

RELIANCE™

Part # 25-148-YAM Yamaha Li Battery Kit

(fits Yamaha Drive/G29 and Drive2
with four 12V Batteries)



WARNING

This battery is intended only for use in golf carts. Use for other applications may void battery warranty.
Only use provided battery charger.

When state of charge reaches zero, stop driving immediately and charge the battery as soon as possible.
Battery may shut down immediately due to faults including but not limited to:
under-voltage, over-current, short circuit across the terminals and over- or under-temperature.



High voltage. Risk of shock - do not touch uninsulated terminals or connectors. Always ensure battery is powered off before servicing vehicle



Do not attempt to disassemble, modify, or service battery internals. Improper reassembly can result in fire or electrical shock. Disassembling battery will void all remaining warranty.



Do not expose battery to temperatures higher than 140°F (60°C).
Do not store or operate at temperatures below -4°F (-20°C).



Keep open flames and sparks away from battery. Do not smoke near battery.



Never allow metallic or otherwise conductive objects to short across the battery terminals.



Keep out of reach of children. Never allow children to operate battery or vehicle.

DANGER - RISK OF ELECTRIC SHOCK

- Always disconnect the charger handle from the vehicle and unplug the AC power before servicing the vehicle. By only turning off the charger, there is still risk of electric shock.
- Never touch the uninsulated portion of the AC or DC connectors or uninsulated battery terminals
- Ensure all electrical connectors are in good working condition. Use of damaged, cracked, or corroded connectors can result in electric shock and/or overheating.
- Do not attempt to disassemble, modify, or service charger. Contact technical support if the charge is not working properly. Attempting to disassemble the charger will void all remaining warranty.
- Always connect to a properly grounded, 3-wire outlet. Never modify the AC cord. If needed have a proper 3-wire outlet installed by a qualified electrician.
- Extension cords are not recommended. However, if an extension cord is needed, it must be a 3-wire, grounded cord of at least 14AWG and no more than 25ft long. Improper extension cords may result in electrical shock or fire.



WARNING



- To reduce risk of accidents and injury or death -

Be Prepared

- Wear seatbelt, motorcycle helmet, eye protection, and protective gear.

• Keep your body completely inside the vehicle at all times. Keep both hands on the steering wheel. Be sure passenger is seated, belted, and holding onto the handholds.

Be Qualified and Responsible

- This vehicle is intended for use only by an operator 16 years or older with a valid motor vehicle license.

• Passenger and driver must be able to place both feet flat on the floorboard while seated upright with their backs against the seat backs.



Avoid Rollovers and Crushing Injuries

- Use care when turning:
 - Turning the steering wheel too far or too fast can result in a rollover or loss of control.
 - Slow down before entering a turn.
 - When making tight turns from a stop, or at slow speeds, avoid sudden or hard acceleration.
 - Avoid sideways sliding, skidding, or fishtailing, and never do donuts.

• Drive straight up and down inclines, not across them, if crossing a hill is unavoidable, drive slowly and turn downhill immediately if you feel the vehicle may tip.

Abrupt maneuvers or aggressive driving have caused rollovers - even on flat, open areas.

**MUST BE
16 or Older**



ITEMS INCLUDED

07-012 Lithium Charger Kit

- Lithium Charger
- Charge Receptacle
- AC Power Cord
- Charger Mounting Bracket
- Charger Mounting Hardware Kit

25-130 Yamaha Lithium Mounting Kit

- Yamaha Mounting Bracket
- Charge Port Adapter Plate
- 725mm Battery Cable
- Yamaha Mounting Hardware Kit

25-126 Reliance Lithium Battery Kit

- 48V - 105Ah Lithium Battery
- Lithium Power Harness
- Low Voltage Buzzer with Harness
- Lithium Dash Harness with Power Switch and SOC Meter
- Mounting Clips
- Mounting J-bolts with Hardware

TOOLS NEEDED

- 10mm Wrench
- 13mm Insulated Wrench
- 1/2" insulated Wrench
- 9/16" Insulated Wrench
- 10mm Socket
- 13mm Socket
- 1/4" Socket
- 3/8" Drill Bit
- 7/8" Drill Bit
- 3mm Allen Wrench
- Adjustable Wrench
- Flat Screwdriver
- Permanent Marker
- Rotary Cutter
- Ratchet
- Drill
- Ruler



STEP 1



9/16" Insulated Wrench

Set the parking brake and turn the key switch to the "OFF" position.

