



FARBER PURE SINE WAVE UPS

500VA

700VA

850VA

1100VA

USER GUIDE

Dear Customer

Congratulations! We thank you and appreciate your decision to go for farber Pure Sine Wave Uninterruptible Power Supply (UPS). farber UPS incorporates the highly advanced DSP technology which delivers Pure sine wave output.

FarberUPS is designed to sense blackouts, brownouts, sags and surges of the Grid supply and prevent them to reach your gadgets which are connected to the UPS by disconnecting the Grid supply and provide supply from UPS.

FARBER UPS:

1. Advanced i-DSP technology delivers Pure Sine Wave output suitable for electrical and electronics loads.
2. More back-up time achieved through intelligent smart design of transformer using primary copper.
3. 100% Copper design for long life and it delivers 15 A charging current for Quick charging of battery.
4. Charging technique for superior performance of battery.
5. Intelligent program reduces grid power consumption for recharging of battery.
6. Enhanced output voltage for better performance of TV, Lights, Fans, Computer, etc.
7. Wide operating voltage range, charges battery at low voltage, increased battery life.

This '**USER GUIDE**' provides you complete understanding of Farber UPS and its optimum use. Please do spare some time to read it before installing and using your Farber UPS

CAUTION and **WARNING** Statements are mentioned for special attention. **CAUTION** statements are identified conditions or practices that could result in damage to UPS or appliances and **WARNING** statements are identified conditions or practices that could result in personal injury or loss of life.

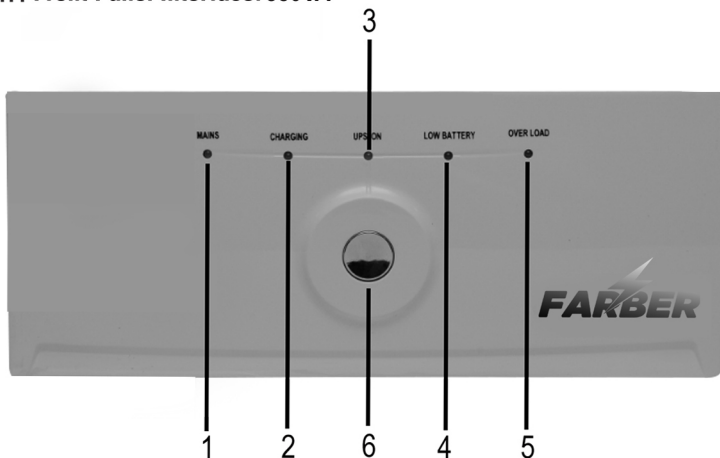
Hope you will be satisfied with our Product and Services.

With Regards,
FARBER

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1) Knowing your UPS

1.1.1 Front Panel Interface: 850VA

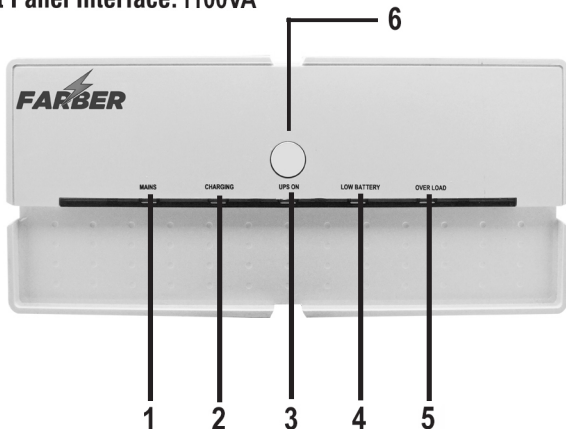


No's	LED Indications	Functional Meanings
1	MAINS	LED glows when Grid Supply is available within specified range. LED blinks when input MCB trips which is present at rear panel of UPS.
2	CHARGING	LED blinks when battery is under charging. LED glows when battery is fully charged.
3	UPS ON	LED glows when Grid Supply is not available, or available but not within specified range.
4	LOW BATTERY	LED glows with beep sound when battery voltage reaches cut-off level.
5	OVER LOAD	LED blinks with beep sound when UPS loaded more than its rated capacity. LED glows with beep sound when short circuit occurs at output side of UPS.

- 6 **PUSH BUTTON** is to switch 'ON/OFF' the output power supply of UPS when Grid Supply is not available, or available but not within specified range. Red Color LED available below the PUSH BUTTON indicates 'ON' condition.

