

PLATINUM[®]

OWNER'S MANUAL

SECTION 3 ELECTRICAL SYSTEMS

Section 3 - Electrical Systems:

Special Electrical Statement	3-2
Master Disconnect Switch	3-2
Firefly Control System	3-3
Power Converter	3-7
Circuit Breakers & Fuses	3-9
Main Fuse Panel Diagram	3-10
Auxiliary Fuse Panel Diagram	3-11
80 Amp Breaker	3-12
150 Amp Breakers	3-13
Auxiliary Start Over Ride Switch	3-19
Power Inverter	3-15
Generator	3-16
Auxiliary "House" Batteries	3-19
Maintenance of Batteries	3-21
Battery Separator Diagram	3-22
GFCI Receptacles	3-23
Wiring Diagrams	3-24

SPECIAL ELECTRICAL STATEMENT

Coach House Platinum III 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”.

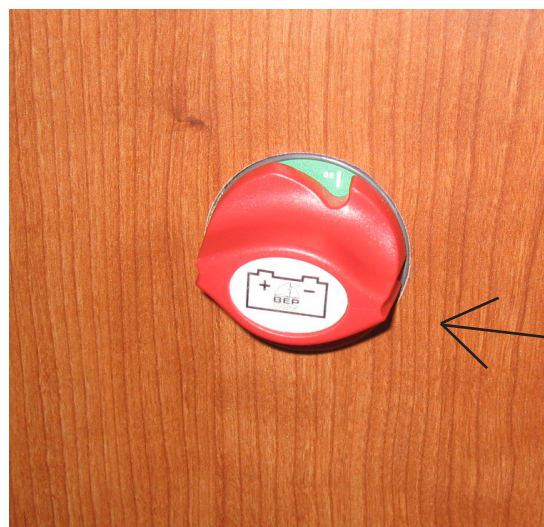
MASTER DISCONNECT SWITCH

The battery switch is located at the exterior side door on the cabinet behind the passenger's seat. 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.



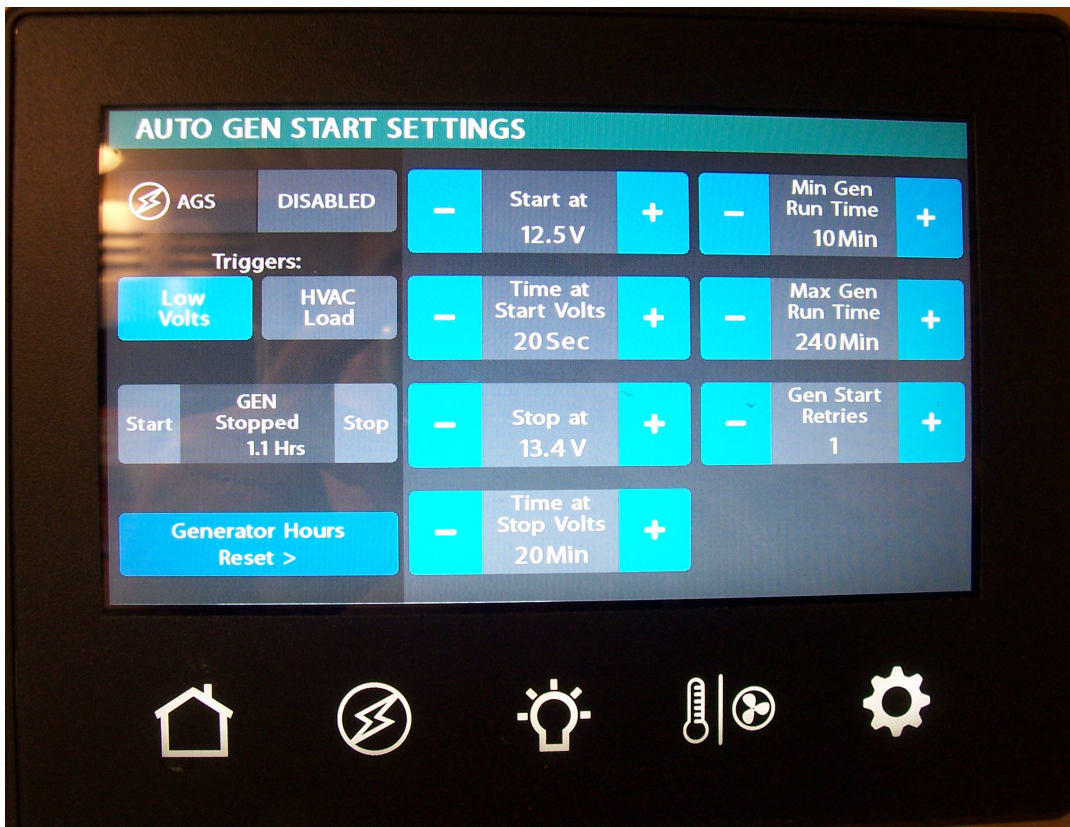
Mid-coach remote pane - varies by model.



