

**FIELD INSTALLATION OF AT SERIES COMMUNICATIONS MODULE (EJ5037-##)**

**BACKGROUND**

The AT Series Communications Module is a standard product accessory, compatible with AT10.1 Group I, AT10.1 Group II, and AT30 Series microprocessor-controlled float battery chargers. This document ([JD5008-00](#)) is a service procedure for **FIELD INSTALLATION** of the communications kit (EJ5037-1#) into an existing charger. For full operation of the installed kit, please refer to the separate AT Series Communications Module user's manual.

**RECEIVING / SETUP**

- The AT Series Communications Module is not compatible with older AT Series battery chargers. Please confirm the revision of the AT Series Main Control PC Board (A1) is **EN5002-00 - Rev. 6** or higher. If not, please order a new pc board from your Sales Rep.
- Verify you have received ALL the required and correct parts in your field retrofit kit.
 

Item	Part No.	Description
A)	EN5004-00	AT Series Communications Module PC Board (A12)
B)	n/a	AT Series Communications Power Supply Resistor (R29) Assembly
C)	n/a	nylon wire ties for securing harness
D)	<a href="#">JD5008-00</a>	Field Installation Instructions (this sheet)
E)	<a href="#">JE5107-00</a>	AT Series Communications Module Assembly Detail Drawing
F)	<b>JA####-04</b>	Private-labeled AT Series Comm Module User's Instructions
- Verify the resistance of the R29 assembly per the table below. If the resistance is not correct, the EN5004-00 Communications Module PC Board (A12) may incur damage upon start-up.

Charger Output	12 Vdc	24 Vdc	48 Vdc	130 Vdc
Field Install Kit	EJ5037-11	EJ5037-12	EJ5037-13	EJ5037-14
R29 Rating	11W 15 Ohm	25W 50 Ohm	50W 150 Ohm	100W 500 Ohm
R29 Resistor Assembly Type	one (1) R29 on "picket fence"	one (1) R29 with mounting brackets	one (1) R29 with mounting brackets	two (2) R29A/B with mounting brackets

- Verify the AT Series product and cabinet "style" of your charger, based upon the model, and refer to the table below. Images of cabinet styles are featured in the operating manual.

<b>Product</b>	AT10.1 G1 <b>Style-586</b>	AT10.1 G1 <b>Style-594</b>	AT10.1 G2 <b>Style-5017</b>	AT10.1 G2 <b>Style-5018</b>
<b>Location of R29</b>	mounted along right leg of I/O panel mounting bracket	mounted along right leg of I/O panel mounting bracket	mounted to back galvanized mounting base (near R3)	mounted to back galvanized mounting base (near R3)
<b>Connection of Wire # 195</b>	A3-E10 GD PCB (see wiring diagram)	A3-E10 GD PCB (see wiring diagram)	W2(-) bus bar (see wiring diagram)	W2(-) bus bar (see wiring diagram)
<b>Product</b>	AT30 <b>Style-5018</b>	AT30 <b>Style-5030</b>	AT30 <b>Style-163</b>	AT30 <b>Style-198</b>
<b>Location of R29</b>	mounted to back galvanized mounting base (near R3)	mounted to outside surface of breaker mtg bracket (near R3)	mounted to back phenolic mounting panel (near R3)	mounted to back phenolic mounting panel (near R3)
<b>Connection of Wire # 195</b>	R1-1(-) dc shunt (see wiring diagram)	R1-1(-) dc shunt (see wiring diagram)	R1-1(-) dc shunt (see wiring diagram)	R1-1(-) dc shunt (see wiring diagram)

**FIELD INSTALLATION OF AT SERIES  
COMMUNICATIONS MODULE (EJ5037-0#)**

**PROCEDURE**

**WARNING:** DISCONNECT ALL AC AND DC POWER SOURCES FROM THE BATTERY CHARGER BEFORE PROCEEDING. ONLY QUALIFIED SERVICE TECHNICIANS SHOULD PERFORM THIS PROCEDURE. FOLLOW THE SITE AND YOUR EMPLOYER'S STANDARD SAFETY PROCEDURES.

