

BOSTON TRANSPORTATION DEPARTMENT
Specification for School Zone Flasher Assembly
For 120 VAC Power Source

June 12, 2018

General:

The School Zone Flasher Assembly shall include a pager programmable Time switch and cellular modem compatible with the existing BTD remote school zone control system and LED based yellow LED signal heads and LED illuminated speed limit sign. The flasher assembly shall comply with MUTCD requirements and the Massachusetts Amendments to the MUTCD. **Refer to BTD drawing A49.1 latest revision. At BTD's direction, a sample unit shall be delivered to BTD for final approval prior to award of bid.**

The system shall be designed to operate from a 120VAC power source and shall include an enclosure with a circuit breaker of appropriate rating and electric meter socket.

Interface to the power line and to the controlled device shall be provided by means of a cable harness terminated in a secure connector. Length of the cable shall be 48" or more; wire shall be a minimum 18 gauge with 600 volt insulation suitable for at least 90 C. The unit shall be supplied complete with harness terminated on one end with an AMP connector #206037-1. The time switch shall use an AMP connector #206036-1 for the plug connector.

Pin assignments shall be as follows:

Pin #1 - AC plus (line), pin #2 - AC minus (NEUT), pin #3 - Chassis GND, pin #4 - switch #1 common, pin #5 - switch #1 N.C., pin #6 - switch #2 common, pin #7 - switch #2 N.O., pin #8 - Spare, pin #9 - switch #4 common, pin #10 - switch #1 N.O., pin #11 - switch #3 common, pin #12 - switch #3 N.C., pin #13 - switch #3 N.O., pin #14 - switch #4 N.C., pin #15 - switch #4 N.O., pin #16 - switch #2 N.C.

The system shall be designed to operate over a temperature range from -30 degrees F to + 165 degrees F.

Wiring diagrams and manuals shall be supplied for all equipment installed as part of the System. Documentation shall involve instructions for set up and troubleshooting of all components in the system.

Beacon Dimensions and Placement in Sign Assembly:

Each School zone flasher assembly shall consist of two 8" yellow LED indications and an LED with 20 displayed to indicate when the school zone is in effect.

Beacon Flashing Requirements:

- a. When activated, the two (2) yellow indications shall flash in an alternate flashing sequence.
- b. The beacons shall be flashed at a rate of not less than 50 or more than 60 times per minute. The illuminated period of each flash shall be a minimum of $\frac{1}{2}$ and a maximum of $\frac{2}{3}$ of the total cycle.

Beacon Operation:

- a. The School Zone flasher shall be normally dark, shall initiate operation only upon activation via the time switch. The speed limit display shall not flash.

Training and Warranty:

Training sessions shall be conducted by the supplier in the setup and troubleshooting of the system. Four (4) hours of training shall be provided during periods to be approved by the Boston Transportation Department.

The School Zone Flasher system shall include a warranty by its supplier for two (2) years from the date of installation.