ALIA® **ALIAPANEL**

Paperless Recorder

Model ARC900 Series

Operation Manual

$C \epsilon$

Index

1. Features

⬈ GENERAL

ALIAPANEL ARC900 Series Paperless Recorder used the most Advanced technology, to be aimed to various industry application.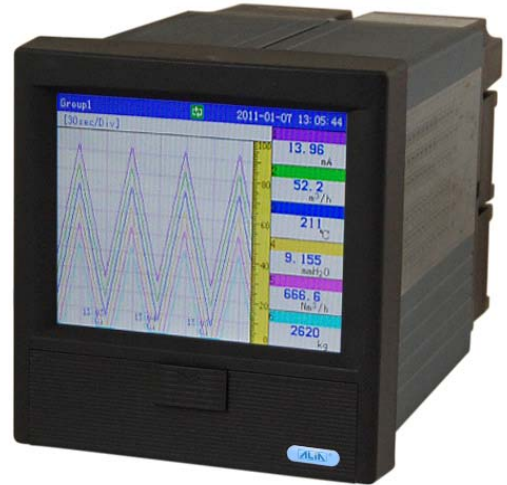 ARC900 is the product which with multi-channels, complete functions, easy operation, high accuracy,low power but high performance.And the series overcomes the old-fashioned paperless recorder, which has less channels, multiple installation and space-consuming problem.
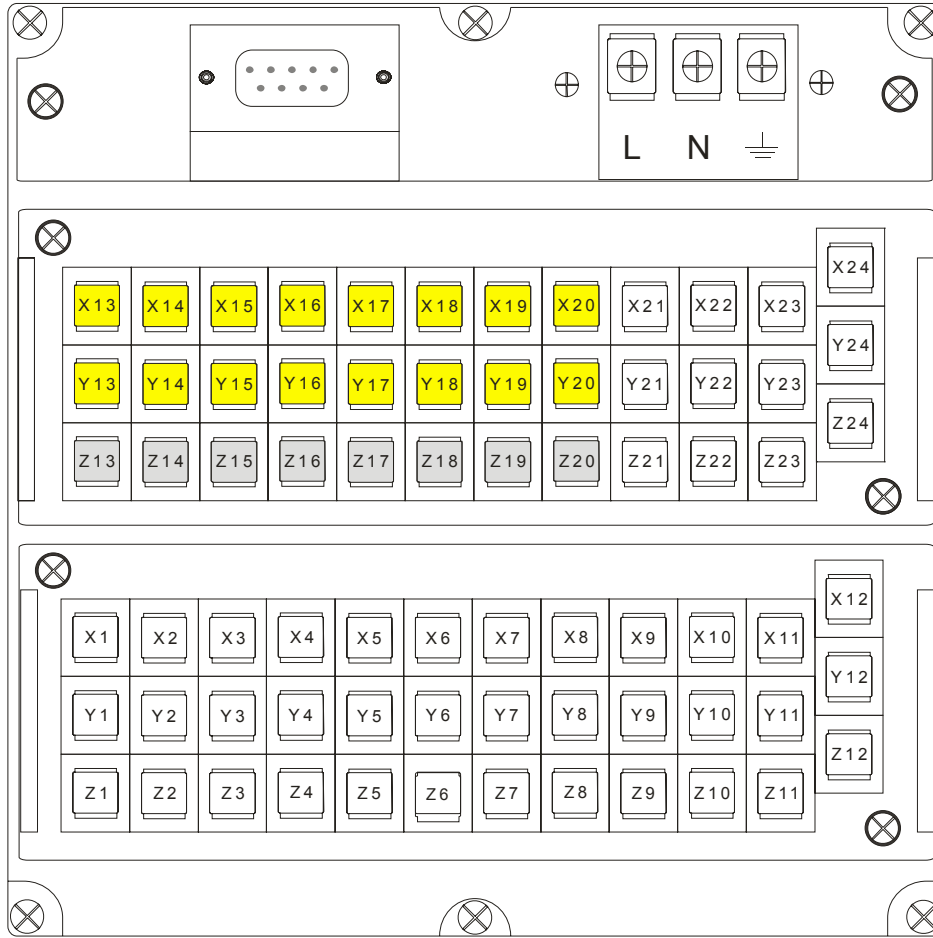
⬈ FEATURES

- ☐ DIN Size(144mm*144mm), 320*240Pixels,TFT truecolor(LCD)
- ☐ 128MB memory installed inside, applied to long terms data record
- ☐ Common input signal, mA, Include VDC, T/C, RTD,Hz..etc
- ☐ High Accuracy +/-0.15% of Reading
- ☐ Maximum to 12 points Relay, 4 point 4-20mA output and 24VDC output
- ☐ Maximum can receive 16 channels input signal
- ☐ Could selected 24VDC Aux. Power supply for 2 wires system
- ☐ It can Display/Record single point,Multi-point,Trend,Totalizer,Bargraph
- ☐ The recorded data could be stored in USB memory & SD memory card and take out to computer make soft analysis

⬈ SPECIFICATION

● Number of Inputs	: 1-16 Channels	● Display	: 5.6" color-screen LCD
● Inputs	: T/C (K, S, B, E, J, N, T, R,N, etc.)	Trend & Bargraph	: Vertical / Horizontal / Landscape
	: RTD,CU50, CU53,BA1, BA2	Digital	: 4-1/2 digits programmable
	: DCA(4-20 mA, 0-10 mA, 0-20 mA)	Engineer unit	: 66 Engineering units
	: DCV(0-5V, 1-5V ,0-10V, 20mV, 100mV)	Parameter Protect	: Password entry(6 Digits)
	: Frequency(1Hz ~ 5KHz)	● Logging Rate	: 1 Seconds ~ 1800 Seconds Per Pen
	Resistance(0-175 Ξ , 0-400 Ξ)	● Recording Capability	: 120 Hours(16 Points, 1 Data/Second)
● Accuracy	: +/-0.15% of Span		: 18936 Years(1 Point, 1 Data/Hour)
● Response Time	: 50 ms	● PC software	: Compatible with Windows 2000/XP/Vista
● Alarm Types	: High & Low alarm, Incr. & Decr. alarm	Display	: Trend, Digital, Circular, Alarm, Bargraph
● Output	: 4-20 mA *4 points Maximum, Load:800Ξ		Totalizer
	: Relay, 3A/250V * 12 points Maximum	Convert function	: Can be save as excel files
	: 24VDC, 65 mA *4 points Maximum	● Enclosure	: NEMA 3 / IP 54
● Digit Input	: 2 Points Maximum	● Weight	: 2.6 Kg maximum
● Storage Memory	: 128 MB(on board)	● Dimensions	: 144 mm (W) * 144 mm (H) * 219 mm (D)
● Recycling Mode	: Newest Data over-writes to oldest data	● Ambient Temperature	: -10 to +60 °C
● Recording Data Shift	: USB memory(2GB) / SD Card(2GB)	● Ambient Humidity	: 10% to 85%RH (at 5 to 40 °C)
● Display update Rate	: 1 Second	● Power Supply	: 85-260VAC, 50/60Hz
● Keyboard	: 6 Keys (Page,Left,Right,Up,Down,Enter) for programming and display control	● Vibration Test	: 10~60Hz ,10m/S^2 for 3 hours
● Parameter Storage	: Operation Parameters are stored by EEPROM for more then 10 years	● Power Consumption	: ≤20 W
		● Communication	: RS232 / RS485 (MODBUS Protocol)

2. Wiring Diagram

Input					Terminals	
					Input	
RTD	VDC/mV	mA	T/C Frequency		Channel 1-12	X1 / Y1 / Z1 …. X12 / Y12 / Z12
					Channel 13-16	X21 / Y21 / Z21 …. X24 / Y24 / Z24
					Output	
X					Relay Channel 1-12	X13 / Y13 …. X24 / Y24
Y					4-20 mA Channel 1-4	Y9 / Z9 …. Y12 / Z12
Z					24VDC Channel 1-4	Z13 / 14 …. Z19 / Z20

