ATevo Series Battery Charger Preventative Maintenance Procedure



Maintenance Date:	Maintenance Performed by:
ATevo Model Number:	Serial Number:
Site / Location:	End User Tag:

		-
Step (standard features)	Instructions	Results
Clean ATevo	All vents clean and open.	□ OK
	Remove dust and debris from inside of unit.	□ OK
Check all electrical	Circuit breaker (CB1/CB2) or I/O panel user connections are all tight.	□ OK
connections & wiring	Internal wiring connections tight, slip-on connectors fully seated.	□ OK
	Wire and lug insulation in good condition.	□ OK
	Terminations at battery (or dc bus) are tight and corrosion free.	□ OK
Check ac input voltage & current	Measure at ac input circuit breaker terminals (CB1-L#) or I/O panel with an ac voltmeter. Value must be within +10% / -12% of nominal.	Input Vac L1-L2
Voltage & current	Single Phase: across L1 & L2	Vac L1-L2
	Three Phase: across L1 & L2, across L2 & L3, and across L1 & L3 Three Phase: across L1 & L2, across L2 & L3, and across L1 & L3	Vac L2 L3
	Use an ac clamp to measure input current.	
	Verify input source matches printed listing (Vac) on data nameplate.	Aac □ OK
Check dc output	Wearing input source matches printed listing (vac) on data namepiate. Measure at dc output circuit breaker terminals (CB2[+] & CB2[-]) or at	Output (Float)
(float) voltage & current	I/O panel dc terminals [+/-] with a dc voltmeter, and record value.	Utiput (Float) ——— Vdc
	Value should agree with front panel display (Vdc) within 1%, and must be correct for site battery rating.	□ ОК
	If ATevo is using a temperature compensation probe, see curve in Section 10.4 of O&SI to determine correct battery voltage.	☐ TempCo curve
	If voltage reading on external meter does not match output on ATevo display (Vdc), calibrate using HindleHealth. See O&SI Section 8.	☐ meter/display match
	Use a dc clamp to measure output current.	Adc
	Verify dc bus matches printed listing (Vdc) on data nameplate.	□ OK
Check F/E & alarm	Use EDIT/ENTER key to scroll through settings.	Float Setting
settings	See Section 4.2 of ATevo O&SI manual.	Vdc
	Record set points for six (6) basic settings:	Equalize Setting
	Float Voltage	Vdc
	Equalize Voltage	Equalize Timer Setting
	Equalize Timer	hours
	High DC Voltage Alarm	HVDC Setting
	Low DC Voltage Alarm	Vdc
	Current Limit	LVDC Setting Vdc
		Current Limit Setting
		Adc
Check dc output	Switch ATevo Charger Mode to Equalize. See Section 5.1.2 of O&SI.	
(equalize) voltage	Measure at dc output circuit breaker terminals (CB2[+] & CB2[-]) or at	Output (Equalize)
	I/O panel dc terminals [+/-] with a dc voltmeter, and record value.	Vdc
	Value should agree with front panel display (Vdc) within 1%, and must be correct for site battery rating.	□ ОК
	Switch ATevo Charger Mode back to Float.	□ OK

