PLATINUM II®

OWNER'S MANUAL

Section 3

Electrical Systems

Special Electrical Statement

Coach House Platinum II Motorhomes are wired with a MASTER DISCONNECT SWITCH. The location and operation of this switch is shown below.

Coach House, Inc. recommends that the Master Disconnect Switch be turned to the "ON" position any time your motorhome is in use.
Vital systems, including LPG and Carbon Monoxide detectors will not function unless the Master Disconnect Switch is turned "ON".

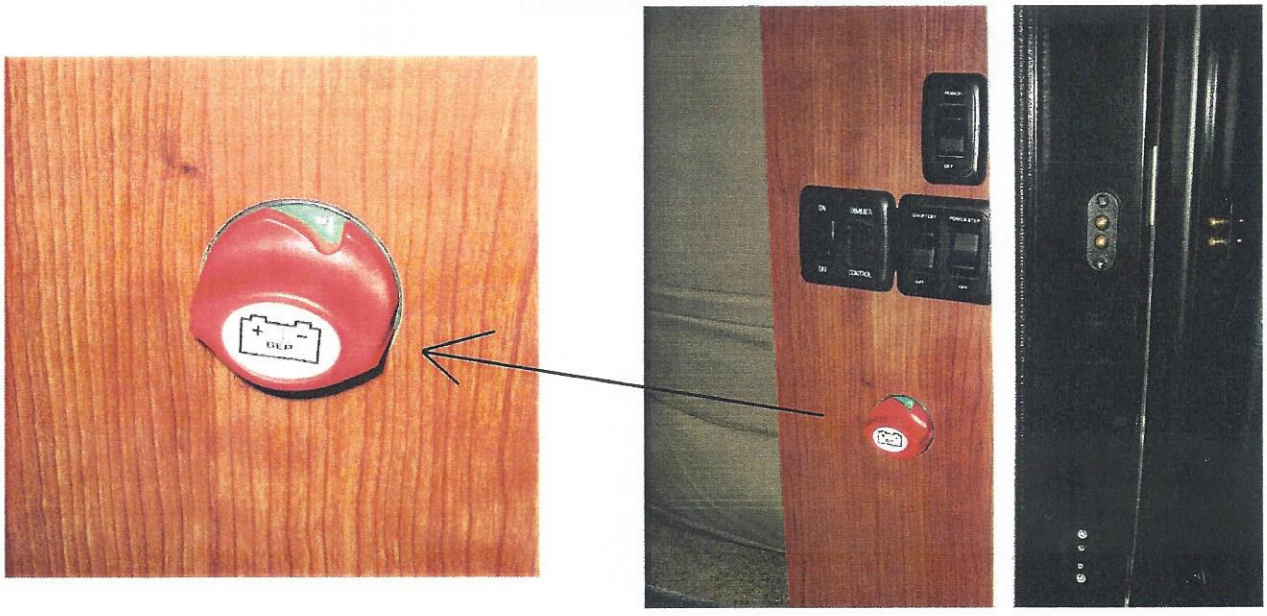
Master Disconnect Switch

The battery switch is located on the entrance wall just under the sink. Auxiliary batteries are being used when the switch is in the on position. Always turn the battery switch to the off position when the motor home is not being used to prevent the auxiliary batteries from being drained.

NOTE: Auxiliary batteries will NOT charge from engine alternator or converter with battery switch in the "OFF" position.

NOTE: If coach is plugged in during non-use or storage, leave battery switch "ON" to maintain auxiliary battery charge.

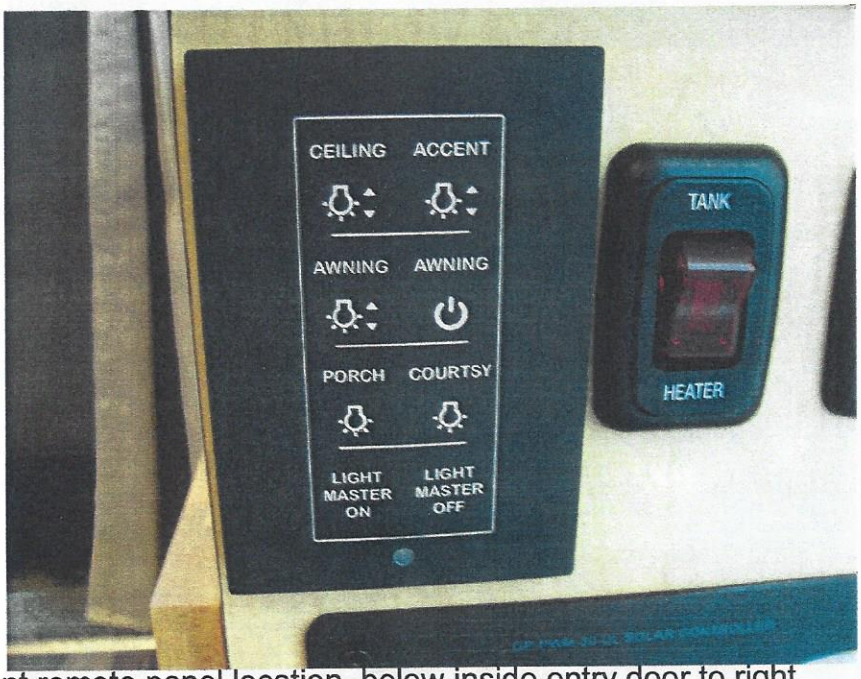
NOTE: Check auxiliary battery water level weekly, if applicable.



Firefly Control System

Your Coach House **PLATINUM** is equipped with the "Firefly" control system.
This system uses a touchscreen home base to operate many of the electrical components in your motorhome.

The touchscreen pad is located above the sofa behind the driver's seat in the upper cabinet panel.



