

**Reproduction Reference  
DD4677005  
Vanguard Dynamic Message Sign  
Final Field Test Procedure for Each VMS Site**

---

---

- 1) This page is for reproduction reference only and will not be included in the manual.
- 2) This document is to be copied on front and back pages using 8 ½ x 11 paper.

**Note:** Section heading pages always start on a new page; they never start on the back of another page.

- 3) Staple the pages together in the upper-left corner.

Please direct questions and suggestions to Transportation Admin.

# Vanguard<sup>®</sup> Dynamic Message Sign

Final Field Test Procedure for VMS and  
VSLS with Traffic Cabinet for Each VMS  
Site

DD4677005

Rev 1—4 May 2020

# DAKTRONICS

# Final Field Test Procedure for VMS and VSLS

## Introduction

This test procedure describes the final field tests for a VMS and VSLS sign site for this project. The purpose of this test is:

1. To check that the sign and related power and communication equipment have been configured and installed to properly communicate over the communications equipment supplied and installed by others.
2. To check that all sign and related power and communications equipment is fully integrated and functioning from NJ Statewide Traffic Management Center in Woodbridge, NJ.
3. To put the sign into the state needed so that it is ready for normal operation without the need for an additional visit before beginning normal operation.

Note that this is not a test of all software functions or hardware design limits; this would be very time consuming, and would be redundant, as those tests need to be done only once.

This test should be performed for every sign site at the completion of installation and activation of the communications equipment at a particular site.

The test messages to be used should be the test messages approved by the NJTA that will not misdirect or distract traffic.

This test requires the cooperation of an operator at the central controller with personnel at the sign site.

Test equipment required:

- Boom truck, or whatever is required to get up to the sign
- Digital multimeter
- Laptop computer, with central controller software, miscellaneous software, and null modem cable.
- Common hand tools
- Walkie-Talkies or cell phones for communication between personnel up at the sign and those down at the controller cabinet, if necessary
- Cellular telephone or other means of communication with the Traffic Management Center operator

## Application Information for this Application

This test procedure applies to:

VF-236X rear-access signs and or a VSLS:

- full color (RGB) modules.
- 20mm modules.
- Any number of lines and columns.
- With internal panelboard.
- With electronically controlled intake fans.
- With or without RPM sensors.

## Final Field Test Procedure for VMS and VSLs

- With or without sign door signal switches.
- With UPS communication with field controller.
- With parallel surge suppressor with remote reporting.

### Traffic cabinet

- System Control Cabinet (SCC).
- Ground mounted.
- VFC sign controller.
- With UPS communication with sign controller.
- With traffic cabinet door signal switches.
- With generator transfer switch.
- Dial-up phone line, fiber modem, or radio communication; this is a generic communication test procedure that does not list anything specific for specific communication interfaces such as specific dial-up modem, specific fiber modem, etc.

# Final Field Test Procedure for VMS and VSLS

## Site Information

FINAL FIELD TEST PROCEDURE ASSUMES SUCCESSFUL COMPLETION OF PRELIMINARY FIELD TEST. SEE PRELIMINARY FIELD TEST DOCUMENT FOR SIGN IDENTIFICATION AND CONFIGURATION INFORMATION.

Daktronics Representative: \_\_\_\_\_

Contract number and name: \_\_\_\_\_

Field test procedure addendum ED number, if any ("NA" not applicable): \_\_\_\_\_

Turnpike or Parkway: \_\_\_\_\_

Mile Post (XXX:XX) \_\_\_\_\_

Roadway: \_\_\_\_\_

## Communication Test Procedure

VSLS VMS

- |       |       |     |   |
|-------|-------|-----|---|
| _____ | _____ | 1.1 | Have the Operations Shift Supervisor download a text test message to the field controller that will not misdirect traffic, and display the message.   |
| _____ | _____ | 1.2 | Verify that the text message displays properly on the sign and that it is not too bright or too dim for the ambient light condition. Then, verify with the Shift Supervisor that the sign message displays properly in the TMC central software without any error indications.    |
| _____ | _____ | 1.3 | Have the Shift Supervisor download and display a graphic test message on the sign that will not misdirect traffic.  |
| _____ | _____ | 1.4 | Verify that the graphic message displays properly on the sign and that it is not too bright or too dim for the ambient light condition. Then, verify with the Shift Supervisor that the sign message displays properly in the TMC central software without any error indications. |
| _____ | _____ | 1.5 | Have the Operations Shift Supervisor blank the sign and verify that the blank condition displays properly in the TMC central software without any error indications.  |
| _____ | _____ | 1.6 | Notify the Operations Shift Supervisor that the sign is now functional and ready for a 10-day operational test. Post a test message that will be maintained on the sign for the entire 10-day period.   |
| _____ | _____ | 1.7 | Have an NJTA ITS support engineer remotely connect to the UPS to verify proper communications and operation of the UPS on-board software.   |

## Final Details

- |       |       |     |  |
|-------|-------|-----|--|
| _____ | _____ | 2.1 | Confirm that all sign and traffic cabinet equipment covers (if any) are installed. |
|-------|-------|-----|--|

## Final Field Test Procedure for VMS and VSLS

VSLS VMS

\_\_\_\_ 2.2 Verify the sign is properly displaying the 10-day operational test message. Verify proper operation during:

\_\_\_\_ Bright Daylight Conditions

\_\_\_\_ Nighttime Conditions

Final Field Test Procedure for VMS and VSLS

\_\_\_\_\_  
Turnpike/Parkway

\_\_\_\_\_  
Milepost

\_\_\_\_\_  
Roadway

Test Status:

\_\_\_\_ Pass - No exceptions noted

\_\_\_\_ Fail - Requires re-testing

\_\_\_\_ Conditional Pass - Complete the following punch list

Punch List Item*	Technician (initials)	Customer (initials)
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

\* Include only items that failed testing or require re-testing. The Construction Punch List will be developed separately. Notify Authority and Resident Engineer upon completion of punch list to arrange for re-testing if required.

**Daktronics Technician**

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**NJ Turnpike Authority**

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**Resident Engineer**

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**DAKTRONICS PERSONNEL MUST RETURN THIS COMPLETED DOCUMENT TO THE DAKTRONICS CONTRACT SERVICE COORDINATOR.**