CLUB CAR, LLC KIT INSTRUCTIONS - TPCC041501EN022 EDITION - 1

CLUB CAR VEHICLE CONNECTIVITY INSTALLATION

- 1. Kit Information
 - A. Vehicle Serial Prefixes
 - 1) This Kit Instruction applies to vehicle serial prefixes:

AO, BI, BO, BR, BY, CI, DC, DQ, DR, EE, EF, EH, EJ, EL, EM, ER, ET, EX, GP, HC, MA, MB, MC, MD, ME, MF, MH, MJ, MK, ML, MM, MN, MP, QE, QS, RC, RF, RR, RU, RX, RY, SC, SD, SE, SF, SK, SX, SY, TC, TR, TT, TX, UC, UL, UR, UX, ZV, ZX, and ZT

B. Kits

1) This Kit Instruction applies to these kits:

| KIT PART NUMBER | TITLE |
|--------------------|--|
| 47781947001 | RFID READER ASSY. |
| 47750339002 | CONNECTIVITY KIT - AWD – GASOLINE |
| 47750340002 | CONNECTIVITY KIT - AWD - DIESEL |
| 47754186001 | CONNECTIVITY KIT - HIGH DASH - GASOLINE |
| 47754188001 | CONNECTIVITY KIT - HIGH DASH - ELECTRIC DC |
| 47754187001 | CONNECTIVITY KIT - HIGH DASH - ELECTRIC AC |
| 47786532001 | CONNECTIVITY KIT - HIGH DASH - LITHIUM-ION |
| 47763858001 | CONNECTIVITY KIT - LOW DASH - GASOLINE (VILLAGER) |
| 47756202001 | CONNECTIVITY KIT - LOW DASH - GASOLINE (CARRYALL) |
| 47754189001 | CONNECTIVITY KIT - LOW DASH - ELECTRIC DC (VILLAGER) |
| 47756204001 | CONNECTIVITY KIT - LOW DASH - ELECTRIC DC (CARRYALL) |
| 47763861001 | CONNECTIVITY KIT - LOW DASH - LITHIUM-ION (VILLAGER HP AC) |
| 47786223001 | CONNECTIVITY KIT - LOW DASH - LITHIUM-ION (CARRYALL) |
| 47783633001 | CONNECTIVITY KIT - LEGACY - GASOLINE (VILLAGER) |
| 47783634001 | CONNECTIVITY KIT - LEGACY - ELECTRIC DC (VILLAGER) |
| 47762548001 | CONNECTIVITY KIT – GAS - TEMPO |
| 47763877001 | CONNECTIVITY KIT – TEMPO – ELECTRIC DC (TRACKING ONLY) |

NOTE: Make sure that this kit is applicable for your vehicle. The serial prefix of your vehicle must be listed to do this kit.

| KIT PART NUMBER | TITLE |
|--------------------|--|
| 47763877002 | CONNECTIVITY KIT – ELECTRIC DC – (EQUIPPED WITH LIGHT KIT) |
| 47786219001 | CONNECTIVITY KIT – ELECTRIC DC – (NOT EQUIPPED WITH LIGHT KIT) |
| 47781944001 | CONNECTIVITY KIT – LITHIUM ION |

NOTE: You may order this kit online at <u>https://clubcar.my.site.com/ClubCarLinks/CC</u> <u>PavilionPartsHome</u> or contact Club Car Customer Service at 1-888-CLUB-CAR (258-2227).

- C. Description
 - 1) Club Car offers fleet telemetry and RFID operational access for select vehicles.
 - 2) This kit supplies instructions on correctly installing the telematics unit and RFID reader.
- D. Compliance
 - 1) Optional At the option of the vehicle owner
- E. Labor Hours
 - 1) Estimated labor hours necessary to do this Kit Instruction:

| KIT PART NUMBER | TITLE | LABOR HOURS |
|-----------------|---|-------------|
| REFER TO | Telematics With Electrical Wire Harness | 2.0 |
| SECTION 1.B.1) | RFID With LED | 0.75 |

NOTE: More than one person will be necessary to do this Kit Instruction.

- F. Vehicle Weight Change
 - 1) Negligible
- G. Vehicle Electrical Load Change

| ITEM | LOAD CHANGE |
|-------------|-------------|
| Telematics | 1.625 W |
| RFID Reader | 1.27 W |
| LED | 375 mW |

H. Tools

1) Common shop tools are necessary to do this Kit Instruction. No special tools are necessary.

- I. Supplies
 - 1) None.

2. Material Information

| MARKET | POWERPLANT | KITS REQUIRED |
|----------------------------------|--|---|
| | GASOLINE | 47750339002 - CONNECTIVITY KIT |
| ALL-WHEEL DRIVE | | 47781947001 - RFID READER ASSY |
| | DIESEL | 47750340002 - CONNECTIVITY KIT 47781947001 - RFID READER ASSY |
| | GASOLINE | 47754186001 - CONNECTIVITY KIT |
| | | 47781947001 - RFID READER ASSY |
| UTILITY - | ELECTRIC - DC - FLA | 47754188001 - CONNECTIVITY KIT 47781947001 - RFID READER ASSY |
| HIGH DASH | ELECTRIC - AC - FLA | 47754187001 - CONNECTIVITY KIT 47781947001 - RFID READER ASSY |
| | LITHIUM-ION | 47786532001 - CONNECTIVITY KIT 47781947001 - RFID READER ASSY |
| | GASOLINE - (VILLAGER) | 47763858001 - CONNECTIVITY KIT 47781947001 - RFID READER ASSY |
| | GASOLINE - (CARRYALL) | 47756202001 - CONNECTIVITY KIT 47781947001 - RFID READER ASSY |
| UTILITY - | ELECTRIC - DC - FLA (VILLAGER) | 47754189001 - CONNECTIVITY KIT 47781947001 - RFID READER ASSY |
| LOW DASH | ELECTRIC - DC - FLA (CARRYALL) | 47756204001 - CONNECTIVITY KIT 47781947001 - RFID READER ASSY |
| | LITHIUM-ION (VILLAGER HP AC) | 47763861001 - CONNECTIVITY KIT 47781947001 - RFID READER ASSY |
| | LITHIUM-ION (CARRYALL) | 47786223001 - CONNECTIVITY KIT 47781947001 - RFID READER ASSY |
| LEGACY | GASOLINE | 47783633001 - CONNECTIVITY KIT 47781947001 - RFID READER ASSY |
| VILLAGER | ELECTRIC - DC | 47783634001 - CONNECTIVITY KIT 47781947001 - RFID READER ASSY |
| | GASOLINE | 47762548001 - CONNECTIVITY KIT 47781947001 - RFID READER ASSY |
| TEMPO/ NO FLEET GOLF - | ELECTRIC - DC - FLA (TELEMETRY ONLY) | 47763877001 - CONNECTIVITY KIT |
| | ELECTRIC - DC - FLA WITH LIGHTS (TELEMETRY AND RFID/LED) | 47763877002 - CONNECTIVITY KIT 47781947001 - RFID READER ASSY |
| | ELECTRIC - DC - FLA WITHOUT LIGHTS (TELEMETRY AND RFID/LED) | 47763877001 - CONNECTIVITY KIT 47781947001 - RFID READER ASSY 47786219001 - DC/DC CONVERTER KIT |
| | LITHIUM-ION | 47781944001 - CONNECTIVITY KIT 47781947001 - RFID READER ASSY |

- A. Parts Necessary
 - 1) The 47781947001 Kit contains these items and is effective for All-Wheel Drive vehicles (Gasoline and Diesel).

| PART NUMBER | NOMENCLATURE | QTY |
|-------------|--------------------|-----|
| 47722299001 | RFID READER ASSY | 1 |
| 47722300001 | LED INDICATOR ASSY | 1 |
| 47743649001 | SCREW | 2 |
| 47748749001 | RFID DECAL | 1 |

- NOTE: The quantity of hardware in this kit may be different from what is shown, as hardware is supplied in prepackaged quantities.
- 2) The 47750339002 Kit contains these items and is effective for All-Wheel Drive Gasoline vehicles.

| PART NUMBER | NOMENCLATURE | QTY |
|-------------|-----------------------|-----|
| 8990 | TIE WRAP | 2 |
| 102296920 | SCREW | 2 |
| 102298720 | ТАРТІТЕ | 2 |
| 102617101 | NUT | 2 |
| 47623281001 | MINI RELAY | 2 |
| 47693695001 | BRACKET | 1 |
| 47724606001 | ELECTRIC WIRE HARNESS | 1 |
| 47741087001 | NUT | 1 |
| 47778510001 | TELEMETRY MODULE | 1 |

- NOTE: The quantity of hardware in this kit may be different from what is shown, as hardware is supplied in prepackaged quantities.
- 3) The 47750340002 Kit contains these items and is effective for All-Wheel Drive Diesel vehicles.

| PART NUMBER | NOMENCLATURE | QTY |
|-------------|-----------------------|-----|
| 8990 | TIE WRAP | 2 |
| 102296920 | SCREW | 2 |
| 102298720 | TAPTITE | 2 |
| 102617101 | NUT | 2 |
| 47623281001 | MINI RELAY | 2 |
| 47693695001 | BRACKET | 1 |
| 47724610001 | ELECTRIC WIRE HARNESS | 1 |
| 47741087001 | NUT | 1 |
| 47778510001 | TELEMETRY MODULE | 1 |

NOTE: The quantity of hardware in this kit may be different from what is shown, as hardware is supplied in prepackaged quantities.

4) The 47754186001 Kit contains these items and is effective for Utility High Dash Gasoline vehicles.

| PART NUMBER | NOMENCLATURE | QTY |
|-------------|-----------------------|-----|
| 8990 | TIE WRAP | 1 |
| 102296920 | SCREW | 3 |
| 102298720 | ТАРТІТЕ | 2 |
| 102617101 | NUT | 3 |
| 47623281001 | MINI RELAY | 3 |
| 47693556001 | BRACKET | 1 |
| 47741465001 | ELECTRIC WIRE HARNESS | 1 |
| 47741087001 | NUT | 1 |
| 47778510001 | TELEMETRY MODULE | 1 |

NOTE: The quantity of hardware in this kit may be different from what is shown, as hardware is supplied in prepackaged quantities.

5) The 47754188001 Kit contains these items and is effective for Utility High Dash Electric DC Flood-Lead Acid vehicles.

| PART NUMBER | NOMENCLATURE | QTY |
|-------------|-----------------------|-----|
| 8990 | TIE WRAP | 1 |
| 102298720 | ТАРТІТЕ | 2 |
| 47693556001 | BRACKET | 1 |
| 47724607001 | ELECTRIC WIRE HARNESS | 1 |
| 47741087001 | NUT | 1 |
| 47778510001 | TELEMETRY MODULE | 1 |

NOTE: The quantity of hardware in this kit may be different from what is shown, as hardware is supplied in prepackaged quantities.

