

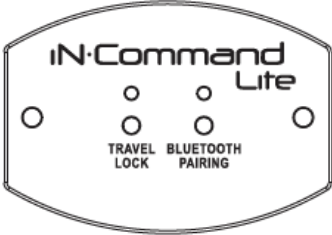
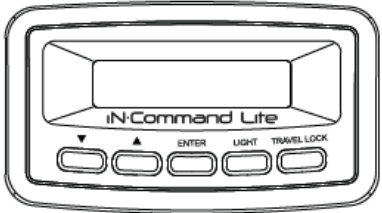
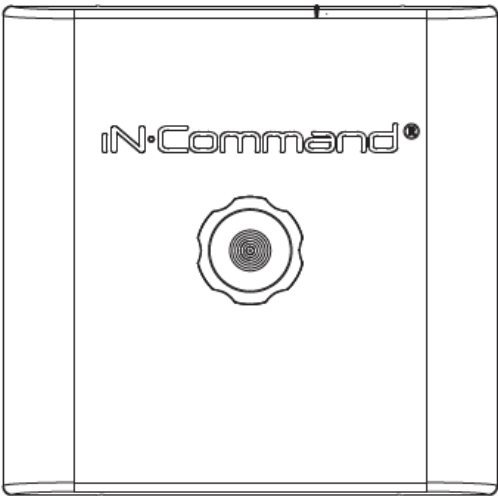


iN-Command®

CONTROL SYSTEMS

Lite

TROUBLESHOOTING GUIDE



Patent # US 9,679,735

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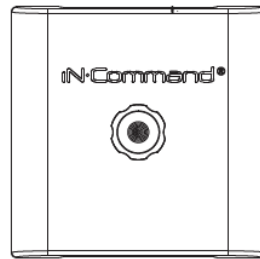
Introduction

The iN-Command Lite system is comprised of two parts; the BCM (Body Control Module) and either the DC (Display Commander) or SP (Switch Plate). The iN-Command Lite system works in conjunction with the RV Switch Panel to provide remote app control for one light group and up to seven motor functions. The DC or SP will automatically power on once power is applied.

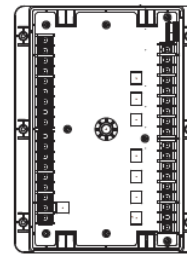
This guide is made to ease troubleshooting the iN-Command Lite system. It will cover the wiring code and where those wires are connected on the BCM (Body Control Module) and either the DC (Display Commander) or SP (Switch Plate), system functions, and what to look for to discern where a problem could be.

• Packing List

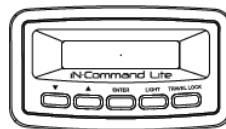
(1) Cover, (1) Thumb Screws



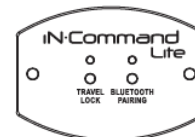
(1) Body Control Module (BCM)



(1) Display Commander (DC)



(1) Switch Plate (SP)