Remove the front seat bottom. Switch the car into "TOW"

Disconnect the battery cables and all electrical connections to the batteries.

Remove the battery hold downs and the batteries.

Clean out any debris from the empty battery tray as needed.

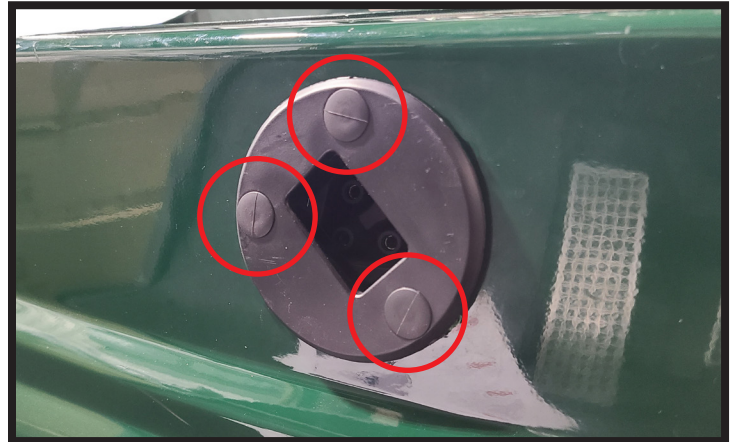


STEP 2



Flat Screwdriver

Remove the rivets holding the charge port cover to the rear body.



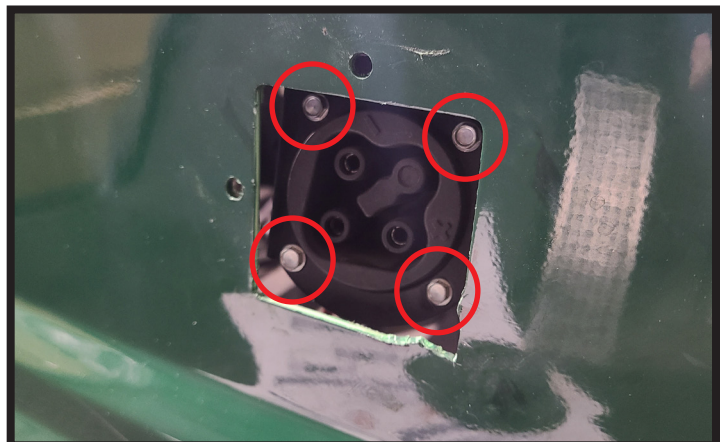
STEP 3



1/4" Socket

Remove the four screws securing the charge port to the vehicle.

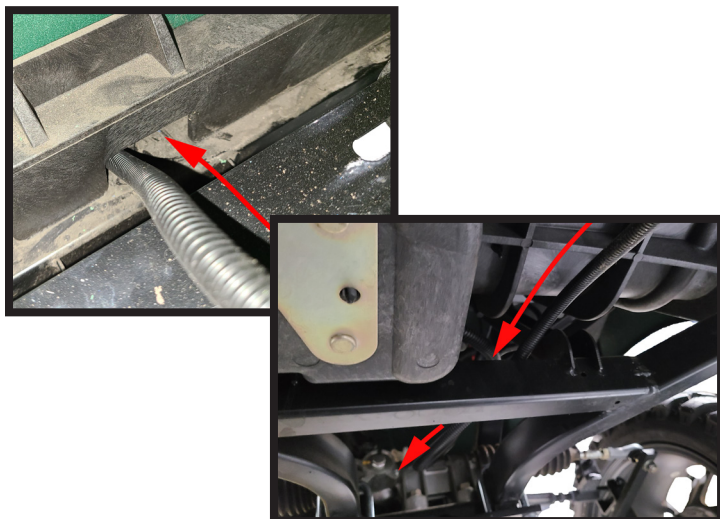
Remove the charge port from the vehicle.



STEP 4

Run the dash harness out of the front of the battery compartment as shown.

The harness will be run up toward the back of the instrument panel and cup holder. Run the harness above the vehicle frame where possible.



STEP 5



3mm Allen Wrench

Remove the single screw securing the cup holder to the instrument panel.

