



## Smart Sine Plus Series

### 1- Introduction of Product

Faratel Smart Sine Plus UPS series are designed with Line-Interactive technology and can provide pure sine wave in output independent from input AC line even in power failure.

It can protect computers and peripheral devices from utility line failures which may result in the loss or corruption of valuable data or make some hardware damages.

Faratel SSP series are equipped with smart micro-processing system to check for proper operation of UPS and find probable errors in any part of the UPS.

SSP-UPS series are designed for Computer systems, sensitive measurement instruments, laboratory precision instruments, medical devices, Telecommunication or any other power sensitive devices.

### 1-1- Advance Features

- Ability to remove EMI and RFI Noises
- System modulated for better and easy Servicing
- Equipped with External Battery Connector
- Low weight and size
- Includes Switch mode Charger
- Equipped with Smart RS232 Port
- Includes UPSwing Pro software to control and monitor UPS, auto save open files and shutdown OS and UPS in critical events
- Equipped with watchdog system to detect PC hanging and restarting them
- Contains Sealed Lead-Acid Batteries (Some Models)
- Includes Test Button for checking if UPS working properly in lack of AC line Voltage
- Ability to recognize Battery disconnection (some models)
- Intelligent Microprocessor controlled
- Cold Start
- Automatically Battery Charging in UPS off mode
- Ability to add UPS Device Managers as SNMP Cards (Optional)
- In Rack-mount models (Some Models)

### 1-2- Protection Systems

- Protection of UPS loads against lightning, Spike and Surge
- Back Feed Protection in input on Battery Mode
- Protection of UPS load against two phase Input AC line.
- Protection against output voltage variations out of range
- Protection against Input voltage and frequency variations
- Over Heat protection
- Common Mode Noise protection
- Output short circuit and overload protection
- Reversed Battery connection protection
- Charger short circuit protection
- Battery Terminal short circuit protection
- Protection against over-discharge
- Protection against upper battery charger voltage
- Tel/Fax/Modem/Network Surge Suppression

## 2- UPS Block Diagram

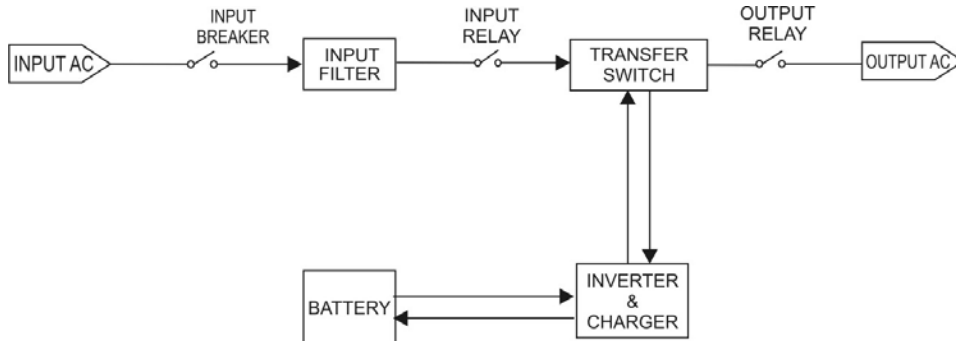


Figure 1: Block Diagram of SSP Series

## 3- Front Panel View

- |                          |                             |                             |
|--------------------------|-----------------------------|-----------------------------|
| 1- ON/Test Button        | 5- Backup Mode Indicator    | 8- Load Level Indicators    |
| 2- Boost Indicator       | 6- Battery Defect Indicator | 9- Battery Level Indicators |
| 3- Normal Mode Indicator | 7- Over Load Indicator      | 10- OFF Button              |
| 4- Buck Indicator        |                             |                             |

