

# SELECTRONIC AUSTRALIA

## SA30 OWNERS MANUAL

<b>Contents:</b>	<b>Page</b>
<b>INTRODUCTION</b> .....	2
<b>WARRANTY CARD</b> .....	2
<b>INSTALLATION</b> .....	2
CONNECTION OF AC AND DC WIRING .....	3
<b>OPERATION</b> .....	4
LIQUID CRYSTAL DISPLAY .....	4
READINGS .....	4
SET PARAMETERS .....	5
<b>OVERLOAD SHUTDOWN AND ALARMS</b> .....	7
<b>HANDY HINT</b> .....	8
<b>FAULT FINDING</b> .....	9
<b>SYSTEM MAINTENANCE</b> .....	10
SA30 MAINTENANCE .....	10
BATTERY MAINTENANCE.....	10
<b>SA30 ELECTRICAL SPECIFICATIONS</b> .....	11
<b>RADIO FREQUENCY INTERFERENCE</b> .....	12
<b>APPENDIX A    DIAGNOSTICS</b> .....	13
<b>APPENDIX B    FLOW DIAGRAM FOR DISPLAYS AND SETTINGS</b> .....	14
<b>WARNING</b> .....	15
<b>PRODUCT WARRANTY CONDITIONS</b> .....	15

## INTRODUCTION

Thank you for your purchase of the Selectronic Sine wave inverter, model SA30.  
Your SA30 is a state-of-the-art high performance TRUE SINE WAVE DC-AC Inverter.

Thousands of hours of development time have been invested in the SA30 so that we can provide you with a reliable high quality inverter. The output from your SA30 is as good as, if not better than mains power and if looked after properly, the SA30 will give you many years of reliable service.

## WARRANTY CARD

Before proceeding any further, it is extremely important that you complete your warranty card NOW. This will enable us to immediately register your 24 month warranty period, and also make you eligible for our free warranty extension option. Six months after the purchase date of the SA30, Selectronic will send you a questionnaire. Simply complete and return the questionnaire to us and we will extend your warranty, free of charge, by a further six months. By accurately completing your warranty card and questionnaire, you will provide us with valuable information that will assist us in keeping up with your alternative energy needs. Please take a few moments to fill in the warranty card. Your efforts will be greatly appreciated.

## INSTALLATION

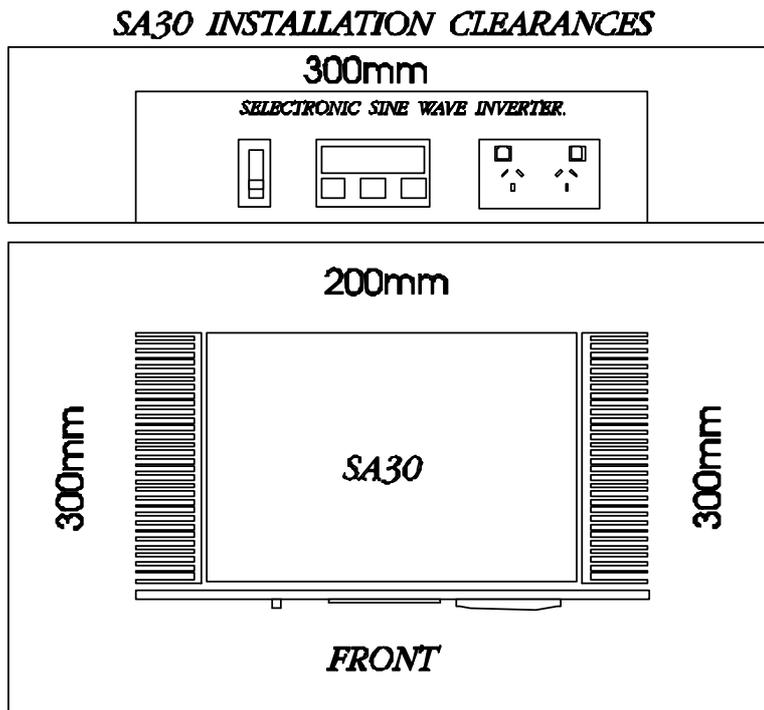
After unpacking, check for any damage which may have occurred during transit. If there are any signs of damage, contact your supplier immediately.

