

Model: All

Vehicle System: 92 - Tools and Equipment

Region: All

Tech Note: Electrostatic Discharge Tooling

Tech Notes are announcements that help to communicate and track new information about Tesla Service concerns. Such concerns may or may not be VIN specific. These instructions assume knowledge of motor vehicle and high voltage electricity repairs, and should only be executed by trained professionals. Tesla Motors assumes no liability for injury or property damage due to a failure to properly follow these instructions or for repairs attempted by unqualified individuals.

This Service Bulletin supersedes TN-14-92-003, dated 10-Jul-14. Each content change is marked by a vertical line in the left margin. Discard the previous version and replace it with this one.

All Service Centers have received an electrostatic discharge (ESD) kit as standard tooling. The purpose of this kit is to transfer static charges from the work surface to ground when performing work on ESD-sensitive parts (example: key printed circuit board) in order to protect them from damage. The tooling kit includes the following items (Figure 1):

- A tabletop ESD mat
- A wrist strap with alligator clip adaptor
- A ground cord with alligator clip adaptor
- A NEMA 5-15 ground indicator

NOTE: Service Centers with grounded, non-NEMA 5-15 outlets need to supply an adaptor suitable to connect the ground indicator to their regional outlet type. If you are unable to obtain an adaptor, contact ServiceTooling@teslamotors.com for assistance.

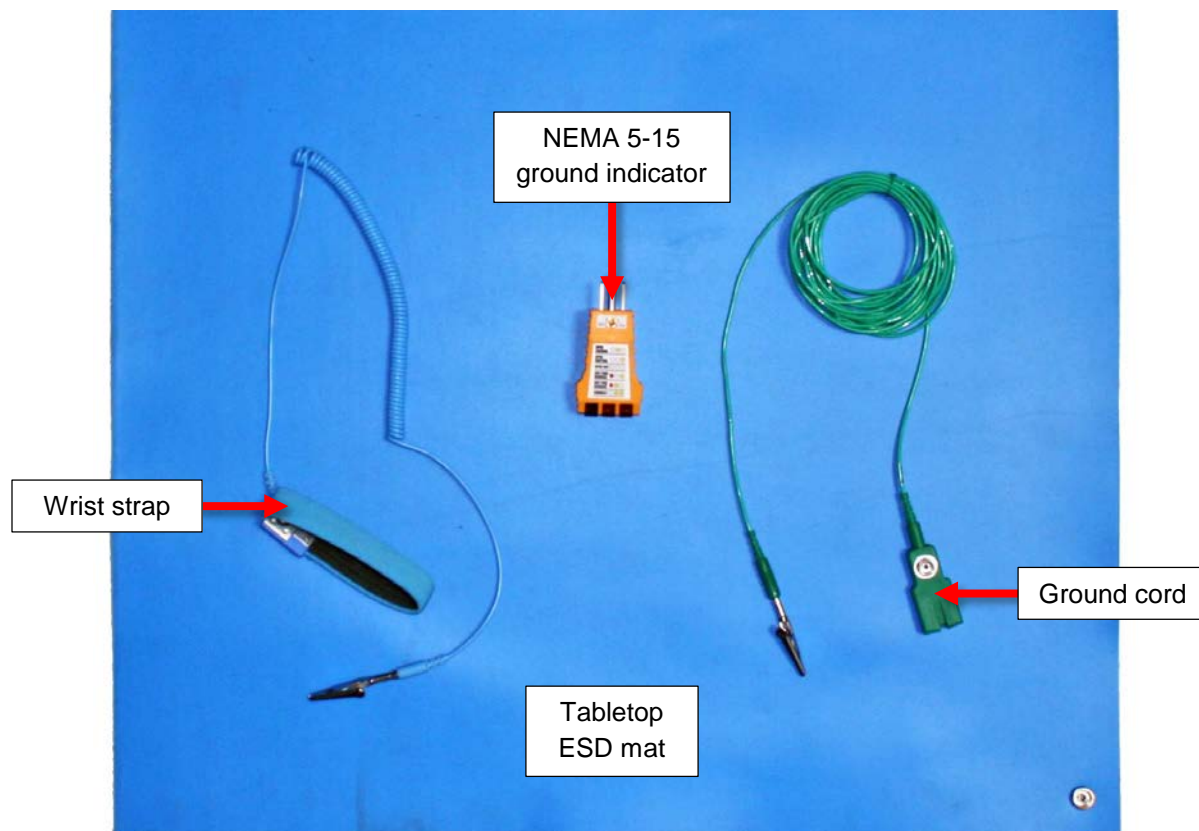


Figure 1

Using the ESD Tooling Kit

1. Place the ESD mat flat onto a workbench so that the button connector is closest to the grounding point (outlet, vehicle chassis, etc.).

