

Handbook for

B032

DUAL PILOT TONE GENERATOR CARD

WHEN USING THE VBI30 BACK
WITH A B032

- MIX INPUT IS ON "A OUT"
- OUT (LOW Z) IS ON "A1 IN"
- OUT (HIGH Z) IS ON "A2 IN"

26 WAY 'D' TYPE,

1. 0V CTL.
2. +12V CTL.
3. PILOT ON (ACT LOW)
4. PILOT ON (ACT HIGH)
5. 0V CTL.
6. +12V CTL.
7. GATE ON (ACT LOW)
8. GATE ON (ACT HIGH)
9. 0V
10. LOCAL SELECTED
11. 0V
12. REMOTE SELECTED

PILOT TONE GENERATOR B032
Edge Connector Details

PIN	SIGNAL A	SIGNAL B	SIGNAL C
1	PWR 0V ... <13>		
2	0V	MIX IN-C ... <AoutN>	MIX IN-H ... <AoutP>
3	0V	0V	0V
4	0V	OUT-C (LOW Z) ... <A1inN>	OUT-H (LOW Z) ... <A1inP>
5	0V	0V	0V
6	0V	OUT-C (HIGH Z) ... <A2inN>	OUT-H (HIGH Z) ... <A2inP>
7	0V	0V	0V
8	+V	+V	+V
9	0V	0V	0V
10			
11	0V	0V CTL ... <1>	+12V CTL ... <2>
12	0V	PILOT ON (ACT LOW) ... <3>	PILOT ON (ACT HIGH) ... <4>
13	0V	0V CTL ... <5>	+12V CTL ... <6>
14	0V	GATE ON (ACT LOW) ... <7>	GATE ON (ACT HIGH) ... <8>
15	0V	0V ... <9>	LOCAL SELECTED ... <10>
16	0V	0V ... <11>	REMOTE SELECTED ... <12>
17		<<0V>>	
18	<<SEL>>	<<SDA>>	<<SCL>>
19		<<0V>>	
20	0V	SPARE	SPARE
21	0V	SPARE	SPARE
22	0V	SPARE	SPARE
23	0V	SPARE	SPARE
24	0V	SPARE	SPARE
25	0V	SPARE	SPARE
26	0V		
27	0V		
28	0V		
29	0V		
30	0V		
31	0V		
32	PWR 0V ... <14>		