6) The 47754187001 Kit contains these items and is effective for Utility High Dash Electric AC Flood-Lead Acid vehicles.

| PART NUMBER | NOMENCLATURE | QTY |
|-------------|-----------------------|-----|
| 8990 | TIE WRAP | 1 |
| 102296920 | SCREW | 2 |
| 102298720 | TAPTITE | 2 |
| 102617101 | NUT | 2 |
| 47623281001 | MINI RELAY | 2 |
| 47693556001 | BRACKET | 1 |
| 47741786001 | ELECTRIC WIRE HARNESS | 1 |
| 47741087001 | NUT | 1 |
| 47778510001 | TELEMETRY MODULE | 1 |

NOTE: The quantity of hardware in this kit may be different from what is shown, as

hardware is supplied in prepackaged quantities.

The 47786532001 Kit contains these items and is effective for Utility High Dash Lithium-Ion vehicles.

| PART NUMBER | NOMENCLATURE | QTY |
|-------------|-----------------------|-----|
| 8990 | TIE WRAP | 2 |
| 102298720 | TAPTITE | 2 |
| 47693556001 | BRACKET | 1 |
| 47786031001 | ELECTRIC WIRE HARNESS | 1 |
| 47741087001 | NUT | 1 |
| 47778510001 | TELEMETRY MODULE | 1 |

NOTE: The quantity of hardware in this kit may be different from what is shown, as hardware is supplied in prepackaged quantities.

7) The 47781947001 Kit contains these items and is effective for all Utility High Dash vehicles.

| PART NUMBER | NOMENCLATURE | QTY |
|-------------|--------------------|-----|
| 47722299001 | RFID READER ASSY | 1 |
| 47722300001 | LED INDICATOR ASSY | 1 |
| 47743649001 | SCREW | 2 |
| 47748749001 | RFID DECAL | 1 |

- NOTE: The quantity of hardware in this kit may be different from what is shown, as hardware is supplied in prepackaged quantities.
- 8) The 47763858001 Kit contains these items and is effective for Utility Low Dash Villager 6/8 Gasoline vehicles.

| PART NUMBER | NOMENCLATURE | QTY |
|-------------|-----------------------|-----|
| 8990 | TIE WRAP | 1 |
| 1012769 | BOLT | 2 |
| 47763858001 | NUT | 2 |
| 102296920 | SCREW | 1 |
| 102617101 | NUT | 1 |
| 47623281001 | MINI RELAY | 1 |
| 102296301 | WASHER | 2 |
| 47693694001 | BRACKET | 1 |
| 47724611001 | ELECTRIC WIRE HARNESS | 1 |
| 47741087001 | NUT | 1 |
| 47778510001 | TELEMETRY MODULE | 1 |

NOTE: The quantity of hardware in this kit may be different from what is shown, as hardware is supplied in prepackaged quantities.

9) The 47754189001 Kit contains these items and is effective for Utility Low Dash Villager 6/8 Electric DC Flood-Lead Acid vehicles.

| PART NUMBER | NOMENCLATURE | QTY |
|-------------|-----------------------|-----|
| 8990 | TIE WRAP | 1 |
| 1012769 | BOLT | 2 |
| 47763858001 | NUT | 2 |
| 102296301 | WASHER | 2 |
| 47693694001 | BRACKET | 1 |
| 47724608001 | ELECTRIC WIRE HARNESS | 1 |
| 47741087001 | NUT | 1 |
| 47778510001 | TELEMETRY MODULE | 1 |

NOTE: The quantity of hardware in this kit may differ from what is shown, as hardware is supplied in prepackaged quantities.

10) The 47763861001 Kit contains these items and is effective for Utility Low Dash Villager HP (AC) 6/8 Lithium-Ion vehicles.

| PART NUMBER | NOMENCLATURE | QTY |
|--------------|-----------------------|-----|
| 8990 | TIE WRAP | 1 |
| 1012769 | BOLT | 2 |
| 47763858001 | NUT | 2 |
| 102296920 | SCREW | 2 |
| 102617101 | NUT | 2 |
| 47623281001 | MINI RELAY | 2 |
| 102296301 | WASHER | 2 |
| 47693694001 | BRACKET | 1 |
| 47741087001 | NUT | 1 |
| 477414786001 | ELECTRIC WIRE HARNESS | 1 |
| 47778510001 | TELEMETRY MODULE | 1 |

NOTE: The quantity of hardware in this kit may differ from the shown, as hardware is supplied in prepackaged quantities.

11) The 47756202001 Kit contains these items and is effective for Utility Low Dash Carryall 502 Gasoline vehicles.

| PART NUMBER | NOMENCLATURE | QTY |
|-------------|--------------|-----|
| 8990 | TIE WRAP | 1 |
| 1012769 | BOLT | 2 |
| 47763858001 | NUT | 2 |
| 102296920 | SCREW | 2 |
| 102617101 | NUT | 2 |
| 47623281001 | MINI RELAY | 2 |
| 102296301 | WASHER | 2 |

| PART NUMBER | NOMENCLATURE | QTY |
|-------------|-----------------------|-----|
| 47693694001 | BRACKET | 1 |
| 47741087001 | NUT | 1 |
| 47741465001 | ELECTRIC WIRE HARNESS | 1 |
| 47778510001 | TELEMETRY MODULE | 1 |

- NOTE: The quantity of hardware in this kit may differ from the shown, as hardware is supplied in prepackaged quantities.
- 12) The 47756204001 Kit contains these items and is effective for Utility Low Dash Carryall 502 Electric DC Flood-Lead Acid vehicles.

| PART NUMBER | NOMENCLATURE | QTY |
|-------------|-----------------------|-----|
| 8990 | TIE WRAP | 2 |
| 1012769 | BOLT | 2 |
| 47763858001 | NUT | 2 |
| 102296301 | WASHER | 2 |
| 47693694001 | BRACKET | 1 |
| 47724607001 | ELECTRIC WIRE HARNESS | 1 |
| 47741087001 | NUT | 1 |
| 47778510001 | TELEMETRY MODULE | 1 |

- NOTE: The quantity of hardware in this kit may differ from what is shown, as hardware is supplied in prepackaged quantities.
- 13) The 47786223001 Kit contains these items and is effective for Utility Low Dash Carryall 502 Lithium-Ion vehicles.

| PART NUMBER | NOMENCLATURE | QTY |
|-------------|-----------------------|-----|
| 8990 | TIE WRAP | 3 |
| 1012769 | BOLT | 2 |
| 47763858001 | NUT | 2 |
| 102296301 | WASHER | 2 |
| 47693694001 | BRACKET | 1 |
| 47786031001 | ELECTRIC WIRE HARNESS | 1 |
| 47741087001 | NUT | 1 |
| 47778510001 | TELEMETRY MODULE | 1 |

NOTE: The quantity of hardware in this kit may differ from what is shown, as hardware is supplied in prepackaged quantities.

14) The 47781947001 Kit contains these items and is effective for all Utility Low Dash vehicles.

| PART NUMBER | NOMENCLATURE | QTY |
|-------------|--------------------|-----|
| 47722299001 | RFID READER ASSY | 1 |
| 47722300001 | LED INDICATOR ASSY | 1 |
| 47743649001 | SCREW | 2 |
| 47748749001 | RFID DECAL | 1 |

- NOTE: The quantity of hardware in this kit may differ from what is shown, as hardware is supplied in prepackaged quantities.
- 15) The 47783633001 Kit contains these items and is effective for Legacy Villager 6/8 Gasoline vehicles.

| PART NUMBER | NOMENCLATURE | QTY |
|-------------|-----------------------|-----|
| 8990 | TIE WRAP | 2 |
| 1012769 | BOLT | 2 |
| 47763858001 | NUT | 2 |
| 102296920 | SCREW | 2 |
| 102617101 | NUT | 2 |
| 47623810001 | MINI RELAY | 3 |
| 102296301 | WASHER | 2 |
| 47693694001 | BRACKET | 1 |
| 47741087001 | NUT | 1 |
| 47748995001 | ELECTRIC WIRE HARNESS | 1 |
| 47778510001 | TELEMETRY MODULE | 1 |

NOTE: The quantity of hardware in this kit may be different from what is shown, as hardware is supplied in prepackaged quantities.

16) The 47783634001 Kit contains these items and is effective for Legacy Villager 6/8 Electric DC Flood-Lead Acid vehicles.

| PART NUMBER | NOMENCLATURE | QTY |
|-------------|-----------------------|-----|
| 183 | WASHER | 1 |
| 8990 | TIE WRAP | 9 |
| 1012769 | BOLT | 2 |
| 47763858001 | U-NUT | 2 |
| 102296301 | WASHER | 2 |
| 47693694001 | BRACKET | 1 |
| 47741087001 | NUT | 1 |
| 47743649001 | SCREW | 1 |
| 47756802001 | ELECTRIC WIRE HARNESS | 1 |
| 47769197001 | RELAY | 1 |
| 47769693001 | NUT | 1 |
| 47778510001 | TELEMETRY MODULE | 1 |

NOTE: The quantity of hardware in this kit may differ from what is shown, as hardware is supplied in prepackaged quantities.

17) The 47781947001 Kit contains these items and is effective for all Legacy Villager 6/8 vehicles.

| PART NUMBER | NOMENCLATURE | QTY |
|-------------|--------------------|-----|
| 47722299001 | RFID READER ASSY | 1 |
| 47722300001 | LED INDICATOR ASSY | 1 |
| 47743649001 | SCREW | 2 |
| 47748749001 | RFID DECAL | 1 |

NOTE: The quantity of hardware in this kit may differ from what is shown, as hardware is supplied in prepackaged quantities.

