



# Install Relay Box To Enable 32A Single Phase Charging

<b>Classification</b>	Repair Bulletin	<b>Section/Group</b>	44 - High Voltage System	<b>Country/Region</b>	Europe
<b>Year</b>	2013-2015	<b>Model</b>	Model S	<b>Version</b>	Single Charger

**Bulletin Classification:** *This repair bulletin provides instructions and guidelines for a noted condition or a customer concern. The information provided can address a broad range of known or perceived issues with the operation of Tesla vehicles. This bulletin might 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 Motors assumes no liability for injury or property damage due to a failure to properly follow these instructions or repairs attempted by unqualified individuals.*

*This Service Bulletin supersedes SB-15-44-006, dated 12-Aug-15. Each content change is marked by a vertical line in the left margin. Discard the previous version and replace it with this one.*

## Condition

Some customers in Europe have vehicles with one charger, which limits the vehicle's charging rate to 16 A when the vehicle is connected to a charging station capable of supplying more than 16 A single phase. The vehicle's 3-phase charging capability is unaffected.

## Correction

Upon customer complaint of charging rate limited to 16 A on a single phase charging station that provides more than 16 A, install a relay box to increase charging capability to 32 A single phase.

**NOTE:** When creating the estimate for the customer, use the "Goodwill" pay type.

Required Part(s):	Part Number	Description	Quantity
	1046439-00-B	ASY,RELAY BOX	1
	1046994-00-B	ASY, HARN, MASTER, HVJB TO RELAY BOX	1
	1046995-00-C	ASY, HARN, SLAVE, HVJB TO RELAY BOX	1
	1046469-00-B	ASY, HRN, HVJB, ADAPT	1
	1008246-00-B	DUAL LOCK 25MM X 20MM	2
		<b>One of the following:</b>	
	1060341-00-A	BOLT,M6,12.7MM,TF	2
	1008727-00-A	BOLT,M6-1.0x16mm,DIN6921,G10.9,UNPLATED	2

These part numbers were current at the time of publication. Use the revisions listed or later, unless otherwise specified in the Parts Manual.

Correction Description	Correction	Time
SB-15-44-006 Not Applicable	S011544006	0.00
Vehicle Inspection Only; Vehicle Not Eligible For Relay Box	S021544006	0.05
Install Relay Box to Enable 32 A Single Phase Charging	S031544006	1.05

## Procedure

1. Use Toolbox to verify the "Charger Type" configuration variable. If it is **Single 10 kW**, continue this procedure. If not, this bulletin is not applicable to this vehicle; discontinue this procedure.
  2. Remove the High Voltage Junction Box (HVJB) cover (refer to Service Manual procedure 44301102).
- ⚠ WARNING:** Carry out all High Voltage procedure checks in the Service Manual before continuing.
3. Disconnect the slave charger harness connector from the HVIL termination connector (Figure 1).

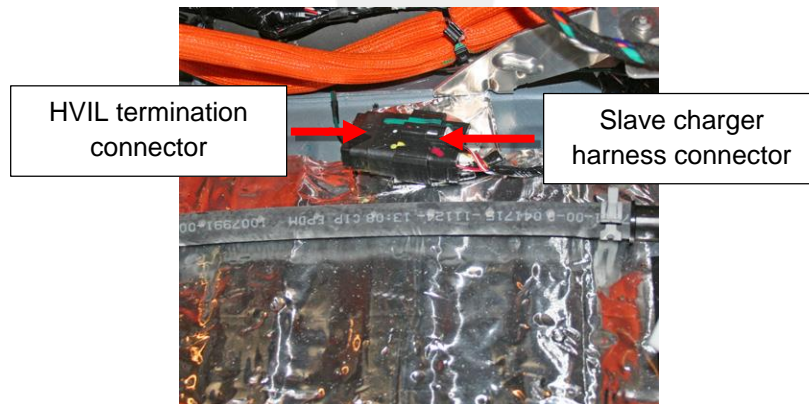
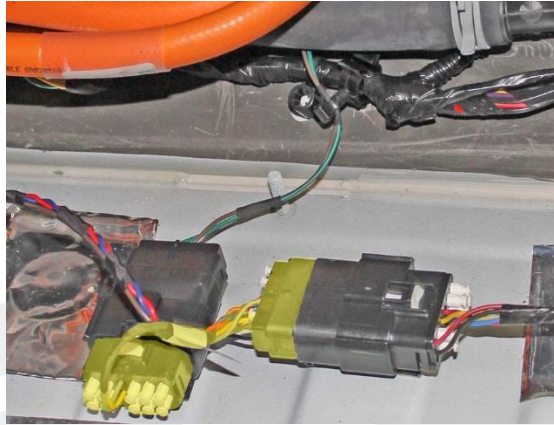


