BOSTON TRANSPORTATION DEPARTMENT
Specifications for
Rack Mounted Loop Detector Amplifiers

1. a. The loop amplifier shall meet NEMA TS2 latest revision for detector rack configuration with 2 channel detector amplifiers.
   
b. Unless otherwise specified, the application for these units shall be in 4DW cabinets with 7 or more loop amps or in 8DW cabinets with 13 or more loop amps.
   
c. The rack mounted loop amplifiers shall be powered by a 24V DC power supply external to the controller unit as defined in NEMA TS-2 Section 5.3.5.

2. a. The wires in the harness for loop wire connections from the loop feeder cable shall be twisted.
   
b. The harness shall include a wire connected to the loop detector chassis ground to be connected directly to the loop detector feeder cable shield drain wire.
   
c. When the loop detector amplifier is supplied as part of a control cabinet, separate field terminals shall be supplied for the chassis ground from each loop detector amplifier. Connections to control cabinet chassis ground shall be made from these same terminals.
   
d. Unless otherwise directed by the engineer, loop feeder cables shall have their shield drain wires isolated at the pull box end but individually connected to a wire in the appropriate loop detector harness which provides a connection to the loop detector amplifier chassis ground.
   
e. Loop harness wires shall not be bundled into other cabinet wiring harnesses.
   
f. Rack mount shall be designed so that PC cards are protected from moisture and dust.

3. The sensitivity of the loop detector amplifier shall be such that it will detect a .05 percent (.05%) inductance change and then provide an output for 3 minutes or more.
Specifications for Rack Mounted Loop Detector Amplifiers.....(cont.)

4. **Prints And Manuals**
   Three (3) schematics of the amplifier and three (3) operating and maintenance manuals shall be provided with each detector amplifier. The manual shall include a complete parts list. The parts list shall include a cross reference to at least one other manufacturers name and part number for each item. The schematic shall indicate appropriate voltages and waveforms.

5. **Guarantee**
   The vendor shall guarantee the loop detector amplifier for a period of two (2) years from the date of delivery. All defects due to faulty parts, assembly or design shall be repaired at the vendor's expense.