18) The 47762548001 Kit contains these items and is effective for TEMPO/**NO** FLEET GOLF Gasoline vehicles.

| PART NUMBER | NOMENCLATURE | QTY |
|-------------|-----------------------|-----|
| 102298720 | TAPTITE | 2 |
| 47741087001 | NUT | 1 |
| 47756708001 | ELECTRIC WIRE HARNESS | 1 |
| 47778510001 | TELEMETRY MODULE | 1 |

- NOTE: The quantity of hardware in this kit may differ from what is shown, as hardware is supplied in prepackaged quantities.
- 19) The 47763877001 Kit contains these items and is effective for: 1. TEMPO/**NO** FLEET GOLF Electric DC Flood-Lead Acid (Tracking Only) vehicles and 2. Electric DC Flood-Lead Acid vehicles are not equipped with headlights.

| PART NUMBER | NOMENCLATURE | QTY |
|-------------|-----------------------|-----|
| 102298720 | TAPTITE | 2 |
| 47741087001 | NUT | 1 |
| 47786180001 | ELECTRIC WIRE HARNESS | 1 |
| 47778510001 | TELEMETRY MODULE | 1 |

- NOTE: The quantity of hardware in this kit may differ from what is shown, as hardware is supplied in prepackaged quantities.
- 20) The 47763877002 Kit contains these items and is effective for TEMPO/**NO** FLEET GOLF Flood-Lead Acid vehicles equipped with headlights.

| PART NUMBER | NOMENCLATURE | QTY |
|-------------|-----------------------|-----|
| 102298720 | TAPTITE | 2 |
| 47741087001 | NUT | 1 |
| 47786178001 | ELECTRIC WIRE HARNESS | 1 |
| 47778510001 | TELEMETRY MODULE | 1 |

NOTE: The quantity of hardware in this kit may be different from what is shown, as hardware is supplied in prepackaged quantities.

21) The 47786219001 Kit contains these items and is effective for Headlight Equipped TEMPO/**NO** FLEET GOLF Electric DC Flood-Lead Acid vehicles not equipped with headlights.

| PART NUMBER | NOMENCLATURE | QTY |
|-------------|----------------------------------|-----|
| 1016849 | SCREW | 2 |
| 102298720 | ТАРТІТЕ | 1 |
| 103397901 | RELAY | 1 |
| 47562746001 | ELECTRIC WIRE HARNESS - LIGHTS | 1 |
| 47574837001 | ELECTRIC WIRE HARNESS - LIGHTING | 1 |
| 47577859001 | CLIP | 2 |
| 47580172001 | BRACKET | 1 |
| 47594727001 | DC/DC CONVERTER | 1 |
| 96704176 | NUT | 2 |

- NOTE: The quantity of hardware in this kit may be different from what is shown, as hardware is supplied in prepackaged quantities.
- 22) The 47781944001 Kit contains these items and is effective for TEMPO/**NO** FLEET GOLF Electric AC Lithium-Ion vehicles.

| PART NUMBER | NOMENCLATURE | QTY |
|-------------|-----------------------|-----|
| 102298720 | TAPTITE | 2 |
| 47786176001 | ELECTRIC WIRE HARNESS | 1 |
| 47741087001 | NUT | 1 |
| 47778510001 | TELEMETRY MODULE | 1 |

NOTE: The quantity of hardware in this kit may be different from what is shown, as hardware is supplied in prepackaged quantities.

3. Safety Information

ADANGER

CHARGING LEAD-ACID BATTERIES EMIT HYDROGEN GAS, THAT IS EXPLOSIVE ABOVE 2% AIR CONCENTRATION. CHARGE THE BATTERIES IN A VENTILATED AREA WITHOUT COVERS OR ENCLOSURES.

BATTERY ACID CAN CAUSE SERIOUS BURNS. PREVENT CONTACT WITH SKIN, EYES, AND CLOTHING. WEAR A FULL FACE SHIELD AND RUBBER GLOVES WHEN SERVICING A BATTERY. ANTIDOTES: EXTERNAL: FLUSH WITH WATER. CALL A PHYSICIAN IMMEDIATELY. INTERNAL: DRINK LARGE QUANTITIES OF MILK OR WATER FOLLOWED WITH MILK OF MAGNESIA OR VEGETABLE OIL. CALL A PHYSICIAN IMMEDIATELY. EYES: FLUSH WITH WATER FOR 15 MINUTES. CALL A PHYSICIAN IMMEDIATELY.

FUEL IS FLAMMABLE AND EXPLOSIVE. DO NOT SMOKE. KEEP SPARKS AND OPEN FLAMES AWAY FROM THE VEHICLE AND SERVICING AREA. DO THE SERVICING OF THE VEHICLE IN A VENTILATED AREA.

THE ENGINE PRODUCES THE DEADLY POISON CARBON MONOXIDE. DO NOT OPERATE THE ENGINE IN AN ENCLOSED AREA WITHOUT CORRECT VENTILATION.

WARNING

FOLLOW THE PROCEDURES EXACTLY AS STATED IN THIS INSTRUCTION. UNDERSTAND AND OBEY ALL DANGER, WARNING, CAUTION, AND NOTICE STATEMENTS IN THIS INSTRUCTION AS WELL AS ON THE VEHICLE.

ONLY TRAINED TECHNICIANS SHOULD SERVICE OR REPAIR THE VEHICLE. ANYONE DOING EVEN SIMPLE REPAIRS OR SERVICE SHOULD HAVE KNOWLEDGE AND EXPERIENCE IN ELECTRICAL AND MECHANICAL REPAIR. THE APPROPRIATE INSTRUCTIONS MUST BE USED WHEN PERFORMING MAINTENANCE, SERVICE, OR ACCESSORY INSTALLATION.

PRIOR TO SERVICING THE VEHICLE OR LEAVING THE VEHICLE UNATTENDED, TURN OFF THE KEY SWITCH, REMOVE THE KEY, SET THE FORWARD NEUTRAL REVERSE CONTROL (FNR) TO NEUTRAL, ENGAGE THE PARK BREAK, AND CHOCK THE WHEELS.

DO NOT WEAR LOOSE CLOTHING OR JEWELRY SUCH AS RINGS, WATCHES, CHAINS, ETC., WHEN SERVICING THE VEHICLE.

IF WIRES ARE REMOVED OR REPLACED, MAKE SURE WIRING AND WIRE HARNESS ARE PROPERLY ROUTED AND SECURED. FAILURE TO PROPERLY ROUTE AND SECURE WIRING CAN RESULT IN VEHICLE MALFUNCTION, PROPERTY DAMAGE, SERIOUS PERSONAL INJURY, OR DEATH.

- 4. Pre-Servicing Instructions
 - A. Read and understand all safety information.
 - B. Move the vehicle to an approved service area.
 - C. Disconnect external electrical power from the vehicle.
 - D. Disable The Vehicle.
 - 1) Fully engage the park brake to prevent unintended vehicle movement.
 - 2) Turn the key to OFF.
 - 3) Remove the key. Keep the key in a safe area.
 - 4) Set the Forward / Neutral / Reverse control (FNR) to N.
 - 5) Put chocks against the wheels.
 - E. On Gasoline vehicles, disconnect the batteries.
 - 1) Disconnect the battery cables, negative (-) cable.
 - 2) Disconnect the positive (+) cable.
 - F. On Flood Lead-Acid (FLA) vehicles, disconnect the batteries.
 - 1) Set the Run/Tow switch to TOW.
 - 2) Disconnect the battery cables, negative (-) cable.
 - 3) Disconnect the positive (+) cable.
 - 4) Wait 90 seconds for the controller capacitors to discharge.
 - G. <u>On Lithium LG Gen 1 and Gen 2 vehicles</u>, disconnect the batteries.
 - 1) Set the Run/Tow-Stow switch to TOW/STOW.
 - 2) Disconnect the fuse holder from the red cover.
 - 3) Remove the fuse.
 - H. <u>On Lithium Vanguard vehicles</u>, disconnect the batteries.
 - 1) Set the Run/Tow-Stow switch to TOW/STOW.
 - 2) Make sure that the battery terminal covers are installed.
 - 3) Loosen the locking collar and disconnect the 20-pin battery connector.
 - 4) Wait 90 seconds for the motor control unit (MCU) to discharge.

5. Accomplishment Instructions

| MARKET | POWERPLANT | VEHICLE SERIAL PREFIX | SECTION | FIGURE |
|--------------------------|---|--|---------|--------|
| AWD | GASOLINE | GP, RC, RX, SC, SX, TC, TX, UC, and UX | 5.A. | 1 |
| | DIESEL | DC, HC, RF, RR, RY, SD, SY, TR, TT, UL, and UR | 5.B. | 3 |
| | GASOLINE | MA, MB, MC, MD, MK, ML, SK and ZV | 5.C. | 5 |
| UTILITY - HIGH DASH | ELECTRIC - DC - FLA | ME, MF, MH, MJ, MM, | 5.D. | 7 |
| | ELECTRIC - AC - FLA | EE, EF, MN, MP, and ER | 5.E. | 9 |
| | LITHIUM-ION | EL, ET, and EX | 5.F. | 11 |
| | GASOLINE - (VILLAGER) | BI and AO | 5.G. | 13 |
| | GASOLINE - (CARRYALL) | DR | 5.H. | 15 |
| UTILITY - | ELECTRIC - DC - FLA (VILLAGER) | CI and BO | 5.I. | 17 |
| LOW DASH | ELECTRIC - DC - FLA (CARRYALL HP (AC)) | DQ | 5.J. | 19 |
| | LITHIUM-ION (VILLAGER) | EJ and EH | 5.K. | 21 |
| | LITHIUM-ION (CARRYALL) | EM | 5.L. | 23 |
| LEGACY - | GASOLINE | SF and SE | 5.M. | 25 |
| VILLAGER | ELECTRIC - DC | QE and QS | 5.N. | 27 |
| | GASOLINE | BY | 5.0. | 29 |
| - CONSUMER/ GOLF - | ELECTRIC - DC - FLA (TELEMETRY ONLY) | BR | 5.P. | 31 |
| | ELECTRIC - DC - FLA WITH LIGHTS (TELEMETRY AND RFID/LED) | BR | 5.Q. | 32 |
| | ELECTRIC - DC - FLA WITHOUT LIGHTS (TELEMETRY AND RFID/LED) | BR | 5.R. | 34 |
| | LITHIUM-ION | ZT | 5.S. | 36 |

A. All-Wheel Drive - Gasoline - Accomplishment Instructions

- NOTE: This is for all-wheel-drive gasoline vehicles only. For applicable serial prefixes, refer to the table in Section 5.
- 1) Telemetric Module Installation

NOTE: Figure 1 supports the kit accomplishment instruction for this section.

- a) Place the bracket (1 P/N 47693695001) on the vehicle structure (2). Align the fastener hole in bracket (1) with the vehicle structure (2).
- b) Temporarily secure the bracket (1) to the vehicle structure (2) with a pair of clamps or an equivalent tool.

NOTE: The Bracket must not shift position during the match drill process.

NOTICE

DO NOT ALLOW PARTS TO SHIFT DURING THE DRILLING PROCESS. FAILURE TO ADHERE WILL RESULT IN MISALIGNED FASTENER HOLES AND SCRAPING OF PARTS.

