

TN-20-00-001 May 6, 2020		Tesla, Inc. Tech Notes
Model:	Vehicle System:	Region:
Model S, Model X	00 - Inspection & Service	All

Tech Note: Retrofit HV Battery Shipping Crate Access Port, Model S and Model X

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 electrical component repairs, and should only be executed by trained professionals. Tesla assumes no liability for injury or property damage due to a failure to properly follow these instructions or for repairs attempted by unqualified individuals.

The Model S and Model X HV battery shipping crate can be retrofitted with an access port to make it easier and quicker to diagnose, discharge, keep an inventory of, and transport the HV battery. This procedure is mainly useful for cases where numerous HV battery shipping crates are being stored and you would like access to an HV battery that has another HV battery shipping crate stacked on top of it.

 **NOTE:** Use correction code 16010806, "Access Ports – Shipping Crate – HV Battery (Retrofit)" to track the labor for this retrofit.

	Part Number	Description	Quantity
If Necessary	1593713-00-A*	HV BATTERY CRATE ACCESS PORT KIT	1
	1020213-00-A	RVT PUSH-PULL,10MM,3.5-6 GRP,POM,BLK	1
	These part numbers were current at the time of publication. Use the revisions listed or later, unless otherwise specified in the Parts Catalog .		
Special Tools	1126494-00-A	SET, DRILL BIT, 1-13MM	
	1129405-00-A	VIDEO SCOPE, OTC 3880X	
	1143990-00-A	DRILL, 1/2" DR, M18, KIT	
Shop Supplies	Tape measure		
	Paint pen		

*The HV battery crate access port kit includes 5 access port plugs (1593713-10-A). Additional access port plugs are available separately from the kit, if needed.

Procedure

1. Locate the shipping markings on the shipping crate to determine the rear of the HV battery (Figure 1).

⚠ CAUTION: It is possible that the HV battery has been installed backwards in the shipping crate. Do not rely on the shipping markings to determine where the rear of the HV battery is. A video scope must be inserted into the pilot hole to verify where the rear of the HV battery is inside the crate. Otherwise, the HV battery can be damaged when drilling through the shipping crate with the 98 mm (3 7/8 in) hole saw.

