

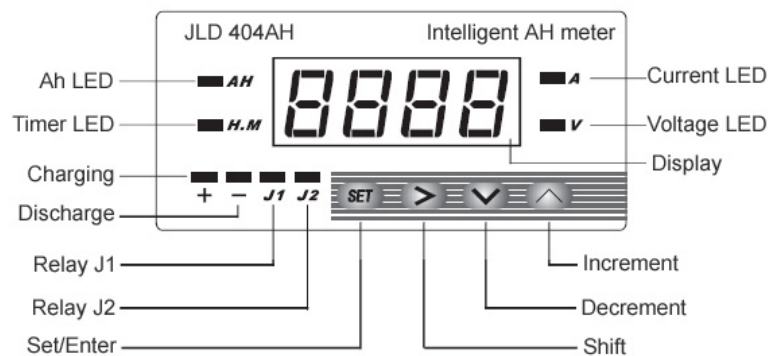
Features

- Support DC input: 5A, 1A, 75mV, 100V, 500V
- Wide range measurement can be achieved by using a proper DC shunt
- Range: 0.001 ~ 9999AH
- Two alarm output; Alarm or Control for I,V,AH protection
- Cycling display AH, I, V, and time

1) Specification

- Input range: Current: 0~9999A(need a DC shunt) : +/- 0.5%FS+3d; 0~500VDC (0.5% FS+3d)
- Input mode: Common ground
- Sampling: 3times/sec
- Overload: "EEEE" or "-EEE"
- Expandable(need a proper DC shunt, programmable)
- AH: 0.001 ~ 9999AH
- DC Accuracy: +/- 1%
- LED Display: Power (Blue/0.56")
- Operating Power: DC8-30V/2W
- Temperature: 0~ +50°C
- Humidity: <<85% RH
- Relay: AC220V/3A or DC30V/3A
- Relay Life Span: 10^5
- Dimension: 96*48*82(mm), Mounting hole: 92*44(mm)

2) Panel



3) Key setting

- During the stage of measurement, Press \odot to select reading from current (A), V, and AH.
- By pressing \odot for over 3 sec, it "beep" for 1 sec and system enter 'diagnostic mode'.
- By pressing \odot for over 3 sec, it beep for 1 sec, it clear AH and timer
- By pressing \odot for over 3 sec, it beep for 1 sec, it clear timer

Parameter setup: Press \odot , enter pass code: 0036

Fig 1

Full scale value	Decimal point	Display	Resolution
0500	2	5.00	10mA
5000	3	5.000	1mA

Fig2

	0	1	2	3
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Setting

- Press \odot to enter programming mode
- Input Password using \odot , \odot , \odot
- Press \odot , \odot to set parameters
- Press \odot to save change

Measurement setup

Symbol	Name	Definition	Selection/Range	Default	Remark
A-Sn	A-Sn	Input Current Sets	5A/1A/75mV	5A	1
APvL	APvL	"Zero A Input" display	-1999~9999	0.000	2
APvH	APvH	Full scale display (A)	-1999~9999	5.000	3
Adot	Adot	Decimal point pos. (A)	0-3	3	4
U-Sn	U-Sn	Input Voltage Sets	500V/100V	500V	5
UPvL	UPvL	"Zero V Input" display	-1999~9999	000.0	
UPvH	UPvH	Full scale display (V)	-1999~9999	500.0	
Udot	Udot	Decimal point pos. (V)	0-3	1	
FILt	FILt	Digital filtering index	0-3	0	6
End	End	End of setup			

- Current Input (A-Sn): Input range 5A (-1A~5A), 1A(-0.2~1A), 75mV(shunt value: -15~75mV). Default: 5A
- Zero current input(APvL): Tell the meter what to display when the input current is "0.0A". It serves as offset adjustment. Default: "0000"
- Full scale current display: (APvH): Tell the meter what to display when input current is at max. Resolution varies with this setting.
- Decimal point position: Can be set arbitrary
- Voltage Input(V-Sn): Voltage input range 500V (-100~500V); 100V(-20~100V)
- Digital filtering Index: Range: 0,1,2,3 where 0 means no filtering. 1=weak, 2=medium, 3=strong. The higher the index, the more stable of the display but w/ slower refresh rate

(B) Power Alarm Parameters(Press \odot , enter password "0001")

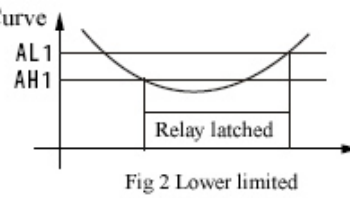
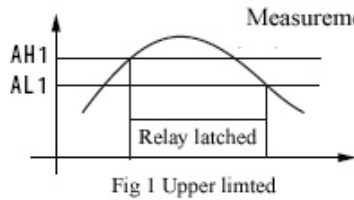
Symbol	Name	Description	Range/Default	Default
J1	J1	Relay J1	A/V/AH	A
AH1	AH1	Relay J1 engaged	-19999~9999	10
AL1	AL1	Relay J1 disengaged	-19999~9999	20
J2	J2	Relay J2	A/V/AH	A
AH2	AH2	Relay J2 engaged	-19999~9999	30
AL2	AL2	Relay J2 disengaged	-19999~9999	40
End	End	End		

The setting of alarm is similar to the setting of measurement

*7 Alarm/relay(J1,J2) operation

AH1 & AH2 are the latched value, where AL1 & AL2 unlatched value

1. Set AH1=AL1(AH2=AL2), relay disable
2. Set AH1>AL1(AH2>AL2), when measured value \geq AH1, the relay will latch; when AL1 \geq measured value, relay unlatched. This is for 'upper limited' configuration. See Fig 1.
3. Set AH1<AL1(AH2<AL2), when AH1 \geq measured value, the relay will latch; when measured value \geq AH1, the relay unlatched. This is for the "lower limited" configuration. See Fig 2
- 4.



