

**INSTRUCTIONS FOR FIELD REPLACEMENT:**

THESE INSTRUCTIONS ARE APPLICABLE FOR REPLACEMENT OF THE MAIN CONTROL PC BOARD ASSEMBLY (A1), FOR AN AT10 BATTERY CHARGER MANUFACTURED BEFORE 12/2001. PLEASE NOTE THAT THE MAIN CONTROL ASSY IS TREATED AS A SINGLE ENTITY, AND TROUBLE-SHOOTING WITHIN THE ACUAL PRINTED CIRCUIT BOARD IS NOT SUPPORTED BY THE MANUFACTURER.

IF YOU ARE SERVICING A NEWER AT10.1 OR AT30 SERIES BATTERY CHARGER MANUFACTURED AFTER 12/2001, DO NOT USE THIS DOCUMENT. PLEASE REFER TO INSTRUCTION DOCUMENT JD5012-00. JD5012-00 CONTAINS INFORMATION, SPECIFIC TO NEW AT10.1 AND AT30 BATTERY CHARGER MODELS, REGARDING THE INTEGRATED PRIMARY ALARMS AND OPTIONAL GATE DRIVER PC BOARDS.  
<http://www.ATSeries.net/PDFs/JD5012-00.pdf>

**!!! WARNING !!!**  
 DISCONNECT AND LOCK OUT ALL POWER TO THE BATTERY CHARGER BEFORE STARTING ANY MAINTENANCE PROCEDURES. TURN OFF THE CHARGER'S INTERNAL AC AND DC CIRCUIT BREAKERS. TURN OFF ALL AC POWER UPSTREAM FROM THE BATTERY CHARGER. DISCONNECT THE BATTERY FROM THE CHARGER OUTPUT TERMINALS. THIS INCLUDES REMOTE SENSE WIRES CONNECTED TO THE BATTERY IF THEY WERE INSTALLED.

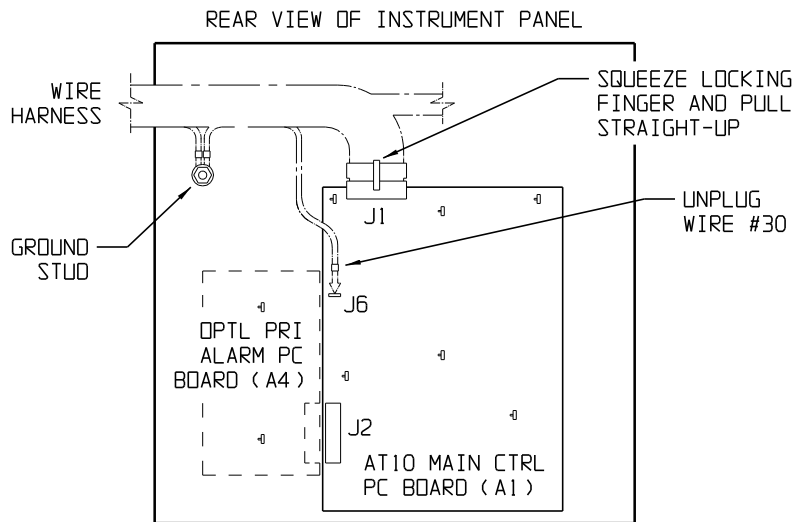
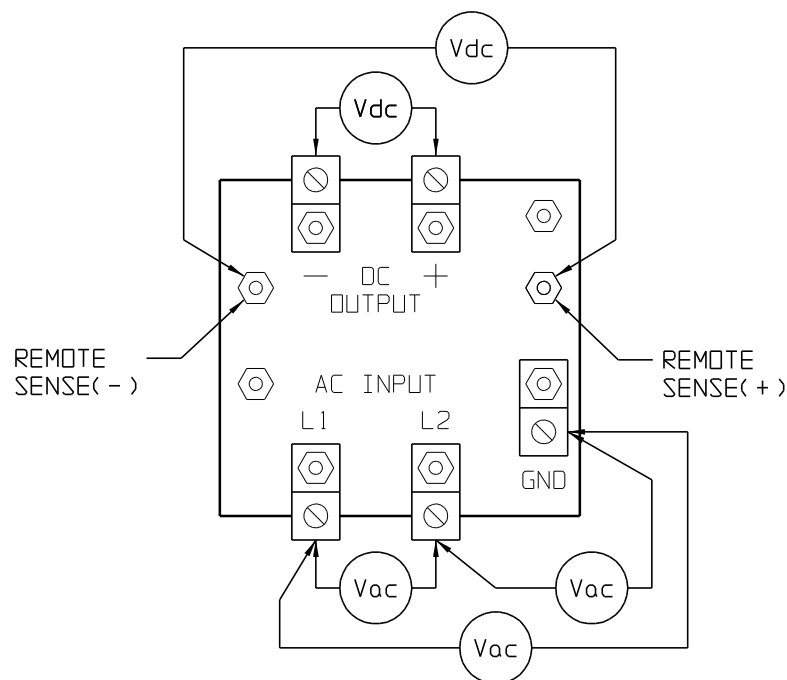
**CAUTION:**