- c) Use the bracket fastener hole (3) as a template—match drill a 0.2874-inch (7.3-mm) hole through the vehicle structure (2).
- d) Remove clamps.
- e) Deburr all holes drilled and remove unwanted material.
- f) Attach the bracket (1) to the vehicle structure (2) with two taptite (4 P/N 102298720). Tighten the hardware from 10.3 to 11.8 lb·ft (14 to 16 N·m).
- g) Put the telemetry module (5 P/N 4777851001) on the bracket (1).
- h) Attach the telemetry module (5) to the bracket (1) with a nut (6 P/N 47741087001). Tighten the hardware from 4.4 to 5.9 lb·ft (6 to 8 N·m).
- i) Put both mini relays (7 P/N 47623281001) on the bracket (1). Ensure to align fastener holes in mini relays (7) and bracket (1).
- j) Attach the mini relays (7) to the bracket (1) with two screws (8 P/N 102296920) and two nuts (9 P/N 102617101). Tighten the hardware from 61.95 to 79.65 lb·in (7 to 9 N·m).
- 2) RFID Reader Installation

NOTE: The RFID reader is optional equipment.

- a) Refer to Section 6 to install the RFID reader assembly.
- 3) RFID Status LED Installation

NOTE: The RFID status light is optional equipment.

- a) Refer to Section 7 to install the RFID status LED assembly.
- 4) Electrical Wire Installation/Modification
 - a) Connect the harness (8) to the telemetry module
 - b) Connect the telemetry harness (8) to relays (7); these can be connected in any order, and

relays are identical.

- c) Remove the main harness from the ignition switch on the instrument panel. Connect the telemet harness (8) to the main harness.
- d) Connect the telemetry harness (8) to the ignition switch.
- e) Add two tie wraps (9) to secure the harness.

B. All-Wheel Drive - Diesel - Accomplishment Instructions

- NOTE: Kit (**P/N 47741465001**) is for all-wheel-drive diesel vehicles only. For applicable serial prefixes, refer to the table in Section 5.
- 1) Telemetric Module Installation

NOTE: Figure 3 supports the kit accomplishment instruction for this section.

- a) Place the bracket (1 P/N 47693695001) on the vehicle structure (2). Align the fastener hole in bracket (1) with the vehicle structure (2).
- b) Temporarily attach the bracket (1) to the vehicle structure (2) with a pair of clamps or an equivalent tool.

NOTE: The Bracket must not shift position during the match drill process.

NOTICE

DO NOT ALLOW PARTS TO SHIFT DURING THE DRILLING PROCESS. FAILURE TO ADHERE WILL RESULT IN MISALIGNED FASTENER HOLES AND SCRAPING OF PARTS.

- c) Use the bracket fastener hole (3) as a template. Match drill a 0.2874 inch (7.3 mm) hole through the vehicle structure (2). Deburr all holes drilled and remove unwanted material.
- d) Attach the bracket (1) to the vehicle structure (2) with two taptite (4 P/N 102298720). Tighten the hardware from 10.3 to 11.8 lb·ft (14 to 16 N·m).
- e) Put the telemetry module (5 P/N 47778510001) on the bracket (1).
- f) Attach the telemetry module (5) to the bracket (1) with a nut (6 P/N 47741087001). Tighten the hardware from 4.4 to 5.9 lb·ft (6 to 8 N·m).
- g) Place both mini relays (7 P/N 47623281001) on the bracket (1). Align the fastener holes in the mini relays (7) and bracket (1).
- h) Attach the mini relays (7) to the bracket (1) with two screws (8 P/N 102296920) and two nuts (9 P/N 102617101). Tighten the hardware from 61.95 to 79.65 lb·in (7 to 9 N·m).
- 2) RFID Reader Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 6 to install the RFID reader assembly.
- 3) RFID Status LED Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 7 to install the RFID status LED assembly.
- 4) Electrical Wire Installation/Modification

a) Connect the harness (8) to the telemetry module

b) Connect the telemetry harness (8) to the relays (7); these can be connected in any order, and the relays are identical

c) Remove the main harness from the ignition switch on the instrument panel

- d) Connect the telemetry harness (8) to the main harness
- e) Connect the telemetry harness (8) to the ignition switch
- f) Add two tie wraps (9) to secure the harness

C. Utility High Dash - Gasoline - Accomplishment Instructions

- NOTE: Kit (**P/N 47741465001**) is only for utility high-dash gasoline vehicles. For applicable serial prefixes, refer to the table in Section 5.
- 1) Telemetric Module Installation

NOTE: Figure 5 supports the kit accomplishment instruction for this section.

- a) Place the bracket (1 P/N 47693556001) on the vehicle structure (2). Align the fastener hole in bracket (1) with the vehicle structure (2).
- b) Temporarily attach the bracket (1) to the vehicle structure (2) with a pair of clamps or an equivalent tool.

NOTE: The Bracket must not shift position during the match drill process.

NOTICE

DO NOT ALLOW PARTS TO SHIFT DURING THE DRILLING PROCESS. FAILURE TO ADHERE WILL RESULT IN MISALIGNED FASTENER HOLES AND SCRAPING OF PARTS.

- c) Use the bracket fastener hole (3) as a template. Match drill two 0.2874-inch (7.3-mm) holes through the vehicle structure (2). Deburr all holes drilled and remove unwanted material.
- d) Attach the bracket (1) to the vehicle structure (2) with two taptite (4 P/N 102298720). Tighten the hardware from 10.3 to 11.8 lb·ft (14 to 16 N·m).
- e) Put the telemetry module (5 P/N 47778510001) on the bracket (1).
- f) Attach the telemetry module (5) to the bracket (1) with a nut (6 P/N 47741087001). Tighten the hardware from 4.4 to 5.9 lb·ft (6 to 8 N·m).
- g) Place three mini relays (7 P/N 47623281001) on the bracket (1). Align the fastener holes in the mini relays (7) and bracket (1).
- h) Attach the three mini relays (7) to the bracket (1) with one each screw (8 P/N 102296920) and nut (9 P/N 102617101). Tighten the hardware from 5.2 to 6.6 lb·ft (7 to 9 N·m).
- 2) RFID Reader Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 6 to install the RFID Reader assembly.
- 3) RFID Status LED Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 7 to install the RFID Status LED assembly.
- 4) Install electrical wiring per Figure 5 and Figure 40 with the electrical wire harness (P/N 47741465001)
 - a) Connect the harness (10) to the telemetry module

b) Connect the telemetry harness (10) to the three relays (7), relays are identical, and can be connected in any order

- c) Disconnect the 12-pin connector between the main harness and the instrument panel harness
- d) Connect telemetry harness (10) 12-pin connector to main harness
- e) Connect the telemetry harness (10) 12-pin connector to the instrument panel harness
- f) Add two tie wraps (11) to secure the harness
- D. Utility High Dash Electric DC Flood-Lead Acid Accomplishment Instructions
 - NOTE: Kit (**P/N 47741465001**) is only for utility high-dash electric DC flood-lead acid vehicles. For applicable serial prefixes, refer to the table in Section 5.

Telemetric Module Installation

NOTE: Figure 7 supports the kit accomplishment instruction for this section.

- a) Place the bracket (1 P/N 47693556001) on the vehicle structure (2). Align the fastener hole in bracket (1) with the vehicle structure (2).
- b) Temporarily attach the bracket (1) to the vehicle structure (2) with a pair of clamps or an equivalent tool.

NOTE: The Bracket must not shift position during the match drill process.

NOTICE

DO NOT ALLOW PARTS TO SHIFT DURING THE DRILLING PROCESS. FAILURE TO ADHERE WILL RESULT IN MISALIGNED FASTENER HOLES AND SCRAPING OF PARTS.

- c) Use the bracket fastener hole (3) as a template. Match drill two 0.2874-inch (7.3-mm) holes through the vehicle structure (2). Deburr all holes drilled and remove unwanted material.
- d) Attach the bracket (1) to the vehicle structure (2) with two taptite (4 P/N 102298720). Tighten the hardware from 10.3 to 11.8 lb·ft (14 to 16 N·m).
- e) Put the telemetry module (5 P/N 47778510001) on the bracket (1).
- f) Attach the telemetry module (5) to the bracket (1) with a nut (6 P/N 47741087001). Tighten the hardware from 4.4 to 5.9 lb·ft (6 to 8 N·m).
- 1) RFID Reader Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 6. to install the RFID Reader assembly.
- 2) RFID Status LED Installation

NOTE: The RFID reader and status light are optional equipment.

a) Refer to Section 7 to install the RFID Status LED assembly. CLUB CAR VEHICLE CONNECTIVITY INSTALLATION KIT INSTRUCTION - TPCC041501EN022 EDITION - 1

- 3) Electrical Wire Installation
 - a) Connect the harness (7) to the telemetry module
 - b) Connect 4-pin Deutsch to Connectivity Connector on main harness (remove cap if necessary)

c) Connect the white/red wire with the female spade connector to the positive (+) accessory terminal block, and leave the male spade connector loose

- d) Add two tie wraps (8) to secure the harness
- E. Utility High Dash Electric AC Flood-Lead Acid Accomplishment Instructions

NOTE: Kit (**P/N 47741786001**) is only for utility high-dash electric AC flood-lead acid vehicles. For applicable serial prefixes, refer to the table in Section 5.

Telemetric Module Installation

NOTICE

NOTE: Figure 9 supports the kit accomplishment instruction for this section.

- a) Place the bracket (1 P/N 47693556001) on the vehicle structure (2). Align the fastener hole in bracket (1) with the vehicle structure (2).
- b) Temporarily attach the bracket (1) to the vehicle structure (2) with a pair of clamps or an equivalent tool.

NOTE: The Bracket must not be able to shift position during the match drill process.

DO NOT ALLOW PARTS TO SHIFT DURING THE DRILLING PROCESS. FAILURE TO ADHERE WILL RESULT IN MISALIGNED FASTENER HOLES AND SCRAPING OF PARTS.

- c) Use the bracket fastener hole (3) as a template. Match drill two 0.2874-inch (7.3-mm) holes through the vehicle structure (2). Deburr all holes drilled and remove unwanted material.
- d) Attach the bracket (1) to the vehicle structure (2) with two taptite (4 P/N 102298720). Tighten the hardware from 10.3 to 11.8 lb·ft (14 to 16 N·m).
- e) Put the telemetry module (5 P/N 47778510001) on the bracket (1).
- f) Attach the telemetry module (5) to the bracket (1) with a nut (6 P/N 47741087001). Tighten the hardware from 4.4 to 5.9 lb·ft (6 to 8 N·m).
- g) Place the mini relay (7 P/N 47623281001) on the bracket (1). Align the fastener holes in the mini relay (7) and bracket (1).
- h) Attach the mini relay (7) to the bracket (1) with a screw (8 P/N 102296920) and nut (9 P/N 102617101). Tighten the hardware from 5.2 to 6.6 lb·ft (7 to 9 N·m).
- 1) RFID Reader Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 6 to install the RFID Reader assembly.
- 2) RFID Status LED Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 7 to install the RFID Status LED assembly.
- 3) Electrical Wire Installation/Modification
 - a) Connect the harness (10) to the telemetry module
 - b) Disconnect the 12-pin connector between the main harness and the instrument panel harness
 - c) Connect telemetry harness (10) 12-pin connector to main harness

d) Connect the telemetry harness (10) 12-pin connector to the instrument panel harness. e) Add two tie wraps (11) to secure the harness

F. Utility High Dash - Lithium-Ion - Accomplishment Instructions

NOTE: Kit (**P/N 47786031001**) is for utility high-dash electric lithium-ion vehicles only. For applicable serial prefixes, refer to the table in Section 5.

