











Multiplex Integration Schematic

2019 Phaeton

Schematic Connections Legend

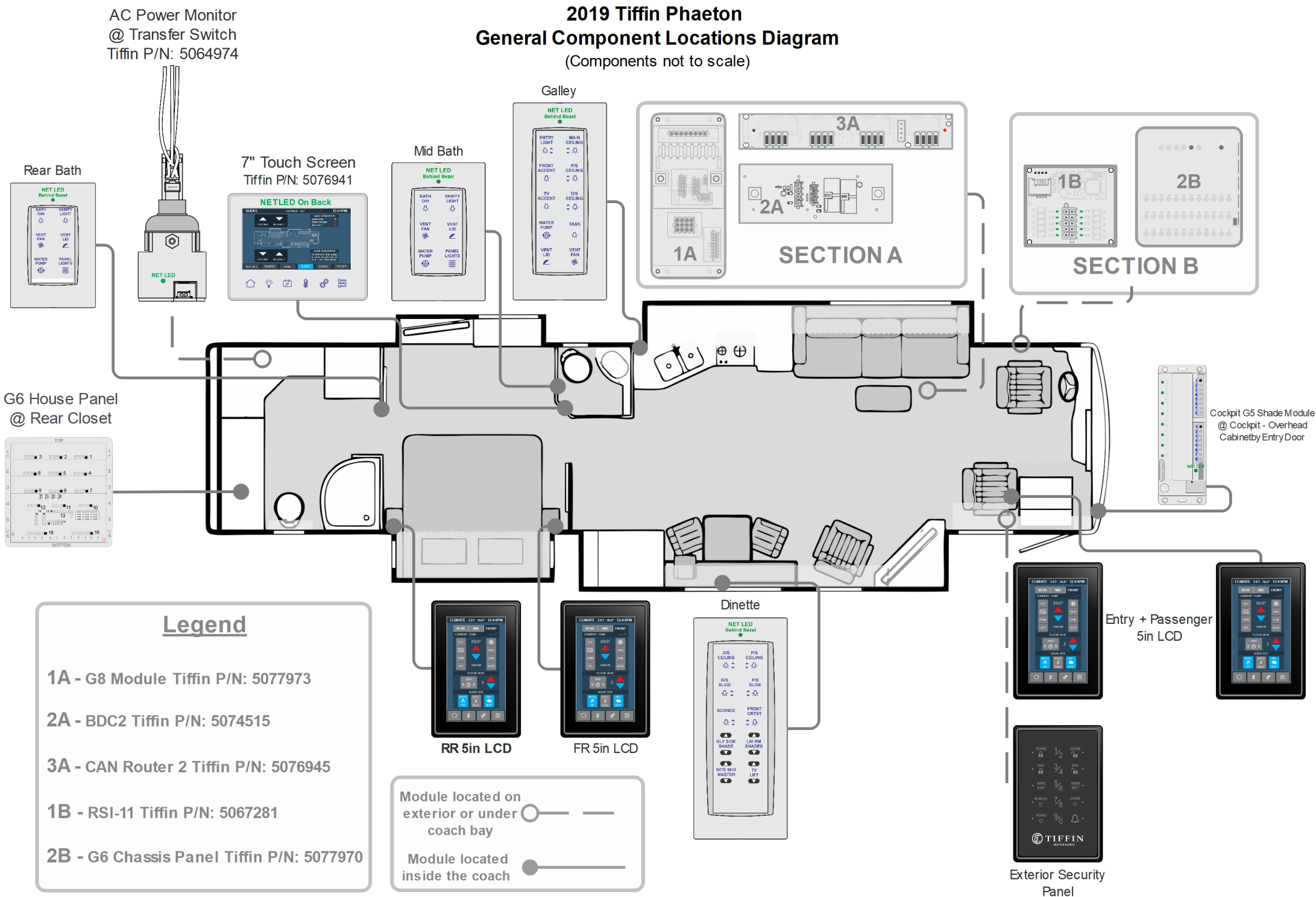
 Constant Ground	 Reverse Polarity
 Constant 12V+	 Signal
 Switched Ground	 120 VAC Line
 Switched 12V+	

Network Connections Legend

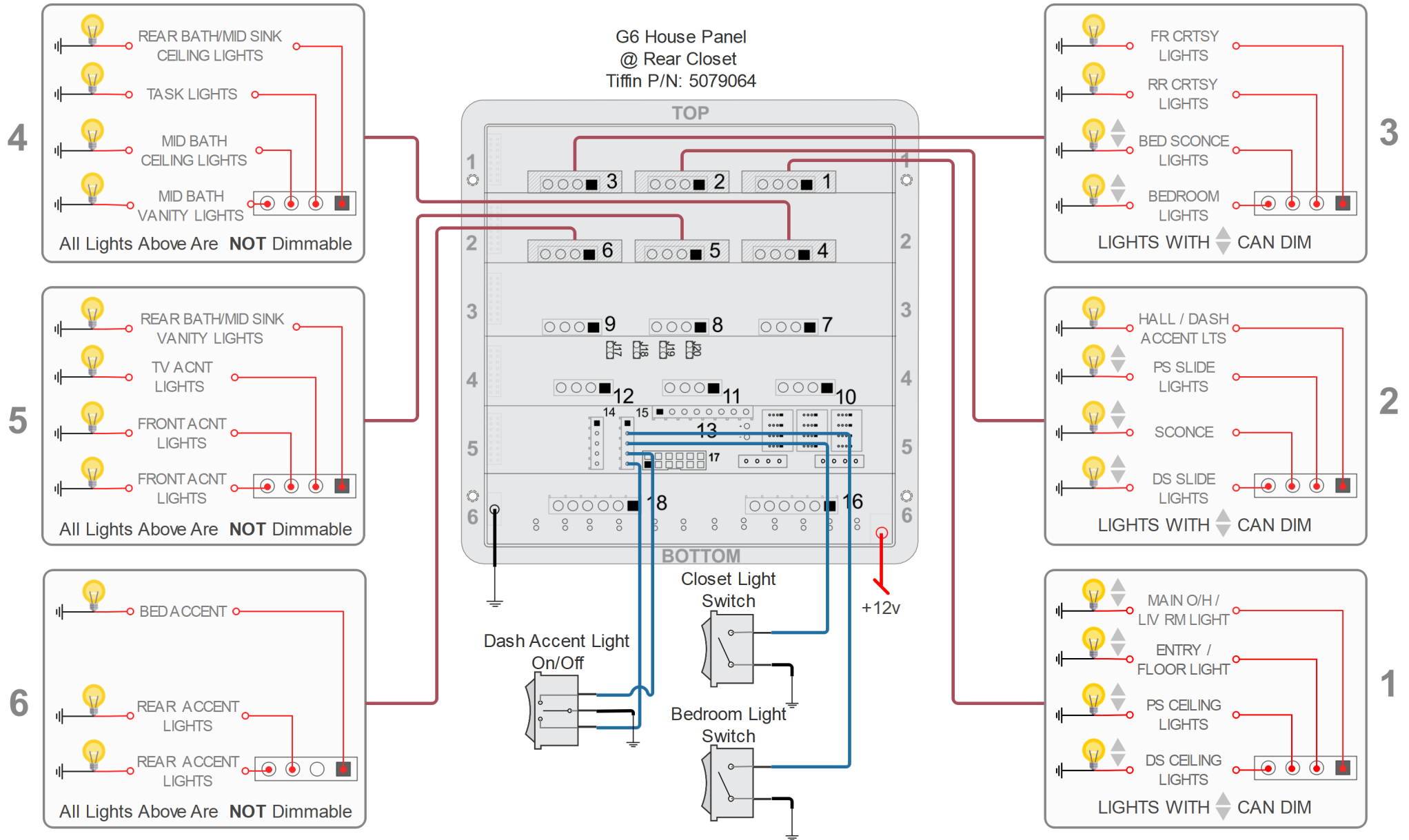
 Critical Network
 Switch / Screen
 Module Network

2019 Tiffin Phaeton General Component Locations Diagram

(Components not to scale)