**WARNING:** OPENING CIRCUIT BREAKERS DOES NOT REMOVE ALL DANGEROUS VOLTAGES FROM INSIDE THE CHARGER. AFTER AC AND DC POWER ARE REMOVED, VERIFY THAT DC FILTER CAPACITORS (C1 AND/OR C2) ARE DISCHARGED BEFORE PROCEEDING.

**NOTE:** GROUND YOURSELF WITH A WRIST STRAP. STATIC ELECTRICITY MAY CAUSE DAMAGE TO PRINTED CIRCUIT BOARDS.

1. Shut down the AT Series battery charger per the *Operating and Service Instructions*.
2. Open the charger front panel (door) and remove any supplied plexiglas safety shields.
3. Refer to the table on the previous page, and mount the Communications Module Power Supply Resistor (R29) Assembly inside the battery charger (normally located near R3).
4. Remove the CU-AL compression lug from TB1(+) on the charger I/O panel. Connect the flying lead of wire # 191 coming from the R29 resistor assembly to the TB1(+) stud terminal, and remount the CU-AL compression lug.
5. Refer to the table on the previous page, and connect the flying lead of wire # 195 of the R29 resistor assembly to the AT Series battery charger "system common" contact point.
6. Route the remaining wires # 194 & 195 (which end at the 4-pin Molex-type plug) along the charger's main signal harness. The wires will lead to the left side of the Main Control PC Board (A1), mounted on the charger's front panel. Tie-wrap the new wires in place.
7. Handling all pc boards by their edges, remove the existing Main Control PC Board (A1) and Gate Driver PC Boards (A11/A15) if applicable, off of the nylon stand-offs.
8. If a terminator plug (EJ5201-00) is present and attached to A1-J14, remove and discard it.
9. Carefully insert the Communications Module PC Board (A12) onto the Main Control PC Board (A1) by inserting **A12-P13** onto **A1-J14**. See detail drawing ([JE5107-00](#)).
10. Return the connected pc boards (A1/A12) to the back of the front instrument panel, and carefully snap them onto the nylon stand-offs. Confirm all pc boards are firmly seated.
11. Insert the white nylon 4-pin Molex-type plug from the R29 resistor assembly into socket (J20) in the upper-left corner of the AT Series Communications Module PC Board (A12).
12. Close the AT Series battery charger front panel (door).
13. Turn on the charger's dc output circuit breaker (CB2) first, followed by the ac input circuit breaker (CB1) second.
14. Restart the AT Series battery charger per the *Operating and Service Instructions*.
15. Field Installation of the AT Series Communications Module is now complete. For full operation of the installed module, please refer to the supplied AT Series Communications Module user's manual ([JA0102-04](#)).

**SUPPLEMENTAL ONLINE DOCUMENTATION**

A number of supplemental documents may be used in conjunction with this manual:

Doc. No.	Online Hyperlink	Description
JA0102-04	<a href="http://www.ATSeries.net/PDFs/JA0102-04.pdf">http://www.ATSeries.net/PDFs/JA0102-04.pdf</a>	AT Series Comm. Mod. Manual (unlabeled)
JD5008-00	<a href="http://www.ATSeries.net/PDFs/JD5008-00.pdf">http://www.ATSeries.net/PDFs/JD5008-00.pdf</a>	AT Comm. Module Field Install. (this sheet)
JD5012-00	<a href="http://www.ATSeries.net/PDFs/JD5012-00.pdf">http://www.ATSeries.net/PDFs/JD5012-00.pdf</a>	Main Ctrl PCB A1 Replacement
JE5107-00	<a href="http://www.ATSeries.net/PDFs/JE5107-00.pdf">http://www.ATSeries.net/PDFs/JE5107-00.pdf</a>	AT Comm. Module Detail Drawing