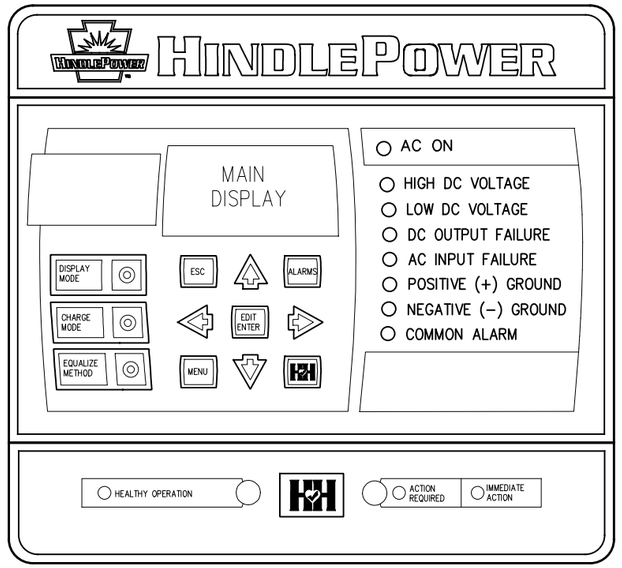
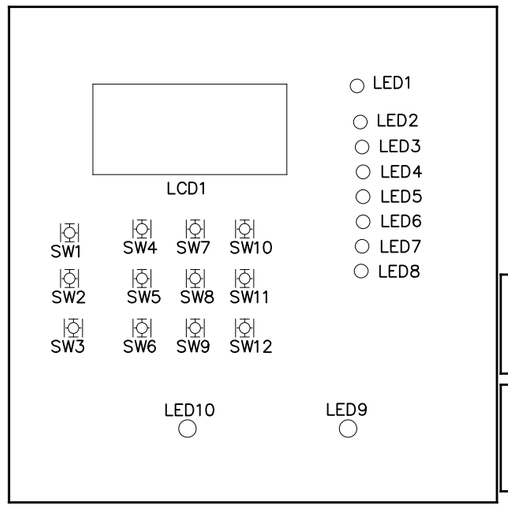
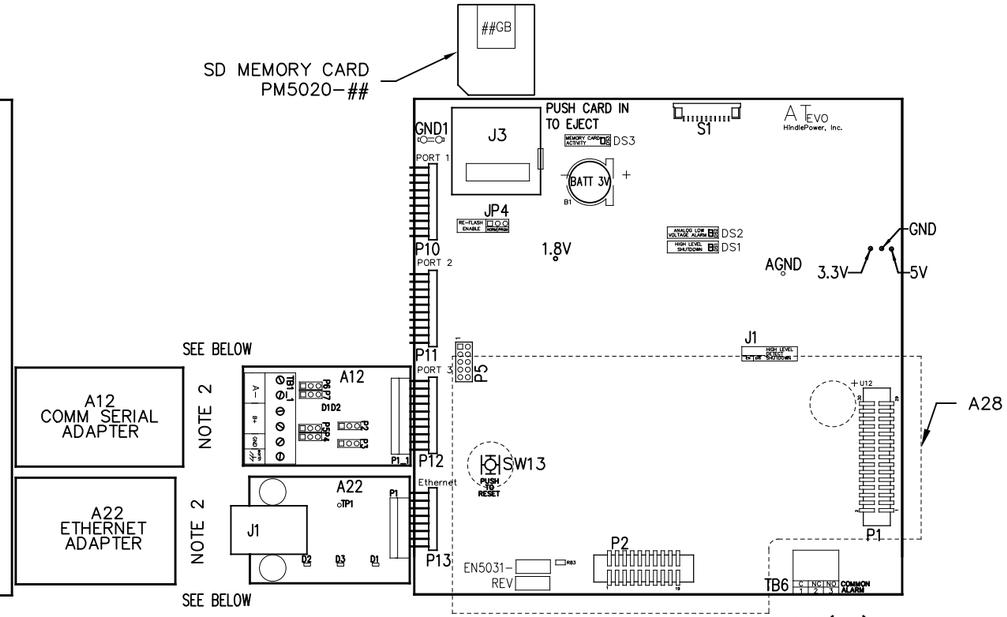


CONTROL PANEL
(PART No. FK5047–00)

NOTE: ALL ALARM CONTACTS ARE ENERGIZED WHEN IN THE NON–ALARM STATE (FAIL SAFE). ALL ALARM CONTACTS WILL CHANGE STATE WHEN CHARGER IS POWERED DOWN. CONTACT RATING IS 0.5A @ 125VAC/VDC RESISTIVE.