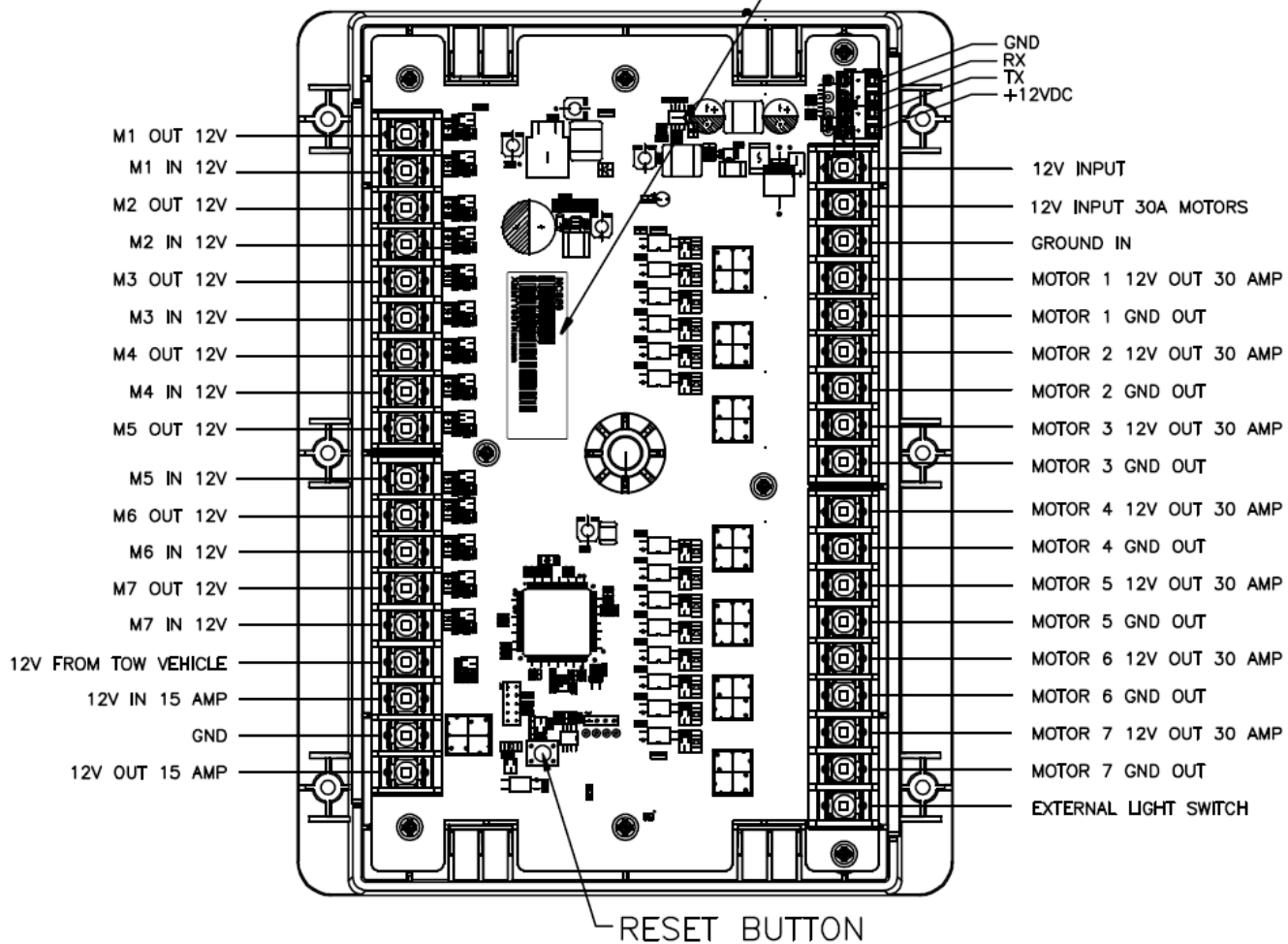
Electric Wiring Guide for the BCM

BCM Pins 1-18 are on the Left side, ascending from Top to Bottom.

BCM Pins 19-36 on the Right side, ascending from Bottom to Top.

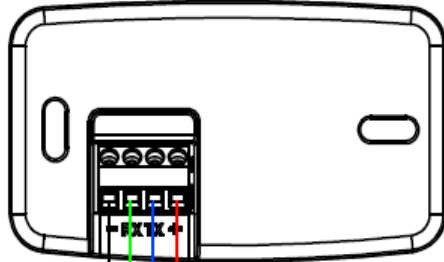
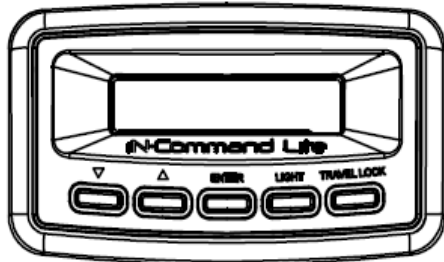
BCM Pins GND, RX, TX and +12V DC (DC RX/TX wires) are at the Top Right Side.

