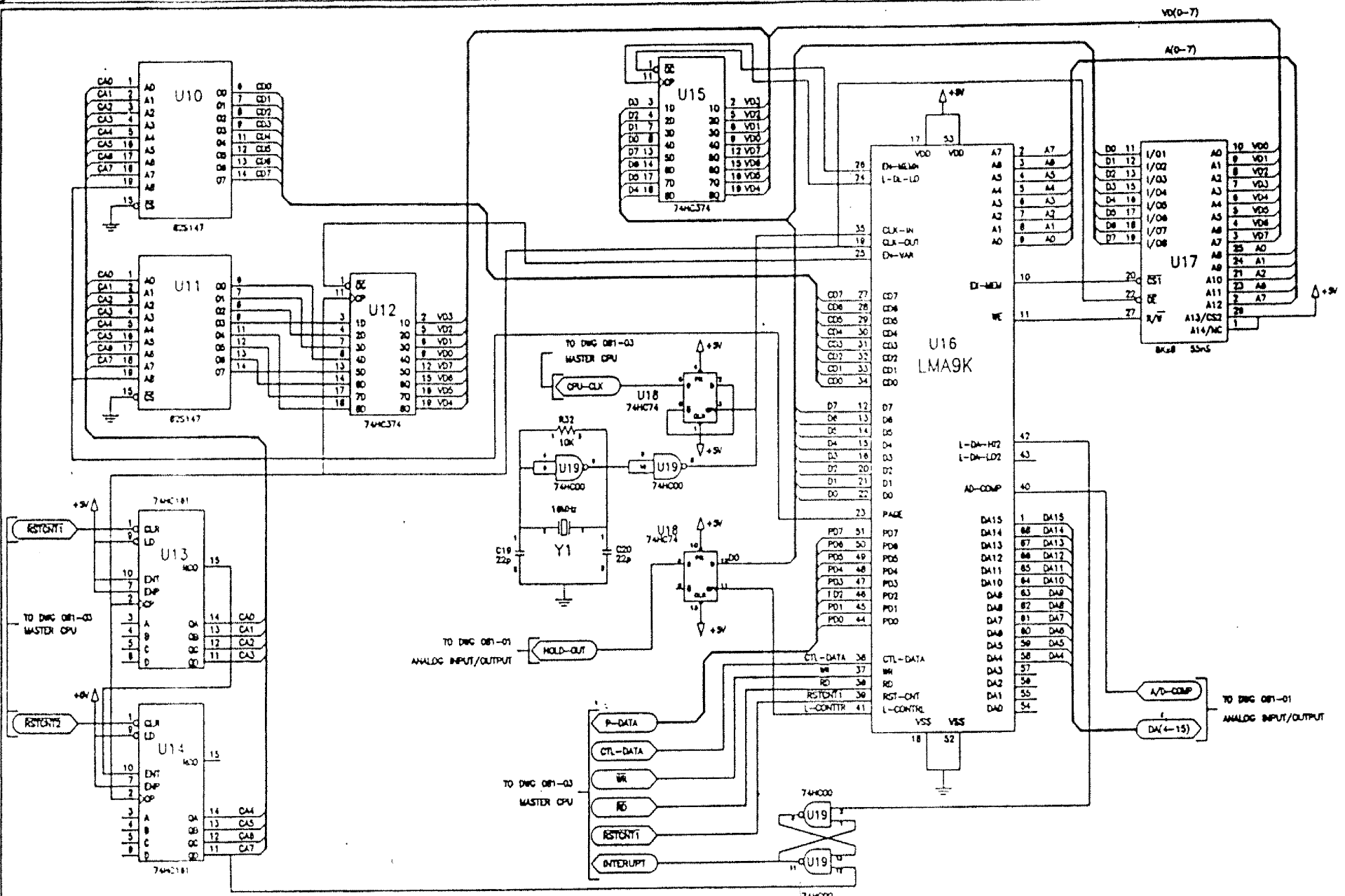


REV.	DATE	COMMENTS
A	90-04-28	ORIGINATE
C	90-07-30	SEE EDO #24 WHAMMY PEDAL DISTORTION REDUCTION
D	90-12-03	CHANGE R012 -V TO RECTIFIED -V AC Bk CHANGE R13 TO 47K SEE EDO #37

