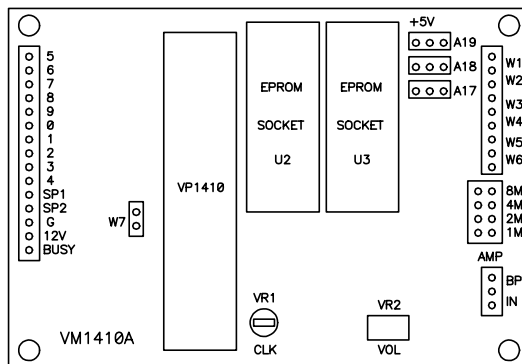# QuikVoice™

VM1410A

10-Message Playback Board

- **Operation Mode:** playback only
- **Max. Number of Messages:** 10
- **Memory Type:** EPROM
- **Memory Capacity:** 2 chips of 512K - 8M
- **Max. Message Length @ 32K:** 8.5 min.
- **Supply Voltage:** 6V - 12V DC
- **Typical Operating Current:** 200mA
- **Max. Audio Output:** 1W
- **Battery Operation:** suitable
- **Options:**
  battery operation

General Description

The VM1410A is an EPROM-based digital voice module which can play back up to 10 pre-programmed messages. It is totally self-contained and requires only a power supply, a speaker and a few push buttons to operate.

The desired message must be pre-programmed into the EPROM memory by using voice development system VP880. Since EPROM is nonvolatile, there is no need for battery backup. The sampling rate is adjustable so higher sampling rates (and higher memory cost) can be used for applications requiring better sound quality. Each message may have a different length.

Many different kind of trigger devices can be used to activate the message. Basically a momentary contact closure or a logic low pulse is what's needed to start the message. The message is not interruptable and will play once per trigger. If the trigger is still present when the message ends, the message will re-start. There is only one trigger mode:

Direct Mode
This is the only mode that the VM1410A supports. Each message has a separate trigger pin. When a message is playing, both its trigger pin and the BSY pin will be pulled to ground by the board.

Comparison with VM1410C

VM1410C has only one EPROM socket, so its maximum memory capacity is 8M bits. But VM1410C has individual trigger/speaker/battery connectors and a DC power jack, in addition to the Sequential Mode support. Both are the same size.

Installation Guide

Power & Signal Connector
0 ~ 9: trigger input (active low)
SP1: audio output for a 4 or 8 Ohm speaker
SP2: audio ground
G: power ground
12V: power input
BSY: busy output (active low)

Sample Rate Adjustment: CLK pot

Volume Control: VOL pot

EPROM Size Jumpers
* Both EPROM chips must be the same size.
* Keep A17-A19 on the left 2 pins unless noted otherwise.

512K: W3, W5
1M: W1, W3, W6, 1M
2M: W1, W3, W6, 2M, move A17 to the right
4M: W1, W3, W6, 4M, move A17, A18 to the right
8M: W1, W3, W6, 8M, move A17, A18, A19 to the right

Power Amp Bypass Jumper: AMP
Move the jumper from "IN" to "BP" to bypass the power amp.

Battery Operation Jumper: W7
For battery operation, remove U8 (7805), short the outer two pins of U8 and open jumper W7.