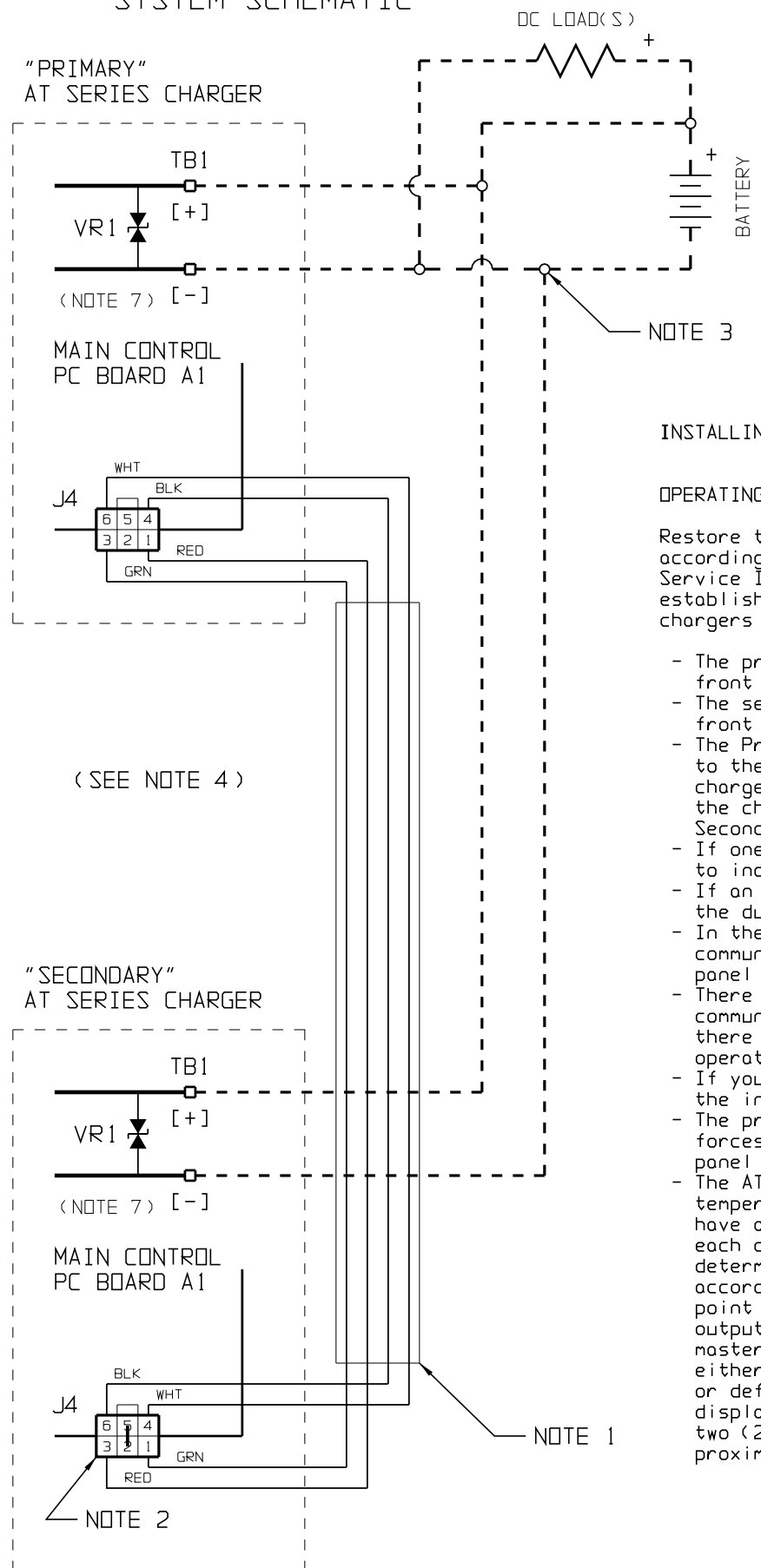


SYSTEM SCHEMATIC



(SEE NOTE 5)



**WARNING**

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

When AT 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 interrupting the load share communications. Failure to disable forced load sharing when the chargers are not connected to the same dc bus will result in an undesirable operation, whereby the battery may become DISCHARGED.

(NOTE 7)

NOTE 3

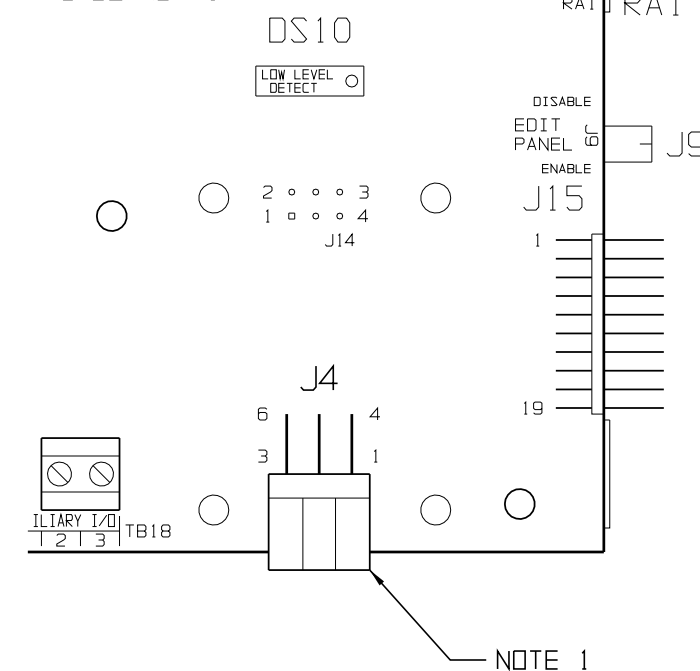
INSTALLING THE AT SERIES FORCED LOAD SHARE OPTION:

OPERATING CHARGERS WITH FORCED LOAD SHARING:

Restore the external power connections to the chargers, and restart the chargers according to the normal procedure in the AT Series Battery Charger Operating and Service Instructions. After the chargers restart, the primary charger attempts to establish communication with the secondary. If communication is successful, the chargers behave as follows:

- The primary charger displays the message LS-P (Load Share, Primary) on the front panel, alternating with the normal display of output voltage and current.
- The secondary charger displays the message LS-S (Load Share, Secondary) on the front panel, alternating with the normal display of output voltage and current.
- The Primary charger transfers all its set points (float, equalize, alarms, etc.) to the Secondary. The Primary charger also controls all set points for both chargers. While in Forced Load Sharing mode, you may adjust any set points (of the charger pair) at the front panel of the Primary. The front panel of the Secondary charger won't allow any settings to be changed.
- If one charger loses ac power (or is turned off), the remaining charger returns to independent operation, whether it was originally the Primary or Secondary.
- If an alarm condition occurs, both chargers revert to independent operation for the duration of the alarm.
- In the event of a fault in the interconnection, or any other problem with communication, the chargers return to independent operation, and the front panel on each charger displays the message E 14, indicating the fault.
- There is a delay (up to 4 seconds) for chargers to establish load sharing communication. If communication is broken (or power is lost for one charger), there is a 2-4 second delay for the other charger to resume independent operation.
- If you need to interchange the primary and secondary chargers, simply reverse the interconnection cable.
- The presence of the interconnection signal cable (with proper orientation) forces the charger into load sharing. Controlling load sharing from the front panel is neither necessary nor possible.
- The AT Series forced load sharing feature is compatible with the external temperature compensation accessory. It is recommended that each AT charger have a tempco probe, and that the probes be located as close as possible to each other. When the AT chargers are load sharing, the primary charger will determine the temperature compensated voltage and adjust the output voltage accordingly. The primary charger and secondary charger will display the set point voltage, not the temperature compensated output voltage. The voltage displayed by the master and secondary may be different, if either temperature probe is not installed or defective. A slight difference in the displayed voltages may also occur if the two (2) probes are not located in close proximity of each other.

MAIN CONTROL PC BOARD A1



NOTE 1

NOTES:

- 1) FOR TWO (2) UNITS TO LOAD SHARE, CONNECT A1-J4 OF "PRIMARY" CHARGER TO A1-J4 OF "SECONDARY" CHARGER USING SUPPLIED \_\_ft / \_\_. \_\_m INTERCONNECTION CABLE (EH5041-0#).
- 2) J4-2 AND J4-5 ARE FACTORY-JUMPERED ON THE "SECONDARY" END OF THE SUPPLIED INTERCONNECTION CABLE ONLY.
- 3) CHARGER/BATTERY/LOAD INTER-CONNECTION DC CABLING NOT SUPPLIED WITH CHARGER OR LOAD SHARING ACCESSORY. DC CABLING MAY BE SUPPLIED BY BATTERY MANUFACTURER OR INTEGRATOR. SEE BATTERY/SYSTEM DRAWINGS FOR SPECS.
- 4) AT SERIES BATTERY CHARGER FORCED LOAD SHARING FEATURE FUNCTIONAL ONLY WITH TWO (2) UNITS OF IDENTICAL RATING.
- 5) TWO (2) WARNING DECALS (FK5046-00) SUPPLIED WITH BAGGED LOAD SHARING KIT FOR FIELD APPLICATION TO VITAL LOCATIONS.
- 6) FOR DETAILED INSTALLATION, OPERATING AND TROUBLE-SHOOTING PROCEDURES, SEE USER INSTRUCTION (JA5054-00). [<http://www.ATSeries.net/PDFs/JA5054-00.pdf>]
- 7) THE AT SERIES CHARGER FEATURES A BATTERY DISCHARGE OPTION, WHICH IS SPECIFICALLY DESIGNED FOR A ONE (1) BATTERY, ONE (1) LOAD, AND ONE (1) CHARGER INSTALLATION. SEE APPLICATION NOTE (JD0052-00) FOR UTILIZING THIS ALARM IN A DUAL CHARGER SYSTEM, WITH FORCED LOAD SHARING. [<http://www.ATSeries.net/PDFs/JD0052-00.pdf>]

3	-N/A-	092320		THIRD ANGLE PROJECTION	TITLE AT SERIES BATTERY CHARGER FORCED LOAD SHARING ACCESSORY DETAIL		
2	23861	082913	DRAWN BY	MCR	021807	DRAWING No	
1	21385	110708	ELECTRONIC APPROVAL SIGNATURES MAINTAINED BY MFG ECN LOG			JE5154-00	
0	20566	021807	UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:			REV	3
REV	ECN No	DATE				SCALE	NTS
						PART No	JE5154-00
						SHEET	1 OF 1