Panamera S E-Hybrid: General Info and Cold Weather Operation

Please keep the following information in mind regarding operation of the Panamera S E-Hybrid.

- **EPA estimated range:** The U.S. Environmental Protection Agency has now estimated the all-electric range of the Panamera S E-Hybrid at 15 miles. This may vary by 50% or more in either direction depending on driving style. Remember the "Three T's" that affect all electric range: 1) **T**emperature, 2) **T**errain, 3) (driving) **T**echnique.
- **Advertised Range:** Porsche originally estimated that the Panamera S E-Hybrid could attain a maximum all-electric range of 22 miles. This was based upon tests using the “New European Driving Cycle” (“NEDC”), the only tests which had been completed at the time of those estimates. Since then, the U.S. Environmental Protection Agency has conducted its official tests of the car, using its own different test methods. Based upon those test methods, EPA has given the car an official all-electric range estimate of 15 miles. The NEDC and EPA tests are different, and both are only estimates. All-electric range is variable, based upon temperature, terrain, driving style, and other factors, so your experience will vary from time to time.
- **Gauge for estimated range:** When the vehicle is fully charged it will show an estimated all-electric range between 12 and 25 miles. This number is learned over time, based mostly upon the customer's previous driving style and outside conditions. The customer can tell whether the battery is fully charged by means of the battery charge level display in the far left dial of the instrument cluster (below the oil temperature gauge)
- **Charge indicator light function:** Please see the attached pages taken from the Panamera S E-Hybrid Owner's Manual Supplement for an explanation of the lights in the charge port area. The complete Panamera S E-Hybrid Owner's Manual Supplement can be found here: 2014 Panamera S E-Hybrid Owner's Manual Supplement
- **Battery charge level display:** This display will show "100" when the battery is fully charged. Once the hybrid battery reaches 20% remaining charge the vehicle will automatically switch to hybrid mode, the engine will start and E-Power will be deactivated.
- **Cold Weather Performance:** As with gasoline powered vehicles, hybrids lose some performance in cold weather. This will include less all-electric range capabilities. This is caused by three things: 1) cold air outside is more dense and requires more energy to drive through, 2) battery capacity decreases in cold temperatures due to the chemistry inside, 3) using the climate control to heat the cabin is a high load on the hybrid battery which uses energy quickly.
- The combustion if engine is switched on automatically in pointer position **READY** if
  - The hybrid system does not reach or exceeds its operating temperature
  - The high-voltage battery has insufficient charge
  - The engine oil temperature is less than 32 °F (0 °C) (or less than 59 °F (15 °C) during the first 620 miles (1,000 km))
  - The engine compartment lid is open
- **Locking charge handle:** For safety and security, the charge handle will lock into the charge port when the vehicle is actively charging. To remove the charge handle from the vehicle, the customer must first unlock the vehicle; this will automatically unlock the charge handle. If the charge handle does not unlock immediately, it may be necessary to lock and unlock the vehicle again and it should release.
  - In extremely cold weather, the charge handle locking solenoid could stick in the unlocked position and prevent charging. If this occurs, the vehicle plug connection status LED next to the charge port will flash yellow and the vehicle will not charge. Porsche Car Connect, where activated, would

then show "Plug status FAULT" in red instead of "PLUGGED" or "UNPLUGGED". The locking solenoid should become unstuck once the vehicle is brought into a heated garage, for example.

- Converseley, the charge handle locking solenoid could stick in the locked position and prevent removal of the charge handle (the unlock button on the charge handle cannot be depressed). In such a case it may be necessary to free the stuck solenoid from the lock position by depressing the lock solenoid with a thin wooden stick or dowel as shown in the image below.