

**60Amp & 120Amp
Maintenance Bypass Switch
User's Manual for DSP
MULTIPOWER UPS**

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Chapter 1. An Important Notice

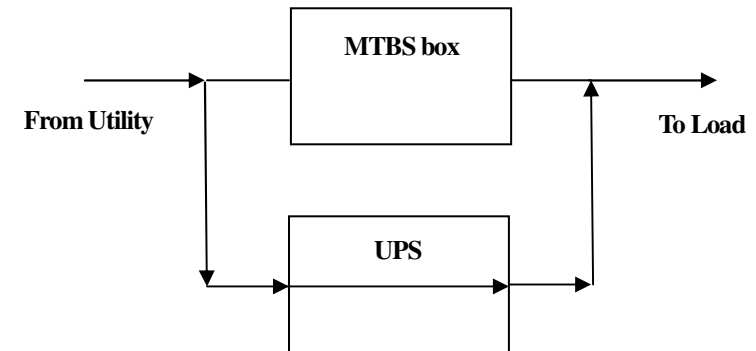
- 1.1. This manual contains very important instructions that you must follow it during installation and operation.
- 1.2. **MTBS(MainTenance Bypass Switch)** operation is not recommended to execute when Utility is Abnormal to avoid the output loads from damage. You are recommended to Shut down the UPS completely so as to proceed periodic & routine maintenance.

Chapter 2. Characteristics

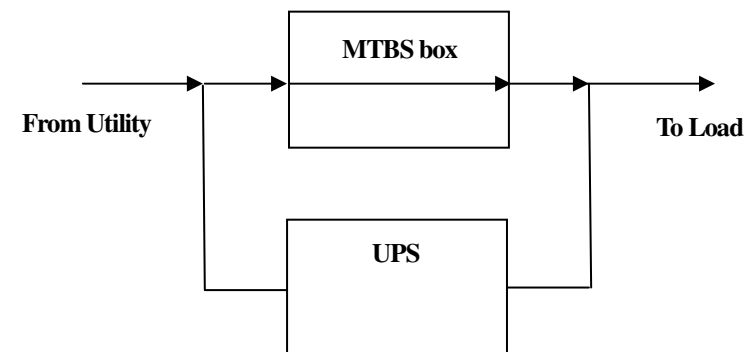
- 2.1. It is designed specially for the DSP M.POWER 6/10kva series UPS. There are 60A / 120A models for 12KVA and 24KVA system.
- 2.2. A Test button is provided to double check if the communication from UPS to MTBS box works properly.
- 2.3. foolproof indicators and operation procedure.

Chapter 3. System Description

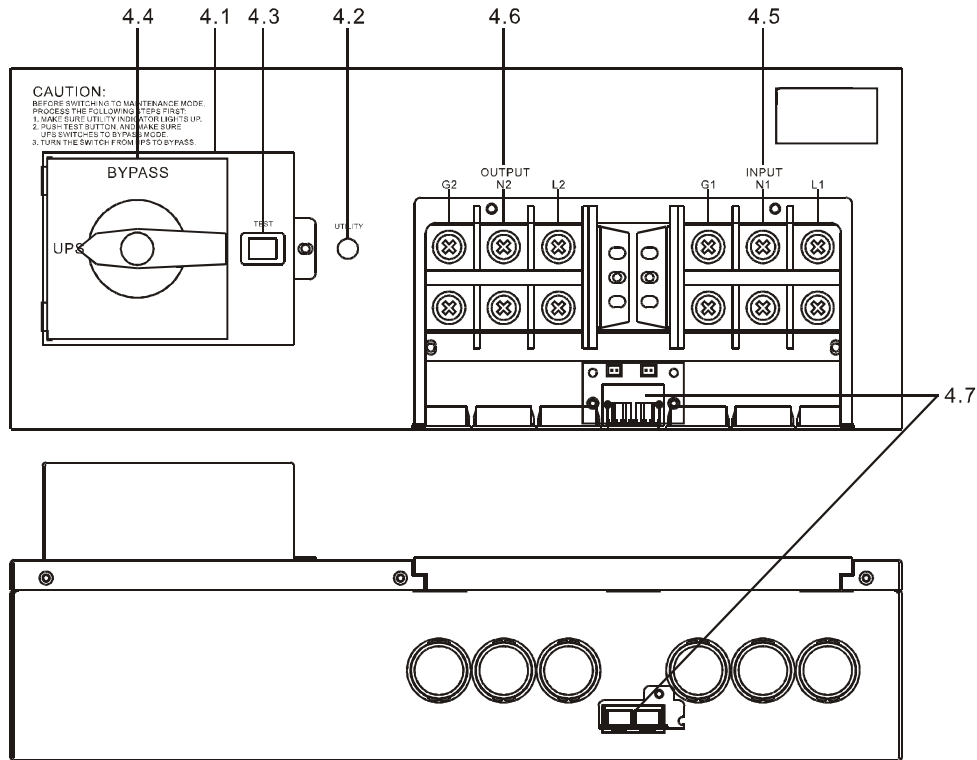
- 3.1. The MTBS box provide an isolation path of power for UPS system for preventive maintenance or service. There are both UPS and BYPASS modes of operation as description as below
- 3.2. In the UPS mode, the power will supply from UPS to the load as show in below..