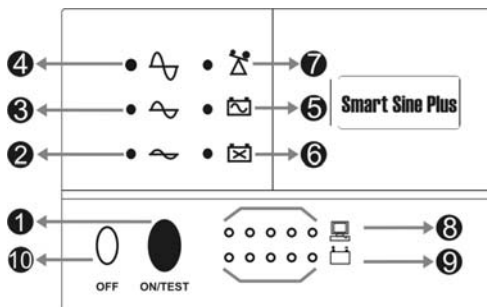


Figure 2: Front Panel of SSP UPS Series

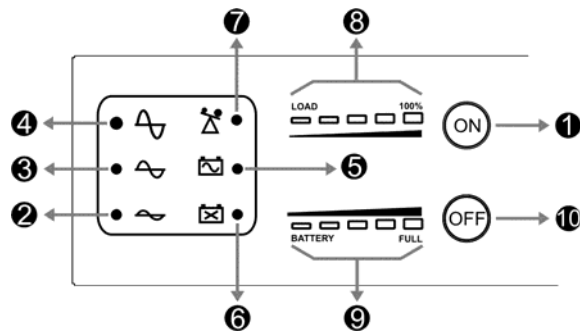


Figure 3: Front Panel of SSP Rack-Mount Models & SSP1500B-14 Stand up Models

#### 4- Rear Panel View

- 1- Input AC Line Cable
- 2- Input Fuse
- 3- Earth Connection Screw
- 4- Site Wiring Fault Indicator
- 5- Output Receptacles
- 6- External Battery Connector
- 7- Smart RS232 Port
- 8- Intelligent Card Slot
- 9- Modem/Network Surge Protection (RJ45/11 connection)
- 10- Fan