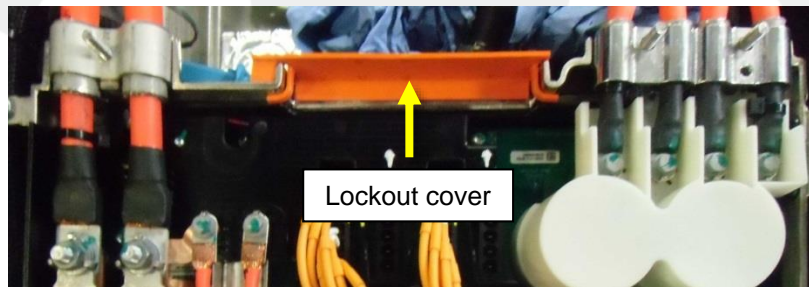
Figure 1

4. Install the relay box harness between the 2 loose ends of the slave charger harness (Figure 2). Use adhesive Dual Lock strips to secure the connectors to the body.



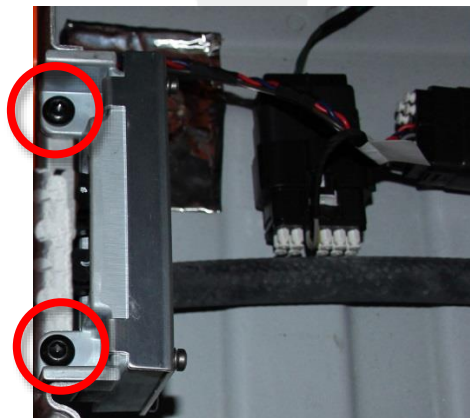
**Figure 2 (Relay box harness highlighted)**

5. Remove the lockout cover from the LH side of the HVJB (Figure 3).



**Figure 3**

6. Inspect the holes beneath the lockout cover to determine whether they are threaded or unthreaded.
7. Install the 2 screws to secure the relay box to the HVJB (torque 8 Nm) (Figure 4):
  - If the holes are unthreaded, use 1060341-00-A.
  - If the holes are threaded, use 1008727-00-A.



**Figure 4**

8. Connect the relay box harness to the rear of the relay box (Figure 5).



**Figure 5**

9. Remove and discard the forward harness that connects the HVJB and master charger (Figure 6).



**Figure 6**

10. Install the relay box harnesses inside the HVJB as shown (Figure 7).

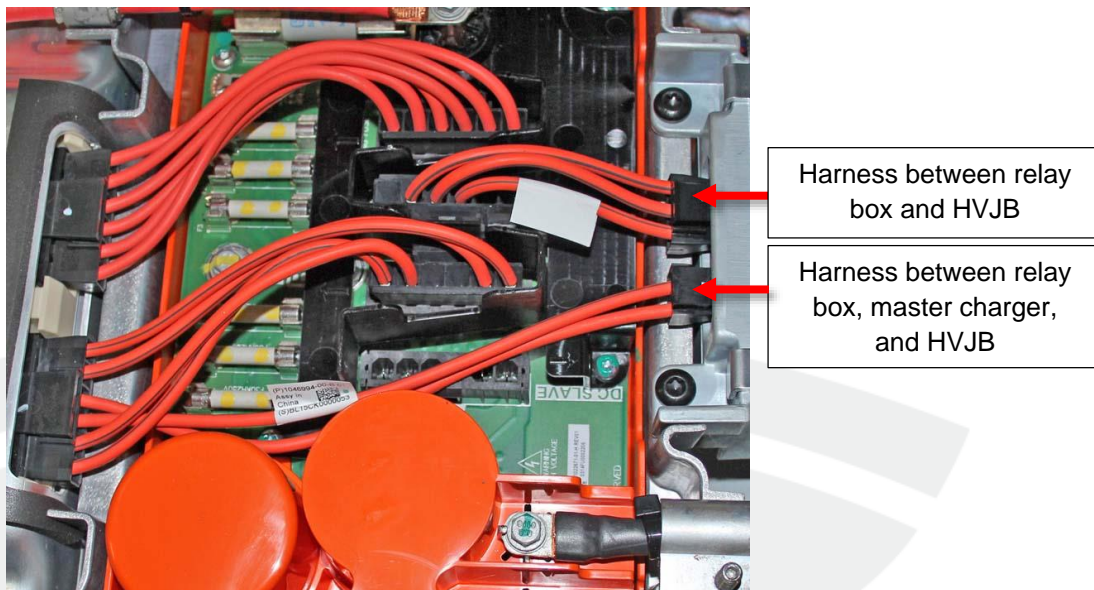


Figure 7

11. Reinstall all components that were removed for access. Reconnect all HV and 12V power.
12. Use Toolbox to change the “Charger Type” configuration variable to **Single 10 kW with Relay**.
13. Perform a full firmware update.

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**Affected VIN(s)** Affected Model S vehicles in Europe with a single charger built between approximately May 29, 2013 and July 30, 2015.

**NOTE:** This is a simplified summary of the affected VIN list. Refer to the VIN/Bulletin Tracker or Customer/Vehicle profile to determine applicability of this bulletin for a particular vehicle.

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