Output

4

3. Dimension

Panel Cutout

149 mm

149 mm

30 mm

219 mm

138 mm ±1

138 mm ±1

4. Keys Setting

Date/Time

4-1/2 Digits Display

Channels

Flow Unit

Alarm

Totalizer

USB /SD Port

Setting Keys

Group 1   2010-11-18 15:15:36

CH01   °C   CH02   m³/h

30.2   H L I D   530.7

Σ 6521.22   Σ 6589.25

CH03   Kg/h   CH04   mA

52.8   18.0   H L I D

Σ 528.22   Σ 105.25

USB   SD   ARC900 Series

EN

| Key Name	Key Sign	Basis Function	Parameter Setting
Page Turning & Quit		Page Turning & Quit	Page Turning & Quit
Left/Right		Left/Right Move	Left/Right Move
Up/Down		Up/Down Move	Up/Down Move
EN	EN	Confirmation	Confirmation

5. Display Type
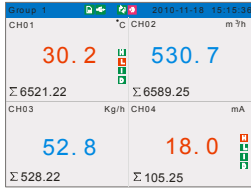
Multichannel Display

Press ⬜ to check the next picture.
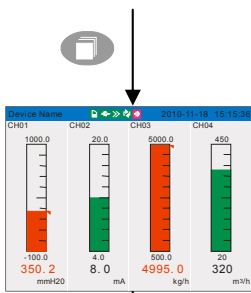
Bar Chart Display

Press ⬜ to check the next picture.
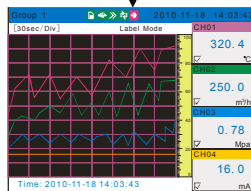
Real-time Curves Display

Press ⬜ to check the next picture.
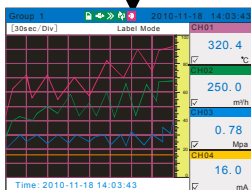
Historical Data Display