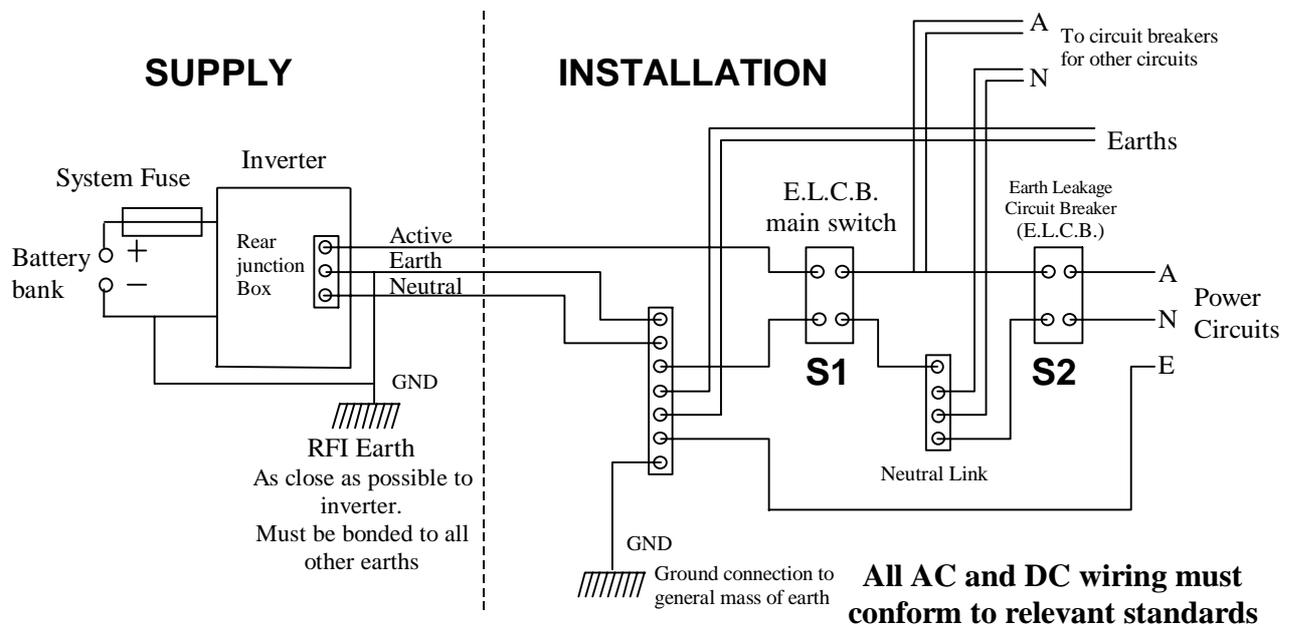
The Inverter must be installed in a dry, cool, dust-free environment.

Please leave at least 300mm clearance around the sides and top of the Inverter and approximately 200mm at the rear as this will aid the natural cooling of the Inverter. The air vents on the underside of the SA30 also need to be kept clear of obstructions.

We suggest that you house your Inverter and other power generating equipment in a purpose built shed remotely sited from the home. Also make sure that the exhaust from your generator or other sources of heat or fumes are kept well away from the SA30. We strongly recommend that SEIAA (Solar Energy Industries Association Of Australia) installation guidelines be followed.

You should have a suitable 24V DC battery bank which is kept in a charged condition. To maintain operation to SA30 specification, the battery bank should have a minimum capacity of 700 ampere hours at the 100 hour discharge rate (ask your supplier if in doubt). Smaller capacity batteries can be used but may result in degraded performance of the SA30 under heavy surge conditions.





## CONNECTION OF AC AND DC WIRING

**IMPORTANT:** Before making any wiring connections, check that the circuit breaker on the front panel is in the OFF position, i.e.; LEVER DOWN.

Your electrician should firstly connect the AC wiring via the three terminal rear junction box. Carefully observe the correct connections. Please refer to the diagram overleaf.

BROWN	ACTIVE	(red dot, top connector)
GREEN/YELLOW	EARTH	(E, centre connector)
BLUE	NEUTRAL	(Bottom connector)

The lid of the junction box has knockouts to allow conduit entry. Make sure this connection is tight and safe. Re fit junction box cover.

**NOTE:**  
**ALL AC WIRING MUST BE CARRIED OUT BY A LICENSED ELECTRICIAN  
 AND MUST CONFORM TO AS3000 WIRING REGULATIONS.**

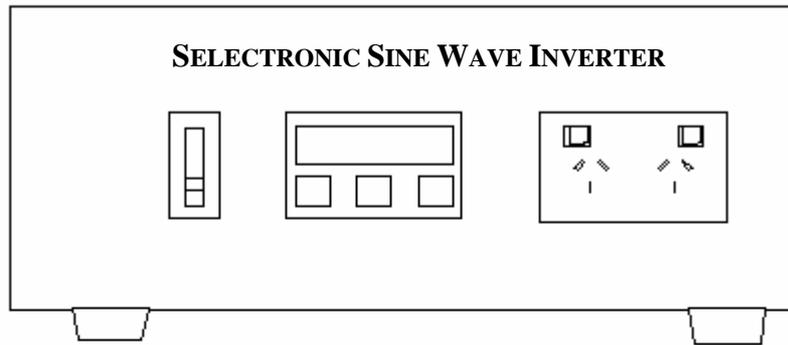
Verify that the circuit breaker on the front panel is in the OFF position, LEVER DOWN.