Setup Procedures:

- 1) Press **SET** to enter the programming stage
- 2) Use **>** **<** **↺** to enter password
- 3) Use **<** **>** to set value
- 4) Press **SET** to confirm and save

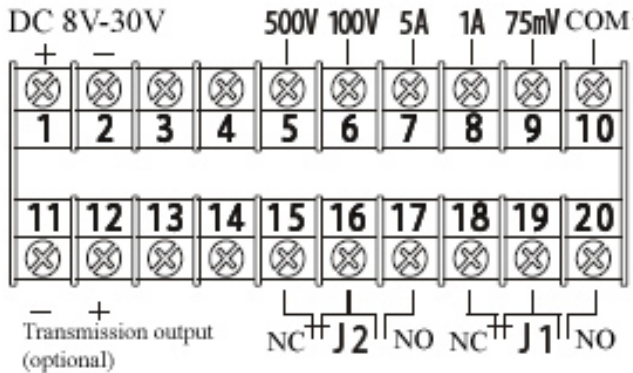
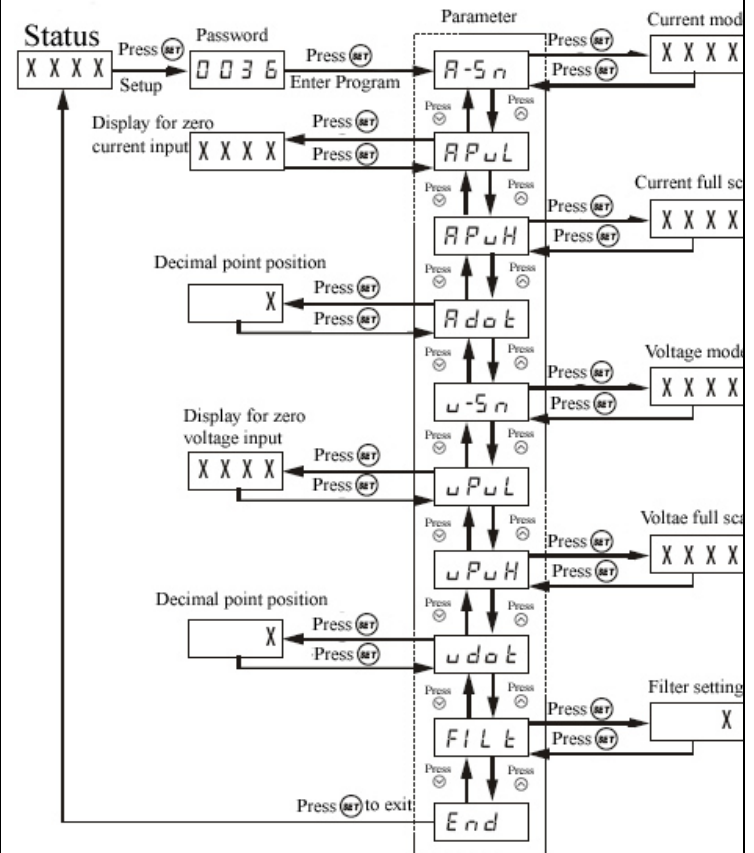


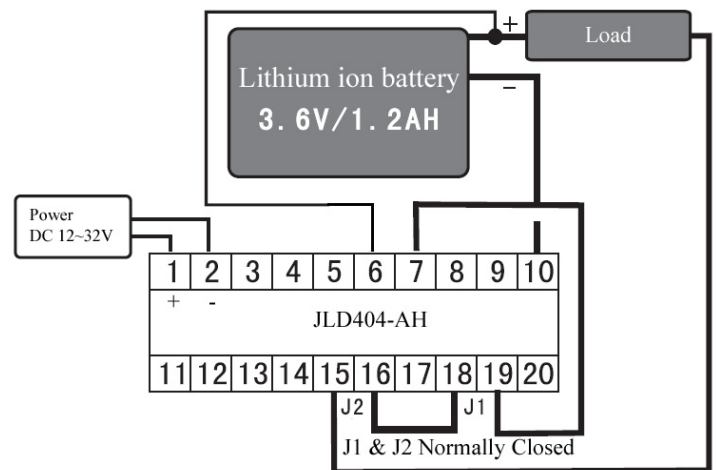
Fig 3



Example: Monitoring a Li-ion battery (3.6V/1.2AH) discharging.

Condition & requirement:

- 1) When current is over 1.20A or voltage is lower than 2.8V, cut off the current route.
- 2) Power is DC 12~32V.
- 3) Type of control: Cut off



* Heavy line = Current route

Setup:

- 1) Enter password: 0036
Current mode: A-Sn = 5A,
Current “zero input”
APvL: 0.000;
Current full scale APvH: 5.000;
Decimal point dot=3 (0.000~5.000A)
Voltage mode U-Sn: 100V;
Voltage “zero input” UpvL= 00.00;
Voltage full scale: UpvH=99.99;
Decimal point dot=2 (0.0~99.99V)
- 2) Enter password: 0001, set alarm
Set J1 type for A;
Set current upper limit J1 latched value(AH1)= 1.200A;
Set current lower limit J1 unlatched value(AL1) = 1.196A;
Set J2 type for V;
Set voltage upper limit J2 (AH2) = 2.8V;
Set voltage lower limit J2 (AL2) = 2.84V;

End

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