The TX (transmit) and RX (receive) connections at each device are crossed (crossover cable).



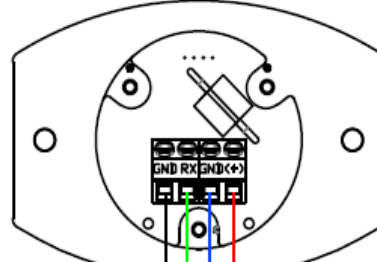
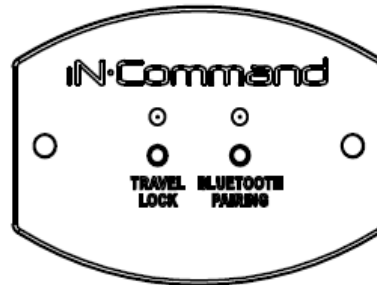
Electric Wiring for the DC/SP

OPTIONAL DISPLAY



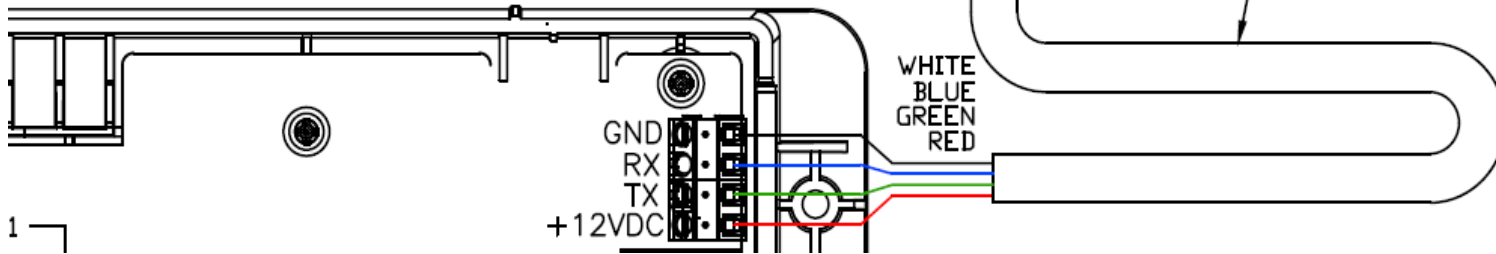
GND (WHITE)
RX (GREEN)
TX (BLUE)
+12V (RED)

SWITCH PLATE



GND (WHITE)
RX (GREEN)
TX (BLUE)
+12V (RED)

18/4 JACKETED THERMOSTAT WIRE
RED, GREEN, BLUE, WHITE



1

BCM Pin Values

	Pin	Name	BCM Function	Note	Amps	DMM
Motor Switch Inputs	1	Motor 1 Out 12V from Switch	12V for Motor 1 Extend	Reversing Polarity DC Motor	30A	12V/GND
	2	Motor 1 In 12V from Switch	12V for Motor 1 Retract	Reversing Polarity DC Motor		12V/GND
	3	Motor 2 Out 12V from Switch	12V for Motor 2 Extend	Reversing Polarity DC Motor		12V/GND
	4	Motor 2 In 12V from Switch	12V for Motor 2 Retract	Reversing Polarity DC Motor		12V/GND
	5	Motor 3 Out 12V from Switch	12V for Motor 3 Extend	Reversing Polarity DC Motor		12V/GND
	6	Motor 3 In 12V from Switch	12V for Motor 3 Retract	Reversing Polarity DC Motor		12V/GND
	7	Motor 4 Out 12V from Switch	12V for Motor 4 Extend	Reversing Polarity DC Motor		12V/GND
	8	Motor 4 In 12V from Switch	12V for Motor 4 Retract	Reversing Polarity DC Motor		12V/GND
	9	Motor 5 Out 12V from Switch	12V for Motor 5 Extend	Reversing Polarity DC Motor		12V/GND
	10	Motor 5 In 12V from Switch	12V for Motor 5 Retract	Reversing Polarity DC Motor		12V/GND
	11	Motor 6 Out 12V from Switch	12V for Motor 6 Extend	Reversing Polarity DC Motor		12V/GND
	12	Motor 6 In 12V from Switch	12V for Motor 6 Retract	Reversing Polarity DC Motor		12V/GND
	13	Motor 7 Out 12V from Switch	12V for Motor 7 Extend	Reversing Polarity DC Motor		12V/GND
	14	Motor 7 In 12V from Switch	12V for Motor 7 Retract	Reversing Polarity DC Motor		12V/GND
Travel Lock	15	Lockout Signal In 12V	12V Input from Tow Vehicle Brake	Lock Out Motor Functions when 12V Present		12V
Lighting I/O	16	Light 12V 15A In	Input	From Converter, Main Breaker box	15A	12V
	17	Light GND	Just a Terminal, No PCB Trace Needed			GND
	18	Light 12V 15A Out	Output 12V From Pin 16 In 12V			12V
	19	External Light Switch 12V In	12V Input from External Switch			12V