Now connect the battery cables.

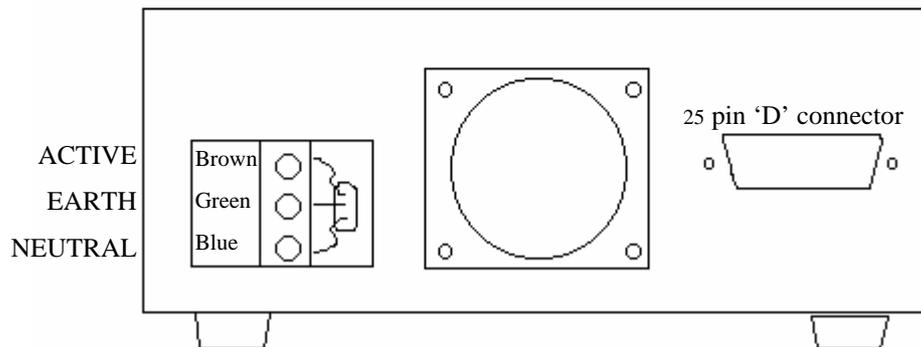
RED	BATTERY POSITIVE (+)
BLACK	BATTERY NEGATIVE (-)

These connections should be tight. If using nuts, bolts and washers, they should be stainless steel. At this point recheck the connections before proceeding any further. If all is well you can now switch the circuit breaker ON. If after two (2) tries the circuit breaker does not turn on then recheck the battery polarity. If this is correct then check that the battery voltage is between 20 and 34V DC. If the breaker still won't switch on, refer to FAULT FINDING (see page 9).

## ***FRONT PANEL***



## ***REAR PANEL***



## **OPERATION**

When you first apply power, the SA30 will be in STANDBY mode. There will be a quiet pulsing sound and the red neons on the power point will flash if turned on. The SA30 is now ready for use.

## **LIQUID CRYSTAL DISPLAY**

The SA30 has a liquid crystal display and key pad on the front panel which provides vital information about your power system whilst allowing you to set a number of parameters within the SA30.

## **READINGS**

The SA30 has four READINGS displays to give you useful information about your inverter and your batteries. By pressing the 'NEXT DISPLAY' key on the front panel, the screen information rotates through displays of Inverter Status, Battery Volts, AC Amps and AC Volts.

## **STATUS**

```
Status: STANDBY
--- Readings ---
```

```
Status: CONT
--- Readings ---
```

```
Status: RESET
--- Readings ---
```

The first screen will display the Status of the SA30. There are three status conditions: STANDBY, CONT (continuous) and RESET.

When this screen is displayed, the Status can be changed by pressing the UP or DOWN keys. Each time the UP key is pressed, the status will change from STANDBY to CONT to RESET and back to STANDBY while the DOWN key will change the Status in the reverse order.

**STANDBY** means the SA30 is producing pulses of power while waiting for an appliance to be switched on. This is called the demand start because as soon as the appliance is switched on, the SA30 will turn on and remain on until the 10 seconds after the appliance is switched off. After this time, the SA30 will return to pulsing or demand start mode waiting for another load. This feature is extremely important as it conserves valuable battery power when no appliances are on

**CONT** mode (CONTINUOUS) means the Inverter will be on at all times regardless of the load. This situation is useful if you have small loads such as VCRs or digital clocks which are required to stay on all the time, or if loads are too small to be sensed in the STANDBY mode. The only disadvantage is that when no appliances are operating, the SA30 will be drawing more power from your batteries.

**RESET** mode holds the output of the SA30 off and stops the demand start pulses. When placed in this mode, any overload or shutdown conditions are also reset. This situation will be explained in more detail in a later section.

**BATTERY VOLTS**

```
Batt Volts:24.6V  
--- Readings ---
```

Displays the DC Battery volts. This provides you with an indication of the condition of your battery bank.

**AC CURRENT**

```
AC Current:1.2A  
--- Readings ---
```

The AC current is the current drawn from the AC output by the appliances connected to the inverter.

**AC VOLTS**

```
AC Volts:240V  
--- Readings ---
```

This reading gives an approximate indication of the AC voltage produced by the inverter. The AC volts will read between 230V and 245V except under high load or low battery conditions.