1) Knowing your UPS

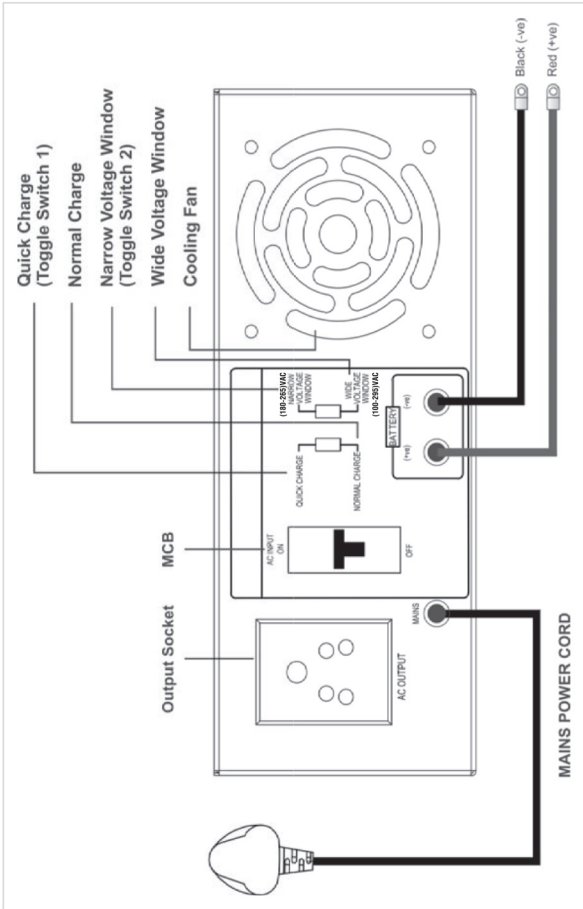
1.1.2 Front Panel Interface: 1100VA



No's	LED Indications	Functional Meanings
1	MAINS	LED glows when Grid Supply is available within specified range. LED blinks when input MCB trips which is present at rear panel of UPS.
2	CHARGING	LED blinks when battery is under charging. LED glows when battery is fully charged.
3	UPS ON	LED glows when Grid Supply is not available, or available but not within specified range.
4	LOW BATTERY	LED glows with beep sound when battery voltage reaches cut-off level.
5	OVER LOAD	LED blinks with beep sound when UPS loaded more than its rated capacity. LED glows with beep sound when short circuit occurs at output side of UPS.

6 PUSH BUTTON is to switch 'ON/OFF' the output power supply of UPS when Grid Supply is not available, or available but not within specified range. Red Color LED available below the PUSH BUTTON indicates 'ON' condition.

1.2 Rear Panel Interface:



Rear Panel diagram of Farber UPS (Picture:02)

No's	Part Name	Purpose of the Part
1	Battery Cables	Red color is for +Ve terminal & Black color is for -Ve terminal of the battery.
2	Output Socket	6A/ 250VAC Socket is provided for UPS ratings 500/700/850/1100VA and 16A/250V Socket for 1500VA through which output power supply comes from UPS.
3	Cooling Fan	It runs when the temperature reaches a preset value at any point or when UPS loaded beyond 50% of its rated capacity in backup mode or battery charging current is more than 7amps.
4	Mains Power Cord	To connect Grid supply as input of UPS.
5	MCB	6A/ 250VAC MCB is provided for UPS ratings 500/700/850/1100VA and 10A/250V MCB for 1500VA at input side of UPS.
6	Toggle Switch 1*	To select 'Quick Charge' or 'Normal Charge'
7	Toggle Switch 2*	To select 'Narrow Voltage Window' or 'Wide Voltage Window'

***NOTE:**

Toggle Switch 1: Factory setting comes with 'Quick Charge' selection by considering longer duration of Power cuts but it can be changed to 'Normal Charge' mode if power cut duration is less or connected with battery less than 100AH capacity.

Toggle Switch 2: Factory setting comes with 'Wide voltage Window' to avoid battery discharge due to unstable Power Supply from Grid, but it can be changed to 'Narrow voltage Window' when Grid Power supply is stable or using Computer/ IT peripherals loads on UPS.

2) Application Chart

Farber UPS comes with various ratings i.e 500VA, 700VA, 850VA, 1100VA & 1500VA.

Refer the below 'Application Chart' to understand different loads that can run with output power supply of UPS.