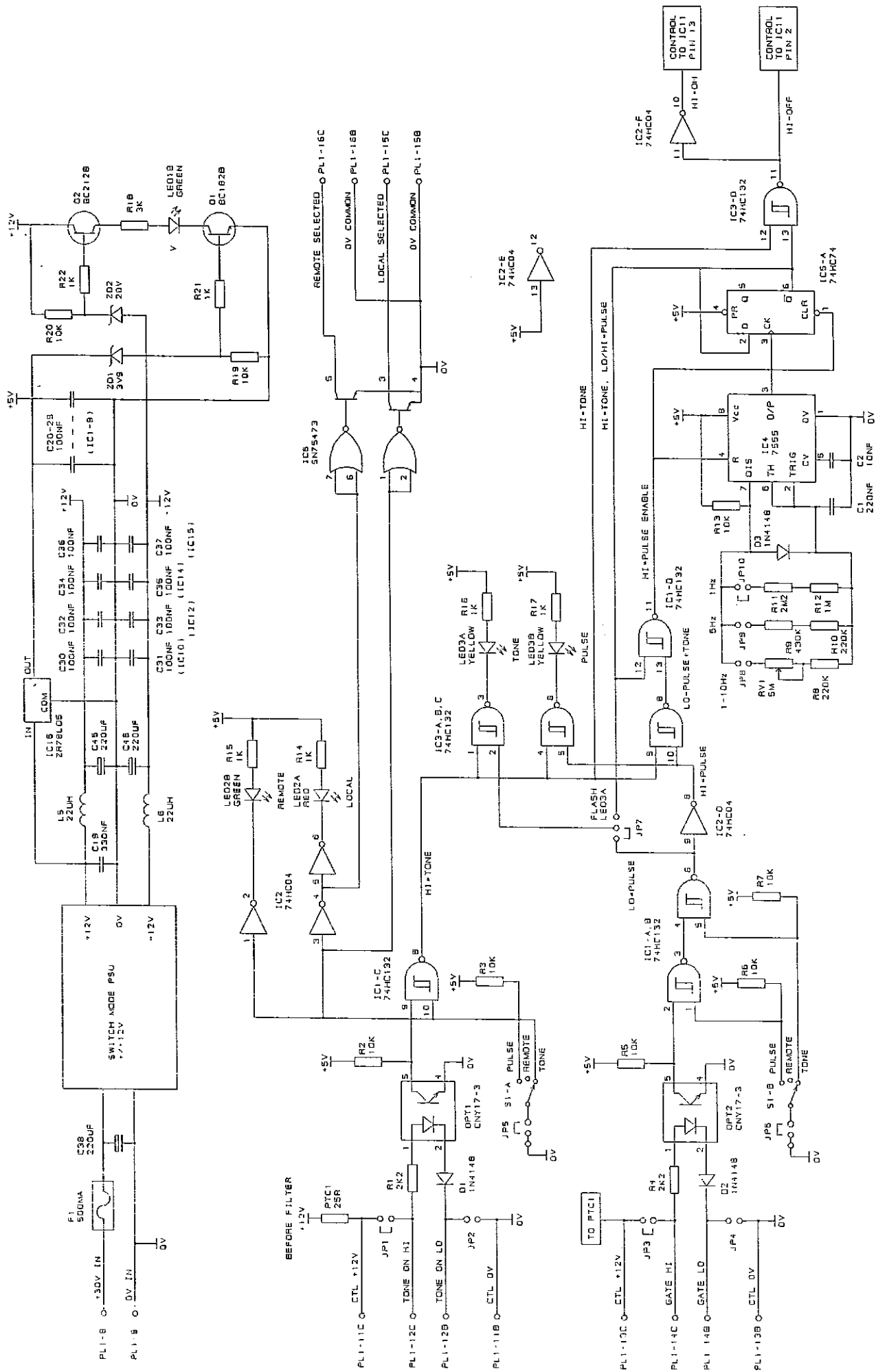
<< >> Indicates pins which not connected on the pcb but are reserved signals.

< > Indicates connector numbers (26 Way) when using a VB130 back.