**SET PARAMETERS**

There are a number of parameters within the SA30 which can be changed via the front panel push keys (push buttons). These are: DS sense (Demand start sensitivity), Audio Alarm, Lo volt trip, Lo DC Volts, Lo DCV on and Hi DC Volts. "Set Parameters" is displayed by holding down the NEXT DISPLAY key for about 1 second whilst in any "Readings" display. The value of the parameter displayed can be increased or decreased by pressing the UP or DOWN keys respectively.

Pressing the NEXT DISPLAY key will take you to the next parameter to be set. Pressing the NEXT DISPLAY key after the last parameter is displayed will take you back to the "Readings" displays.

Please note: After DC power is disconnected from the inverter, the "settings" are reset to the default values and will need to be re-entered if other values are required. Use the table on page 7 to record your settings to assist in their re-entry.

## DS SENSE

DS Sense: 6W  
Set Parameters

This sets the minimum load which will bring the SA30 on when in demand start mode (pulsing). In most cases the default setting of 6W would be suitable. If there is a load which the SA30 won't sense then reduce this until the SA30 starts. Alternatively if there is a small load that keeps the SA30 on then increase this value. You may need to try a few different setting to find the most appropriate value for your installation. Use the UP or DOWN keys to chose the correct setting.

## AUDIO ALARM

Audio Alarm: ON  
Set Parameters

This display allows you to select whether the audio alarm sounds during an overload or other alarm conditions. Use the UP or DOWN keys to choose the correct setting.

## LO VOLT TRIP

Lo Volt Trip: YES  
Set Parameters

When set to YES, the circuit breaker on the front panel will trip to completely disconnect the inverter from the batteries when the DC battery volts remains below the **Lo DC Volts** setting (described below) for more than 2 minutes. Use the UP or DOWN keys to choose the correct setting.

## LO DC VOLTS

Lo DC Volts: 20.0  
Set Parameters

The SA30 will cut out and a message displayed if the battery voltage falls below this setting for more than 10 seconds. The inverter will restart if reset or when the battery volts rise above the '**Lo DCV on**' setting. Use the UP or DOWN keys to choose the correct setting.

## LO DCV ON

Lo DCV on: 24.0  
Set Parameters

The SA30 will restart after a Low Battery Volts cutout when the battery volts rise above this setting. Use the UP or DOWN keys to choose the correct setting.

Please note: If the battery volts drops below 17V (regardless of the **LO DC VOLTS** setting) then the breaker will trip instantly, disconnecting the SA30 from the battery. Note: this will cause all user settings to be reset to default values when the breaker is turned on again.

## HI DC VOLTS

Hi DC Volts: 34.0  
Set Parameters

When the battery volts exceeds this setting, the SA30 will cut out instantaneously. For most installations the default setting of 34V will be suitable. Please note that if the battery volts rise above 35V (regardless of the **HI DC VOLT** setting), the breaker will instantly trip and the inverter will be totally disconnected. Use the UP or DOWN keys to choose the correct setting.

## AC OUTPUT VOLTS

AC Output: 240V  
Set Parameters

The AC output voltage is adjustable within the range of 220 V to 240 VAC with a default setting of 240 VAC. This allows the user to run appliances rated at 220VAC, 230VAC and 240VAC 50Hz. NZ users should set this to 220 VAC.

Parameter	Default	Range	User settings
DS sensitivity	6	3 - 20	
Audio Alarm	ON	ON / OFF	
Lo Volt trip	YES	YES / NO	
Lo DC Volts	20	19 - 22	
Lo DCV on	24	22.2 - 26	
Hi DC Volts	34	30 - 34	
AC Output Volts	240	220 - 240	

## OVERLOAD SHUTDOWN AND ALARMS

The SA30 has eight alarm and overload conditions. These result from high or low battery volts, high AC volts, AC output overloaded, transformer being too hot or heatsinks too hot or different temperatures. If one of these conditions occurs, a message will be displayed. If there is more than one alarm condition the display will alternate between messages.

The message will remain on the display until a key is pressed even if the alarm condition ends (i.e. after a high voltage condition the battery volts comes back down again). This allows you to determine the cause of the shutdown even if the inverter comes on again before you are able to read the display.

### DC VOLTS HI

DC Volts Hi:34.5  
\*\*Press a Key\*\*

This message is displayed and the inverter shuts down if the battery voltage rises above the **HI DC VOLTS** setting. The inverter will automatically restart when the battery volts drops below this value. The present battery voltage is also displayed.