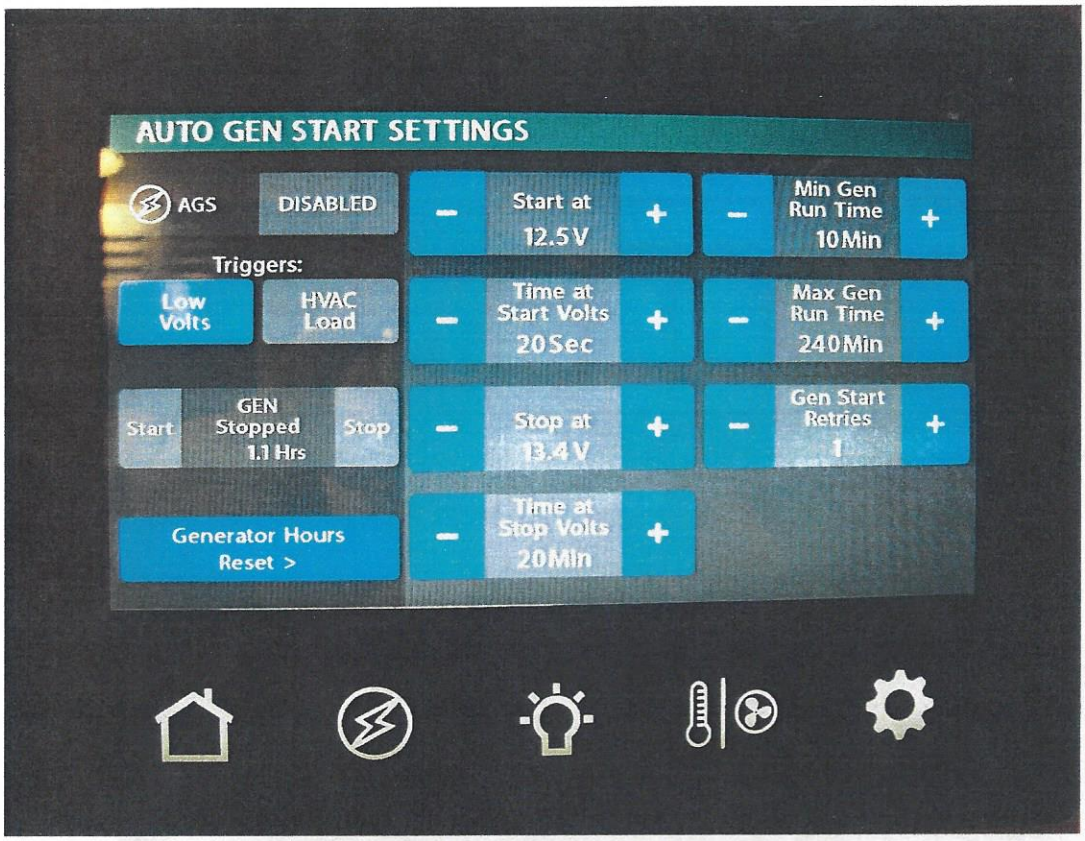
Front remote panel location below inside entry door to right.

For detailed instructions, see manual in Information Kit at rear of this book.

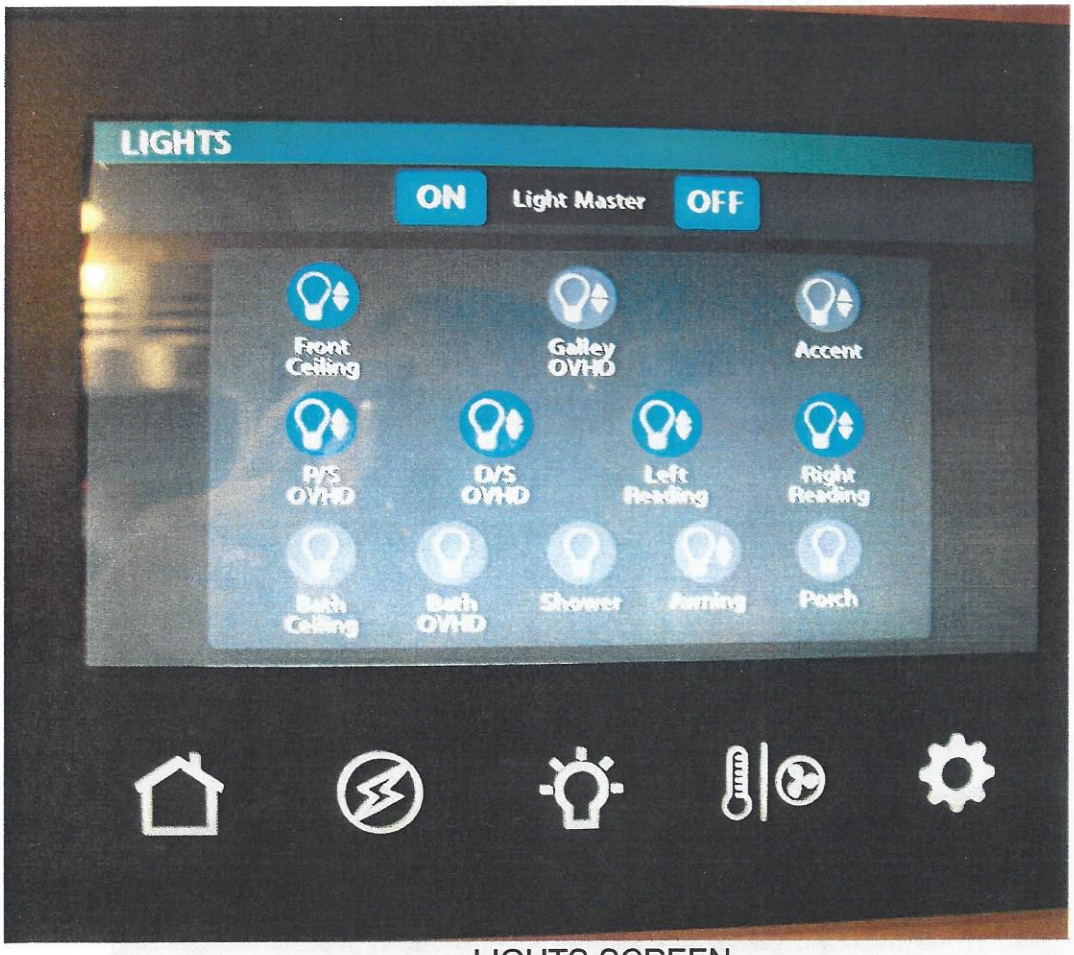
Mid-coach remote pane - varies by model.

Bathroom remote panel - varies by model.