Pull up and rearward on the cup holder to remove it.



STEP 6



7/8" Drill Bit

Find a suitable location for the power switch in the instrument panel. Be sure there is enough room behind the location to fit the switch and harness.

Drill a 7/8" hole in the selected location.



STEP 7



Adjustable Wrench

Ensure the power switch is straight.

Install the power switch to the instrument panel using the supplied nut.



STEP 8



Ruler
Marker

Locate an appropriate position for the lithium charge meter on the cup holder or the dash. Be sure there is enough room behind the selected location for the switch and harness.

Mark a rectangle in the selected location that measures 22mm x 46mm (0.86" x 1.81"). The rectangle can be oriented horizontally or vertically as space allows.



STEP 9



Rotary Cutter
Razor Blade

Use a rotary cutting tool or razor blade to carefully cut out the hole for the state of charge meter.

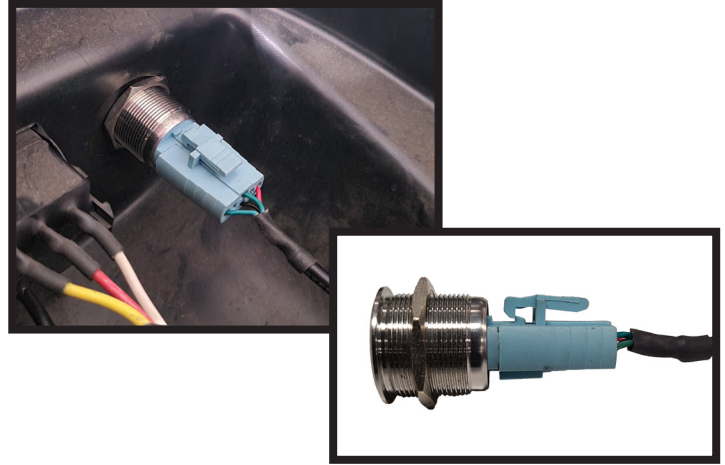
The meter can then be pressed into the hole from the front.



STEP 7

Plug the dash harness into the back of the power button.

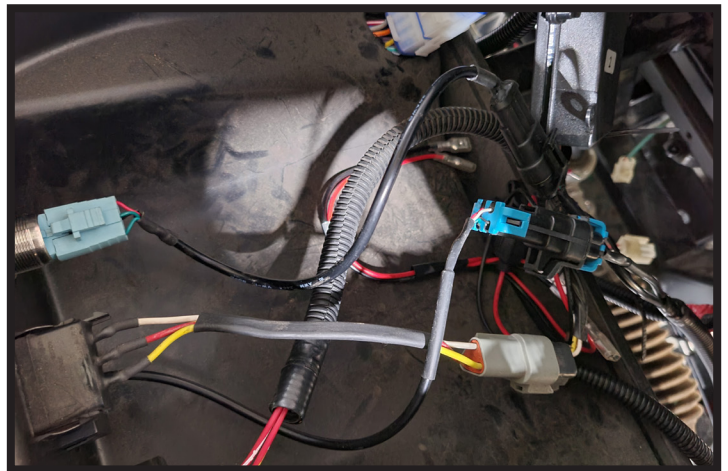
NOTE: The clip on the harness plug should engage with the small tab on the side of the button as shown.



STEP 8

Plug the charge meter and power switch into the dash harness as shown.

Organize the harnesses behind the cup holder. Then reassemble cup holder and dash panels to the vehicle using the hardware retained in Steps 11 and 12.



STEP 9



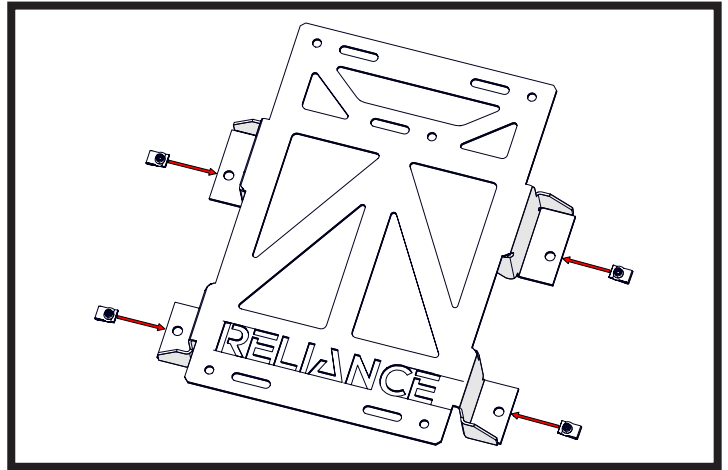
3mm Allen

Replace the cup holder on the instrument panel and secure it using the screw removed in Step 5



STEP 10

Install four (4) threaded clips to the feet of the mounting tray. The threaded portion of the clips will be on the top.