### DC VOLTS LO

DC Volts Lo:19.5  
\*\*Press a Key\*\*

This message is displayed and the inverter shuts down if the battery voltage drops below the **LO DC VOLTS** setting for more than 10 seconds. The inverter will automatically come on again when the battery voltage rises above the LO DCV ON voltage or if the inverter is manually reset (via the STATUS display). The present battery voltage is also displayed.

### AC VOLTS HI

AC Volts Hi: 0  
\*\*Press a Key\*\*

If a system fault causes the AC voltage to go too high, then this message is displayed.

## INVERTER O/L

Inverter O/L:0  
\*\*Press a Key\*\*

An AC current overload or a short circuit on the AC output will cause the inverter to shut down and display this message. If the shutdown was due to an overload, the SA30 will automatically reset after 1 minute.

If the shutdown was due to a short circuit, the SA30 will have to be reset (via the STATUS display) on the front panel.

## TX TOO HOT

TX TOO HOT:122C  
\*\*Press a Key\*\*

If the transformer reaches its maximum operating temperature, the SA30 will shut down to protect the internal components. The SA30 will restart again only when the temperature drops to a safe level. The present temperature of the transformer is also displayed.

## HS1 TOO HOT

HS1 Too Hot: 82C  
\*\*Press a Key\*\*

If the left heatsink (viewed from the front) reaches its maximum operating temperature, the SA30 will shut down to protect itself. The SA30 will come on again only when the temperature drops to a safe level. The present temperature of the left heatsink is also displayed.

## HS2 TOO HOT

HS2 Too Hot: 83C  
\*\*Press a Key\*\*

If the right heatsink (viewed from the front) reaches its maximum operating temperature, the SA30 will shut down to protect itself. The SA30 will come on again only when the temperature drops to a safe level. The present temperature of the right heatsink is also displayed.

## DIF HS TEMP

Dif HS Temp: 32C  
\*\*Press a Key\*\*

If the difference in temperature between the two heatsinks is excessive, a message is displayed BUT THE SA30 DOES NOT SHUT DOWN. This is a warning only and could indicate the air flow to one heatsink is restricted.

## HANDY HINT.

It is very important that you become familiar with the functioning of your Inverter. Since most Inverters are remotely sited from the home, it is not always easy to know if the inverter is ON or pulsing. An easy way to determine this is to plug a small child's night light (neon type) into a power point which is easily visible, or replace the power point with a safety type with a neon indicator. This will indicate the inverter's operation by flashing when the inverter is pulsing and remaining on when the inverter is brought on by a load.

## **FAULT FINDING**

### **INVERTER STAYS ON EVEN WHEN NO APPLIANCE IS BEING USED.**

This can be a common problem known as a "phantom load", but can be easily overcome with the SA30. Some appliances will need to be switched off at the power point as they may still represent a small load despite being switched off at the appliance. Check again to make sure there are no appliances left on, then sequentially switch off appliances at the wall and by watching your night light (as described above) check to see if the SA30 returns to pulsing mode (after a 10 second delay). Once you have found the offending appliance, adjust the sensitivity of the demand start up (see "Set Parameters" on page 5 ) until the Inverter turns off. Once this is done re check that small loads will still bring the Inverter on when required.

### **INVERTER WILL NOT COME ON WHEN SMALL APPLIANCE IS SWITCHED ON.**

This means that your demand start sensitivity is set too high. With the appliance in question switched on, adjust the demand start sensitivity (see "Set Parameters" section on page 5) until your SA30 turns on.

### **INVERTER SHUTS DOWN DURING MIDDLE OF THE DAY AND COMES BACK ON LATE AFTERNOON.**

This is more than likely caused by high battery volts during peak charging times from solar panels. To overcome this, adjust the high voltage cutout of your SA30 (see "Set Parameters" on page 5); the maximum voltage allowable being 34 volts. If this is still not high enough you may have a problem with either your batteries or your regulator. This could be potentially dangerous so we advise you to consult your system designer immediately.

### **INVERTER SHUTS DOWN WITH LOW VOLTS.**

If your SA30 has shut down because of low DC volts it could be due to the following:

1. A sustained large load could be causing the battery volts to drop to a low enough point to cause the SA30 to cut out. This is not normally a fault with the SA30 but could be due to the following:
  - (a) Battery bank is too small- consult your system designer.
  - (b) A bad connection between the batteries and inverter due to a loose or corroded terminal. In this case, please refer to the maintenance section of this manual (on page 10.)
  - (c) One or more battery cells could be faulty - consult your installer.
2. If your battery volts are below 23.5V with no loads connected, the batteries may require charging. Use a hydrometer to check the specific gravity of each cell. Consult your battery manual for the correct specific gravity (SG) readings.