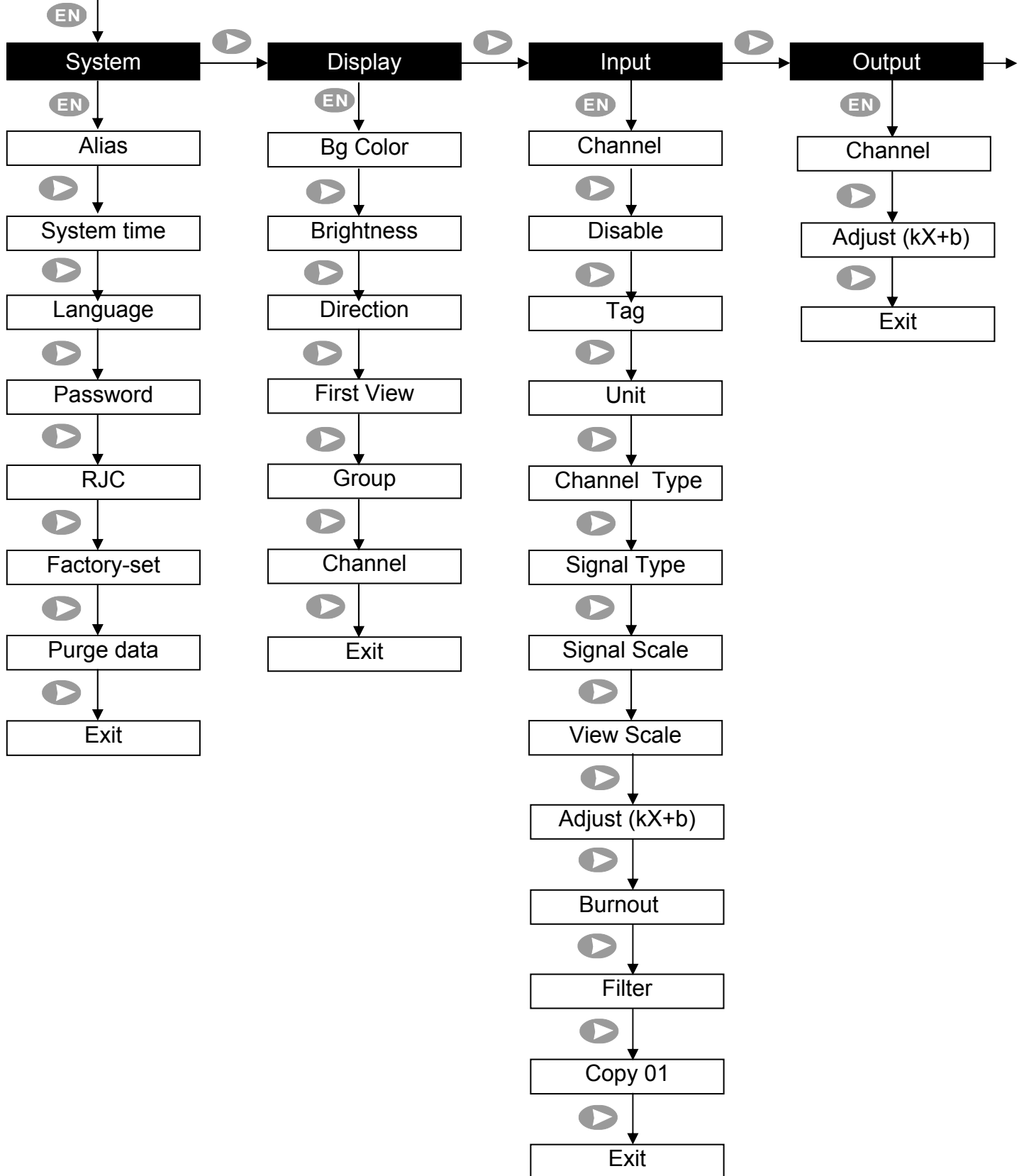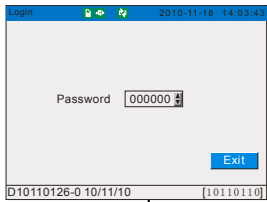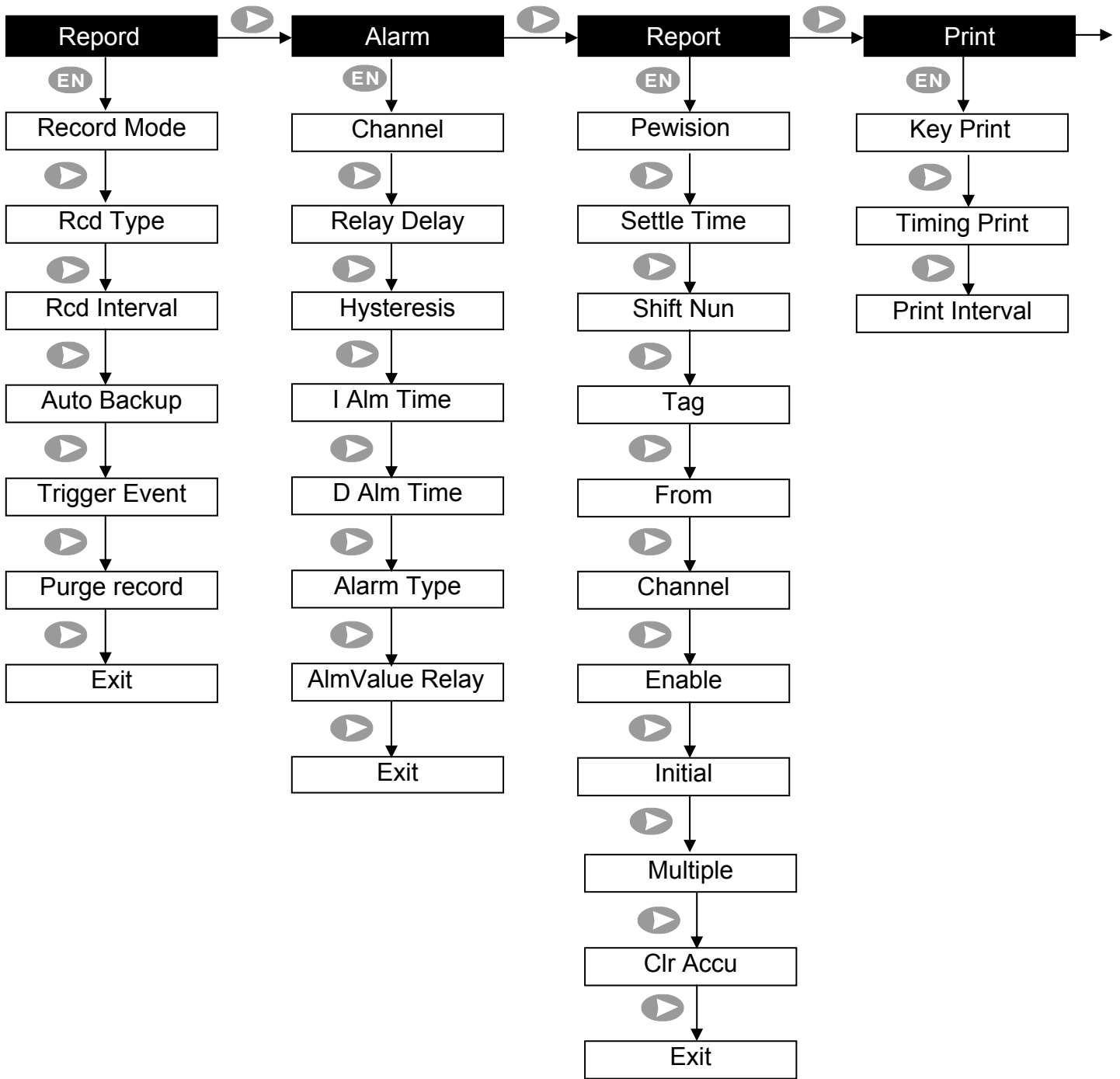Press EN and press ⬆ or ⬇ to modify date; Press ◀ or ▶ to check channels & historical data.
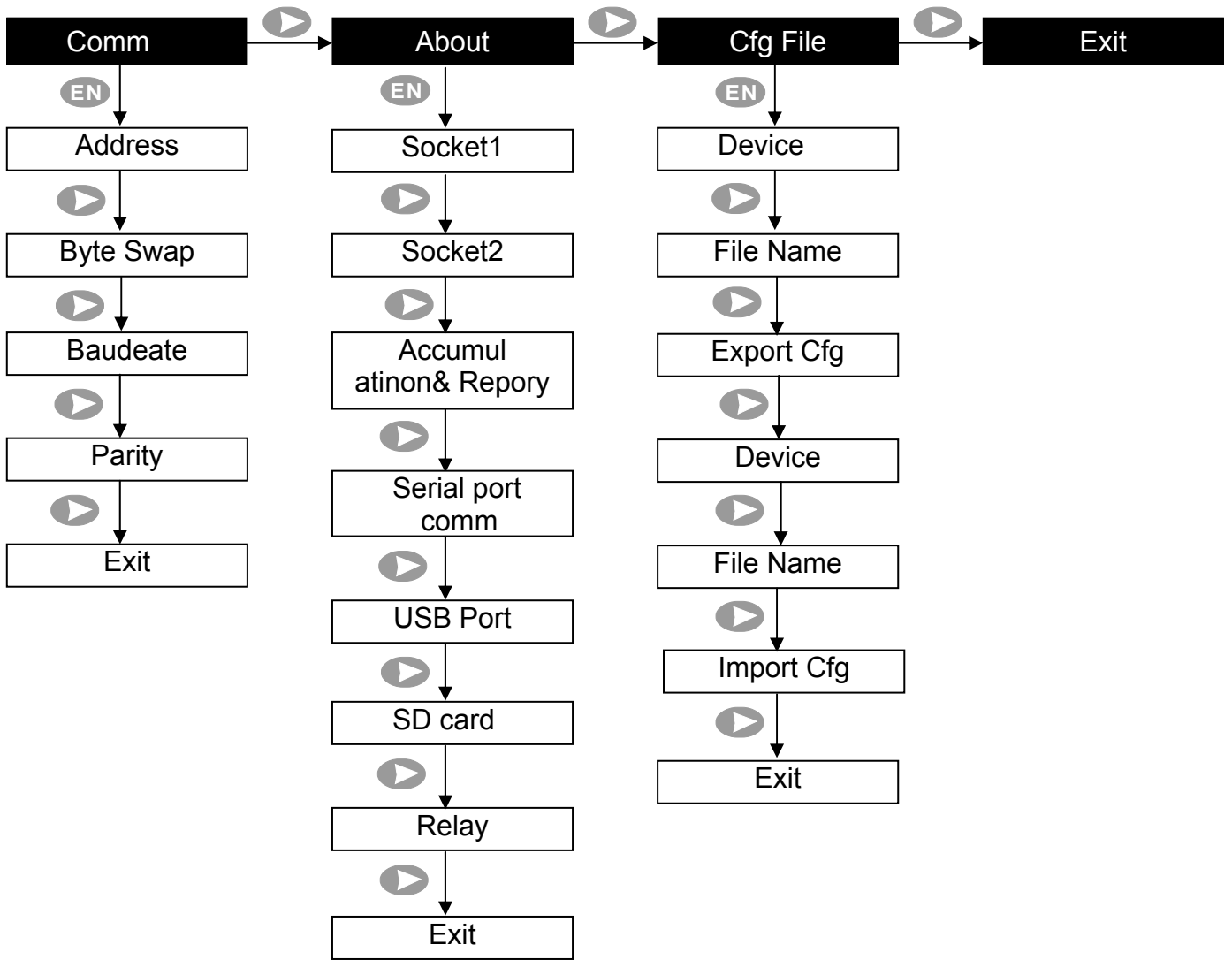
Press ⬜ to check the next picture
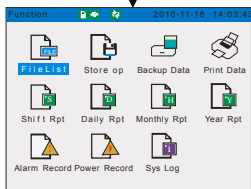
Function Pictures Display

Press ◀ or ▶ to check listed files, storing op., backup, print, shift rpt., daily rpt. monthly rpt., year rpt., alarm record, power record, sys. Log.

Press EN to check or backup data, and press ⬜ to quit

Press ⬜ to check the next picture

6. Flow Chart


```
┌──────────────────────────────┐
│ Login    🔋⊕ 🔆   2010-11-18 14:03:43 │
│                              │
│  Password  [000000 ▲▼]       │
│                              │
│                    [ Exit ]  │
│ D10110126-0 10/11/10  [10110110] │
└──────────────────────────────┘
```

EN

System	→	Display	→	Input	→	Output	→

EN (System)   EN (Display)   EN (Input)   EN (Output)

System	Display	Input	Output
Alias	Bg Color	Channel	Channel
System time	Brightness	Disable	Adjust (kX+b)
Language	Direction	Tag	Exit
Password	First View	Unit	
RJC	Group	Channel Type	
Factory-set	Channel	Signal Type	
Purge data	Exit	Signal Scale	
Exit		View Scale	
		Adjust (kX+b)	
		Burnout	
		Filter	
		Copy 01	
		Exit	

Repord	Alarm	Report	Print

Repord (EN)
- Record Mode
- Rcd Type
- Rcd Interval
- Auto Backup
- Trigger Event
- Purge record
- Exit

Alarm (EN)
- Channel
- Relay Delay
- Hysteresis
- I Alm Time
- D Alm Time
- Alarm Type
- AlmValue Relay
- Exit

Report (EN)
- Pewision
- Settle Time
- Shift Nun
- Tag
- From
- Channel
- Enable
- Initial
- Multiple
- Clr Accu
- Exit

