



**HAUNTED HOUSE**  
**SPEAKING RELEASE**  
(With MA-216 sound board)





# HAUNTED HOUSE

## SPEAKING RELEASE

v 2.1 - September 6<sup>th</sup>, 2012

### Index

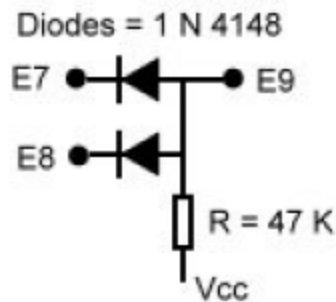
Hardware and principle .....	3
Usage.....	5
Configuration .....	5
Startup .....	6
Attract mode.....	6
Messages in normal mode.....	7
Messages en mode multi-balls .....	8
TILT and SLAM messages .....	9
Messages of TEST mode .....	9
Serial number .....	10



## Hardware and principle

Its use is a MA-216 equipped with voice synthesizer VOTRAX **SC-01**.

This board is similar to that used in Black-Hole (talking version). A change of address decoding is installed in order to use an **2764** EPROM (or **2864** EEPROM) of 8 KB instead of 2716 (2 x 2 KB) or 2732 (1 or 2 x 4 KB).



The addressing space of 2764 sounds EPROM is the following:  
\$E000...\$FFFF : 8 KB

\$E000...\$EFFF : 4 KB free for new voices

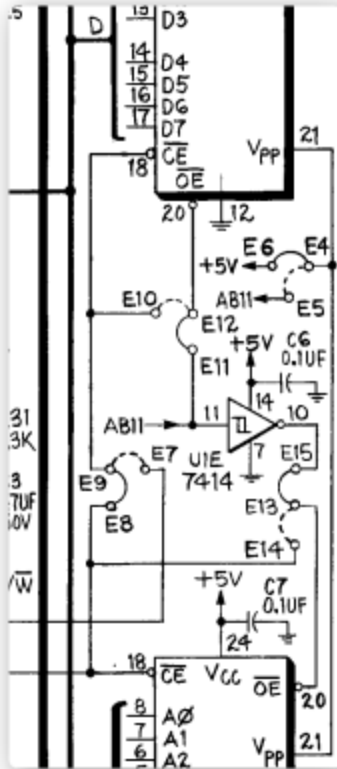
\$F000...\$FFFF : 4 KB reserved for the original sounds EPROM + patches

The principle is to reuse his Haunted House original EPROM in the higher 4 KB and install the new voices + the new program in the lower 4 KB. It preserves the original sounds of the Haunted House. A number of patches are necessary in the original EPROM to divert the old routines to the new.



The use of two **2732** EPROM is also possible, although not recommended (these components are obsolete and their programming is sometimes haphazard).

Its MA-216 cards are planned at origin to receive 2732 instead of the 2716. The only change to do, is to link bridges shown in dashed lines, instead of those marked



by a continuous line on the diagram below:

This mean :

**2716** - connect E11-E12, E4-E6, E9-E8 and E13-E15.

**2732** - connect E10-E12, E4-E5, E9-E7 and E13-E14.

Careful : This doesn't work with the first generation of MA-216 boards (because of a bug in the printed circuit).



## Usage

The talking version of Haunted House is planned to be used either in a normal Pinball, either in a pinball machine adapted for multiball mode. This second mode requires several important transformations (installation of a multiball launcher, rewiring and adding additional relays, etc...) and works only with a Pascal JANIN board specially programmed for this use.

In a normal Pinball, to have voice messages, need the use of a specially adapted new game PROM (reference: **669-4**).

The "talking" board can also be used with a non-transformed pinball, but in this case, only starting messages and the test mode will be available.

## Configuration

The mode of operation of the sound board can be changed by the DIP switches, as on the original board (SB1).

SW 3 and 4 : Configuration of the attract mode  
(identical as the original sound board)

SW 5 : Background sound ON / OFF (same)

### Have been added:

SW 6 : Speech mode (talking) ON /OFF

SW 7 : Extended mode  
Replace the TILT and SLAM sounds by voices.