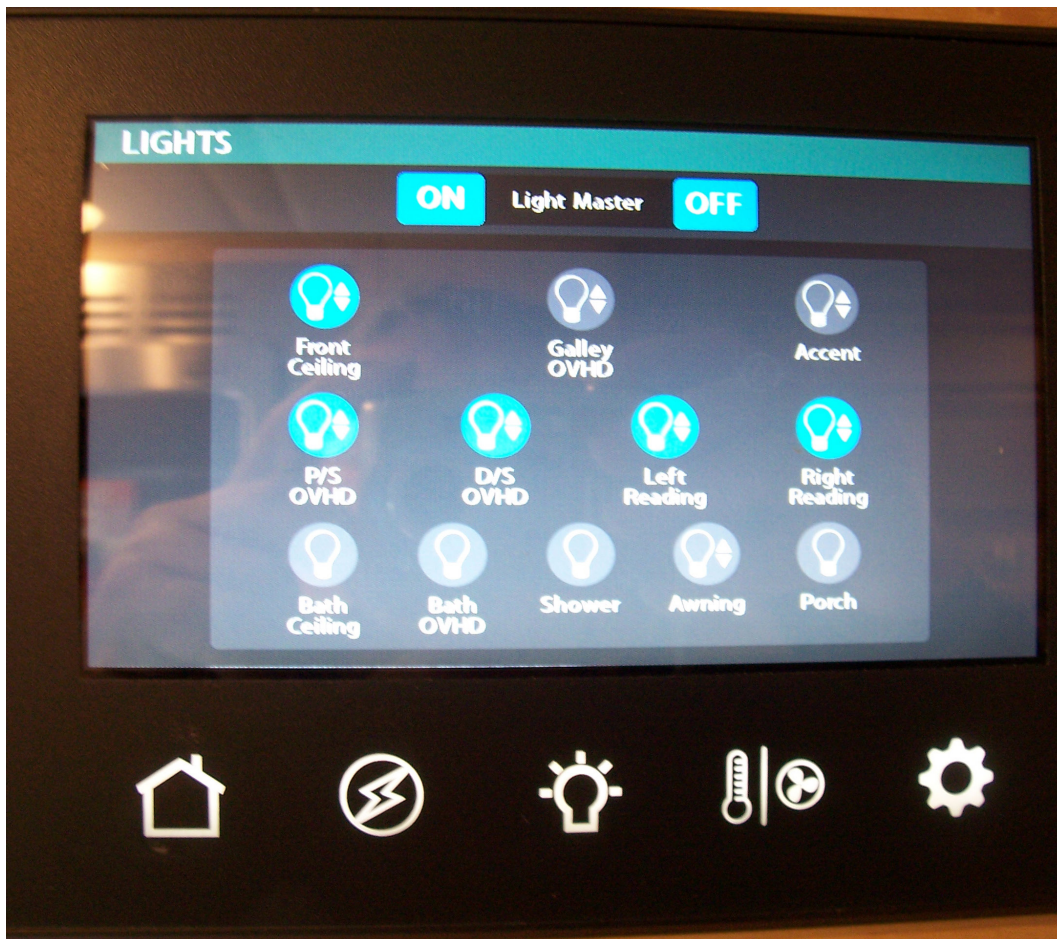
Bathroom remote panel - varies by model.



