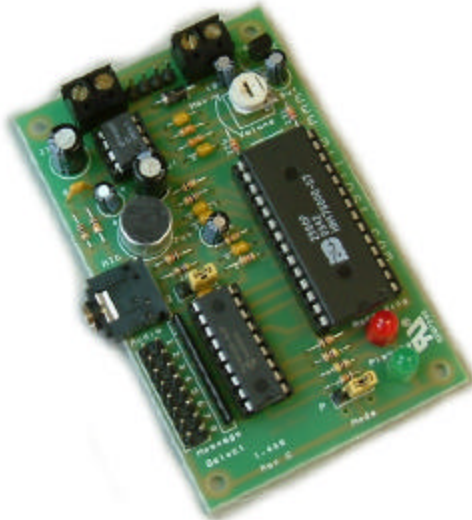


## SOUND CARD, Part Number 1-480



The Sound Card allows the recording and play-back of up to 8 passages of text or music by means of up to 8 push-buttons. The Sound card is intended for use in displays, exhibitions and incorporation into projects that would benefit from aural instructions. The board may also be configured for either sequential or random message playing. The Sound card incorporates an electret microphone for recording speech and a 250mW audio amplifier for play-back.

### Connections

Connect a speaker between the speaker terminals; minimum impedance 4 ohms. Maximum audio power is approximately 250mWatts into an 8ohm speaker.

The 8 pairs of message button pins may be connected to a number of remote switches. The switches should "make" when pressed. The pin towards the edge of the board is connected to electrical ground.

The Sound card requires a 6-12V DC supply to work satisfactorily. When in standby mode (ie not recording or replaying a message) current consumption of the sound card is approximately 5mA.

### Recording

The operating mode of the ISD2560 chip is such that all messages have to be recorded consecutively during the same session. It is not possible to edit one message on its own- all messages must be re-recorded if one message needs to be changed.

Place the MODE jumper in the Record position to enter record Mode.

Press any of the message buttons (or place a shorting lead between the pin pairs) and hold down whilst speaking into the microphone. The red LED will light and the card will continue to record while the button is pressed. At the end of the first message, release the button.

To record the second message, press any message button again and speak into the microphone. Releasing the message button suspends recording.

Continue as above until up to 8 messages have been recorded or the length of the messages exceeds the total recording time.

To exit from the recording session, change the Mode jumper to the Playback position.

To record using the on-board microphone ensure the JP1 jumper is set to straddle the centre and right hand pin (position 1).

If recording normal speech, it should be possible to obtain a good recording by speaking at a normal volume level about 30-50cm from the microphone. Take care to avoid mechanical switch noise- this will be recorded and played back as a loud click!

The volume control is not used during recording.

To record directly from an audio source (eg sound-card/tape-recorder etc) use the line input socket and set the JP1 jumper to the position 2 (the jumper straddles the centre and left-hand pins). The input sensitivity is 500mV p-p

### **Play-back**

There are 3 playback modes available depending on jumper positions at power-up:

#### Normal mode- message select mode (No jumpers on either pin pair 7 or 8)

Set the Volume control to mid-way.

Ensure the Mode switch is set to Playback.

Press the "Message 1" Button; the green LED will light and message 1 should be heard from the speaker.

Once message 1 has finished, the card will wait for further messages to be selected.

Message buttons pressed whilst a message is being replayed will be disregarded.

Adjust the volume control to provide the required audio output level- you will probably find the output from the included amplifier is sufficient for most exhibitions/rooms.

#### Sequential Playback Mode

##### **Remove power from the board.**

Place a jumper over pin pair 7- this action is read at power up and will put the board into sequential message mode until the board is powered down again.

Power up the board. Shorting pin pair 1 will play message 1. Shorting pin pair 1 again at the end of message 1 will play message 2. Subsequent messages are similarly played returning to message 1 after the last message has been played.

#### Random Message Playback mode

##### **Remove power from the board.**

Place a jumper over pin pair 8- this action is read at power up and will put the board into random message play until powered down again.

Power up the board. Shorting pin pair 1 will cause the playback of one of the recorded messages in a pseudo-random manner.