SW 1 : Multi-balls mode ON /OFF

This board is now scheduled to operate either on a classic Haunted House or a "multi-ball" Haunted House. The board contains two sets of separate messages for these two modes.



## Startup

At the startup of the board, subject that the "speech" mode is enabled (SW6), a welcome message is issued:

"WELCOME TO THE HAUNTED HOUSE"

or

"WELCOME TO THE HAUNTED HOUSE IN MULTIBALL"

depending on the mode (mono or multiball) selected.

## Attract mode

The attract mode is changed from the original audio board of Haunted House, who normally plays a random sound among the No. 1, 2, 11 and 15.

A fifth sound was added to this series, he is No. 9, which has the particularity to exist but never played in the original Haunted House.

In addition, where "speech" mode (SW6) activated, two voice messages are also added to the series:

"WELCOME TO THE HAUNTED HOUSE [IN MULTIBALL]"

and

"DO YOU DARE TO ENTER TO THE HAUNTED HOUSE"



## Messages in normal mode

### N° 18 : "SECRET TUNNEL"

Generated at the command of the sound 18.

→when the ball passes through the central secret passage (tilt target).

### N° 1A : "SPECTRUM ENTRANCE"

"SPIRIT ENTRANCE"

"GHOST ENTRANCE"

"FANTHOM ENTRANCE"

Randomly generated at the command of the sound 1A.

→when the ball falls in the capture of the top hole.

### N° 1B : "TRAP DOOR OPENED"

Generated at the command of the sound 1B.

→when the trap door to cellar open.

### N° 1C : "DOWN TO CELLAR"

Generated at the command of the sound 1C.

→to use for example when the ball passes over the lower playfield.

### N° 1D : "SHOOT HOLE FOR SPECIAL"

Generated at the command of the sound 1D.

→when the special on lower playfield is activated

### N° 1E : "COMPLETE UPPER BANK FOR SPECIAL"

Generated at the command of the sound 1E.

→when the special on upper playfield is activated (bank targets).

### N° 1F : " GET EXTRABALL"

Generated at the command of the sound 1F.

→when the extra-ball is activated.



## Messages in multi-balls mode

N° 18 : "SCORE CELLAR TARGETS FOR MULTIBALL"

Generated at the command of the sound 18.

N° 09 : "LOCK FIRST BALL IN CELLAR SPECIAL"

Generated at the command of the sound 09 \*.

N° 1A : "LOCK SECOND BALL IN EXTRABALL KICKER"

Generated at the command of the sound 1A.

N° 1B : "MULTIBALL READY"

Generated at the command of the sound 1B.

N° 1C : "ENJOY MULTIBALL, HIT 1 2 3 4 5 FOR JACKPOT"

Generated at the command of the sound 1C.

N° 1D : "SHOOT FOR SPECIAL"

Generated at the command of the sound 1D.

N° 1E : "CAPTURED"

Generated at the command of the sound 1E.

N° 1F : "GET EXTRABALL"

Generated at the command of the sound 1F.

\* Sound 09 that is unused on the original Haunted House was reassigned to this message in the multi-balls version.



## TILT and SLAM messages

If the options "extended mode" and "speech mode" are configured by DIP switches, the sounds of the TILT and SLAM are replaced by the following voice messages:

### "TOO BAD YOU LOST"

Generated in case of SLAM (vandalism).

### "TIIILT"

Generated in case of TILT.

## Messages of TEST mode

### "ENTERING TEST SEQUENCE"

Generated at the start of TEST mode.

### "RAM TEST FAILED"

Indicate an error while testing the RAM of the sound board.

### "EPROM ONE TEST FAILED"

Indicate an error while testing the EPROM 1 (address E000-EFFF) of sound board.

### "EPROM TWO TEST FAILED"

Indicate an error while testing the EPROM 2 (address F000-FFFF) of sound board.

### "TEST SEQUENCE COMPLETE"

Generated at the end of the tests.

### "THIS RELEASE x.x BY DAVROUX BROTHERS"

Generated at the end of the test, signature with version.

### "SERIAL NUMBER xx"

Generated at the end of the test, serial number.



## Serial number

Each PROM has a unique serial number which is announced vocally at the end of test mode.

