

Installation tutorial of seven color digital clock (CAI-201)

Installation of the circuit

The components are installed from size short to high. Install size short component such as electrical resistor first and then install size high component. When a part of the components are installed, cut off pin of the component and then install the next part of the component.

There are no positive and negative poles in electrical resistor, light sensitive resistor, thermal resistor, crystal oscillator and ceramic capacitor.

When light sensitive resistor and thermal resistor are installed, height of 1cm should be reserved and bend it.

There are positive and negative poles for buzzer, the location with plus sign on the buzzer should be face with the location with plus sign on PCB.

After all the installation of the components are finished, and then install the integrated circuit into the tube socket, the gap location of integrated circuit and tube socket shall be aimed at PCB marked location of the gap.

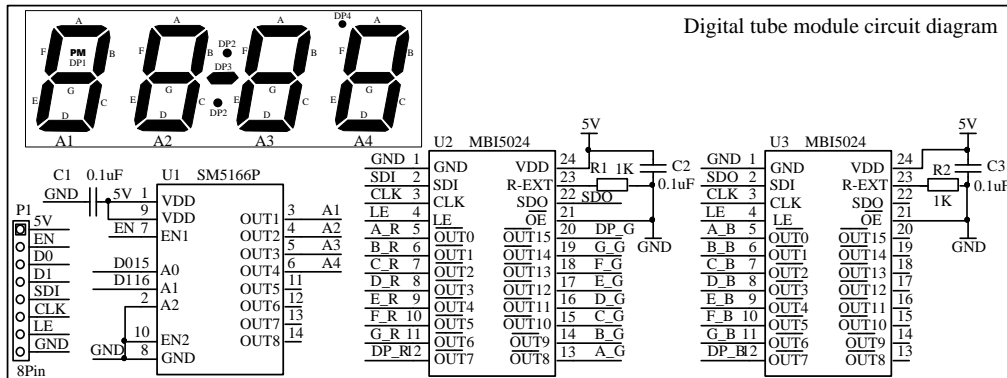
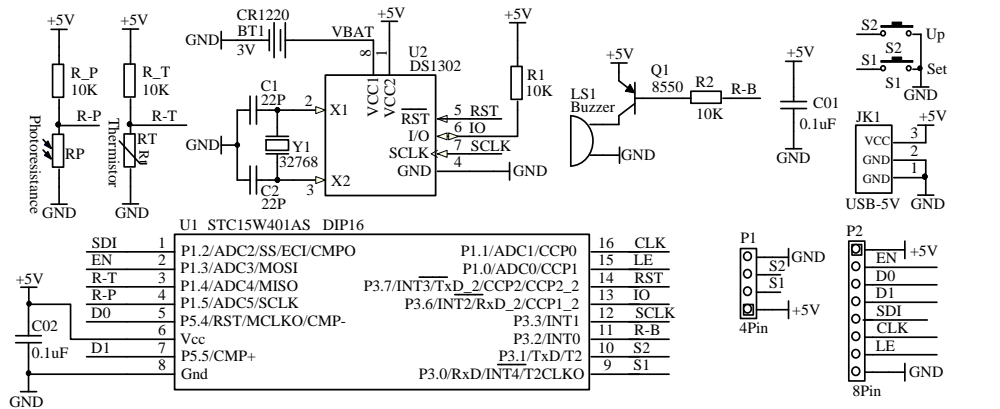
When triode, tact switch, power socket and battery holder are installed, they should be installed correspondingly according to the shape.

After all the installation of components are finished, check again if there is any mistake in the installation, check if there are phenomena such as solder skips, cold solder joint and short circuit in the welding spot.

Connect pin header with numerating tube first and then weld numerating tube with PCB.

After making sure that there is no problem with the circuit, and then put the circuit into the shell, fix the shell with screws.

