



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

BACKGROUND

The AT Series Communications Module is an optional 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 AT Series Communications kit (p/n 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 ([JA0102-04](#)).

RECEIVING / SETUP

1. The AT Series Communications Module is not compatible with certain *older* AT Series battery chargers. Please confirm the version of the AT Series Main Control PC Board (A1) is **Rev. 6** or higher. If not, please order a new pc board (p/n **EN5002-00.**) from your sales representative.
2. 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)	RJ####-##	AT Series Communications Power Supply Resistor (R29) Assembly
C)	n/a	nylon wire ties for securing harness
D)	JD5008-00	Field Installation Instructions (<i>this sheet</i>)
E)	JE5107-00	AT Series Communications Module Assembly Detail Drawing
F)	JA0102-04	Private-labeled AT Series Comm Module User's Instructions

3. 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	one (1) R29 with mounting brackets *

* For the AT10.1 130Vdc 6Adc unit in Style-586 enclosures, R29 is an assembly of two (2) 50W 1000 Ohm resistors.

4. 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.

Product	AT10.1 G1 Style-586	AT10.1 G1 Style-594	AT10.1 G2 Style-5017	AT10.1 G2 Style-5018
Location of R29	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)
Connection of Wire # 195	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)
Product	AT30 Style-5018	AT30 Style-5030	AT30 Style-163	AT30 Style-198
Location of R29	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)
Connection of Wire # 195	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)



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⚠ 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.

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

PROCEDURE

1. Shut down the AT Series battery charger per the *Operating and Service Instructions*.
2. Open the charger front panel (door), and remove the acrylic safety shield (if supplied).
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.
5. 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.
6. 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.
7. Route the remaining wires # 194 & 195 (which end at the 4-pin Molex-type plug) along the charger's main signal harness, and tie-wrap the new wires in place. The wires will lead to the left side of the Main Control PC Board (A1), mounted on the charger's front panel.
8. 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.
9. If a terminator plug (p/n EJ5201-00) is present, and attached to A1-J14, remove and discard it.
10. Carefully insert the Communications Module PC Board (A12) onto the Main Control PC Board (A1) by inserting **A12-P13** onto **A1-J13**. See detail drawing ([JE5107-00](#)).
11. Return the connected pc boards (A1/A12) to the back of the front instrument panel.
12. Carefully snap them onto the nylon stand-offs and confirm all pc boards are firmly seated.
13. 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).
14. Re-install the acrylic safety shield (if supplied) and close the AT Series front panel (door).
15. Turn on the charger's dc output circuit breaker (CB2) *first*, followed by the ac input circuit breaker (CB1) *second*.
16. Restart the AT Series battery charger per the *Operating and Service Instructions*.
17. Field Installation of the AT Series Communications Module is now complete.
18. 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	http://www.ATSeries.net/PDFs/JA0102-04.pdf	AT Series Comm. Mod. Manual (unlabeled)
JD5008-00	http://www.ATSeries.net/PDFs/JD5008-00.pdf	AT Comm. Module Field Install (<i>this sheet</i>)
JD5012-00	http://www.ATSeries.net/PDFs/JD5012-00.pdf	Main Ctrl PCB A1 Replacement
JE5107-00	http://www.ATSeries.net/PDFs/JE5107-00.pdf	AT Comm. Module Detail Drawing