1) Telemetric Module Installation

NOTE: Figure 11 supports the kit accomplishment instruction for this section.

- a) Place the bracket (1 P/N 47693556001) on the vehicle structure (2). Align the fastener hole in bracket (1) with the vehicle structure (2).
- b) Temporarily attach the bracket (1) to the vehicle structure (2) with a pair of clamps or an equivalent tool.

NOTE: The Bracket must not shift position during the match drill process.

NOTICE

DO NOT ALLOW PARTS TO SHIFT DURING THE DRILLING PROCESS. FAILURE TO ADHERE WILL RESULT IN MISALIGNED FASTENER HOLES AND SCRAPING OF PARTS.

- c) Use the bracket fastener hole (3) as a template. Match drill a 0.2874 inch (7.3 mm) hole through the vehicle structure (2). Deburr all holes drilled and remove unwanted material.
- d) Attach the bracket (1) to the vehicle structure (2) with two taptite (4 P/N 102298720). Tighten the hardware from 123.91 to 141.61 lb·in (14 to 16 N·m).
- e) Put the telemetry module (5 P/N 47778510001) on the bracket (1).
- f) Attach the telemetry module (5) to the bracket (1) with a nut (6 P/N 47741087001). Tighten the hardware from 70.81 to 88.51 lb·in (8 to 10 N·m).
- 2) RFID Reader Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 6 to install the RFID Reader assembly.
- 3) RFID Status LED Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 7 to install the RFID Status LED assembly.
- 4) Electrical Wire Installation/Modification
 - a) Connect the harness (6) to the telemetry module
 - b) Connect 4-pin Deutsch to Connectivity Connector on main harness (remove cap if necessary)

c) Connect red wire with female spade connector to positive (+) accessory terminal block, leave male spade connector loose

d) Add two tie wraps (8) to secure the harness

- G. Utility Low Dash Villager 6 And Villager 8 Gasoline Accomplishment Instructions
 - NOTE: Kit (**P/N 47724611001**) is for utility low-dash gasoline Villager 6 and Villager 8 vehicles only. For applicable serial prefixes, refer to the table in Section 5.
 - 1) Telemetric Module Installation

NOTE: Figure 13 supports the kit accomplishment instruction for this section.

- a) Place the bracket (1 P/N 47693694001) on the vehicle structure (2). Align the fastener hole in bracket (1) with the vehicle structure (2).
- b) Attach the bracket (1) to the vehicle structure (2) with two each u-nut (3 P/N 102296601), bolt (4 - P/N 1012769), washer (5 - P/N 47693544001). Tighten the hardware from 5.2 to 6.6 lb·ft (7 to 9 N·m).
- c) Put the telemetry module (6 P/N 47778510001) on the bracket (1).
- d) Attach the telemetry module (6) to the bracket (1) with a nut (7 P/N 47741087001). Tighten the hardware from 4.4 to 5.9 lb·ft (6 to 8 N·m).
- e) Place the mini relay (8 P/N 47623281001) on the bracket (1). Align the fastener holes in the mini relay (8) and bracket (1).
- f) Attach the mini relay (8) to the bracket (1) with a screw (9 P/N 102296920) and nut (10 P/N 102617101). Tighten the hardware from 5.2 to 6.6 lb·ft (7 to 9 N·m).
- 2) RFID Reader Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 6 to install the RFID Reader assembly.
- 3) RFID Status LED Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 7 to install the RFID Status LED assembly.
- 4) Electrical Wire Installation/Modification
 - a) Connect the telemetry harness (9) to the telemetry module (6)

b) Connect telemetry harness (9) to mini relay (8)

c) Connect 8-pin connector on telemetry harness (9) to 8-pin connectivity connector on main harness (remove cap if necessary)

- H. Utility Low Dash Carryall 502 Gasoline Accomplishment Instructions
 - NOTE: Kit (**P/N 47741465001**) is only for utility low-dash gasoline Carryall 502 vehicles. For applicable serial prefixes, refer to the table in Section 5.
 - 1) Telemetric Module Installation

NOTE: Figure 15 supports the kit accomplishment instruction for this section.

- a) Put two u-nuts (1 P/N 102296601) on the bracket (2 P/N 47693694001)
- b) Put the bracket (2) and mini relay (3 P/N 47623281001) on the vehicle structure (4). Make sure to align the fastener hole in bracket (2), mini relay (3), and vehicle structure (4).
- c) Attach the bracket (2) and mini relay (3) to the vehicle structure (4) with two bolts each (5 P/N 1012769), washer (6 P/N 47693544001). Tighten the hardware from 5.2 to 6.6 lb·ft (7 to 9 N·m).
- d) Put the telemetry module (7 P/N 47778510001) on the bracket (2).
- e) Attach the telemetry module (7) to the bracket (2) with a nut (8 P/N 47741087001). Tighten the hardware from 4.4 to 5.9 lb·ft (6 to 8 N·m).
- f) Place the two mini relays (9 P/N 47623281001) on the bracket (2). Align the fastener holes in the mini relays (9) and bracket (2).
- g) Attach the two mini relays (9) to the bracket (2) with one each screw (10 P/N 102296920) and nut (11 P/N 102617101). Tighten the hardware from 5.2 to 6.6 lb·ft (7 to 9 N·m).
- 2) RFID Reader Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 6 to install the RFID Reader assembly.
- 3) RFID Status LED Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 7 to install the RFID Status LED assembly.
- 4) Electrical Wire Installation/Modification
 - a) Connect the harness (10) to the telemetry module

b) Connect the telemetry harness (10) to three relays (3 & 9), relays are identical, and can be connected in any order

- c) Disconnect the 12-pin connector between the main harness and the instrument panel harness
- d) Connect telemetry harness (10) 12-pin connector to main harness
- e) Connect the telemetry harness (10) 12-pin connector to the instrument panel harness
- f) Add two tie wraps (11) to secure the harness

- I. Utility Low Dash Villager 6 And Villager 8 Electric DC Flood-Lead Acid -Accomplishment Instructions
 - NOTE: Kit (**P/N 47724608001**) is only for utility low-dash electric DC Flood-Lead Acid Villager 6 and Villager 8 vehicles. For applicable serial prefixes, refer to the table in Section 5.
 - 1) Telemetric Module Installation

NOTE: Figure 17 supports the kit accomplishment instruction for this section.

- a) Place the bracket (1 P/N 47693694001) on the vehicle structure (2). Align the fastener hole in bracket (1) with the vehicle structure (2).
- b) Attach the bracket (1) to the vehicle structure (2) with two each u-nut (3 P/N 102296601), bolt (4 - P/N 1012769), washer (5 - P/N 47693544001). Tighten the hardware from 5.2 to 6.6 lb·ft (7 to 9 N·m).
- c) Put the telemetry module (6 P/N 47778510001) on the bracket (1).
- d) Attach the telemetry module (6) to the bracket (1) with a nut (7 P/N 47741087001). Tighten the hardware from 4.4 to 5.9 lb·ft (6 to 8 N·m).
- 2) RFID Reader Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 6. to install the RFID Reader assembly.
- 3) RFID Status LED Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 7. to install the RFID Status LED assembly.
- 4) Electrical Wire Installation/Modificationa) Connect the telemetry harness (8) to the telemetry module (6)

b) Connect 8-pin connector on telemetry harness (8) to 8-pin connectivity connector on main harness (remove cap if necessary)

J. Utility Low Dash Carryall 502 - Electric DC Flood-Lead Acid - Accomplishment Instructions

NOTE: Kit (**P/N 47786031001**) is only for utility low-dash electric DC Flood-Lead Acid Carryall 502 vehicles. For applicable serial prefixes, refer to the table in Section 5.

1) Telemetric Module Installation

NOTE: Figure 19 supports the kit accomplishment instruction for this section.

- a) Place the bracket (1 P/N 47693694001) on the vehicle structure (2). Align the fastener hole in bracket (1) with the vehicle structure (2).
- b) Attach the bracket (1) to the vehicle structure (2) with two each u-nut (3 P/N 102296601), bolt (4 - P/N 1012769), washer (5 - P/N 47693544001). Tighten the hardware from 5.2 to 6.6 lb·ft (7 to 9 N·m).
- c) Put the telemetry module (6 P/N 47778510001) on the bracket (1).
- d) Attach the telemetry module (6) to the bracket (1) with a nut (7 P/N 47741087001). Tighten the hardware from 4.4 to 5.9 lb·ft (6 to 8 N·m).
- 2) RFID Reader Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 6 to install the RFID Reader assembly.
- 3) RFID Status LED Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 7 to install the RFID Status LED assembly.
- 4) Electrical Wire Installation/Modification
 - a) Connect the telemetry harness (7) to the telemetry module

b) Connect the 4-pin Deutsch from the telemetry harness (7) to the Connectivity Connector on the main harness (remove cap if necessary)

c) Connect the red wire with the female spade connector to the positive (+) accessory fuse block, leaving the male spade connector loose.

K. Utility Low Dash Villager 6 And Villager 8 AC (HP) - Lithium-Ion - Accomplishment Instructions

- NOTE: Kit (**P/N 47786031001**) is only for utility low-dash electric DC Flood-Lead Acid Carryall 502 vehicles. For applicable serial prefixes, refer to the table in Section 5.
- 1) Telemetric Module Installation

NOTE: Figure 21 supports the kit accomplishment instruction for this section.

