HP-41 PLAY ROM

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The PLAY ROM, available on the HP-41 page at hpcc.org, contains the following FOCAL functions:

BRTHDAY	x0A2	Plays Happy Birthday to You
CLAXON	x515	Makes a distorted tone (from Datafile V7N7P12)
JINGLE	x177	Plays Jingle Bells
MERRY	x0C6	Plays Merrily We Roll Along
METRO	x905	Metronome takes beats per minute from the X register (V9N4P19)
PLAY	x0F7	Plays a single tone using the value from the X register in the range 0-255. The value = tone*8+duration where tone 0 is wait, tones 1-31 increase in pitch and duration is 0-7. Ignores the audio enable flag so that the tone can be used in an alarm.
RASP	x526	Makes a short rasping sound (V7N7P12)
SOFF	x53C	Sound off. Turns off the whistle enabled by SONS, SONL and certain synthetic TONEs (V7N7P12)
SONL	x550	Sound on loud. Exploits a HP-41 hardware bug. Turns on loud high-pitched whine while the CPU is busy e.g. for key clicks or when running a program (V7N7P12)
SONS	x549	Sound on soft. As per SONL but quieter (V7N7P12)
STAR	x1B0	Plays Twinkle, Twinkle, Little Star
WAIT	x704	Waits for the number of seconds specified in X, including sub-second delays. Useful for building sequences of sounds.

The following machine code entry points are supported:

PLAYM	x0FB	Takes a value from A[S&X] in the range 0-255d. Bits 7:3 are the tone: 0 is no sound, 1-31 are increasing pitch notes. Bits 2:0 are the duration: 0-7. Ignores the audio enable flag.
MCPLAY	x090	Plays a sequence of tones which follow the call to this function. The final tone must be 3FFh. Ignores the audio enable flag.