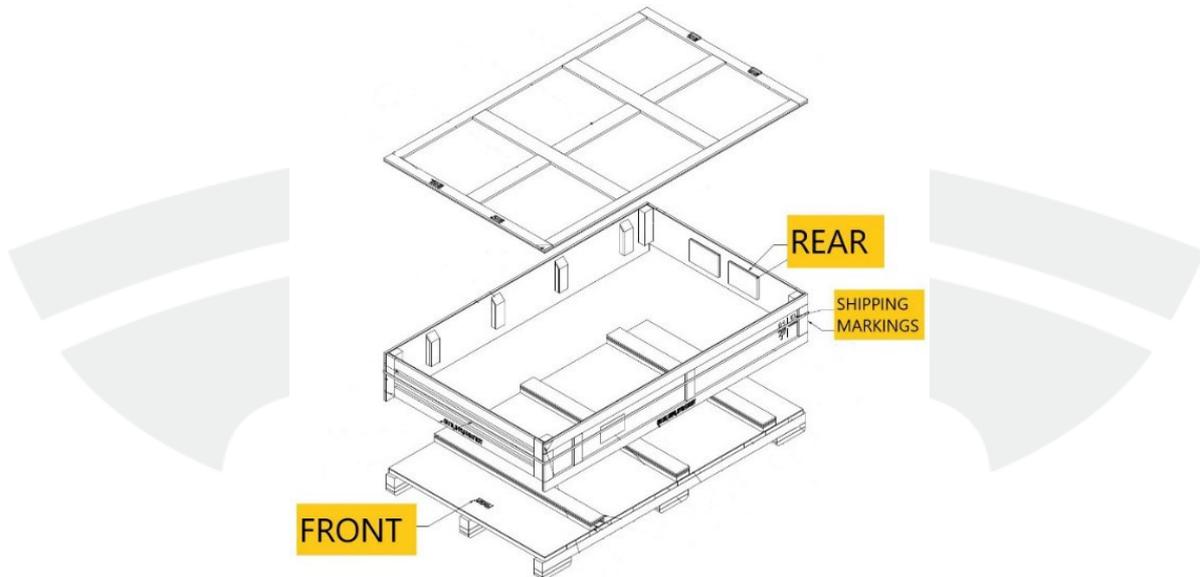


Figure 1

2. Determine the location to drill the pilot hole (Figure 2) by measuring:

- 620 mm from the outer edge of the right rear of the HV battery shipping crate
- 90 mm from the top edge of the HV battery shipping crate

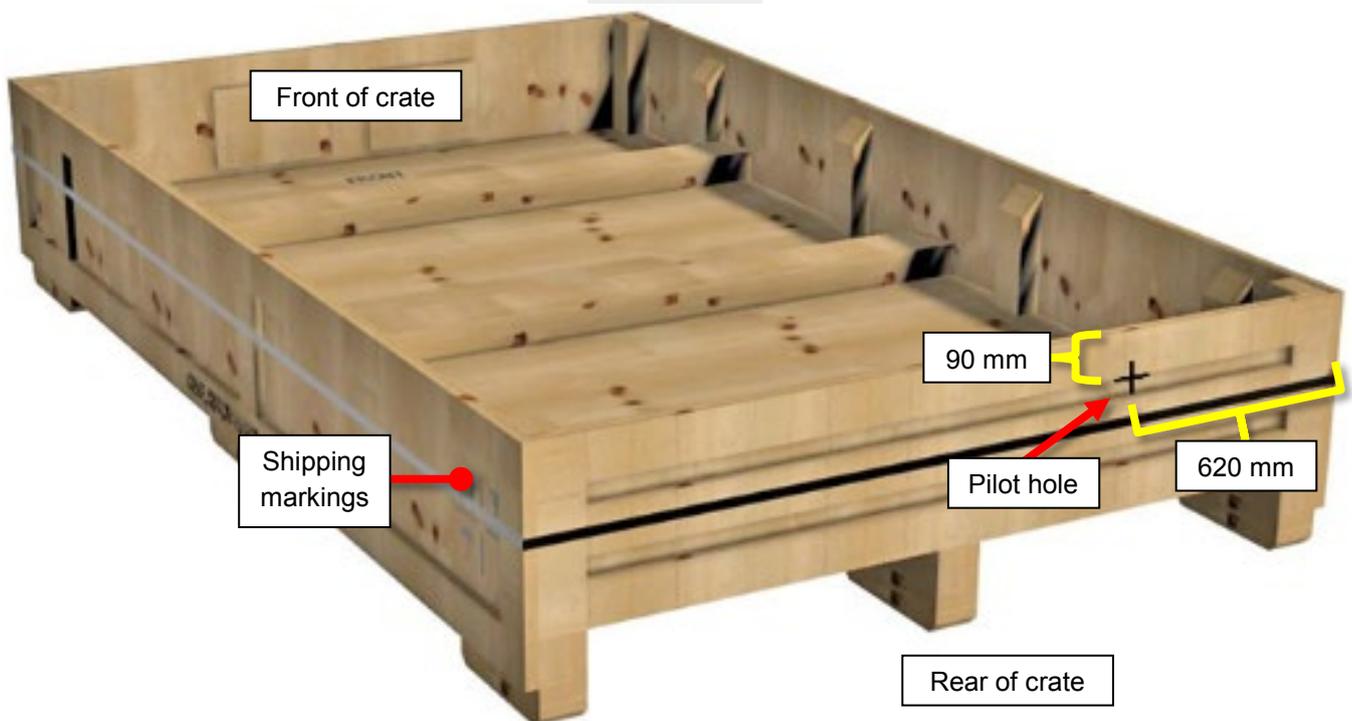


Figure 2

3. Mark the drill location for the pilot hole using a paint pen or marker.

4. Drill an 8 mm pilot hole at the location marked in the previous step (Figure 3).

⚠ WARNING: Wear appropriate PPE including eye and ear protection when performing this step.