MAIN CONTROL PC BOARD (A1)
FRONT VIEW – FACING CHARGER DOOR WHEN INSTALLED

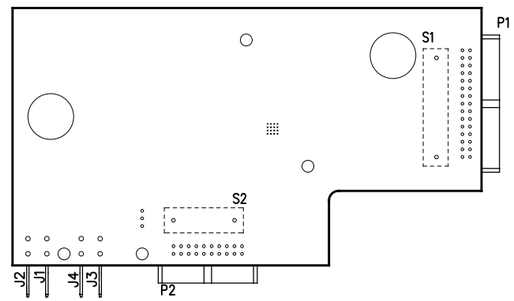


MAIN CONTROL PC BOARD (A1)
BACK VIEW – FACING CHARGER COMPONENTS WHEN INSTALLED

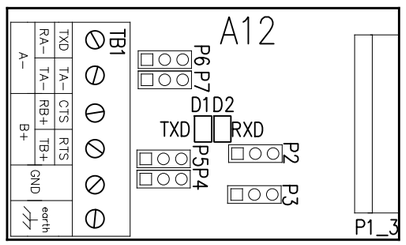
2. SERIAL ADAPTER (A12) SUPPORTS MULTIPLE PROTOCOLS (DNP3 AND MODBUS) SIMULTANEOULSY. SEE JA0102–54.

AC METER MODULE PC BOARD (A28)

MOUNTED ON MAIN CONTROL PC BOARD



SERIAL COMMUNICATION ADAPTER (A12)



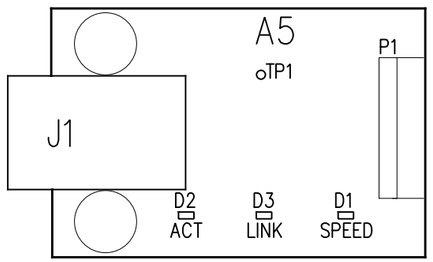
CONNECTORS (A12):
P1 – MAIN CONTROL BOARD

JUMPERS & CONFIGURATION SWITCHES (A12):
P2 – RECIEVER ENABLE CONTROL SELECTION
P3 – MEDIA CONTROL SELECTION (RS–234 OR RS–485)
P4 – RS–485 TERMINATION RESISTOR ENABLE (RECIEVE)
P5 – RS–485 TERMINATION RESISTOR ENABLE (TRANSMIT)
P6 – RS–485 INTERFACE 2 WIRE/4 WIRE SELECTION (A)
P7 – RS–485 INTERFACE 2 WIRE/4 WIRE SELECTION (B)

TERMINAL BLOCKS (A12):
TB1 – USER CONNECTIONS TO SERIAL INTERFACE

INDICATOR LIGHTS (A12):
TXD (D1) – SERIAL DATA BEING SENT
RXD (D2) – SERIAL DATA BEING RECEIVED

ETHERNET ADAPTER (A22)



CONNECTORS (A5):
P1 – MAIN CONTROL BOARD
J1 – RJ–45 ETHERNET USER CONNECTION

INDICATOR LIGHTS (A5 LEDS):
D1 – ORANGE – ETHERNET SPEED INDICATION 10/100 MBPS
D2 – YELLOW – ETHERNET ACTIVITY (FLASHING)
D3 – RED – ETHERNET LINK

TEST POINTS (A5):
TP1 – CLOCK OUT

MAIN CONTROL PC BOARD (A1)

INDICATOR LIGHTS (LEDs):
LED1 – GREEN – AC ON
LED2 – RED – HIGH DC VOLTAGE ALARM
LED3 – RED – LOW DC VOLTAGE ALARM
LED4 – RED – DC OUTPUT FAILURE ALARM
LED5 – RED – AC INPUT FAILURE ALARM
LED6 – RED – POSITIVE (+) GROUND ALARM
LED7 – RED – NEGATIVE (–) GROUND ALARM
LED8 – RED – COMMON ALARM
LED9 – RED – ACTION REQUIRED ALARM
LED10 – GREEN – HEALTHY OPERATION
DS1 – RED – HIGH LEVEL SHUTDOWN (HLD)
DS2 – RED – ANALOG LOW VOLTAGE ALARM (LLD)
DS3 – RED – MEMORY CARD ACTIVITY