HOME SCREEN



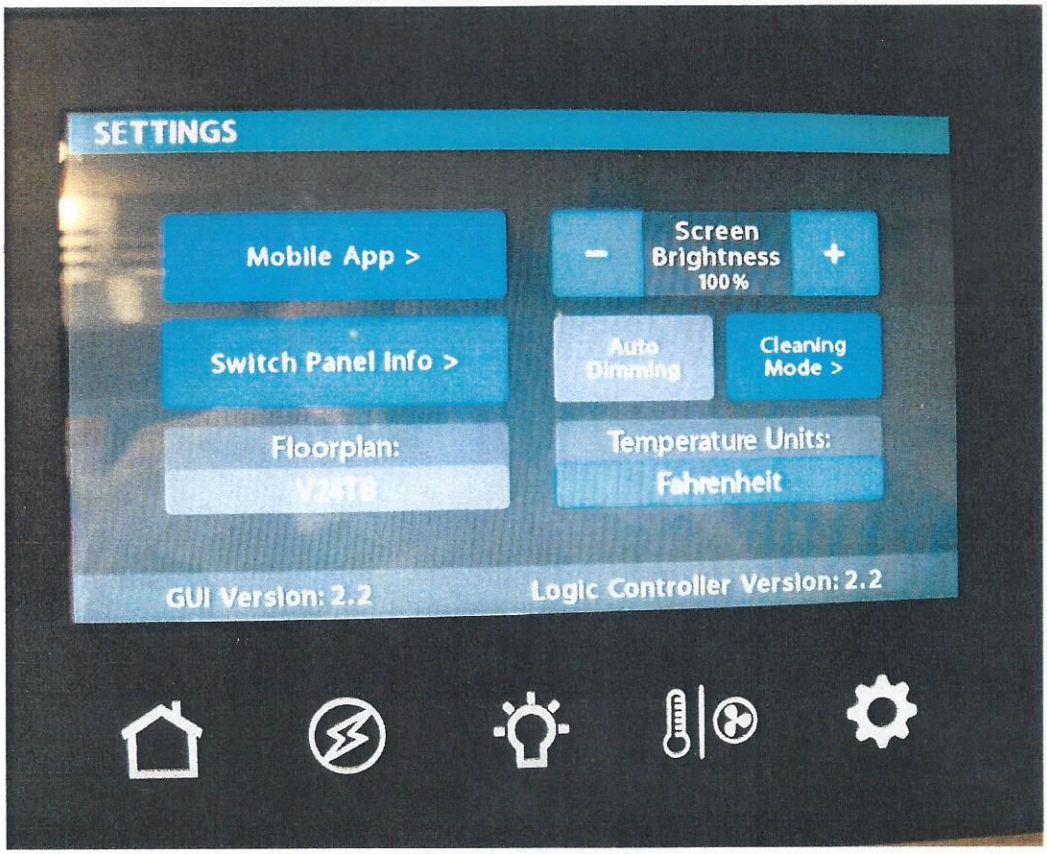
AUTO GEN START SETTINGS SCREEN



LIGHTS SCREEN

NOTE: Exact screen view will vary by model.

CLIMATE CONTROL SCREEN



SETTINGS SCREEN

Power Converter

Your Coach House **PLATINUM II** is equipped with a power converter that supplies the motorhome with 110 volts AC (Alternating Current) and 12 volts DC (Direct Current). The source of power can be from the:

1) Auxiliary "House" 12 volt batteries
2) 110 volt external power cord (Shore Power)
3) Generator

Power Converter Location:

MODEL #	Location
240 (Rear Bath/Twin Bed)	Passenger Side Under Twin Bed
240 (Mid Bath/Twin Bed)	Driver's Side Under Twin Bed
241XL (Full Sofa Queen)	Inside Wardrobe
241 XL (Rear Bath/Twin Bed)	Passenger Side Under Twin Bed
241 XL (Queen Bed)	Foot of the Bed Pedestal
241 XL (Mid Bath/Twin Bed)	Driver's Side Under Twin Bed

For detailed instructions, see manuals in packet at rear of this book.

⚠ CAUTION

Whenever working on the electrical system, the system or circuit being worked on should be deactivated by disconnecting the power and/or throwing the main circuit breaker and safe procedures should be followed to prevent electrical shock. Any modifications made to the system should only be done by a professional to assure compliance with the codes and to assure safe installation practices.

Circuit Breaker & Fuses

The converter door can be opened with a "push" touch and the circuit breakers and fuses can be located. The 110 volt AC breakers are located on the right with the first breaker on the left being the MAIN POWER, and the remaining breakers for the circuits as labeled on the door. The 12 volt DC fuses are the automotive push in type links and are located on the left side. The top two fuses are for system use, by the converter. The 12 volt DC circuits are labeled on the door.

Main Fuse Panel

Mercedes Benz (Platinum II) Firefly System

Mercedes-Benz

110 Volt System Breakers

30 Amp	20 Amp	15 Amp	20 Amp	15 Amp	20 Amp	15 Amp	15 Amp
Main Power	Microwave	A.C. Power Sensor	1200 Watt Inverter	Converter Box (12 Volt)	Air Conditioner	Refrigerator	Blank

12 Volt System Fuses

30 System Use	30 System Use
30	Refrigerator
30	Sofa
	Blank
10	Lights and Fans
10	Water Heater
10	Furnace
10	T.V.
20	Accessories and Tank Heaters
	Blank
3	L.P. Common
10	Vent Fans
10	Drop Tap - Firefly

Auxiliary Fuse Panel
(Above Driver's Seat)

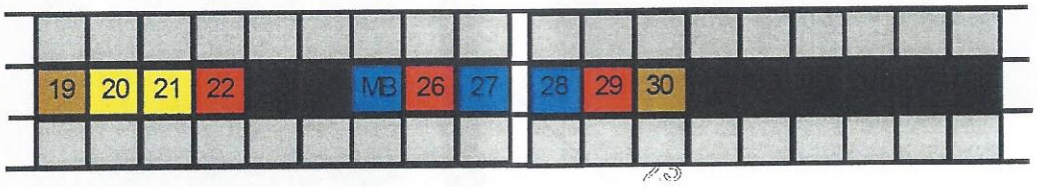
Fuses Behind Panel (Platinum II)

Circuit	Amps	Device
1	Blank	Blank
2	5	TV Wall Plate
3	Blank	Blank
4	7.5	Satellite (Optional)
5	Blank	Blank
6	10	CO & LP Detectors

Auxiliary Fuse Panel
(Under Driver's Seat Base)

Fuses in Drivers Seat Base (Platinum II)

