" Digital Voice Caring "
Voice Recording

Record 150 seconds : K01- B

Thank you for purchasing Aviosys "Electronic Kit" K01-B package.

In Aviosys " Electronic Kit" , we focus on building the ability about " DIY" - Do It Yourselves. Start from Idea, then analysis, design and hardware produce , test , and evaluation , user can learn step-by-step & well organize. Before graduate from School , user can lean more about professional knowledge and build up the ability of cerebrate. Aviosys select the theme for each kit discreetly for user to entrance different field more easily.

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 use Aplus's aPR33DB voice recording & playback IC. It offers true single-chip voice recording, non-volatile storage and playback capability for 150 seconds. It is a full function voice IC. Connecting a switch to the IC pins controls all the functions. And it support record the audio through " Line –In " cable (option) .

Instructions

Recording :

A. By Microphone

After the electric circuit soldered completely and power up, the device is ready to record or play back. Record and listen a section of voice, please follow the under steps :

1. Push the SW3 switch to REC section, the D2 will light ON .
2. To start recording , please keep pressing SW1 switch until D1 light up and you can hear a "di" sound at the same time. Then you can speaking to the microphone. Please try to talk to the microphone as close as possible , or the recorded audio would be very small.
3. To stop recording, please release S1 button then D1 will turn off, you can hear a "di" sound at the same time .
   Note : During recording time, if hears two "di" sound , it means the recording length achieves the limit, then D1 will be off automatically, the next voice can't be recorded.
4. If you want to rerecord, please repeat Step 3 to press S1 .

B. By "Line in"

1. Please use the Line In cable (option): plug one side of the cable into the audio device and plug another side into J2 .
2. The recording or stop procedure is the same as Step 3 , 4 , 5 of section "A. By Microphone"

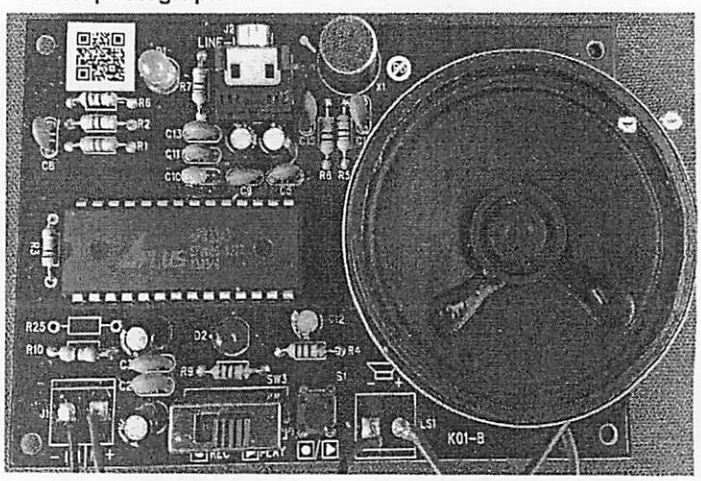
Listening :

1. To listen the recording audio, push the SW3 switch to the PLAY sction then D2 will be off, press S1 button then D1 will be on, and now you can hear the sound.
2. If you want to listen again, please press S1 once more.

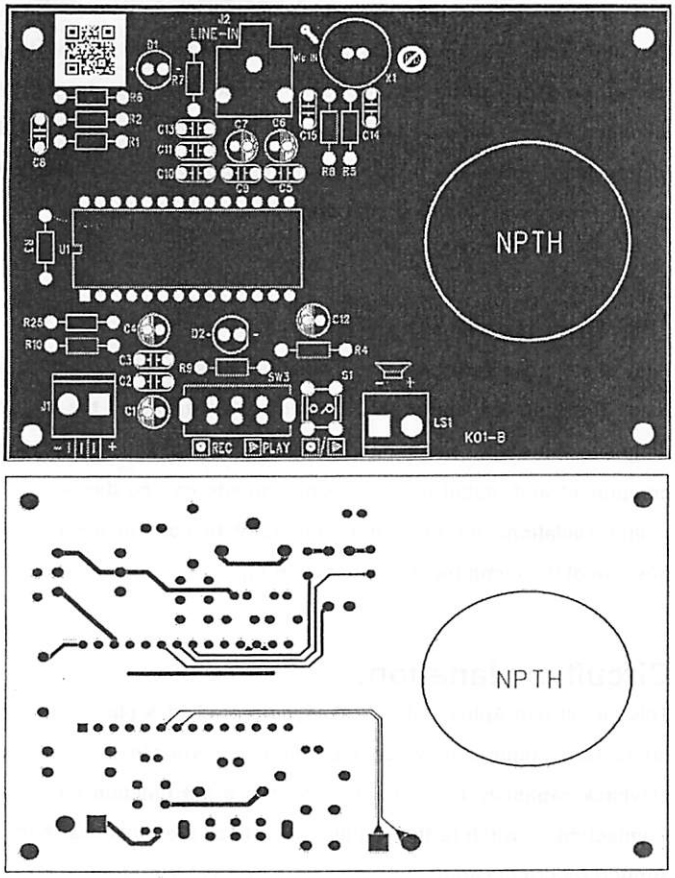
The following is functions of the buttons:

1. SW3 : Choose recording or playing
2. S1 :
   - At recording mode: Keep pressing and hold to start .
   - At playing mold : Press one time to start / stop playing .

