GENERAL SERVICE BULLETIN

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Wireless Accessory Charging Module (WACM) Aid To Improve Performance

Summary

This article is intended to aid dealers and to provide customer recommendations to resolve concerns of the phone indicating a "temperature - cool down prior to using" warning, an inoperative or slow charging, and/or an intermittent charging while using the <u>WACM</u>.

Service Information

The <u>WACM</u> inductively charges a single Qi 1.x (pronounced "chee") compatible mobile phone at rates of up to 15W of power. Not all phones are compatible with wireless charging and not all phones are compatible with Qi 1.x wireless charging. Specific considerations are:

- Apple Magsafe is a proprietary technology that uses a magnet on the back of the phone or cases to place accessories such as their own charger; this is not certified by Qi 1.x and therefore not compatible with the <u>WACM</u>.
- Even if a phone is Qi 1.x certified using cases that include magnets or other metallic accessories will make them incompatible with the <u>WACM</u>.
- Wearables such as smart watches are not compatible with Qi 1.x and therefore not compatible with the <u>WACM</u>.

Possible Causes Of A Phone Indicating A "Temperature" Warning

Phones naturally warm up when charging wirelessly and might display warnings such as "Phone needs to cool down" which is a phone internal overheating protection mechanism to protect the battery. This is not an indication of <u>WACM</u> malfunction. In addition, using Wireless Apple CarPlay or Android Auto in combination with wireless charging will often heat up the phone faster. The temperature at which each phone will show an overheating message is dependent of the phone's brand, model, battery health and battery state of charge.

Possible Causes Of Inoperative/Slow Or Intermittent Charging

When placing a phone on the module, the phone State of Charge may appear to not change, raise slowly, decrease, or charging goes on and off repeatedly. The speed at which each phone charges is dependent on the phone's brand, model, battery health and battery state of charge. Streaming maps, audio or calls through Wireless Apple Car Play or Wireless Android Auto can also cause slow charging.

Examples Of Non-Warrantable Conditions

NOTE: Apple Magsafe and Qi 2.x devices such as iPhones 12 and beyond are not compatible with Qi 1.x charger and will experience the problems listed below. Some Android phones are not Qi 1.X certified and will experience the problems listed below.

- The phone is not wireless charging capable.
- Object or accessories, such as a card holder, placed between the phone and the WACM (Figure 1).
- The phone is using a case more than 2 mm thick (Figure 2).
- The phone is not aligned properly on the charging area (Figure 3).
- The phone is using a MagSafe compatible case (Figure 4).
- Attempting to charge a non-Qi 1.X certified device.



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Figure 2

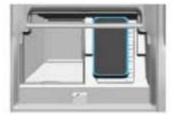




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Figure 3







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Figure 4



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Examples Of Warrantable Conditions

- For vehicles equipped with a fan on the wireless charging module, broken fan blades or other parts is a warrantable condition (Figures 5-6).
- Abnormal fan noise may be caused by the harness touching the fan blades which does not indicate a faulty <u>WACM</u>. If this condition is present, remove the module, relocate the harness and reinstall the module.

Figure 5



Figure 6



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NOTE: This information is not intended to replace or supersede any warranty, parts and service policy, workshop manual (WSM) procedures or technical training or wiring diagram information.