HOME SCREEN



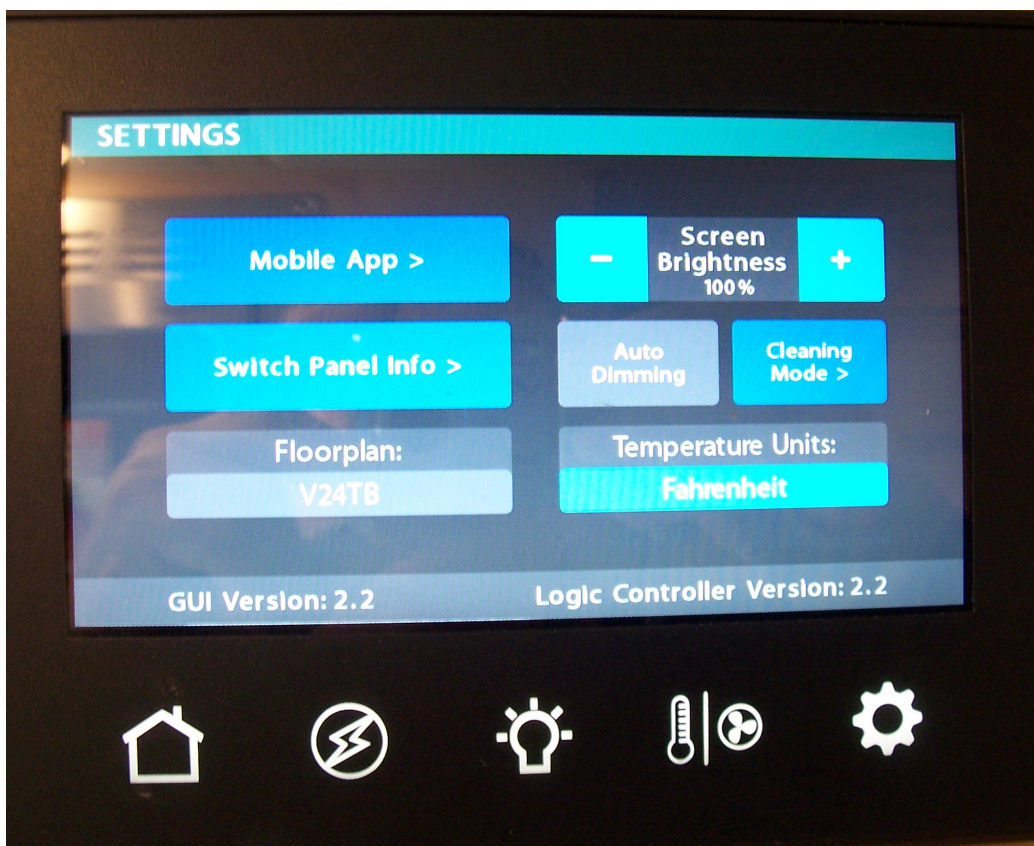
AUTO GEN START SETTINGS SCREEN



LIGHTS SCREEN



CLIMATE CONTROL SCREEN



SETTINGS SCREEN

POWER CONVERTER

Your Coach House **PLATINUM** 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

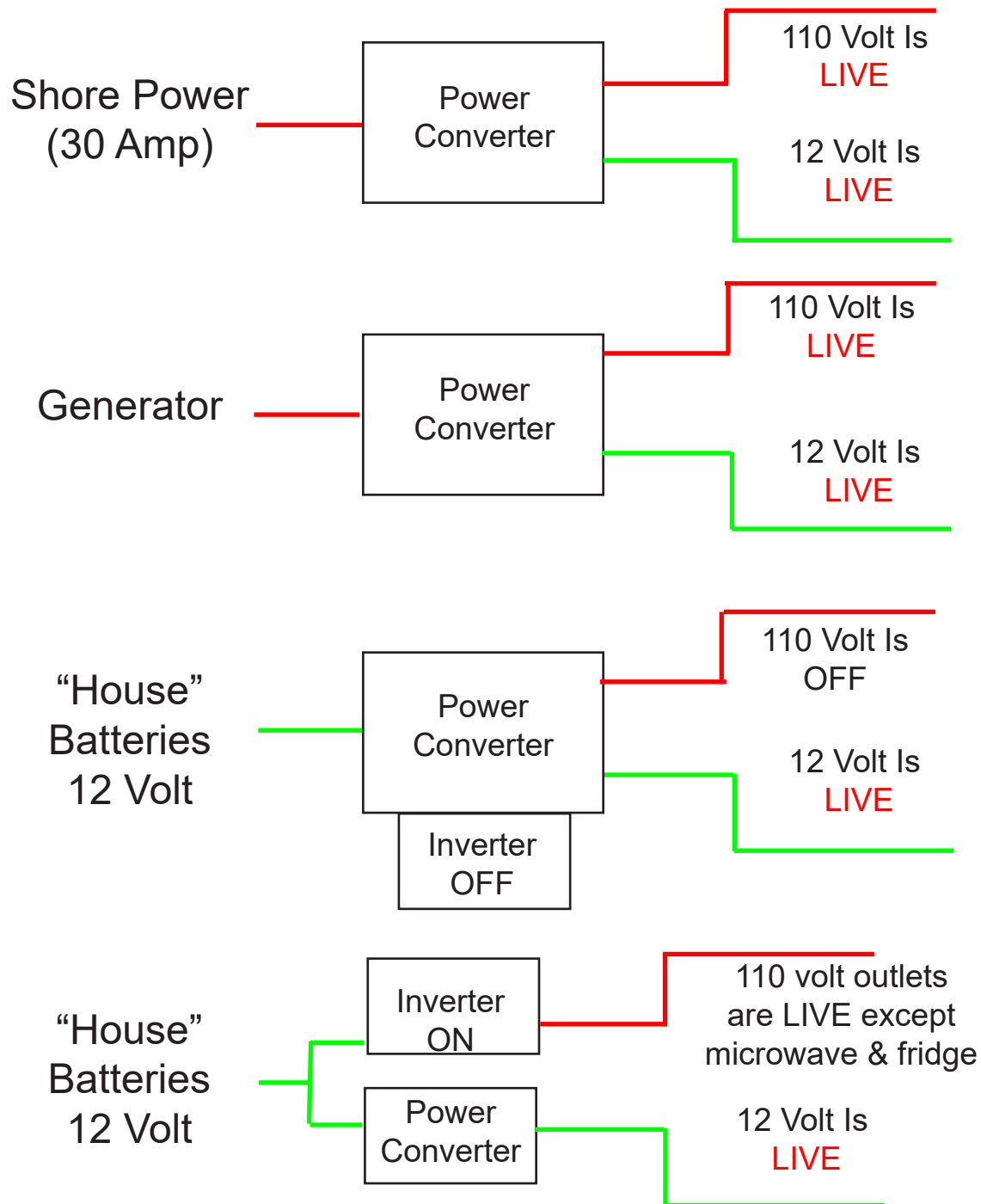
Power Converter Location:

<u>MODEL #</u>	<u>Location</u>
220	Driver’s Side Under Twin Bed
261 XL	Passenger’s Side Under Dry Storage Cabinet
261 XL (Twin Bed)	Driver’s Side Under Twin Bed
261 XL (Sleeper Sofa)	Passenger’s Side Under Dry Storage Cabinet
271 XL	Driver’s Side Under Twin Bed
272 XL	Driver’s Side (In the Bedroom under Drawers)



The converter is equipped with an automatic switchover relay to prevent both the generator and the external power cord from being connected to the converter at the same time. When either the external power cord or the generator is being used, both the 110 volt AC system and the 12 volt DC system will be activated inside the motorhome. When neither of these is connected, the 12 volt auxiliary batteries will activate only the 12 volt DC system.

A separate 1000 Watt Inverter will power the electronics using only the “House” Batteries. See INVERTER page 3-15





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 breakers are for system use, and do not feed the motorhome. The 12 volt DC circuits are labeled on the door.

There is an auxiliary 12 volt fuse panel located above the driver’s side seat in a compartment behind a smoked plexiglass door.

Diagrams of the Fuse Panels for your model are located on the next two pages.

MAIN FUSE PANEL



PLATINUM MODELS W/FIREFLY

110 Volt System Breakers



<u>30</u> Amp	<u>20</u> Amp	<u>15</u> Amp	<u>20</u> Amp	<u>15</u> Amp	<u>20</u> Amp	<u>15</u> Amp	<u>15</u> Amp
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Main Power

Microwave

Water Heater

Power Inverter

Converter Box (12 Volt)

Air Conditioner

Refrigerator

A.C Power Sensor

<u>30</u>	<u>Refrigerator</u>
	<u>Blank</u>
	<u>Blank</u>
<u>10</u>	<u>12 volt Lights</u>
	<u>Blank</u>
<u>10</u>	<u>Furnace</u>
<u>10</u>	<u>T.V.</u>
<u>20</u>	<u>Accessories and Tank Heaters</u>
<u>10</u>	<u>Vent Fans</u>
<u>3</u>	<u>L.P. Common</u>
<u>5</u>	<u>L.P. Tank Solenoid</u>
<u>10</u>	<u>Drop Tap</u> <u>Firefly</u>

AUXILIARY FUSE PANEL (ABOVE DRIVER'S SEAT)

Fuses Behind Panel (FORD)

Circuit	Amps	Device
1	Blank	Blank
2	5	TV Wall Plate
3	Blank	Blank
4	7.5	Satellite (Optional)
5	15	Engine Assist Solenoid (Hot Water Heater)
6	10	CO & LP Detectors

80 AMP BREAKER

Your Coach House **PLATINUM** has an electrical system circuit breaker to prevent damage to your 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 Locations

<u>Model #</u>	<u>Location</u>
220	Side of Galley Cabinet as you enter motorhome (on left)
261 XL (Twin Bed)	Side of Galley Cabinet as you enter motorhome (on left)
261 XL (Sleeper Sofa)	Under the Dinette Seat (Front)
271 XL	On the end of the Galley Cabinet
272 XL	On the end of the Galley Cabinet