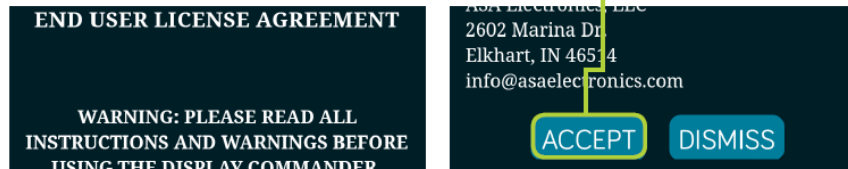
Motor Outputs	20	Motor 7 In	12V for Motor 7 Retract	Reversing Polarity DC Motor	30A	12V/GND
	21	Motor 7 Out	12V for Motor 7 Extend	Reversing Polarity DC Motor		12V/GND
	22	Motor 6 In	12V for Motor 6 Retract	Reversing Polarity DC Motor		12V/GND
	23	Motor 6 Out	12V for Motor 6 Extend	Reversing Polarity DC Motor		12V/GND
	24	Motor 5 IN	12V for Motor 5 Retract	Reversing Polarity DC Motor		12V/GND
	25	Motor 5 Out	12V for Motor 5 Extend	Reversing Polarity DC Motor		12V/GND
	26	Motor 4 In	12V for Motor 4 Retract	Reversing Polarity DC Motor		12V/GND
	27	Motor 4 Out	12V for Motor 4 Extend	Reversing Polarity DC Motor		12V/GND
	28	Motor 3 In	12V for Motor 3 Retract	Reversing Polarity DC Motor		12V/GND
	29	Motor 3 Out	12V for Motor 3 Extend	Reversing Polarity DC Motor		12V/GND
	30	Motor 2 In	12V for Motor 2 Retract	Reversing Polarity DC Motor		12V/GND
	31	Motor 2 Out	12V for Motor 2 Extend	Reversing Polarity DC Motor		12V/GND
	32	Motor 1 In	12V for Motor 1 Retract	Reversing Polarity DC Motor		12V/GND
	33	Motor 1 Out	12V for Motor 1 Extend	Reversing Polarity DC Motor		12V/GND
Power	34	Chassis GND	GND			GND
	35	12V In	Electric Motor Feed from Battery		30A	12V
	36	12V In	BCM Power from Converter		15A	12V
Display Commander Link	37	12V Out	12V Out Connect to DC			12V
	38	TX	TX Out Connect to DC			VDC
	39	RX	RX Out Connect to DC			VDC
	40	GND	GND Out Connect to DC			GND

The BCM should be wired correctly, without loose connections and +12VDC connected at pin 36. A **RED** LED will indicate that the BCM is powered and receiving 12V. The DC or SP is connected to the BCM with 4 wires in the upper right corner of the board: ground, receiver, transmit and 12V (GND, RX, TX, & 12V). When the SP is powered on, the **RED** and **BLUE** LED's will stay lit while the SP is initializing. Once the LED's turn off, the SP is ready for operation. When the DC is powered on, initializing will appear on the display. Once initializing is replaced by iN-Command Lite on the display, the DC is ready for operation.

