

INSTALLING THE AT10.1 ENHANCED EMI FILTER COMPONENTS

SCOPE

AT10.1 Battery Charger/Rectifier products manufactured prior to September 11, 2000.

BACKGROUND

The enhanced EMI filtering upgrade described in this instruction improves the ability of the AT10.1 product to withstand severe transient impulses on both the ac input and dc output bus. Such transients may be generated, for example, by thunderstorms, very short-term transient faults, or equipment switching on the dc bus.

ORDERING PARTS

The enhanced EMI filtering upgrade kit consists of the following parts:

EJ1243-07 (upgrade kit for 120/208/240 Vac input)

DESCRIPTION	CIRCUIT SYMBOL	PART NUMBER	QUANTITY
I/O Panel Filter Assembly	C4/VR4; C5/VR5	EJ5001-00	2
MOV Assembly, DC Output	VR6; VR7	EJ5002-00	2
Main Control Circuit Board Assembly, Field Replacement Kit	A1	EJ1243-01	1

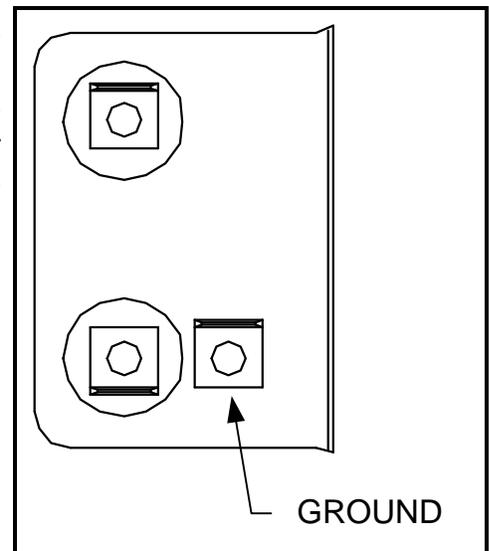
EJ1243-08 (upgrade kit for 480 Vac input)

DESCRIPTION	CIRCUIT SYMBOL	PART NUMBER	QUANTITY
I/O Panel Filter Assembly	C4/VR4; C5/VR5	EJ5001-01	2
MOV Assembly, DC Output	VR6; VR7	EJ5002-00	2
Main Control Circuit Board Assembly, Field Replacement Kit	A1	EJ1243-01	1

PROCEDURE

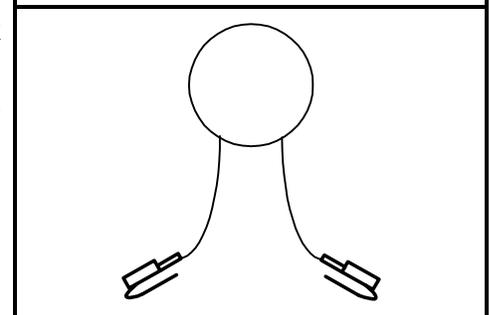
WARNING: DISCONNECT ALL AC AND DC POWER SOURCES FROM THE CHARGER BEFORE PROCEEDING. ONLY QUALIFIED SERVICE TECHNICIANS SHOULD PERFORM THE FOLLOWING PROCEDURES. FOLLOW YOUR EMPLOYER'S STANDARD SAFETY PROCEDURES. TURNING OFF FRONT PANEL CIRCUIT BREAKERS ALONE DOES NOT REMOVE DANGEROUS VOLTAGES INSIDE THE CHARGER. AFTER AC AND DC POWER ARE REMOVED, VERIFY THAT DC STORAGE CAPACITORS C1 AND/OR C2 ARE DISCHARGED BEFORE PROCEEDING.

1. Check the contents of the EMI filter upgrade kit (factory part number EJ5001-00). You should have the parts listed in the table at the end of this instruction.
2. Remove the safety shield and the enclosure shroud according to the instructions in section 3.5 of the User's Manual.
3. Locate the existing EMI filter at the bottom of the unit, near the dc circuit breaker. Disconnect the 2 wires from this filter at the dc breaker; replace the remaining connections on the dc breaker and tighten the hardware. Remove the third wire from the ground terminal, and remove and discard the old EMI filter.
4. Find the rectangular metal can filter mounted on the right side of the I/O panel mounting-bracket (labeled A9 in the schematic and wiring diagrams). Remove the wires from the terminals facing the rear of the charger marked "Line". Terminal arrangement is shown in the figure to right.



5. Find the 2 disc-shaped MOVs that have the piggy-back quick-disconnect terminals, as shown in the figure to right. Connect one lead of one of the MOV's to the ground terminal. Connect one lead of the other MOV to the piggy-back terminal of the first MOV.

Bend leads in the center, not near the body of the MOV.

