

# REV DIPLOMAT (V1 & V2) USER GUIDE

### **General Information**

This is a list of system conventions and terminology used in this manual.

Buttons – Generally, a square or rectangle on the screen with rounded corners and black text or symbols with a white (gray) background is a button that can be touched to control a feature or function. In the case of buttons that control lights and fans, the colors of the button will be inverted to show that it is On.

Status or Labels – Generally, white (gray) text on a black background is a label or the status of a control.

Hard button – The buttons on each side of the Touchscreen in two columns of five.

Press/Touch – This is a normal tap on the screen, as many buttons don't change state or send a message until released.

Press and Hold – This is touching the screen and leaving your finger on the button for over a second. This is used for the Light Master On (see lights page for explanation), Generator On and momentary controls like Slideouts and Awnings.

EMS – Energy Management System.

Shed – Load-Shedding is the intentional shutdown of electric power in parts of a power-distribution system, generally to prevent the failure of the entire system when the demand strains the capacity of the system.

AGS – Auto Generator Start.

### Home

- Tanks
  - Show in thirds: 0, 33, 66, 100
- Heat/Water controls
  - $\circ \quad \mbox{Aqua-hot Electric toggle on/off}$
  - o Aqua-hot Diesel toggle on/off
  - Water Pump toggle on/off
- DC (Go to Page 11)
  - o House voltage
  - Chassis voltage
- AC (Go to Page 3)
  - AC voltage on each line
  - o Charger state
  - o Inverter state
  - $\circ$  AGS enabled/disabled
  - Generator running/stopped
  - $\circ~$  AC Source 50A/30A/20A/15A or No Shore



### AC Power

The status monitor shows the (110v) voltage, amperage draw and frequency for each line coming into the coach. The Power Source button status will show if the generator is running or if the coach is hooked up to shore power. Our system uses the phase to determine power, where two-phase is designated 50A shore and in-phase is 30A by default but can be changed to 20A or 15A using this button.

- Gen Generator, creates electrical energy.
  - Displays hours (saved to system, not generator)
  - o On/off
    - Hold to turn on
- Inverter Takes 12v battery power and converts it to 110v power.
  - Enabled On
  - Disabled Off
  - Pass through
  - Standby unit is waiting for load
- AGS Press to select on or off. A warning page will appear informing you to only enable AGS if your coach is in a wellventilated area.
- Block Heater Tap to toggle on/off. It cannot turn on if A/C is running
- Navigation buttons
  - Invert/Charge Status
    - Go to Page 4
  - EMS Load Status
    - Go to Page 5
  - Gen/AGS Options
    - Go to Page 6



# Invert/Charge Status

All the information on this screen comes directly from your inverter. The Firefly system simply monitors your inverter activity and sums it up on this status page. If you are getting a fault, please contact REV Customer Support.

• Navigation buttons

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- $\circ \quad \text{Invert/Charge Option} \\$ 
  - Go to Page 9
  - AC Power Page
    - Go to Page 3
- o DC Power Page
  - Go to Page 11

I/C STATUS	
DC VOLTAGE	13.0 V
DC CURRENT	) 52 A
AC OUT VOLTS	) 119 V
AC OUT FREQ	159.7Hz
AC INPUT VOLTS	) 121V
AC INPUT FREQ	159.9Hz,
FAULTS STACK CLOCK PHASE	
	PHASE
STACK CLOCK	PHASE 5.9
STACK CLOCK	PHASE 5.9 UNKNOWN
STACK CLOCK I/C FW REV I/C MODEL BRIDGE FW	PHASE 5.9 UNKNOWN 1.01

### EMS Load Status

This screen will show the status for the systems which use energy.

If a load shows "SHED" as a status, that means that there is currently not enough energy to function.

- Navigation buttons
  - o AC Power Page
    - Go to Page 3
  - o DC Power Page
    - Go to Page 11

EMS LOAD STATUS A/C 1 OFF A/C 2 OFF. A/C 3 OFF. HEAT PUMP ON. AQUAHOT POWER BLOCK HTR SHED FLOOR HT FR ON. FLOOR HT RR OFF. CHARGE RATE ] 80 X AC. DC. POWER POWER PAGE PAGE

### **GEN/AGS** Triggers

All AGS functionality is dependent on AGS being manually enabled. For LC versions up to 1.10 (see settings screen for version information) AGS is automatically disabled when the parking brake or ignition signal changes state. For versions 1.11 and higher, the parking brake will no longer disable AGS.

AGS has a 30-day maximum enable time. A warning status will appear on the living lighting screen when 5 days remain before AGS deactivates without your intervention. If AGS deactivates, it will need to be reenabled before it can be used again.

If a user manually starts or stops the generator or a generator run signal is received that was not initiated by the AGS system, AGS will automatically disable.



This menu is accessed from the AC screen by pressing GEN/AGS Option.

- Low Voltage The generator will start when voltage drops below the specified voltage that you set (See AGS Set).
- HVAC load when ON the generator will start when it senses a high demand for energy.
- Insufficient Shore Power The generator will start when shore power is insufficient to handle the load.

- AGS Quiet Time Use the + and buttons to set the hours that the generator should not run.
  - Navigation buttons
    - o AGS Set
      - Go to Page 7
    - o GEN Set
      - Go to Page 8

### AGS Settings

This is where you will adjust the specific settings for your generator using the + and – buttons.