Type of Loads	Appliance ▲ (Loads)	Power Consumption (VA) #	Appliances(Loads) shall be used with UPS *			
			500VA	700VA	850 VA	1100VA
Electrical Loads	Tube Light	50	✓	✓	✓	✓
	Ceiling Fan	100	✓	✓	✓	✓
	CFL	20	✓	✓	✓	✓
	Incandescent Bulb	75	✓	✓	✓	✓
	Floor or Exhaust Fan	200	✓	✓	✓	✓
Audio & Video Gadgets	Television-CRT model (Old)**	150	✓	✓	✓	✓
	Television(LCD/LED <40")	150	✓	✓	✓	✓
	Television (LCD/LED>40")	200		✓	✓	✓
	Set top Box	50	✓	✓	✓	✓
	CD/DVD Player	125	✓	✓	✓	✓
	Blue-Ray DVD Player	250			✓	✓
	Music System**	500			✓	✓
Computer & IT Peripherals	Laptop	65	✓	✓	✓	✓
	Computer-TFT model (Flat)	200	✓	✓	✓	✓
	Computer-CRT model(Old)**	300		✓	✓	✓
	Scanner**	375		✓	✓	✓
	Inkjet Printer	250		✓	✓	✓
	Dot Matrix Printer	250		✓	✓	✓
	Fax Machine	180			✓	✓
	Laser Printer**	600			✓	✓
KITCHEN Appliances	Mixer**	1000				✓

▲ The above chart only represents the various appliance s(loads) which can run with UPS output Power supply but it does not indicate that all appliances (loads) can run simultaneously on UPS.

Power consumption (VA) of each load is only average but actual power consumption (VA) may vary based on make, model, age and features of appliance (load).

* The total load on UPS must be calculated by adding power consumption (VA) of all loads that are connected to UPS. At any time during operation of the UPS, it must be ensured that the total power consumption (VA) of loads connected to UPS should not be more than UPS rating (VA).

**Startup (inrush/Surge Current) Power (VA) of appliance(Load) is more, which is three times than its rated Power(VA).Hence you may find Overload LED Indication with buzzer sound in UPS when you Switch 'ON' appliance(Load) in Back up mode of UPS.

Note: Loads with less power consumption like Mobile Charger, Wi-fi hubs at home ..etc. can be used on UPS along with above mentioned loads.

3) Guidelines for Installation & Operation

3.1 Selection of Location:

UPS requires controlled environment where the THD (Temperature, Humidity & Dust) levels are carefully maintained for better performance. Hence, Select the location to install the UPS on a flat, clean, dry, well ventilated and dust free environment by considering accessibility for maintenance/Service.



CAUTION: Do not select location like closed containers where temperature levels will be high which leads to performance degradation of the Product.



WARNING: Do not select location near to flammable materials to avoid fire hazards. Do not select near to water pipes, water or rain flow which will cause electrical shock or personal injury and damages Product.

3.2 Preparation of Electrical Wiring:

Please contact Farber Distributor/Dealer to depute Electrician for checking the electrical wiring exists and to make necessary changes in wiring to install the UPS.

A. Input AC Power supply to UPS:

Recommended to use 16A/250VAC Socket with 10A/250AC MCB and extend Input power cables of Line, Neutral and Earth from the Grid/Mains Distribution Box.

B. Output AC Power Supply from UPS:

Electrical wiring shall be done in below said types to install UPS by considering loads(As mentioned in Application Chart) that to be used with UPS output Power Supply. Please choose any one type of wiring and proceed for wiring.

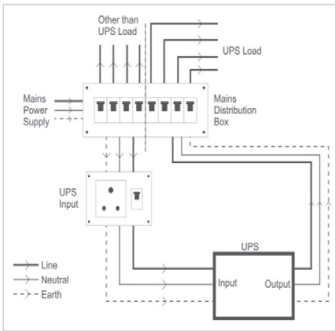
1. Electrical Wiring for any type of loads : (Refer Picture-03)

Check the existing wiring and separate the Line, Neutral and Earth (L-N-E) cables of appliances (which to be used with UPS supply) by disconnecting from Grid/Mains Power supply at Mains Distribution Box and extend it to UPS and connect the cables to Plug. It is strictly recommended for loads like IT peripherals and Kitchen appliances etc.. to be used on UPS for which 'Earth' is required for safety of appliances.