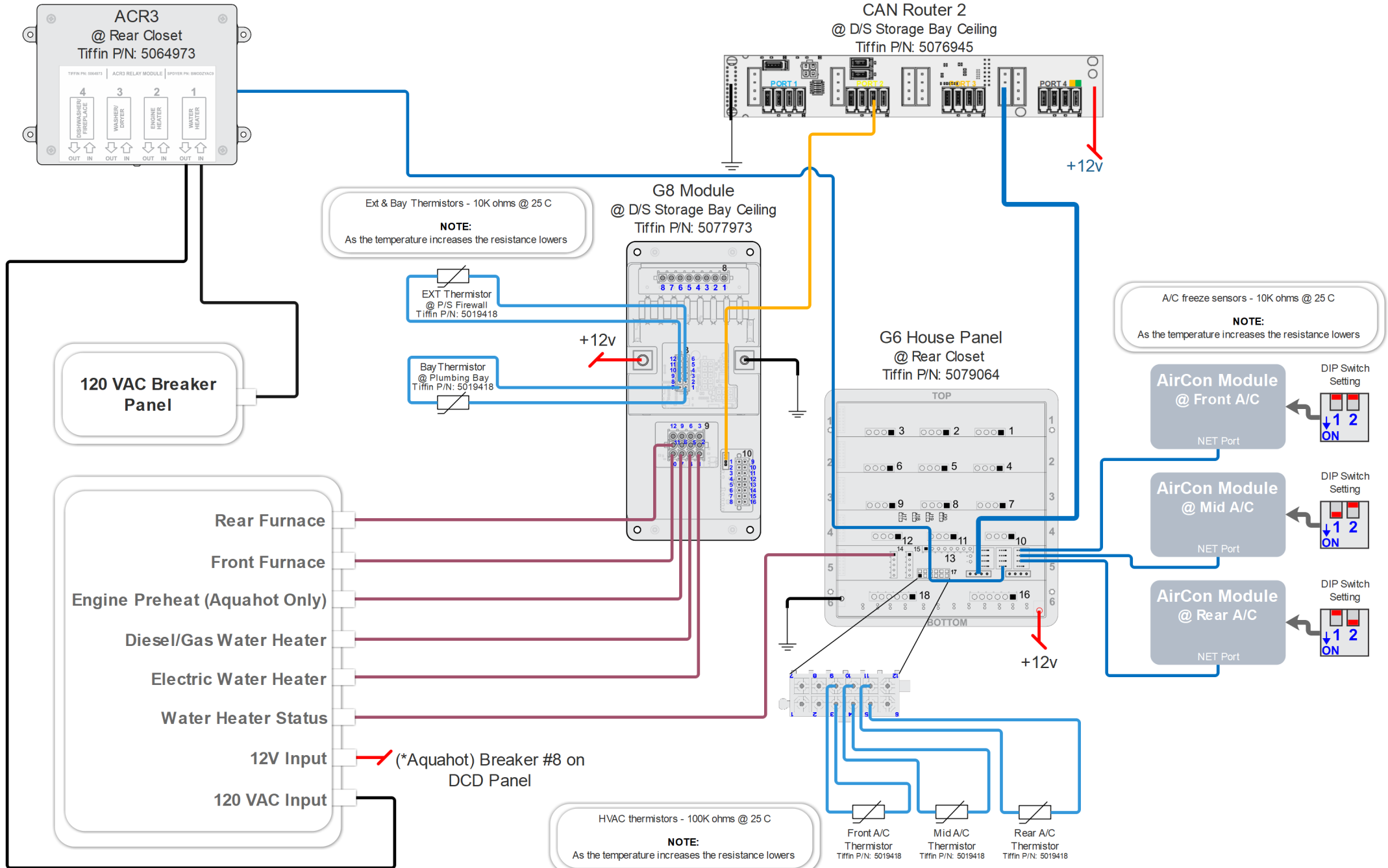


2019 Tiffin Phaeton Lighting System (Components not to scale)

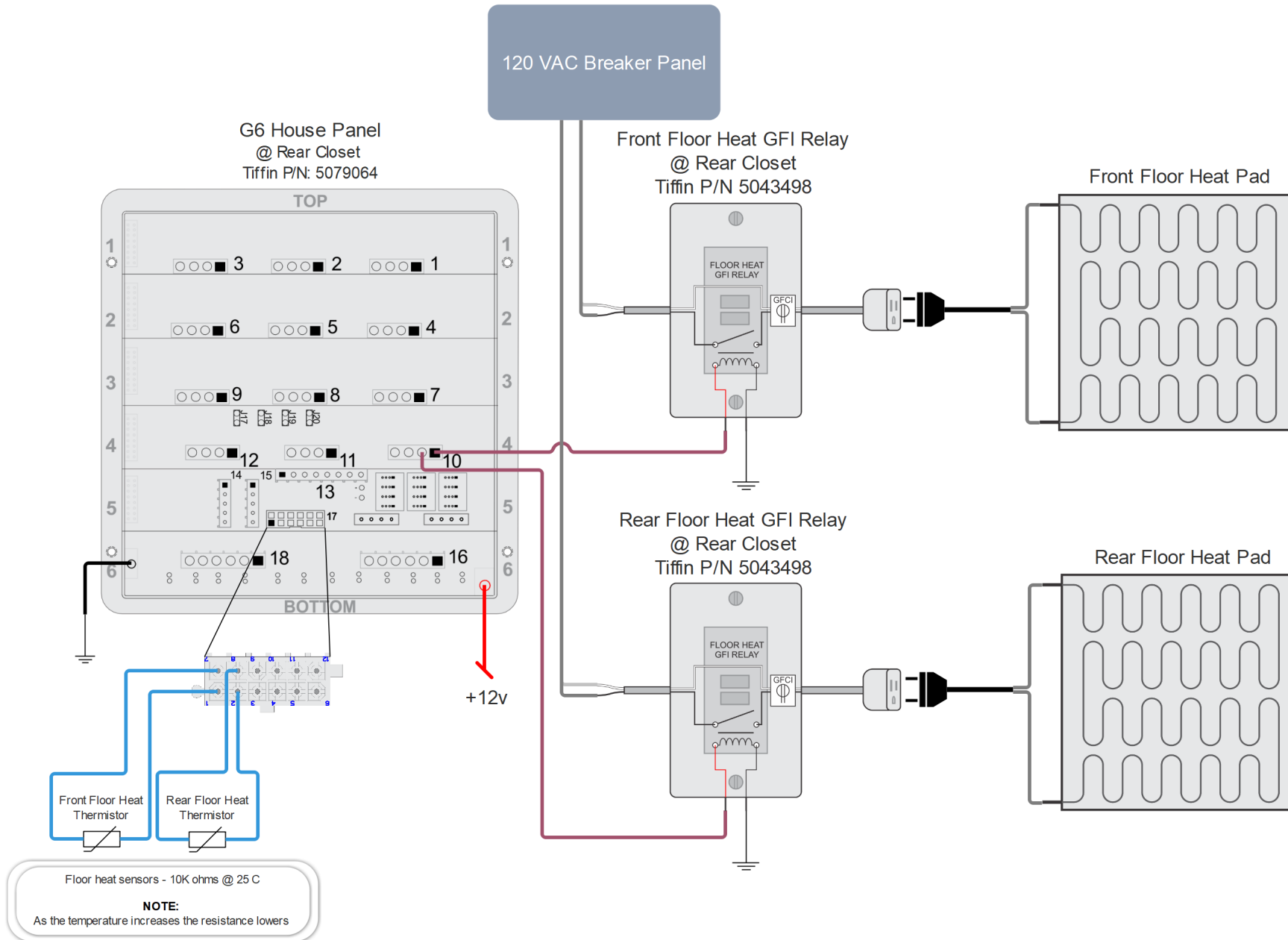


2019 Tiffin Phaeton HVAC System

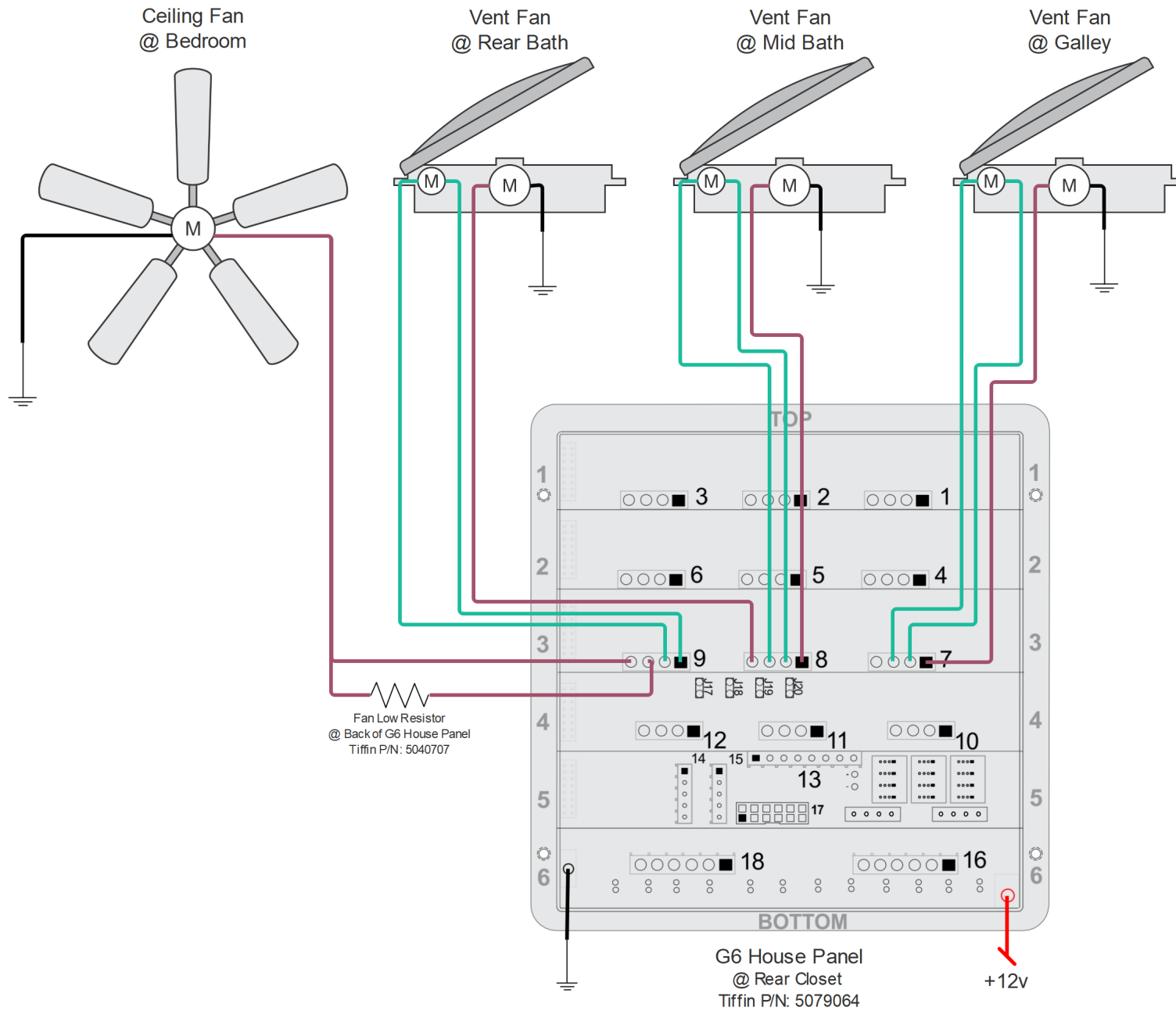
(Components not to scale)



2019 Tiffin Phaeton Floor Heat System (Components not to scale)

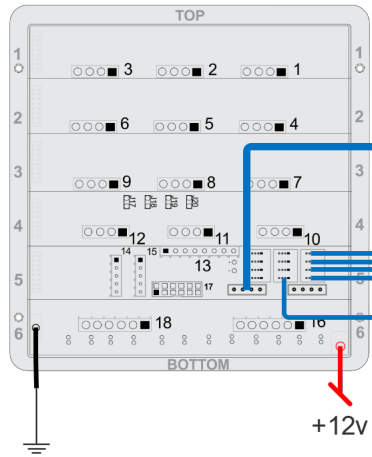


2019 Tiffin Phaeton Vent Fan & Ceiling Fan System (Components not to scale)

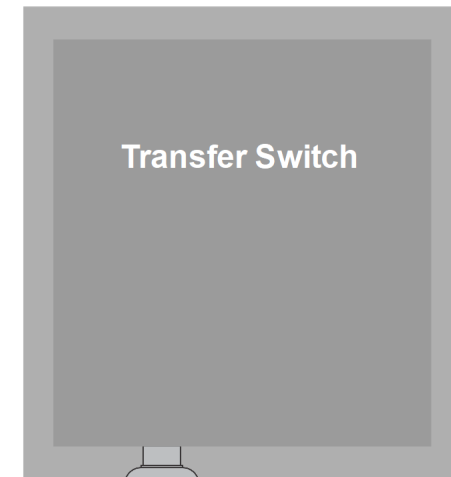
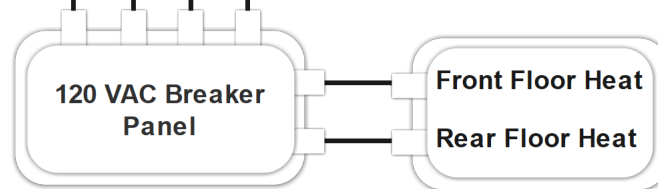
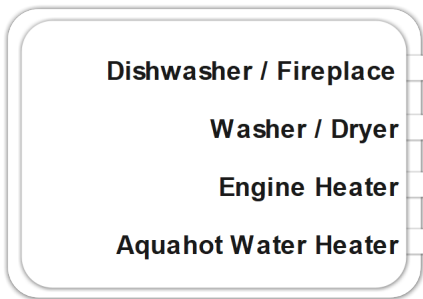
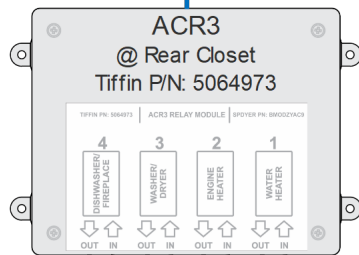
