SERVICE BULLETIN

M1573 **2023-08-02**

M1573 (REV C): REVOLUTION MAX TROUBLESHOOTING TIPS

Reason for Revision

Refer to Table 1.

Table 1. Document History

Date	Rev	Revision (Rev) Description
2023-08-02	C	Informs dealers about Revolution® Max powered vehicles. Updated purpose of the bulletin to call out 1 repair per Vehicle Identification Number (VIN).
		* Updated Purpose for Service Bulletin
2023-03-03	B	Added Pan America information.
		* Updated Required Dealer Action and Credit Procedure
2023-01-18	A	Added vehicle to list. Changed battery tester and added acronyms
		* Updated Motorcycles Affected and Required Dealer Action
2022-12-21	-	Initial release

Purpose for Service Bulletin

This bulletin informs dealers that Harley-Davidson has specific areas of interest while troubleshooting on Revolution® Max platform vehicle built before July 1, 2023 for issues on starting or Diagnostic Trouble Codes (DTCs). These areas of interest should be used in conjunction with the Service Manual and Electric Diagnostic Manual while troubleshooting. This information should be used as an aid to current troubleshooting steps and not a replacement. Best practice is to first troubleshoot current DTCs, in order of priority if there are multiple. The labor code associated with this bulletin will no longer be redeemable for motorcycles built after July 1, 2023. As a reminder, the repairs called out in this bulletin should only be executed 1 time per VIN. If there is a need to repeat a specific step in the process, please file a claim for that repair only.

Motorcycles Affected

2021-2023: Pan America (RA1250, RA1250S), Sportster S (RH1250S), Nightster (RH975, RH975S)

Markets Affected

All markets are affected.

Required Dealer Action

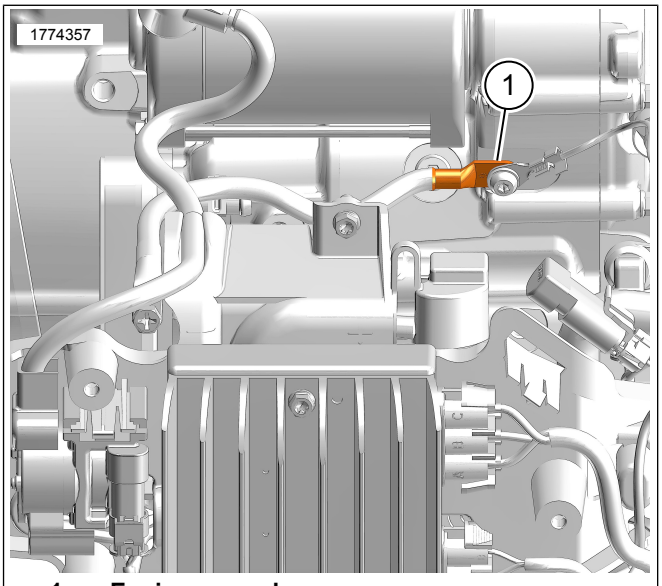
Table 2.

Action Required	Resolution
NO ☑ YES ☐	**Non-Actionable:** This is for informational purposes only or a technical tip.

NOTE

As with any Electrical Diagnostic Procedure make sure that the main fuse is removed.

- Inspect health of battery. Use HD BATTERY DIAGNOSTIC STATION (PART NUMBER: GRX-3110HD) to verify battery status and that Cold Cranking Amps (CCA) are above 225. If not, replace with (Part No. 65958-04C (domestic only)) or (Part No. 66000208A (all except Domestic)).
- See Figure 1. Inspect harness ground to engine. This ground is located on the front lower part of the engine behind the battery box. If the wires move, tighten. 60–70 **in-lbs** (6.8–7.9 N·m).



1. Engine ground

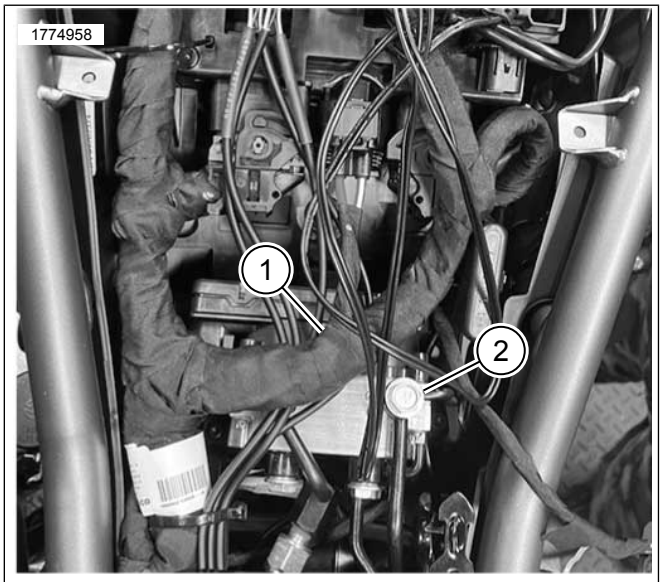
Figure 1. Ground Location

NOTE

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.

