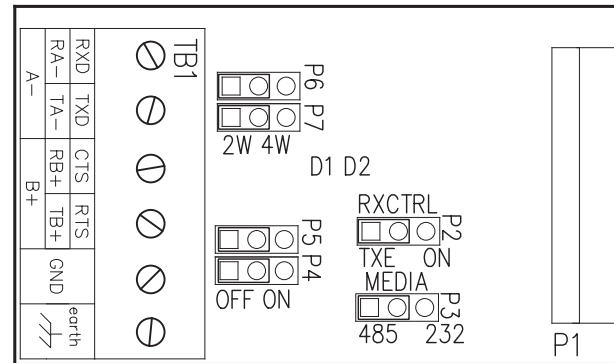


A13 PCB DETAIL



INSERTED INTO LEFT-SIDE PORT OF MAIN CONTROL BOARD (A1)

(NOTE 5)

WARNING

NEVER SEPARATE THE ATevo CHARGER FROM THE DC BUS WHILE IN FORCED LOAD SHARING

When ATevo chargers are operating in Load Share Mode, they MUST both be connected to the same dc bus. If your application and system includes disconnects, whereby chargers may be isolated from each other, the Forced Load Sharing MUST first be disabled, by disconnecting the load share cable or disabling interrupting the load sharing communications. Failure to disable forced load sharing when the ATevo's are not connected to the same dc bus will result in an undesirable operation, whereby the battery may become DISCHARGED.

JUMPERS ON SERIAL COMMUNICATIONS ADAPTER (A13) MUST BE CONFIGURED TO OPERATE IN 2-WIRE RS-485 MODE.

- JUMPER P2 (RXCNTRL) MUST BE SET TO TXE – LEFT TWO PINS
- JUMPER P3 (MEDIA) MUST BE SET TO 485 – LEFT TWO PINS
- JUMPERS P4 & P5 (485-TERM) MUST BE SET TO OFF – LEFT TWO PINS
- JUMPERS P6 & P7 (# WIRES) MUST BE SET TO 2W – LEFT TWO PINS

INTRODUCTION

Multiple battery chargers are sometimes employed in dc power systems to provide redundancy. Two (2) chargers of the same voltage rating can be connected in parallel, each of them capable of powering the connected dc load and charging the battery. When two (2) chargers operate in parallel, they normally will not share the load current equally. Since any two (2) chargers will usually have slightly different connection paths, one of the chargers in a system will typically have a slightly higher dc output voltage, and will therefore assume more of the burden of providing the necessary load current.

The ATevo forced load sharing feature supports a single "Primary" charger, and a "Secondary" charger. The Primary charger communicates with a Secondary charger over a serial connection. Each charger requires a Serial Communications Adapter (A13) set for RS-485, wired to all other chargers to create the forced load sharing communication network.

SYSTEM REQUIREMENTS

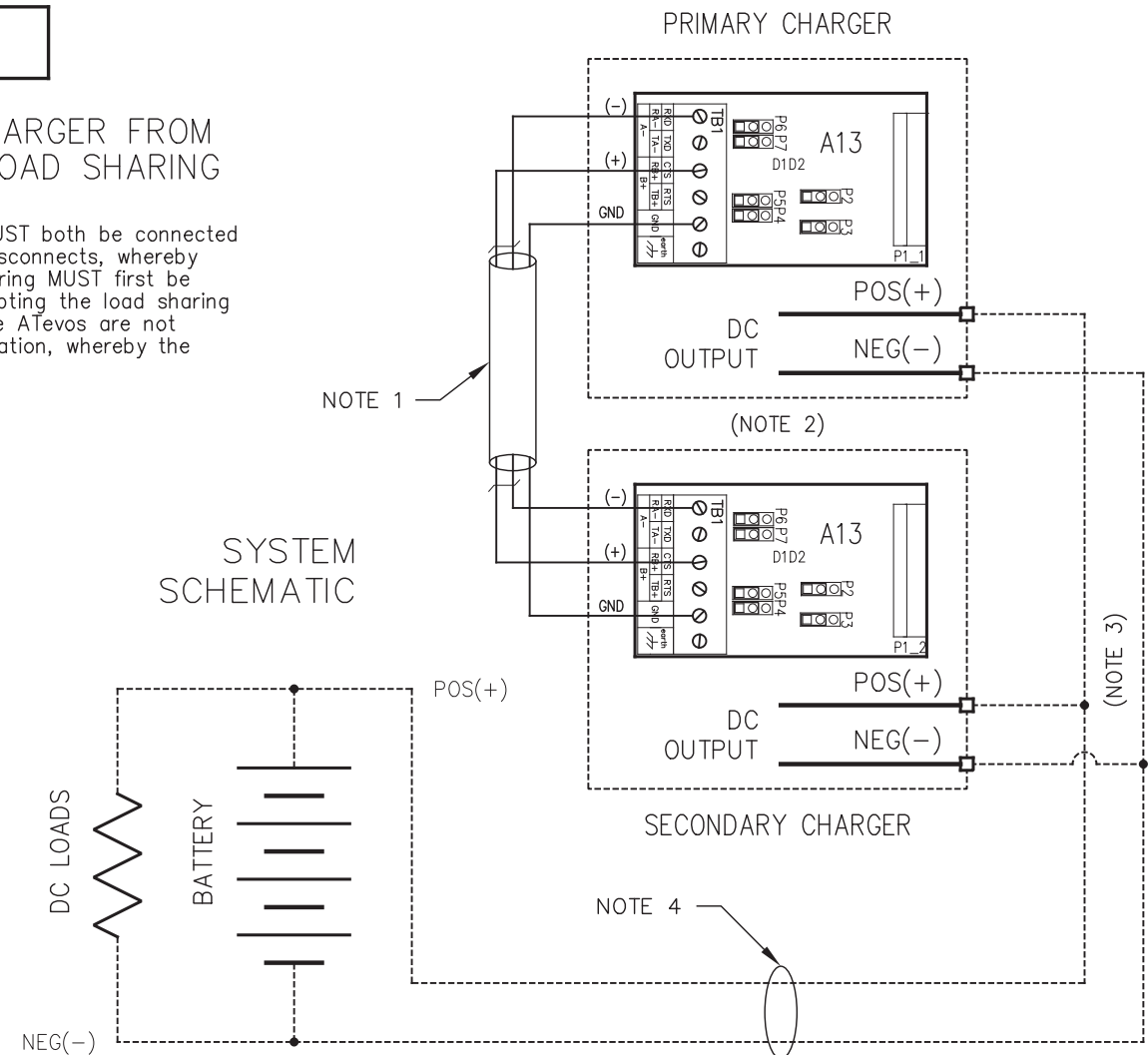
- Both battery chargers must be ATevo Series. The ATevo forced load sharing feature will not operate with legacy AT10.1 and AT30 Series battery chargers.
- Both connected chargers must have the same voltage settings, have the same output current rating, and have the same version of ATevo Main Control PC Board (A1) firmware.
- Each ATevo requires a Serial Communications Adapter (A13) to be installed in either Port 2 or Port 3 of the Main Control PC Board (A1).

