**NMS044 FUNCTIONALITY INSPECTION PROCEDURE**

# PURPOSE AND SCOPE

This document provides the functionality inspection procedure for the NMS044 systems, which may include any of the following items:

NMS044-KIT1-U, NMS044-LFP100-E, NMS044-LFP100-U, NMS044-LFP60-E, NMS044-LFP60-U, NMS044-SLA100-E, NMS044-SLA100-U, NMS044-SLA60-E, NMS044-SLA60-U

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

“NMS044-XXX COMPLETED SYSTEM” drawing

# SYSTEM FUNCTIONALITY INSPECTION – PERFORMED BY TECHNICIAN

After the assembly of the NMS044 system per the NMS044-XXX drawing, the following is performed for inspection:

* Remove RV50 from bracket for access to the SIM card slots and remove the cover.
* 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.
* Verify the 831C powers on automatically when battery is plugged into power distribution block.
* Verify that the RV50 powers on.
* Connect a PSA039 to the solar connectors and make sure the Genesun Charge Controller indicates that the battery is 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:

|  |  |
| --- | --- |
| Battery | Shutoff Voltage |
| BAT019 LiFePo Battery (12V 45Ahr) | 12.0 V |
| BAT020 SLA Battery (12V 35Ahr) | 10.8 V |

* Close and save the settings on the 831C.
* Disconnect USB plug form the back of the modem that is provided with system and use a 0621.0111 cable to connect a PC to RV50
* Open a web browser and enter http://192.168.14.31:9191. Log in to *Ace Manager* with the following password: *LD\_NMSystem16*.
* Set the APN by following these steps:
	+ Click on the *WAN/Cellular* tab.
	+ Click on *SIM Slot 1 Configuration.*
	+ Enter the customer provided APN in the *User Entered APN* Box if provided. If LD SIM card is used enter i2gold*.*
	+ 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 RV50 and replace the USB connection from the cable provided with the system.
* Open web browser and enter the IP Address/SoundAdvisor, using the recorded IP address from the former step to verify that you can connect to the meter.
* Document the RV50 serial number, IMEI (If customer SIM), and SIM card ICCID (if Customer SIM) in the database with the 831C.

**Reset the APN if LD SIM card was used for testing by following these steps:**

* Disconnect USB plug form the back of the modem that is provided with system and use a 0621.0111 cable to connect a PC to RV50
* Open a web browser and enter http://192.168.14.31:9191. Log in to *Ace Manager* with the following password: *LD\_NMSystem16*.
* Set the APN by following these steps:
	+ Click on the *WAN/Cellular* tab.
	+ Click on *SIM Slot 1 Configuration.*
	+ Delete the APN value
	+ Click *Apply.*
	+ Click *Reboot.*
* Disconnect the computer from the RV50
* Remove the SIM card from RV50 if LD SIM card was used
* Replace the USB connection from the cable provided with the system.
* Turn off the 831C and unplug battery.

# 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 |
| 1875 | A | 3/1/2019 | DPW | INITIAL RELEASE |