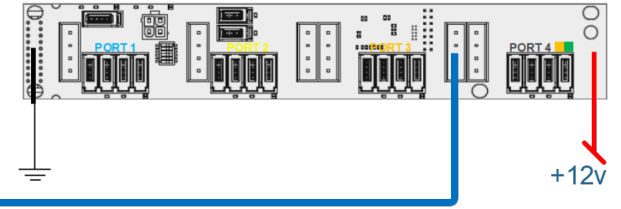


2019 Tiffin Phaeton EMS System (Components not to scale)

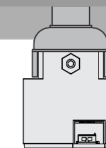
G6 House Panel
@ Rear Closet
Tiffin P/N: 5079064



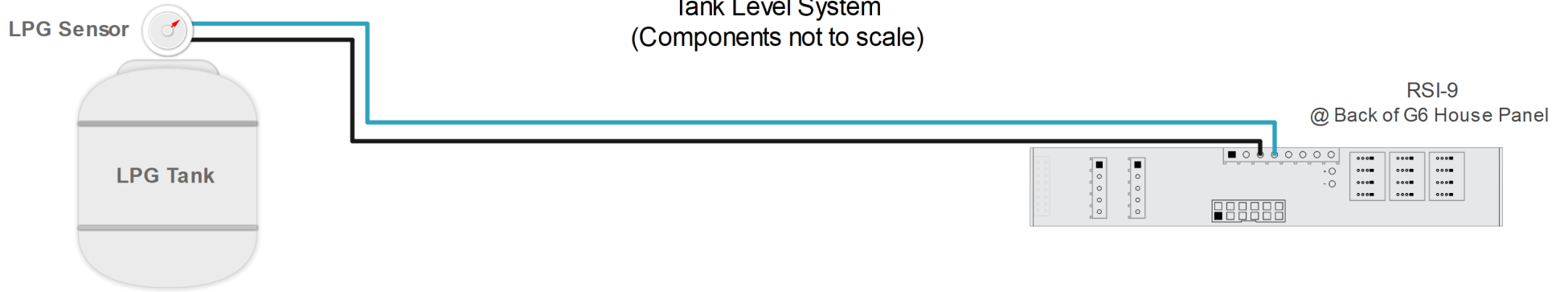
CAN Router 2
@ D/S Storage Bay Ceiling
Tiffin P/N: 5076945



AC Power Monitor
@ Transfer Switch
Tiffin P/N: 5064974



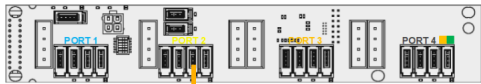
2019 Tiffin Phaeton Tank Level System (Components not to scale)



LPG Sensor

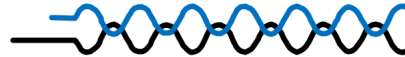
LPG Sensor measures LPG level. A full LPG Tank will measure 90+ Ohms a empty tank will measure close to or 0 Ohms.