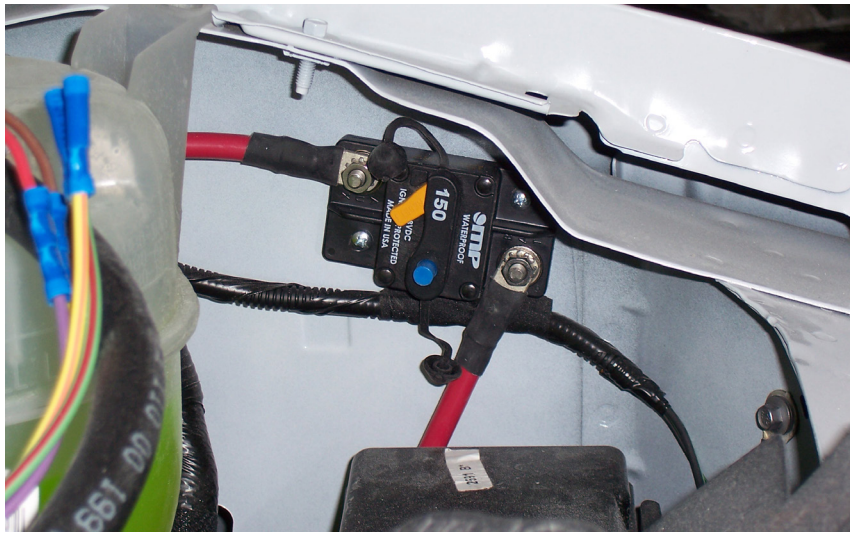


150 AMP BREAKERS

There are also 3- 150 amp breakers located on the side wall under the hood on the driver's side and under the coach behind and to the right of the battery box.

These breakers protect the electrical system from "backfeed" between the chassis and "house" batteries. It is rare that these breakers would trip, but in the case of a total power failure to your unit, this would be a possible safeguard which might have tripped. Push in the red button to reset the breaker.

**UNDER HOOD LOCATION -
DRIVER'S SIDE**



**BATTERY BOX LOCATION -
RIGHT SIDE OF BATTERY BOX**



**FRAME RAIL LOCATION -
ON FRAME RAIL BEHIND
HYDRAULIC RESERVOIR**



AUXILLIARY START OVER-RIDE

In the event that your engine battery does not have the power to start your motorhome, your **PLATINUM** is equipped with an Auxilliary 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 on the dash panel just above your left knee when sitting in the driver’s seat.



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).

xantrex[™]
Smart choice for power[™]

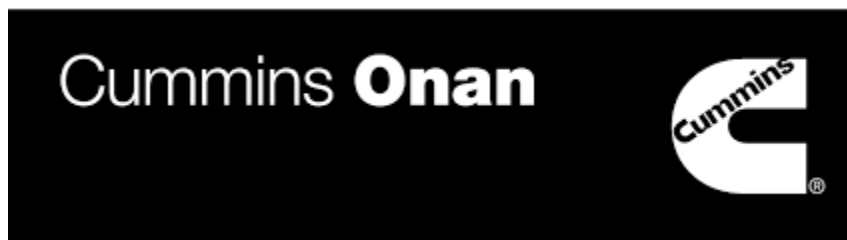


The inverter will supply 110 volt power to the electronic components (Television, DVD player, optional satellite receivers and the electrical outlets when you are not hooked up to shore power or running the generator. These devices will drain your “house” batteries if in use for an extended period of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

xantrex

Smart Choice for Power

GENERATOR



All FORD E-450 Chassis models are equipped with a:

4.0 KW ONAN (Gasoline) Microquiet Generator

Ford Chassis Generators feed directly from your fuel tank. No special fuel fill is needed to power your generator.

Safety Note:

Cummins Generators will not operate if your gasoline fuel tank is less than 1/4 full. This feature will ensure that your vehicle has sufficient reserve fuel available for driving.

The instruction manual 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.