**WHAMMY PEDAL
ANALOG INPUT/ OUTPUT**

SHEET 01 OF 03 DWG: 081-01 D BY GPJ

VLTechnologies DATE: 90-12-03

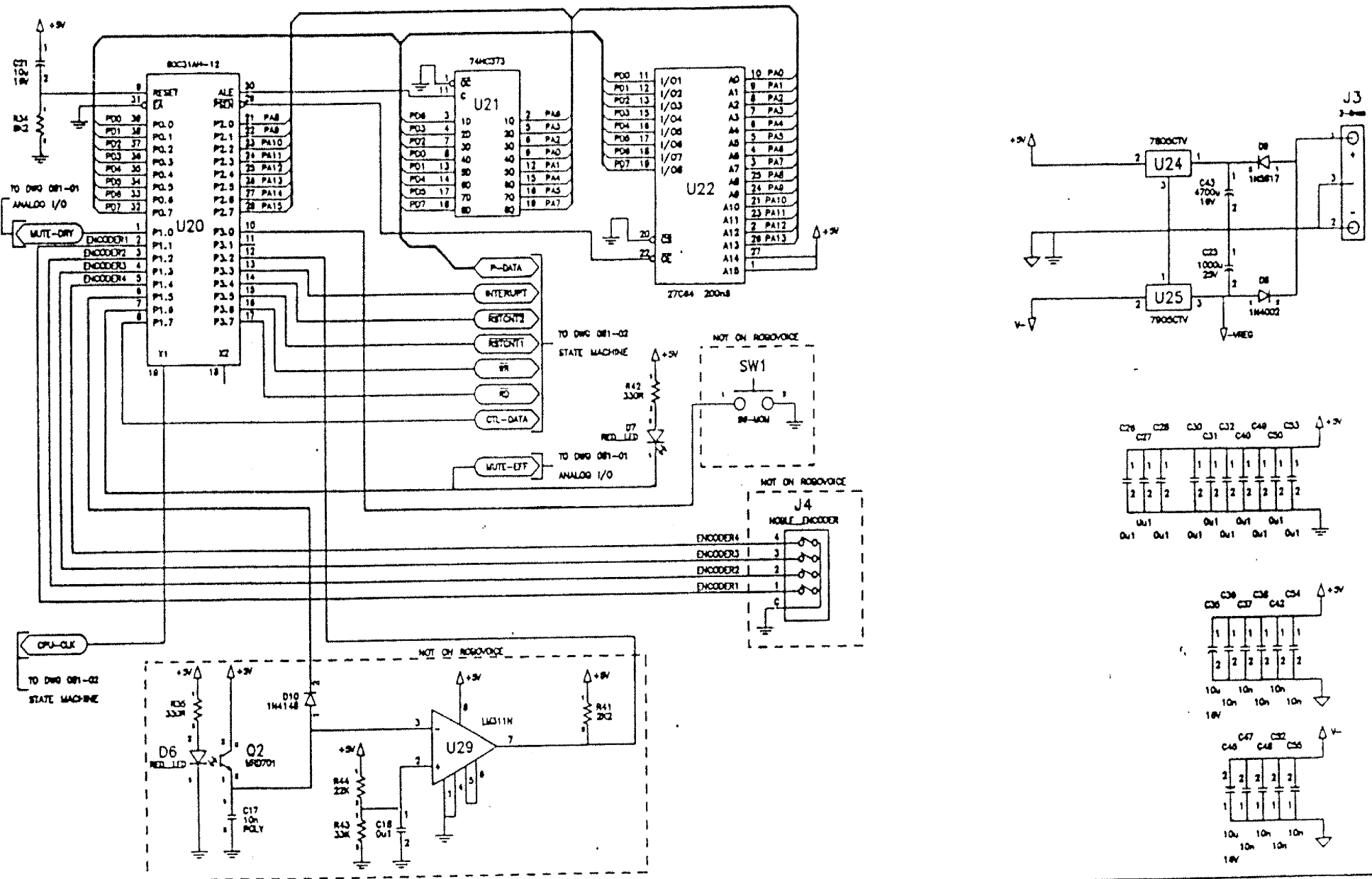


REV.	DATE	COMMENTS
1	9-10-90	ORIGINATE
2	9-10-90	CHANGE U14 FOR IMPROVED PCB LAYOUT

**WHAMMY PEDAL
STATE MACHINE**

SHEET 02 OF 03 DWG: 081-02 C BY GPJ

VLTechnologies DATE: 90-10-30