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									

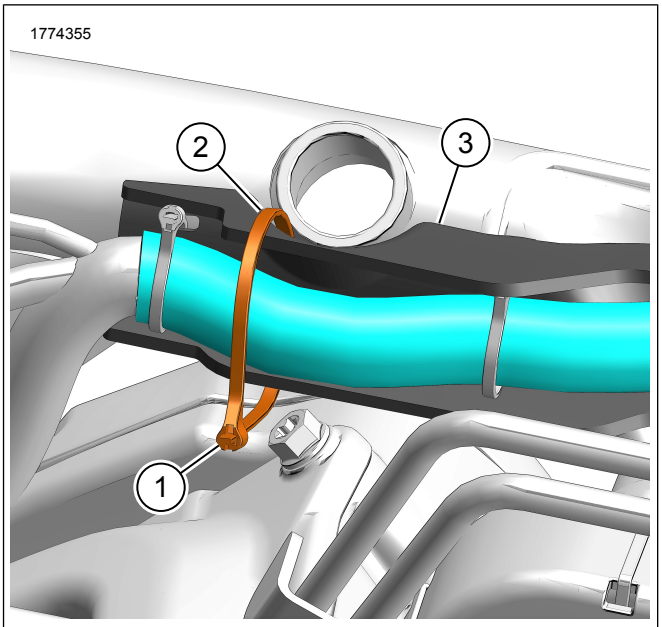
- Confirm that the battery ground ring terminal, is below the main harness ground ring terminal. The battery ground ring terminal should be closest to the engine case ground point. Correct as required.
- Inspect starter solenoid connections. If the cable ring terminals move on the stud, tighten. 27–41 **in-lbs** (3–4.6 N·m).
- See Figure 2. Inspect main harness branch as it routes past the Electro Hydraulic Control Unit (EHCU). If routed on top of the banjo bolt, there is potential that it can be damaged after the seat is installed. Manipulate the main harness as needed to obtain clearance with the EHCU unit.



1. Main harness branch
2. Banjo bolt

Figure 2. Main Harness Branch

- Inspect Body Control Module (BCM) connector [242B-1], terminals 1 and 2. Remove terminal from connector using modified tool and check terminal tightness using the interfacing BCM pins. If the crimp on the terminal is found to be bad, replace using (Part No. 69202183).
- See Figure 3. Inspect engine harness at caddy as it routes between the right upper frame rail and front cylinder head. If wire bundle is making contact with the cylinder head or cover screws, use cable straps to secure wires in caddy. Make sure to orientate cable strap(s) as shown in graphic. Make sure there is adequate clearance to the cylinder head.