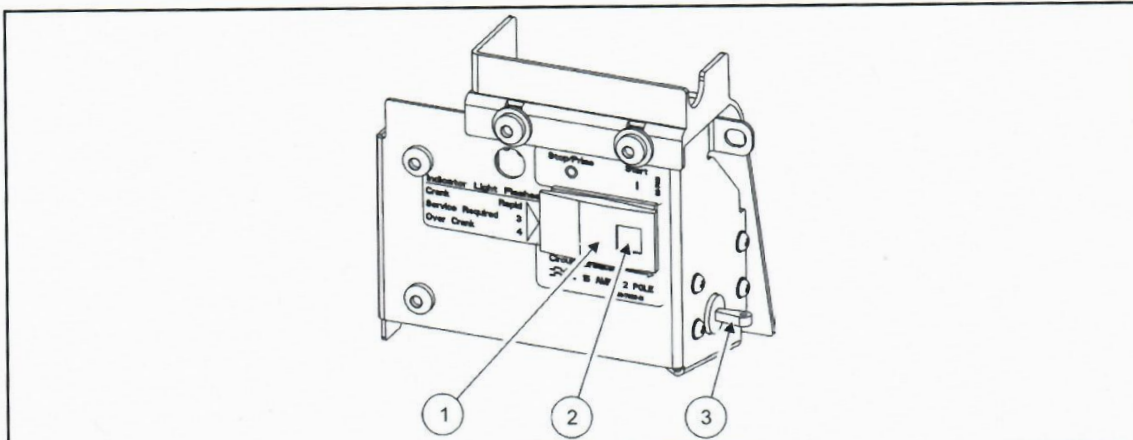
NOTE: The generator is generally operated from inside the motorhome using the Firefly Control System. Refer to the Firefly Control Panel instructions for detailed information.

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

NOTE: There is a 40 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.

GENERATOR CONT'D

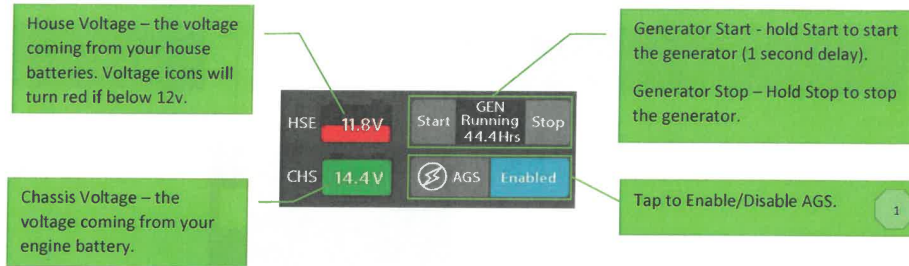
4.2.1 Generator Set Control Panel



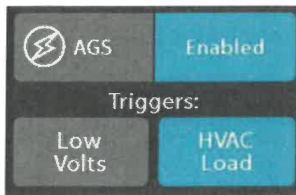
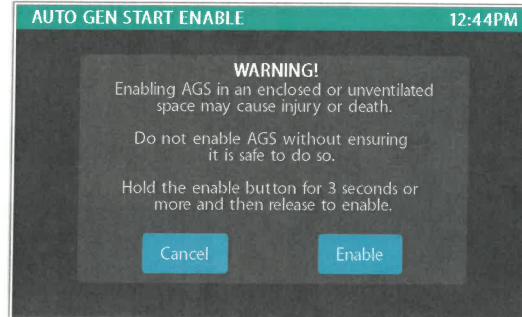
No	Name	Description
1	Control Switch	Used to start and stop the generator set, and to prime the engine fuel system. Hold the switch in its START position to crank and start the generator set. Press the switch to the STOP position to stop the generator set. Hold the switch in its STOP/PRIME position to 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



1 AGS WARNING – to ensure safety, AGS will not be activated until you hold the Enable button (from the Warning screen) for at least 3 seconds.

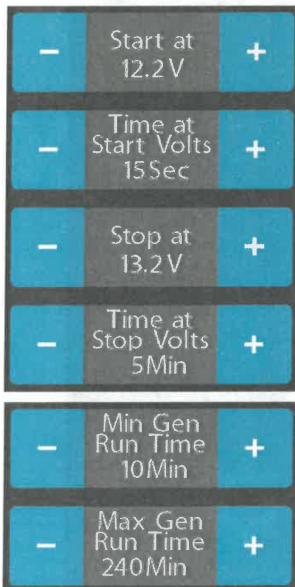


Tap to Enable/Disable AGS (as described on page 5).

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 at 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)

AUXILIARY “HOUSE” BATTERIES



Auxiliary batteries are mounted on a slide-out tray next to the entry door for easy access.



“Lifeline” GPL-4CT

Two - 6 Volt Batteries Wired in Series

Rated 242 Amp Hours



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 (chassis) battery of the motor home is also 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 Entry Door to the right).
- 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 Entry Door to the right).
- 2) Disconnect the “House” Batteries by removing the Main “Positive” (red) cable(s).



Note: Do not disconnect the short red cables between your batteries. Only disconnect the “long” red cable(s) which feed your motorhome.

- 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.