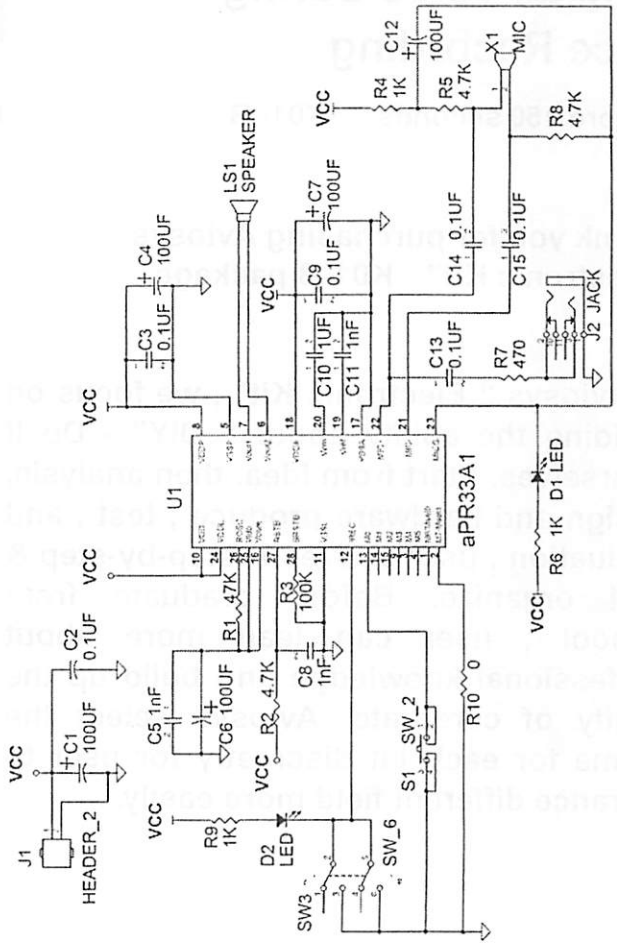
•Finish photograph



● PCB Outlook : Front & Back



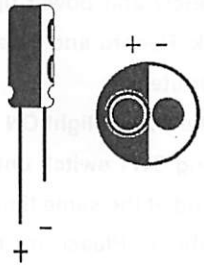
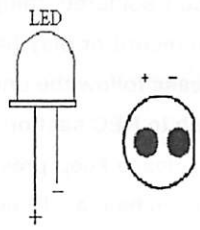
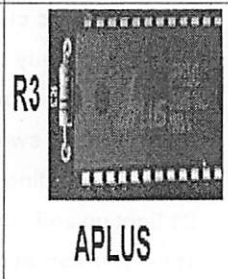
● Circuit diagram



Component list :

No:	Spec:	Qty	Note:
K01-B	PCB	1	
C1,C4,C6, C7,C12	Capacitors 100UF/16V	5	Long leg is + (plus)See P1
C10	Capacitors 1UF/50V	1	
C5,C8,C11	Capacitors 102PF	3	
C2,C3,C9, C13,C14, C15	Capacitors 104PF	6	
D2	LED- Red	1	Long pin is + (plus) See P2
D1	LED- Green	1	
J2	Line-In socket 3Pin	1	
R10	1/4W resistors 0Ω	1	Black
R4,R6,R9	1/4W resistors 1KΩ	3	Brown / Black /Red /Gold
R3	1/4W resistors 100KΩ	1	Brown/ Black/ Yellow/ Golden
R7	1/4W resistors 470Ω	1	Yellow/ Purple/ Brown / Golden
R2,R5,R8	1/4W resistors 4.7KΩ	3	Yellow / Purple / Red / Golden
R1	1/4W resistors 47KΩ	1	Yellow/ Purple/ Orange/ Golden
SW3	6 Pin switch	1	
S1	Tact Switch 4 Pin	1	
U1	IC APR33A3-C 2.0	1	With IC socket (See P3)
X1	Microphone	1	
J3	Battery box 3*4	1	
LS1	Speaker	1	With 2 cables (Black - & red +)

*** Notice for components position:**

P1. Capacitors	P2. LED	P3. IC APR33A3-C
C1,C4,C6,C7,C12	D1,D2	U1
		

Details for P3 : Please put the indentation side of the IC face to R3. To avoid the IC damage, please make sure the position before install the battery.

Notice:

* User need basic welding knowledge to learn this module needed, please prepare well before welding : Safety operation and choose airy environment to avoid danger during procedure. During welding, to avoid solder oxidization under high temperature for long time, please control the temperature of welding iron around 200℃~270℃, and do not increase temperature over 5 second after solder welding.