# **SERVICE BULLETIN**



#### M1519

M1519: RECALL 0176 - LIVEWIRE - SOFTWARE UPDATES

# **Purpose for Service Bulletin**

Harley-Davidson has learned that software in the Onboard Charger (OBC), used on 2020 Electric LiveWire™ (ELW) models may initiate a shutdown of the Electric Vehicle Powertrain (EVPT). This shutdown may happen without providing reasonable indication to the rider that a shutdown sequence has been initiated. In some cases, the vehicle may not be able to restart or, if restarted, may shortly thereafter shut down again. Unexpected loss of propulsion while in motion without the ability to restart or remain restarted may increase the risk of a crash.

While the customer's vehicle is at the dealer to have the recall remedy performed, in the interest of improving the riding and charging experience for the customer, also install updates to the Instrument Module (IM) and the EVPT.

NOTE

Recall 0176 can only be preformed by a certified ELW dealer.

# **Motorcycles Affected**

2020 ELW built between March 18, 2019 and August 20, 2020.

## **Markets Affected**

All markets are affected.

## **Required Dealer Action**

This recall, the customer (upon request) has the option to have the vehicle picked-up and/or delivered back to them at no cost to them. The dealer is compensated for this service on this bulletin. Refer to Table 4 or Table 6.

Perform the updates in the following order:

#### NOTE

Reimbursement for software installs includes prepping the vehicle, Digital Technician II (DT II) setup, triggering, and verifying the installation. Reimbursement does not apply to the time while DT II is uploading the software to the vehicle.

- VSC Update
  - Reflash time on the Vehicle Supervisory Controller (VSC) takes approximately 8 min.

- · OBC Update
  - Reflash time on the OBC takes approximately 30 min.
- · IM Update
  - · Reflash time on the IM takes approximately 10 min.
- 1. Verify that vehicle is part of recall 0176.
  - a. H-Dnet.com > FAVORITES > MY TOOLBOX > Vehicle Information
  - b. Enter the Vehicle Identification Number (VIN) of the vehicle in question.
- 2. Verify that the Electric Vehicle Supply Equipment (EVSE) is disconnected.

#### NOTE

Use a lithium battery-capable charger connected to the 12 V battery with a charge rate between 4–5 A when reflashing ELW modules to support the 12 V lithium battery.

- 3. Connect a battery charger to vehicle.
- 4. Place vehicle in ACCESSORY MODE.
- Connect DT II and Techlink 3 (TL-3) to vehicle.
   Special Tool: DIGITAL TECHNICIAN II (HD-48650) Special Tool: TECHLINK 3 (HD-48650-TL3)
- 6. Upload vehicle information.
  - a. See Figure 2. Click Vehicle/TechLink II Selection (1).
  - b. Upload vehicle information.
  - c. Click OK (22).
- 7. Verify current calibration.

#### NOTE

**Do not** attempt to reflash more than one module at a time. Doing so may cause reflashing issues.

a. Click Reflash (8).

				NC	DTE				
In the interest of preserving customer safety and satisfaction, always check for outstanding recalls whenever any motorcycle is brought into your dealership for either maintenance or service.									
				WARRANTY					

ROUTING	SERVICE MANAGER	SALES MANAGER	PARTS MANAGER	WARRANTY PROCESS MANAGER	LEAD TECHNICIAN	TECHNICIAN NO. 1	TECHNICIAN NO. 2	TECHNICIAN NO. 3	RETURN THIS TO
INITIAL HERE									

- b. Compare current to available calibration. Refer to Table 1.
- c. If current calibration differs in any way, update is needed.
- 8. Start update with VSC Update.

#### Table 1. Reflash Screen

	Module Present	Current Calib- ration <sup>(1)</sup>	Available Calibration
	VSC	Calibration: 7.1.17.2	7.4.28.2
		Control Board: 2.5.156.2	2.8.95.2
	OBC	Power Board: 4.2.12.2	6.18.64.2
		Charger: 0.90.129.2	0.92.158.2
(1) Calibration number may differ from what is shown in table.			

#### **VSC Update**

- 1. Click VSC.
- 2. Click OK.
- 3. Click calibration 7.4.28.2.
- 4. Click OK.
- 5. Follow instructions on DT II screens as they appear and click OK as needed.
- 6. When "turn key OFF" screen appears, turn vehicle OFF for 2 minutes instead of 20 seconds. Click OK.
  - a. ELW vehicles need more time for all modules to completely turn off and allow them to update.
- 7. After waiting 2 minutes with the vehicle OFF, place vehicle in ACCESSORY MODE.
- 8. Verify DT II/TL-3 are communicating with the vehicle.
  - If DT II/TL-3 are not communicating with vehicle, reboot DT II.
- 9. Click Reflash.
- 10. Are the VSC current and available calibrations the same?
  - a. Yes. Go to OBC Update.
  - b. **No.** Start update procedure again. Go to Step 1.

#### **OBC Update**

- 1. Verify that the 12 V battery charger is connected to vehicle.
- 2. Click OBC.
- 3. Click OK.

4. Click calibration 2.8.95.2.

#### NOTE

This single OBC calibration update updates all three calibrations listed in Table 1 under the OBC available calibration.

