YS-13 VFD Tube Clock

Instructions

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Catalogue

Attention

◇   Attention: in order to prevent damages, do not place this clock on uneven place.
◇   Warning: the clock has an internal high voltage circuit, do not touch the circuit board and components if the clock is working.
◇   Warning: Clock are not allowed to be taken out.
◇   Warning: Do not let children touch the clock.

Functional features

1. Six YS13-3 VFD tubes display.
2. Display hour, minute and second(12 or 24 hours format optional)
3. Display year, month and day and Chinese lunar date (YY-MM-DD or MM-DD-YY format optional).
4. Digital Brightness adjustable.
5. Temperature display(℃ or ℉ temperature unit optional. Temperature sensor is offered as an option).
6. Two alarm clock.
7. Backlight can open or close, brightness degrees is adjustable.
8. 2 digital switching effects.
9. IR remote controller operation.
10. High-accuracy, ±2min/per year.
11. Built-in backup lithium battery, maintain clock at more than 3 years.

Technical specifications

Input voltage	DC12V
Working current	400mA(Max 600mA)
Tubes type	YS13-3(1976-1984 Made in China)
Size	140mm x 50mm, tube diameter 13mm highly 40mm
Working temp.	0℃-60℃
Weight	120g
Shell material	Arcylic plate with laser cut..

Package content

Name	Quantity	Name	Quantity
VFD tube clock	1	Power adapter	1
IR remote controller	1	User manual	1

IR remote control introduce

1.POWER	2.BACKLIGHT	3.SET
4.DATE	5.ALARM	6.TEMPERATURE
7.LEFT	8.RIGHT	9.FUNCTION
10.OK	11.CANCEL	12.NUM 0
13.NUM 1	14.NUM 2	15.NUM 3
16.NUM 4	17.NUM 5	18.NUM 6
19.NUM 7	20.NUM 8	21.NUM 9

Considered the battery are not allowed transport during air transportation, if there're no battery in controller, please put two AG10 cell in it.

Beep tone introduce

Beep	Description	Mean
Be	a shot beep	Power on/In set mode
Be..bebe	a long beep and two shot	Power off
bebebebe	four shot beep	Set Error/Cancel/Alarm
Be...	a long beep	Confirm and saved

Display mode switch

1. **Display time mode**

After power on the clock, or press POWER button in shutdown state, it's display time mode. Clock will display HOUR, MINUTE, SECOND on this mode.

2. **Display calendar date mode**

Press DATE button enter display calendar date mode. Clock will display YEAR, MONTH, DAY. Clock will return display time mode after three seconds.

3 . **Display lunar date mode**

Press DATE button twice enter display lunar calendar date mode. Clock will display YEAR, MONTH, DAY of lunar date. Clock will return display time mode after three seconds.

4. **Display alarm mode**

Press ALARM button, enter show alarm 1 mode. Press ALARM button again, it will

show alarm 2. Clock will return display time mode after three seconds.

5．Display temperature mode

Press TEMPERATURE button to enter show temperature mode. Clock will return display time mode after three seconds.

If the temperature sensor is not connect, clock can't display temperature.

Digital effects switch

■ **In the display time mode, press FUNC button can switch two kinds of digital effects repeatedly.**

1. **Crossfade**

Old digital would be concealing gradually and new digital gradually displayed at the moment.

3. **Standard**

Standard mode, if digital change, new digital display immediately.

Time format 12H/24H

In the display time mode, press **OK** button can switch time format repeatedly.

■ **Time format only in display time mode, in setup time mode, please according to set time 24H format.**

Date format YY-MM-DD/MM-DD-YY

In the display date mode, press **FUNC** button can switch date format repeatedly.

Temperature unit℃/℉

In the display temperature mode, press FUNC button can switch temperature unit repeatedly.

Back light mode switch

In the display time mode, press **LIGHT** button can turn on or turn off backlight

Adjust backlight and digital brightness

In the display time mode, press **LEFT** button will reduce light brightness, press **RIGHT** increase light brightness.

- **There're three degree of lighting.**

Set time

In display time mode, press **SET** button enter set time mode.

After enter set time mode, **SECOND** will blinking, means now is setting **SECOND**. Press **LEFT** or **RIGHT** button change setting position.

Press button **NUM0**-**NUM9** to change the number.

Press **OK** to save setting.

Press **CANCEL** abort setting and exit.

- **After setting success, clock will beep for a long time, and return display time mode.**
- **If setting is illogical, clock will beep four times with short time, and abort save setting then return display time mode.**
- **Please according to set time in 24H format.**

Set date

In display date mode, press **SET** button enter set date mode.

After enter set date mode, **DAY** will blinking, means now is setting **DAY**. Press **LEFT** or **RIGHT** button change setting position.

Press button **NUM0**-**NUM9** to change the number.

Press **OK** to save setting.

Press **CANCEL** abort setting and exit.

- **After setting success, clock will beep for a long time, and return display time mode.**
- **If setting is illogical, clock will beep four times with short time, and abort save setting then return display time mode.**
- **The moon date don't need set, clock will calculate automatic according Gregorian calendar.**
- **Two digit of YEAR means after 2000 year.**

Set alarm

In display alarm 1/2 mode, press **SET** button enter set alarm mode.

After enter set alarm mode, **MINUTE** will blinking, means now is setting **MINUTE** of alarm. Press **LEFT** or **RIGHT** button change setting position.

Left two tubes will display witch alarm is setting now, A1 means now is setting alarm 1, A2 means now is setting alarm2.

Press button **NUM0**-**NUM9** to change the number.

Press **OK** to save setting.

Press **CANCEL** abort setting and exit.

- **After setting success, clock will beep for a long time, and return display time mode.**
- **If setting is illogical, clock will beep four times with short time, and abort save setting then return display time mode.**
- **If want disable the alarm function, you should press FUNC button in alarm display mode, then clock display OFF, means this alarm was disabled.**
- **If now is alarming, press any button to stop alarm, or clock will stop alarm after 30sec.**

Note

1. These VFD tubes were produced in 1976-1984, maybe there're some different between every tube, or imperfection on them, it's normal, please don't mind.

2. The clock will become warm or little hot because there're two DC-DC converters in the clock, it's normal, please don't mind.

3. In order to prevent damages, do not place this clock on uneven place.

- **Any questions, please contact designer.**

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