CAN Router 2
@ D/S Storage Bay Ceiling
Tiffin P/N: 5076945



All sensor wires and respective grounds are twisted in pairs.

Black Sensor #1 Pair



Black Sensor #2 Pair



Grey Sensor Pair

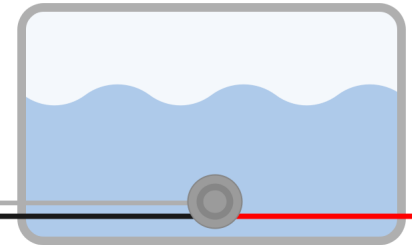


Fresh Sensor Pair

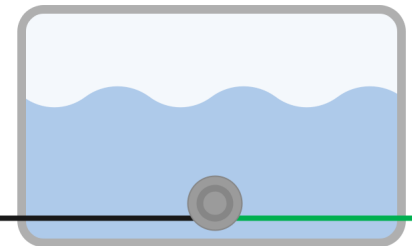


Spyder Tank Sensor Side Mount
@ P/S Tank Plane
Tiffin P/N: 5078149

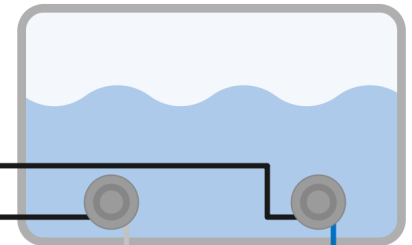
Fresh Tank



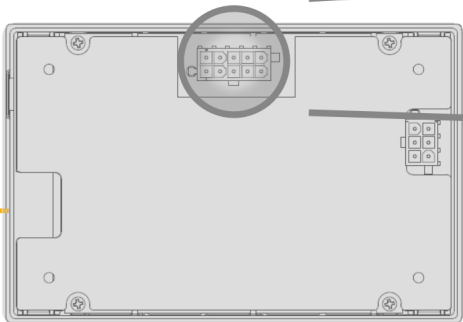
Grey Tank



Black Tank

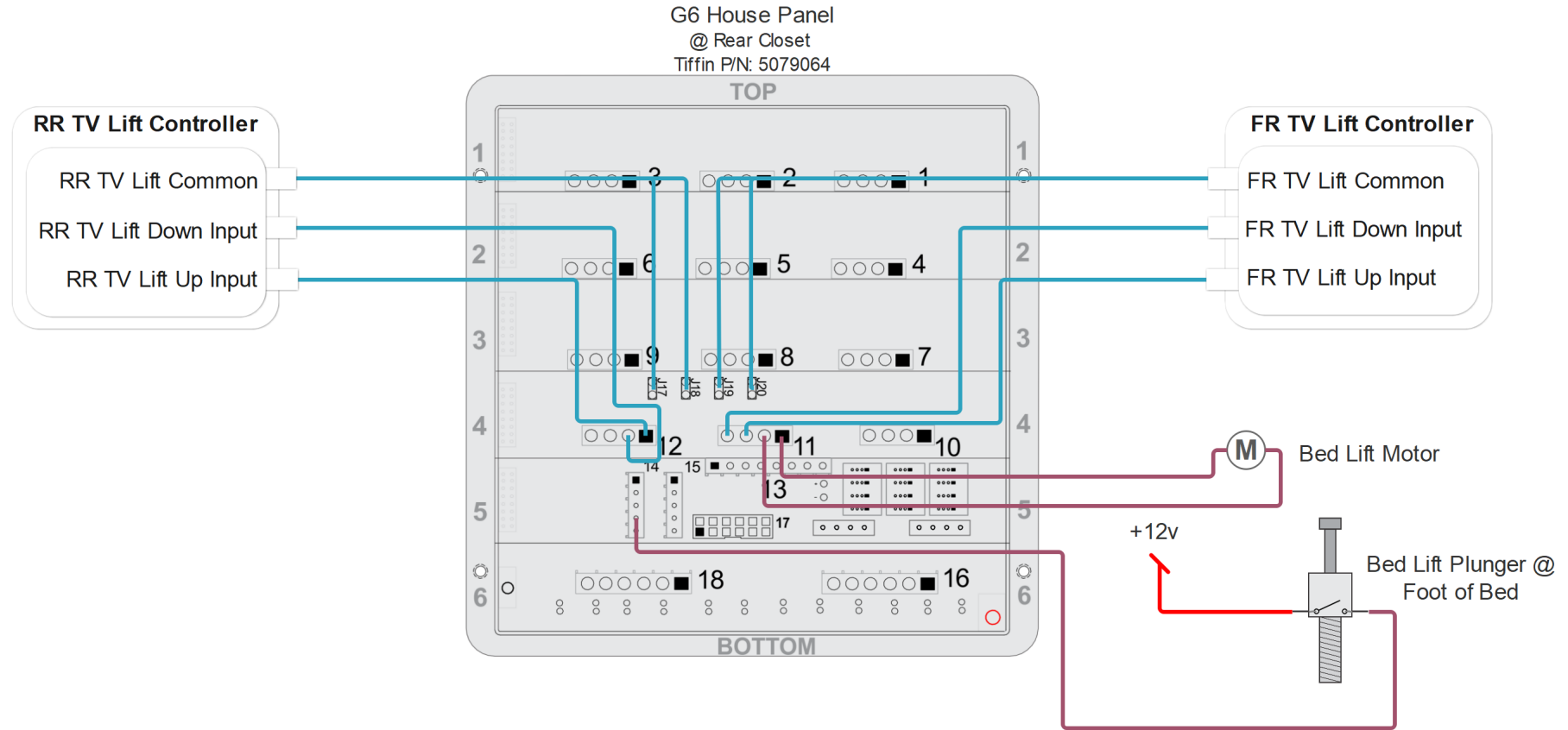


The black tank has two level sensors, all other tanks only have one.



Spyder RV-C Tank Monitor
@ Plumbing Bay
Tiffin P/N: 5078244

2019 Tiffin Phaeton Bed Lift & TV Lift System (Components not to scale)



Normal operation of any TV lift will be as follows:

- Press the control to raise the TV lift.
- Press and hold the control to lower the TV lift.

Bed Lift Plunger Function

When depressed the bed lift plunger will provide 12V+ to Connector 14 Pin 4 on the RSI-9, allowing the slides to run. If this pin is not depressed and no 12V+ signal is being received at the RSI-9 input, the slides will not run.

2019 Tiffin Phaeton Slide System

(Components not to scale)

Park brake and ignition must be on for slides to operate.
 In case of a system failure, use manual overrides on front of G6 Chassis panel to operate slides.
 Engage overrides using a pen or other pointed object.