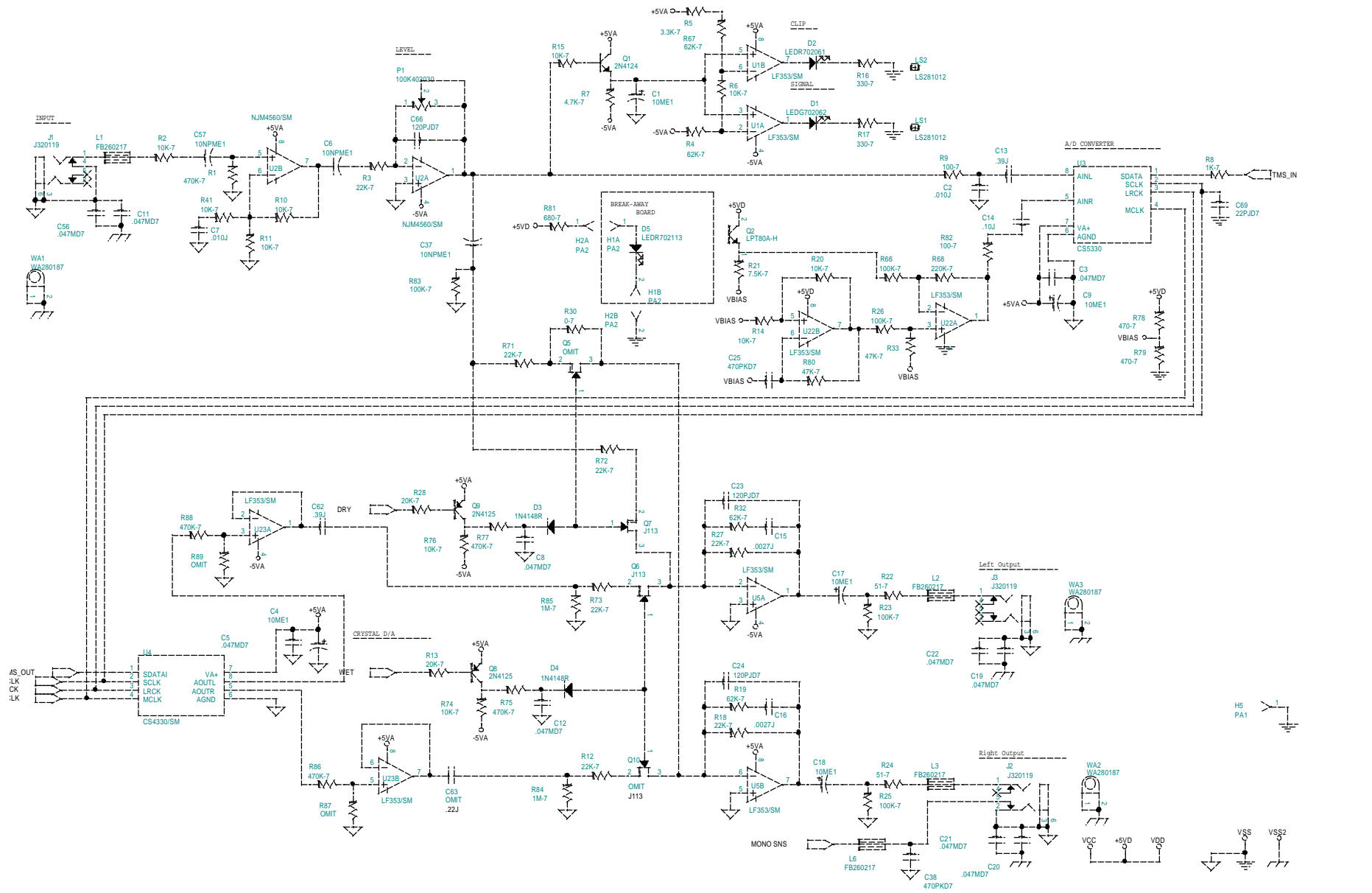


REV.	DATE	COMMENTS
A	90-04-28	ORIGINATE
B	90-07-30	SEE EDD #20 WHAMMY PEDAL POWER SUPPLY CHANGE
C	90-08-28	CHANGE ENCODER TO MOBILE
D	90-10-30	CHANGE TO CMOS CPU; CHANGE C17 TO 10n 10% POLY; CHANGE R35 TO 330n
E	90-11-03	SEE [00 #37] -VNEG TO B012 -V SUPPLY; CHANGE D6 TO R4517
F	90-12-03	