Circuit #

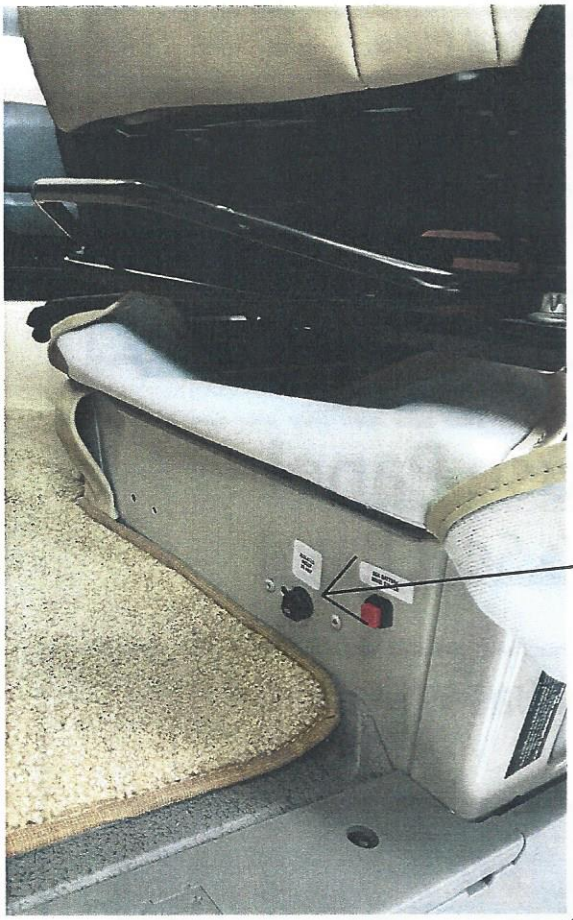


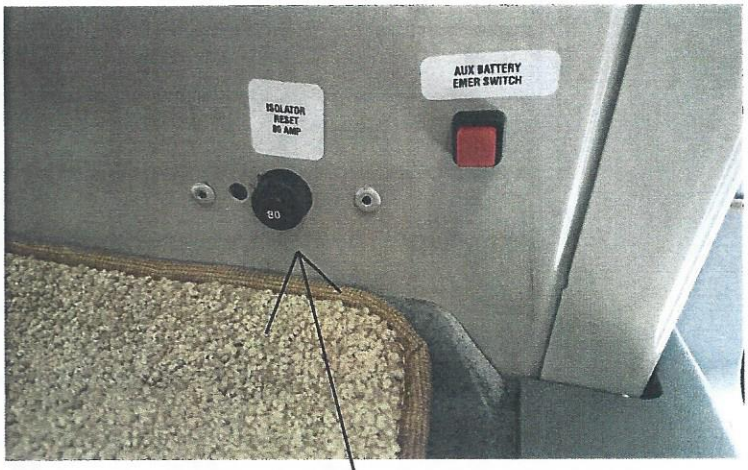
Circuit	Amps	Device
19	5	Step Ignition
20	20	Ignition Power
21	20	12 Volt Power
22	10	Step Power
26	10	Emergency Start Solenoid
27	15	Hydraulic Pump
28	15	Stabilizers
29	10	Step Switch
30	5	Firefly Clock

80 Amp Breaker

Your Coach House *Platinum II* has an electrical system circuit breaker to prevent damage to the 12 volt electrical system. The 80 Amp breaker will 'trip' if an overload situation occurs. Push in the red button to reset the breaker.

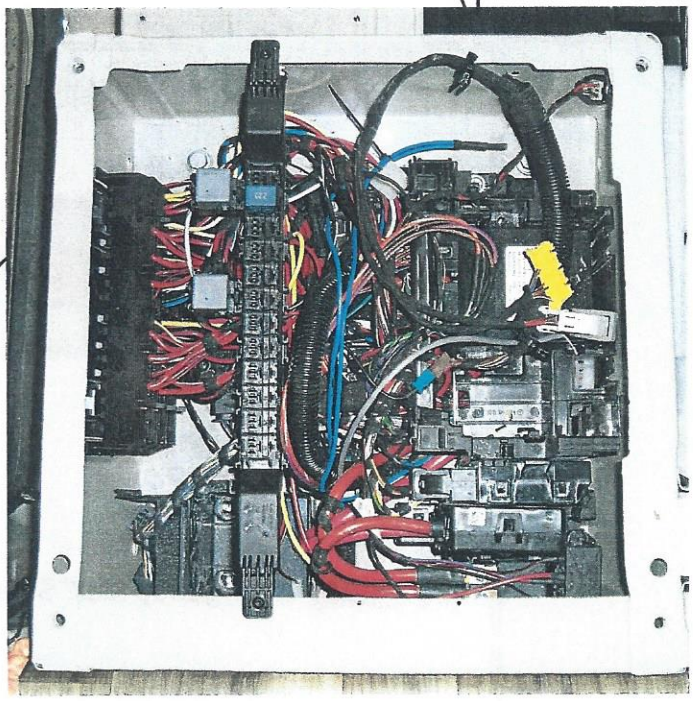
80 Amp Breaker Location Under the Driver's Seat