HWH Slide Controller

- D/S Front Slide Retract
- D/S Front Slide Extend
- P/S Front Slide Retract
- P/S Front Slide Extend
- Power Input
- Hydraulic Pump

D/S Rear Slide Controller

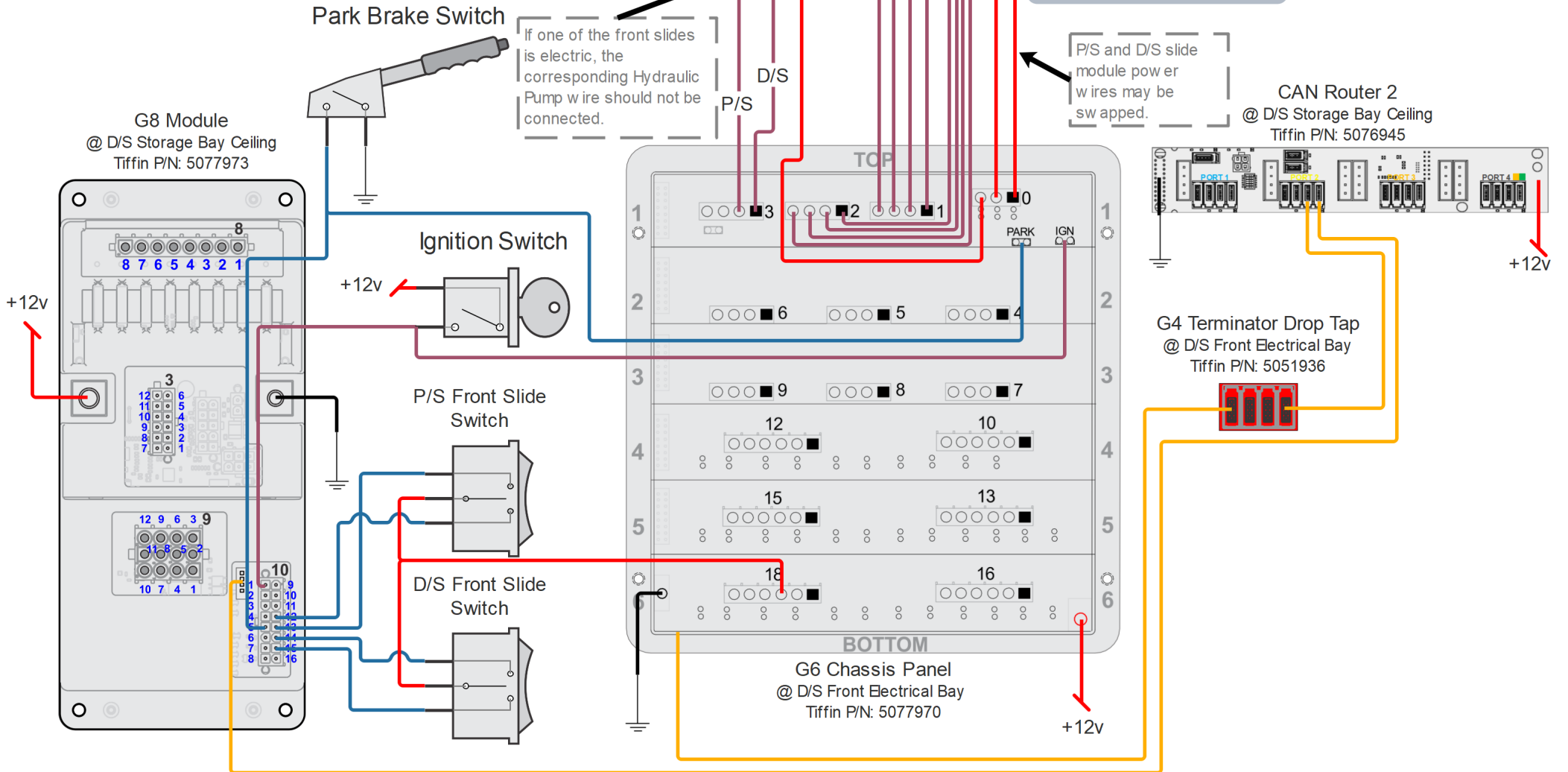
- Retract Input
- Extend Input
- Power Input

P/S Rear Slide Controller

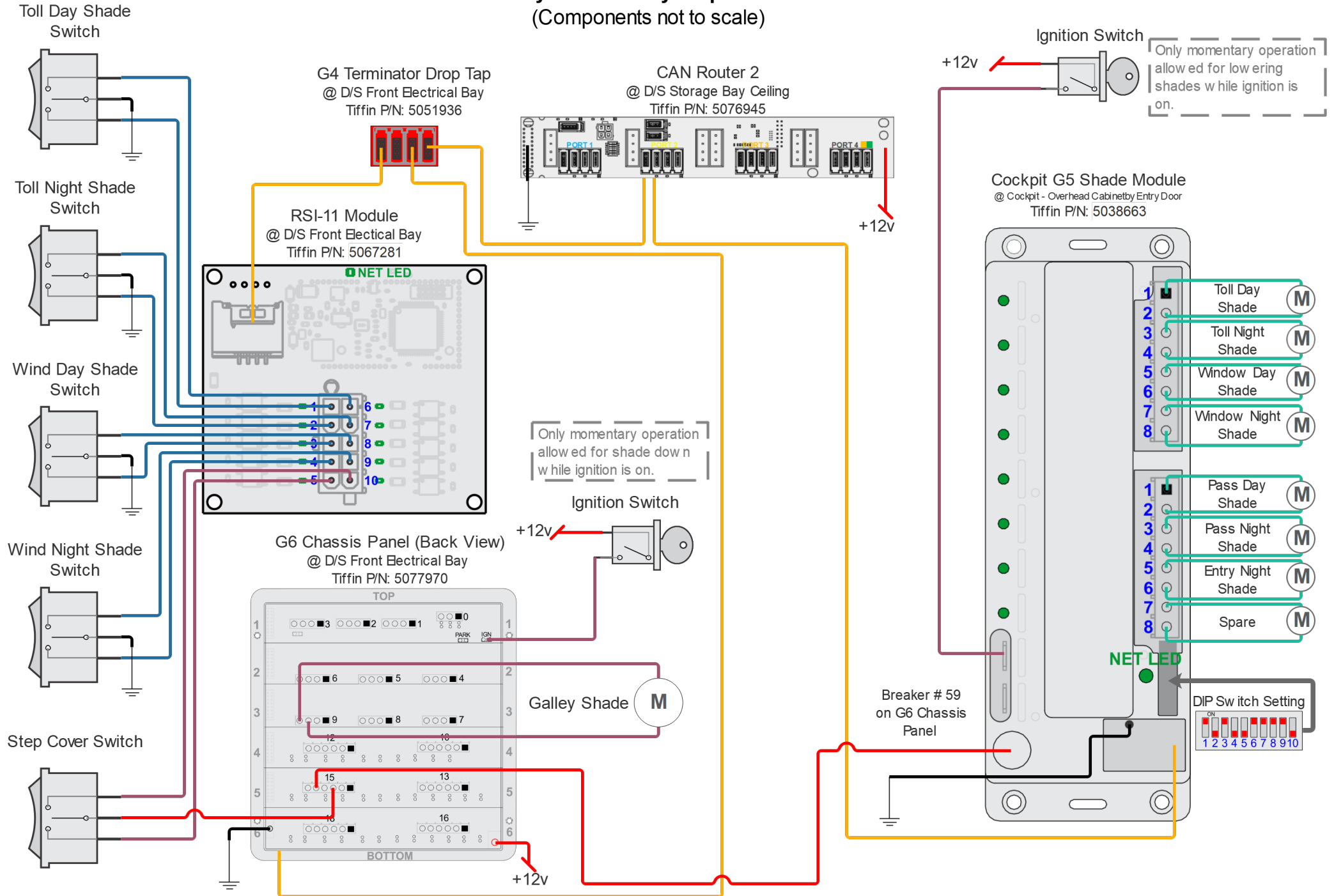
- Retract Input
- Extend Input
- Power Input

If one of the front slides is electric, the corresponding Hydraulic Pump wire should not be connected.

P/S and D/S slide module power wires may be swapped.