JUMPERS:
J1 – ANALOG HIGH VOLTAGE SHUTDOWN JUMPER
J3 – SD CARD PORT
JP4 – RE–FLASH (FIELD PROGRAMMING) JUMPER
TERMINAL BLOCKS:
TB6 – COMMON ALARM RELAY CONTACTS
TEST POINTS:
1.8V – 1.8 VOLTS
3.3V – 3.3 VOLTS
5V – 5.0 VOLTS
GND – GROUND
AGND – ANALOG GROUND
SDA – MAIN BOARD 12C DATA
SCL – MAIN BOARD 12C CLOCK

SWITCHES:
S1 – DISPLAY BUTTON
S2 – CHARGE MODE BUTTON
S3 – EQUALIZE METHOD BUTTON
S4 – ESCAPE (ESC) BUTTON
S5 – LEFT ARROW BUTTON
S6 – MENU BUTTON
S7 – UP ARROW BUTTON
S8 – EDIT / ENTER BUTTON
S9 – DOWN ARROW BUTTON
S10 – ALARM BUTTON
S11 – RIGHT ARROW BUTTON
S12 – HINDLE HEALTH (HHS) BUTTON
SW13 – SYSTEM RESET BUTTON (BACK OF BOARD)

CONNECTORS:
P1 – POWER BOARD RIBBON
P2 – 3 PHASE RECTIFIER RIBBON
P3 – USB EXPANSION PORT
P4 – SPI & I2C EXPANSION PORT #1
P5 – SPI & I2C EXPANSION PORT #2
P6 – DISPLAY SPI PORT
P7 – DISPLAY JTAG PORTS
P10 – SERIAL INTERFACE PORT #1
P11 – SERIAL INTERFACE PORT #2
P12 – SERIAL INTERFACE PORT #3
P13 – ETHERNET INTERFACE PORT
P17 – GENERAL EXPANSION PORT

I/O TERMINAL	DESCRIPTION – TYPE	CONNECTION
(A1) TB6	SUMMARY ALARM TERMINAL BLOCK (A1) – SOLDERLESS COMP SCREW	#22–14 AWG
(A12) TB1	RS–232 / RS–485 USER CONNECTIONS – SOLDERLESS COMP SCREW	#22–14 AWG
(A22) J1	SERIAL ETHERNET CONNECTION – RJ45 PLUG	CAT5

REV.	DRN BY	CHK BY	APP BY	DATE
D	KJB	MCR	MCR	12/1/2021

DESCRIPTION
STANDARD DRAWINGS.

ECN NO. N/A

DRN BY	KJB	DATE: 12/1/2021
CHK BY	MCR	DATE: 12/1/2021
APP BY	MCR	DATE: 12/1/2021

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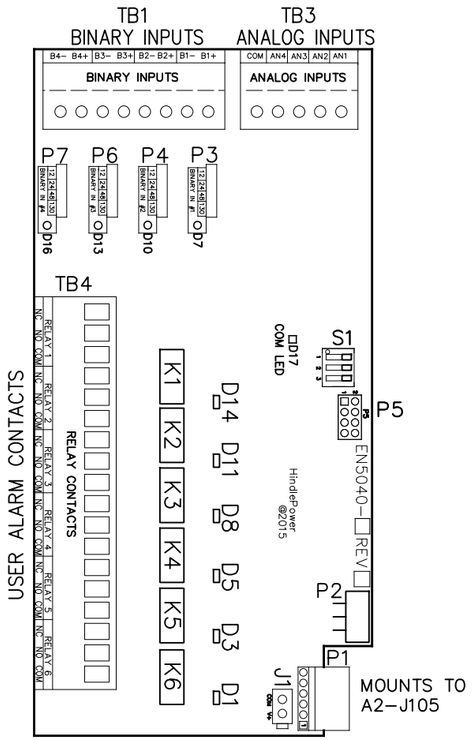
TITLE
ATEVO BATTERY CHARGER CONTROL PANEL / PC BOARD DETAIL 1ø WITH COMMON OPTIONS 6–25A

SIZE	SCALE	DWG No	REV	SHEET
B	NTS	JE5253–21	D	1 OF 2

[JH0011–21.DWG]