1. Cable strap
2. Route between caddy and frame
3. Wire harness caddy

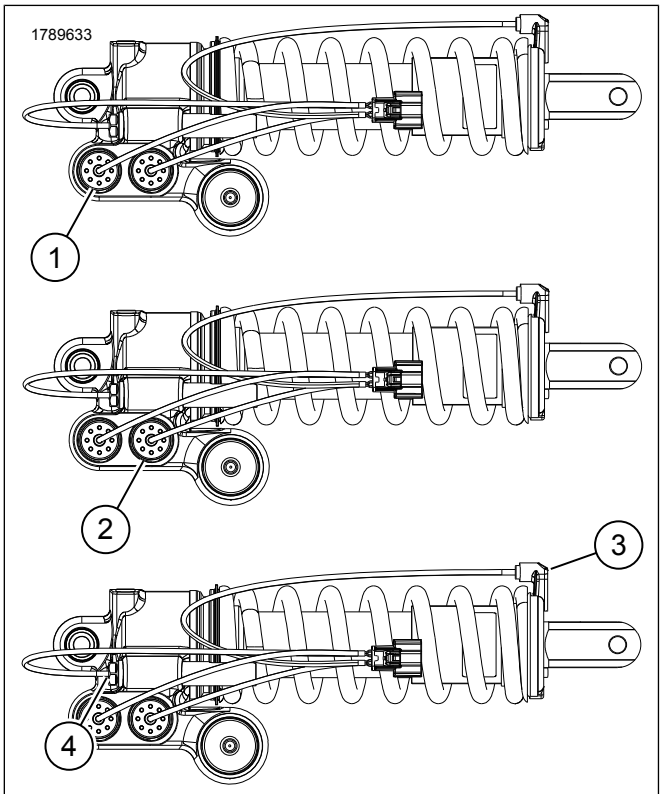
Figure 3. Wire Harness Caddy

- See Figure 4. Some RH975 vehicles were built with a cable strap that is causing tension on the Hand Control Module (HCM) harnesses when the steering is in full-left lock or full-right lock. **If a cable strap is found, it should be removed.**

Figure 4. Harness Routing With Cable Strap

- Perform a general inspection of HCM jumper harness routing and correct cable strap locations. Confirming full-left lock to full-right lock that there is no excessive tension on the wire harness.
- Inspect for pinched wires near lower left engine guard mounting point.

  PAN AMERICA (RA1250, RA1250S)
- See Figure 5 and Figure 6. Inspect semi-active equipped suspension connectors [344A/B] and [345A/B] for properly seated terminals.
- Correct as needed and if a correction was performed, also perform a BCM Suspension Calibration procedure using Digital Technician II (DT II).



1. **Damping Control: Terminals 1 and 2**
2. **ARH Control: Terminals 7 and 8**
3. **Stroke Sensor: Terminals 3 and 4**
4. **Rear Pre-Load: Terminals 5 and 6**

Figure 5. [344 A/B] and [345 A/B]

- **Note wire locations.** If the black and white wires are switched on a single sensor, this does not affect the function of the system. If the wires are switched between sensors, this must be corrected.

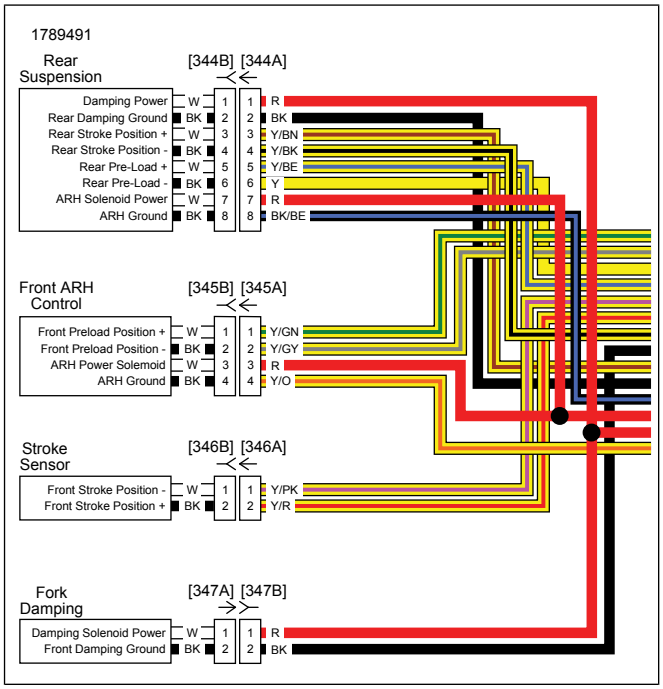


Figure 6. Black and White Wires

- Connect to DT II and check for, EHCU and Right and Left Hand Control Modules (R&LHCMs) software updates. Also check Service Information Portal (SIP), https://serviceinfo.harley-davidson.com for Instrument Module (IM) updates.
- For BCM and Electronic Control Module (ECM) updates, refer to bulletin M1579 for repair and credit procedure.

Credit Procedure

NOTE

The credit table below is to be used for all inspections/repairs associated with this bulletin and covers all labor time for the steps outlined above.

For vehicles within factory warranty only.

Any parts replaced during this process must be added to the claim with applicable quantities. Please submit all parts and/or labor on the same event/claim for your applicable market.

Submit a warranty claim per Table 3.

Any claims initially submitted prior to the release of Rev B (March 3, 2023) will be paid at 3.5 hours. Any claims initially submitted after the release of Rev B (March 3, 2023) will be paid at 3.1 hours with the remaining 0.4 hours covered in bulletin M1579.

Table 3.

ITEM	DATA
Claim Type	PRD/DEM/MC - Pre-Delivery/Standard claim
Problem Part Number	10006
Quantity	Leave blank
Primary Labor Code[(1)]	2860
Time	3.1 hours
Customer Concern Code	9203
Condition Code	2860
(1) Download may be required	