### **INVERTER SHUTS DOWN DUE TO HS1 OR HS2 TOO HOT**

This is likely under sustained heavy load conditions since the SA30 shuts down to protect its internal components. If you believe that the load is not excessive, check around the Inverter case and heatsinks for obstructions to air flow as this will cause the Inverter to heat up much quicker and shut down sooner than normal. Also check that the clearances around the SA30 are as specified in INSTALLATION.

## **SYSTEM MAINTENANCE**

To get the optimum performance from your SA30 power inverter, particularly under heavy appliance loads, it is essential that the battery bank and the DC wiring are all in good condition. The small amount of time spent on the below maintenance tasks will maximise the reliability of your system.

### **SA30 MAINTENANCE**

Periodic maintenance of the SA30 inverter involves little more than checking for unobstructed operation of the cooling fan, which is located at the rear of the inverter. Note that cooling air is drawn in through vents underneath the inverter.

Suggested inverter maintenance should include:

1. Check for unobstructed fan operation:  
Clear away any dust or foreign matter from the fan grill using a soft bristled brush.  
(Do not direct high pressure compressed air at the fan blades)  
Note that the fan is designed to come on during heavy power demand.
2. Check between fins of the heatsinks and clean out any accumulated foreign objects, for example, insect nests.
3. Verify that the air flow beneath the chassis is not restricted.
4. Clean external surfaces of the SA30 using a soft, lint free cloth, with polish and wax. e.g. Mr Sheen.

## **BATTERY MAINTENANCE**

### **IMPORTANT:**

When working on batteries of such high capacity it is essential that you wear protective clothing, some form of eye protection and rubber-soled work boots. Please regard your batteries with a great deal of caution, and if in any doubt, entrust this work to your installer.

1. Every week, carry out a thorough visual inspection of all battery wiring, taking particular note of the condition of inter-connections between cells.
2. Check that the stainless steel inter-connecting bolts are tight and have minimal corrosion. If corrosion is evident, carefully follow the procedure outlined next.
  - (a) Disconnect the system battery fuse before working on the battery bank.
  - (b) Unbolt the stainless steel bolts and nuts of any corroded connections and thoroughly clean the joint with a wire brush or file, taking extreme care not to short circuit any battery cells with any tools.
  - (d) Re-assemble and smear a small amount of Vaseline or similar grease over the surface of the joint to slow down any future corrosion.
3. Every month, measure the specific gravity (SG) of each cell using your hydrometer, to ensure that all cells are performing correctly. Any serious imbalance should be reported to your system designer in case remedial action needs to be taken.

## SA30 ELECTRICAL SPECIFICATIONS

### INVERTER TYPE

PWM Full bridge power stage, with true sine wave AC output.

### DEMAND START SECTION

Type: Pulsing AC  
Minimum Load Power to start (User adjustable): 3W to 20W  
Maximum response time: 0.5 sec  
Standby power from battery (Average): 60mA / 1.4W

### BATTERY VOLTAGE RANGE

Low DC Volts Disconnect	(Instantaneous):	17V
Low DC Volts Cutout	(Delayed, User Adjustable):	19-22V
Low DC Volts Cut-in	(Delayed, User Adjustable):	22.2-26V
High DC Volts Cutout	(Instantaneous, User Adjustable):	30-34V
High DC Volts Disconnect	(Instantaneous):	35V

### TOTAL APPLIANCE RATING

	At 20 °C	At 30 °C
Continuous:	2000W	1800W
30 Minute rating:	3000W	2700W
5 Minute rating:	3800W	3800W
1 Minute rating:	5000W	5000W
Surge rating:	6000W	6000W

### INVERTER EFFICIENCY

Peak (at 500W): 92%  
Efficiency at 100W: 85%  
No load power consumption (CONT mode): 0.6A or 14W

### MISCELLANEOUS SPECIFICATIONS

Output Frequency Accuracy: 50Hz +/- 0.2%  
Output Voltage Accuracy (0 - 2000W): 240V +/- 4%  
Total Harmonic Distortion (THD): < 4%  
Electrical Isolation - Input to Output : 3.5kVAC

**Note:** Through a policy of continued development, specifications are subject to change without notice.  
The above specifications are based on unity power factor.

## RADIO FREQUENCY INTERFERENCE

For many years, Radio Frequency Interference (RFI) has been an annoying problem for owners of Inverters. RFI in a domestic situation produces noise or interference on a radio or TV receiver. Most of the problems with RFI in a Remote Area Power Supply (RAPS) installation involves AM radio reception.

Considerable development time has resulted in a reduction of the RFI produced by the SA30 to a level which complies with Australian Standard AS1044. Compliance to this standard means RFI is low but how well the inverter performs in a particular installation can vary. Below are some suggestions to help reduce the effects of RFI in your installation.