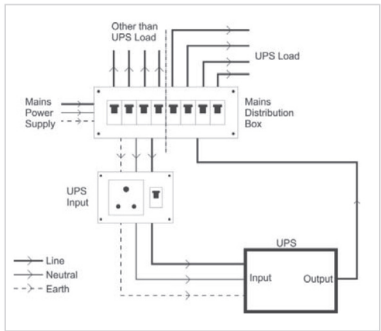
2. Electrical Wiring for Electrical and Audio or Video Gadgets: (Refer Picture-04)

Check the existing wiring and separate the Line(L) cable of appliances (which to be used with UPS supply) by disconnecting from Grid/Mains Power supply at Mains Distribution Box and extend it to UPS and connect the cables to Plug by using Neutral and Earth cables as common for loads from Mains Supply. It is recommended for loads Electrical appliances and audio or video gadgets only to be used on UPS.

Note: Use 6A Plug for 500/700/850& 1100VA UPS and 16A Plug for 1500VA UPS.



'L-N-E' Cables from UPS (Picture-03)



'L' Cable from UPS (Picture-04)



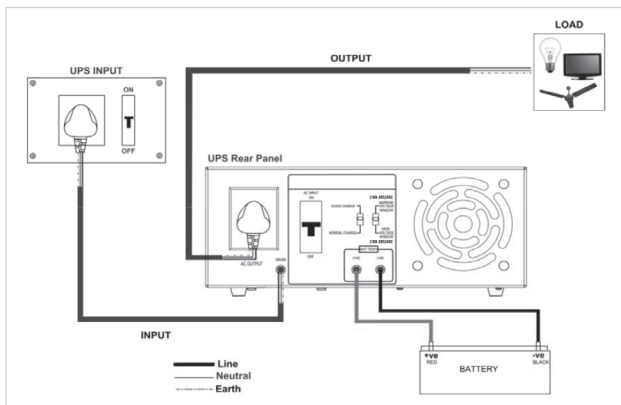
CAUTION: Use proper size/quality of cables, Sockets, MCB or Switch etc in electrical wiring. Otherwise, it causes to heat/melt of the material or damage the Product. Ensure line cable at right side pin of the socket and do not mix R-Y-B if 3 phase supply is available.



WARNING: Switch OFF Grid/Mains Power Supply before proceeding for wiring, ensure earth and not to mix up the output Power supply cables of UPS with Grid/Mains Power cables. Otherwise, that could result electrical shock or personal injury.

3.3 Installation & Operation:

- A. **Placement:** Place the Trolley in Selected location for stallation, Keep the UPS on Trolley and keep the battery at back side of the Trolley. Ensure to Switch 'OFF' the UPS output by pressing the Switch which is available at front panel of UPS and Keep the Input MCB in 'OFF' position which is available at rear panel of UPS.
- B. **Battery Connection:** Connect the Battery cables which are coming from UPS i.e Red cable to Positive (+Ve) terminal & Black cable to Negative (-Ve) terminal of the battery. Ensure cables to be tighten properly by using right size of Spanner and push the battery into Trolley from back side. (Same rating of 2 batteries need to be connected in series to make 24V battery bank for 1500VA UPS before connecting battery cables which are coming from UPS)
- C. **Output AC Connection and Checking:** Insert the 'Plug' (which has been separated and extended for loads from Mains Distribution box) into UPS output socket located at rear Panel and Switch 'ON' the UPS output supply by pressing Push Button at Front Panel. Check whether 'UPS ON' LED glows at Front Panel and Switch 'ON' all appliances one by one which connected to UPS output Supply. Switch 'OFF' the UPS output power Supply again by pressing Push Button at front panel of UPS.
- D. **Input AC Connection and Checking:** Insert the AC mains Power Cord plug (which is coming from UPS rear panel) into Grid Power Supply Socket which has been extended from Mains Distribution box. Switch 'ON' the MCB/Mains Supply to UPS and also Switch 'ON' the MCB located at rear panel of UPS and check whether 'Mains ON' LED glows and 'Charging' LED blinks at front panel and also all appliances are working that are connected to UPS.



