Light Activate Digi Recorder W/case

AK9832/AK32/K32

Thank you for buying our products, "Profound knowledge behind simple circuits" series. We put emphasis on the ability that completed our kit yourself. Learn how to start from an idea then proceed to analysis, design, hardware production, test and evaluation in a systematic way. We try to provide students a chance to think and to gain professional knowledge while they are studying, so they can fully utilize their skills in the future. For this reason the theme in each package are confirmed with care.

Advise :

Make sure there is correct number of components in your package. Use 30W iron, 60% solder. Take extra caution against overheating during soldering process. Transistors and ICs can be easily damaged by high temperature so do not leave the iron on the board for too long. Too many or too little solders may cause a defected circuit. Please weld the IC socket first then plug in the IC chip.

Starting the FUN stuff !!

First of all, make sure no components are missing and all tools are ready (Iron, solder, cutter etc).
It is important to study the circuit diagrams carefully beforehand. Confirm the position of each component and install by order. Components can be damaged by multi-installations therefore it is important to confirm the correct position of the component before soldering.

Circuit Explanation :

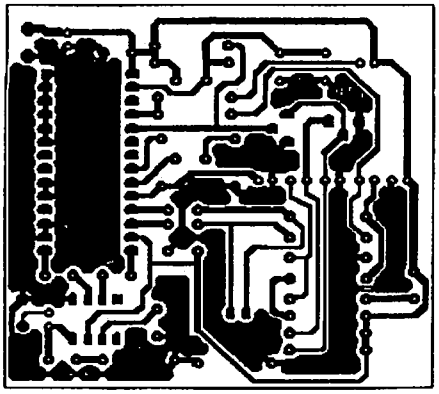
This circuit is imported from America's high standard digital voice IC, it is a voice IC with complete function, it can be recorded for more than 100,000 times, all functions can be controlled by IC's control stand. When light turns from bright to dark, the optic resistor (R3)'s ohm increases through transistor Q1 & Q2's (Darlington) IC 24 pin from high lever to low lever, to activate IC's sound function. Through LM386, amplifier can directly output to speaker, if user covers the back of the speaker, it can increase speaker's volume. The recording time is approximately 10 seconds.

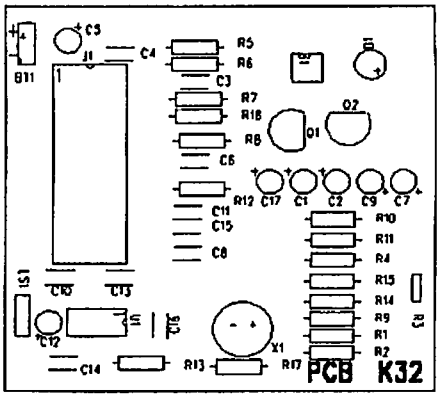
Instruction :

After the circuit soldered, we must record some voice, instructions are below:

1. Press REC button (S1) and hold, (LED) (D1) will light up. Face the microphone (X1) and start speaking. Release REC button to end recording (LED) (D1)'s light will turn off.
2. Any objects pass by Optic resistor(R3) , can reply previous recording content
3. To record over please follow step one again.
4. The key point with this product is that without any buttons, users can use lights brightness to express sounds quality.

If user feels the time of recording is too short, you also can buy longer time of sound recording IC to change.
Note: Users can use black objects or a piece of black cloth to limited the censor's sensitivity.





Serial No.	Component	Qty	Remark	Serial No.	Component	Qty	Remark
J1	28PIN sound recording IC	1	Mind pin direction	U1	8 PIN IC socket	1	
C3.C4.C6.C8.C10. C11.C13.C15.C16	Ceramic capacitor 0.1μF	9		R14.R15. R16.R17	1/4W resistor 0Ω	4	Bk
U1	IC 386	1	Mind pin direction	R7.R9.R13	1/4W resistor 1KΩ	3	Br,Bk,Re,Go
R3	Optic resistor CDS	1		R8	1/4W resistor 5.1KΩ	1	Gn,Br,Re,Go
Q1.Q2	BJT C1815	2		R10.R11	1/4W resistor 22KΩ	2	Re,Re,Or,Go
D1	LED(紅)	1	Long pin positive	R2	1/4W resistor 33KΩ	1	Or,Or,Or,Go
C2	Electrolyze capacitor 1μF/25V	1	Mind polarity	R4	1/4W resistor 47KΩ	1	Ye,Pu,Or,Go
C17	Electrolyze capacitor 4.7μF/25V	1	Mind polarity	R5.R6	1/4W resistor 100KΩ	2	Br,Bk,Ye,Go
C1	Electrolyze capacitor 10μF/25V	1	Mind polarity	R12	1/4W resistor 470KΩ	1	Ye,Pu,Ye,Go
C5.C7. C9.C12	Electrolyze capacitor 100μF/25V	4	Mind polarity	R1	1/4W resistor 5.6MΩ	1	Gn,Bl,Gn,Go
C14	Ceramic capacitor 470PF	1		X1	Microphone	1	
S1	Push-button switch	1		BAT 4.5V	4.5V Battery holder	1	
LS1	1/4W8Ω trumpet	1		PCB	PCB	1	
U1	28 PIN IC socket	1		Pin header	1*14 pin header	2	
Code : Black:Bk , Brown:Br , Red:Re , Orange:Or , Yellow:Ye , Green:Gn , Blue:Bl , Gold:Go , Purple:Pu