

SmartLog V5™ with Turnstile Installation, Operation and Maintenance

Made in the
United States of America

Figure 1. EMIT SmartLog V5™ with Turnstile

Description

The EMIT SmartLog V5™ with [Alvarado EDC Waist High Turnstile](#) verifies the functionality of an operator's wrist strap and footwear and controls access to the ESD Protected Area. The turnstile activates after the operator's wrist strap and/or footwear is determined to act as a path-to-ground. By touching the solid-state switch once, the SmartLog V5™ independently tests the resistance path limits of both the wrist strap and ESD footwear in less than 2 seconds. It may also test a worn ESD garment if it is used as part of personnel grounding path. Test results are electronically stored in the SmartLog V5™ and easily downloaded to a PC for logging records and evaluation. This product can be used as one of the tools to fulfill the ANSI/ESD S20.20 section 7.3 "Compliance Verification Plan."

See [TB-6584](#) for more information on the patented* EMIT SmartLog V5™.

The [Alvarado EDC Waist High Turnstile](#) features a rugged industrial grade controller, optical rotation detection (no mechanical microswitches to break or continually adjust), and adjustable time out functionality (turnstile relocks if there is no passage through the unlocked turnstile). An adjustable dampener slows and cushions the rotation and self-centers the turnstile arms to the home position. Stainless steel internal and external components make the turnstile durable and easy to maintain.

The turnstile is configured to Fail-Safe Loss-of-Power Operation. Should loss of power occur, the turnstile's arms will unlock and rotate freely in both directions to allow operators to pass through.

The SmartLog V5™ with Turnstile is available as the following item numbers:

Item	Input Voltage
50778	100 VAC
50773	120 VAC
50772	220 VAC

ESD Association Information

"Compliance verification should be performed prior to each use (daily, shift change, etc.). The accumulation of insulative materials may increase the foot grounder system resistance. If foot grounders are worn outside the ESD protected area testing for functionality before reentry to the ESD protected area should be considered." ESD SP9.2 APPENDIX B - Foot Grounder Usage Guidance

"Process monitoring (measurements) shall be conducted in accordance with a Compliance Verification Plan that identifies the technical requirements to be verified, the measurements limits and the frequency at which those verifications shall occur...Compliance verification records shall be established and maintained to provide evidence of conformity to the technical requirements.

The test equipment selected shall be capable of making the measurements defined in the Compliance Verification Plan." (ANSI/ESD S20.20-2007) section 7.3

ANSI/ESD S20.20 Table 1 Flooring-Footwear Systems Technical Requirements Recommended Range "less than 3.5×10^7 ohms measured per ANSI/ESD STM 97.1."

"Typical test programs recommend that wrist straps that are used daily should be tested daily. However, if the products that are being produced are of such value that knowledge of a continuous, reliable ground is needed, and then continuous monitoring should be considered or even required." (ESD Handbook ESD TR 20.20 section 5.3.2.4.4)

*US Patents 6,078,875 and 6,809,522

Packaging

- 1 Turnstile
- 1 SmartLog V5™
- 1 Turnstile Mounting Bracket
- 1 Wall Mounting Bracket
- 1 Connection Cover
- 1 Dual Independent Foot Plate
- 1 Foot Plate Cable, 7'
- 1 Power Adapter, 12VDC 1.25A center pos.
- 1 Pan Head Screw, 4-40 thread
- 3 Pan Head Screws, 10-32 thread
- 3 Nuts, 10-32 thread
- 3 Washers
- 2 Wall Mounting Anchors
- 2 Wall Mounting Screws, #10 x 1-1/2"
- 8 Turnstile Keys
- 1 Certificate of Calibration

Installation

Installing the Turnstile

A 110 VAC / 220 VAC power line and Ethernet line are needed at the installation location of every SmartLog V5™ Turnstile. Be sure to route these lines to the installation site prior to anchoring your turnstile.

[Click here](#) to download the Alvarado EDC Installation and Maintenance Manual and see instructions on anchoring and wiring the turnstile. Do not mount the SmartLog V5™ and its mounting bracket to the turnstile until it is properly anchored and wired.

Installing the SmartLog V5™ to the Turnstile

See [TB-6584](#) to learn more about the features and components of the SmartLog V5™. EMIT recommends making any adjustments to its clock or test configurations prior to installing it to the turnstile.