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Step (standard features)	Instructions	Results
Check ac ripple voltage	Measure at battery terminals using ac voltmeter set to milliVolts scale.	Ripple
on dc output	Check against specifications in Appendix of ATevo O&SI manual.	mVac
Test front panel	Press LAMP TEST key and hold for four (4) seconds.	
indicators, Common	All LEDs will light.	□ all indicators ON
Alarm & firmware	Common alarm relay at terminal block A1-TB6 will transfer.	☐ relay triggers
	When button is released, record UI & PGA firmware versions.	ver:/
Exercise front panel	Press CHARGE MODE key on front panel.	
controls	Switch battery charger mode from Float to Equalize.	□ OK
	Verify dc output voltage changes to match Equalize setting.	Vdc
	Switch ATevo back to Float mode. See Section 5.1.2 of O&SI manual.	
	Turn off (open) dc output circuit breaker (CB2). DC Breaker Open alarm will appear on display. Reset dc breaker (CB2).	□OK
	Press DISPLAY MODE key on panel. Cycle through different settings to verify changes in main display. See Section 5.1.1 of O&SI manual.	□ ОК
	Press EQUALIZE METHOD key on front panel. Cycle through equalize methods. See Section 5.1.3 of ATevo O&SI manual.	☐ Manual Timer OK
	Check Equalized method selected.	☐ Auto-Eq Timer OK
	Turn off ac input circuit breaker (CB1). The AC INPUT FAILURE indicator should light. Reset ac breaker (CB1).	☐ Alarm OK
Final checks	Make sure acrylic safety cover is in place.	□ OK
	Close latch on front panel door.	□ OK
	Restore ATevo battery charger to normal operation (close breakers).	□ OK
Step (optional features)	Instructions	Results
Test auxiliary alarm	Instructions • Press LAMP TEST key and hold for four (4) seconds.	Results
		Results
Test auxiliary alarm relays Check integrity of	Press LAMP TEST key and hold for four (4) seconds.	
Test auxiliary alarm relays	 Press LAMP TEST key and hold for four (4) seconds. Six (6) alarm relays will transfer, and six (6) indicators on pcb will light. 	□ OK □ OK □ OK
Test auxiliary alarm relays Check integrity of	 Press LAMP TEST key and hold for four (4) seconds. Six (6) alarm relays will transfer, and six (6) indicators on pcb will light. Remote (Vdc) battery sense wiring - see Section 11 of O&SI manual. 	□ OK
Test auxiliary alarm relays Check integrity of	 Press LAMP TEST key and hold for four (4) seconds. Six (6) alarm relays will transfer, and six (6) indicators on pcb will light. Remote (Vdc) battery sense wiring - see Section 11 of O&SI manual. Temperature compensation wiring - see Section 10 of O&SI manual. 	□ OK □ OK □ OK
Test auxiliary alarm relays Check integrity of remote wiring	 Press LAMP TEST key and hold for four (4) seconds. Six (6) alarm relays will transfer, and six (6) indicators on pcb will light. Remote (Vdc) battery sense wiring - see Section 11 of O&SI manual. Temperature compensation wiring - see Section 10 of O&SI manual. Temperature compensation probe - see Section 10 of O&SI manual. 	□ OK □ OK □ OK □ OK
Test auxiliary alarm relays Check integrity of remote wiring	 Press LAMP TEST key and hold for four (4) seconds. Six (6) alarm relays will transfer, and six (6) indicators on pcb will light. Remote (Vdc) battery sense wiring - see Section 11 of O&SI manual. Temperature compensation wiring - see Section 10 of O&SI manual. Temperature compensation probe - see Section 10 of O&SI manual. 	□ OK □ OK □ OK □ OK
Test auxiliary alarm relays Check integrity of remote wiring Final checks	 Press LAMP TEST key and hold for four (4) seconds. Six (6) alarm relays will transfer, and six (6) indicators on pcb will light. Remote (Vdc) battery sense wiring - see Section 11 of O&SI manual. Temperature compensation wiring - see Section 10 of O&SI manual. Temperature compensation probe - see Section 10 of O&SI manual. Close padlock or key lock. 	□ OK □ OK □ OK □ OK
Test auxiliary alarm relays Check integrity of remote wiring Final checks Step (10-year repair)	Press LAMP TEST key and hold for four (4) seconds. Six (6) alarm relays will transfer, and six (6) indicators on pcb will light. Remote (Vdc) battery sense wiring - see Section 11 of O&SI manual. Temperature compensation wiring - see Section 10 of O&SI manual. Temperature compensation probe - see Section 10 of O&SI manual. Close padlock or key lock.	□ OK □ OK □ OK □ OK □ OK
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