NOTE: If the component being worked on is too large to fit on the mat, use the alligator clip to connect the component directly to a ground source.

2. Snap the button connector on the ground cord to the button connector on the ESD mat (Figures 2 and 3).

NOTE: Make sure the connector is securely fastened to the ESD mat.

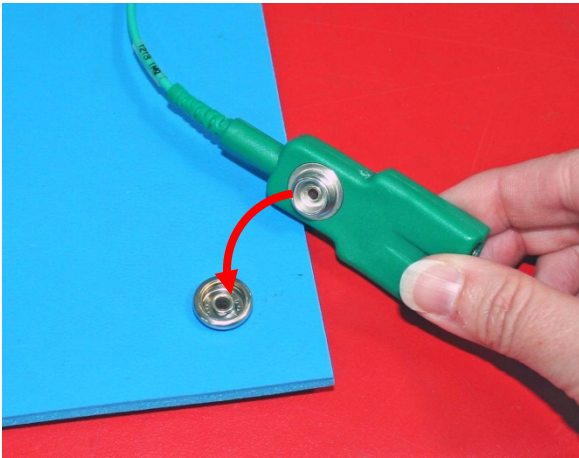


Figure 2

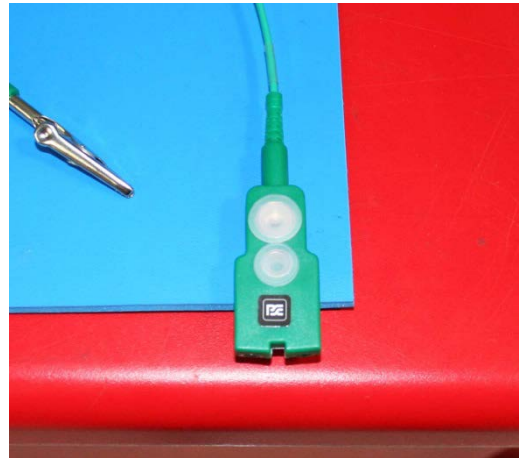


Figure 3

3. Remove the alligator clip adaptor from the end of the wrist strap to expose the banana plug.
4. Connect the banana plug on the wrist strap to the ground cord (Figure. 4).

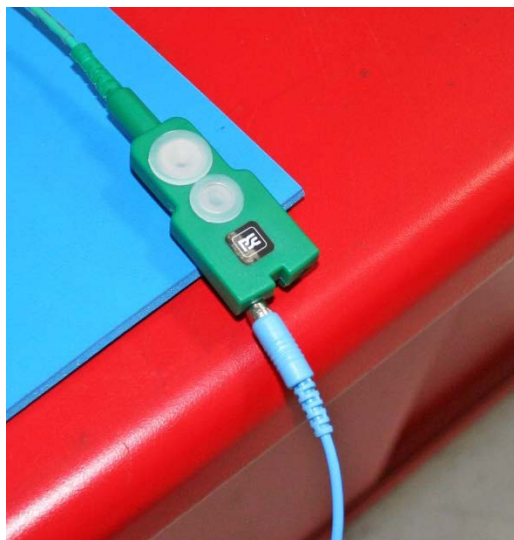


Figure 4

5. Connect the ground cord to a ground source:
 - **Service Centers with NEMA 5-15 outlets**
 - a. Plug the ground indicator into the outlet and confirm the 2 lights on the right are lit (Figure 5).
 - b. Remove the alligator clip adaptor from the end of the ground cord to expose the banana plug.
 - c. Plug the banana plug on the ground cord into the ground indicator (Figure 6).



Figure 5



Figure 6

- **Service Centers with grounded, non-NEMA 5-15 outlets**
 - a. Plug the appropriate adaptor into the outlet.
NOTE: Service Centers with grounded, non-NEMA 5-15 outlets need to supply an adaptor suitable to connect the ground indicator to their regional outlet type. If you are unable to obtain an adaptor, contact ServiceTooling@teslamotors.com for assistance.
 - b. Plug the ground indicator into the adaptor and confirm the 2 lights on the right are lit.
 - c. Remove the alligator clip adaptor from the end of the ground cord to expose the banana plug.
 - d. Plug the banana plug on the ground cord into the ground indicator.
 - **Service Centers with non-grounded outlets**
 - a. Clip the alligator clip adaptor on the ground cord onto any unpainted metal part of the vehicle.
6. Secure the wrist strap onto your wrist (Figure 7). Make sure the strap is snug (not tight) and the metal portion contacts your skin.



Figure 7

7. Perform all work with the ESD-sensitive part on the surface of the ESD mat.

⚠ CAUTION: Do not touch the ESD-sensitive part unless the ESD strap is secured to your wrist and the ground cord is connected to a proper ground.

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