- 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 Start 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" 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.
- Navigation buttons
  - o AGS Trig
    - Go to Page 6
  - o Gen Set
    - Go to Page 8



### **Gen Settings**

- Min Gen Run
  - Use the + and keys to set the minimum amount of time that your generator will run once it has started. (Range 10min – 30min)
- Max Gen Run
  - Use the + and keys to set the maximum amount of time that your generator will run once it has started. (Range 120min - 240min)
- Gen Start Tries
  - Use the + and keys to set the number of tries that your 0 generator will try to start. (Range 2 – 6)
- Gen Hours The number of hours that the generator system has • been used. These hours are saved to the system, not the generator itself.
- Gen Setup Tap to navigate to the Setup screen.

# USE THIS SETTING





GEN SETTINGS

- Navigation buttons
  - 0 AGS Trig
    - Go to Page 6
  - AGS Set 0
    - Go to Page 7

# Invert/Charge Option

- Low Battery Cutout
  - The inverter will shut down when the battery bank drops to this set voltage.
- VAC Dropout
  - The inverter will shut down when the battery bank drops to this set amperage.
- Shore Breaker Size
  - Adjust to the required shore power amp breaker.
- Max Charge
  - o (Range 20% 100%)
- Navigation buttons
  - Invert/Charge Status
    - Go to Page 4
  - AC Power Page
    - Go to Page 3
  - $\circ$  I/C Batt Option
    - Go to Page 10



# I/C Battery Option

This screen will let you adjust the battery amp hours settings and select between 4 different types of batteries:

- o Gel
- $\circ$  Flooded
- o AGM
- o AGM 2

Please contact REV Customer Service for any information regarding Batteries and Battery Settings.

- Navigation buttons
  - o Invert/Charge Status
    - Go to Page 4
  - AC Power Page
    - Go to Page 3
  - o Invert/Charge Option
    - Go to Page 9



### DC Power

- House voltage The voltage coming from your battery bank.
- Chassis voltage the voltage coming from your engine battery.
- Inverter/Charger amps The available amps coming from your battery bank
- Charger on/off
- Inverter on/off
- Navigation buttons
  - o Inverter Status
    - Go to Page 4
  - o Inverter Charger Settings
    - Go to Page 9



# Floor Heat

Select Front or Rear floor heat zones at the top of the page.

Tap the Zone Power button to select between Manual mode, Schedule mode or Off.

- Manual mode
  - Tap the +/- buttons to select between 10 levels of floor heat.
- Day/Night Schedule Mode
  - Tap the Day Schedule or Night Schedule buttons to enable/disable each mode.
  - Select day and night temps using the +/buttons.
  - Select Beginning and Ending times for Day and Night using the +/- buttons.



### Climate Control

Current temperature for the zone is displayed at the top. Fahrenheit or Celsius can be changed on the Settings Screen.

Mode button cycles between the different climate modes.

- Auto If Current Temp is above Set Temp, the Air Conditioning will come on to cool the zone to the Set Temp. If Current Temp is below Set Temp, the Heat Pump will come on to warm the zone to the Set Temp.
- Cool Only Air Conditioning
- Heatpmp Only Heat Pump. Heat Pump mode has a Second Stage Heat feature that will automatically enable the alternative heat source (AquaHot) if the Heat Pump has not brought the zone up to the Set Temp in 20 minutes or if the temp set point is 5 or more degrees higher than the current temp. See notification area for relevant messages.
- Shed Not enough AC power to operate.

Fan Speed button will control fan speed during Cool mode or Off mode. Off Mode will run fans only.

Set Temp is the temperature you would like the zone to be. Pressing the + raises the Set Temp and pressing the – lowers it.

AquaHot Source Buttons- Choose Electric or Diesel source.

Zone 1 – Cool and AquaHot available.

Zone 2 – Only Cool mode available.

Zone 3 – Cool, Heat Pump and AquaHot available.



# Lights

The Light Master controls all interior lights at once. When Light Master Off is pressed, it will remember which lights were on. Then, when Light Master On is pressed, it will only turn on the lights that are in memory. To turn on all lights again, press and hold Light Master On for at least one second. Troubleshooting – Memory is rewritten each time Light Master Off is pressed. In the case that it is pressed twice in a row, it will remember that no lights were on and just touching Light Master On won't turn on any lights. Press and hold Light Master On to turn the lights back on.

Some lights in your coach are dimmable lights. Press and hold the button to ramp the brightness up and down. Release the button when the light is at the desired brightness.

Lights that are not dimmable and are standard on/off buttons.

Pages:

- Entry This page has controls for the lights near the entry door and exterior lights.
- Living These are the lights in the main living area of the coach.
- Rear These are the lights in the rear of the coach, usually the bedroom and any bathroom lights.





### Vent Fans

The Power button turns the fan on or off.

The Up and Down arrow buttons control the lid. A normal press will fully open or close the lid. Press and hold will turn the button into a momentary control and then releasing will stop the lid's motion.

### Settings

There are 10 levels of screen brightness. Pressing + will make the screen brighter and pressing – will dim the screen.

Time display. Press the +/- buttons to adjust the time.

Temperature Units can be toggled between Fahrenheit and Celsius.

GUI and LC are the program version and revision. This is not read as a standard decimal number. The number to the right of the decimal is the revision number.





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