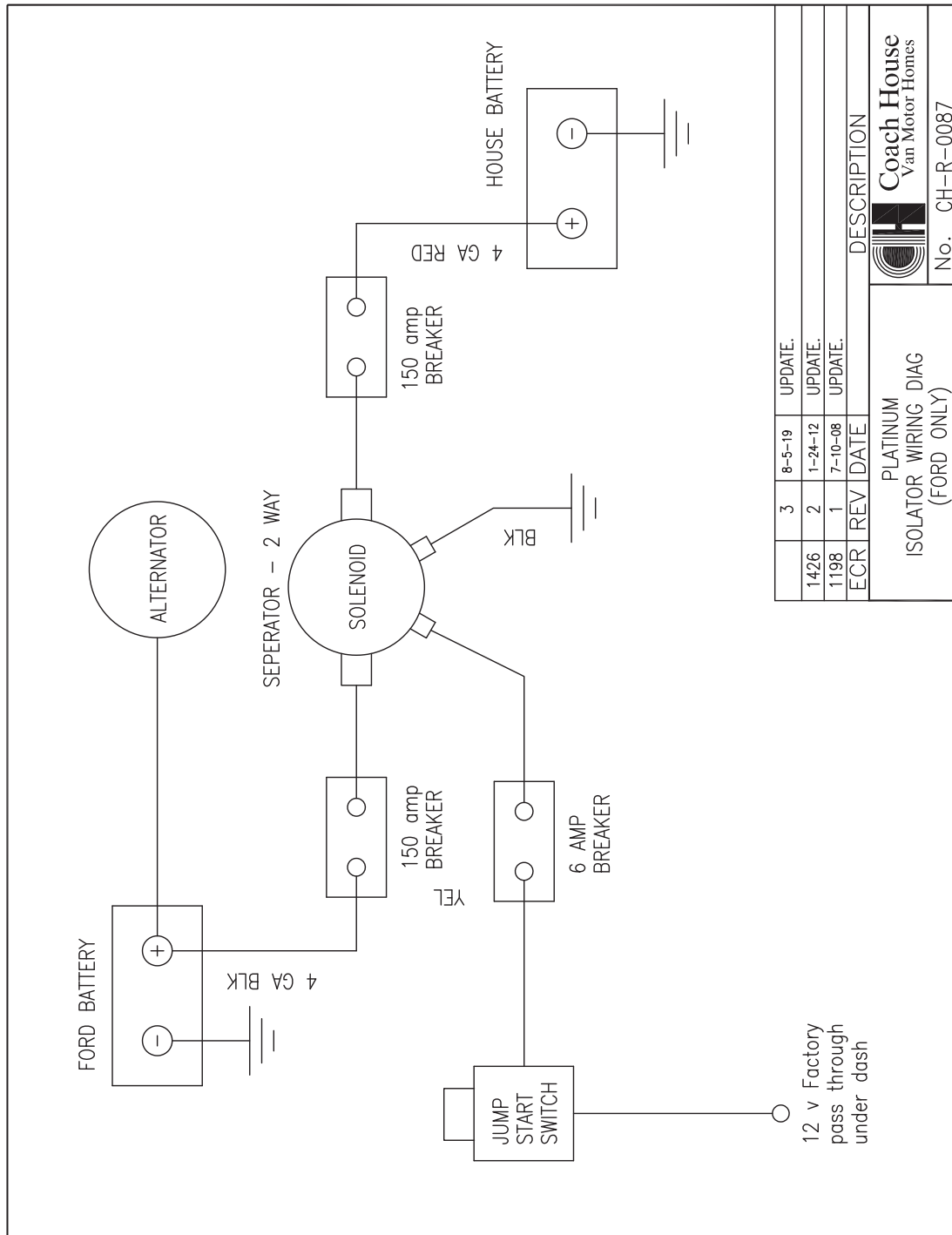
Engine Battery Maintenance:

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

FORD E-450 BATTERY

SEPARATOR

FORD E-450 Chassis are fitted with an automatic Battery Separator which electronically senses the condition of your battery system. The Separator will control the charging of your “house” and engine batteries automatically assuming the batteries are able to receive a charge. (You need to check your batteries on a regular basis to ascertain their viability).



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** models have GFCI receptacles the bathroom. See the GFCI manual for more information.

GFCI Outlet

NOTE: Exact location varies by floorplan.



How to test your GFCI Outlet:

Step 1: Plug a lamp into the GFCI.

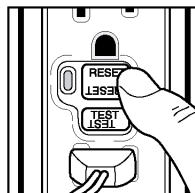
Step 2: Turn on the lamp.