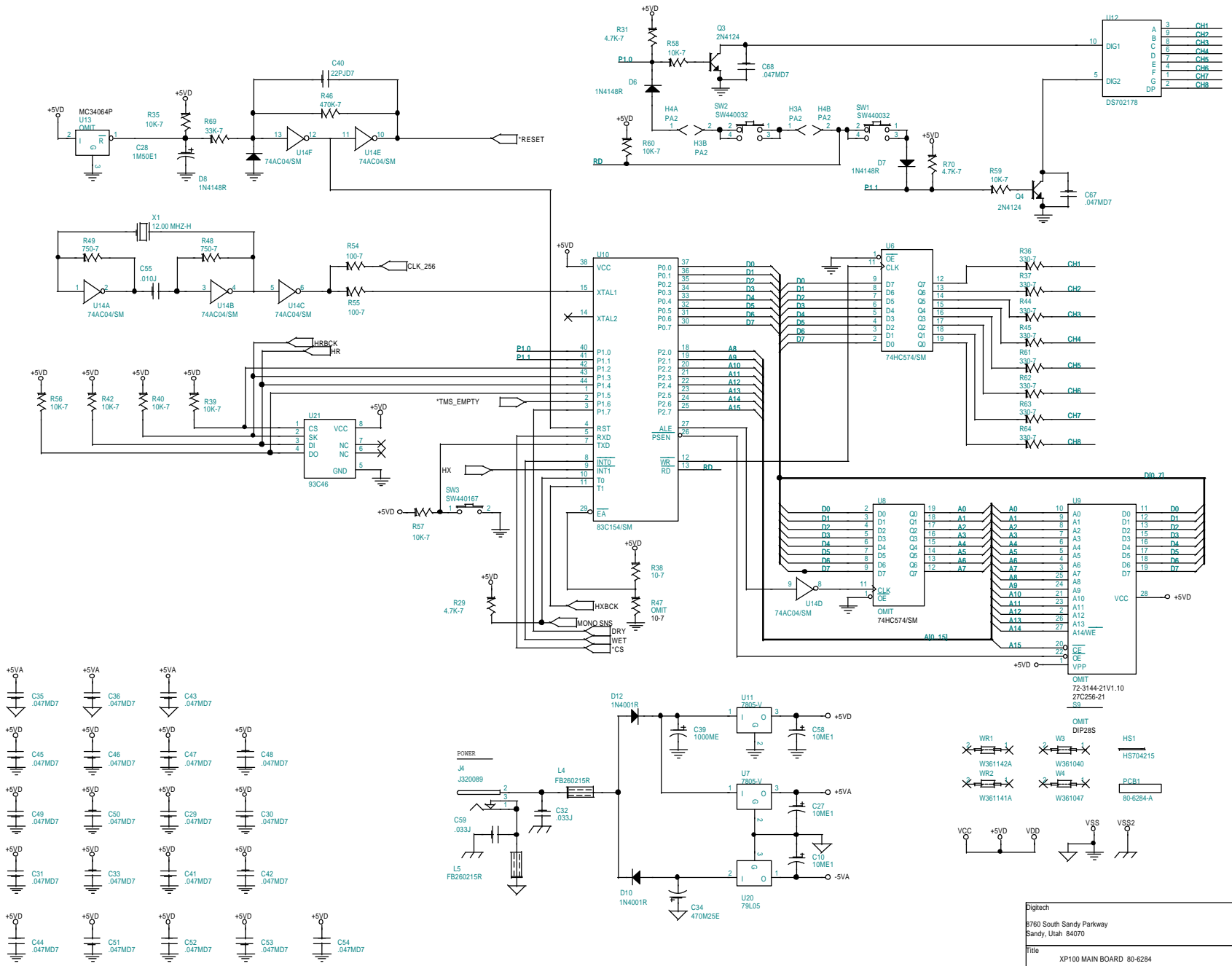
**WHAMMY PEDAL
MASTER CPU**

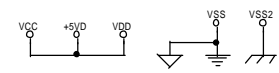