Print (EN)
- Key Print
- Timing Print
- Print Interval

Comm	▶	About	▶	Cfg File	▶	Exit

Comm → EN
- Address
- ▶ Byte Swap
- ▶ Baudeate
- ▶ Parity
- ▶ Exit

About → EN
- Socket1
- ▶ Socket2
- ▶ Accumulatinon& Repory
- ▶ Serial port comm
- ▶ USB Port
- ▶ SD card
- ▶ Relay
- ▶ Exit

Cfg File → EN
- Device
- ▶ File Name
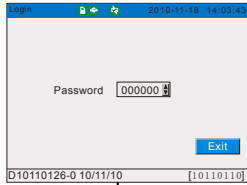- ▶ Export Cfg
- ▶ Device
- ▶ File Name
- ▶ Import Cfg
- ▶ Exit

7. Operating Instruction
7.1 System Configuration Setting
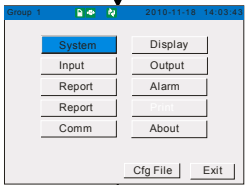
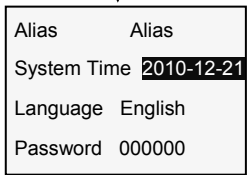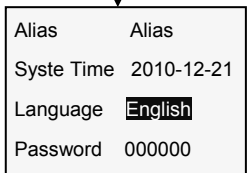|	
Login 2010-11-18 14:03:43 Password 000000 Exit D10110126-0 10/11/10 [10110110] **EN**	**Input Password** In running mode, press ▢ & **EN** at the same time to login password. Press ◁ or ▷ to move cursor, press △ or ▽ to change value. Initial password:000000 Press **EN** to enter next setting.

Group 1 2010-11-18 14:03:43 System Display Input Output Report Alarm Report Print Comm About Cfg File Exit **EN**	**System Configuration** Press ◁ or ▷ to move cursor, choose System, press **EN** to enter System Configuration and press ▢ to quit. Press ▷ to enter the next setting.

Alias Alias Syste Time 2010-12-21 Language English Password 000000 ▷	**Device Name** Press ◁ or ▷ to move cursor, press **EN** to enter Device Name for modification. Press ▷ to enter the next setting.

Alias Alias System Time 2010-12-21 Language English Password 000000 ▷	**Time** Press ◁ or ▷ to move cursor, press △ or ▽ to modify date and time. Press ▷ to enter the next setting.

Alias Alias Syste Time 2010-12-21 Language English Password 000000 ▷	**System Language** Press △ or ▽ to choose language and press **EN** for confirmation. Press ▷ to enter the next setting.

Alias Alias Syste Time 2010-12-21 Language English Password 000000 ▷	**Password Set** Press ◁ or ▷ to move cursor, press △ or ▽ to change value. Press ▷ to enter the next setting.

RJC 24.5 Factory-set Purge date Exit ▷	**Cold-side Adjustment** Press ◁ or ▷ to move cursor, press △ or ▽ to change value. Press ▷ to enter the next setting.

RJC   24.5
Factory-set
Purge date
Exit
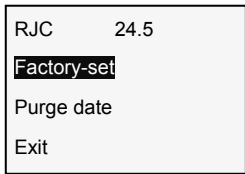
Factory Set

Press 〔EN〕 for popup "reset configuration. info. or not", choose yes for carrying out factory set; Choose No for giving up factory set.
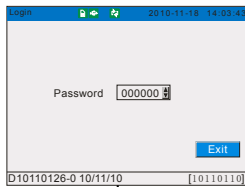
Press 〔▶〕 to enter the next setting.

RJC   24.5
Factory-set
Purge data
Exit
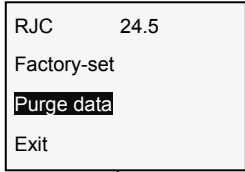
Purge Data

Press 〔EN〕 for popup "purge all data or not", choose Yes to purge all data; choose No to give up.

Press 〔EN〕 to confirm the choice and all the data will be cleared away after purge data.

Press 〔▶〕 to enter the next setting.

RJC   24.5
Factory-set
Purge date
Exit

Exit

Press 〔EN〕 for popup "save configuration info. Or not", choose Yes to save; choose No to give up.

Press 〔EN〕 to confirm choice.

7.2 Display Configuration Setting

Input Password

In running mode, press 〔▢〕 & 〔EN〕 to login Password.

Press 〔◀〕 or 〔▶〕 to move cursor, press 〔▲〕 or 〔▼〕 to change value.Initial password:000000

Press 〔EN〕 to enter the next setting.
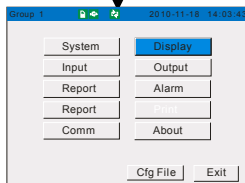
Display Configuration

Press 〔◀〕 or 〔▶〕 to move cursor, choose Display 〔EN〕 to enter Display Configuration; choose 〔▢〕 to exit Display Configuration.

Press 〔▶〕 to enter the next setting.

Bg Color   **Black**
Brightness   10
Direction   Horizontal
First View   View All

Background Color

Press 〔◀〕 or 〔▶〕 to move cursor, press 〔▲〕 or 〔▼〕 to choose background color.

Press 〔▶〕 to enter the next setting.

Bg Color   Black
Brightness   **10**
Direction   Horizontal
First View   View All

Brightness（1~10）

Press 〔◀〕 or 〔▶〕 to move cursor, press 〔▲〕 or 〔▼〕 to change brightness.

Press 〔▶〕 to enter the next setting.

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Bg Color   Black
Brightness 10
Direction   Horizontal
First View View All

Curve Direction(Horizontal or Vertical)
Press ◄ or ► to move cursor, press ▲ or ▼ to choose curve direction.
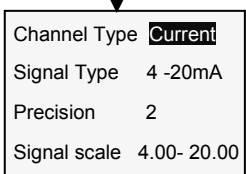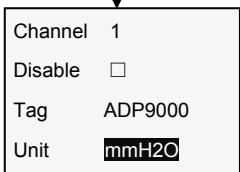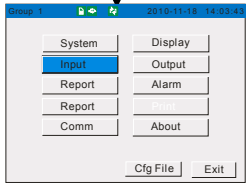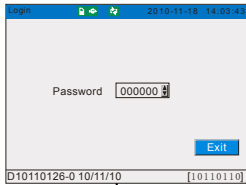Press ► to enter the next setting.

Bg Color   Black
Brightness 10
Direction   Horizontal
First View View All

First Picture
Press ◄ or ► to move cursor, press ▲ or ▼ to choose first picture, and press
EN to confirm.
Press ► to enter the next setting.

Group   Group1
Channel   01 02 03
Color
Exit

Croup Display
Press ◄ or ► to move cursor, press ▲ or ▼ to choose group, and press EN to
confirm.
Press ► to enter the next setting.

Group   Group1
Channel   01 02 03
Color
Exit

Channel
Press ◄ or ► to move cursor, press ▲ or ▼ to choose channel and then color.
Press ► to enter the next setting.

Group   Group1
Channel   01 02 03
Color
Exit

Exit
Press EN for popup "save configuration info. or not", choose Yes to save; choose No to
exit.
Press EN to confirm choice.

7.3 Input Configuration Setting

Password Input

In running mode, press ▭ & **EN** to login password.

Press ◄ or ► to move cursor, press ▲ or ▼ to change value. Initial password:000000

Press **EN** to enter the next setting.

EN

Display Configuration

Press ◄ or ► to move cursor to choose Input, press **EN** to enter configuration, and press ▭ to exit display configuration.

Press ► to enter the next setting.

EN

Channel   1
Disable   ☐
Tag   ADP9000
Unit   mmH2O

Channel

Press ◄ or ► to move cursor, press ▲ or ▼ to choose channel.

Press ► to enter the next setting.

►

Channel   1
Disable   ☑
Tag   ADP9000
Unit   mmH2O

Channel Close

Press ◄ or ► to move cursor, press ▲ or ▼ to choose √, which means close channel, no display.

Press ► to enter the next setting.

►

Channel   1
Disable   ☐
Tag   ADP9000
Unit   mmH2O

Tag Display

Press ◄ or ► to move cursor, press **EN** to modify display tag.