Figure 3

5. Use a video scope to confirm that the location drilled is at the rear of the HV battery (Figure 4).

- If the hole was drilled at the rear of the HV battery, continue this procedure.
- If another hole must be drilled, plug the hole with a push-pull rivet and then repeat steps 2-5 on the opposite side of the shipping crate.

ℹ TIP: The easiest way to identify the rear of the HV battery is the low voltage Rapid Mate connectors on the ancillary tray. These connectors can be seen in Figure 6.

⚠ CAUTION: It is possible that the HV battery is installed backwards in the shipping crate. Skipping this step can result in damage to the HV battery.



Figure 4

- Using a 98 mm (3 7/8 in) hole saw and the pilot hole as a guide, cut past the wood on the shipping crate and **stop** at the foam backing (Figures 5 and 6). Remove any foam blocking the hole using your hand.

⚠ WARNING: Wear appropriate PPE including eye and ear protection when performing this step.

⚠ CAUTION: To avoid damaging the HV battery, do not drill beyond the foam backing in the shipping crate.

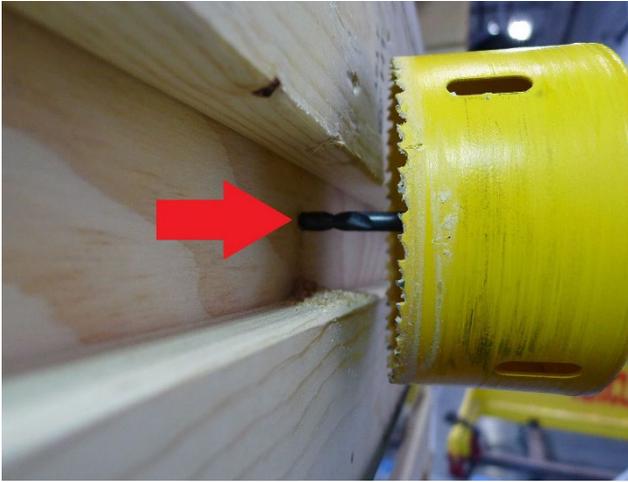


Figure 5



Figure 6

- Use a vacuum to clean any sawdust or debris as necessary.
- Install the shipping crate access port plug (1593713-10-A) into the access port hole (Figure 7).

⚠ CAUTION: Always keep the access port plugged when it is not in use.

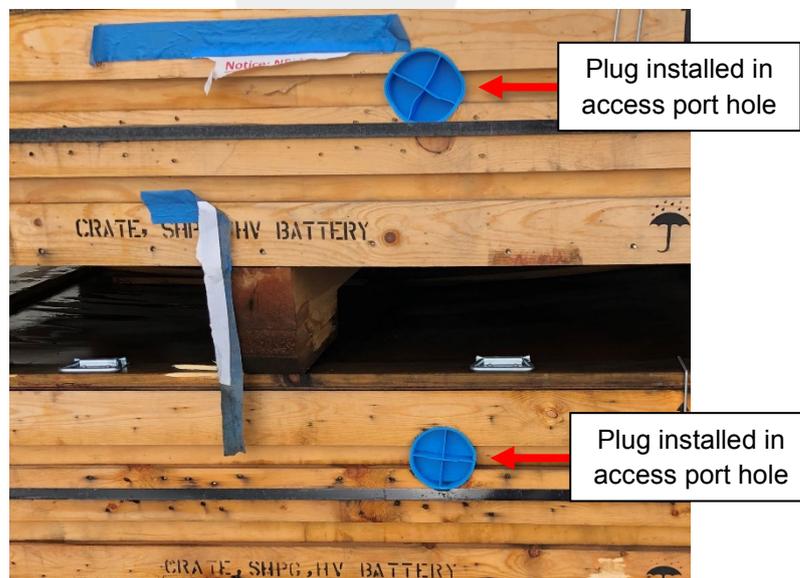


Figure 7