Pairing the Mobile App

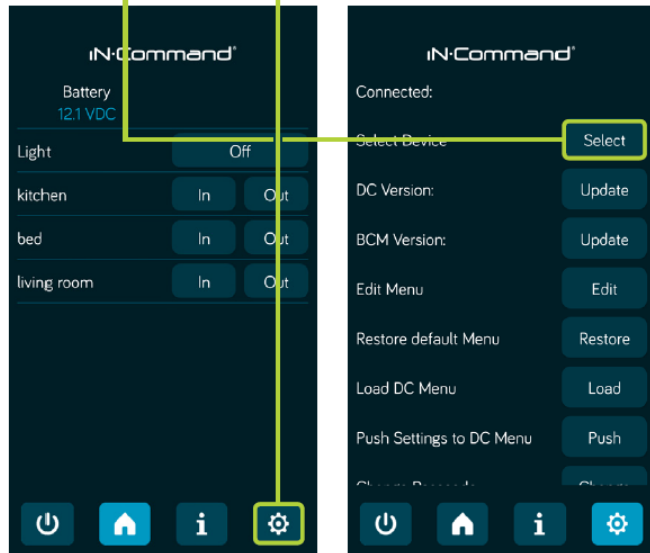
iN-Command Lite is able to pair with Android and iOS devices via the mobile app. Only one mobile device can be paired with iN-Command Lite at a time.

- 1 The first time the app is opened, the End User License Agreement (EULA) screen will appear. Scroll through the EULA screen and press "Accept".

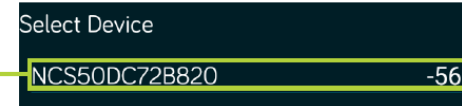


- 2 Press the gear cog to enter the settings page.

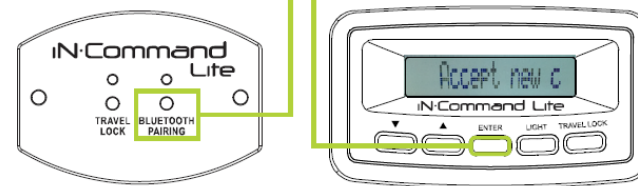
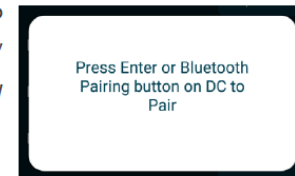
- 3 Press "Select" button to connect the SP or DC.



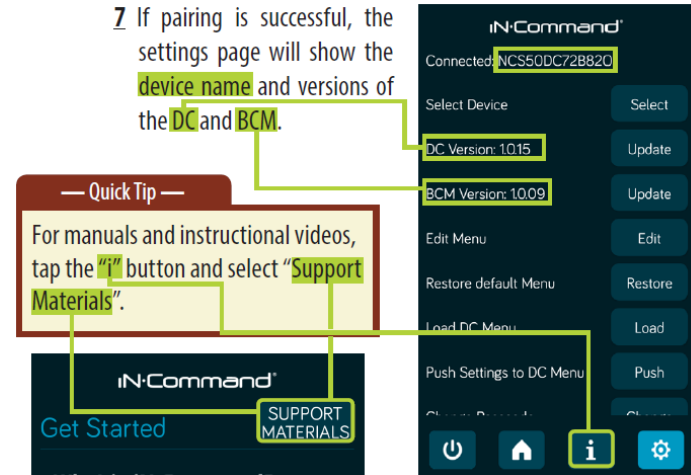
- 4 Press device name to connect.



- 5 Mobile device will show a pairing message. The SP will flash a blue light – press "BLUETOOTH PAIRING" button to pair. The DC will flash "Accept new connection" on display – press "ENTER" to pair.