THE REPLACEMENT PART PC BOARD IS SUSCEPTIBLE TO DAMAGE FROM STATIC DISCHARGE. PLEASE USE THE FOLLOWING PRECAUTIONS:

- 1) IF YOU HAVE A GROUND WRISTSTRAP, PLEASE USE IT TO GROUND YOURSELF TO CHARGER ENCLOSURE, USING THE GROUND STUD ON THE BACK OF THE DOOR.
- 2) TOUCH THE GROUND STUD ON THE BACK OF THE DOOR BEFORE AND DURING HANDLING OF PRINTED CIRCUIT BOARDS, OR OTHER STATIC-SENSITIVE PARTS.
- 3) HANDLE ALL PRINTED CIRCUIT BOARDS BY THEIR EDGES ONLY.
- 4) IF YOU ARE REPLACING A STATIC-SENSITIVE CIRCUIT BOARD PART (SUCH AS AN EPROM), BE SURE YOU ARE GROUNDED BEFORE REMOVING THE NEW PART FROM ITS ANTI-STATIC CARRIER (BAG).

**PROCEDURE:**

**STEP 1)** REMOVE THE PLEXIGLAS SAFETY COVER. USING A VOLTMETER, VERIFY THAT ALL POTENTIAL VOLTAGES ON THE I/O PANEL ARE AT ZERO.



**STEP 2)** LOCATE THE MAIN CONTROL PC BOARD (A1) ON THE BACK OF THE INSTRUMENT PANEL DOOR AND DISCONNECT ALL EXTERNAL WIRING. UNPLUG GROUND WIRE #30 FROM JUMPER (J6) ON THE LEFT SIDE OF THE PC BOARD. DISCONNECT THE WIRE HARNESS JACK FROM THE 16-PIN CONNECTOR (J1) ON THE TOP OF THE PC BOARD BY SQUEEZING THE LOCKING FINGER AND SIMULTANEOUSLY PULLING THE JACK DIRECTLY OUT FROM THE CONNECTOR ON THE BOARD.

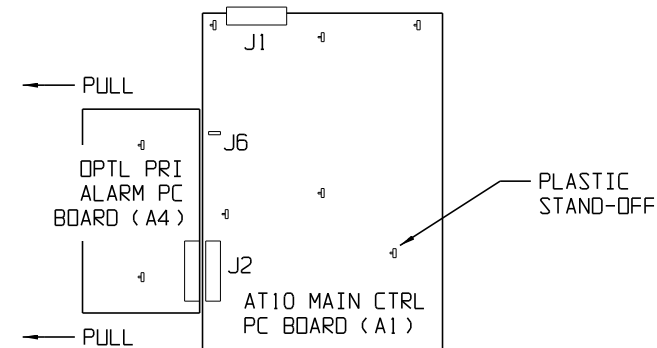
**STEP 3A)** IF YOUR AT10 WAS NOT ORIGINALLY SUPPLIED WITH THE PRIMARY ALARM PC BOARD (A4), YOU MUST FIRST REMOVE THE PRIMARY ALARM COVER PLATE. OPEN THE CHARGER DOOR AND PUSH THE PINS ON BOTH PLASTIC RIVETS.

**NOT DOING SO WILL DAMAGE YOUR NEW CONTROL CARD!!!**

**STEP 3B)** LOCATE THE FOUR (4) OR SIX (6) STAND-OFFS (DEPENDENT UPON MANUFACTURING DATE) THAT MOUNT THE MAIN CONTROL PC BOARD (A1). USE NEEDLE NOSE PLIERS TO PINCH THE RETAINING EAR ON ONE OF THE STAND-OFFS, WHILE GENTLY PULLING THE PC BOARD BACK ABOUT 0.25in FROM THE LOCKED POSITION. UNLATCH ALL STAND-OFFS FIRST, WITH THE PC BOARD STILL RESTING ON THE STAND-OFFS. REMOVE THE PC BOARD IN ONE CAREFUL MOTION.