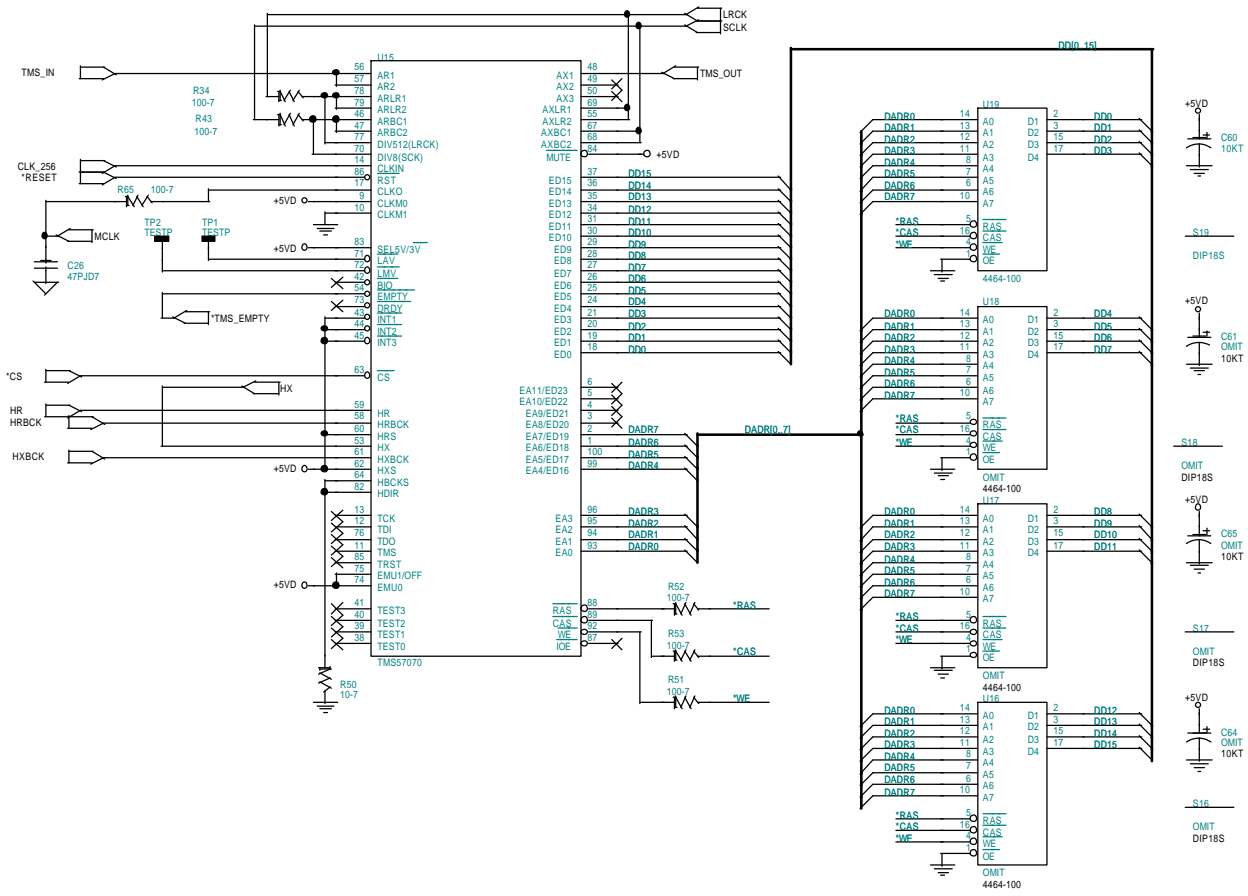
SHEET 03 OF 03 DWG: 081-03 F BY GPU