Rear Panel diagram of Farber UPS-After Installation (Picture:05)

- E. **Changeover Confirmation:** Switch 'ON' UPS by pressing Push button at front panel and Switch 'OFF' Mains Supply to UPS(UPS Input) and check whether 'UPS ON' indication and observe no disturbance in appliances during Changeover from Mains Power Supply (Mains mode) to UPS (Backup Mode). Now Switch 'ON' Mains Supply to UPS(UPS Input) and check whether 'Main ON' LED glows and Charging LED blinks and observe no disturbance in appliances during changeover from Backup mode to Mains mode.
- F. **Selection of Toggle Switches:** Select 'Quick Charge' by considering longer duration of Power cuts, but it can be changed to 'Normal Charge' mode when power cut duration is less or connected battery capacity is less than 100AH. Select 'Wide Voltage Window' to avoid battery discharge due to unstable Mains Power Supply but it can be changed to 'Narrow voltage Window' when Mains Power supply is stable or using Computer/IT peripherals loads on UPS.



CAUTION: Ensure to connect battery cables i.e Red cable to Positive (+Ve) terminal & Black cable to Negative (-Ve) terminal of the battery .Ensure tightness of cables at both terminals of battery. Wrong connection or loose connection may damage the Product.

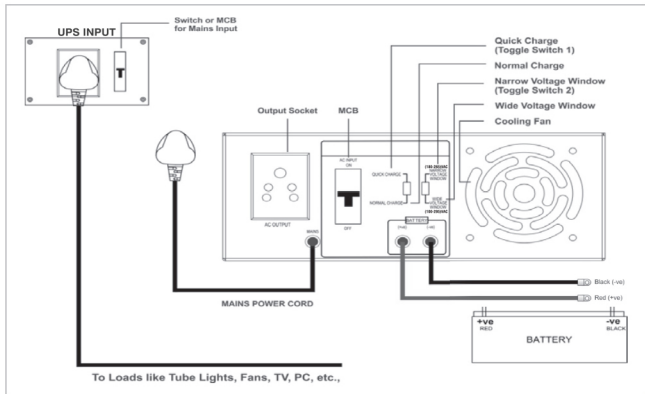


WARNING: Keep Children away from the Product.
Do not touch the output plug when it is open condition.

4) Guidelines for Bypassing UPS

The following steps to be followed to bypass the UPS and Battery from the circuit for maintenance or service.

- Switch 'OFF' all appliances that are connected to UPS, MCB/Switch at Mains box and also MCB located rear panel and Push button located at front panel of UPS.
- Remove AC Input Power cord of UPS which is plugged in Mains box.
- Remove load plug which is plugged at rear panel of UPS and insert it in Mains box from where AC Input Power cord of UPS has been removed and Switch 'ON' MCB/Switch at Mains box.
- Now, your UPS has been bypassed from Circuit and appliances that are connected to UPS shall be used with Mains Power supply when it is available.



Rear Panel diagram of Farber UPS-After bypassing (Picture:06)

Note: Disconnect the battery cables at Battery +Ve and -Ve terminals which are coming from UPS to take out battery for maintenance after bypassing UPS from circuit by following above steps.



CAUTION: Use right sized tools to remove the cables from battery terminals and do not disconnect battery without bypassing UPS from Circuit.



WARNING: Never insert or pull out the mains plug from the Mains distribution box & UPS output plug with wet hands and do not touch the removed plug pins as it may leads to electrical shock.

5) General Precautions



Do's

- Use Battery Trolley supplied by Company.
- Use proper gauge cables and recommended rated MCB or Plugs for Electrical wiring.
- Install UPS in ventilated area and keep away from flammable materials.
- Tighten the battery connections properly by using correct size of tools.
- Select 'Narrow Voltage Window' while using computer with UPS output Supply.
- Select 'Normal Charge' when there is less duration of power cut or using less than 100AH battery.
- Follow the battery manufacturers' specific precautions for battery maintenance.
- Keep original Bill and Warranty Card with Dealer's Stamp.



Don'ts

- Do not lift the UPS with AC Mains Power Cord or Battery Cables.
- Do not use poor quality of material while doing electrical wiring for UPS Installation.
- Do not Install UPS near water or damp environment or closed container.
- Do not place metal objects on top of the UPS & Battery.
- Do not increase length of battery cables by joining extra cables.
- Do not connect battery cables with reverse polarities of the battery.
- Do not use over loads and other loads than those recommended by Company.
- Do not use machines like wood cutter or drilling machines on UPS output supply.
- Do not disconnect battery from Circuit while UPS is 'ON'
- Do not connect different rating/make of the batteries in same circuit.
- Do not connect more batteries than recommended.
- Do not tap battery power for other DC loads.