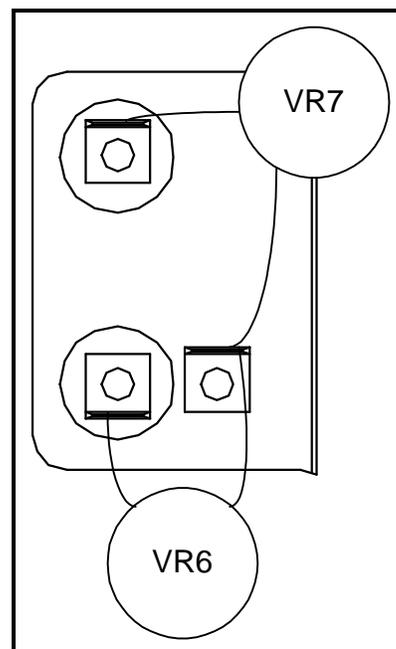


AT10.1 Series Battery Charger *Service Instruction*

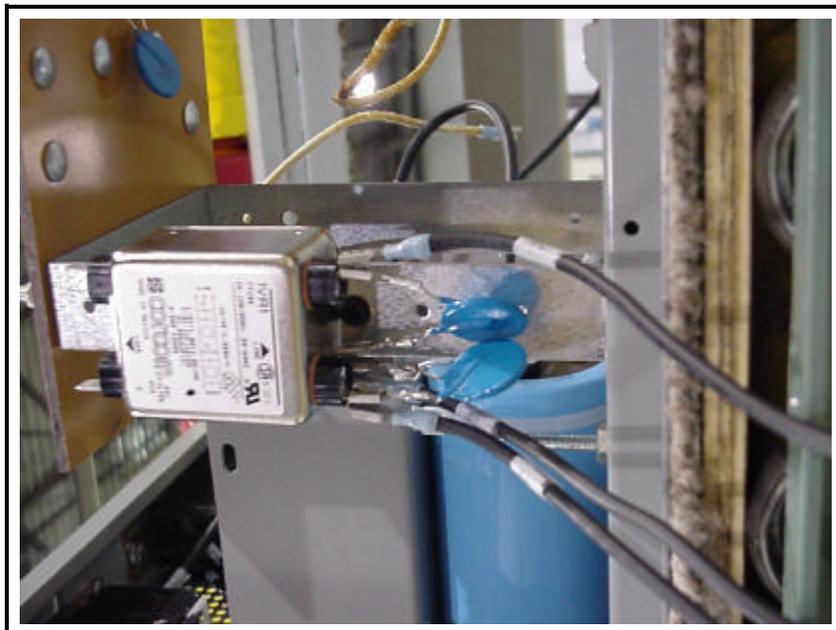
JD5001-00

6. Connect the other lead of one of the MOVs to the upper insulated terminal. Connect the other lead of the second MOV to the lower insulated terminal. When you are finished, the MOVs should be connected as shown in the figure to right.

Note: The MOVs are not polarized. You may connect either lead to ground.



7. Reconnect wire #74 to the upper insulated terminal. Reconnect wire #72 to the lower insulated terminal. Reconnect wire #5 to the ground terminal. Dress the leads of the MOVs so that there is no risk of short circuits, as shown in the figure to right.



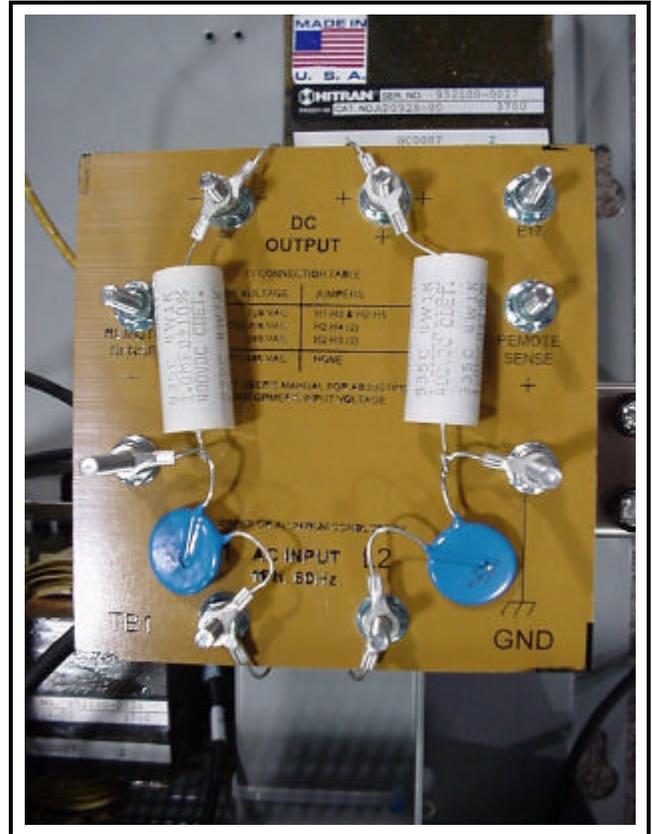
8. Inspect the remaining 2 MOV-capacitor assemblies in the upgrade kit. Verify that the MOVs are labeled with the proper rating for your battery charger input voltage:

*120/208/240 Vac input Part number must contain the rating "275"
480 Vac input Part number must contain the rating "510"*

AT10.1 Series Battery Charger *Service Instruction*

JD5001-00

9. Install the two (2) MOV/capacitor assemblies as shown in the figure to right. You need to remove the hardware for each input and output terminal to connect the MOV and capacitor leads. Replace the terminal over the leads, and replace the hardware. When you are finished, the I/O panel should look like the figure to right. Note: This figure shows only the added filters; do not remove the existing MOV or other connections.



10. Replace the shroud and the safety shield according to section 3.5 of the User's Manual.
11. Replace the main control pc board (A1) on the front panel with the new pc board supplied with the upgrade kit. Refer to the instruction sheet (JA0087-00), supplied with the new pc board. Return the old board to:

HindlePower Inc.
1075 Saint John Street
Easton, PA 18042-6627
Attn: Rich Fauerbach