1. The power system including the inverter should be housed at least 15 metres from the home.
2. Ensure a good earth stake is placed as close to the inverter as possible. See “INSTALLATION” on page 2 for wiring.
3. Avoid running DC into the home, if at all possible. If this cannot be avoided, run DC and AC in separate conduits separated by as much distance as practicable. All DC wiring should also be kept as short as possible.
4. To reduce the effects of RFI, it is important that your AM radio has good signal strength. This will enable your radio to reject any noise being produced by your inverter, regulator, controllers or DC lighting. If possible, try moving the radio around to improve signal strength or use an external aerial. Some of today's building materials such as steel roofs and foil insulation may form a barrier to incoming radio signals. If an external aerial is required, it should be on the outside of the home, mounted as high as practicable and as far from the battery shed as possible. Connection from the aerial to the radio should be via a low loss coaxial cable.

**REMEMBER:** This aerial must be an AM RADIO type; a TV aerial will not work.

## APPENDIX A    **DIAGNOSTICS**

The "Diagnostics" is a special set of displays which give additional information about the SA30. These are normally only used when advanced troubleshooting is undertaken. The "Diagnostics" section displays the transformer and heatsink temperature, Demand start current, scale and maximum scale factor, low voltage trip and software version information.

"Diagnostics" is accessed by holding both UP and DOWN buttons together for more than 1 second during the display of any "Readings" screen with the exception of "Status". The NEXT DISPLAY key takes you through the "Diagnostics" displays, eventually returning to the "Readings" display.

### **TRANSFORMER TEMPERATURE**

TX Temp: 75C Diagnostics
-----------------------------

This display is the operating temperature of the transformer inside the SA30 in degrees Celsius.

### **HEATSINK 1 TEMPERATURE**

HS1 Temp: 42C Diagnostics
------------------------------

This displays the operating temperature of the left heatsink.

### **HEATSINK 2 TEMPERATURE**

HS2 Temp: 34C Diagnostics
------------------------------

This displays the operating temperature of the right heatsink.

### **DEMAND START CURRENT**

D/S Current:48 Diagnostics
-------------------------------

This gives a reading of the value read by the demand start sense circuit and can be useful during advanced demand start troubleshooting.

### **SCALE FACTOR**

Scale:102 Diagnostics
--------------------------

This gives a reading of the scale factor used in the regulation of the output voltage. This should always be the same given the same load and battery voltage and is useful when troubleshooting AC voltage related problems.

### **MAX SCALE FACTOR**

Max Scale:123 Diagnostics
------------------------------

This gives a reading of the maximum scale factor allowed under the present load and battery volts. If this scale factor is exceeded then the SA30 will shut down and a Hi AC Volts message will be displayed.

## LO TRIP VOLTAGE

Trip Volts:17V  
Diagnostics

If the battery volts drops below 17V then the circuit breaker on the SA30 will instantly trip. If the 17V setting is too high for your installation and the circuit breaker keeps tripping, then this voltage can be changed by the use DOWN and UP keys. Please note that before changing this setting check all the points listed under Fault Finding. This setting will only need to be changed in unusual cases.