- 3.3. In bypass mode, the power will supply from MTBS box to the load as show in below.



Chapter 4. Front Panel Explanation

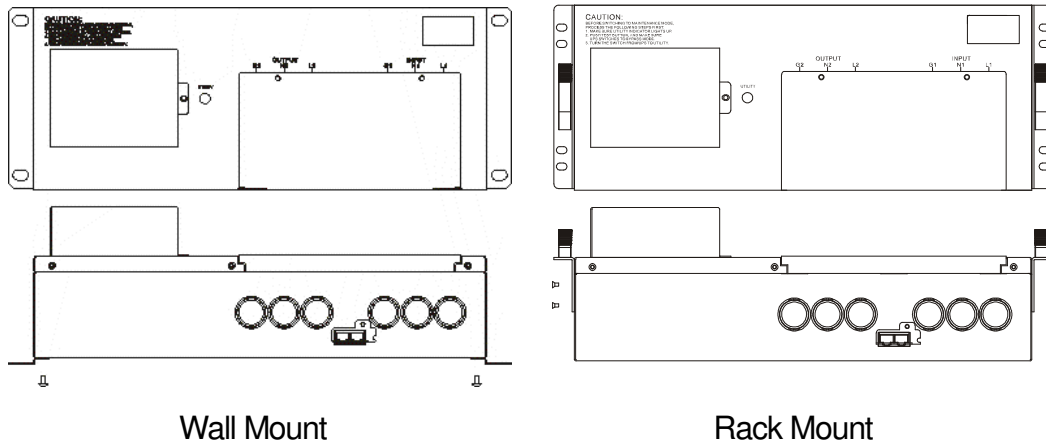


Chapter 5. Installation and Start up

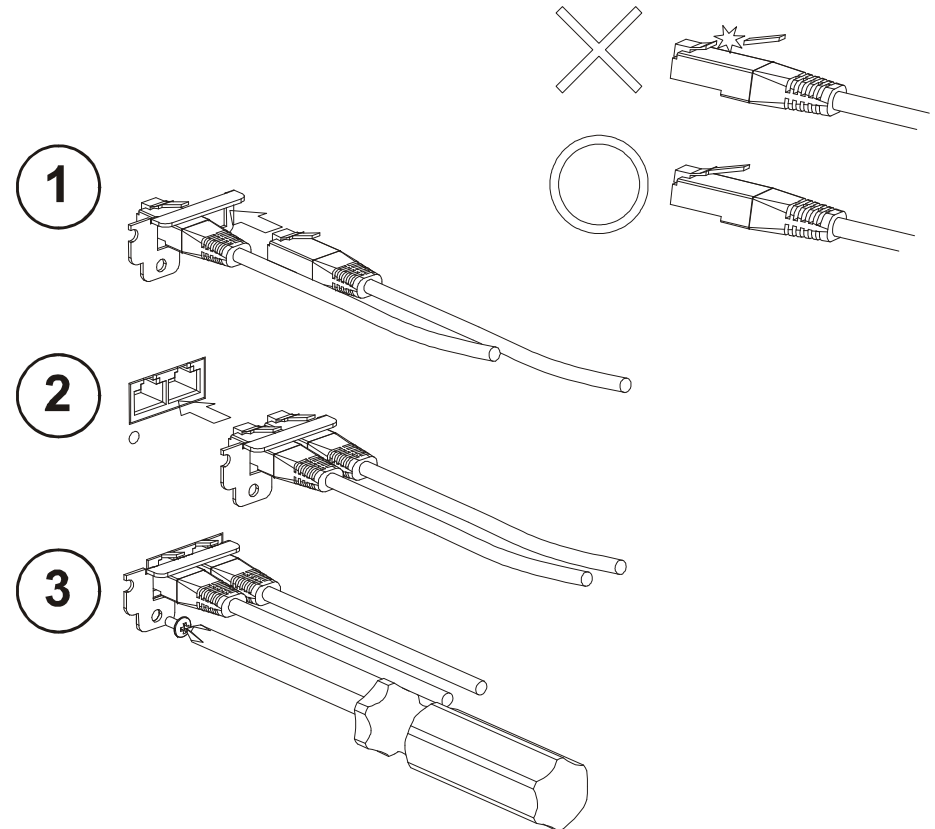
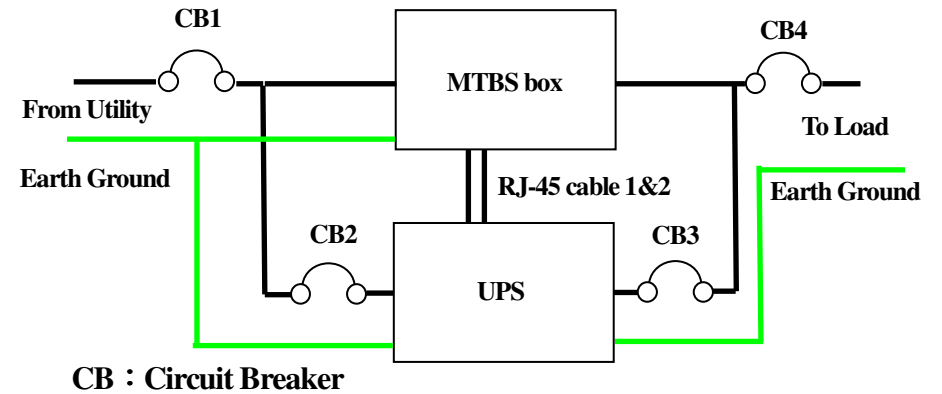
The packing condition and the external outlook of the unit should be inspected carefully before installation. Retain the packing material for future use.

5.1. Unpacking

- 5.1.1. Take the MTBS box out of the PE foam.
- 5.1.2. Unwrap the MTBS box.
- 5.1.3. Standard Package includes:
- 5.1.4. MTBS BOX x 1pce
- 5.1.5. MTBS BOX Wall Mount Fixing Plate x 2pcs
- 5.1.6. Fixing screws M4*8 x 4pcs (for Wall Mount)
- 5.1.7. MTBS BOX Rack Mount Fixing Plate x 2pcs
- 5.1.8. Fixing screws M3*6 x 8pcs (for Rack Mount)
- 5.1.9. RJ-45 Cable x 1pce
- 5.1.10. User's Manual x 1pce
- 5.1.11. RJ-45 Cable Fixing Plate x 1pce