Press ► to enter the next setting.

►

Channel   1
Disable   ☐
Tag   ADP9000
Unit   mmH2O

Engineering Unit

Press ◄ or ► to move cursor, press ▲ or ▼ to choose engineering unit, and press **EN** to confirm.

Press ► to enter the next setting.

►

Channel Type Current
Signal Type   4 -20mA
Precision   2
Signal scale 4.00- 20.00

Channel Type

Press ◄ or ► to move cursor, press ▲ or ▼ to choose channel type, and press **EN** to confirm.

Press ► to enter the next setting.

►

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Channel Type	Current
Signal Type	**4 -20mA**
Precision	2
Signal scale	4.00- 20.00

Signal Type

Press ◄ or ► to move cursor, press ▲ or ▼ to choose signal type, and press EN to confirm.
Press ► to enter the next setting.

Channel Type	Current
Signal Type	4 -20mA
Precision	**2**
Signal scale	4.00- 20.00

Decimal Digit（0~3 digit）

Press ◄ or ► to move cursor, press ▲ or ▼ to choose value.
Press ► to enter the next setting.

Channel Type	Current
Signal Type	4 -20mA
Precision	2
Signal scale	**4.00- 20.00**

Signal Scale

Press ◄ or ► to move cursor, press EN to modify signal scale. (Note: Signal scale usually do not change.)
Press ► to enter the next setting.

View scale	**4.00- 20.00**
Adjust(k×＋b)	1.00 0.00
Burnout	—.——
Filter	0.0 sec

View Scale

Press ◄ or ► to move cursor, press EN to modify display scale, and press EN to confirm.
Press ► to enter the next setting.

View scale	4.00- 20.00
Adjust(k×＋b)	**1.00 0.00**
Burnout	—.——
Filter	0.0 sec

Adjust(k×＋b)

Press ◄ or ► to move cursor, press EN to adust(k×＋b), and press EN to confirm.
Press ► to enter the next setting.

View scale	4.00- 20.00
Adjust(k×＋b)	1.00 0.00
Burnout	**—.——**
Filter	0.0 sec

Burnout

Press ◄ or ► to move cursor, press ▲ or ▼ to choose burnout type, and press EN to confirm.
Press ► to enter the next setting.

| View scale	4.00- 20.00
Adjust(k×＋b)	1.00 0.00
Burnout	—.——
Filter	**0.0 sec**

Filter(0~9.9 sec.)
About filtering response speed setting, the higher the value is, the more stable it is, vice versa.

Press ◄ or ► to move cursor, press ▲ or ▼ to choose value, and press EN to confirm. Press ► to enter the next setting.
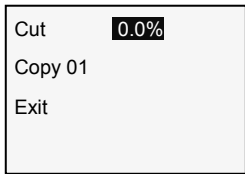
Cut 0.0% Copy 01 Exit	**Small-signal Cut(0~9.9 sec.)** Press ◁ or ▷ to move cursor, press △ or ▽ to choose value, and press **EN** to confirm. Press ▷ to enter the next setting.

▷
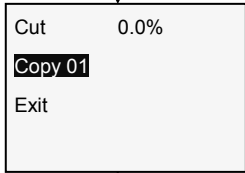
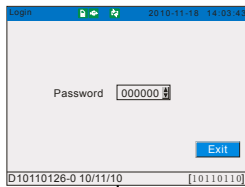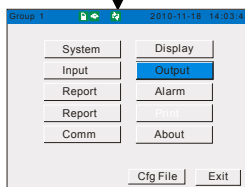|	
Cut 0.0% Copy 01 Exit	**Copy 01** Press ◁ or ▷ to move cursor, press △ or ▽ to copy parameters from other channels, and press **EN** to confirm. Press ▷ to enter the next setting.
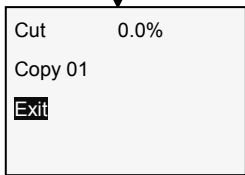
▷

Cut 0.0% Copy 01 Exit	**Exit** Press **EN** for popup ""save configuration info. or not", choose Yes to save; choose No to exit. Press **EN** to confirm choice.

7.4 Output Configuration Setting

Login 2010-11-18 14:03:43 Password [000000] Exit D10110126-0 10/11/10 [10110110]	**Password Input** In running mode, press ▢ & **EN** to login password. Press ◁ or ▷ to move cursor, press △ or ▽ to change value.Initial password:000000 Press **EN** to enter the next setting.

EN

Group 1 2010-11-18 14:03:43 System Display Input Output Report Alarm Report Comm About Cfg File Exit	**Display Configuration** Press ◁ or ▷ to move cursor to choose Output, press **EN** to input configuration, and press ▢ to exit. Press ▷ to enter the next setting.
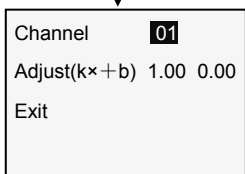
EN

Channel 01 Adjust(k×＋b) 1.00 0.00 Exit	**Channel** Press ◁ or ▷ to move cursor, press △ or ▽ to choose channel. Press ▷ to enter the next setting.

▷

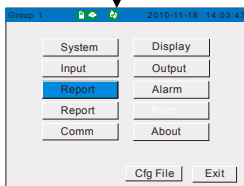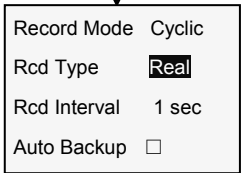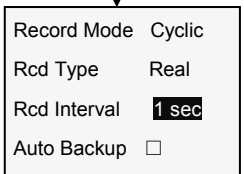|	
Channel 01 Adjust(k×＋b) 1.00 0.00 Exit	**Adjust(k×＋b)** Press ◁ or ▷ to move cursor, press **EN** to adjust(k×＋b), and press **EN** to confirm. Press ▷ to enter the next setting.

▷
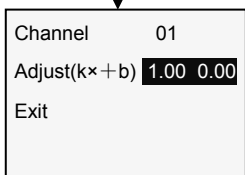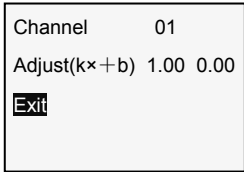
Channel 01	Exit
Adjust(k×+b) 1.00 0.00	Press **EN** for popup ""save configuration info. or not", choose Yes to save; choose No to exit.
Exit	Press **EN** to confirm choice.

7.5 Record Configuration Setting
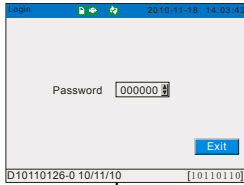
Login screen: Password 000000 / Exit	**Password Setting**
	In running mode, press ▢ & **EN** to login password.
	Press ◀ or ▶ to move cursor, press ▲ or ▼ to change value. Initial password:000000
	Press **EN** to enter the next setting.

EN ↓

Group 1 menu: System / Display / Input / Output / Report / Alarm / Report / Print / Comm / About / Cfg File / Exit	**Input Configuration**
	Press ◀ or ▶ to move cursor to choose Report, press **EN** to enter Record Configuration, and press ▢ to exit input configuration.
	Press ▶ to enter the next setting.

EN ↓
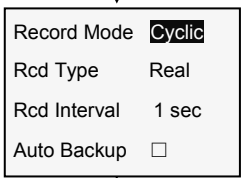
Record Mode **Cyclic**	**Record Mode**
Rcd Type Real	Press ◀ or ▶ to move cursor, press ▲ or ▼ to choose cycle or not.
Rcd Interval 1 sec	Press ▶ to enter the next setting.
Auto Backup □	

▶ ↓

Record Mode Cyclic	**Record Mode**
Rcd Type **Real**	Press ◀ or ▶ to move cursor, press ▲ or ▼ to choose record type.
Rcd Interval 1 sec	Press ▶ to enter the next setting.
Auto Backup □	

▶ ↓

Record Mode Cyclic	**Record Interval**
Rcd Type Real	Choose time(1 sec, 2 sec, 5 sec, 10 sec, 30 sec, 1 min, 2 min, 5 min, 10 min, 30 min).
Rcd Interval **1 sec**	Press ◀ or ▶ to move cursor, press ▲ or ▼ to choose record interval.
Auto Backup □	Press ▶ to enter the next setting.