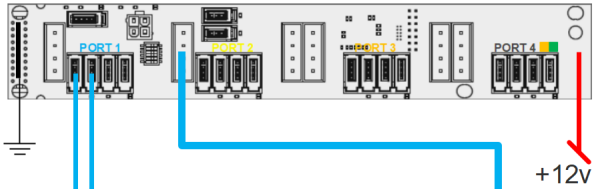


2019 Tiffin Phaeton Main Shade System & Entry Step Cover Schematic (Components not to scale)

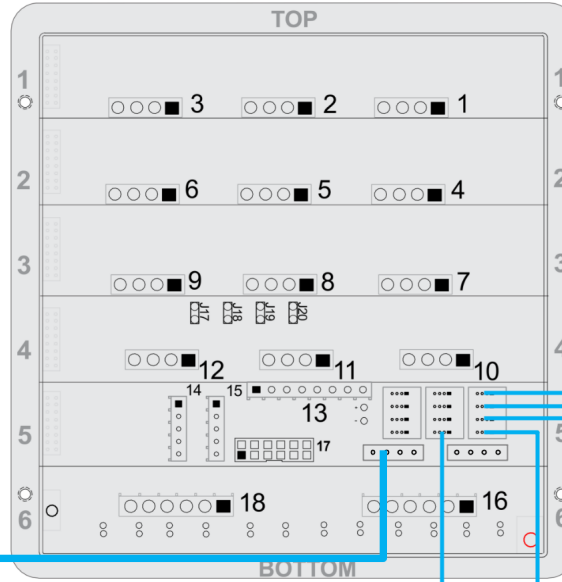


2019 Tiffin Phaeton Blue Network (Components not to scale)

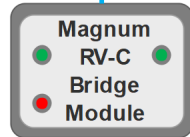
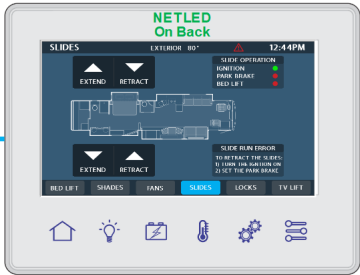
CAN Router 2
@ D/S Storage Bay Ceiling
Tiffin P/N: 5076945



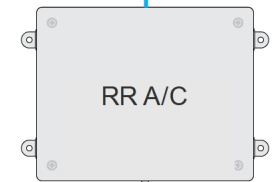
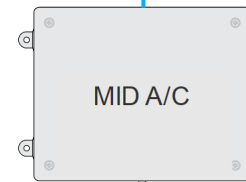
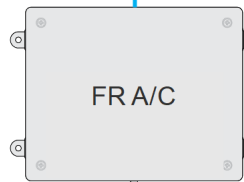
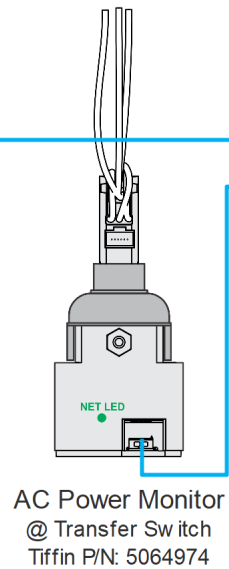
G6 House Panel
@ Rear Closet
Tiffin P/N: 5079064



7" Touch Screen
Tiffin P/N: 5076941

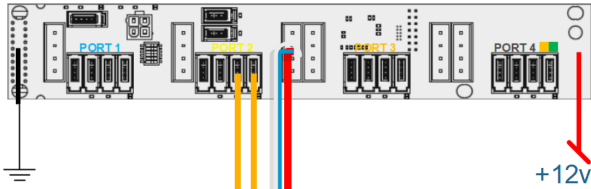


ACR3
@ Rear Closet
Tiffin P/N: 5064973

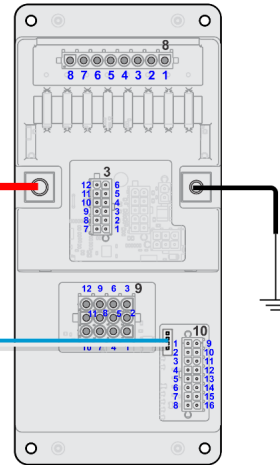


2019 Tiffin Phaeton Yellow Network (Components not to scale)

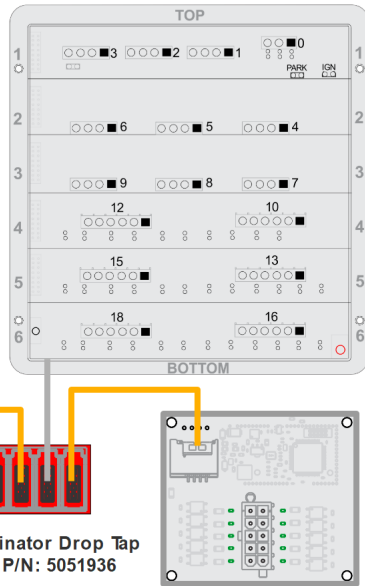
CAN Router 2
@ D/S Storage Bay Ceiling
Tiffin P/N: 5076945



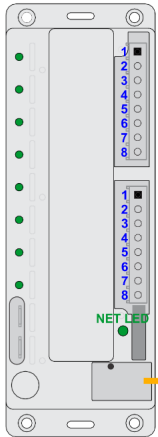
G8 Module
@ D/S Storage Bay Ceiling
Tiffin P/N: 5077973



G6 Chassis Panel
@ D/S Front Electrical Bay
Tiffin P/N: 5077970



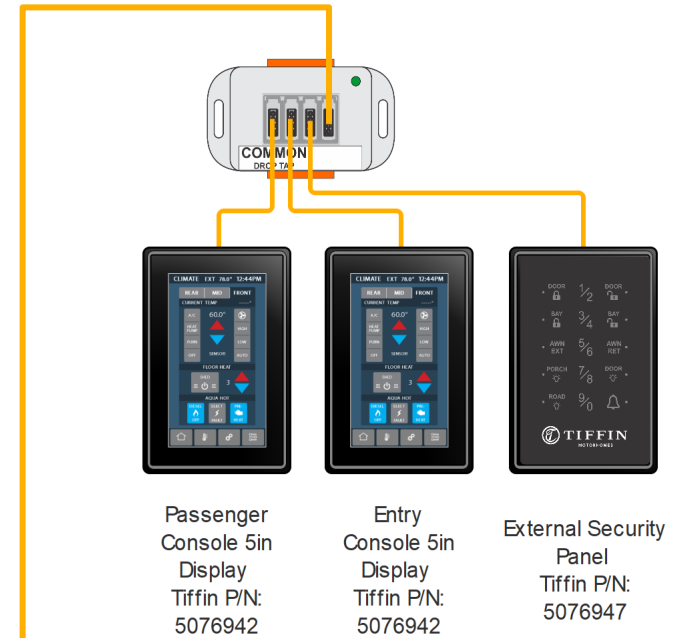
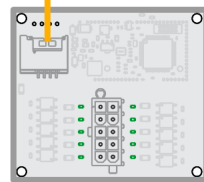
Cockpit G5 Shade Module
@ Cockpit - Overhead
Cabinet by Entry Door