VLTechnologies DATE: 90-12-03



Digitech		
3760 South Sandy Parkway Sandy, Utah 84070		
Title XP100 MAIN BOARD 80-6284		
Size B	Document Number 056284A7.001	Rev A7
Date:	Tuesday, March 28, 2000	Sheet 1 of 3





Quan	Reference	Part	SYMAN	Description
8	C1,C4,C9,C10,C17,C18,C27, C58	10ME1	60-0049-01	10 uF Cap 16V -20/+20% Elect., -D Ammo
3	C2,C7,C55	.010J	56-0006	.010 uF Cap 50V 5% Poly Film 103J ammo
32	C3,C5,C8,C11,C12,C19,C20, C21,C22,C29,C30,C31,C33, C35,C36,C41,C42,C43,C44, C45,C46,C47,C48,C49,C50, C51,C52,C53,C54,C56,C67, C68	.047MD7	62-3129	.047 uF Cap 50V 20% Cerm, SMT 0805
3	C6,C37,C57	10NPME1	60-0051-01	10 uF Cap 16V -20/+20% Elect., NP T&R
2	C13,C62	.39J	56-0040	.39 uF Cap 50V 5% Stacked Metal Pet 394J ammo
1	C14	.10J	56-0012	.10 uF Cap 50V 5% Stacked Metal Pet 104J ammo
2	C15,C16	.0027J	56-0027	.0027 uF Cap 50V 5% Poly Film 272J ammo
3	C23,C24,C66	120PJD7	62-3135	120 pF Cap 50V 5% Cerm, SMT 0805
2	C25,C38	470PKD7	62-3133	470 pF Cap 50V 10% Cerm, SMT 0805
1	C26	47PJD7	62-3132	47 pF Cap 50V 5% Cerm, SMT 0805
1	C28	1M50E1	60-0044-01	1.0 uF Cap 50V -20/+20% Elect., T&R C&F
2	C32,C59	.033J	56-0009	.033 uF Cap 50V 5% Poly Film 333J ammo
1	C34	470M25E	60-0058	470 uF Cap 25V -20/+20% Elect
1	C39	1000ME	60-0064	1000 uF Cap 16V -20/+20% Elect
2	C40,C69	22PJD7	62-3134	22 pF Cap 50V 5% Cerm, SMT 0805
1	C60	10KT	62-0163	10 uF Cap 16V 10% Tantalum T&R
1	D1	LEDG702062	70-2062	LED Green, T1 Case (HAND STUFF ONLY)
1	D2	LEDR702061	70-2061	LED Red, T1 Case (HAND STUFF ONLY)
5	D3,D4,D6,D7,D8	1N4148R	70-0004	1N4148 Diode Silicon Switching, 75 Volts PIV, RADIAL