1. Disconnect the SmartLog V5 tester from the mounting bracket by removing the 4-40 pan head screw located on the left-hand side of the tester.
2. Open the turnstile's cover using the included keys. Set the power switch located on the power box to the ON position.
3. Install the mounting bracket onto the turnstile's cover using the three 10-32 screws, washers and nuts. From top to bottom, the installation order is: screw, washer, mounting bracket, turnstile cover, nut.
4. Route the SmartLog's foot plate cable, power adapter, ground cord, relay wires and Ethernet cable through the turnstile and bracket.

NOTE: Cat5e cable is recommended for Ethernet wiring. Cat6 cable may prove to be too rigid for most installations inside the SmartLog's mounting bracket.

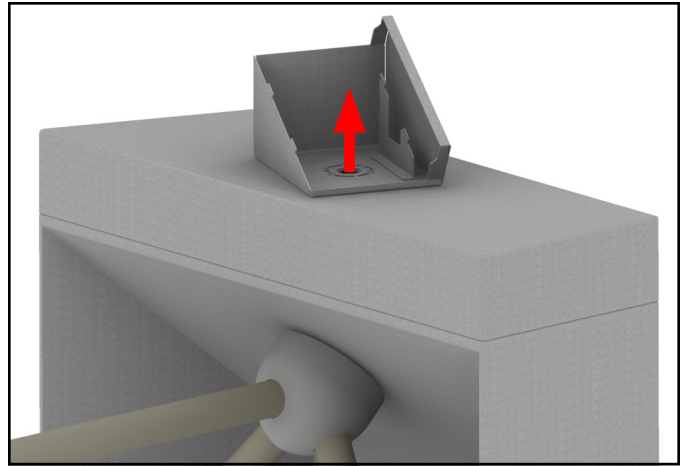


Figure 2. Routing the cords and cables through the turnstile's cover and bracket

5. Follow Figure 3 and connect all of the cables to the SmartLog V5™.

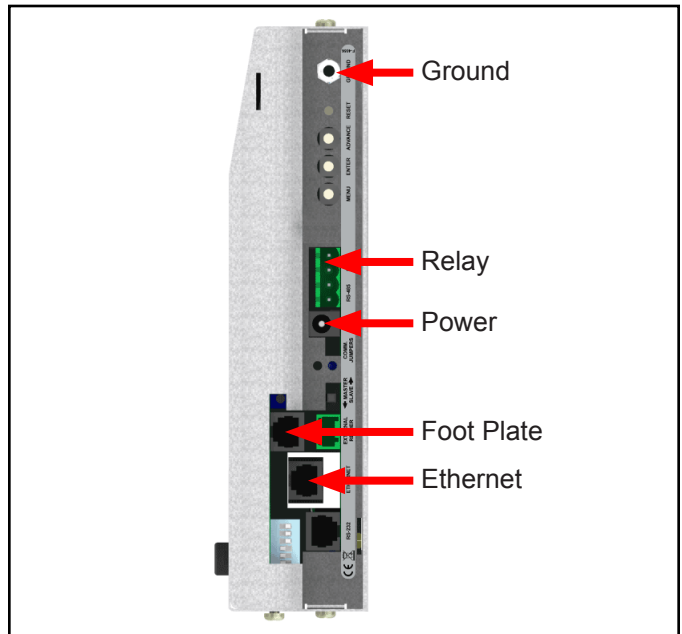


Figure 3. Connections to the SmartLog V5™ (right view, cover off)

