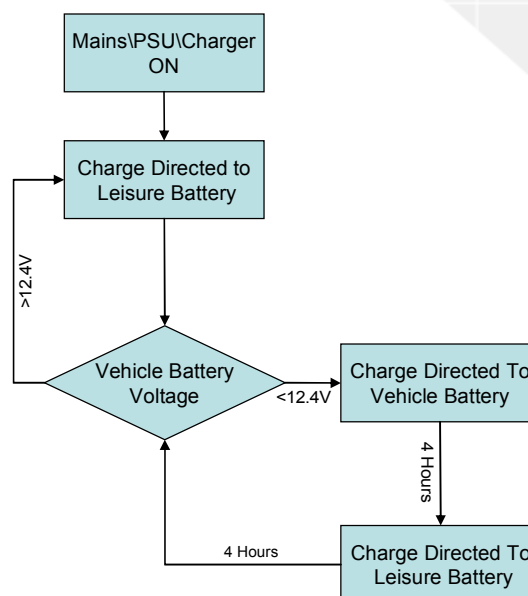


EC400\450\500 Smart Charging

Smart Charging

The EC400\450 and 500 ranges of PSU's incorporate a smart charge feature, which monitors both Leisure and Vehicle batteries and automatically adjusts and directs the charger power (and solar power if a solar panel is installed) to maintain the leisure and vehicle batteries at an optimal level.

The Smart Charge feature will default to the Leisure Battery and will monitor the Vehicle Battery, if the Vehicle Battery drops below 12.4V the charger will divert the charge to the Vehicle Battery for a 4 Hour period before returning to the Leisure Battery for 4 Hours. At this point the system will default back to the Leisure Battery and monitor the Vehicle Battery.



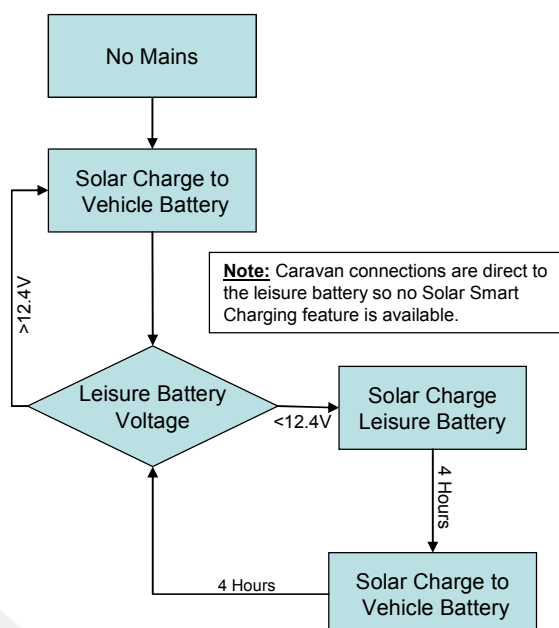
Solar Smart Charging

Where a Solar Panel is fitted the charge from the Solar Regulator will be diverted to the opposite battery to that being charged by the mains charger when the mains power is turned on.

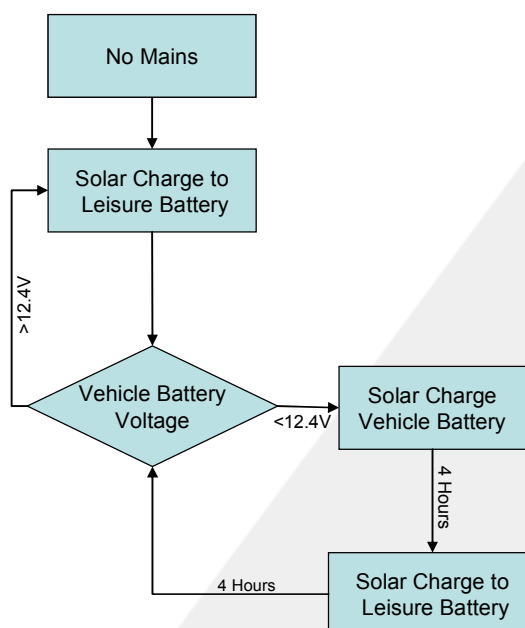
Any installations incorporating a Solar Panel will also follow a similar Smart Charge routine when the mains charger is disconnected.

EC4xx Systems will default to the Vehicle Battery whilst EC500 systems default to the Leisure Battery, Both will then monitor the alternative battery until it drops below 12.4V at which point it will switch the current flow to maintain a healthy charge on this battery.

EC400 Solar Smart Charging



EC500 Solar Smart Charging



For Smart Charging to operate the PSU must be turned on (Shutdown Button in the "IN" position) and the relevant options programmed (Smart is "ON" as default)

The smart feature can be overridden by selecting manually from the control panel at any time the battery to which you would like the charge to be diverted to.

Programming

This feature is turned on as default, but can be adjusted in the programming as per the following:

EC4xx PSU



Enter into “Advanced “ programming mode by pressing and holding the “Yellow” button until the display shows “Advanced Settings”

To scroll through the available options use the “Yellow” button. To change settings press the “Red” button.

Once finished press and hold the “Yellow” button until the display shows “Basic Settings”

Option: SOLAR TO (SMART is the default setting.)

SMART – This turns on the solar smart charging feature. When a solar panel is fitted the energy from the panel is automatically directed to the vehicle or leisure battery according charge state of each battery and the operation of the mains battery charger.

LEISURE – This setting will cause the energy from the solar panel to be directed to the Leisure battery only.

VEHICLE – This setting will cause the energy from the solar panel to be directed to the Vehicle battery only.

Option: CHARGING MODE (SMART is the default setting.)

SMART – This turns on the smart charging feature. The energy from the intelligent charger is automatically directed to the vehicle or leisure battery according charge state of each battery.

NORMAL – This setting will cause the energy from the intelligent battery charger to be directed to the battery selected manually on the control panel by the battery select button.

Testing

To confirm the Smart Charge feature is working, first ensure the system is programmed correctly as per the above information and that both batteries are charged above 12.4V.

Ensure that the Leisure Battery is selected as the active battery for charge (You should see a voltage of at least 13.6V on the Leisure Battery and the actual voltage for the Vehicle Battery e.g. 12.5V).

Place a load on the Vehicle Battery, I.e. put the headlamps on, and when this load drops the Vehicle Battery voltage below 12.4V you should observe the charger switch from Leisure to Vehicle Battery (Vehicle Battery will jump from 12.3V to 13.6V\14.4V).

After a 4 hour period the charger will switch back to the Leisure Battery for 4 hours and will then revert to monitoring the Vehicle Battery.

EC500 PSU (EC480 \ EC300 Control Panels)



To access the advanced settings, on the home screen (Dealer Logo\EC300 Displayed), press and hold the up and down arrows together. Continue holding these buttons until the screen changes.

To scroll through the various settings use the up and down buttons. To change a setting press the select button (left arrow).

Once finished scroll to “Exit Advanced” and Select.