1	D5	LEDR702113	70-2113	Red Light Emitting Diode, T1 (AUTO INSERT)
2	D10,D12	1N4001R	70-0000	1N4001 Silicon Rectifier, 1 Amp, 50 Volts PIV, RADIAL
4	H1,H2,H3,H4	PA2	00-0000	1 Pin Pad Pattern, Not a part
1	H5	PA1	00-0000	1 Pin Pad Pattern, Not a part
1	HS1	HS704215	70-4215	Heatsink, PCB Mount, Vert., for TO-220
3	J1,J2,J3	J320119	32-0119	1/4 Phone Jack, Hor. Mount, Full Nose Thread Slimline
1	J4	J320089	32-0089	Barrel Jack, Hor. PCB Mount, 2.5/5.5mm
4	L1,L2,L3,L6	FB260217	26-0217	Ferrite Bead, 2.5Kohms @70Mhz, SMT 0805
2	L4,L5	FB260215R	26-0215	Ferrite Bead, 70ohms @100Mhz, RADIAL
2	LS1,LS2	LS281012	28-1012	Led Standoff, 0.080" Tall, Sqare for T-1 Leds, 1 Pos.
1	P1	100K402030	40-2030	100 K "W" 12mm, Rot Pot, 25mm D Shaft Hor
1	PCB1	80-6284-A	80-6284-A	XP123 MAIN PCB, RAW
3	Q1,Q3,Q4	2N4124	70-1009	2N4124 NPN, Gen. Purp. Amplifier/Switching Xstr T&R
1	Q2	LPT80A-H	70-2010	Photo Transistor, Horizontal (LPT80-A)
19	Q5,U8,S9,U9,Q10,U13,S16, U16,S17,U17,S18,U18,R47, C61,C63,C64,C65,R87,R89	OMIT	00-0000	This part has been omitted
2	Q6,Q7	J113	70-1011	J113A JFET, N-Channel, RDS(on) <80 Ohm, VGS(off)
2	Q8,Q9	2N4125	70-1008	2N4125 PNP, Gen. Purp. Amplifier/Switching Xstr
6	R1,R46,R75,R77,R86,R88	470K-7	50-1523	470 KOhm Resistor 5% 1/10 Watt TF, SMT 0805
19	R2,R6,R10,R11,R14,R15, R20,R35,R39,R40,R41,R42, R56,R57,R58,R59,R60,R74, R76	10K-7	50-1503	10 KOhm Resistor 5% 1/10 Watt TF, SMT 0805
7	R3,R12,R18,R27,R71,R72, R73	22K-7	50-1522	22 KOhm Resistor 5% 1/10 Watt TF, SMT 0805
4	R4,R19,R32,R67	62K-7	50-1501	62 KOhm Resistor 5% 1/10 Watt TF, SMT 0805

