

# SLPS PCC 1743 Progress Report

## STL PS 1743 Progress Report 2/20 to 2/25/16

### Saturday 2/20/16

1. Ed Lindstrom sent a message the brake light resistors are under the seat on the right of the backup controller facing the back of the car.
2. Steve had the left seat removed and exposed the stop and rear marker light resistors. The left side is the closed side and the right side is the open side with the doors.
3. Steve labeled most of the wires under the car that were traced from the BUC on Thursday.

### Sunday 2/21/16

1. I updated the connection diagram to include the BC, PC and KM contacts and legend. The only things remaining are the contactor contacts, the control sequence and the title block.
2. I updated the Auxiliary Circuits drawing to include the 600 volt circuits to the cab heater and lights and an outline for the front fuse panel.

### Monday 2/22/16

1. Ed forwarded a drawing that he received from Karl Johnson. The drawing is an SLPS connection diagram numbered 6022 III, dated June 7, 1957 and includes the back-up controller for cars 1700 to 1765.
2. I compared the drawing to our new connection diagram and found it matched although the BUC contacts were numbered differently. BUC1 is L1, BUC2 is L2, BUC4 is L5, BUC5 is R1, BUC6 is R2, BU7 is R4, and BUC8 is R5. BUC3 is not on the drawing. It must be L4, ABR braking.
3. I printed the latest connection diagram draft (that I updated over the weekend) to use on Tuesday. I also printed the first draft of the auxiliary circuits drawing to show to Steve. I will attach it to the progress report soon.
4. It is my intention that PCC 1743 wiring will not be duplicated on multiple drawings. We will have one connection diagram and one aux wiring drawing. Connection diagram PP-6742498 will be included but will not be updated. It has locations and details of the wiring not shown on the other drawings.

### Tuesday 2/23/16

1. Before Steve arrived I traced the wires 22 and B+ from BUC L1 to the toggle switch and labeled both ends. The BUC now has all of the contact wires numbered.
2. Steve and I identified and measured the resistors  
The top resistor is the left marker light and measured 58 ohms with the bulb removed. The marker bulbs are 1224, 5 watt, 13 volts.  
The 2<sup>nd</sup> resistor is the right marker light.  
The 3<sup>rd</sup> resistor is the left stop light and measured 20.8 ohms with the bulb removed. The stop bulbs are 1142, 18 watts, 13 volts.  
The bottom resistor is the right stop light.
3. I removed the Control Ground wiring from BC4 and PC4. This wiring is not on our original connection diagram but was on Ed's drawing and was installed on 1743. If the brake and power pedal are pressed at the same time fuse 4 will blow and all control will be lost. Since the wiring cannot be removed from the wiring bundle I pulled the wiring down and marked each wire with a tie wrap. Steve or I will put heat shrink over the wire ends later.
4. Steve purchased several rolls of marking tape for the DYMO LM160 and NELCO mini flag markers for small wires.
5. Steve is marking contactor, controller, commutating controller and any other wiring under the car.
6. I relabeled wire 6X to 60 on BUC L5 and relay S5 and shown on Karl's drawing.
7. I removed wire 2D from drum brake contactor S3 and attached wire 2P.

### Thursday 2/25/16

1. I traced and labeled wires on BC and PC while Steve traced and labeled wires on B3.

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2. While tracing wire 3J on B3 Steve found the other end of the wire on C1 wire 3 terminal and moved it to the correct terminal. I am responsible for this. I installed the C1 and C2 contactors (missing when the car was received) before we had the correct wiring diagrams. Fortunately this did not cause any shorts or damage any of the other wiring.
3. While tracing wire 8B on B3 to the 8 ohm ballast resistor Steve found that the resistor is open. The other side of the resistor is wire 8C and was traced to the KM7 movable contact. There is no continuity from wire 8B to wire 8C confirming the resistor is open. The resistor will be removed next Tuesday to see if it is open or needs to have the terminals cleaned. If required, a replacement resistor should be commercially available.

Plans for Saturday, next week and the near future.

1. Complete wire tracing and labeling.
2. Install missing contact assembly on LB1.
3. Verify integrity of wiring to toggle switches, fuses and fuse clips, wiring to DM and propulsion circuits to prevent low voltage problems from occurring in the future. Tighten connections and re-terminate wires if necessary
4. Isolate wiring that cannot be traced.
5. Complete sequence test.
6. Attempt to move car slowly in forward and reverse and test brakes.
7. If the ABR relay does not work properly have the coil rewound.
8. Continue working on connection diagram and auxiliary circuits drawings.