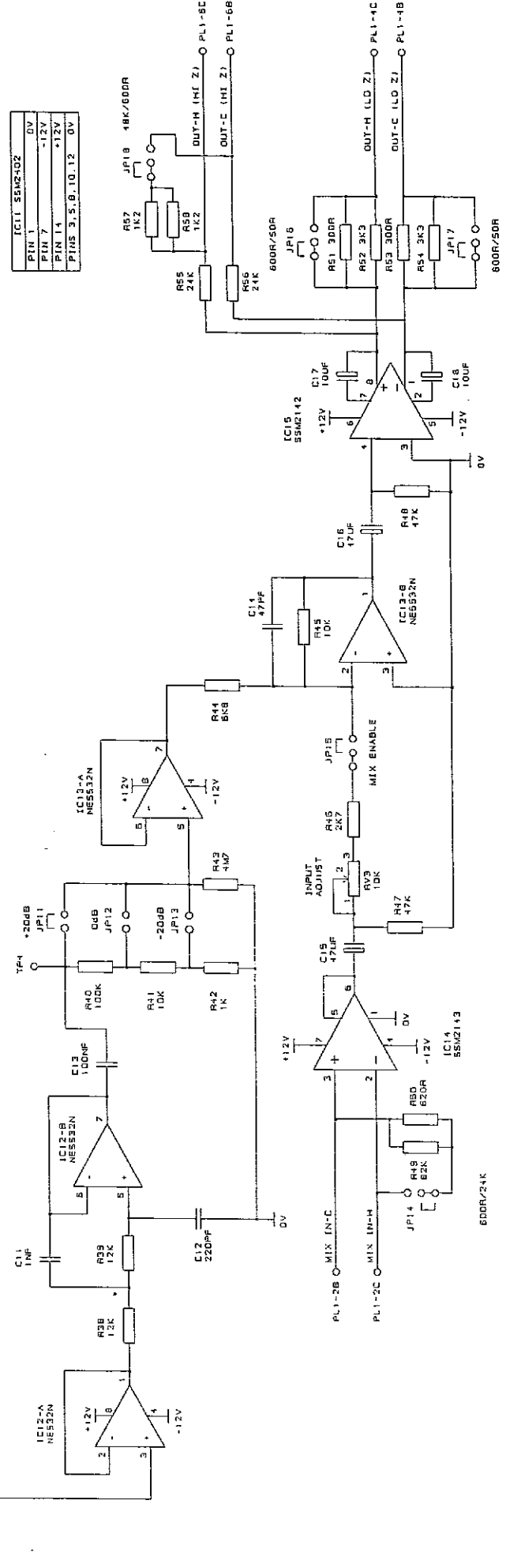
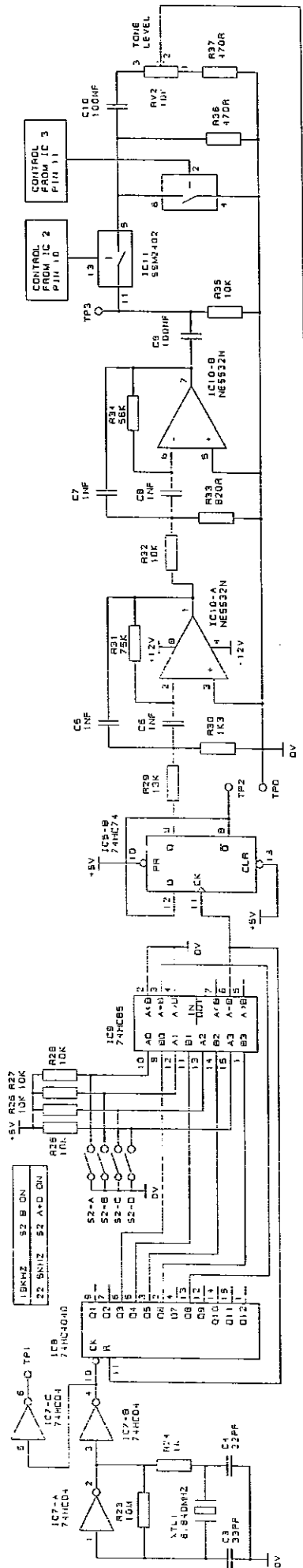
PILOT TONE GENERATOR B032
External User Connector Details - Balanced Audio and Control
Avitel Back - AMC 3339K

PIN	SIGNAL A	SIGNAL B	SIGNAL C
1	0V SCREEN	MIX IN-C	MIX IN-H
2	0V SCREEN	MIX IN-C	MIX IN-H
3	0V SCREEN	0V	0V
4	0V SCREEN	OUT-C (LOW Z)	OUT-H (LOW Z)
5	0V SCREEN	0V	0V
6	0V SCREEN	OUT-C (HIGH Z)	OUT-H (HIGH Z)
7	0V SCREEN	0V	0V
8	0V SCREEN	0V CTL	+12V CTL
9	0V SCREEN	PILOT ON (ACT LOW)	PILOT ON (ACT HIGH)
10	0V SCREEN	0V CTL	+12V CTL
11	0V SCREEN	GATE ON (ACT LOW)	GATE ON (ACT HIGH)
12	0V SCREEN	0V	LOCAL SELECTED
13	0V SCREEN	0V	REMOTE SELECTED
14	0V SCREEN		
15	0V SCREEN	0V	
16	0V SCREEN	0V	
17	0V SCREEN		
18	0V SCREEN		
19	0V SCREEN		
20	0V SCREEN		
21	0V SCREEN		
22	0V SCREEN		
23	0V SCREEN		
24	0V SCREEN		
25	0V SCREEN		
26	0V SCREEN		
27	0V SCREEN		
28	0V SCREEN		
29	0V SCREEN		
30	0V SCREEN		
31	0V SCREEN		
32	0V SCREEN		

Local Selected and Remote Selected are active low open collector outputs.