6. Align the slots on the back of the SmartLog V5™ with the hooks on the turnstile bracket.

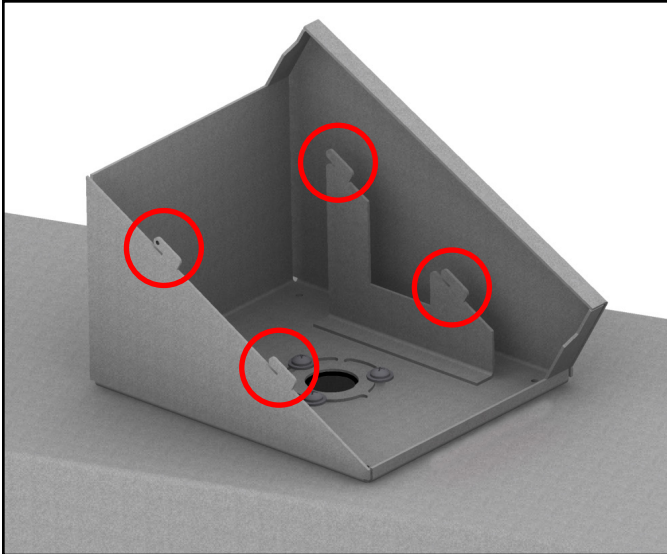


Figure 4. Locating the mounting hooks on the bracket

- Slide the SmartLog V5™ into the bracket from top to bottom. Secure the SmartLog V5™ to the bracket by fastening the included 4-40 screw on the left-side of the tester.



Figure 5. Sliding the SmartLog V5™ into the bracket and securing it into place with the 4-40 screw

- Locate the foot plate cable at the base of the turnstile and connect it to the Dual Independent Foot Plate. Place the foot plate at the base of the turnstile so operators can place their feet on it while performing tests at the turnstile's entrance.



Figure 6. Installing the Dual Independent Foot Plate

- Complete the installation by establishing communication to the SmartLog V5™ via the Ethernet cable. See the "Ethernet Setup" procedure in [TB-6584](#) for more information.

Operation

NOTE: The SmartLog V5™ must first be programmed with the user ID table using the TEAM5 Software before being deployed for employee use, or the default test settings will be applied.

See the [TEAM5 User Manual](#) for more information.

1. Initiate the test procedure by identifying yourself to the SmartLog. This may be done using the keypad, barcode badge scanner or proximity badge reader (if supplied).
2. Follow the prompt on the SmartLog's display.
3. When performing a footwear test, be sure to place both feet on the dual foot plate (one foot per plate).

When performing a wrist strap test, be sure to completely plug in the wrist cord into the tester's jack.

4. Press and hold the metal touch plate on the tester to perform the test. Hold your finger on the touch plate until the results of the test are displayed.

If performing a wrist strap test, and the wrist strap status LEDs do not illuminate, verify that the wrist cord is correctly inserted into the tester.

5. The relay terminal will activate and unlock the turnstile if the defined tests are passed.
6. Pass through the turnstile. The turnstile will re-lock after one rotation.



NOTE: By default, the turnstile will remain unlocked until either the operator passes through or 20 seconds expire. See page 17 in the attached Alvarado EDC Installation and Maintenance Manual for instructions on modifying the turnstile's Timed Delay Reset Timer.

Calibration

Frequency of recalibration should be based on the critical nature of those ESD sensitive items handled and the risk of failure for the ESD protective equipment and materials. In general, EMIT recommends that calibration be performed annually.

Use the EMIT 50424 Limit Comparator to perform periodic testing (once every 6-12 months) of the SmartLog V5™. The Limit Comparator can be used on the shop floor within a few minutes virtually eliminating downtime, verifying that the tester is operating within tolerances.

See [TB-6581](#) for more information.



Specifications

SMARTLOG V5™ WITH TURNSTILE

Operating Voltage	100 VAC, 50/60 Hz (50778) 110 VAC, 50/60 Hz (50773) 220 VAC, 50/60 Hz (50772)
Operating Temperature	32°F - 104°F (0 - 40°C)
Dimensions (Crated)	42" x 40" x 49" (107cm x 102cm x 124cm)
Dimensions (Uncrated)	See Figure 7
Weight (Crated)	385 lbs (175 kg)
Weight (Uncrated)	285 lbs (129 kg)

SMARTLOG V5™ TESTER

Operating Voltage	100-240 VAC, 50/60 Hz
Operating Temperature	32°F - 104°F (0 - 40°C)
Dimensions	8.3" x 5.8" x 1.9" (21.1cm x 14.7cm x 4.8cm)
Weight	2.0 lbs (0.9 kg)

DUAL INDEPENDENT FOOT PLATE

Dimensions	14.0" x 16.0" x 0.9" (35.6cm x 40.1cm x 2.3cm)
Weight	7.5 lbs (3.4 kg)

TURNSTILE CERTIFICATIONS

- LA-ETL
- CE
- UL (internal power transformer)

Certificates are available upon request to EMIT Customer Service.