▶ ↓
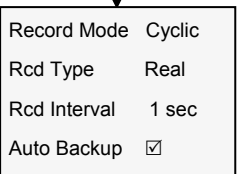
Record Mode Cyclic	**Auto Backup**
Rcd Type Real	It will automatically backup one time at 0:0:0.
Rcd Interval 1 sec	Press ◀ or ▶ to move cursor, press **EN** to choose, and √ means auto backup.
Auto Backup ☑	Press ▶ to enter the next setting.

▶ ↓

| Trigger Event Power on |
|---|
| Purge record |
| Exit |
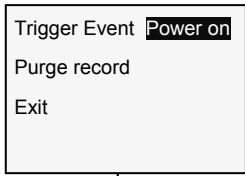
Trigger Event

Press ◁ or ▷ to move cursor, press △ or ▽ to choose trigger event, and press EN to confirm.
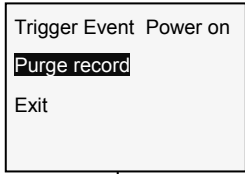
Press ▷ to enter the next setting.

| Trigger Event Power on |
|---|
| Purge record |
| Exit |

Purge Record

Press EN for popup "purge all data or not", choose Yes to purge all data; choose No to give up.

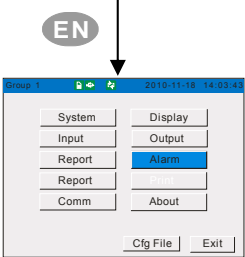Press EN to confirm the choice and all the data will be cleared away after purge data.

Press ▷ to enter the next setting.

Trigger Event Power on
Purge record
Exit
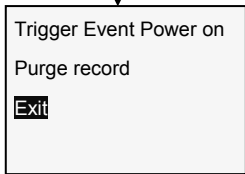
Exit

Press EN for popup "save configuration info. or not", choose Yes to save; choose No to exit.

Press EN to confirm choice.

7.6 Alarm Configuration Setting
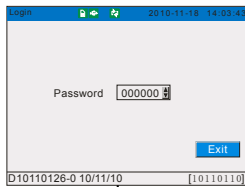
Login   🔋 ⇄ ⚡   2010-11-18 14:03:43
Password   000000 ↕
Exit
D10110126-0 10/11/10   [10110110]

Password Input

In running mode, press ▢ & EN to login password.

Press ◁ or ▷ to move cursor, press △ or ▽ to change value.Initial password:000000

Press EN to enter the next setting.

Group 1   🔋 ⇄ ⚡   2010-11-18 14:03:43
System	Display
Input	Output
Report	Alarm
Report	
Comm	About
Cfg File	Exit

Alarm Configuration

Press ◁ or ▷ to move cursor to choose Alarm, press EN to enter alarm configuration, and press ▢ to exit alarm configuration.

Press ▷ to enter the next setting.

Channel   1
Relay Delay   1 sec
Hysteresis   0.00
I Aim Time   1 sec
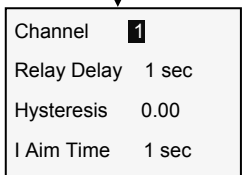
Alarm Channel

Press ◁ or ▷ to move cursor, press △ or ▽ to choose alarm channel.

Press ▷ to enter the next setting.

Channel   1
Relay Delay   1 sec
Hysteresis   0.00
I Aim Time   1 sec
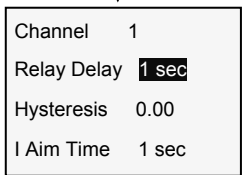
Relay Delay（0~10 sec）

Press ◁ or ▷ to move cursor, press △ or ▽ to choose relay delay time.

Press ▷ to enter the next setting.

```
Channel      1
Relay Delay  1 sec
Hysteresis   0.00
I Aim Time   1 sec
```

Alarm Hysteresis Error（0~300）
Press ◀ or ▶ to move cursor, press ▲ or ▼ to choose alarm hysteresis error.
Press ▶ to enter the next setting.

```
Channel      1
Relay Delay  1 sec
Hysteresis   0.00
I Alm Time   1 sec
```

I Alm. Time（0~32 sec）
Press ◀ or ▶ to move cursor, press ▲ or ▼ to choose I alm. time.
Press ▶ to enter the next setting.

```
D Alm Time   1sec
Alarm Type   OFF
Alarm Value  0.00
Relay        OFF
```

D Alm. Time（0~32 sec）
Press ◀ or ▶ to move cursor, press ▲ or ▼ to choose D alm. Time.
Press ▶ to enter the next setting.

```
D Alm Time   1sec
Alarm Type   OFF
Alarm Value  0.00
Relay        OFF
```

Alarm Type
Press ◀ or ▶ to move cursor, press ▲ or ▼ to choose alarm type, and press
EN to confirm.
Press ▶ to enter the next setting.

```
D Alm Time   1sec
Alarm Type   OFF
Alarm Value  0.00
Relay        OFF
```

Alarm Value
Press ◀ or ▶ to move cursor, press EN to modify alarm value, and press EN to confirm.
Press ▶ to enter the next setting.

```
D Alm Time   1sec
Alarm Type   OFF
Alarm Value  0.00
Relay        OFF
```

Relay
Press ◀ or ▶ to move cursor, press ▲ or ▼ to relay output point.
Press EN to confirm choice.

```
Exit
```

Exit
Press EN for popup ""save configuration info. or not", choose Yes to save; choose No to exit.
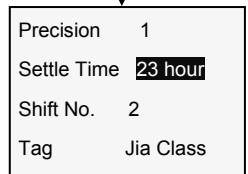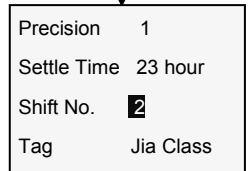Press EN to confirm.

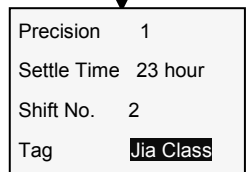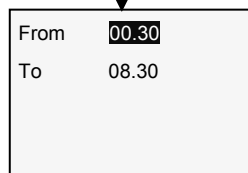## 7.7 Statement Configuration Setting
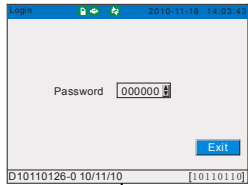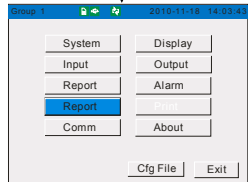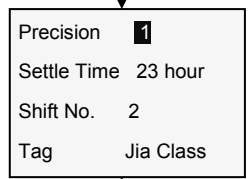
Password Input

In running mode, press ⬜ & **EN** to login password.

Press ◀ or ▶ to move cursor, press ▲ or ▼ to change value.Initial password:000000

Press **EN** to enter the next setting.

EN

Statement Configuration

Press ◀ or ▶ to move cursor to choose Report, press **EN** to enter statement configuration, and press ⬜ to exit.

Press ▶ to enter the next setting.

EN

Precision   **1**
Settle Time   23 hour
Shift No.   2
Tag   Jia Class

Decimal Digit（0~2 digit）

Press ◀ or ▶ to move cursor, press ▲ or ▼ to choose decimal digit.

Press ▶ to enter the next setting.

Precision   1
Settle Time   **23 hour**
Shift No.   2
Tag   Jia Class

Settle Time（00~23 Hr）

Press ◀ or ▶ to move cursor, press ▲ or ▼ to choose settle time.

Press ▶ to enter the next setting.

Precision   1
Settle Time   23 hour
Shift No.   **2**
Tag   Jia Class

Shift No.（2~5）

Press ◀ or ▶ to move cursor, press ▲ or ▼ to choose shift no..