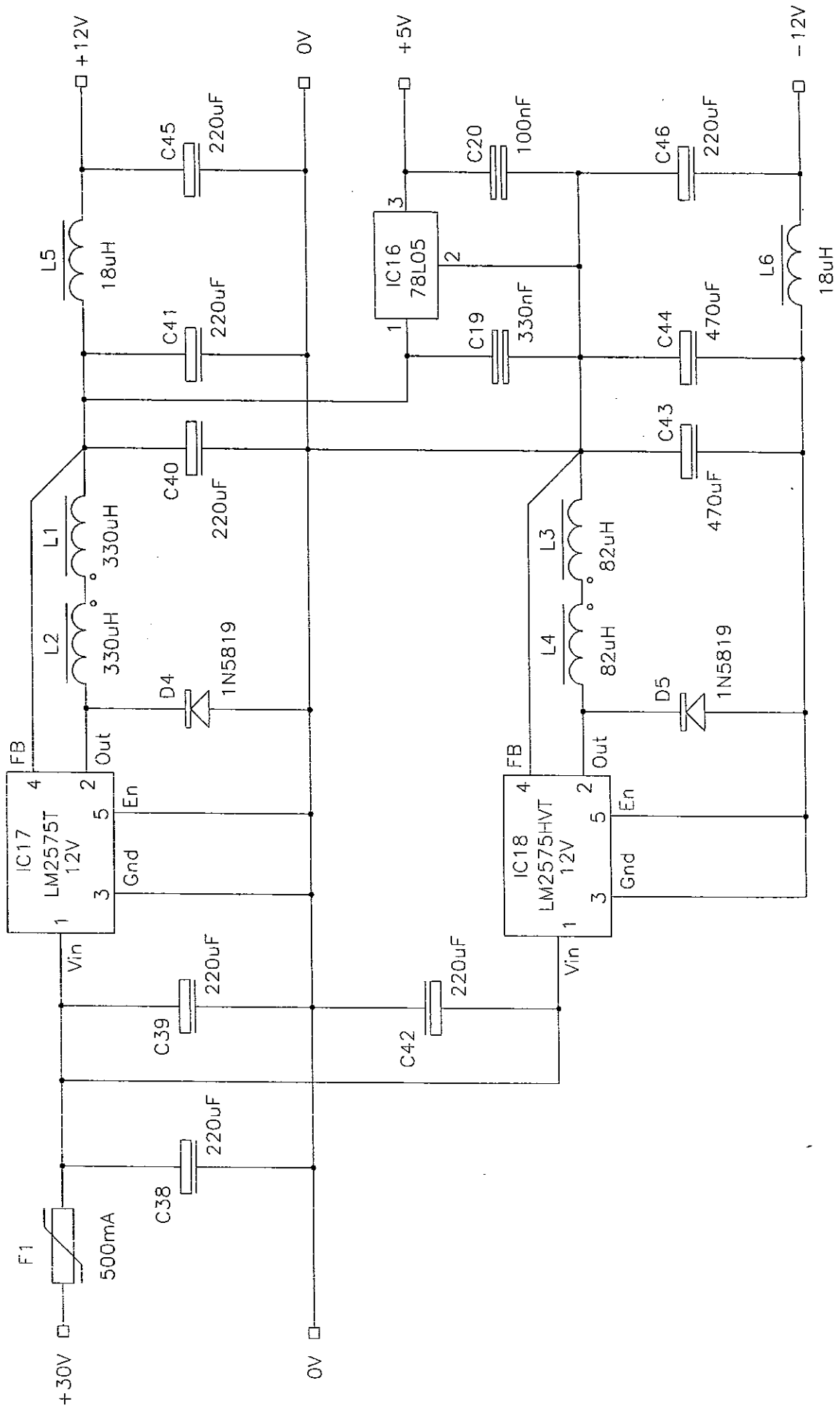


DRAWN: 7-5-98 NH
SECOND BASE
 19/22.5KHZ PILOT TONE GENERATOR AND MIXER
 299-022-010 PAGE 1 OF 2



DRAWN: 3-5-95 NII
SECOND BASE
 19/22.5KHZ PILOT TONE GENERATOR AND MIXER
 239-033-010
 PAGE 2 OF 2

PSU FOR PILOT TONE GENERATOR (dbavps5.dwg)