80 Amp Breaker Location

Auxiliary Start Over-Ride Button

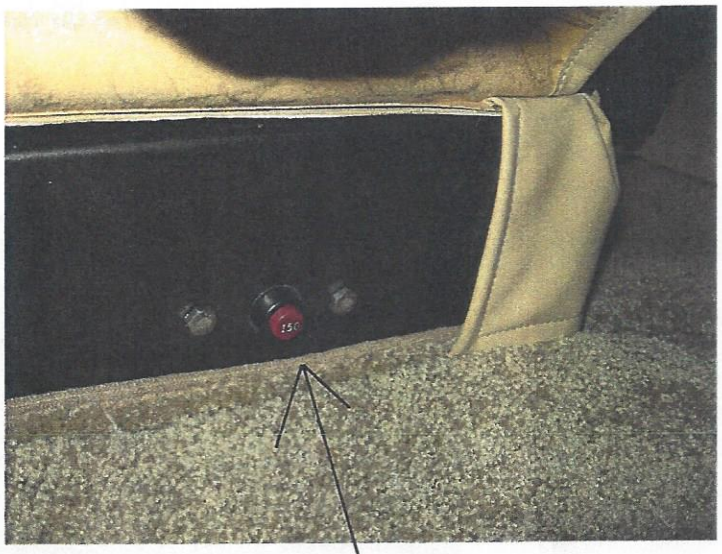


View under driver's seat

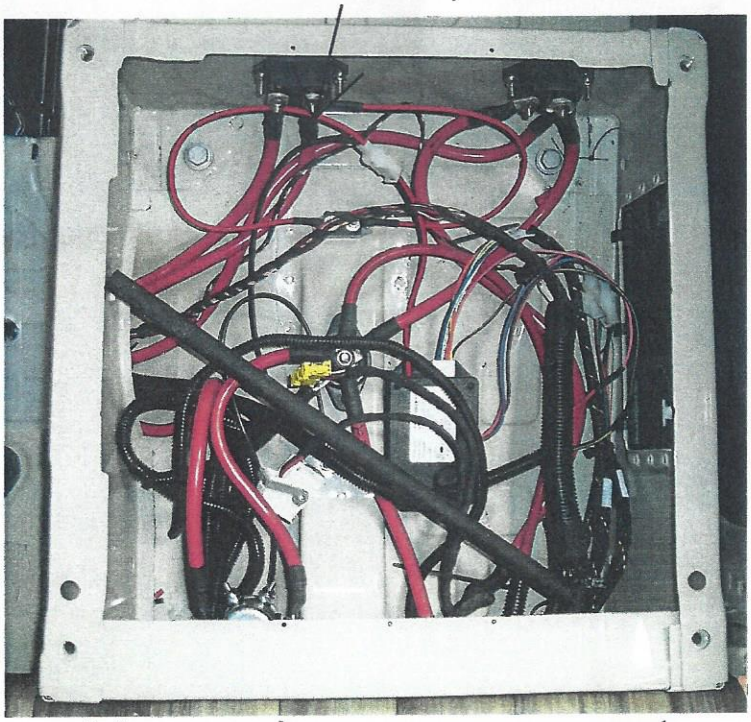
150 Amp Breaker

Your Coach House *Platinum II* has an electrical system circuit breaker to prevent damage to the engine when using the Emergency Start Switch. The 150 Amp breaker will 'trip' if an overload situation occurs. Push in the red button to reset the breaker.

150 Amp Breaker Location Under the Passenger's Seat



150 Amp Breaker Location



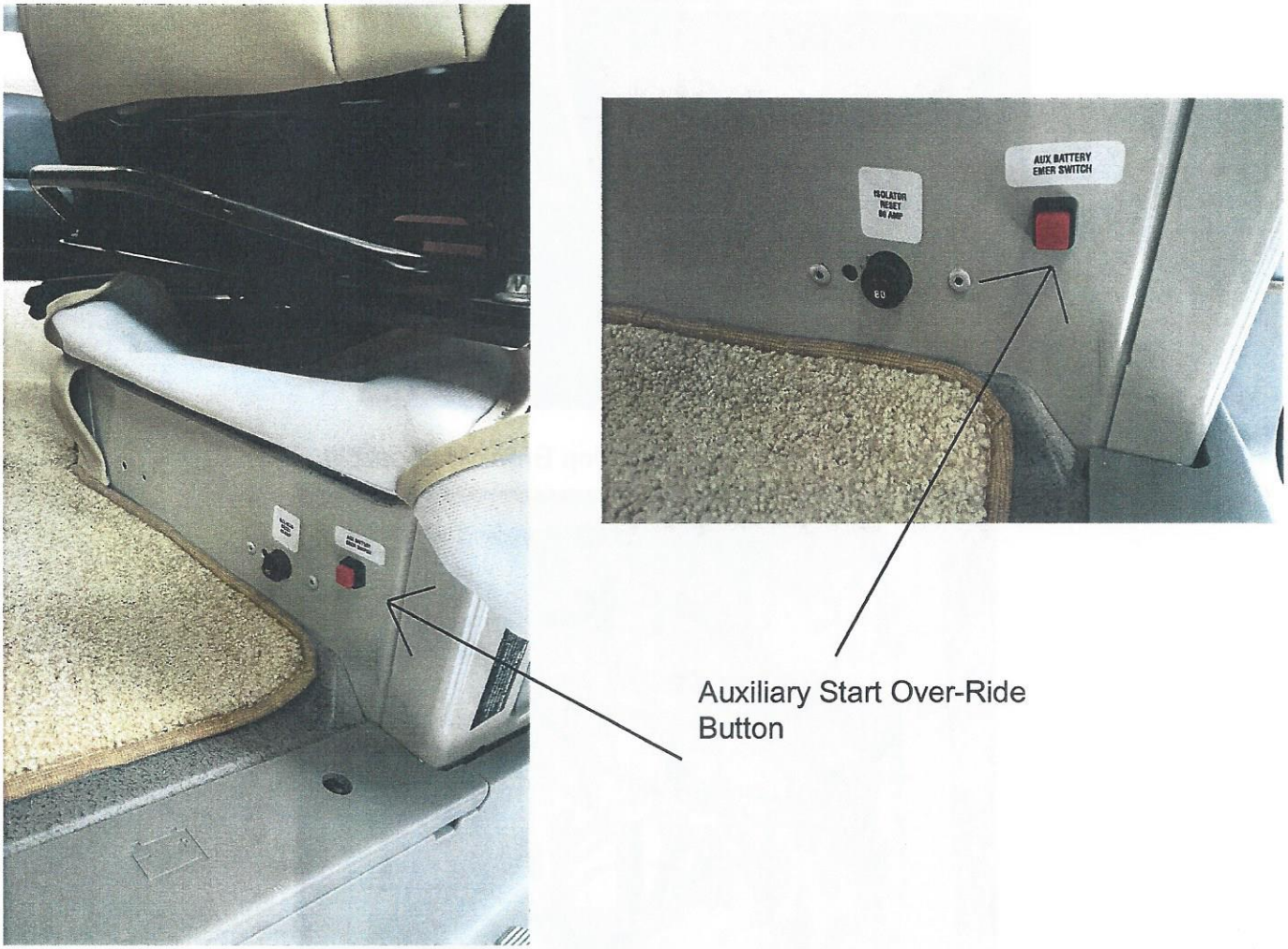
View under passenger seat

Auxiliary Start Over-Ride

In the event that your engine battery does not have the power to start your motorhome, your *Platinum II* is equipped with an Auxiliary Start Over-Ride Switch which will "tie" the house batteries to the engine battery to give an extra "boost" of power to start your motorhome engine.