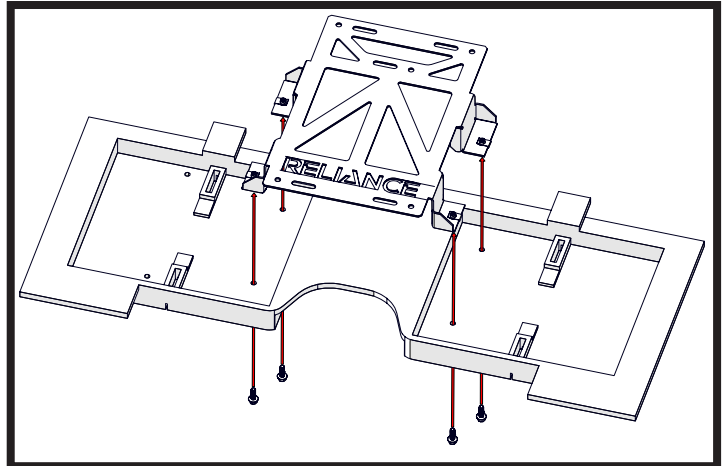


STEP 11



13mm Socket

Place the mounting bracket back in place and secure to the battery tray using four (4) M8x20mm bolts from the bottom.



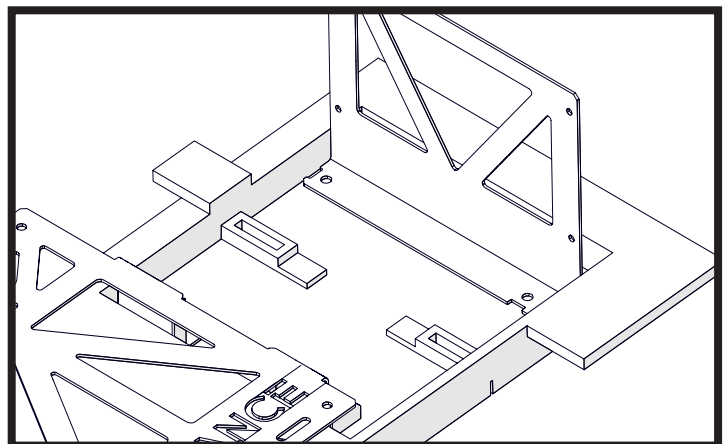
STEP 12



Marker
3/8" Drill Bit

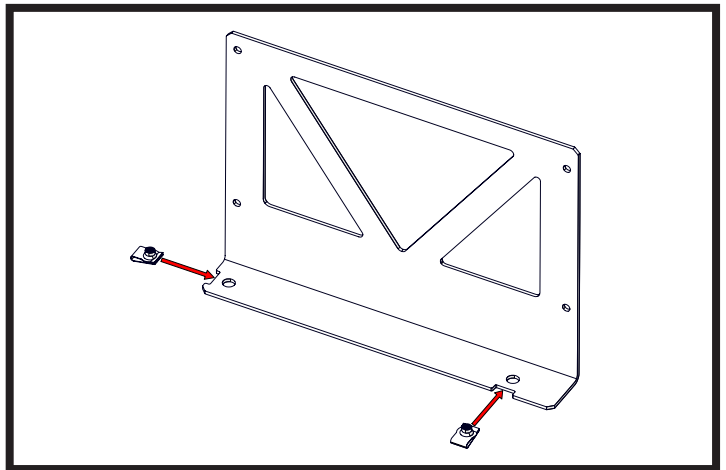
Find a suitable location for the charger mounting bracket on the passenger's side of the battery tray. Ensure there is enough room to easily access the plugs and cables on the end of the charger.

Using the bracket as a template, mark and drill the mounting holes into the battery tray using a 3/8" drill bit.