Press ▶ to enter the next setting.

Precision   1
Settle Time   23 hour
Shift No.   2
Tag   **Jia Class**

Tag

Press ◀ or ▶ to move cursor, press **EN** to modify tag.

Press ▶ to enter the next setting.

From   **00.30**
To   08.30

Starting Time

Press ◀ or ▶ to move cursor, press ▲ or ▼ to choose starting time.

Press ▶ to enter the next setting.

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| From   00.30 |
| To   08.30 |

End Time

End time varies with starting time.

Press ▶ to enter the next setting.

▶

| Channel   **01** |
| Enable   OFF |
| Initial   0.00 |
| Multiple 1.00 |

Channel

Press ◀ or ▶ to move cursor, press ▲ or ▼ to choose opening totalizer channel.
Press ▶ to enter the next setting.

▶

| Channel   01 |
| Enable   **OFF** |
| Initial   0.00 |
| Multiple 1.00 |

Enable

Press ◀ or ▶ to move cursor, press ▲ or ▼ to choose enable or not.
Press ▶ to enter the next setting.

▶

| Channel   01 |
| Enable   OFF |
| Initial   **0.00** |
| Multiple 1.00 |

Initial

Press ◀ or ▶ to move cursor, press **EN** to enter Initial, and press **EN** to confirm.
Press ▶ to enter the next setting.

▶

| Channel   01 |
| Enable   OFF |
| Initial   0.00 |
| Multiple **1.00** |

Multiple

Press ◀ or ▶ to move cursor, press **EN** to enter Multiple, and press **EN** to confirm.
Press ▶ to enter the next setting.

▶

| **Clr Accum.** |
| Exit |

Clear Accumulation

Press **EN** for popup "clear accum. Statement of channel 01 or not", choose Yes to clear; choose No to give up.
Press ▶ to enter the next setting.

▶

| Clr Accum. |
| **Exit** |

Exit

Press **EN** for popup ""save configuration info. or not", choose Yes to save; choose No to give up.
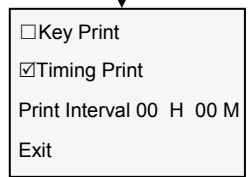Press **EN** to confirm.
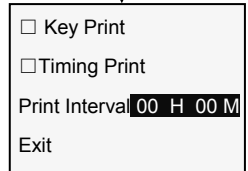
7.8 Print Configuration Setting
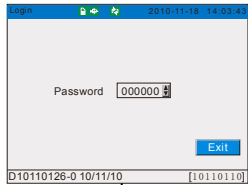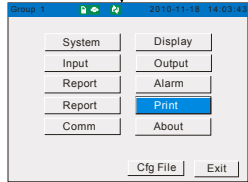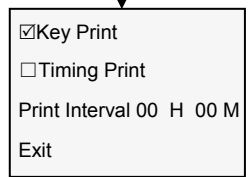
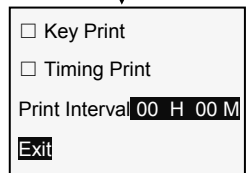**Password Input**

In running mode, press ⬜ & **EN** to login password.

Press ◀ or ▶ to move cursor, press ▲ or ▼ to change value.Initial password:000000

Press **EN** to enter the next setting.

Print Configuration

Press ◀ or ▶ to move cursor to choose Print, press **EN** to enter Print Configuration, and press ⬜ to exist.

Press ▶ to enter the next setting.

☑Key Print

☐Timing Print

Print Interval 00 H 00 M

Exit

Key Print

Press ◀ or ▶ to move cursor, press ▲ or ▼ to choose comm.. address.

Press ▶ to enter the next setting.

☐Key Print

☑Timing Print

Print Interval 00 H 00 M

Exit

Timing Print

Timing Print will automatically print at 0:0:0.

Press ◀ or ▶ to move cursor, press **EN** to choose and√ means timing print.

Press ▶ to enter the next setting.

☐ Key Print

☐Timing Print

Print Interval 00 H 00 M

Exit

Print Interval

Press ◀ or ▶ to move cursor, press ▲ or ▼ to choose print interval.

Press ▶ to enter the next setting.

☐ Key Print

☐ Timing Print

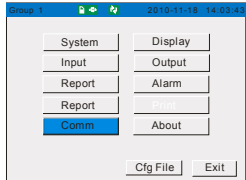Print Interval 00 H 00 M

Exit

Exit

Press **EN** for popup ""save configuration info. or not", choose Yes to save; choose No to give up.
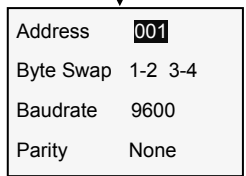
Press **EN** to confirm.

7.9 Communication Configuration Setting
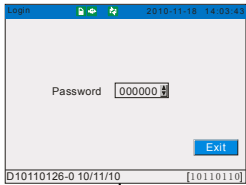
Password Input

In running mode, press ⬜ & EN to login password.

Press ◀ or ▶ to move cursor, press ▲ or ▼ to change value. Initial password:000000
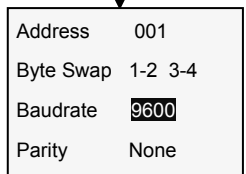
Press EN to enter the next setting.

Communication Configuration

Press ◀ or ▶ to move cursor to choose Comm., press EN to enter Communication Configuration, and press ⬜ to exit.
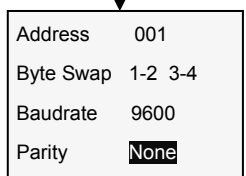
Press ▶ to enter the next setting.

Address（0~247）

Press ◀ or ▶ to move cursor, press ▲ or ▼ to choose address.

Press ▶ to enter the next setting.
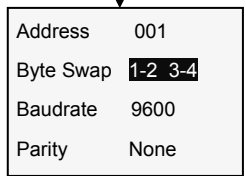
Byte Swap

You can choose 1-2 3-4 ,2-1 4-3 ,3-4 1-2 ,4-3 2-1.

Press ◀ or ▶ to move cursor, press ▲ or ▼ to choose byte swap, and press EN to confirm. Press ▶ to enter the next setting.
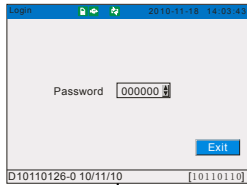
Baud Rate

You can choose 1200 / 2400 / 4800 / 9600 / 19200 / 38400 / 57600 / 115200.

Press ◀ or ▶ to move cursor, press ▲ or ▼ to choose baud rate, and press EN to confirm. Press ▶ to enter the next setting.
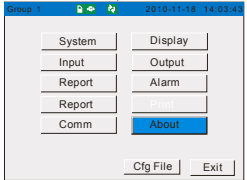
Check Way

You can choose no check, check & even parity check.

Press ◀ or ▶ to move cursor, press ▲ or ▼ to choose check way.
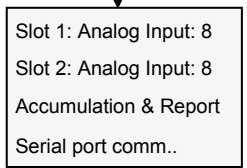
Press ▶ to enter the next setting.

Exit

Press EN for popup ""save configuration info. or not", choose Yes to save; choose No to give up.
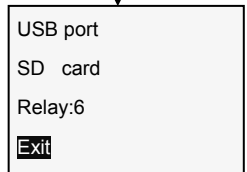
Press EN to confirm.

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7.10 System Information

Password 000000

Exit

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EN

Password Input

In running mode, press ⬜ & **EN** to login password.

Press ◀ or ▶ to move cursor, press ▲ or ▼ to change value.Initial password:000000
. Press **EN** to enter the next setting

System	Display
Input	Output
Report	Alarm
Report	
Comm	**About**

Cfg File   Exit

EN

System Configuration

Press ◀ or ▶ to move cursor to choose About, press **EN** to enter System Info., and
press ⬜ to exit.
Press ▶ to enter the next setting.

