Bachmann Large Scale C-19 Tender Connector Pin-Out Developed for RailPro Install in D&RG #345 & CVSRy #8 *Ver 4 © Jon Radder 12/04/20* 

Engineer's Side Connector

PCB Label	Wire Color	<u>Circuit</u>	<u>Notes</u>	RailPro Assignment
1	Brown	Chuff Switch	Note 2	N/C ( 4 Chuffs/Rev)
2	Red	Chuff Sennsor	Note 1	N/C (Future Trigger)
3	Orange	VDD + Input (5-6V)		+5V DC Output
4	Yellow	Front LED Cathode	Note 1	Out #1 9 Pin Orange w/1K Res.
5	Green	Smoke Ground		Out #6 9 Pin Black
6	Blue	Firebox Flicker Function	Note 1	Out #5 9 Pin Grey
7	Purple	Class Lights Function	Note 1	Out #3 9 Pin White
8	Grey	Cab Light Function	Note 1	Out #4 9 Pin Yellow

Fireman's Side Connector

PCB Label	Wire Color	<u>Circuit</u>		RailPro Assignment		
А	Brown	Rail Pick-Up Right Wheels		N/C		
В	Red	Motor +		Motor 1 +		
С	Orange	Decoder + / B+		+V (Battery + Voltage)		
D	Yellow	Decoder ground -		COM (Battery – Voltage)		
Е	Green	Decoder Fan 12V+	Note 3	N/C		
F	Blue	6V Battery	Note 4	N/C		
G	Purple	Motor -		Motor 1 -		
Н	Grey	Rail Pick-Up Left Wheels		N/C		
Tend	Red	Rear LED		+5V DC Output		
Plug	Black	Rear LED		Out #2 9 Pin Blue w/1K Res.		
NOTES:	Note 1 - In order for chuff and LED circuts to funtion without the tender board, +5V must be supplied on Pin 3 - Orange Wire on Eng side.					

Note 2 - Ground Pin 1 - Brown wire on Engineer's side for 2 Chuffs per rev if tender board is removed.

- Note 3 +12V intended to power decoder fan. May be used as needed for 12V source. \*
- Note 4 +5V Output (VDD). May be used as needed for 5V source \*
  - \* Voltages only appear on these wites if batter voltage is sent to the boiler via Fireman's side wires C (Orange) and D (Yellow) B+ and Ground