



WSDOT Test Method T 428

Test Method for Traffic Controller Compliance Inspection and Test Procedure

1. SCOPE

The purpose of this procedure is to provide a documented method for the steps involved with inspection and testing of the completed traffic controller cabinets.

2. REFERENCE DOCUMENTS

WSDOT Test Method T 422, Transient Voltage Test Procedure (optional)
WSDOT Test Method T 423, Conflict Monitor Testing
WSDOT Test Method T 424, Power Interruption Test Procedure
WSDOT Test Method T 425, Environmental Chamber Test
WSDOT Test Method T 427, Loop Amplifier Test Procedure

3. SAFETY

Use proper equipment to reduce the risk of electrical shock.

4. APPARATUS

Equipment as defined to perform WSDOT Test Methods T 422, T 423, T 424, T 425, and T 427.

Resistor load bank to simulate each traffic signal light (150 Ohm 100W wire wound resistors).

5. PROCEDURE

a. The traffic controller cabinet shall be inspected to ensure that it is in compliance with the contract documents. Ensure that all of the required equipment is installed and the cabinet meets the requirements of the contract documents. Any deficiencies shall be documented on the test report.

b. Perform the following tests:

WSDOT Test Method T 422, Transient Voltage Test (Spike Test) Procedure
WSDOT Test Method T 423, Conflict Monitor Testing
WSDOT Test Method T 424, Power Interruption Test Procedure
WSDOT Test Method T 427, Loop Amplifier Test Procedure

- c. After performing the Environmental Chamber Test, at a minimum, verify the operation of the following functions. The NEMA or 170 that are in the () are for those type cabinets only. In addition verify the controller assembly will function as required for the intended intersection.
- 1) Verify function of test button on the GFI is operational
 - 2) Verify vent fan functional
 - 3) Verify operation of cabinet light door switches
 - 4) Verify the correct operation of controller and of master if supplied
 - 5) Use computer to verify the DB9 to C20 plug communication (170)
 - 6) Verify communication using modem if supplied
 - 7) Verify operation of pedestrian call switches
 - 8) Verify the pedestrian field terminal
 - 9) Verify loop amplifiers operational
 - 10) Use dummy loop and test loop amplifier field terminals (NEMA)
 - 11) Verify function of detection panel shorting plug is operational (NEMA)
 - 12) Verify operation of preemption field terminal with detector and strobe
 - 13) Verify railroad preemption as required
 - 14) Verify internal wiring
 - 15) Verify the operation of all switches on the intersection display panel and loop detector panel
 - 16) Verify operation of inside “auto/flash switch”
 - 17) Verify operation of “stop-time” switch
 - 18) Running test: Set up cabinet with load resistors connected to output field terminals and run a performance test for a period of 72 hours.
 - 19) Verify 2’ extension of ped. Yellow from the CMU edge connector.

6. REPORT

Record any response found to be in disagreement with the published standards, report pass or fail and any corrective actions taken on the test report.

Performance Exam Checklist

Test Method for Traffic Controller Inspection and Test Procedure Method T 428 Checklist

Participant Name _____ Exam Date _____

Procedure Element	Yes	No
1. Cabinet inspected for damage during shipping.	<input type="checkbox"/>	<input type="checkbox"/>
2. Letter to project office sent	<input type="checkbox"/>	<input type="checkbox"/>
3. Traffic controller assessed for compliance with contract provisions.	<input type="checkbox"/>	<input type="checkbox"/>
4. Simulated load connected to the Controller.	<input type="checkbox"/>	<input type="checkbox"/>
5. Perform Transient Voltage Test WSDOT Method T 422 (optional)	<input type="checkbox"/>	<input type="checkbox"/>
6. Perform Conflict Monitor Test WSDOT Method T 423	<input type="checkbox"/>	<input type="checkbox"/>
7. Perform Power Interruption Test WSDOT Method T 424	<input type="checkbox"/>	<input type="checkbox"/>
8. Verify Traffic controller function (Section g of T 421)	<input type="checkbox"/>	<input type="checkbox"/>
9. Document test results on report.	<input type="checkbox"/>	<input type="checkbox"/>

First attempt: Pass Fail

Second attempt: Pass Fail

Signature of Examiner

Comments:

