

		Digi-Key Part Number	
U1	Microcontroller, PIC16F87, 18-pin DIP	---	
U2	14-bit DAC, LTC1658, 8-pin DIP	LTC1658CN8	\$11.63
U3	Dual op amp, LMC6482, 8-pin DIP	LMC6482IN	\$1.68
U4	Opto-isolator, 6N138, 8-pin DIP	160-1795	\$0.81
U5	5V voltage regulator, LM78L05, TO92	LM78L05ACZFS or equiv.	\$0.31
U6	5V voltage regulator, LP2950-5, TO92	LP2950CZ-5.0	\$0.84
U7	9V voltage regulator, LM78L09, TO92	497-15651-1	\$0.36
U8	Charge pump step-up, TL7660, 8-pin DIP	296-21857-5	\$1.55
U9	Quad analog switch, MAX4066, 8-pin DIP	MAX4066CPD+	\$3.12

NOTE: CD4066 WILL NOT WORK HERE

Q1	PNP transistor, 2N3906, TO92	2N3906FS	\$0.23
Q2	NPN transistor, 2N3904, TO92	2N3904FS	\$0.18
D1	Switching diode, 1N4148	1N4148FS	\$0.06
D2,D3	Rectifier diode 1N4001	1N4001RLGOSCT	\$0.20
C1,C3,C4,C8,C10	Ceramic capacitor, 0.1 uF 25V	BC1148CT	\$0.72
C2	Ceramic capacitor, 1.0 uF 50V	399-4389	\$0.47
C5,C9,C11,C12,C13	Electrolytic capacitor, 4.7 uF 25V	P812 or equiv	\$0.22
C6,C7	Ceramic capacitor, 22 pF 50V	BC1005CT	\$0.36

Note: C2 and C3 values changed after the schematic was printed. Use the values shown here.

R1,R8,R12	Resistor, 220 ohm 1/4W 5%	220QBK	\$0.21
R2	Resistor, 1K ohm 1/4W 5%	1KQBK	\$0.07
R3,R10,R11	Resistor, 10K ohm 1/4W 5%	10KQBK	\$0.21
R4	Resistor, 6.8K ohm 1/4W 5%	6.8KQBK	\$0.07
R5	Resistor, 19.6K ohm 1/4W 1%	19.6KXBK	\$0.10
R7	Resistor, 9.53K ohm 1/4W 1%	9.53KXBK	\$0.10
R9,R13	Resistor, 4.7K ohm 1/4W 5%	4.7KQBK	\$0.07
R6	Trimmer resistor, 20-turn, 1K	A105771	\$1.27
X1	Crystal, 6.50 MHz	X415	\$0.63
J1	Right angle 0.156" 4-pin hdr	WM5237	\$2.43

Misc:

Conn to mate with SH-2000 header	WM2102	\$0.22
4 Contact Pins for WM2102	WM2301	\$0.80
18-pin IC socket	ED3047-5	\$0.23
4 x 8-pin IC socket	AE9986	\$0.72
1 x 14-pin IC socket	AE9989	\$0.22

PC
Board

MIDI Jack
24 gauge stranded wire

Parts cost minus pcb, MIDI jack, wire, and programmed PIC chip: \$30.33