attached to the “Diversity” and “Cellular” ports on the RV50. Also, verify that the mini USB and power cable are connected to the back of the RV50.
* Attach the 831C to the main plate. Then connect the CBL222 Hirose connector to the bottom of the meter.
* Connect a battery from the customer order to the A831.06 board.
* Verify the 831C powers on automatically.
* \*Verify that the RV50 powers on.
* For an AC system, connect the PSA040 to the wall outlet and make sure the light changes to orange on the PSA040 to indicate that it is charging the battery.
* For a solar powered system, connect a PSA040 (provided by technician) to the A831.06 controlled power block. Make sure the light changes to orange on the PSA040 to indicate that it is charging the battery
* Disconnect the battery from the A831.06 controlled power block to avoid over charging.
* Under system properties on the 831C, set *Charge* to Off.
* Under system properties on the 831C, set the external shutoff voltage according to the following:



* Close and save the settings on the 831C.
* Connect the DVX013 to a computer with a USB extension cable.
* Open a web browser and enter 192.168.14.31:9191. Log in to *Ace Manager* with the following password: *LD\_NMSystem16*.
* If customer’s SIM Card is provided follow these steps to enter the APN:
	+ Click on the *WAN/Cellular* tab.
	+ Click on *SIM Slot 1 Configuration.*
	+ Enter the customer provided APN in the *User Entered APN* Box*.*
	+ Click *Apply.*
	+ Click *Reboot.*
* Under the *status* tab, click on *cellular*. Verify the system obtains a cellular IP address (record this IP address for a later step)
* Verify that the Signal Strength (RSSI) is higher than -120 dB (i.e. -85 dB). A signal lower than -120 dB could indicate a bad antenna.



* Click *Reboot.* This is necessary to ensure IP address is static.
* Disconnect the computer from the DVX013 and plug the DVX013 back into the 831C.
* Open web browser and enter the IP Address/SoundAdvisor, using the recorded IP address from the former step, i.e. 166.130.113.153/SoundAdvisor (engineering card IP) to verify that you can connect to the meter.
* \*\* Connect the SEN031-045/SEN032-045 weather sensor to the 831C and verify the sensor is taking data:
	+ Go to the Weather section under Setup Manager. On the dropdown menu select SEN03x.
	+ Push close and save the settings. Press close again to exit to the Live view.
	+ Scroll down on the 831C Live view to the weather screen.
	+ Click run.
	+ Verify that the data appears reasonable, the SEN032 will only display wind data and the SEN031 will display wind, temp, & humidity.
* Disconnect the weather station and remove the 831C from the main plate for shipment.

\* Indicates applicable steps if COM-RV50-045U/E is part of the customer order

\*\* Indicates applicable steps if SEN031-045/SEN032-045 is part of the customer order

* Document the RV50 serial number, IMEI, and SIM card ICCID in the database with the 831C.

# TROUBLESHOOTING

# If a unit fails to power on, verify that the attached battery is charged.

# If you are unable to log in to *Ace Manager* with the provided password, verify that the LD template file (FNMS044.01RV50TEMPLATEFILE.xml) has been loaded on the RV50, refer to D0001.8422.

If you are unable to connect to the meter wirelessly, verify that the IP Address is static and that the Sierra Wireless option is checked.

For other troubleshooting problems, contact engineering.

**6.0 REVISION HISTORY**

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| --- | --- | --- | --- | --- |
| DCO # | REV | DATE | INITIALS | CHANGES MADE |
| ECO 4667 | A | 1/19/2018 | DPW | INITIAL RELEASE |
| DCO 1783 | B |  1/22/2018 |  DPW  | Added notes to ensure batteries are not overcharged |
| ECO 4673 | C | 1/25/2018 | DPW | Added step to connect wirelessly to Modem after setup |
| DCO 1877 | D | 3/13/2019 | DPW | Clarified instructions for connection to weather sensors |