

DEPARTMENT OF TRANSPORTATION
ENGINEERING SERVICE CENTER
 Transportation Laboratory
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METHOD OF TEST FOR ENVIRONMENTAL OPERATION OF TRAFFIC SIGNAL SYSTEMS

CAUTION: Prior to handling test materials, performing equipment setups, and/or conducting this method, testers are required to read “**SAFETY AND HEALTH**” in Section E of this method. It is the responsibility of whoever uses this method to consult and use departmental safety and health practices and determine the applicability of regulatory limitations before any testing is performed. Users of this method do so at their own risk.

A. SCOPE

This method describes the general procedure and equipment which should be used in the evaluation of Traffic Signal Systems under extremes of ambient temperature.

under test for a maximum period of 14 days at either or both ambient temperature extremes stated in Section "1" above, during which it shall operate in accordance with Section 86 of the Standard Specifications and the applicable special provisions.

B. APPARATUS

1. Temperature-controlled enclosure, capable of simulating an ambient temperature of $71^{\circ}\text{C} \pm 3^{\circ}\text{C}$.
2. Temperature-controlled enclosure capable of simulating an ambient temperature of $-17^{\circ}\text{C} \pm 3^{\circ}\text{C}$.

3. Mechanical—Visual inspection. Perform a mechanical-visual inspection to determine any adverse effects due to operation at temperature extreme.

C. TEST METHOD

1. The test shall consist of those tests described in California Test 658 “Method of Test for Function and Pre-Installation Inspection of Traffic Signal Systems”. The performance of this Test Method shall consist of the application of California Test 658 at $-17^{\circ}\text{C} \pm 3^{\circ}\text{C}$ and $71^{\circ}\text{C} \pm 3^{\circ}\text{C}$.
2. Extended Function and Operation: Conformance with specification includes all sequence, duration, and function of the operation. Operate the complete system

D. REPORTING OF RESULTS

Report results of functional and physical characteristics and of departures of operations on Form TL-610.

E. SAFETY AND HEALTH

Prior to handling, testing or disposing of any waste materials, testers are required to read: Part A (Section 5.0), Part B (Sections: 5.0, 6.0 and 10.0) and Part C (Section 1.0) of Caltrans Laboratory Safety Manual.

REFERENCE: California Test 659

End of Test (California Test 659 contains 1 page)