ATEVO CHARGER LOAD SHARING CONFIGURATION

If the ATevo is ordered with the forced load sharing feature, the hardware and software configuration will be completed at the factory. The forced load sharing Serial Communications Adapters (A13) and software will be verified during the charger production test. The signal interconnection cable will be supplied in a bagged kit, to be connected to the chargers in the field after installation. If forced load sharing is added to the ATevo in the field, hardware and software configuration will be required.

INSTALLING SERIAL COMMUNICATIONS ADAPTER (A13)

Refer to the Serial Communication Adapter section of the ATevo Communications Manual (JA0102-54) for instructions on how to install the Serial Communications Adapter. Refer to User Instructions (JA5054-50), or Forced Load Sharing Section 13 of the Operating and Service Instructions, for instructions on how to configure ATevo's to share dc load.



NOTES:

1. FOR TWO (2) UNITS TO LOAD SHARE, CONNECT A13-TB1 OF "PRIMARY" CHARGER TO A13-TB1 OF "SECONDARY" CHARGER USING SUPPLIED ___ft / ___m INTERCONNECTION CABLE (p/n EH5052-0#).
2. FORCED LOAD SHARING FEATURE ONLY FUNCTIONAL WITH ATEVO MODELS (Vdc-Adc) OF IDENTICAL RATING.
3. ATEVO BATTERY CHARGERS OPERATING IN FORCED LOAD SHARING MODE MUST BE CONNECTED TO COMMON DC BUS.
4. CHARGER/BATTERY/LOAD INTER-CONNECTION DC CABLING NOT SUPPLIED WITH ATEVO, NOR WITH FORCED LOAD SHARING ACCESSORY (p/n EJ5306-0_). DC CABLING MAY BE SUPPLIED BY BATTERY MANUFACTURER, SYSTEM INTEGRATOR, OR SITE INSTALLER. SEE BATTERY/SYSTEM DRAWINGS FOR SPECIFICATIONS.
5. TWO (2) WARNING DECALS (p/n FK5046-00) SUPPLIED WITH BAGGED LOAD SHARING KIT FOR FIELD APPLICATION TO VITAL LOCATIONS.
6. FOR DETAILED INSTALLATION, OPERATING AND TROUBLE-SHOOTING PROCEDURES, SEE ATEVO FORCED LOAD SHARING USER INSTRUCTION (JA5054-50). <http://www.atseries.net/PDFs/JA5054-50.pdf>

REV 1	DRN BY MCR	CHK BY n/a	APP BY n/a	DATE 01.16.2024	DRN BY MCR	DATE 12.06.2023	TITLE ATEVO BATTERY CHARGER FORCED LOAD SHARING / A13 PCB DETAIL
DESCRIPTION REV 1: REFORMATTED SCHEMATIC & TEXT TO LATEST CDP TEMPLATE STANDARDS					CHK BY n/a	DATE 12.06.2023	
REV 0: INITIAL RELEASE					CHK BY n/a	DATE 12.06.2023	
					NOTICE: UNCONTROLLED DOCUMENT CHANGES / DIGITAL SIGNATURES MAINTAINED BY MANUFACTURER		
PART No							EJ5306-##
SCALE							DWG No
B							NTS
REV 1							SHEET 1 OF 1