- a) Place the bracket (1 P/N 47693694001) on the vehicle structure (2). Align the fastener hole in bracket (1) with the vehicle structure (2).
- b) Attach the bracket (1) to the vehicle structure (2) with two each u-nut (3 P/N 102296601), bolt (4 - P/N 1012769), washer (5 - P/N 47693544001). Tighten the hardware from 5.2 to 6.6 lb·ft (7 to 9 N·m).
- c) Put the telemetry module (6 P/N 47778510001) on the bracket (1).
- d) Attach the telemetry module (6) to the bracket (1) with a nut (7 P/N 47741087001). Tighten the hardware from 4.4 to 5.9 lb·ft (6 to 8 N·m).
- 2) RFID Reader Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 6 to install the RFID Reader assembly.
- 3) RFID Status LED Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 7 to install the RFID Status LED assembly.
- 4) Electrical Wire Installation/Modification
 - a) Connect the telemetry harness (8) to the telemetry module

b) Connect 4-pin Deutsch from telemetry harness (8) to Connectivity Connector on main harness (remove cap if necessary)

c) Connect red wire with female spade connector to positive (+) accessory fuse block, leave male spade connector loose

L. Utility Low Dash Carryall 502 - Lithium-Ion - Accomplishment Instructions

- NOTE: Kit (**P/N 47786031001**) is only for utility low-dash Lithium-Ion Acid Carryall 502 vehicles. For applicable serial prefixes, refer to the table in Section 5.
 - 1) Telemetric Module Installation

NOTE: Figure 23 supports the kit accomplishment instruction for this section.

- a) Place the bracket (1 P/N 47693694001) on the vehicle structure (2). Align the fastener hole in bracket (1) with the vehicle structure (2).
- b) Attach the bracket (1) to the vehicle structure (2) with two each u-nut (4 P/N 102296601), bolt (5 - P/N 1012769), washer (6 - P/N 47693544001). Tighten the hardware from 5.2 to 6.6 lb·ft (7 to 9 N·m).
- c) Put the telemetry module (5 P/N 47778510001) on the bracket (1).
- d) Attach the telemetry module (5) to the bracket (1) with a nut (6 P/N 47741087001). Tighten the hardware from 4.4 to 5.9 lb·ft (6 to 8 N·m).
- 2) RFID Reader Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 6. to install the RFID Reader assembly.
- 3) RFID Status LED Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 7. to install the RFID Status LED assembly.
- 4) Electrical Wire Installation/Modification
 - a) Connect the telemetry harness (7) to the telemetry module

b) Connect 4-pin Deutsch from telemetry harness (7) to Connectivity Connector on main harness (remove cap if necessary)

c) Connect red wire with female spade connector to positive (+) accessory fuse block, leave male spade connector loose

- M. Legacy Villager 6 And Villager 8 Gasoline Accomplishment Instructions
 - NOTE: Kit (**P/N 47748995001**) is only for legacy gasoline Villager 6 and 8 vehicles. For applicable serial prefixes, refer to the table in Section 5.
 - 1) Telemetric Module Installation

NOTE: Figure 25 supports the kit accomplishment instruction for this section.

- a) Put the bracket (2 P/N 47693694001) and mini relay (3) on the vehicle structure (4). Make sure to align fastener hole in bracket (2) and vehicle structure (4).
- b) Attach the bracket (2) and mini relay (3) to the vehicle structure (4) with two each u-nut (1 P/N 102296601), bolt (5 P/N 1012769), washer (6 P/N 47693544001). Tighten the hardware from 5.2 to 6.6 lb·ft (7 to 9 N·m).
- c) Put the telemetry module (7 P/N 47778510001) on the bracket (2).
- d) Attach the telemetry module (7) to the bracket (2) with a nut (8 P/N 47741087001). Tighten the hardware from 4.4 to 5.9 lb·ft (6 to 8 N·m).
- e) Place the two mini relays (9 P/N 47623281001) on the bracket (2). Align the fastener holes in the mini relay (9) and vehicle bracket (2).
- f) Attach the mini relays (9) to the bracket (2) with a barrel nut and screw (10 P/N 47743649001). Tighten the hardware from 5.2 to 6.6 lb·ft (7 to 9 N·m).
- 2) RFID Reader Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 6 to install the RFID Reader assembly.
- 3) RFID Status LED Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 7 to install the RFID Status LED assembly.
- 4) Electrical Wire Installation/Modification
 - a) Connect the harness (12) to the telemetry module

b) Connect the telemetry harness (12) to three relays (3 & 9), relays are identical, and can be connected in any order

- c) Connect the orange ring terminal to the position one key switch for constant power
- d) Connect red/black ring terminal to the position two key switch for switched power
- e) Connect the black/white ring terminal to the position three key switch ground
- f) Connect the red ring terminal to the position four key switch
- g) Connect the gray ring terminal to the position five key switch
- h) Butt splice blue unterminated wire into main harness between "A" and "2" on key switch
- f) Add two tie wraps (11) to secure the harness

- N. Legacy Villager 6 And Villager 8 Electric DC Flood-Lead Acid Accomplishment Instructions
 - NOTE: Kit (**P/N 47756802001**) is only for legacy electric DC Flood-Lead Acid Villager 6 and Villager 8 vehicles. For applicable serial prefixes, refer to the table in Section 5.
 - 1) Telemetric Module Installation

NOTE: Figure 27 supports the kit accomplishment instruction for this section.

- a) Put the bracket (2 P/N 47693694001) and mini relay (3) on the vehicle structure (4). Make sure to align fastener hole in bracket (2) and vehicle structure (4).
- b) Attach the bracket (2) and mini relay (3) to the vehicle structure (4) with two each u-nut (1 P/N 102296601), bolt (5 P/N 1012769), washer (6 P/N 47693544001). Tighten the hardware from 5.2 to 6.6 lb·ft (7 to 9 N·m).
- c) Put the telemetry module (7 P/N 47778510001) on the bracket (1).
- d) Attach the telemetry module (7) to the bracket (2) with a nut (8 P/N 47741087001). Tighten the hardware from 4.4 to 5.9 lb·ft (6 to 8 N·m).
- 2) RFID Reader Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 6 to install the RFID Reader assembly.
- 3) RFID Status LED Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 7 to install the RFID Status LED assembly.
- 4) Electrical Wire Installation/Modification
 - a) Connect the harness (9) to the telemetry module
 - b) Connect the orange terminal to the position one key switch
 - c) Connect the blue/white ring terminal to the position two key switch for switched power
 - d) Route the red/black ring under the floor mat into the battery bucket. Connect to 12V+ at?
 - e) Add two tie wraps (10) to secure the harness
- O. TEMPO Gasoline Accomplishment Instructions

NOTE: Kit (**P/N 47756802001**) is only for consumer/golf gasoline vehicles. Refer to the table in Section 5.

1) Telemetric Module Installation

NOTE: Figure 29 supports the kit accomplishment instruction for this section.

- a) Locate the center point for the Telemetric Module hole.
- b) Using the template, cut a 1.6-inch (41 mm) hole through the dash.
- c) Deburr all holes drilled and remove unwanted material.

- d) Put the telemetry module (5 P/N 47778510001) on the dash (1).
- e) Attach the telemetry module (5) to the dash (1) with a nut (6 P/N 47741087001). Tighten the hardware from 4.4 to 5.9 lb·ft (6 to 8 N·m).
- 2) RFID Reader Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 6 to install the RFID Reader assembly.
- 3) RFID Status LED Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 7 to install the RFID Status LED assembly.
- 4) Electrical Wire Installation/Modification
 - a) Connect the harness (7) to the telemetry module
 - b) Drill two holes (need drill size) for relays using a template on page X
 - c) Remove screws from relays (2x), set aside
 - d) Mount two relays inside dash using screws from previous step. Relays can go in either position.
 - e) Disconnect the 9-pin connector between the main harness and the instrument panel harness
 - f) Connect the telemetry harness (7) 9-pin connector to the main harness
 - g) Connect the telemetry harness (7) 9-pin connector to the instrument panel harness

h) Locate red fuel pump wire from main harness in instrument panel, disconnect red wire from IP, and connect to telemetry harness blue wire spade connector. Leave the IP side of the red wire loose as it does not need to be reconnected.

- P. TEMPO Electric DC Flood-Lead Acid (Telemetry Only) Accomplishment Instructions
 - NOTE: Kit (**P/N 4778618001**) consumer/golf electric DC Flood-Lead Acid vehicles electing for tracking only. Refer to the table in Section 5.
 - 1) Telemetric Module Installation

NOTE: Figure 31 supports the kit accomplishment instruction for this section.

- a) Locate the center point for the Telemetric Module hole.
- b) Using the template, cut 1.6 inches (41 mm) through the dash.
- c) Deburr all holes drilled and remove unwanted material.
- d) Put the telemetry module (5 P/N 47778510001) on the dash (1).
- e) Attach the telemetry module (5) to the dash (1) with a nut (6 P/N 47741087001). Tighten the hardware from 4.4 to 5.9 lb·ft (6 to 8 N·m).
- 2) Electrical Wire Installation/Modification
 - a) Connect the harness (7) to the telemetry module
 - b) Drill two holes (need drill size) for relays using a template on page X
 - c) Remove screws from relays (2x), set aside
 - d) Mount two relays inside dash using screws from previous step. Relays can go in either position.
 - e) Disconnect the 9-pin connector between the main harness and the instrument panel harness
 - f) Connect the telemetry harness (7) 9-pin connector to the main harness
 - g) Connect the telemetry harness (7) 9-pin connector to the instrument panel harness

h) Remove blue wire from key switch position #2. Connect red wire spade terminal on FT+ harness to key switch position #2 and reconnect main harness blue wire (from key switch) to blue spade terminal on FT+ harness.

Q. TEMPO - Electric DC Flood-Lead Acid (equipped with headlights) - Accomplishment Instructions

NOTE: (P/N 4778618001)

- NOTE: Tempo electric DC Flood-Lead Acid vehicles only have headlights. Refer to the table in Section 5.
- 1) Telemetric Module Installation

NOTE: Figure 32 supports the kit accomplishment instruction for this section.

- a) Locate the center point for the Telemetric Module hole.
- b) Using the template, cut 1.6 inches (41 mm) through the dash.
- c) Deburr all holes drilled and remove unwanted material.
- d) Put the telemetry module (5 P/N 47778510001) on the dash (1).
- e) Attach the telemetry module (5) to the dash (1) with a nut (6 P/N 47741087001). Tighten the hardware from 4.4 to 5.9 lb·ft (6 to 8 N·m).
- 2) RFID Reader Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 6 to install the RFID Reader assembly.
- 3) RFID Status LED Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 7 to install the RFID Status LED assembly.
- 4) Electrical Wire Installation/Modification: Install electrical wiring per Figure 33 and Figure 54 with electrical wire harness (P/N 4778618001)
 - a) Connect the telemetry harness (7) to the telemetry module
 - b) Connect 4-pin Deutsch from telemetry harness (7) to Connectivity Connector on main harness (remove cap if necessary)
 - c) Remove the Brake Relay spade connector. Connect the red wire with the female spade connector to the brake relay, and connect the red wire from the main harness to the red telemetry harness male spade connector
 - d) Route the black wire from the telemetry harness (7) to the front of the vehicle. Remove one of the wires from the horn and connect it to the black wire on the telemetry harness. Connect the alternate spade connector to the horn.
 - e) Add tie wraps (8) to secure the harness

R. TEMPO – Lithium-Ion

NOTE: (P/N 4778618001)

NOTE: consumer/golf Lithium-Ion vehicles only. Refer to the table in Section 5.