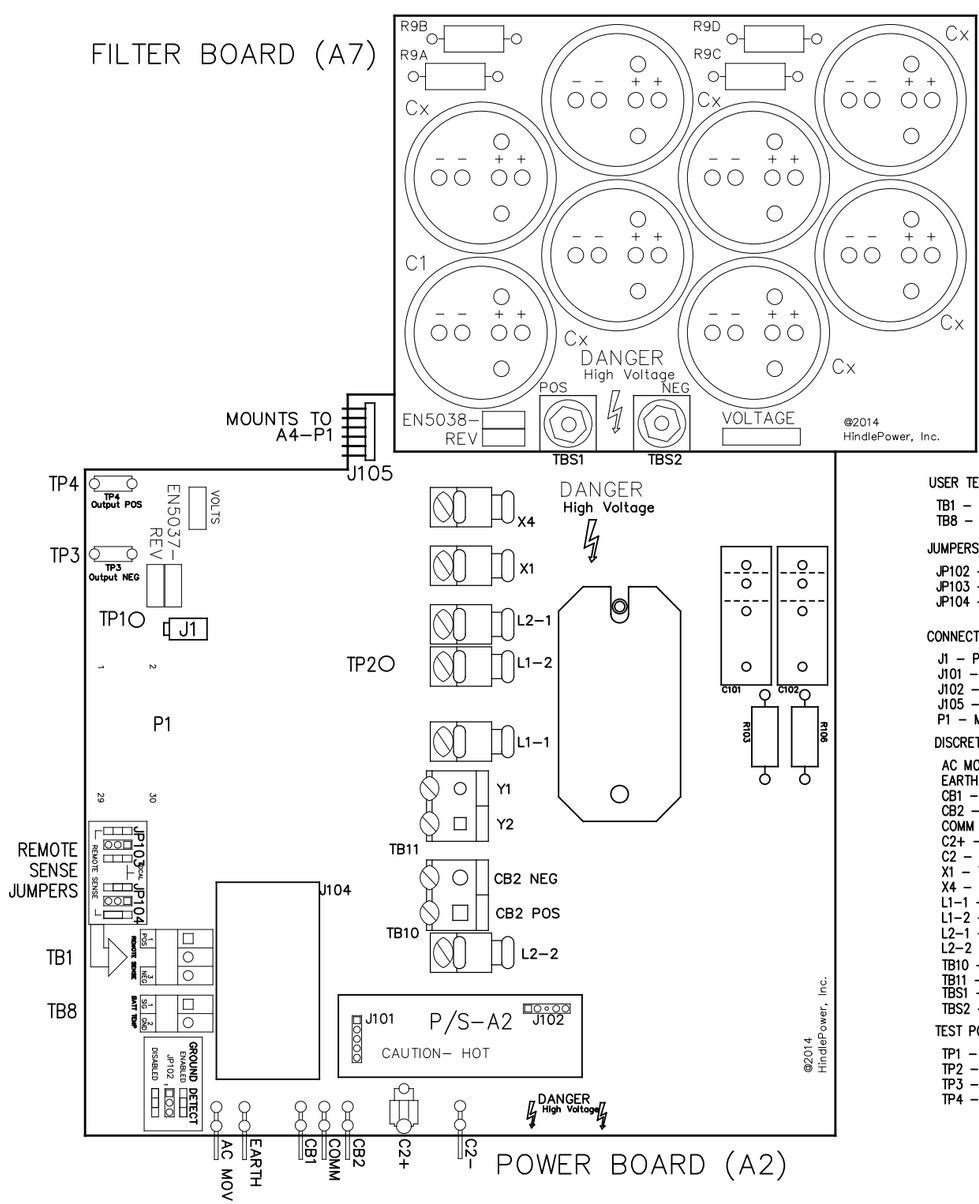
AUXILIARY I/O BOARD (A4)

JUMPERS & CONFIGURATION SWITCHES FOR AUX I/O BOARD (A4)
- J1 – AUXILIARY POWER INPUT
- P1 – POWER BOARD (PRIMARY POWER & COMM SOURCE)
- P5 – PROGRAMMING HEADER