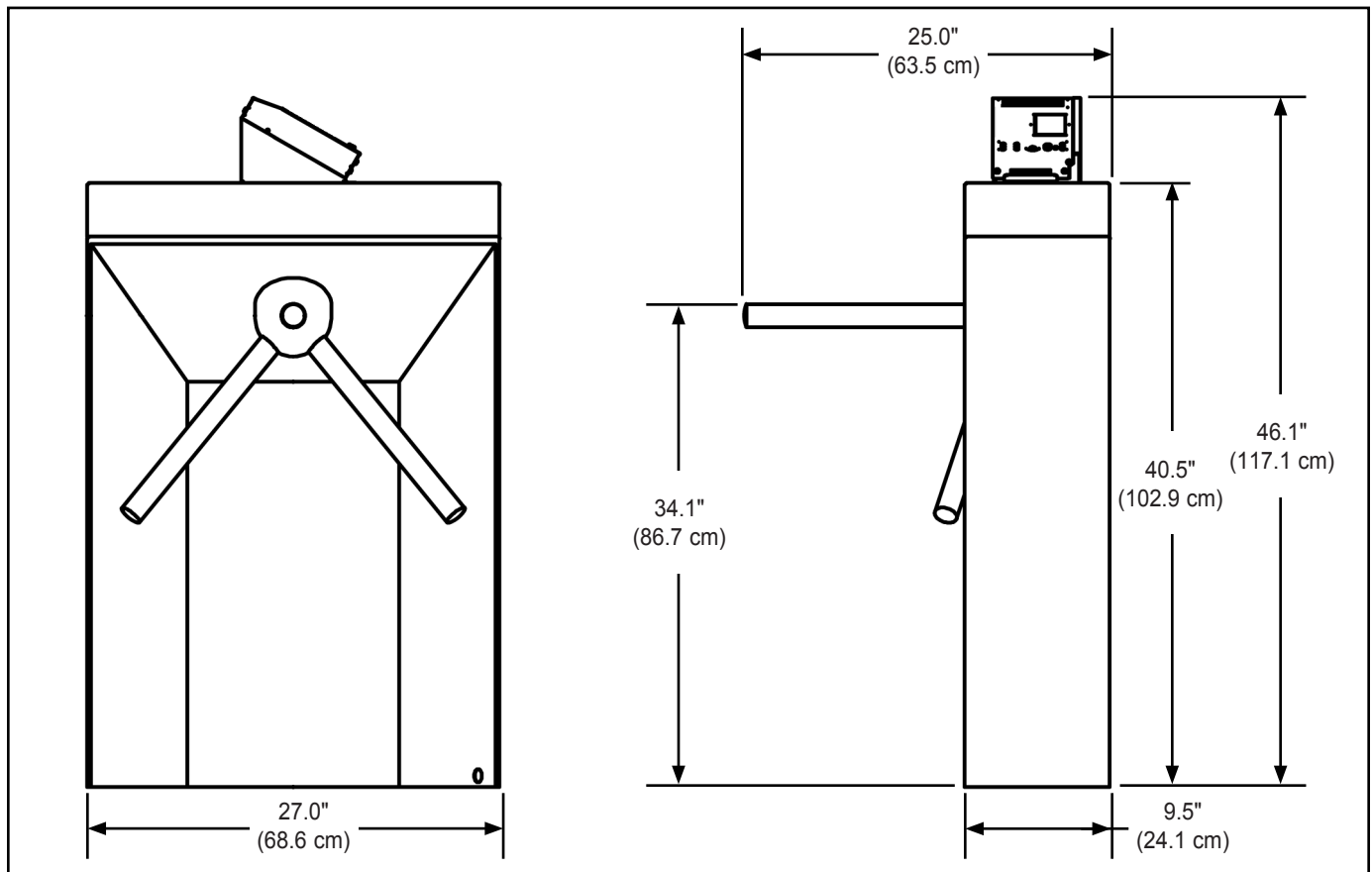


Figure 7. Dimensions of the EMIT SmartLog V5™ Turnstile

Limited Warranty, Warranty Exclusions, Limit of Liability and RMA Request Instructions

See EMIT's Warranty -

<http://emit.descoindustries.com/Warranty.aspx>