- 5. Click OK.
- 6. Follow instructions on DT II screens as they appear. and click OK as needed.
- 7. When "turn key OFF" screen appears, turn vehicle OFF for 2 minutes instead of 20 seconds. Click OK.
  - a. ELW vehicles need more time for all modules to completely turn off and allow them to update.
- 8. After waiting 2 minutes with the vehicle OFF, place vehicle in ACCESSORY MODE.
- 9. Verify DT II/TL-3 are communicating with the vehicle.
  - a. If DT II/TL-3 are not communicating with vehicle, reboot DT II.
- 10. Click Reflash.
- 11. Are all OBC current and available calibrations the same?
  - a. Yes. Go to IM Update.
  - b. No. Start update procedure again. Go to Step 2.

#### IM Update

1. To download the latest IM update file click: swdl\_LW\_INST.zip

#### NOTE

- Log in to Service Information Portal (SIP) through Google Chrome to view.
- Must use a Universal Serial Bus Type-C (USB-C) drive to upload update to IM.
- 2. Move IM update file.
  - a. Locate the Downloads folder on computer.
  - b. Unzip IM update file.
  - c. Copy, Cut or Drag IM update to the root directory of the USB-C drive.

#### NOTE

Do not place the update in any folder, this prevents the IM from performing the update.

- d. Eject USB-C drive.
- 3. Remove fairing. See the service manual.
- 4. See Figure 1. Connect USB-C drive to vehicle.



Figure 1. USB-C Port

5. Using Trip switch, place vehicle into accessory mode.

6. Navigate IM:

#### a. SETTINGS > SYSTEM > ABOUT > FACTORY OPTIONS > UPDATE SOFTWARE

- 7. Allow IM update to complete.
- 8. Remove USB-C drive.
- 9. Install fairing. See the service manual.
- 10. Updates are complete.

#### **New Charging Widget Displays**

With these updates are **new** charging widget displays that may appear on the IM. Refer to Table 2.

These **new** charging widget displays must be inserted into the 2020 ELW Owner's Manual. Refer to Owner's Manual New Charging Widget Displays Insert.

Widget	Text Displayed	Cause	Action	
	EVSE Fault	EVSE fault.	See portable charger (EVSE) user guide.	
	Charge Port Tock Fault	Charge port lock not functioning.	See dealer.	
×	Charge Plug Latch Pressed	EVSE latch switch indication pressed.	If EVSE latch not pressed - see dealer.	
<b>jan</b>	OBC Too Warm	OBC above operating temperature.	<ul> <li>Verify unobstructed airflow to ra- diator.</li> <li>Restart charge after vehicle cools down.</li> </ul>	
	RESS Too Warm	Rechargeable Energy Storage System (RESS) above operating temper- ature.	Restart charge after vehicle cools down.	
Establishing Communication		Vehicle establishing communication with external charger.	Check external charger for further instructions if needed.	
User Delayed		DC fast charging delayed or stopped by user.	Restart charge if desired.	

#### Table 2. Charging Widget Displays

**Owner's Manual New Charging Widget Displays Insert** 

NOTE

Login into SIP through Google Chrome to view insert.

- 1. Click on Owner's Manual Insert and print.
  - a. Click on INSERT: M1519: RECALL 0176...
  - b. Click on printer icon in up right corner of insert screen.

c. Print.

- 2. Insert the charging widget displays page into the owner's manuals applicable to this bulletin that are on site.
- 3. If customer's owner's manual is not present with the vehicle, do the following:
  - a. Give the copy of the charging widget displays page to the customer.
  - b. Inform the customer to read and insert the page into their owner's manual.



Figure 2. DT Icons

**Credit Procedure** 

# NOTE

- · Enter bulletin number into comment section of claim.
- Recall claim submission from non-certified ELW dealers will not be processed.

For each vehicle involved in this recall (involvement of VIN has been verified on H-Dnet.com ), submit a recall claim per Table 3, Table 5, Table 4 or Table 6.

Upon submission of the properly completed claim, dealers are credited

- 1 h (Updates and Owner's Manual (OM) insert only.)
- 2 h (Updates and OM insert plus pickup and/or delivery.)

of labor time for performing the procedure, plus appropriate administrative time. Submit campaign events on their own warranty claim. Do not mix claims with other warranty events.

# Credit Procedure: Talon/H-Dnet.com Warranty Claim System Users

#### Table 3. Updates and OM Insert Only

ITEM	DATA
Claim Type	SRC
Problem Part Number	66000190
Quantity	Leave Blank
Primary Labor Code <sup>(1)</sup>	2716
Time	1 h
Customer Concern Code <sup>(1)</sup>	0176
Condition Code	9981
(1) Download may be required	

# Table 4. Updates and OM Insert Plus Pickup and/or Delivery

ITEM	DATA
Claim Type	SRC
Problem Part Number	66000190
Quantity	Leave Blank
Primary Labor Code <sup>(1)</sup>	2742
Time	2 h
Customer Concern Code <sup>(1)</sup>	0176
Condition Code	9982
(1) Download may be required	

# Credit Procedure: GDP System Users

#### Table 5. GDP System

ITEM	DATA
Claim Type	Recall Claim
Fix ID-Found in Recall Number	С
Problem Part Number	66000190
Customer Concern Code	0176
Condition Code	9981

# Table 6. Updates and OM Insert Plus Pickup and/or Delivery

ITEM	DATA
Claim Type	Recall Claim
Fix ID-Found in Recall Number	R
Problem Part Number	66000190
Customer Concern Code	0176
Condition Code	9982