USER TEMINALS ON RELAY BOARD (A4):
- D1 – RED – RELAY #6 IN ALARM STATE
- D3 – RED – RELAY #5 IN ALARM STATE
- D5 – RED – RELAY #4 IN ALARM STATE
- D7 – YELLOW – BINARY INPUT #1 IS ABOVE THRESHOLD
- D8 – RED – RELAY #3 IN ALARM STATE
- D10 – YELLOW – BINARY INPUT #2 IS ABOVE THRESHOLD
- D11 – RED – RELAY #2 IN ALARM STATE
- D13 – YELLOW – BINARY INPUT #3 IS ABOVE THRESHOLD
- D14 – RED – RELAY #1 IN ALARM STATE
- D16 – YELLOW – BINARY INPUT #4 IS ABOVE THRESHOLD
- D17 – GREEN – COMMUNICATION TO MAIN BOARD (FLASHING)

USER TEMINALS ON RELAY BOARD (A4):
- TB1 – BINARY INPUTS
- TB2 – SERIAL INTERFACE
- TB3 – ANALOG INPUTS
- TB4 – AUXILIARY I/O RELAY CONTACTS

JUMPERS & CONFIGURATION SWITCHES
- P3, 4, 6, 7 – BINARY INPUT VOLTAGE CONFIGURATION JUMPERS
- S1 – BOARD ADDRESS DIPSWITCH



USER TERMINALS ON POWER BOARD (A2):
- TB1 – REMOTE VOLTAGE SENSE
- TB8 – BATTERY TEMPERATURE COMPENSATION

JUMPERS ON POWER BOARD (A2):
- JP102 – GROUND DETECT CIRCUIT ENABLE / DISABLE
- JP103 – REMOTE OR LOCAL SENSE SELECTOR (+)
- JP104 – REMOTE OR LOCAL SENSE SELECTOR (–)

CONNECTORS ON POWER BOARD (A2):
- J1 – POWER OUT
- J101 – DC POWER SUPPLY
- J102 – DC POWER SUPPLY
- J105 – AUXILIARY I/O BOARD
- P1 – MAIN CONTROL BOARD RIBBON

DISCRETE TERMINALS:
- AC MOV – CHASSIS EARTH GROUND
- EARTH – CHASSIS EARTH GROUND (DOOR)
- CB1 – AC BREAKER AUX SWITCH CONTACT
- CB2 – DC BREAKER AUX SWITCH CONTACT
- COMM – BREAKER AUX SWITCH COMMON
- C2+ – ELIMINATOR FILTER CAPACITOR (+)
- C2 – ELIMINATOR FILTER CAPACITOR (–)
- X1 – TRANSFORMER SECONDARY WINDING
- X4 – TRANSFORMER SECONDARY WINDING
- L1–1 – FILTER INDUCTOR #1 (TERMINAL #1)
- L1–2 – FILTER INDUCTOR #1 (TERMINAL #2)
- L2–1 – FILTER INDUCTOR #2 (TERMINAL #1)
- L2–2 – FILTER INDUCTOR #2 (TERMINAL #2)
- TB10 – CB2 DC BREAKER
- TB11 – 'Y' CONTROL WINDINGS
- TBS1 – FILTER CAPACITOR BOARD (+)
- TBS2 – FILTER CAPACITOR BOARD (–)

TEST POINTS ON POWER BOARD (A2):
- TP1 – PRE–FILTERED DC BUS (–)
- TP2 – PRE–FILTERED DC BUS (+)
- TP3 – DC BUS (–)
- TP4 – DC BUS (+)

I/O TERMINAL	DESCRIPTION – TYPE	CONNECTION
(A2) TB1	POS/NEG REMOTE SENSE TERMS (A2) – SOLDERLESS COMP SCREW	#22–14 AWG
(A2) TB8	TEMPCO PROBE (A10) TERM BLK – SOLDERLESS COMP SCREW	#22–14 AWG
(A4) TB1	AUX I/O BINARY INPUTS (A4) – SOLDERLESS COMP SCREW	#22–14 AWG
(A4) TB2	AUX I/O RELAY CONTACTS (A4) – SOLDERLESS COMP SCREW	#22–14 AWG
(A4) TB3	AUX I/O ANALOG INPUTS (A4) – SOLDERLESS COMP SCREW	#22–14 AWG
(A4) TB4	AUX I/O RELAY CONTACTS (A4) – SOLDERLESS COMP SCREW	#22–14 AWG

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TITLE
ATEVO BATTERY CHARGER
CONTROL PANEL / PC BOARD DETAIL
1ø WITH COMMON OPTIONS 6–25A

B	SCALE NTS	DWG No JE5253–21	REV D	SHEET 2 OF 2

[JH0011–21.DWG]