6 Once paired, you'll need to enter a new passcode. Enter once more to confirm.

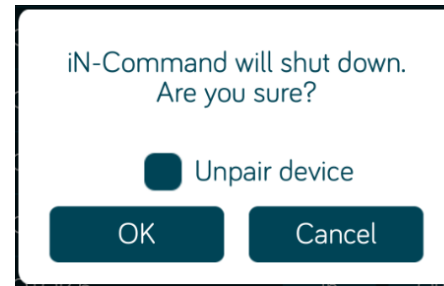
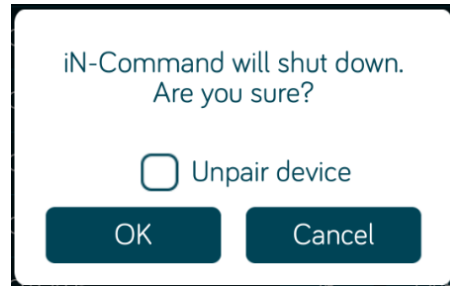


To connect NCS50DC/SP with another device, perform the following steps:

NCS50SP: Long press "Bluetooth Pairing" button for 7 ~ 10 seconds to unpair device. NCS50SP will flash blue light twice when device is unpaired.

NCS50DC: In DC Menu, select unpair device and press the enter button. A message of "Are You Sure" will appear. Press "Enter" button again.

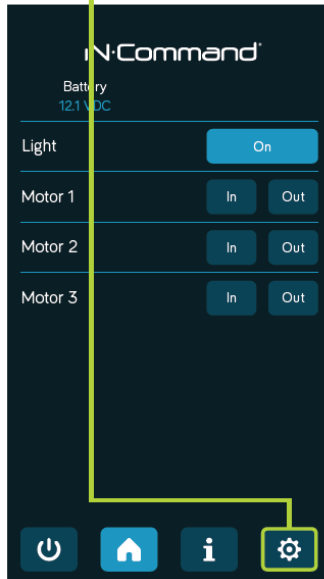
App: When powering down the App, select the box to "Unpair Device".



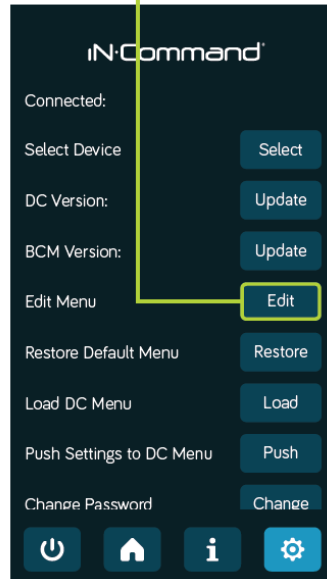
Note: If unable to pair a device, go through the above steps to unpair a device, to make sure there is still not a device connected to the NCS50DC/SP.

Editing the Floor Plan

From the home page, press the **GEAR COG** to enter Settings.



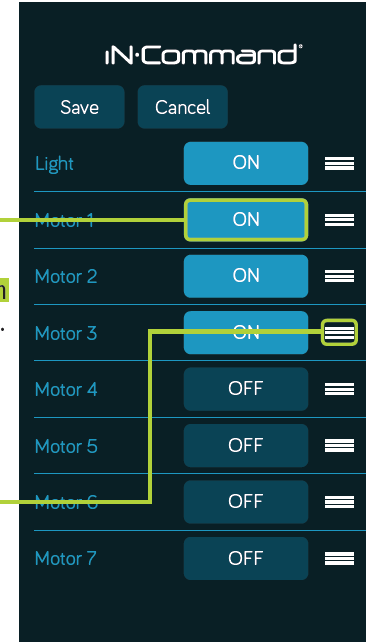
To edit the floor plan, press the **"EDIT"** button.



In the Edit Menu, you can add, remove, reposition, and edit the name of functions.