G4 Terminator Drop Tap
Tiffin P/N: 5051936



RSI-11
@ D/S Front Electrical Bay
Tiffin P/N: 5067281

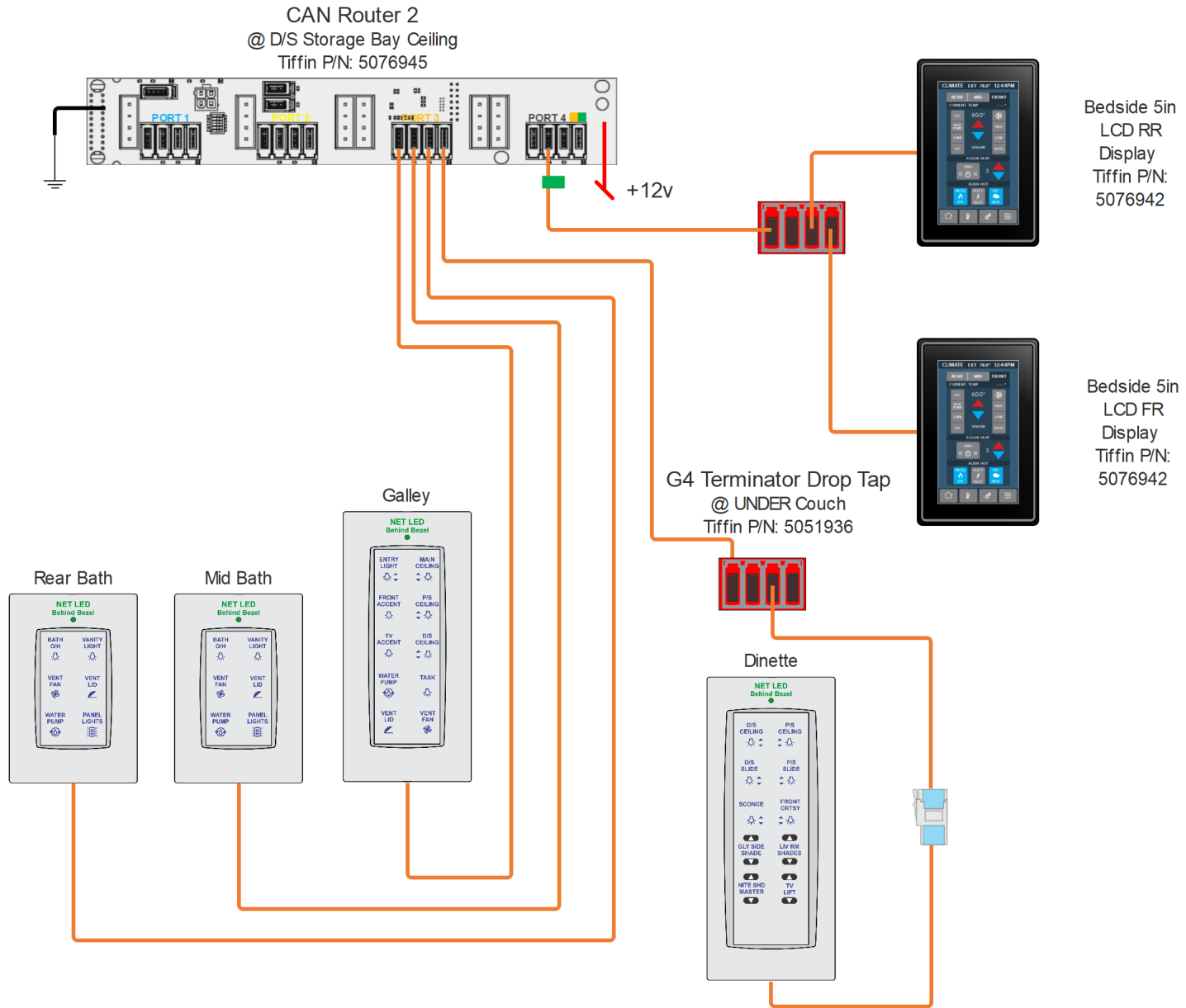


Passenger
Console 5in
Display
Tiffin P/N:
5076942

Entry
Console 5in
Display
Tiffin P/N:
5076942

External Security
Panel
Tiffin P/N:
5076947

2019 Tiffin Phaeton Switch and Screen Network (Components not to scale)



2018-2019 Allegro Bus / Phaeton / Zephyr Battery Merge Logic

Case 1 – CHASSIS CHARGING HOUSE batteries

The merge solenoid will engage if the following conditions are present:

- Ignition signal present for 30 seconds; AND
- Chassis voltage is above 13.3V (charging)

The merge solenoid will dis-engage if under the following conditions:

- Generator starts – unmerge and lockout all merge functionality until the generator running signal is removed (or until the ignition signal is removed); OR
- Ignition signal is removed; OR
- Chassis voltage drops below 12.6V for more than 30 seconds, unmerge until the ignition signal is cycled

Case 2 – HOUSE CHARGING CHASSIS batteries

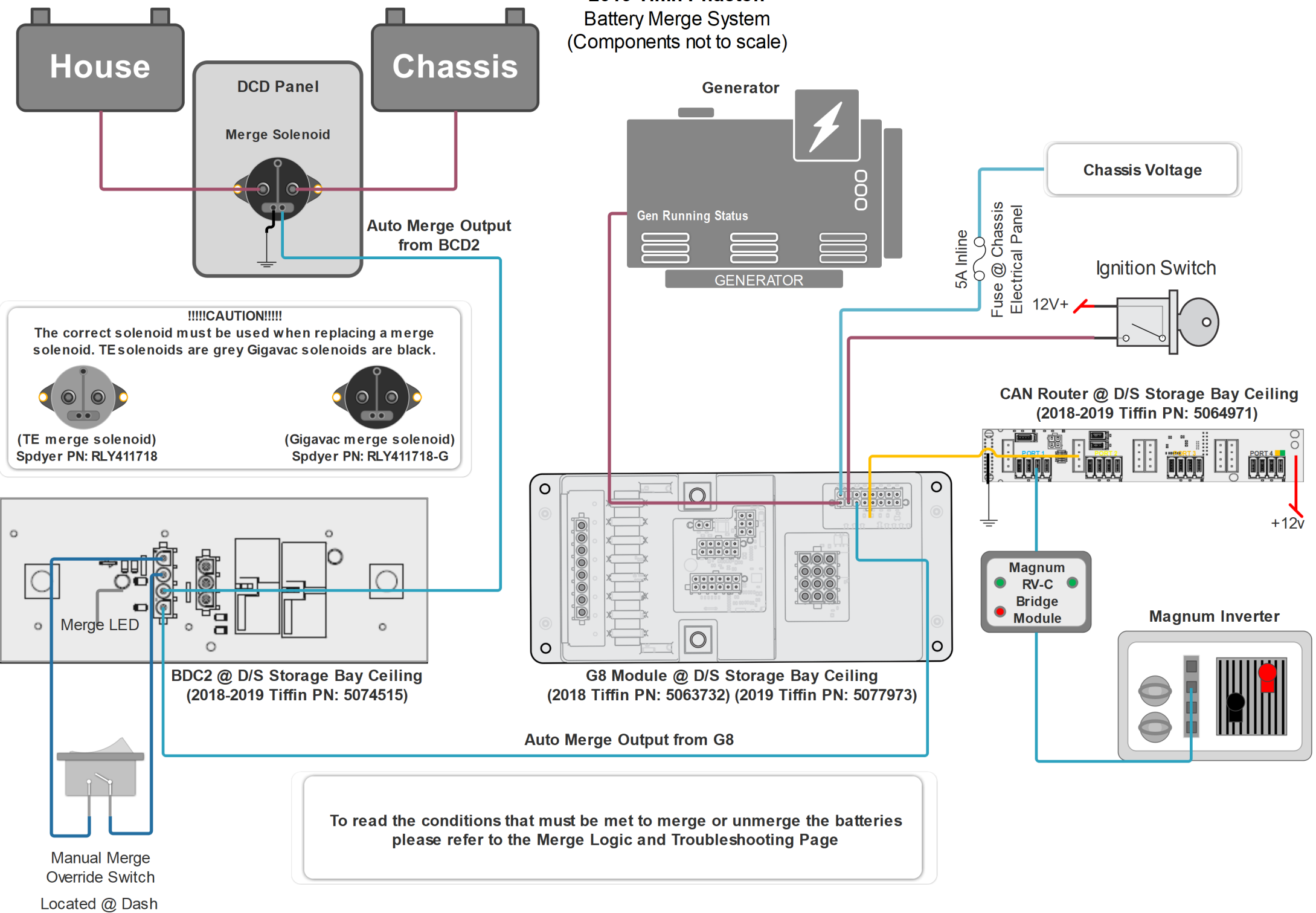
The merge solenoid will engage if the following conditions are present:

- House voltage is above 12.5V (charging); AND
- Chassis voltage is below 12.4V (low battery voltage) for 30 seconds AND
- **The Magnum Charger is charging**


The merge solenoid will dis-engage if under the following conditions:

- House voltage drops below 12.2V for more than 30 seconds; OR
- 60 minutes timed battery merge period expires – re-merge will occur again if the merge conditions are still present
- **The Magnum Charger stops charging**


**2019 Tiffin Phaeton
Battery Merge System
(Components not to scale)**



!!!!CAUTION!!!!
The correct solenoid must be used when replacing a merge solenoid. TE solenoids are grey Gigavac solenoids are black.