STEP 13

Install two (2) threaded clips to the base of the mounting tray. The threaded portion of the clips will be on the top.

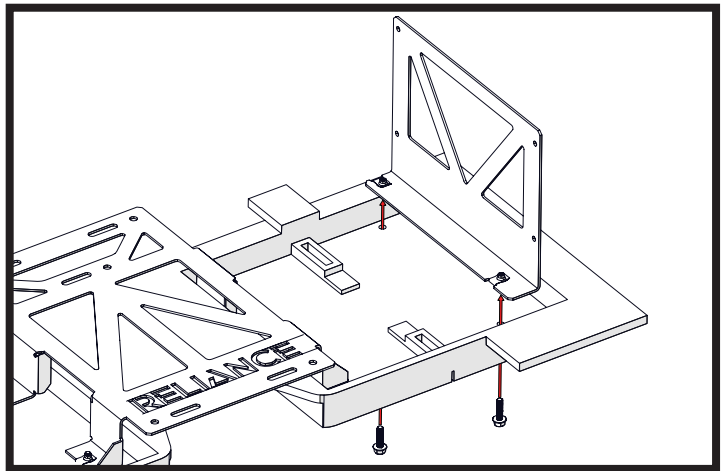


STEP 14



13mm Socket

Set the charger mounting bracket back in place and secure to the battery tray using two (2) M8x20mm bolts from the bottom.

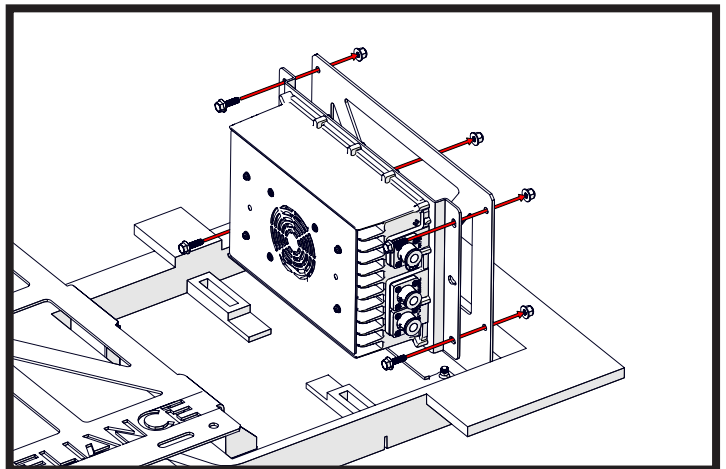


STEP 15



10mm Socket
10mm Wrench

Install the charger to its mounting bracket using four (4) M6x XYZ Bolts and four (4) M6 nuts.



STEP 16



Flathead Screwdriver

Remove the two rivets securing the rear cover from the bagwell

Remove the cover from the vehicle by pulling straight rearward.



