

VS6

Site Name: _____

Field Test Procedure

DD3455874

Rev: 2—15 January 2018

DAKTRONICS

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DD3455874

Contract: CXXXX

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DAKTRONICS, INC.

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Introduction

This test procedure describes the field tests for the LED variable message sign site involved in this project. The purposes of this test is:

1. Check installation of the sign and related equipment supplied by Daktronics.
2. Check the function of all sign parts and related equipment supplied by Daktronics.
3. Prepare the sign for normal operation and eliminate the need for additional visits before normal operation.
4. Record all tests and setup tasks performed at each site, eliminating an additional visit.

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 of the particular site.

The test messages to be used should be the test messages listed or messages such as "Testing; Message 1" or moving rows, moving columns, etc., that will not misdirect 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 into the sign
- Digital multi-meter and Ground resistance tester
- Laptop computer, with vanguard software
- Ethernet Cable
- Common hand tools
- Flash Drive/Memory Stick
- Translation table for each display type

Site Information

Daktronics Representative: _____

Contract number and name: _____

Field Test Procedure addendum ED/DD number, if any: _____

Sign site: _____
(Typically highway number, direction, and mile-post number or intersection)

Sign model no.: _____

Sign assembly no.: _____

Sign serial no.: _____

Field controller serial no.: _____

Field controller address no.: _____

Site IP address Primary: _____ Auxiliary: _____

Important: Make sure that the firmware listed below is the most current version, if not make sure to download the latest version of the firmware from Dakfiles.daktronics.com and save on to flash drive.

Sign dimension: _____

Firmware:

- 1) VFC
- 2) Player Image
- 3) Video Processor

Version number:

Sign Exterior Inspection

- ___1.0 Visually inspect the outside of the sign for damage.
- ___1.1 Verify that ground wire and ground rods are connected properly per site riser.
- ___1.2 Check that the light sensors are unobstructed.

Power Connection Inspection

- ___2.0 Turn off the power to the sign, from outside the sign.
- ___2.1 Check that the two hot wires, neutral, and earth ground wires from the 120/240 VAC power source are connected into the panel board main breaker terminals, neutral bus, and earth ground bus, respectively.
- ___2.2 Check that the earth grounding wire is secure from the case of the sign (inside or outside) to the earth ground rod(s) near the base of the sign.
- ___2.3 Make sure power is turned off to all sections. Using a safe procedure, measure the AC voltage from the panel board main breaker input lugs to neutral; it should measure between 105 and 125 VAC. Also, check the voltage from neutral to earth ground; should be less than 10 VAC. (This is a no-load test of the input voltage.) Record below.

L1 to neutral: _____ Neutral to earth ground: _____

Sign Interior Inspection

- ___3.0 Make sure the Site Information for the sign is filled out: sign serial number, sign model number, sign assembly number, etc.
- ___3.1 Inspect the inside of the sign for damage and signs of water intrusion. Check for loose parts, connections and wiring, inside of the sign.
- ___3.2 Check that all conduits that enter the sign are sealed inside at the end that enters the sign.

Sign Power Test

- ___4.0 Turn on all circuit breakers.

Functional Test

- ___5.0 Configure the controllers IP address if customer doesn't want it in DHCP mode.
- ___5.1 Check that the value indicated by the light sensor appears reasonable for the current ambient lighting conditions. Record below:
 - a. If equipped with single Light sensor: reading: _____

b. If equipped with multi directional light sensor:

Ambient: _____ Front: _____ Rear: _____

___ 5.2 Run the following test patterns and verify that all the test patterns display properly.

- a. Alphabet
- b. Line ID
- c. Rotate rows
- d. Rotate columns

___ 5.3 Set to "Normal Mode" to exit the test pattern mode.

___ 5.4 Set the time, date, and correct time zone.

___ 5.5 **Note: If testing at night turn on the all on 10% brightness test pattern.** Using a safe procedure, measure the AC voltage from the panel board main breaker input lugs to neutral; it should measure between 105 and 125 VAC. Also, check the voltage from neutral to earth ground; should be less than 10 VAC. (This is a load test of the input voltage.) Record below.

L1 to neutral: _____ Neutral to earth ground: _____

___ 5.6 Using Vanguard software display a message that will not misdirect traffic and that has characters that butt up to the top, bottom, left, and right edges of the sign and verify that it displays correctly. This verifies proper message display capability for this sign size.

- a. Using a test message check visually that the dimming level of the display appears reasonable for the light conditions with automatic dimming set and record the level. Dimming Level% _____

___ 5.7 Verify that the sata cables are connected properly. **If testing at night display one of the "All on 10 %" test patterns, if testing during the day display the "All on 100%" test pattern.**

- a. Disconnect the sata cable from port A on controller and verify that the test patterns are displaying properly.
- b. Reconnect sata cable to port A
- c. Disconnect sata cable from port B and verify test patterns are displaying properly.
- d. Perform this test to the other PLRs in the other sections.

___ 5.8 Set to "Normal Mode" to exit the test pattern mode.

___ 5.9 Reinstall all enclosure covers.

___ 5.10 Record the installed firmware version numbers (from the sign controller "Version Information" page), and the dimensions of the sign. (If the dimension of the sign doesn't match the actual sign size, correctly configure the sign controller for this site.) Record the information under the Site Information.

Final Details

___ 5.11 Equipment covers are installed.

___ 5.12 Verify the sign is blank or what the customer wants to be on the sign.

___ 5.13 Verify that any test messages you created have been removed from the sign controller.

___ 5.14 Record if main breaker is left on or off: On: ___ Off: ___ Date: _____

___ 5.15 Make sure the Site Information is filled out: serial numbers, site location, phone number, sign dimension, firmware versions, etc.

It is acknowledged that the following field test procedure has been completed for this site and the display is operational.

Daktronics Technician

_____	_____	_____
Printed Name	Signature	Date

Customer

_____	_____	_____
Printed Name	Signature	Date

DAKTRONICS PERSONNEL MUST RETURN THIS COMPLETED DOCUMENT AND QUALITY FEED BACK FORM TO THE DAKTRONICS CONTRACT PROJECT MANAGER.

Transportation Quality Feedback form

For Internal Daktronics use only. This is not part of the field Test Procedure. This form needs field out and sent back to Daktronics with the Field Test Procedures

Submitted By _____ Contract# _____

Display Type (i.e. VF2400_27x105-66-A) _____

Location of Display _____

Display Serial # _____ nearest City and State _____

Commissioning Date _____ Project Manager _____

Did you experience any issues or unplanned work during the commission of this display? **Yes/No** (if no skip to additional comments/Punch list items)

Failed Part Description	Part Number	Part Serial #

Describe the issues and or unplanned work

Additional Comments/Punch list Items

FTP completed **Yes/No**

Site Complete **Yes/No** (if no documents punch list items above)