(TE merge solenoid)
Spdyer PN: RLY411718



(Gigavac merge solenoid)
Spdyer PN: RLY411718-G

To read the conditions that must be met to merge or unmerge the batteries please refer to the Merge Logic and Troubleshooting Page

Manual Merge Override Switch
Located @ Dash

Auto Merge Troubleshooting

Check the battery readings on your LCD panel.

NO

Start Here

Using the Merge Logic provided on the previous page, put the system in a merge condition. Does a yellow line appear between the House and Chassis batteries indicating a merge?

YES

Dashes are being shown on both house and chassis voltage.

The house or the chassis voltage is reading inaccurately. E.g. 6V+ or 24V+

The house voltage is accurate but the chassis is reading 0V+

Check the network cable at the G8 module. Is it plugged in at both ends and free from damage?

Check the wiring harness pin that connects to G8 J10 Pin 9. Does the voltage being emitted from the pin match the voltage at the chassis batteries?

Does the G8 emit 12V+ from J10 Pin 3?

NO

YES

Call Spyder Controls

Is 12V+ present at the BDC2 J2 Pin 4?

NO

YES

Inspect the wiring between the G8 and BDC2

Is 12V+ being emitted from the BDC2 J2 Pin 3?

NO

YES

Replace the BDC2

Check the merge solenoid. Does it have 12V+ and a good ground?

NO

YES

Inspect and repair the wiring as necessary.

Replace the merge solenoid.

NO

YES

Insure the cable is plugged in securely at both ends. If any wiring issues are present repair as necessary.

Call Spyder Controls

Replace the G8

NO

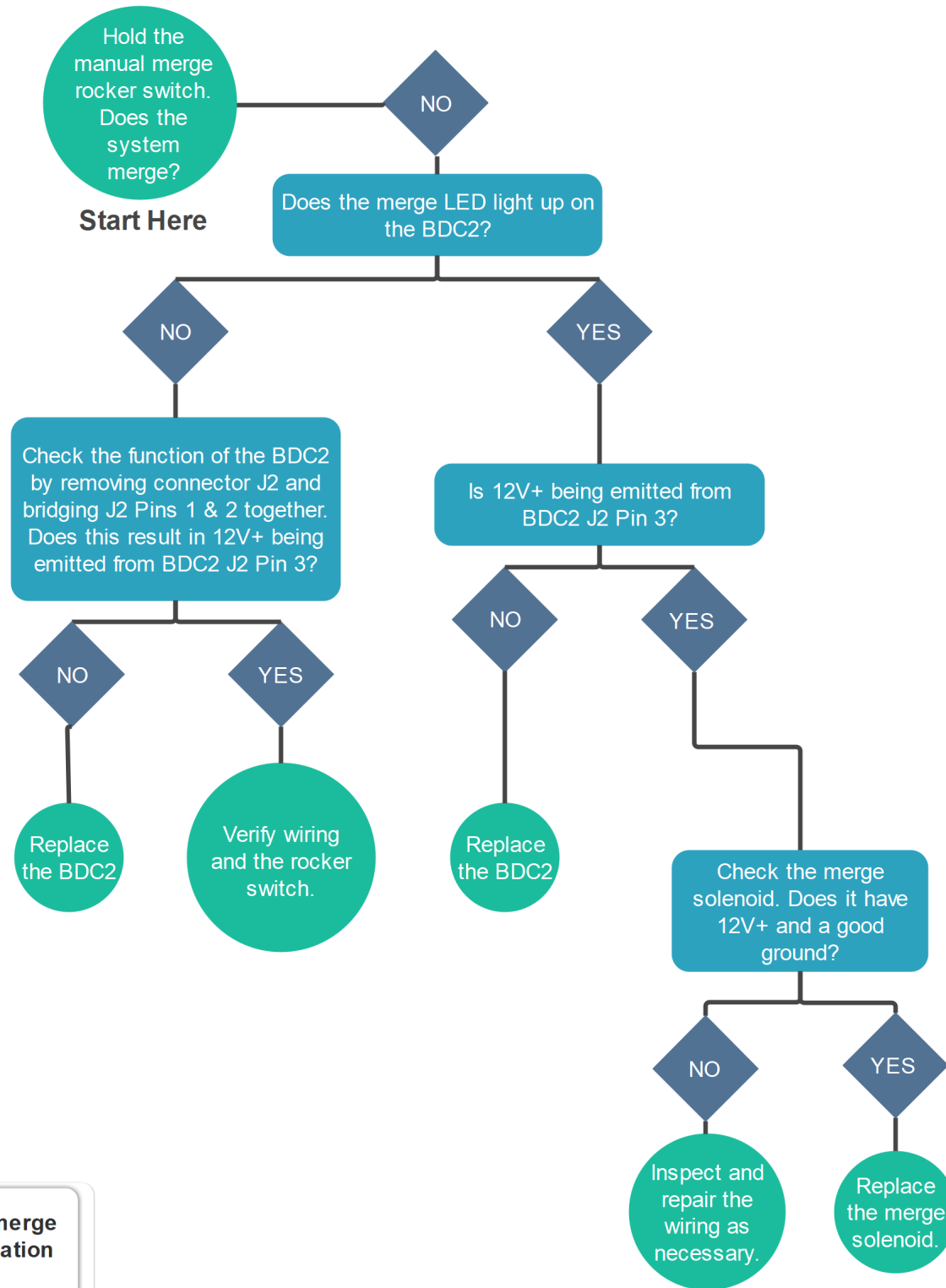
YES

Check the wiring and 5 A inline fuse

Replace the G8

The information above only covers the auto merge system. Please see the next page for information on manual merge & the manual merge rocker switch

Manual Merge Troubleshooting

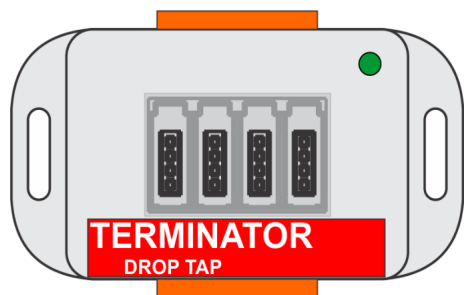


The information above only covers the manual merge system. Please see the previous page for information on auto merge system.

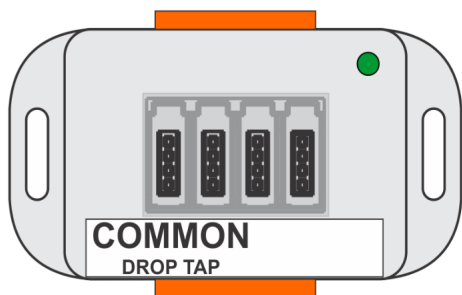
2019 Tiffin Phaeton

Network Connectors and Related Parts (Components not to scale)

G3 Terminator Tap
Tiffin P/N: 5051935



G3 Common Tap
Tiffin P/N: 5027834



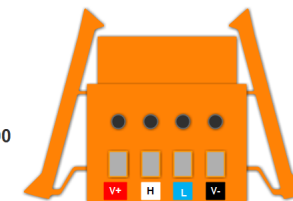
G4 Common Drop Tap
Tiffin P/N: 5016592



G4 Terminator Drop Tap
Tiffin P/N: 5051936



4 Pos Wago Connector
Tiffin P/N: 5015508



Wago Hook Tool
Wago P/N: 231-131



Mini-Clamp Plug
Tiffin P/N: 5066157
3M P/N: 37104-2165-000 FL 100



Mini-Clamp Socket
Tiffin P/N: 5066158
3M P/N: 37304-2165-000 FL 100

