

**STATE OF NEW JERSEY  
DEPARTMENT OF TRANSPORTATION  
TRENTON, NEW JERSEY 08625**

**METRIC SPECIFICATIONS FOR ADJUSTABLE FACE PEDESTRIAN SIGNAL HEADS  
INCANDESCENT TYPE  
LEGEND - WALK-DON'T WALK**

N.J. Specification No. EBM-PS-1

Effective Date: July 1, 2001

New Jersey Department of Transportation Specifications for Adjustable Face Pedestrian Signal Heads, Incandescent Type, Legend - WALK-DON'T WALK.

The purpose of these specifications is to describe minimum acceptable requirements for Adjustable Face Pedestrian Signal Heads, Incandescent Type, Legend -WALK-DON'T WALK.

**GENERAL - I**

- 1-1 Pedestrian signal shall conform with the following:
- A. Manual on Uniform Traffic Control Devices (MUTCD)
  - B. Adjustable Face Pedestrian Signal Head Standard  
Institute of Transportation Engineers (ITE)
  - C. Standard Publication No. TS 1  
National Electrical Manufacturer's Association (NEMA)

**CONSTRUCTION - II**

- 2-1 The body of pedestrian signal head shall be cast aluminum rectangular unit, painted as specified hereinafter. The top and bottom of the diecast section shall be provided with positive interlocking and indexing ring integral with the section. The integral locking ring shall consist of a single solid ring with 72 teeth and a minimum width of 6 millimeters. Openings in top and bottom of the section shall accommodate 41 millimeter standard pipe nipples.
- 2-2 Doors shall be rectangular cast aluminum. Door frame, lens, and reflector shall be gasketed to insure a dust and moisture free optical system. Hinge pin and wing nut assemblies shall be stainless steel.
- 2-3 The lens shall be polycarbonate plastic and must meet the light distribution of the current ITE Vehicle Traffic Control Head Standard. Lenses shall have a combination of direction and diffusing prisms on the inner side of the lens. The lenses shall be furnished with a continuous soft rubber or silicon gasket completely surrounding the edge of the lens. The lens shall be replaceable without replacing the door frame.
- 2-4 The reflector shall be a single piece double parabolic plastic reflector. The reflector shall be textured polycarbonate and removable.

- 2-5 The lamp socket shall be molded bakelite or porcelain. Lamp socket shall be properly secured to prevent the lamp socket from turning when lamp is installed or removed.
- 2-6 The visor shall be eggcrate visor, approximately 38 millimeters deep. The visor shall be made of closely spaced intersecting polycarbonate plastic louvers. The visor shall not rest on the lens.
- 2-7 Optical unit(s) and legends shall meet ITE Specifications and conform to the current requirements of the Manual on Uniform Traffic Control Devices. WALK legend shall be lunar white and DON'T WALK legend, Portland orange. The background shall be opaque. All letters in the legend shall be at least 114 millimeters high.
- 2-8 The entire pedestrian signal head, with the exception of the visor, shall be finished with one coat of primer and one of enamel baked after application. The indication and visor frame shall be treated by a method approved by the aluminum companies before painting. The color shall be highway yellow enamel matching to FED-STD-595B color #13538. The visor frame shall be a dull non-reflective black.
- 2-9 All screws, washers, nuts and bolts shall be stainless steel. All components, including the lamps, shall be readily accessible when the door is opened. Maintenance and/or replacement of components shall be done using standard tools.

### **ELECTRICAL - III**

- 3-1 Pedestrian signal shall be rated for 120 volt, 60 hertz operation.
- 3-2 Lamps shall conform with the current NJDOT Standard Specifications.
- 3-3 Each signal head shall be equipped with a barrier-type terminal block providing separate screws for each signal section and neutral wires. Each signal section shall be wired complete to the terminal block with color coded wire using spade lugs.
- 3-4 Fixture wire shall be 19 stranded (Class C) No. 18 AWG copper wire capable of withstanding the all adverse effects or moisture, corrosive atmospheres and relative temperatures associated with the operation of the signal head.
- 3-5 Pedestrian signal shall be provided with a "fail safe" device to prevent either the DON'T or the WALK from being illuminated separately in Portland orange during a lamp burn-out or other defective conditions.

### **INSTRUCTIONS AND GUARANTEE - IV**

- 4-1 Upon request, one wiring diagram and installation manual shall be provided with each signal face.

- 4-2 No changes or substitutions in these requirements will be accepted unless authorized in writing. Inquiries regarding this specification shall be addressed to the Manager, Office of Traffic Signal and Safety Engineering, New Jersey Department of Transportation, 1035 Parkway Avenue, P.O. Box 600, Trenton, NJ 08625.
- 4-3 The pedestrian signal face shall carry a one year guarantee from the date of delivery against any imperfections in workmanship and material.
- 4-4 The company agrees upon the request of the Manager, Office of Traffic Signal and Safety Engineering to deliver to the Office, a sample of the signal face to be supplied in compliance with these specifications for inspection and test before acceptance. After completion of the test the sample shall be returned.