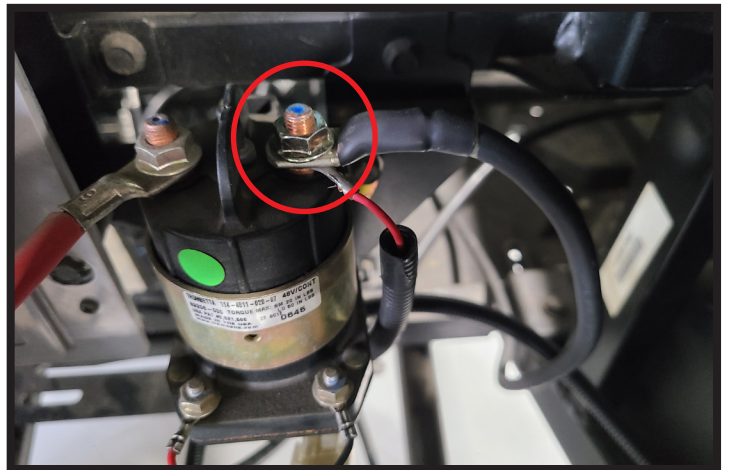
STEP 16



Insulated 1/2" Wrench

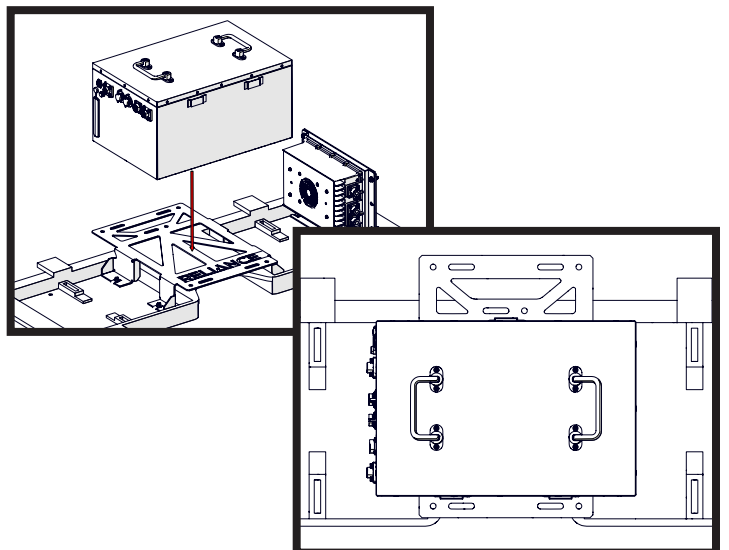
Replace the positive battery cable from the solenoid with the longer cable included in the kit.

Replace the rear cover and the two rivets which secure it.



STEP 17

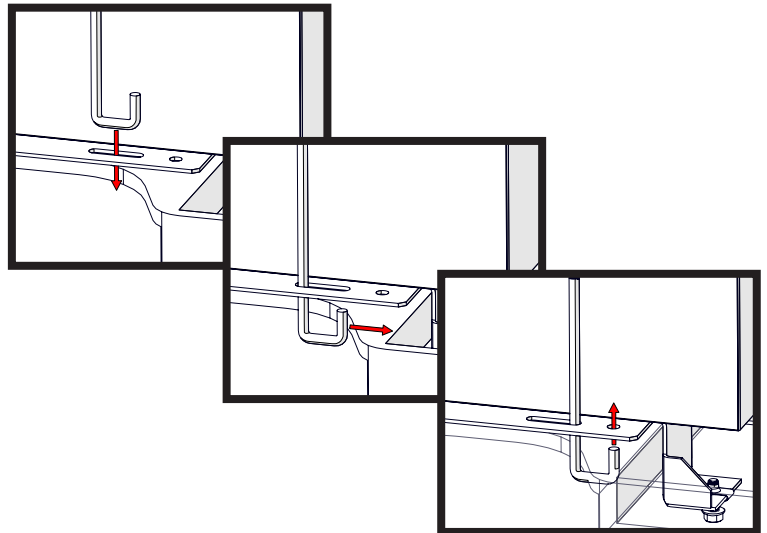
Set the battery on top of the brackets, with the electrical connections facing the passenger's side of the vehicle and centered between the J-bolt holes in the brackets.



STEP 18

Install a J-hook into the base bracket as shown. Be sure that the J-hook mounting hole is below the corresponding retaining bracket on the battery case.

NOTE: Pivoting the J-bolt can make it easier to locate the short end into its hole in the mounting bracket.



STEP 19

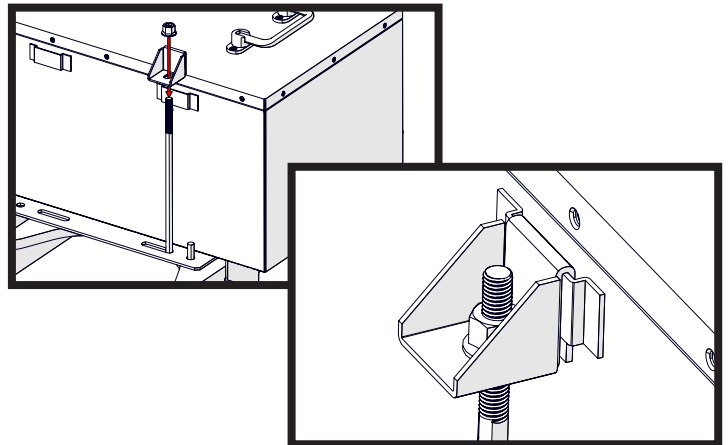


13mm Socket

Holding the J-hook in place, install the retaining bracket and M8 Nylock nut onto the J-hook.

When complete, the retaining bracket will be hooked over the corresponding slot on the battery case as shown.

