EVOLUTION
LITHIUM BATTERY PACK

INSTALLATION GUIDE
(Compatible with Precedent carts)

VERSION: 20200924001
OPERATION SAFETY INFORMATION

Read all of manual to become thoroughly familiar with this lithium battery installation. For any questions on material contained in this manual, contact an authorized representative for clarification. Observe these NOTICES, CAUTIONS and WARNINGS; be aware that operates a vehicle or lithium battery requires mechanical and electrical skills. Improper operation may damage the batteries or render it unsafe.

NOTICES, CAUTIONS AND WARNINGS

**NOTICE**
Address practices not related to personal injury.

**CAUTION**
Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

**WARNING**
Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

Before attempting to operate a lithium battery pack, be sure to read and understand the following warnings:

**WARNING**
To prevent personal injury or death, observe the following:

Before working on the vehicle and battery, remove all jewelry (rings, watch, necklaces, etc.).

Before attempting to operate vehicle and battery, wear OSHA approved clothing and eye protection when working on anything that could expose the body or eyes to potential injury. In particular, use care when working with or around batteries, compressed air or solvents. Keep sparks and flames away from battery.

Always turn the key switch to ‘OFF’ and remove the key before disconnecting a live circuit.

When connecting battery cables, pay particular attention to the polarity of the battery terminals. Never confuse the positive and negative cables.

**WARNING**
Before working on the electrical system, be sure to read and understand the following warnings that pertain to the electrical system installation and operations.

Be sure that the key switch is off and all electrical accessories are turned off and the “Run/Tow” switch is selected to “Tow” before starting work on vehicle and batteries.

The batteries terminals should always be removed before any operation that will generate sparks.

Never disconnect a circuit under load at a battery terminal.

**SAFETY FIRST**
Batteries are heavy. Use proper lifting techniques when moving them. Do not attempt to lift a lithium battery pack with only one person, this may result in personal injury or damage to the battery pack. Two persons must work in a team to lift and drop the lithium battery packs. Always lift the battery with a commercially available battery lifting device.

Wrap wrenches with vinyl tape to prevent the possibility of a dropped wrench ‘shorting out’ a battery, which could result in an explosion and severe personal injury or death. Insulate metal container to prevent can from contacting battery terminals which could result in an explosion.
STEP 1
Engage the parking brake of targeted golf cart for safety.

Turn the key switch to “OFF” and remove the key. If the cart is equipped with a Run/Tow switch select “TOW”.

STEP 2
Use insulated wrench to disconnect the original lead-acid battery cables, unbolt and remove the battery Hold-Downs, then remove the lead-acid batteries.

**NOTICE** We recommend the battery bucket is thoroughly cleaned before installation of the Lithium battery pack.

**WARNING** Always use insulated tools when working on batteries.

STEP 3
Install lithium battery brackets supplied in the Precedent battery bucket as shown in the illustration Fig 3 (For 110Ah & 130Ah pack). Fit and tighten the two hex head nuts and “J” bolts to secure the lithium battery brackets to the base of the Precedent battery bucket. For 60Ah lithium pack, install extra two brackets of 60Ah as shown in the illustration Fig 4.

STEP 4
Lower the lithium battery pack into the battery bucket and align with lithium battery brackets which were installed on step 3.
STEP 5
Secure the Lithium battery pack to the Lithium battery brackets using the 4 hex head nuts and bolts supplied.

STEP 6
Remove Precedent instrument panel, Disconnect and remove the original lead acid battery meter. Install the Lithium Battery meter as shown in the illustration Fig.8.

LITHIUM BATTERY METER CABLE’S WIRING SCHEMATIC

LITHIUM BATTERY PACK ILLUSTRATION
STEP 7
Disconnect the connector ⑤ from Precedent key switch wire harness. And then plug the connector ① of lithium battery meter cable into connector ⑤. Plug the connector ② of lithium battery meter cable into the connector ⑥ of Precedent key switch. (Connector ①, ② referring to Fig.9)

STEP 8
Plug the lithium battery meter cable connector ③ into the socket of lithium battery meter, push in firmly and make sure the lock tap of lithium battery meter connector is latched. (Connector ③ referring to Fig.9)

STEP 9
Plug the lithium battery meter cable connector ④ into the RS485 port on the side wall of lithium battery pack, then screw the cap nut of the connector ④ for securing. (Connector ④ referring to Fig.9)

STEP 10
Connect the battery positive cable, battery negative cable, charger DC input positive cable and negative cable to the lithium battery pack terminals as illustrated:

⚠️ WARNING ⚠️ Always use insulated tools when working on batteries. When connecting battery cables, pay particular attention to the polarity of the battery terminals. Never confuse the positive and negative cables.

Fig.11
Fig.12
Fig.13
Fig.14
2.01.1825
110Ah/130Ah Lithium battery bracket for Precedent

2.01.1872
"J" Bolt

2.01.1873
60Ah Lithium battery bracket for Precedent

2.04.1062
DC cord with cable, 3 meters

2.04.1060
AC cord with cable, 3 meters

2.04.0901
Lithium battery charger

2.04.1034
Battery meter cable with key switch cables

2.04.1065
Battery charger handle

2.04.0859
Battery meter