

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

**METRIC SPECIFICATIONS FOR A 483 MILLIMETER RACK BASE MOUNT (VIDEO/LOOP)  
(VIDEO/LOOP FIELD CABINET)**

N.J. Specification No. EBM-FTC-3

Effective Date: July 1, 2001

New Jersey Department of Transportation Specifications for a rack mount enclosure that is used to house a test Video Detection assembly as subsequently described.

The purpose of these specifications is to describe the minimum acceptable design and construction requirements for this equipment.

**GENERAL - I**

- 1-1 The cabinet shall be a complete controller/cabinet assembly as specified in EBM-TSC-170E. Sufficient detector amplifiers shall be populated in the input files to support twenty-four loops.
- 1-2 A second 170E controller with C2 modem interface cable shall be provided and mounted in the cabinet. The C1 cable of the second 170E shall be interfaced with the Video Detection Assembly.
- 1-3 The cabinet shall include three six-position fiber optic patch panels.
- 1-4 The cabinet shall include a complete Video Detection System as described in EBM-VIDEO. Ten speed trap simulated contact closures (two per speed trap) shall be wired into the C1 connector of the second 170E controller, identical to the pin-out of the input file detector assembly.
- 1-5 If inadequate space exists for the second 170E and Video Detection System, the output file of the cabinet can be removed and delivered to NJDOT separately.

**TESTING - II**

All equipment defined in this specification shall be subject to factory testing as subsequently described. The factory test shall demonstrate or provide confirmation that all of the equipment operates over the specified environmental range for each component. The test shall verify that both 170E controllers are wired properly and are receiving proper inputs from the detection sources.

The Supplier shall be responsible for submitting a test plan which has been designed to exercise and monitor the equipment for the purpose of determining compliance with the specifications.

**INSTRUCTIONS AND GUARANTEES - III**

### 3-1 Wiring Diagrams

One reproducible blackline Diazo mylar (0.10 millimeters thick) A1 size (594 by 841 millimeters) and two prints of the schematic wiring diagram for the cabinet wiring shall be supplied with each cabinet. The diagrams shall be nonproprietary. They shall identify all circuits in such a manner as to be readily interpreted. The diagrams shall be placed in a heavy duty side opening clear plastic pouch and attached to the front cabinet door. The pouch shall be of such design and material that it provides adequate storage and access to the wiring diagram and manual.

### 3-2 Cabinet Manuals

Two cabinet manuals shall be provided in the pouch together with the wiring diagram sets. The pouch shall be of size and strength to easily hold the documents and keys without tearing.

- 3-3 No changes or substitutions in these requirements will be acceptable unless authorized in writing. Inquiries regarding this specification shall be addressed to the Manager, Office of ITS Engineering, New Jersey Department of Transportation, P.O. Box 613, 1035 Parkway Avenue, Trenton, New Jersey 08625.
- 3-4 The complete control and auxiliary equipment shall carry a two-year guarantee from the date of acceptance against any imperfections in workmanship or materials. Any tests or repairs made by a manufacturer or representative shall be documented on the New Jersey Department of Transportation "Equipment Failure Analysis and Report Form" and returned with units when warranty repaired. The Department will attach a copy of this form to all returned equipment. This documentation shall include an explanation of the exact repairs made and identification of parts replaced by part number and circuit number. All warranty repairs must be made within thirty days upon receiving equipment.
- 3-5 The Supplier agrees upon the request of the Manager, Office of ITS Engineering to deliver to the Office, a sample of the control equipment to be supplied in compliance with these specifications for inspection and test before acceptance. After completion of the test, the sample shall be returned.
- 3-6 The Supplier shall furnish any and all equipment which they deem necessary for safe and reliable field operation of the control equipment.
- 3-7 All equipment furnished under this specification must be current production equipment and of recent manufacturer, similar models of which are field operational. Untried or prototype units shall not be considered for acceptance.
- 3-8 All major components shall be identified with a metal plate containing the serial number with a bar code identification.