19/22.5KHz PILOT TONE GENERATOR 239-032-010 (B032)

Comp. Ref.	Description	Value	Part No.	Supplier	Qty.
Resistors:-					
R1,4	Metal Film 0.6 Watt 1%	2K2	336-026	FEC	2
R2,3,5-7,13,19,20, 25-28,32,35,41,45	Metal Film 0.6 Watt 1%	10K	336-180	FEC	16
R8,10	Metal Film 0.6 Watt 1%	220K	336-506	FEC	2
R9	Metal Film 0.6 Watt 1%	430K	336-579	FEC	1
R11	Metal Film 0.6 Watt 1%	2M2	336-749	FEC	1
R12	Metal Film 0.6 Watt 1%	1M	336-660	FEC	1
R14-17,21,22,24,4	Metal Film 0.6 Watt 1%	1K	335-940	FEC	8
R18	Metal Film 0.6 Watt 1%	3K	336-051	FEC	1
R23	Metal Film 0.6 Watt 1%	10M	336-907	FEC	1
R29	Metal Film 0.6 Watt 1%	13K	336-210	FEC	1
R30	Metal Film 0.6 Watt 1%	1K3	335-976	FEC	1
R31	Metal Film 0.6 Watt 1%	75K	336-397	FEC	1
R33	Metal Film 0.6 Watt 1%	820R	335-927	FEC	1
R34	Metal Film 0.6 Watt 1%	56K	336-361	FEC	1
R36,37	Metal Film 0.6 Watt 1%	470R	335-850	FEC	2
R38,39	Metal Film 0.6 Watt 1%	12K	336-208	FEC	2
R40	Metal Film 0.6 Watt 1%	100K	336-427	FEC	1
R43	Metal Film 0.6 Watt 1%	4M7	336-828	FEC	1
R44	Metal Film 0.6 Watt 1%	6K8	336-142	FEC	1
R46	Metal Film 0.6 Watt 1%	2K7	336-040	FEC	1
R47,48	Metal Film 0.6 Watt 1%	47K	336-348	FEC	2
R49	Metal Film 0.6 Watt 1%	82K	336-403	FEC	1
R50	Metal Film 0.6 Watt 1%	620R	335-897	FEC	1
R51,53	Metal Film 0.6 Watt 1%	300R	335-800	FEC	2
R52,54	Metal Film 0.6 Watt 1%	3K3	336-063	FEC	2
R55,56	Metal Film 0.6 Watt 1%	24K	336-270	FEC	2
R57,58	Metal Film 0.6 Watt 1%	1K2	335-964	FEC	2
RV1	Bourns Pot 3296W-5M	5M	476-274	FEC	1
RV2	Spectrol Pot 43P-10K	10K	349-410 (039072C)	FEC (FES)	1
RV3	Bourns Pot 3296W-10K	10K	347-863 (005691X)	FEC (FES)	1
PTC1	PTC Resistor	25R	478-090	FEC	1