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:

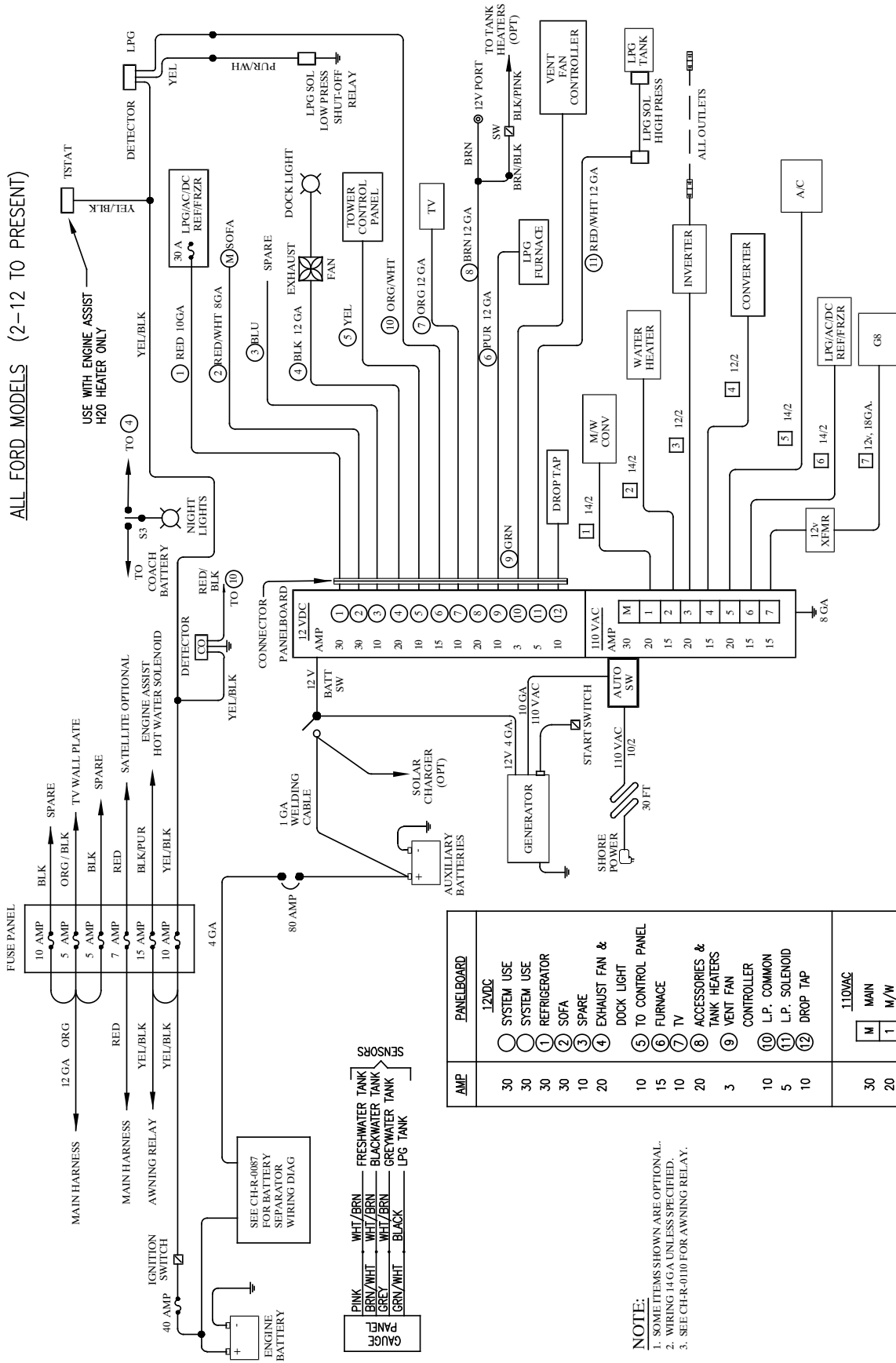
- Hazardous leakage levels from appliances and tools
- Exposure to moisture while operating electrical equipment
- Frayed or damaged electrical wiring

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

ALL FORD MODELS (2-12 TO PRESENT)



NOTE:

1. SOME ITEMS SHOWN ARE OPTIONAL.
2. WIRING 14 GA UNLESS SPECIFIED.
3. SEE CH-R-0110 FOR AWNING RELAY.

1764	25	8-10-18	2ND UPDATE FOR FIRELY.
ECR	REV	DATE	DESCRIPTION
PLATINUM 110VAC & 12VDC WIRING DIAGRAM (FOR FIRELY)			 Coach House Motor Homes
			No. EL108

SHEET 1 OF 3

SHEET NO.	1	2	3
REVISION	25	24	25