1) Telemetric Module Installation

NOTE: Figure 36 supports this section's kit (P/N 4778618001) accomplishment instruction.

- a) Place the bracket (1 P/N 47693694001) on the vehicle structure (2). Align the fastener hole in bracket (1) with the vehicle structure (2).
- b) Attach the bracket (1) to the vehicle structure (2) with two each u-nut (4 P/N 102296601), bolt (5 - P/N 1012769), washer (6 - P/N 47693544001). Tighten the hardware from 5.2 to 6.6 lb·ft (7 to 9 N·m).
- c) Put the telemetry module (5 P/N 4777851001) on the bracket (1).
- d) Attach the telemetry module (5) to the bracket (1) with a nut (6 P/N 47741087001). Tighten the hardware from 4.4 to 5.9 lb·ft (6 to 8 N·m).
- 2) RFID Reader Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 6. to install the RFID Reader assembly.
- 3) RFID Status LED Installation

NOTE: The RFID reader and status light are optional equipment.

- a) Refer to Section 7. to install the RFID Status LED assembly.
- 4) Electrical Wire Installation/Modification

NOTE: Figure X supports the kit accomplishment instruction for this section.

a) Install/modify electrical wiring per Figure 59.

6. RFID Reader Installation

NOTE: The RFID reader is optional equipment.

| POWERPLANTSERTIAL PREFIXPIGUREGASOLINEGASOLINETC, TX, UC, and UX2AWDDIESELDC, HC, RF, RR, RY, SD, SY, TR, TT, UL, and UR4MAMGASOLINEMA, MB, MC, MD, MK, ML, SK and ZV6UTILITY - HIGH DASHELECTRIC - DC - FLAME, MF, MH, MJ, MM, ELECTRIC - AC - FLA8UTILITY - HIGH DASHELECTRIC - AC - FLAEE, EF, MN, MP, and ER10UTILITY - LOW DASHELECTRIC - AC - FLAEE, ET, and EX12GASOLINE - (VILLAGER)BI and AO14GASOLINE - (CARRYALL)DR16ELECTRIC - DC - FLA (VILLAGER)CI and BO18ELECTRIC - DC - FLA (VILLAGER)CI and BO18ELECTRIC - DC - FLA (VILLAGER)DQ20LITHIUM-ION (VILLAGER) AC (HP)EJ and EH22LITHIUM-ION (VILLAGER) AC (HP)EJ and EH22LITHIUM-ION (VILLAGER) AC (HP)EJ and SE26ELECTRIC - DC - FLA (CARRYALL) AC (HP)EM24LEGACY - VILLAGERGASOLINESF and SE26ELECTRIC - DC - FLA WITH LIGHTS (TELEMETRY ONLY)BR33ELECTRIC - DC - FLA WITH LIGHTS (TELEMETRY AND RFID/LED)BR33ELECTRIC - DC - FLA WITHOUT LIGHTS (TELEMETRY AND RFID/LED)BR35ELECTRIC AD RFID/LEDBR35 | NOTE: Installation instructions for the RFID Reader is similar to all vehicles. Use the table to | | | | |
|--|--|--------------------------------|------------------------|--------|--|
| AWDC, TX, UC, and UX2AWDDIESELDC, HC, RF, RR, RY, SD, SY, TR, TT, UL, and UR4UTILITY - HIGH DASHGASOLINEMA, MB, MC, MD, MK, ML, SK and ZV6UTILITY - HIGH DASHELECTRIC - DC - FLAME, MF, MH, MJ, MM, ML, SK and ZV8UTILITY - HIGH DASHELECTRIC - AC - FLAEE, EF, MN, MP, and ER10UTILITY - LOW DASHGASOLINE - (VILLAGER)BI and AO14GASOLINE - (CARRYALL)DR1616ELECTRIC - DC - FLA (VILLAGER)CI and BO18ELECTRIC - DC - FLA (VILLAGER)CI and BO18ELECTRIC - DC - FLA (CARRYALL)DQ20LITHIUM-ION (VILLAGER) AC (HP)EJ and EH22LITHIUM-ION (CARRYALL) AC (HP)EM24CONSUMER/GOLFGASOLINESF and SE26ELECTRIC - DC - FLABR30ELECTRIC - DC - FLA WITH LIGHTS (TELEMETRY ONLY)BR33ELECTRIC - DC - FLA WITH UTHOUT LIGHTSBR35 | | POWERPLANT | SERIAL PREFIX | FIGURE | |
| DIESELSD, SY, TR, TT, UL, and UR4UTILITY - HIGH DASHGASOLINEMA, MB, MC, MD, MK, ML, SK and ZV6ELECTRIC - DC - FLAME, MF, MH, MJ, MM, BELECTRIC - AC - FLAEE, EF, MN, MP, and ER10UTILITY - HIGH DASHELECTRIC - AC - FLAEE, EF, MN, MP, and ER10UTILITY - LOW DASHGASOLINE - (VILLAGER)BI and AO14GASOLINE - (VILLAGER)BI and AO14ELECTRIC - DC - FLA (VILLAGER)CI and BO18ELECTRIC - DC - FLA (VILLAGER)CI and BO18ELECTRIC - DC - FLA (VILLAGER) AC (HP)EJ and EH22LITHIUM-ION (VILLAGER) AC (HP)EJ and EH22LITHIUM-ION (CARRYALL) AC (HP)EM24GASOLINEGASOLINESF and SE26ELECTRIC - DC - FLA (TRIC - DCQE and QS28GASOLINEGASOLINEBR30ELECTRIC - DC - FLA WITH LIGHTS (TELEMETRY ONLY)BR33CONSUMER/GOLFELECTRIC - DC - FLA WITHOUT LIGHTSBR35 | | GASOLINE | | 2 | |
| UTILITY - HIGH DASHELECTRIC - DC - FLAME, MF, MH, MJ, MM, ME, MF, MH, MJ, MM, ELECTRIC - AC - FLAME, MF, MH, MJ, MM, EL, ET, and ER8UTILITY - HIGH DASHELECTRIC - AC - FLAEE, EF, MN, MP, and ER10UTILITY - LOW DASHGASOLINE - (VILLAGER)BI and AO14GASOLINE - (CARRYALL)DR16ELECTRIC - DC - FLA (VILLAGER)CI and BO18ELECTRIC - DC - FLA (VILLAGER)CI and BO18ELECTRIC - DC - FLA (CARRYALL)DQ20LITHIUM-ION (VILLAGER) AC (HP)EJ and EH22LITHIUM-ION (CARRYALL) AC (HP)EM24EGACY - VILLAGERGASOLINESF and SE26ELECTRIC - DCQE and QS2828GASOLINEBY3028ELECTRIC - DC - FLA WITH LIGHTS (TELEMETRY ONLY)BR33ELECTRIC - DC - FLA WITHOUT LIGHTSBR33ELECTRIC - DC - FLA WITHOUT LIGHTSBR35 | AWD | DIESEL | SD, SY, TR, TT, UL, | 4 | |
| UTILITY - HIGH DASHELECTRIC - DC - FLAELECTRIC - AC - FLAEE, EF, MN, MP, and ER10LITHIUM-IONEL, ET, and EX12GASOLINE - (VILLAGER)BI and AO14GASOLINE - (VILLAGER)BI and AO14GASOLINE - (CARRYALL)DR16ELECTRIC - DC - FLA (VILLAGER)CI and BO18ELECTRIC - DC - FLA (VILLAGER)CI and BO18ELECTRIC - DC - FLA (CARRYALL)DQ20LITHIUM-ION (VILLAGER) AC (HP)EJ and EH22LITHIUM-ION (CARRYALL) AC (HP)EM24ELECARCY - VILLAGERGASOLINESF and SE26ELECARCY - VILLAGERGASOLINEBY30ELECTRIC - DCQE and QS28GASOLINEBRN/AELECTRIC - DC - FLA (TELEMETRY ONLY)BR33ELECTRIC - DC - FLA WITH LIGHTS (TELEMETRY AND RFID/LED)BR33 | | GASOLINE | | 6 | |
| LITHIUM-IONEL, ET, and EX12UTILITY - LOW DASHGASOLINE - (VILLAGER)BI and AO14GASOLINE - (CARRYALL)DR16ELECTRIC - DC - FLA (VILLAGER)CI and BO18ELECTRIC - DC - FLA (CARRYALL)DQ20LITHIUM-ION (VILLAGER) AC (HP)EJ and EH22LITHIUM-ION (CARRYALL) AC (HP)EM24LEGACY - VILLAGERGASOLINESF and SE26ELECTRIC - DCQE and QS28GASOLINEBY30ELECTRIC - DC - FLA (TELEMETRY ONLY)BRN/AELECTRIC - DC - FLA WITH LIGHTS (TELEMETRY AND RFID/LED)BR33 | UTILITY - HIGH DASH | ELECTRIC - DC - FLA | ME, MF, MH, MJ, MM, | 8 | |
| GASOLINE - (VILLAGER)BI and AO14GASOLINE - (CARRYALL)DR16ELECTRIC - DC - FLA (VILLAGER)CI and BO18ELECTRIC - DC - FLA (CARRYALL)DQ20LITHIUM-ION (VILLAGER) AC (HP)EJ and EH22LITHIUM-ION (CARRYALL) AC (HP)EM24LEGACY - VILLAGERGASOLINESF and SE26ELECTRIC - DCPLECTRIC - DCQE and QS28GASOLINEBY3030ELECTRIC - DC - FLA WITH LIGHTS (TELEMETRY ONLY)BR33ELECTRIC - DC - FLA WITH LIGHTS (TELEMETRY AND RFID/LED)BR33ELECTRIC - DC - FLA WITHOUT LIGHTS (TELEMETRY AND RFID/LED)BR35 | | ELECTRIC - AC - FLA | EE, EF, MN, MP, and ER | 10 | |
| UTILITY - LOW DASHGASOLINE - (CARRYALL)DR16ELECTRIC - DC - FLA (VILLAGER)CI and BO18ELECTRIC - DC - FLA (CARRYALL)DQ20LITHIUM-ION (VILLAGER) AC (HP)EJ and EH22LITHIUM-ION (CARRYALL) AC (HP)EM24LEGACY - VILLAGERGASOLINESF and SECONSUMER/GOLFELECTRIC - DC - FLA (TELEMETRY ONLY)BRN/AELECTRIC - DC - FLA WITH LIGHTS (TELEMETRY AND RFID/LED)BR33ELECTRIC - DC - FLA WITHOUT LIGHTS (TELEMETRY AND RFID/LED)BR35 | | LITHIUM-ION | EL, ET, and EX | 12 | |
| UTILITY - LOW DASHELECTRIC - DC - FLA (VILLAGER)CI and BO18ELECTRIC - DC - FLA (CARRYALL)DQ20LITHIUM-ION (VILLAGER) AC (HP)EJ and EH22LITHIUM-ION (CARRYALL) AC (HP)EM24LEGACY - VILLAGERGASOLINESF and SE26ELECTRIC - DCQE and QS28GASOLINEBY30ELECTRIC - DC - FLA (TELEMETRY ONLY)BRN/AELECTRIC - DC - FLA WITH LIGHTS (TELEMETRY AND RFID/LED)BR33ELECTRIC - DC - FLA WITHOUT LIGHTS (TELEMETRY AND RFID/LED)BR35 | | GASOLINE - (VILLAGER) | BI and AO | 14 | |
| UTILITY - LOW DASHELECTRIC - DC - FLA (CARRYALL)DQ20LITHIUM-ION (VILLAGER) AC (HP)EJ and EH22LITHIUM-ION (CARRYALL) AC (HP)EM24LEGACY - VILLAGERGASOLINESF and SE26ELECTRIC - DCQE and QS28GASOLINEBY30ELECTRIC - DC - FLA (TELEMETRY ONLY)BRN/AELECTRIC - DC - FLA WITH LIGHTS (TELEMETRY AND RFID/LED)BR33ELECTRIC - DC - FLA WITHOUT LIGHTS (TELEMETRY AND RFID/LED)BR35 | | GASOLINE - (CARRYALL) | DR | 16 | |
| ELECTRIC - DC - FLA (CARRYALL)DQ20LITHIUM-ION (VILLAGER) AC (HP)EJ and EH22LITHIUM-ION (CARRYALL) AC (HP)EM24LEGACY - VILLAGERGASOLINESF and SE26ELECTRIC - DCQE and QS28GASOLINEBY30ELECTRIC - DC - FLA (TELEMETRY ONLY)BRN/AELECTRIC - DC - FLA WITH LIGHTS (TELEMETRY AND RFID/LED)BR33ELECTRIC - DC - FLA WITHOUT LIGHTS (TELEMETRY AND RFID/LED)BR35 | | ELECTRIC - DC - FLA (VILLAGER) | CI and BO | 18 | |
| LITHIUM-ION (CARRYALL) AC (HP)EM24LEGACY - VILLAGERGASOLINESF and SE26ELECTRIC - DCQE and QS28GASOLINEBY30ELECTRIC - DC - FLA (TELEMETRY ONLY)BRN/AELECTRIC - DC - FLA WITH LIGHTS (TELEMETRY AND RFID/LED)BR33ELECTRIC - DC - FLA WITHOUT LIGHTS (TELEMETRY AND RFID/LED)BR35 | UTILITY - LOW DASH | ELECTRIC - DC - FLA (CARRYALL) | DQ | 20 | |
| LEGACY - VILLAGERGASOLINESF and SE26ELECTRIC - DCQE and QS28GASOLINEBY30ELECTRIC - DC - FLA (TELEMETRY ONLY)BRN/AELECTRIC - DC - FLA WITH LIGHTS (TELEMETRY AND RFID/LED)BR33ELECTRIC - DC - FLA WITHOUT LIGHTS (TELEMETRY AND RFID/LED)BR35 | | LITHIUM-ION (VILLAGER) AC (HP) | EJ and EH | 22 | |
| LEGACY - VILLAGERELECTRIC - DCQE and QS28GASOLINEBY30ELECTRIC - DC - FLA (TELEMETRY ONLY)BRN/AELECTRIC - DC - FLA WITH LIGHTS (TELEMETRY AND RFID/LED)BR33ELECTRIC - DC - FLA WITHOUT LIGHTS (TELEMETRY AND RFID/LED)BR35 | | LITHIUM-ION (CARRYALL) AC (HP) | EM | 24 | |
| ELECTRIC - DCQE and QS28GASOLINEBY30ELECTRIC - DC - FLA (TELEMETRY ONLY)BRN/AELECTRIC - DC - FLA WITH LIGHTS (TELEMETRY AND RFID/LED)BR33ELECTRIC - DC - FLA WITHOUT LIGHTS (TELEMETRY AND RFID/LED)BR35 | | GASOLINE | SF and SE | 26 | |
| ELECTRIC - DC - FLA (TELEMETRY ONLY)BRN/ACONSUMER/GOLFELECTRIC - DC - FLA WITH LIGHTS (TELEMETRY AND RFID/LED)BR33ELECTRIC - DC - FLA WITHOUT LIGHTS (TELEMETRY AND RFID/LED)BR35 | LEGACI - VILLAGER | ELECTRIC - DC | QE and QS | 28 | |
| CONSUMER/GOLF(TELEMETRY ONLY)BRN/AELECTRIC - DC - FLA WITH LIGHTS (TELEMETRY AND RFID/LED)BR33ELECTRIC - DC - FLA WITHOUT LIGHTS (TELEMETRY AND RFID/LED)BR35 | | GASOLINE | BY | 30 | |
| CONSUMER/GOLF(TELEMETRY AND RFID/LED)BR33ELECTRIC - DC - FLA WITHOUT LIGHTSBR35(TELEMETRY AND RFID/LED)BR35 | CONSUMER/GOLF | | BR | N/A | |
| LIGHTS BR 35 (TELEMETRY AND RFID/LED) | | | BR | 33 | |
| LITHIUM-ION ZT 37 | | LIGHTS | BR | 35 | |
| | | LITHIUM-ION | ZT | 37 | |