Push the red switch and HOLD IT DOWN while starting your vehicle with the key.

The Over-Ride Switch is located under the Driver's Seat next to the 80-Amp Breaker.



Power Inverter

The Xantrex 1200 Watt Freedom X Pure Sine Wave Inverter has been installed in your Coach House **PLATINUM** motorhome as standard equipment. The status panel for the inverter is located next to the 12 volt converter box (usually under the bed platform).

The inverter will supply 110 volt power to the electronic components (Television, DVD player, optional satellite receivers and the electrical outlets when you are not hooked up to shore power or running the generator. These devices will drain your "house" batteries if in use for an extended period of time.

xantrex

Smart Choice for Power

Generator

Mercedes Benz Chassis models are equipped with a:

3.6 kW ONAN LPG (Propane) Microquiet Generator.

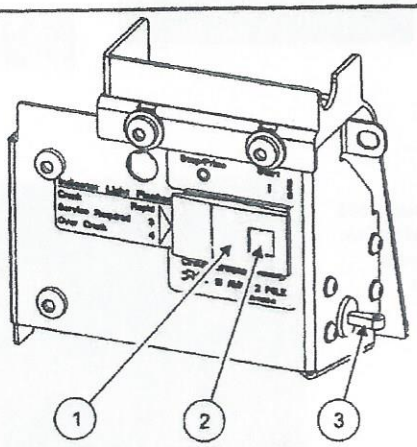
The instruction DVD supplied with the generator should be carefully reviewed. Care should be taken not to exceed the capacity of the generator to prevent any possible damage to the generator unit.

NOTE: The generator is generally operated from inside the motorhome using the Firefly Control System. Refer to the Firefly Control Panel instructions for detailed information.

If necessary, the generator can also be operated at the generator itself. Refer to the diagram on page 18.

NOTE: There is a 30 amp breaker located on the side of the generator cover to protect the generator from an overload. If there is a power outage, be sure to check this breaker, resolve any problems and reset.

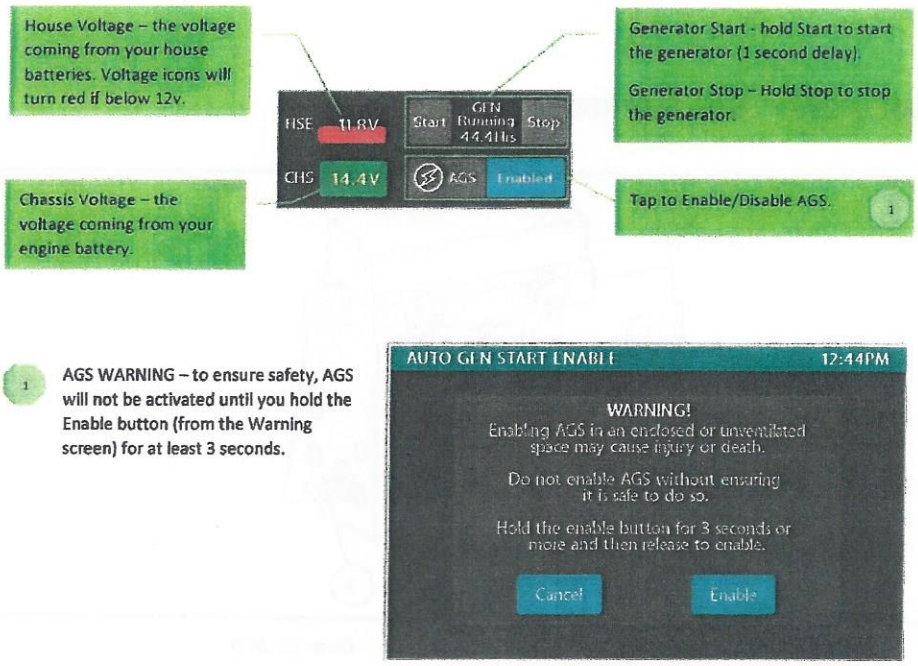
4.2.1 Generator Set Control Panel

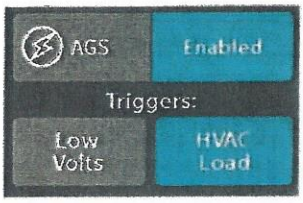


No.	Name	Description
1	Control Switch	Used to start and stop the generator set, and to prime the engine fuel system. Hold the swtich in its START position to crank and start the generator set. Press the switch to the STOP position to stop the generator set. Hold the switch in its STOP/PRIME position to prime the fuel system (gasoline models only).
2	Status Indicator	LED in the control switch that blinks rapidly during cranking. Stays on continuously after generator set is running. If the generator set shuts down abnormally, the indicator blinks a numerical code to indicate the cause of the shutdown (see Chapter 6 on page 49).
3	Line Circuit Breaker	Protects the AC power leads connected to the generator set from overloads and equipment short circuits.

GENERATOR SET CONTROL PANEL

Automatic Generator Start

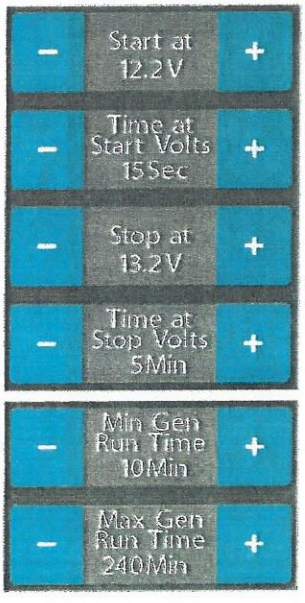




Tap to Enable/Disable AGS (as described on page 5).

Trigger Options – Automatically start the generator using specified voltage settings (Low Volts) or when A/C or Heat Pump start (HVAC). Select one or both triggers. If no triggers are selected, AGS will not run. Disable HVAC Load while connected to shore power to keep the generator from starting.

Generator – Press and hold Start to start the generator. Press Stop to stop the generator. The system will display how many hours the generator has been used. These hours are saved to the system, not the generator itself.