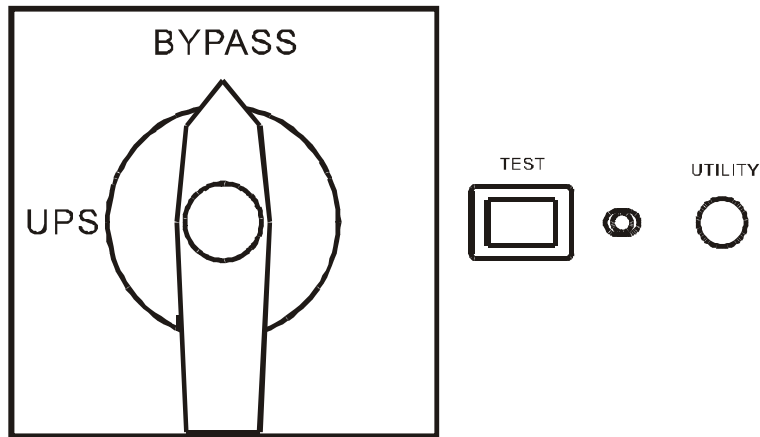


5.2. Recommend wiring show in below.



5.3. Start up MTBS box

- 5.3.1. If you had been install a UPS, turn off all connected load and disconnect them from UPS. Then turn off the UPS and disconnect the UPS from utility.
- 5.3.2. The Wire of MTBS box and UPS reconfigure as show in Chapter 5.2. **Specially the wires, which are the Line, the Neutral, the Earth Ground, and RJ-45 cables must be connected properly.**
- 5.3.3. Turn on the CB1 and check if the orange lamp light up. If so, then transfer MTBS to BYPASS position, the utility power will through MTBS box to the loads now.



- 5.3.4. Turn on the CB4, loads and make sure all are work normal.
- 5.3.5. Turn the CB2 and UPS input breaker on, then check if UPS is work in bypass mode and show itself on the maintenance mode. If so, turn on the CB3 and utility through both MTBS box and UPS to the loads.
- 5.3.6. Turn MTBS to UPS position and turn on UPS according to specific user manual. And then the loads are now being supply from the UPS.

Chapter 6. Operation

- 6.1. Switch to maintenance bypass (utility) from UPS
 - 6.1.1. Make sure the Utility is under normal condition by checking whether the orange (Utility) lamp lights up. If not, refer to Troubleshooting Chapter.
 - 6.1.2. Recommend to Transfer UPS from inverter mode to bypass mode according to specific user manual. Or you can push the test switch to command the UPS transfer to bypass mode from inverter mode automatically if you had been install RJ-45 cable from UPS to MTBS box.
 - 6.1.3. Transfer MTBS from UPS to BYPASS position.
 - 6.1.4. Turn off UPS according to specific user manual.
 - 6.1.5. Turn off the CB2 and the CB3, and then disconnect UPS from the CB2 and the CB3.
 - i. Now you can service the UPS.
- 6.2. Switch to UPS from maintenance bypass (utility)
 - 6.2.1. Make sure the CB2 and the CB3 are turn off. And then reconnect the UPS to the CB2 and the CB3.
 - 6.2.2. Turn on the CB2, and then turn on the UPS to bypass mode according to specific user manual.
 - 6.2.3. Turn on the CB3 and utility through both MTBS box and UPS to the loads.
 - 6.2.4. Turn MTBS to UPS position and turn on UPS according to specific user manual. And then the loads are now being supply from the UPS.

Chapter 7. Troubleshooting

Problem	Cause	Solution
The orange (utility) lamp don't light up	<ol style="list-style-type: none"> 1. Utility is not present. 2. The wire from utility to MTBS box is not property. 	<ol style="list-style-type: none"> 1. Please check if utility is ok. 2. Please refer Chapter 5 to check it.
The test key is malfunction.	<ol style="list-style-type: none"> 2. There are no RJ-45 cable be connected from UPS to MTBS box. 3. The UPS don't start up. 	<ol style="list-style-type: none"> 1. Please reconnect the RJ-45 cable from UPS to MTBS box. 2. Please turn on UPS according to specific user manual.
The orange lamp of MTBS box light up but it can't supply power to the loads.	The switch of MTBS box is not BYPASS position.	Please refer Chapter 5 to check it.

- Please consult your local distributor for help if your problems are still present.

Chapter 8. Specifications

Model	60A	120A
Input Voltage	300Vac(max)	
Input Current	60Amps	120Amps
Operating Ambient Temperature	0°C to 40°C (32°F to 104°F)	
Storage Ambient Temperature	-20 to 60°C (-4°F to 140°F)	
Humidity	0% to 95% non-condensing	
Dimensions (W x H x D, mm)	440x176x99	440x176x99