Comp. Ref.	Description	Value	Part No.	Supplier	Qty.
Capacitors:-					
C1	Polyester 100V 5%	220nF	116-004	RS	1
C2	Polyester 250V 370 Series	10nF	577-698	FEC	1
C3	Ceramic 100V 683 Series	33pF	303-471	FEC	1
C4,14	Ceramic 100V 683 Series	47pF	303-495	FEC	2
C5-8	Polypropylene 400V 1%	1nF	106-794	FEC	4
C9,10,13,20-37	Polyester 63V 370 Series	100nF	303-896	FEC	21
C11	Polycarbonate 100V	1nF	147-665	FEC	1
C12	Ceramic 100V 683 Series	220pF	303-574	FEC	1
C15,16	Non-polarised 16V	47uF	768-756	RS	2
C17,18	Non-polarised 35V	10uF	768-762	RS	2
C19	Polyester 63V 370 Series	330nF	303-926	FEC	1
C38,39,42,45,46	Electrolytic 35V	220uF	228-667	FEC	5
C40,41	Electrolytic 35V	220uF	580-545	FEC	2
C43,44	Electrolytic 25V	470uF	580-508	FEC	2
Semiconductors:-					
IC1,3	Quad Dual Input NAND	74HC132	378-471	FEC	2
IC2,7	Hex Inverter	74HC04	378-252	FEC	2
IC4	CMOS Timer	ICM7555	ICM7555CN	FEC	1
IC5	Dual D-Type Flip-Flop	74HC74	378-379	FEC	1
IC6	Dual Peripheral Driver	75473	SN75473P	FEC	1
IC8	Divider	74HC4040	379-062	FEC	1
IC9	Magnitude Comparator	74HC85	380-489	FEC	1
IC10,12,13	Dual Low Noise Op-Amp	5532N	NE5532N	FEC	3
IC11	Dual Audio Switch	SSM2402	411-400	RS	1
IC14	Balanced Audio Input	SSM2143	284-680	RS	1
			(SSM2143P)	(FEC)	
IC15	Balanced Audio Driver	SSM2142	296-633	RS	1
			(SSM2142P)	(FEC)	
IC16	5V Regulator	78L05	ZR78L05C	FEC	1
IC17	12V Regulator	2575T12	LM2575T12	FEC	1
IC18	12V Regulator (HV)	2575HVT12	LM2575HVT12	Macro	1
OPT1,2	Opto-Isolator	CNY17-3	326-136	FEC	2
Q1	NPN Transistor	BC182B	BC182B	FEC	1
Q2	PNP Transistor	BC212B	BC212B	FEC	1
D1-3	Diode	1N4148	1N4148	FEC	3
D4,5	Diode	1N5819	1N5819	FEC	2
ZD1	Zener Diode	3V9	BZX79C3V9	FEC	1
ZD2	Zener Diode	20V	BZX79C20	FEC	1
LED1B,2B	LED	Green	322-570	FEC	2
LED2A	LED	Red	322-556	FEC	1
LED3A,3B	LED	Yellow	322-568	FEC	2

Comp. Ref.	Description	Value	Part No.	Supplier	Qty.
Miscellaneous:-					
S1	2 Pole 3 Position Switch	-	410850B	FES	1
S2	4 Pole DIL Switch	-	285-950	FEC	1
XTAL1	6.840 MHz crystal	6.840MHz	HC49-6.84	Piezo	1
L1,2	Inductor	330uH	439134	Bonex	2
L3,4	Inductor	82uH	431820	Bonex	2
L5,6	Inductor	22uH	431220	Bonex	2
F1	Bourns Multifuse MFR050	0.5A	106-738	FEC	1
SKT1-3,5,7,11	14 Pin IC Socket	-	050737X	FES	6
SKT4,6,10,12-15	8 Pin IC Socket	-	050736B	FES	7
SKT8,9	16 Pin IC Socket	-	050738R	FES	2
CONN1	Class 2 DIN 41612	96/abc	039552D	FES	1
JP1-4	2 Pin Jumper Strip	2 Pin	512-035	FEC	4
JP5-6,8-10,11-13, 16-17	3+3 Pin Jumper Strip	3+3 Pin	512-102	FEC	4
JP7,14,15,18	3 Pin Jumper Strip	3 Pin	512-047	FEC	4
JUMPERS	Jumper Links	Grey	150-412	FEC	13
FRAME	Frame Kit	-	FK1	Avitel	1
FRONT	Front Panel B032	-	FP-B032	Second Base	1
PCB	PCB	-	239-032-010	ABL	1