NOTE: Installation instructions for the RFID Reader is similar to all vehicles. Use the table to

A. Place the RFID reader (1 - P/N 47722299001) on the backside of the vehicle dash (2).

NOTE: RFID reader must not shift position during match drill process.

NOTICE

DO NOT ALLOW PARTS TO SHIFT DURING THE DRILLING PROCESS. FAILURE TO ADHERE WILL RESULT IN MISALIGNED FASTENER HOLES AND SCRAPING OF PARTS.

- B. Use the RFID reader fastener holes (3) as a template. Match drill a #16 drill bit (0.1770 inch (4.5 mm)) hole through the dash (2). Deburr all holes drilled and remove unwanted material.
- C. Put the RFID reader (1) on the backside of the dash (2). Make sure to align RFID reader fasteners



holes (1) and dash (2).

- D. Attach the the RFID reader (1) to backside of the vehicle dash (2) with two screws (4 P/N 47743649001). Tighten the hardware to 8.85 to 17.7 lb·in (1 to 2 N·m).
- E. Make sure that the air and surface temperatures are above 60° F (16° C). Temperatures above 60° F (16° C) result in a good decal bond.
- F. Clean the surface area with soap and water. Make sure to remove all debris (dirt, grease, and oils).
- G. Dry the area fully with a lint free cloth.
- H. Clean the surface area with an Isopropyl Alcohol prep pad (70 percent Isopropyl Alcohol and 30 percent water).
- I. Install the decal (5 P/N 47748749001) on the clean surface.

7. RFID Reader Status LED Installation

NOTE: The RFID Status LED is optional equipment.

| | structions for the RFID Reader LED is s | imilar to all vehicles. Use | the table to |
|---------------------|---|---|--------------|
| determine | POWERPLANT | SERIAL PREFIX | FIGURE |
| | GASOLINE | GP, RC, RX, SC, SX, TC, TX, UC, and UX | 2 |
| AWD | | DC, HC, RF, RR, RY, | |
| | DIESEL | SD, SY, TR, TT, UL, and UR | 4 |
| | GASOLINE | MA, MB, MC, MD, MK, ML, SK and ZV | 6 |
| UTILITY - HIGH DASH | ELECTRIC - DC - FLA | ME, MF, MH, MJ, MM, | 8 |
| | ELECTRIC - AC - FLA | EE, EF, MN, MP, RU | 10 |
| | LITHIUM-ION | EL, ET, and EX | 12 |
| | GASOLINE - (VILLAGER) | BI and AO | 14 |
| | GASOLINE - (CARRYALL) | DR | 16 |
| | ELECTRIC - DC - FLA (VILLAGER) | CI and BO | 18 |
| UTILITY - LOW DASH | ELECTRIC - DC - FLA (CARRYALL) | DQ | 20 |
| | LITHIUM-ION (VILLAGER) | EJ and EH | 22 |
| | LITHIUM-ION (CARRYALL) | EM | 24 |
| LEGACY - VILLAGER | GASOLINE | SF and SE | 26 |
| LLGACT - VILLAGER | ELECTRIC - DC | QE and QS | 28 |
| | GASOLINE | BY | 30 |
| CONSUMER/GOLF | ELECTRIC - DC - FLA (TELEMETRY ONLY) | BR | N/A |
| | ELECTRIC - DC - FLA WITH LIGHTS (TELEMETRY AND RFID/LED) | BR | 33 |
| | ELECTRIC - DC - FLA WITHOUT LIGHTS (TELEMETRY AND RFID/LED) | BR | 35 |
| | LITHIUM-ION | ZT | 37 |

- A. Locate and mark the center point (6) for the RFID status light hole on the dash (2).
- B. Use a 0.7874 inch (20 mm) drill bit, drill a hole (6) through the dash (2). Deburr all holes drilled and remove unwanted material.
- C. Feed the RFID Status Light (7 P/N 47722300001) electrical wires through the front side of the dash.
- D. Attach the RFID Status Light (7) to dash (2). The RFID Status light grommet will snap into place

CLUB CAR VEHICLE CONNECTIVITY INSTALLATION KIT INSTRUCTION - TPCC041501EN022 EDITION - 1 securing the light to the dash.

- E. Post-Service Instructions
 - 1) Fully engage the park brake to prevent unintended vehicle movement.
 - 2) Set the Forward / Neutral / Reverse control (FNR) to N.
 - 3) <u>On Gasoline vehicles</u>, connect the batteries.
 - a) Connect the positive (+) cable.
 - b) Connect the battery cables, negative (-) cable.
 - 4) <u>On Flood Lead-Acid (FLA) vehicles</u>, connect the batteries.
 - a) Connect the positive (+) cable.
 - b) Connect the battery cables, negative (-) cable.
 - 5) <u>On Lithium LG Gen 1 and Gen 2 vehicles</u>, connect the batteries.
 - a) Install the fuse.
 - b) Connect the fuse holder to the red cover.
 - 6) <u>On Lithium Vanguard vehicles</u>, connect the batteries.
 - a) Connect the 20-pin battery connector and tighten the locking collar.
 - b) Make sure that the battery terminal covers are installed.
 - c) Remove the wheel chocks.
 - d) Functional check all vehicle indicators, gauges, displays, and controls.