**STEP 3C)** IF YOUR AT10 IS SUPPLIED WITH THE PRIMARY ALARM PC BOARD (A4), UNLATCH ITS TWO (2) STAND-OFFS IN THE SAME MANNER LISTED IN 3C, AND REMOVE BOTH PC BOARDS (A1/A4) OFF THE STAND-OFFS TOGETHER. THEN SPLIT APART THE MAIN CONTROL PC BOARD FROM THE PRIMARY ALARM PC BOARD.

**STEP 3D)** PROPERLY DISCARD THE OLD CONTROL PC BOARDS (A1/A4), OR RETURN THEM TO THE FACTORY FOR REPLACEMENT, IF THE AT10 IS UNDER WARRANTY AND/OR REPAIR.



**STEP 4)** NOTE THAT THE REPLACEMENT MAIN CONTROL PC BOARD (A1) NOW INCLUDES THE PRIMARY ALARMS. TO REPLACE THE BOARD, POSITION IT DIRECTLY OVER THE FOUR (4) OR SIX (6) PLASTIC STAND-OFFS. FIRMLY PUSH THE BOARD ONTO THE STANDOFFS UNTIL IT IS FULLY SEATED UNDER ALL PLASTIC CLIPS. MINIMIZE FLEXING OF THE PC BOARD BY PUSHING DIRECTLY ON AREAS SURROUNDING THE STAND-OFF HOLES. CHECK THE FRONT PANEL FOR PROPER ALIGNMENT OF INDICATOR LIGHTS AND PUSH BUTTON SWITCHES.

**STEP 5)** REVERSING THE PROCEDURE IN STEP 2, RECONNECT THE WIRE HARNESS JACK TO THE 16-PIN CONNECTOR (J1) ON THE NEW MAIN CONTROL BOARD. MAKE SURE THE JACK IS FULLY SEATED, AND THE LOCKING FINGER IS PROPERLY CLOSED WITH THE CONNECTOR. RECONNECT GROUND WIRE #30 TO J6 ON THE MAIN CONTROL PC BOARD (A1). MAKE SURE WIRE #30 FITS SNUGLY WITH J6. IF THE SLIP-ON LUG DOES NOT CREATE A TIGHT FIT, DISCONNECT IT AND CAREFULLY TIGHTEN THE LUG EARS USING NEEDLE NOSED PLIERS. RECONNECT THE LUG TO J6.

**STEP 6)** PLEASE CHECK YOUR WORK!!! READ STEPS 1 THROUGH 5 AGAIN AND MAKE SURE ALL INSTRUCTIONS WERE PROPERLY PERFORMED:

- ALL PLASTICS STANDS-OFFS ARE LATCHED TO PC BOARD(S)
- ALL WIRE HARNESS CONNECTORS ARE PROPERLY MATED TO BOARDS
- INDICATOR LIGHTS PROPERLY ALIGN WITH FRONT PANEL HOLES AND PUSH BUTTON SWITCHES WORK PROPERLY
- GROUND WIRE #30 IS PROPERLY CONNECTED TO J6

**STEP 7)** REPLACE THE PLEXIGLAS SAFETY SHIELD, CLOSE THE FRONT PANEL DOOR AND PROCEED TO RE-ENERGIZE THE AT10. CONSULT SECTION 2.1 ENTITLED "STARTING THE AT10" OF THE USER'S MANUAL.

**IMPORTANT NOTE:**

THE AT10 MAIN CONTROL PC BOARD (A1) HAS FACTORY DEFAULT VALUES FOR ALL VARIABLE PARAMETERS. THEREFORE, WHENEVER THE MAIN CONTROL BOARD IS REPLACED, USER'S MUST REPROGRAM THE AT10 BATTERY CHARGER TO FACILITY-DESIRED VALUES. CONSULT SECTION 2.3 ENTITLED "SETTING THE PARAMETERS" OF THE AT10 USER'S MANUAL.

4	20180	041906	ND	THIRD ANGLE PROJECTION	TITLE PRE-12/2001 FIELD REPLACEMENT INSTRUCTIONS FOR AT10 MAIN CONTROL PC BOARD (A1)
3	E0680	011702	N/A		
2	E0645	121301	WKB	DRAWN BY <i>CZA</i>	011994
1	12292	080995	WAH	APPROVED WAH	012494
0	10665	011994	WAH	UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:	
REV	ECN No	DATE	APP		
DRAWING No					JA0087-00
SCALE					NTS
PART No					JA0087-00
SHEET					1 OF 1
REV					4A
					<b>B</b>