Start at Volts - The generator will start when the voltage drops to this set point depending on "Time a Volts" setting below. (Range 10.5v – 12.5v)

Time at Volts - The generator will start when the voltage drops to the Start at Voltage for this specific amount of time. (Range 5 seconds – 1 minute)

Stop at Volts - The generator will shut off when the voltage reaches this set point depending on "Time at Stop Volts" setting below. (Range 13.2v – 14.5v)

Time at Stop Volts - The amount of time required for the voltage to remain at "Stop at Volts" level before the generator shuts off. (Range 5min – 120min)

Minimum Gen Run Time - Use the + and – keys to set the minimum amount of time that your generator will run once it has started. (Range 10min – 30min)

Maximum Gen Run Time - Use the + and – keys to set the maximum amount of time that your generator will run once it has started. (Range 120min – 240min)

Lithium Ion Batteries

Your motorhome has been equipped with RELION Lithium Ion Batteries.

RELi3ON
Lithium For Life

Please note the QUICK Guide Diagram for the charging of these batteries.

LI-BIM 225 Quick Guide: The LI-BIM 225 senses voltages of the Chassis (Engine) and Coach (Auxiliary) batteries. There are three senarios to when the connection will be made, each with their own response:

Senario 1: Engine is "on" with a Chassis battery voltage greater than 13.4V and a Coach battery voltage less than 13.3V

Response: The LI-BIM 225 will connect the batteries for 15 minutes, then disconnect the batteries for a wait time of 20 minutes. After this wait time, a new voltage reading will be taken of each battery. If the voltages remain within the scenario's parameters, the response repeats.

Senario 2: The Chassis battery voltage is below 12.5V and a Coach battery voltage greater than 13.5V

Response: The LI-BIM 225 will connect the batteries for 1 hour, then disconnect the batteries for a wait time of 2 minutes. After this wait time, a new voltage reading will be taken of each battery. If the voltages remain within the scenario's parameters, the response repeats.

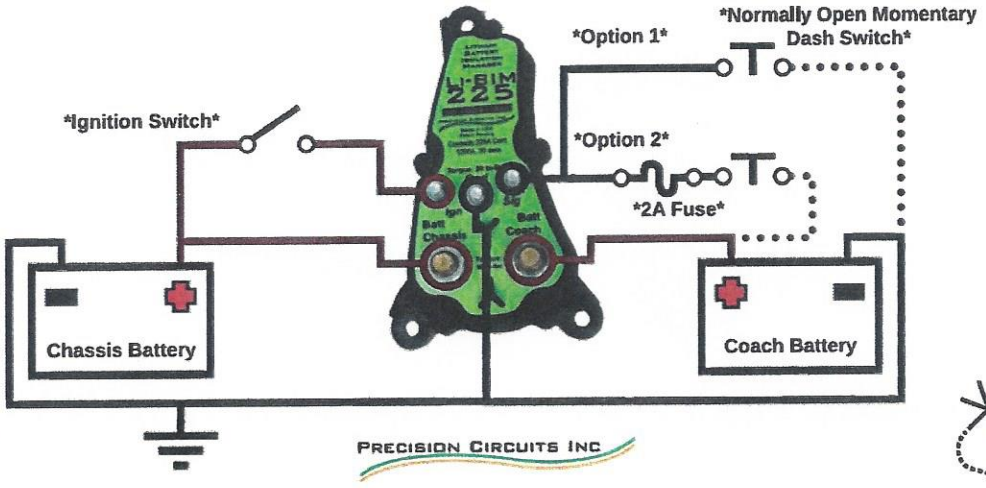
Senario 3: The *Normally Open Momentary Switch* is pressed

Response: The LI-BIM 225 will connect the batteries for as long as the switch is pressed.

A basic connection diagram is shown below. The ignition terminal should be connected to the ignition switch. The signal terminal has two setups:

Option 1: The signal terminal is connected to a *Normally Open Momentary Switch*, which is connected to a ground.

Option 2: The signal terminal is connected to a fuse (suggested 2 Amps). This fuse is then connected to a *Normally Open Momentary Switch* followed by a connection to the Coach Positive Voltage Line.



BATTLE BORN BATTERIES

PRECISION CIRCUITS INC

dragonfly ENERGY

Auxiliary "House" Batteries Cont'd

The auxiliary batteries are charged either by:

1) The *Alternator* of the motor home while driving
2) The *Power Converter* when external 120 Volt AC power is connected
3) The *Generator*

Care should be taken to prevent the auxiliary batteries from being totally discharged by making sure that all of the lights, fans, and appliances are turned off when the motor home is not in use. Whenever the motor home is not used for a period of time, the 120 Volt power cord should be plugged in once a month for 8 to 12 hours to bring up the charge on the auxiliary batteries. The master 12 Volt electrical switch (found to the right immediately upon entering the main motor home door) must be ON for the converter charger to charge the auxiliary batteries. Refer to the power center instruction sheet for further information. A totally discharged battery will not normally recharge as quickly, or in the same manner as a low battery. Professional help should be used when attempting to charge a totally discharged battery.

The engine battery of the motor home is not charged from the power converter. The engine battery should be periodically checked and maintained. Refer to the Chassis Owners Manual for recommended engine battery maintenance.

Maintenance of Batteries

Batteries have a "life" which is determined by the number of charging/discharging "cycles". When your system is not in use, proper care should be taken to extend the battery life by following simple procedures:

Short Term Storage:

1) Turn off the Interior Battery Switch (located inside the Motorhome on the Galley Wall to the left).

2) Ensure that all current drains have been eliminated. (Turn off all appliances)

Long Term Storage:

1) Turn off the Interior Battery Switch (located inside the Motorhome on the Galley Wall to the left).