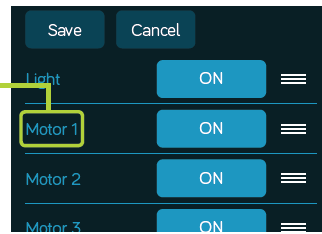
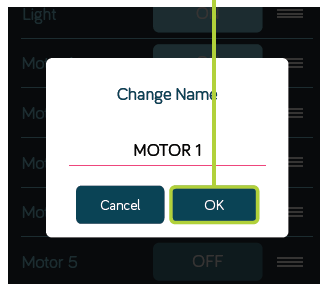
To add or remove functions, press the **button** next to the function name.

To reposition a function, press and hold the **"≡"** icon. Drag to move to a new location.

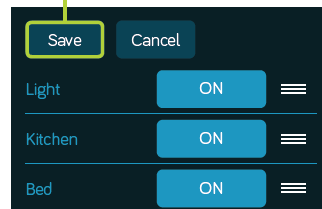


To edit the name, press on the **FUNCTION TEXT**.

A window to rename will open. Press **"OK"** once finished editing. (Text box is limited to 12 characters)



When all changes have been made, press the **"SAVE"** button.



Restore Default Floor Plan

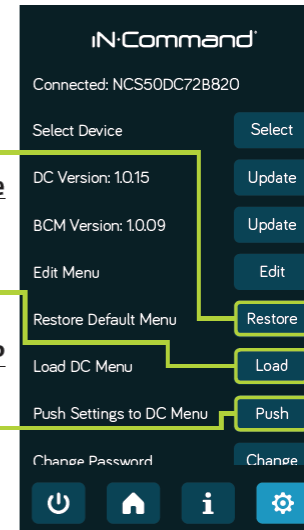
Press **"RESTORE"** next to 'Load Default Menu'

Push Floor Plan from DC/SP to Mobile Device

Press **"LOAD"** next to 'Load DC Menu'

Push Floor Plan from Mobile Device to DC/SP

Press **"PUSH"** next to 'Push Settings to DC Menu'



Troubleshooting

Symptom	Solution
DC/SP will not turn on	Verify the BCM is powered on.
	Check main fuse in Distribution Panel.
	Verify red wire from BCM 12V (pin 37) is connected to 12V input on DC/SP.
	Verify ground from BCM (pin 40) is connected to ground input on DC/SP
No Power to the BCM	Check if the RED power LED is on.
	Check the main fuse in the Distribution Panel.
	Check for 12V at pin 36.
	Check for ground at pin 34.
DC/SP Flashing On and Off	Cycle power to the BCM
	Ensure wires from BCM to DC are not damaged or pinched
	Ensure wires are making contact with pins.
	Press Reset button on BCM.
Light Group is not working	Cycle power to the BCM.
	Check 12V at pin 16 and ground at pin 17.
Motor Functions are not working	Check Light Group fuse in the Distribution Panel.
	Check 12V at pin 35.
Travel Lock is on (Motor Functions Disabled)	Ensure 12V is removed from pin 15 (When the brakes are no longer being applied, or tow cable is removed).
	Press Reset button on BCM.
Functions not operating from DC/SP or App and Battery voltage displays 0V	Check to Ensure RX and TX wires are connected properly (RX from BCM connects to TX on DC/SP; TX from BCM connects to RX on DC/SP).

The NCS50 BCM with the SP/DC allows you to either use the RV Switch Panel or iN-Command App to control your RV's functions. The **BCM Pin Values** portion of this guide will clear most issues. Basically, if the BCM does not have the desired voltage, or signal input, it will not be able to function or read battery voltage. Also, if the BCM has the correct output voltage, but nothing is functioning, the problem lies in the wiring leading to the malfunctioning component or the component itself.

Any issues that are related to iN-Command that cannot be cleared using the above list will be tied to the BCM and DC hardware and software. Careful inspection of the BCM will need to be done (possibly blowing the BCM board with air to remove any dust, debris, or conductive material). If the BCM looks clean and undamaged (without burnt or cracked components) with all the wires secure and not touching each other, troubleshooting the software is needed.

Contact an ASA representative 1-877-845-8750 for questions regarding iN-Command software or hardware issues.