Repeat for the remaining two retaining points.



STEP 20

Plug the new charge port cable to the plug coming from the charger.

Plug the cord from the charger into the outlet labeled "CHARGE" on the battery case.



STEP 21

Plug the dash harness into the outlet labeled "KEY/ CAN" on the battery case.



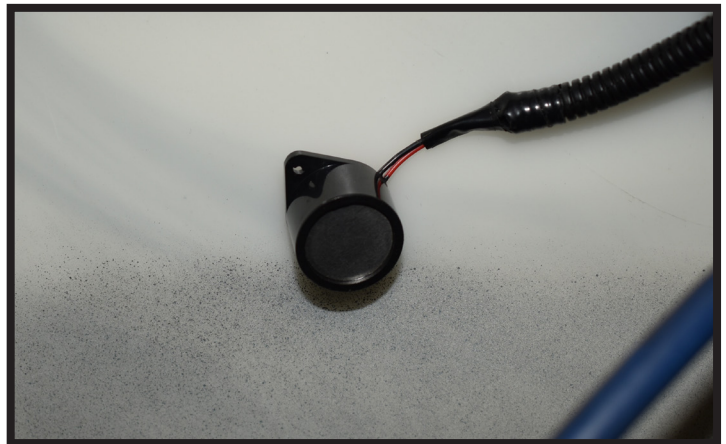
STEP 22

Plug the Low Battery Buzzer harness into the outlet labeled "BUZZER GAUGE" on the battery case.



STEP 23

Locate a suitable panel on which to place the buzzer. Clean the area with rubbing alcohol, remove the adhesive backing, and press the buzzer in place.



STEP 24



13mm Insulated Wrench

Locate the ground cable which was removed from the main negative terminal of the original battery pack. Install this cable to the black (-) terminal on the battery case.

Locate the positive cable which was removed from the main positive terminal of the original battery pack. Install this cable to the red (+) terminal on the battery case.



STEP 22

Coil any excess harness or cable together and secure with a zip tie inside the battery tray area.



STEP 23

Switch the vehicle back to RUN mode.



INSTALLATION COMPLETE

WARRANTY PARTS

| QTY | PN | DESCRIPTION |
|-----|----------|--|
| 1 | 25-143 | Yamaha 6X8V Lithium Battery Mounting Kit w/ Charge Port Adapter Hardware |
| 1 | 07-012 | Reliance Lithium Charger w/ Charge Port and AC Cord |
| 1 | 25-147 | Reliance Lithium Charger Mounting Bracket w/ Hardware |
| 1 | 25-125 | Reliance Lithium Battery Li48-105 |
| 3 | 25-137 | Lithium Battery Retaining Bracket |
| 3 | 25-138 | Lithium Battery Retention J-Hook |
| 1 | 25-133-1 | Lithium Battery Low Voltage Buzzer |
| 1 | 25-144 | Reliance Lithium Switch/SOC Harness Assembly |
| 1 | 25-133-2 | Reliance Switch/SOC Harness |
| 1 | 25-133-4 | Reliance Lithium Power Switch |
| 1 | 25-133-5 | Reliance Lithium Charge Meter |

CHARGE PORT HARDWARE

| QTY | HARDWARE |
|-----|-------------------------------|
| 4 | M5-0.8x12mm Countersunk Screw |
| 4 | M5-0.8x15mm Buttonhead Screw |
| 8 | M5 Flat Washer |
| 8 | M5 Lock Washer |
| 4 | M5-0.8 Acorn Nut |
| 4 | M5-0.8 Hex Nut |

CHARGER MOUNTING HARDWARE

| QTY | HARDWARE |
|-----|------------------------------|
| 2 | M8-1.25x20mm Hex Flange Bolt |
| 2 | M8-1.25 Clip Nut |
| 4 | M6-1.0x20 Hex Flange Bolt |
| 4 | M6-1.0 Nylock Nut |
| 4 | M6 Flat Washer |

BATTERY RETENTION HARDWARE

| QTY | HARDWARE |
|-----|--------------------|
| 3 | M8-1.25 Flange Nut |

BATTERY BRACKET HARDWARE

| QTY | HARDWARE |
|-----|------------------------------|
| 4 | M8-1.25x20mm Hex Flange Bolt |
| 4 | M8-1.25 Clip Nut |