Bill Of Materials		December 1, 1999	16:21:09				
Quan	Reference	Part	SYMAN	Description			
1	R5	3.3K-7	50-1525	3.3 KOhm Resistor	5%	1/10 Watt	TF, SMT 0805
4	R7,R29,R31,R70	4.7K-7	50-1509	4.7 KOhm Resistor	5%	1/10 Watt	TF, SMT 0805
1	R8	1K-7	50-1505	1 KOhm Resistor	5%	1/10 Watt	TF, SMT 0805
10	R9,R34,R43,R51,R52,R53, R54,R55,R65,R82	100-7	50-1515	100 Ohm Resistor	5%	1/10 Watt	TF, SMT 0805
2	R13,R28	20K-7	50-1507	20 KOhm Resistor	5%	1/10 Watt	TF, SMT 0805
10	R16,R17,R36,R37,R44,R45, R61,R62,R63,R64	330-7	50-1517	330 Ohm Resistor	5%	1/10 Watt	TF, SMT 0805
1	R21	7.5K-7	50-1521	7.5 KOhm Resistor	5%	1/10 Watt	TF, SMT 0805
2	R22,R24	51-7	50-1524	51 Ohm Resistor	5%	1/10 Watt	TF, SMT 0805
5	R23,R25,R26,R66,R83	100K-7	50-1504	100 KOhm Resistor	5%	1/10 Watt	TF, SMT 0805
1	R30	0-7	50-1531	0 Ohm Resistor	5%	1/10 Watt	TF, SMT 0805
2	R33,R80	47K-7	50-1502	47 KOhm Resistor	5%	1/10 Watt	TF, SMT 0805
2	R38,R50	10-7	50-1500	10 Ohm Resistor	5%	1/10 Watt	TF, SMT 0805
2	R48,R49	750-7	50-1530	750 Ohm Resistor	5%	1/10 Watt	TF, SMT 0805
1	R68	220K-7	50-1514	220 KOhm Resistor	5%	1/10 Watt	TF, SMT 0805
1	R69	33K-7	50-1512	33 KOhm Resistor	5%	1/10 Watt	TF, SMT 0805
2	R78,R79	470-7	50-1518	470 Ohm Resistor	5%	1/10 Watt	TF, SMT 0805
1	R81	680-7	50-1511	680 Ohm Resistor	5%	1/10 Watt	TF, SMT 0805
2	R84,R85	1M-7	50-1506	1 MOhm Resistor	5%	1/10 Watt	TF, SMT 0805
1	S19	DIP18S	70-3160	18 Pin Dip Socket			
2	SW1,SW2	SW440032	44-0032	Lite Touch Switch For FX/PDS			
1	SW3	SW440167	44-0167	Lite Touch Switch, Right Angle			
2	TP1,TP2	TESTP	00-0000	Test point, Standard			
4	U1,U5,U22,U23	LF353/SM	72-4032	LF353M Dual Op-Amp, SMT			
1	U2	NJM4560/SM	72-4233	NJM4560 Dual Op-Amp, SMT SOIC			
1	U3	CS5330	72-3022	CS5330, 18 nit, Stereo A/D Converter, SMT			
1	U4	CS4330/SM	72-5412	CS4330, Stereo D/A Converter, SMT			
1	U6	74HC574/SM	72-1263	Octal D-Type Edge Triggered Flip-Flops, SMT			
2	U7,U11	7805-V	70-4014	7805 +5 Volt 1 Amp Voltage Regulator	TO-220	VERT	
1	U10	83C154/SM	72-1437	Masked Microcontroller for XP100, SMT			
1	U12	DS702178	70-2178	Display, Dual 7-segment, green			
1	U14	74AC04/SM	72-5426	74AC04, Hex Inverter, SMT			
1	U15	TMS57070	72-3042	TMS57070 in QFP100 SPECIAL FOOTPRINT, SMT			
1	U19	4464-100	72-3149-10	4464, 64K X 4 Dynamic RAM -100ns LH2464			
1	U20	79L05	70-4127	79L05 -5 Volt 100 mA Voltage Regulator	TO-92		
1	U21	93C46	72-3029	EEPROM NMC93C46 1K Bit Serial, SMT			
1	W3	W361040	36-1040	Wire, 2 End, 3.00", Grey, 26AWG PVC			
1	W4	W361047	36-1047	Wire, 2 End, 4.00", Red, 26AWG PVC			
3	WA1,WA2,WA3	WA280187	28-0187-A	Washer, for grounding J320119			
1	WR1	W361142A	36-1142-A	Wire, 2 End, 3.00", RED, 24AWG, stripped, tinned			
1	WR2	W361141A	36-1141-A	Wire, 2 End, 3.00", BLK, 24AWG, stripped, tinned			
1	X1	12.00 MHZ-	76-0338	12.00 MHZ Crystal, HORIZ			