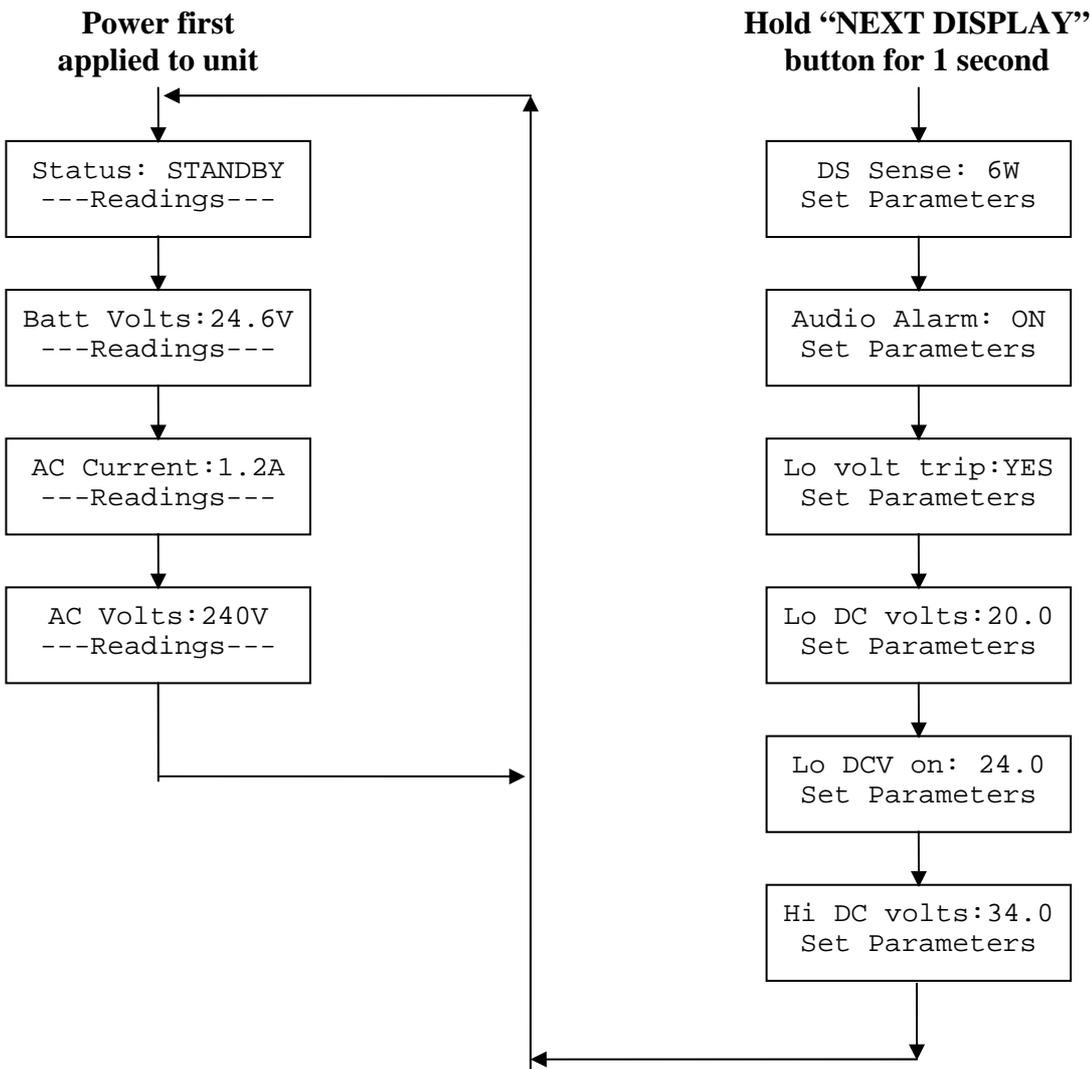
## SOFTWARE VERSION

SELECTRONIC C  
Ver 1.02 1994

This displays the revision of the software running your SA30. Please note that this software is Copyright to SELECTRONIC AUSTRALIA P/L and it is an offence to copy or duplicate any part of this program.

This is the last screen in the "Diagnostics" and pressing the NEXT DISPLAY key once more will return you to the "Status" screen.

## APPENDIX B FLOW DIAGRAM FOR DISPLAYS AND SETTINGS



## WARNING

### THE OUTPUT VOLTAGE FROM AN INVERTER IS AS LETHAL AS LANDLINE POWER.

It is therefore absolutely necessary for your safety to ensure that all Remote Area power installations meet and comply with the relevant provisions and requirements of wiring standards.

It is imperative that you ensure that only Electrical contractors are permitted to install any AC wiring in your system.

## PRODUCT WARRANTY CONDITIONS

Selectronic Australia Pty Ltd warrants your SA30 inverter to be free from defects in materials and workmanship under normal use and service, for two (2) years.

This warranty is applicable only from the date of original purchase. All parts will be replaced or repaired free of charge within this period. The unit shall be returned at no cost to the owner.

The provision of this warranty shall not apply if the unit has been subject to misuse, neglect, acts of God, accidental damage or has been used for a purpose for which it is not designed.

Freight charges to the point of purchase and the cost of any repairs resulting from damages occurring during this freighting will be borne by the owner.

Any alterations or repairs by unauthorised parties will void your warranty.

To ensure fast efficient handling of any warranty claims, please complete and return your reply paid warranty card within 30 days from date of purchase.

If service is required, please return your inverter in its original carton with proof of purchase and a brief description of the fault, to your point of service or any of the following service centres:

Selectronic Australia 25 Holloway Drive Bayswater Victoria 3153 Australia Ph: 03 9762 4822 Fax: 03 9762 9646	Burley TV Service 278 Edmondson Ave Austral NSW 2171 Australia Ph: 02 606-0279	Reid Technology Ltd 3-5 Auburn Street Takapuna North Shore City Auckland NZ Ph: 9 489-8100 Fax: 9 489-8585	RF Analysis Harness Cask Road Dorrigo NSW 2453 Australia Ph: 066 57 8003 Fax: 066 57 8002
--	---	--	---