Electric schematic diagram



Function settings

Setting instruction	Press "SET" button and move to next setting. Press "UP" button to change the numerical value of twinkling. If there is no action of pressing button within fifteen seconds, the setting will quit automatically. Each time the setting is finished, the button will be locked, if there is need for setting again, "SET" button shall be pressed for three seconds.	
Reset	At the same time , press "SET" and "UP"button for more than three seconds, release the button after all of the numerical tubes show light and sound, display 7: 59, ten seconds later, it becomes 8:00 and gives out sound. Reset is successful.	
Set year	Press "SET" button for more than three seconds, display year, the numerical tube is twinkling at the same time, Press "UP" button and change year.	
Set date	Press "SET" button, the numerical tube of month is twinkling ,Press "UP" button and change month, Press "SET" button , the numerical tube of day is twinkling, Press "UP" button and change day.	
Set time	Press "SET" button, the numerical tube of hour is twinkling ,Press "UP" button and change hour. Press "SET" button again , the numerical tube of minute is twinkling, Press "UP" button and change minute.	
Set time display mode	Press "SET" button, it will display 24H. Press "UP" switch to 24 hours system and 12 hours system.	
Set hourly alarm time area	Press "SET" button, it displays 7-21 and remind the hour from 7am to 9 pm. When 7 is twinkling, press UP and change 7,press "SET" again, When 21 is twinkling, press UP and change 21.	
Set first round alarm clock	Press "SET" button, it will display ON:A1 shows that the first round alarm clock is opened, press UP button, it will display --: A1 represents that the first round alarm clock is shut down.	
	Press "SET" button, enter the time setting of the first round of alarm clock, hour twinkling, press UP and change hour, press SET then minute twinkles, press UP change minute.	
Set second round alarm clock	Press "SET" button, it will display --: A2, it shows that the second round of alarm clock is shut down, press UP button, it displays ON: A2 shows that the second round alarm clock is opened.	
	Press "SET" button, enter the time setting of the second round of alarm clock, hour twinkling, press UP and change hour, press SET then minute twinkles, press UP change minute.	
Set third round alarm clock	Press "SET" button, it will display --: A3, it shows that third round of alarm clock is shut down, press UP button, it displays ON: A3 shows that the third round alarm clock is opened.	
	Press "SET" button, enter the time setting of the third round of alarm clock, hour twinkling, press UP and change hour, press SET then minute twinkles, press UP change minute.	
Alarm clock settings on weekdays	Press "SET" button, it will display --: E, it shows the alarm clock is shut down on weekdays, the alarm clock is on from Monday to Sunday. Press UP change the display:ON:E, which shows that alarm clock is on from Monday to Friday, no alarm clock on Saturday and Sunday.	
Auto brightness pattern	Press "SET" button, it displays ON-L, which shows the auto brightness is opened, the brightness at night will automatically change lower. Press UP button and change display --:L, which show the auto brightness is shut down, always keeps the same brightness.	
Set brightness	Press "SET" button, it displays L-3, which shows high brightness, press UP and change to L-1(lower brightness) and L-2(media brightness). (This option can't be set if it is automatic brightness).	
Set temperature	Press "SET" button, it displays the current temperature. Press UP button and fine tuning the temperature.	
Temperature display mode	Press "SET" button, it displays °C, press UP button and it changes to °F.	
Color display mode	Press "SET" button, it displays dC-3, press UP and it changes to the other three modes.	
	dC-3: Four numerical tube will change color in circulation.	
	dC-4: Single numerical tube will change color at random.	
	dC-1: the color of four numerical tubes is optional. Press SET and the time will be displayed. Press UP change time color. Press SET button and the temperature will display, and press UP change temperature color. Press SET button and it displays date, press UP again and change date color. Press SET button and it will display week, press UP again and will change week color.	
Music setting	dC-2: choose the color of each numerical tube individually, press SET and four digits will be displayed, press UP and adjust the color, and then press SET button and switch to the next number color, press UP button and adjust the next number color.	
	Press SET button, it displays dU-1, music of "For Elise", press UP and change to dU-2 music of "Ode to joy" and dU-3 Spanish bullfighter music.	
Display mode setting	Press SET button, it displays dP-4, which shows time-temperature-date-week circulating to display, press UP button and it can change.	
	Press SET button,exit, setting is finished.	