Troubleshooting Guide

Re: NCS50 Troubleshooting Guide

Details:

1. Bluetooth Pairing
    a. Reference NCS50 Troubleshooting Guide and Manual for pairing process.
    b. Press and Hold Pairing button on NCS50SP (Switch Plate) for 10 seconds to clear any previously paired device *then* proceed with pairing new device.
2. No Lights on Switch Plate
    a. Check for power at back of Switch Plate
    b. Power is provided **from** NCS50 Board **to** NCS50 Switch Plate
    c. Can also run new wires between Board and Switch Plate if wires are in question.
3. Phone Connected but does not communicate – meaning functions do not work, Battery VDC is not shown in app.
    a. Check that RX (Receive) and TX (Transmit) wires are seated and oriented correctly between Board and Switch Plate. This same troubleshooting was used on JRVCS105 and JRVCS2 systems that would not communicate.
    b. Can also run new wires between Board and Switch Plate.
4. BCM **constantly** sends power to motor pins or **never** sends power to motor pins.
    a. If a relay has failed and is constantly outputting voltage the motor will constantly run.
        i. A failed relay can, but not always, bubble at the surface.
        ii. A failed relay will be stuck and is constantly "closed" or "open" and will either **always** send voltage through to motor or **never** send voltage through to motor.
    b. Tapping on relay may relieve issue altogether.
    c. Normal troubleshooting should occur.
        i. Check that the signal is not being sent to the left side of the Board. The left side of the board is where switches are connected for the user to press and signal, they would like a motor to move in a certain direction. If a switch has failed, then it may be signaling the Board to fire the motor.
            1. Check for voltage on left side of board for Motor X OUT and Motor X IN

Pin	Name	BCM Function	Note	Amps	DMM
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

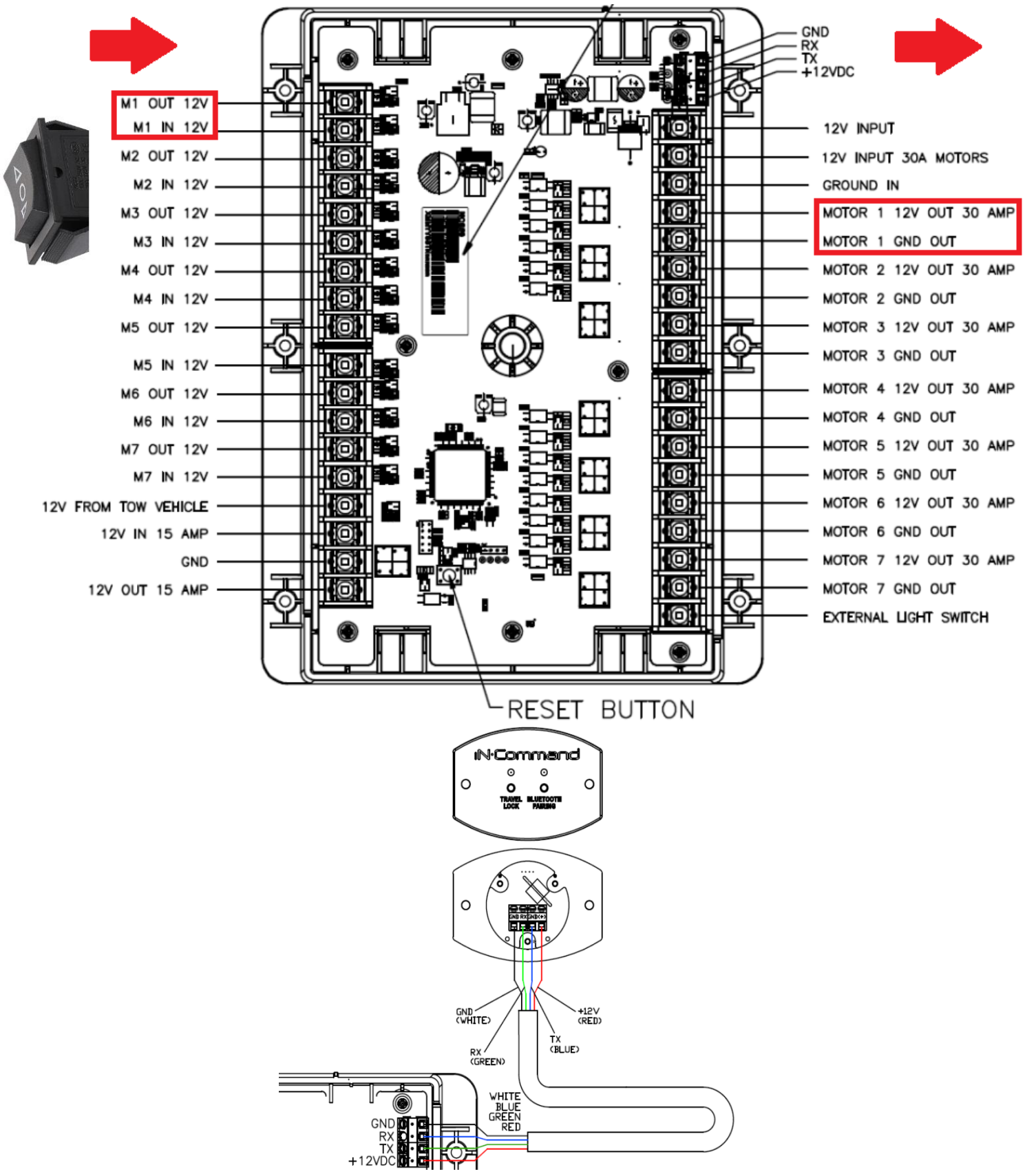
            2. Check for voltage on the right side of the board for Motor X IN and Motor X OUT
                a. Remember that if you do find voltage here you should also have the technician **remove the wires from these pins** to see if the voltage is still shown.
                b. If voltage is never sent out this would also indicate a bad relay.

32	Motor 1 In	12V for Motor 1 Retract	Reversing Polarity DC Motor	30A	12V/GND
33	Motor 1 Out	12V for Motor 1 Extend	Reversing Polarity DC Motor		12V/GND

    d. During this troubleshooting you can activate from the switch on the wall or from the Bluetooth connected phone using iN•Command Lite App.

Harold Arnold 9/11/2023

Below image shows NCS50 and Switch Inputs on LEFT and Outputs to Motor on RIGHT:



Harold Arnold 9/11/2023