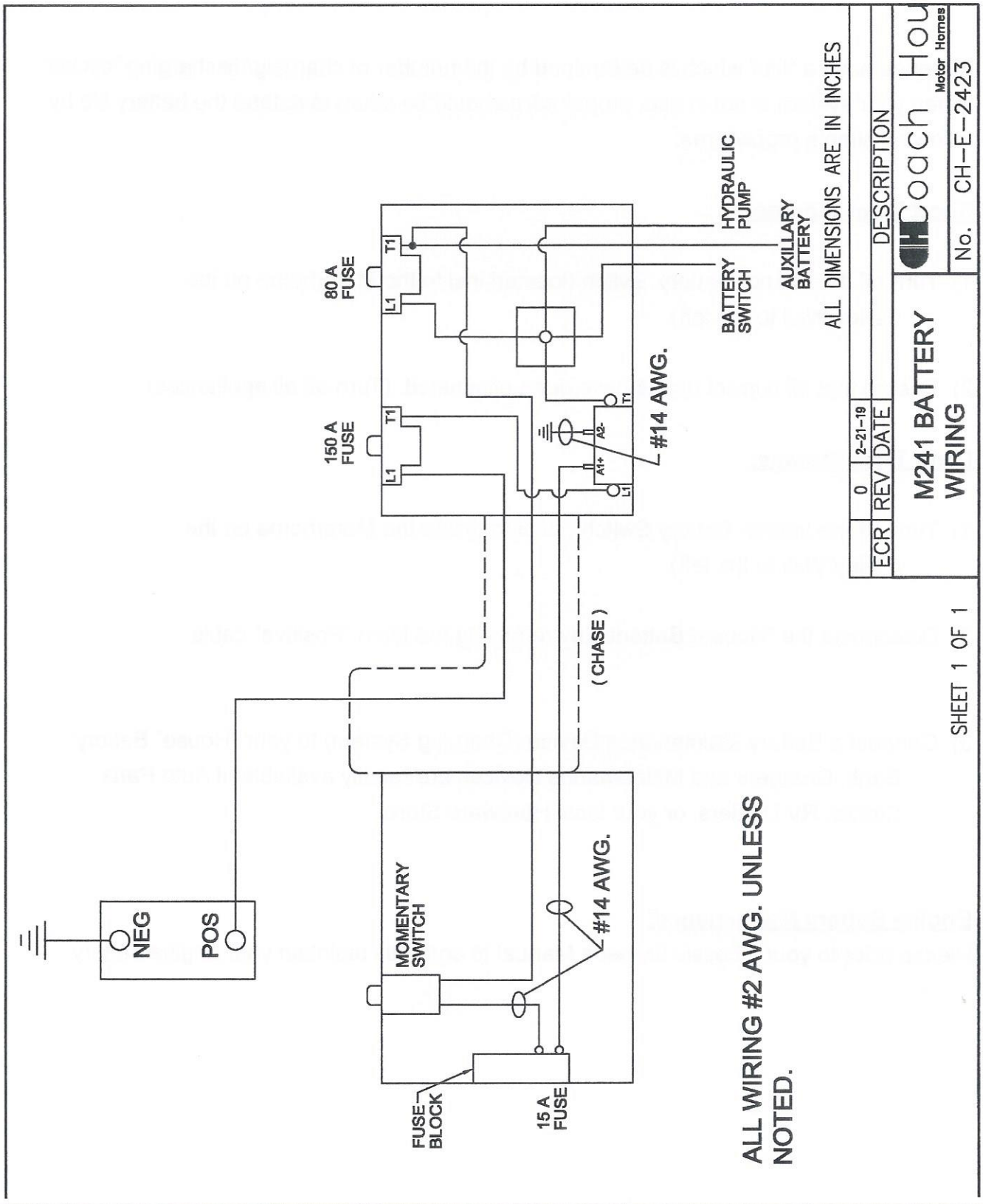
2) Disconnect the "House" Batteries by removing the Main "Positive" cable.

3) Connect a Battery Maintenance Device (Charging System) to your "House" Battery Bank. Chargers and Maintenance Devices are readily available at Auto Parts Stores, RV Dealers, or your local Hardware Store.

Engine Battery Maintenance:

Please refer to your Chassis Owner's Manual to correctly maintain your engine battery.

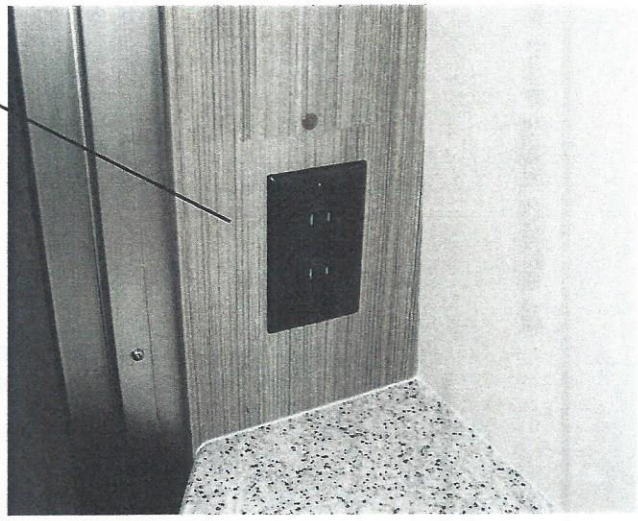
Mercedes Benz Battery Separator



GFCI Receptacles

A GFCI receptacle is different from conventional receptacles. In the event of a ground fault, a GFCI will trip and quickly stop the flow of electricity to prevent serious injury. All Coach House *Platinum II* models have GFCI receptacles in the bathroom. This GFCI receptacle protects other outlets in the motorhome, so, if you loose power in any outlet, be sure to check the GFCI outlet, resolve any problems and reset.

GFCI Outlet



NOTE: Exact location varies by floorplan.

GFCI™ test & protect

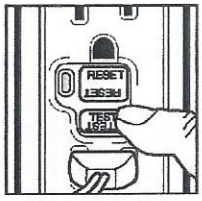
Registered Trademark of ESFI

How to test your GFCI Outlet:

Step 1: Plug a lamp into the GFCI.

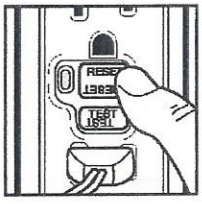
Step 2: Turn on the lamp.

Step 3: Push the TEST button on the GFCI. The GFCI should trip, stopping the flow of electricity to the lamp. Note that the RESET button will pop-out.



If the lamp DOESN'T turn off when the TEST button is pushed, the GFCI is not working properly and should be replaced immediately.

If the lamp DOES turn off when the TEST button is pushed, the GFCI is working properly and should be tested monthly. To restore power, press the RESET button.



If the power is not restored when the RESET button is pushed, the GFCI is not working properly and should be replaced immediately.

What is a GFCI Outlet?

A Ground Fault Circuit Interrupter (GFCI) Outlet protects you from serious injury due to electrical shock from:

- Hazardous leakage levels from appliances and tools
- Exposure to moisture while operating electrical equipment
- Frayed or damaged electrical wiring

Where are your GFCIs located?

GFCI protection is required per the *National Electrical Code®* (NEC) for outlets servicing bathrooms, kitchen countertops, unfinished basements, garages, utility sinks, and outdoor locations.

Wiring Diagram