AEMC® INSTRUMENTS
CHAUVIN ARNOUX GROUP

Hazmat Grounding & Bonding

Site Considerations

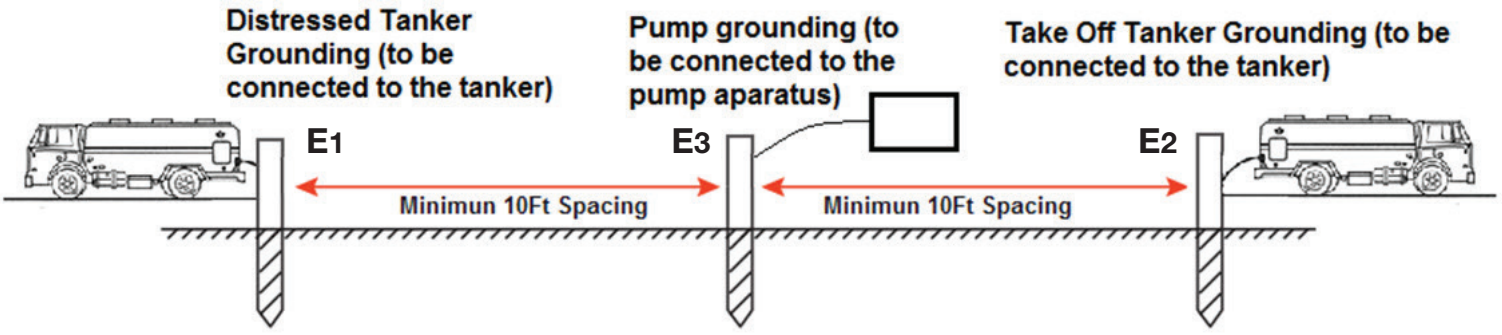
- Locate grounding points on the tankers and transfer pump.
- Make connections to damaged tanker first to avoid a potential spark.
- When possible, grounding systems should be established up hill and outside of the Hot Zone.
- Resistance measurement should be compliant with your local jurisdiction which usually follows NFPA 472 @1000 Ω or less or NEC @ 25 Ω or less, lower is always better. Higher resistance means longer static discharge time.

Installing the Grounding System

STEP 1:

- Install/establish three separate static grounding systems, one for the distressed tanker (E1), one for the recovery tanker (E2) and one for the pump (E3). When the pump is not mounted to the fire truck, they should be at least 10 feet apart.
- The grounding sites should be up hill and up wind as well as outside of the distressed tanker's hot zone.

> **NOTE:** One or more rods may be needed for each grounding system to obtain an acceptable grounding resistance. Multiple rods should be (3 to 6) ft apart and connected to each other via jumper cable.



Testing the Grounding System

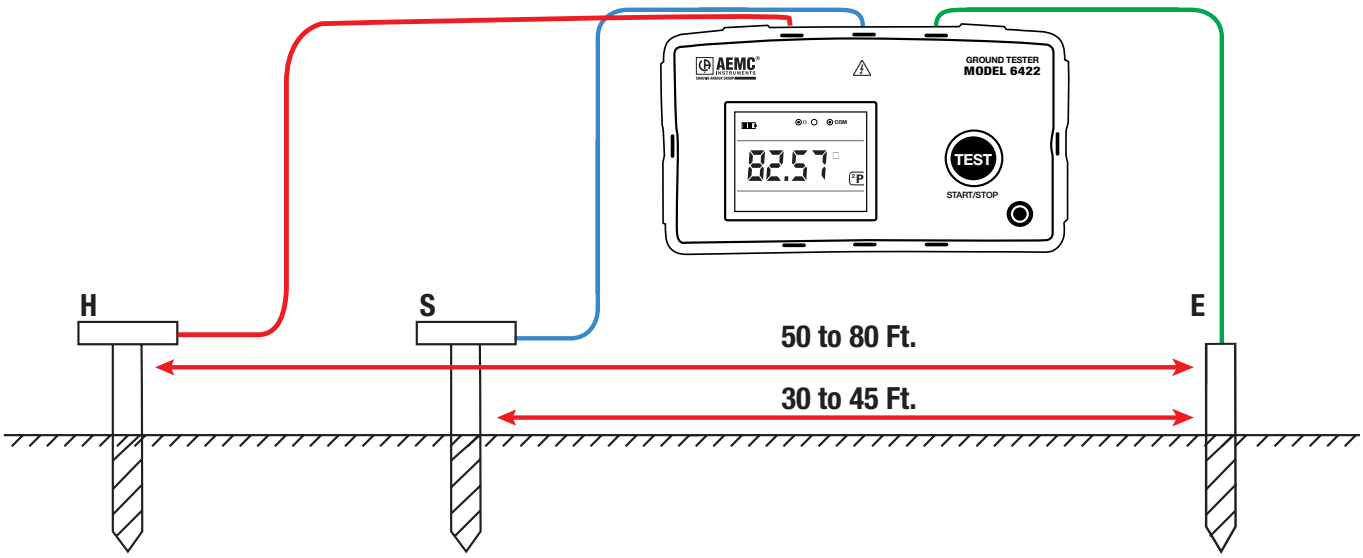
STEP 2:

Conduct independent Fall-of-Potential tests on each of the grounding systems.

1. Insert the auxiliary test electrode H a few inches into the ground and (50 to 80) ft away at a location that is central to the three grounding system E rods.
2. Insert the auxiliary test electrode S a few inches into the ground at a distance approximately (30 to 45) ft from the first ground system E1 and in a straight line with the H electrode.
3. Connect the Red, Blue and Green test wires to the grounding rod(s), electrodes and instrument as shown.
4. Press and hold the Test button until reading stabilizes to measure the resistance.
5. Repeat steps 2, 3 and 4 for grounding systems E2 and E3.

> **NOTE:** Readings should be below **1000 Ω** or below **25 Ω** as defined by local authority.

After achieving the acceptable resistance, disconnect the meter and auxiliary rods S and H before Step 3, connecting the tankers and pump to their grounding systems.



Connect to the Grounding System

STEP 3:

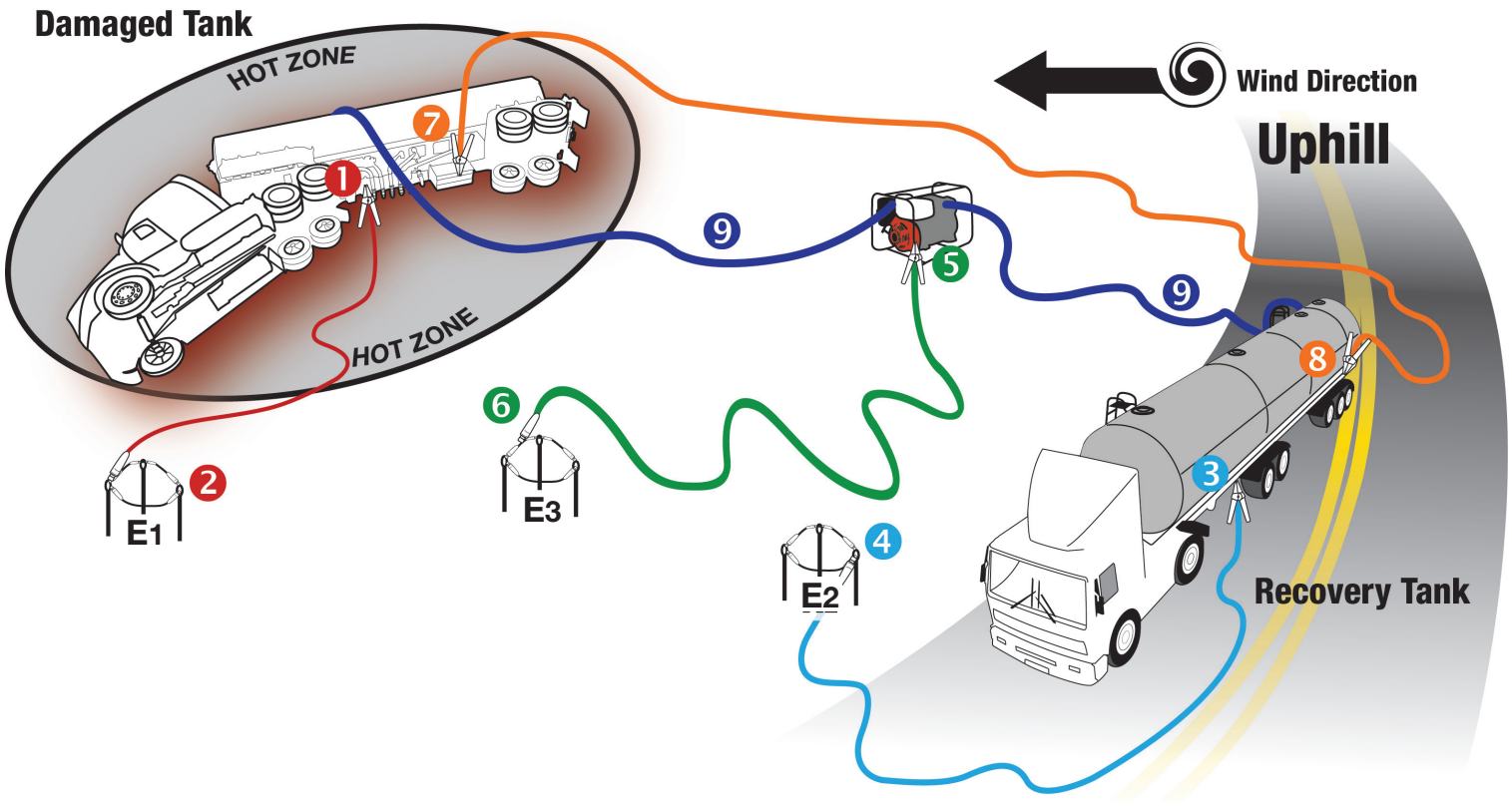
Following the diagram, perform the below steps in the following order:

- 1–2 Connect a grounding cable to the distressed tanker first and then to its grounding system E1.
- 3–4 Connect a grounding cable to the recovery tanker first and then to its ground system E2.
- 5–6 Connect a grounding cable to the transfer pump first and then to its grounding system E3.

> **NOTE:** E3 is not needed if the pump is mounted to a fire truck.

- 7–8 Connect a bonding cable to the distressed tanker first and then to the recovery tanker.
- 9 Connect the hoses to the pump and tankers.

Begin the transfer process.

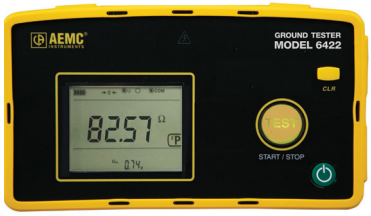


Static Ground and Bond Test System Kit

Cat. #2155.01

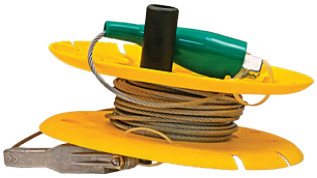
PRODUCT PACKAGING

Ships with:



Ground Tester Model 6422
Cat. #2135.55

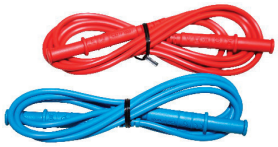
50 ft Bonding Cable with REB Clamp
Cat. #2155.12



(3) 50 ft Ground Cable with REB Clamp on one end and Mueller Clip on the other.
Cat. #2155.14 (1 Reel)

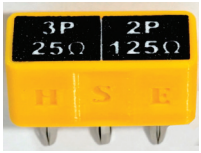
30 ft Lead (green)
Cat. #5000.01

Set of two, 14.5" T-shaped Auxiliary Ground Electrodes
Cat. #2135.39



Lead, Set of 2, color-coated 5 ft (Red and Blue) for Reels
Cat. #5000.34

150 ft Red Wire on Reel
Cat. #5000.04



Ground Tester Calibration Checker For Models 6422/6424
Cat. #5000.92

Waterproof Utility Case with inserts
Cat. #2155.13

Ground Rod Driver /Extractor Tool
Cat. #2155.11

(2 Sets of) 3 Copper Clad Ground Rods with 2 Ground Rod Couplers
Cat. #2155.10 (3 Rods & 2 Couplers)

150 ft Blue Wire on Reel
Cat. #5000.07

(2 Sets of) 3 10ft Ground Rod Jumper Cables
Cat. #2155.15 (1 Set of 3)

Handles supplied with Red and Blue Reels

Extra Handle for Reels
Cat. #5000.64

Also Includes:

- User Manual
- 6 AA Batteries - Uninstalled
- Flathead Screwdriver
- 8 Cable Ties

USB Drive containing Training Video

Tape Measure 100 ft
99-HDW 100456

Accessories (Sold Separately):

150 ft Jumper Cable
Cat. #2155.16

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