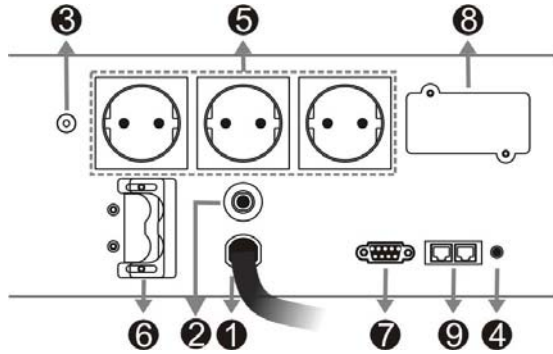


Figure 4: Rear Panel of SSP Rack-Mount Models

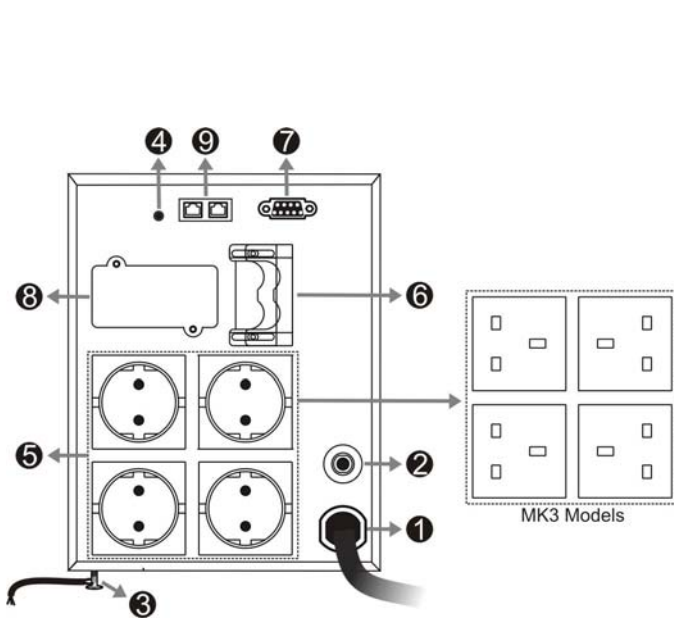


Figure 5: Rear Panel of SSP Stand up Models

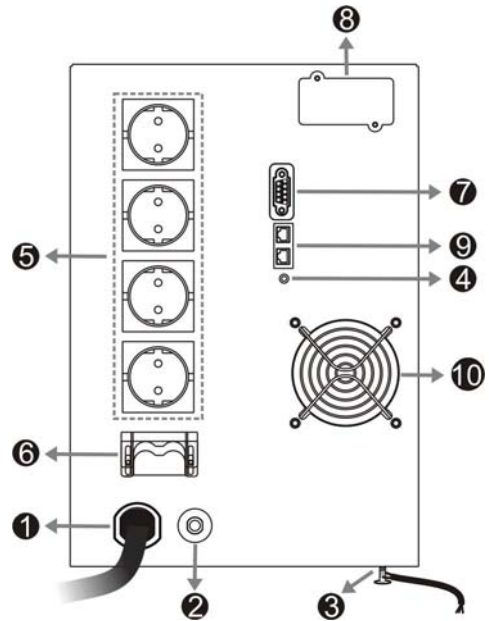


Figure 6: Rear Panel of SSP1500B-14 Stand up Model

## 5- Technical Specification Table

Model		SSP1500B-7	SSP1500B-RM-7	SSP2000X
		SSP1500B-14	SSP1500B-RM-14	SSP3000X
		SSP1500X	SSP1500X-RM	SSP3000X-RM
<b>Technology</b>		Line-Interactive		
<b>Power</b>		1500VA - 1050Watt		2000VA - 1400Watt
				3000VA - 2100Watt
				3000VA - 2100Watt
<b>Input</b>	<b>Voltage</b>	178 ~ 248VAC or 148 ~ 270VAC		
	<b>Max. Current</b>	8A		13A
				20A
	<b>Frequency</b>	50±3Hz		
<b>Phase</b>	Single Phase			
<b>Output</b>	<b>Voltage</b>	AC Mode: 220VAC±5% or 220VAC±10% Battery Mode: 220VAC±1%		
	<b>Current</b>	6.8A		9.1A
				13.6A
				13.6A
	<b>Frequency</b>	AC Mode: Synch With Input Battery Mode: 50±0.01%Hz		
	<b>Phase</b>	Single Phase		
	<b>Nominal Power Factor</b>	0.7		
<b>THD</b>	<0.5% at linear load			
<b>Over Load Capacity</b>	Normal Mode: 110%~150% of Nominal Power for 10 Minutes Battery Mode: 110%~130% of Nominal Power for 20 Seconds 130%~150% of Nominal Power for 5 Seconds			
<b>Battery</b>	<b>Type</b>	Sealed Lead Acid Batteries with Free Maintenance		
	<b>Voltage</b>	48VDC		
	<b>Internal Battery</b>	4*(12V/7Ah)	4*(12V/7Ah)	Has not
		2*(4*(12V/7Ah))	2*(4*(12V/7Ah))	
		Has not	Has not	
	<b>Recharge time</b>	10 hours after 90% discharge		
<b>External Battery</b>	Equipped with External Battery Connector			
<b>Efficiency</b>	>85%			
<b>Transfer time</b>	2-4msec			
<b>Environment</b>	<b>Audible Noise</b>		Less than 40dB at 1 meter from surface	
	<b>Ambient Operation</b>	<b>Temperature</b>	0-40°C	
		<b>Humidity</b>	0 ~ 95% (non-condensing)	
		<b>Altitude</b>	1000 meters max. elevation (Based on IEC62040)	

Note:

- The Models which end by "X" has powerful Internal Charger.
- The Models which end by "B" has Internal Batteries.

## 6- Physical Specification Table

Model	Dimension (W*D*H)(mm)	Shipping weight (Kg)	Net weight (Kg)
SSP1500X	164*507*220	18.2	16.4
SSP1500B-7		29.2	27.4
SSP1500B-14	251*548*373	43.8	42.5
SSP1500B-RM-7	With Handles: 483*545*135 Without Handles: 429*512*135	36	34.4
SSP1500B-RM-14		46	44.4
SSP1500X-RM		26	24.4
SSP3000X-RM		30.1	28.5
SSP2000X	164*507*220	21	19.3
SSP3000X		28.7	26.8

## 7- Backup time cart

UPS	UPS Power (VA)	Battery Cabinet	Load/Backup time (Minutes)						
			20%	40%	50%	60%	70%	80%	Full
SSP1500B-14Ah*, SSP1500B-RM-14Ah*	1500	-	80	38	30	24	20	18	14
SSP1500B-7Ah*, SSP1500B-RM-7Ah*		-	31	15	12	10	8	7	5
SSP1500X, SSP1500X-RM		SBC4828	190	81	65	54	46	41	35
		SBC4842	285	137	110	88	74	62	47
		SBC4865	510	250	197	155	124	113	90
		SBC48100	900	442	345	285	240	205	166
SSP2000X		SBC4828	125	60	49	42	36	31	22
		SBC4842	192	94	78	65	56	47	35
		SBC4865	370	184	145	112	97	78	60
		SBC48100	650	320	250	210	172	137	113
SSP3000X		SBC4828	90	44	35	25	20	16	13
		SBC4842	135	65	51	41	36	29	19
	SBC4865	240	115	91	70	57	52	40	
	SBC48100	430	210	165	130	102	91	70	

Note: The tolerance of time values in above table is  $\pm 10\%$ .

\* With Internal Batteries

## 8- How to Contact Faratel

### 8-1- Central Sales Department

Address: Faratel Bldg., No. 21, Kandovan Alley (Opposite of Nejatolahi St.), Enqelab St., Tehran, Iran

Postal Code: 1131834914

Telephone: (+98 21) 6670 0001 up to 5

Fax: (+98 21) 6670 9493

Email: [sales@faratel.com](mailto:sales@faratel.com)

URL: <http://www.faratel.com>

### 8-2- Central Customer Service

Address: Faratel, Shahid Abdolrahimi St., 17 Shahrivar St., Sanay-e Felezi St., Fifth Kilometer of Old Karaj Rd., Tehran, Iran

Postal Code: 1378763511

Telephone: (+98 21) 6680 9495 up to 7

Fax: (+98 21) 6680 5525

Email: [support@faratel.com](mailto:support@faratel.com)

URL: <http://www.faratel.com/support/>

In order to find the nearest authorized representatives of Customer Service in Iran please refer to the above URL.