

**TEXAS DEPARTMENT OF TRANSPORTATION
SPECIAL SPECIFICATIONS
TO-4077
NEMA TS2 Type 1 Test-Box Unit**

1.0 SCOPE

- 1.1 This specification covers the functionality and design requirements for a NEMA TS2 Type 1-controller tester.

2.0 Hardware Design

- 2.1 The dimension of the Test-Box unit shall be house as a minimum of 7”X5”X2” metal enclosure.
- 2.2 The Test-Box unit shall connect to port 1 of the controller and to the serial port of the PC/Laptop.
- 2.3 Test-Box unit hardware shall include an AC adapter.

3.0 Test-Box Setup

- 3.1 Test-Box control software for Windows 95, 98, & NT.
- 3.2 Test-Box communications interface hardware.
- 3.3 Test-Box setup and operating manual/s.

4.0 Software Design and Functionality

- 4.1 The controller tester will be software having a Graphical User Interface (GUI) to allow the viewing of signal outputs from the controller and provide inputs to the controller.
- 4.2 The signal outputs will be red, yellow, and green indications from each active phase including vehicle, overlap, and pedestrian phases.

- 4.3 The controller inputs shall include all inputs currently available in the NEMA TS1 suitcase tester along with the following additional inputs:

- 64 detector inputs
- 6 preempts inputs
- TBC on
- MMU Flash
- Free/Coord
- Local Flash
- Timing Plans
- Alt Sequence
- Test Input A, B, &C
- Address inputs

5.0 System Compatibility

- 5.1 The Test-Box unit shall be fully compatible with the following TS2 controllers:
- Eagle
 - Econolite
 - Naztec
 - Peek

6.0 Documentation and Warranty

- 6.1 The unit shall come with two sets of software/operating manual/s.
- 6.2 There shall be a two-year warranty on the Test-Box unit from date of purchase.