Slot 1: Analog Input: 8

Slot 2: Analog Input: 8

Accumulation & Report

Serial port comm..

▶

System Info.

Blue Font（Slot 1: Analog Input 8）is meter innate AD info.; Black Word（Slot 2: Analog
Input 8）is ex-AD info.. If both disaccord, it means AD board has breakdown.
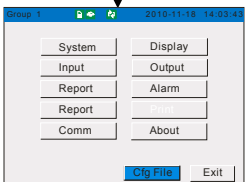

USB port

SD card

Relay:6

Exit

System Info.

System Info. Is for checking the functions you purchased are the same as you want. You
can not modify the system info.
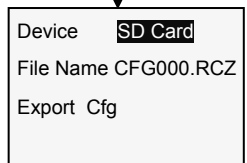
Press ◀ or ▶ to move to Exit, and press **EN** to exit.

7.11 Configuration File Setting
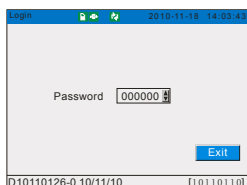
Password 000000

Exit

D10110126-0 10/11/10   [10110110]

EN

Password Input

In running mode, press ⬜ & **EN** to login password.
Press ◀ or ▶ to move cursor, press ▲ or ▼ to change value.Initial password:000000
Press **EN** to enter the next setting.

System	Display
Input	Output
Report	Alarm
Report	
Comm	About

Cfg File   Exit

EN

System Configuration

Press ◀ or ▶ to move cursor to choose About, press **EN** to enter Statement
Configuration, and press ⬜ to exit.
Press ▶ to enter the next setting.

Device   SD Card

File Name CFG000.RCZ

Export Cfg

▶

Device

Press ◀ or ▶ to move cursor, press ▲ or ▼ to choose SD card or USB.
Press ▶ to enter the next setting.

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```
Device      SD Card
File Name CFG000.RCZ
Export  Cfg
```

File Name

Press ◀ or ▶ to move cursor, press EN to modify file name.
Press ▶ to enter the next setting.

```
Device      SD Card
File Name CFG000.RCZ
Export  Cfg
```

Export Configuration

Press ◀ or ▶ to choose Export Configuration, press EN to export configuration. In the bottom left corner, it will show the configuration is completed.
Press ▶ to enter the next setting.

```
Device      SD Card
File Name CFG000.RCZ
Inport Cfg
```

Device

Press ◀ or ▶ to move cursor, press ▲ or ▼ to choose SD card or USB.
Press ▶ to enter the next setting.

```
Device      SD Card
File Name CFG000.RCZ
Inport Cfg
```

File Name

Press ◀ or ▶ to move cursor, press ▲ or ▼ to choose import file, and press EN to confirm.
Press ▶ to enter the next setting.

```
Device      SD Card
File Name CFG000.RCZ
Inport Cfg
```

Import Configuration

If wanna set the meters with same model & same configuration, you can do configuration to one set of them. Export the configuration of this meter and import data to other meters, which is convinient to multichannel configuration.
Press ◀ or ▶ to move cursor to choose import configuration, press EN to confirm.

```
Exit
```

Exit

Press ◀ or ▶ to move cursor to choose Exit, and press EN to confirm.

8. How to download data from the paperless recorder

1. Make sure the form of USB flash driver is FAT32; If not, please adjust it to FAT32 . (Note：the max. capacity of USB is 4GB, and the max. capacity of SD card is 2GB)

2. Ensure that USB flash driver has enough storage space, and must be greater than meter storage space (not less than 128MB).

3. Insert USB flash driver to USB slot or SD card slot in front of meter.

File Name："Default Format：DAT+"S/N"(S/N can be edited by yourself)

Statement Name："Default Format：RPT+"S/N"(S/N can be edited by yourself)

It will set up a data file in USB flash driver or SD card. (E.g.: DAT001.RDZ),

The data will be automatically saved in the file. During data transmission, do not pull out USB flash driver or SD card, otherwise, it will affect the regular work of meter. If it appears abnormal, pull out USB flash driver or SD card, and return the step 1 & step 2.
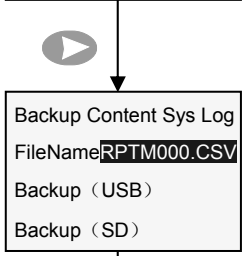
After insert USB flash driver, switch meter to "backup interface" to check the progress of data export.
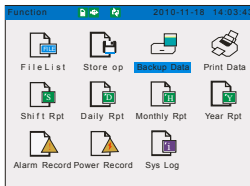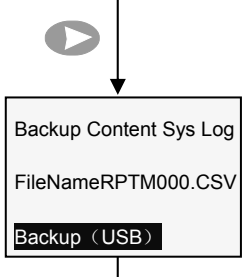

Choose Backup

Press ◀ or ▶ to move cursor, choose Date Backup, and press **EN** to enter.
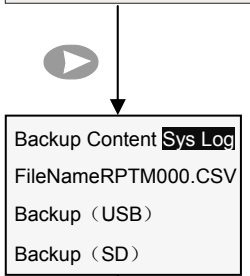
Backup Content

Press ◀ or ▶ to move cursor, press ▲ or ▼ to choose Backup Content, and press **EN** to confirm.
Press ▶ to enter the next setting.

File Name

Press ◀ or ▶ to move cursor, and press **EN** to modify file name.
Press ▶ to enter the next setting.

Backup USB

Choose to use USB for data back-up.

You can check backup progress below backup procedure and it will appear backup finished on left bottom of the screen after finished.
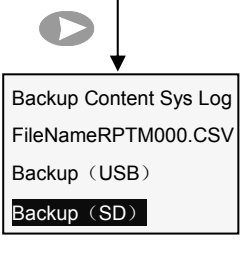
Backup SD

Choose to use SD card for data back-up.

You can check backup progress below backup procedure and it will appear backup finished on left bottom of the screen after finished.
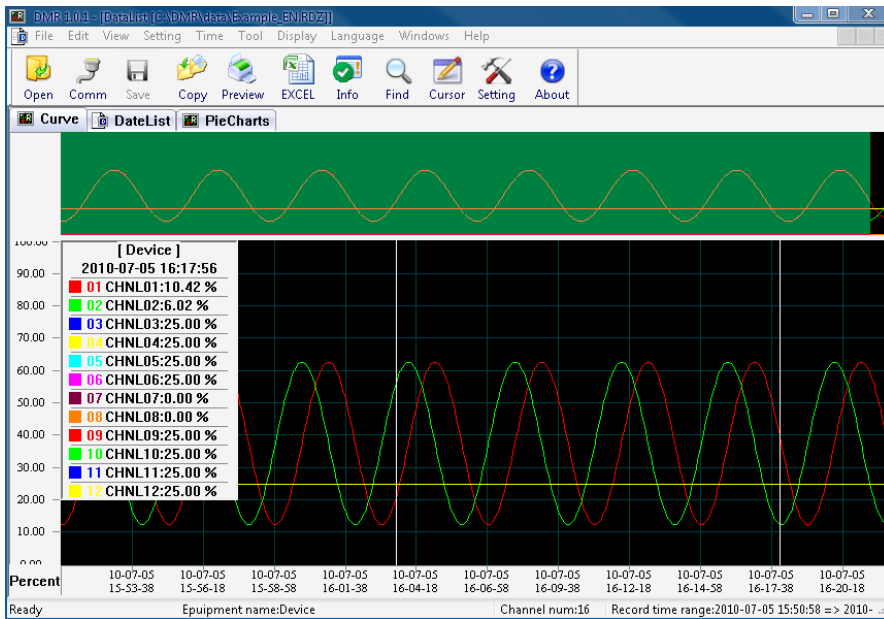
9. Application of Data Analysis Software
1. Insert USB flash driver to computer and if you wanna permanently save data, please copy the data to hard disk of computer.
2. Run "v1.0.3.exe", click "Open historical data". Check the pictures:

9.1 Historical Graph

9.2 Circular Display Curve