

SONODYNE INTERNATIONAL LIMITED (BOMBAY)

PARTS LIST FOR THE MODEL - PS 405D

(B/N 511447)

ITEM CODE	ITEM DESCRIPTION	ITEM UNIT	QUANTITY
2000000001	SOLDER WIRE RESIN CORE 1MM 60/40	KG	0.0150
2000000002	SOLDER BAR 63/37	KG	0.0150
2000000003	BANANA JACK TERMINALS (RED)	PC	1.0000
2000000004	BANANA JACK TERMINALS (BLUE)	PC	1.0000
2000000005	BANANA JACK TERMINALS (YELLOW)	PC	1.0000
2111310822	RESISTOR C.F.R. 1W, 5%, 8K2	PC	1.0000
2111380101	RESISTOR C.F.R. 1/4W, 5%, 100E	PC	6.0000
2111380103	RESISTOR C.F.R. 1/4W, 5%, 10K	PC	9.0000
2111380104	RESISTOR C.F.R. 1/4W, 5%, 100K	PC	2.0000
2111380122	RESISTOR C.F.R. 1/4W, 5%, 1K2	PC	1.0000
2111380152	RESISTOR C.F.R. 1/4W, 5%, 1K5	PC	1.0000
2111380221	RESISTOR C.F.R. 1/4W, 5%, 220E	PC	1.0000
2111380332	RESISTOR C.F.R. 1/4W, 5%, 3K3	PC	5.0000
2111380333	RESISTOR C.F.R. 1/4W, 5%, 33K	PC	5.0000
2111380472	RESISTOR C.F.R. 1/4W, 5%, 4K7	PC	5.0000
2111380473	RESISTOR C.F.R. 1/4W, 5%, 47K	PC	1.0000
2111380563	RESISTOR C.F.R. 1/4W, 5%, 56K	PC	1.0000
2111390221	RESISTOR C.F.R. 1/2W, 5%, 220E	PC	1.0000
2111390390	RESISTOR C.F.R. 1/2W, 5%, 39E	PC	1.0000
2111450228	W/W RESISTORS 0.22E 5W	PC	1.0000
2112110203	C.F.PRESET 20% (HQRZ) 20K OHMS	PC	1.0000
2121210100	ELEC.CAP. 10MFD, 16V	PC	2.0000
2121210101	ELEC.CAP. 100MFD, 16V	PC	2.0000
2121210102	ELEC.CAP. 1000MFD, 16V	PC	1.0000
2121210221	ELEC.CAP. 220MFD, 16V	PC	2.0000
2121230101	ELEC.CAP. 100MFD, 35V	PC	1.0000
2121230221	ELEC.CAP. 220MFD, 35V	PC	1.0000
2121230471	ELCO.CAP. 470MFD, 35V	PC	1.0000
2121250101	ELEC.CAP. 100MFD, 50V	PC	2.0000
2121270682	ELCO.CAP. 6800MFD, 80V	PC	1.0000
2121280010	ELCO.CAP. 1MFD, 100V	PC	1.0000
2122250017	CER.DISC CAP. 1 KPF, 50V	PC	1.0000
2122250018	CER.DISC CAP. 10 KPF, 50V	PC	5.0000
2133440002	DIODE 1N4002	PC	12.0000
2133560003	DIODE LT 6A03 6A/300V	PC	1.0000
2134000102	BRIDGE RECTIFIER PBPC 1003 10A, 200V	PC	1.0000
2136090120	DIODE ZENER 1/2W, 12.0V	PC	1.0000
2136090629	DIODE ZENER 1/2W, 6.2V	PC	3.0000
2136090919	DIODE ZENER 1/2W, 9.1V	PC	2.0000
2137200005	LED 5mm DIA (RED)	PC	1.0000
2137400005	LED 5 MM YELLOW	PC	1.0000
2137500005	LED 5 MM GREEN	PC	1.0000
2141130773	TRANSISTOR 2N3773, TO-3	PC	2.0000
2141300031	TRANSISTOR TIP 31C, TO-220	PC	1.0000
2144200468	TRANSISTOR 2SD468C, TO-92	PC	2.0000
2144220236	TRANSISTOR 2SC2236, TO-92	PC	1.0000
2151200336	LM336 REF IC (2.5V) TO-92	PC	1.0000
2151370812	I.C. REGULATOR 7812 TO-220	PC	1.0000
2152810458	I.C. DUAL OPAMP 1458 DIP 8 PIN (HA17458)	PC	2.0000
2191160169	ENAMELLED COPPER WIRE 1.60, 16#	KG	0.2500
2191200099	ENAMELLED COPPER WIRE 0.90, 20#	KG	0.5150
2191320278	ENAMELLED COPPER WIRE 0.27, 32#	KG	0.0200
2192160200	HOOK UP WIRE 16# BLACK	MT	0.2200

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ITEM CODE	ITEM DESCRIPTION	UNIT	QUANTITY
2192160202	HOOK UP WIRE 16# RED	MT	0.4600
2192160203	HOOK UP WIRE 16# ORANGE	MT	0.2400
2192160204	HOOK UP WIRE 16# YELLOW	MT	0.2400
2192160206	HOOK UP WIRE 16# BLUE	MT	0.4400
2192160209	HOOK UP WIRE 16# WHITE	MT	0.7400
2192200401	HOOK UP WIRE 20# BROWN	MT	0.4700
2192200406	HOOK UP WIRE 20# BLUE	MT	0.4400
2192240200	HOOK UP WIRE 24# BLACK	MT	1.5200
2192240202	HOOK UP WIRE 24# RED	MT	1.7700
2192240204	HOOK UP WIRE 24# YELLOW	MT	2.4200
2192240205	HOOK UP WIRE 24# GREEN	MT	0.2000
2192240206	HOOK UP WIRE 24# BLUE	MT	0.5200
2192240209	HOOK UP WIRE 24# WHITE	MT	1.0200
2311220306	SCREW YELLOW PTD. M3 x 6 S/T	PC	8.0000
2311320310	SCREW YELLOW ZINC PTD. M3 x 10 PH	PC	2.0000
2311320320	SCREW YELLOW ZINC PTD. M3 x 20 PH	PC	4.0000
2311320512	SCREW YELLOW ZINC PTD. M5 x 12 PH	PC	4.0000
2312320318	SCREW NICKEL PTD. M3 x 18 PH	PC	4.0000
2312340308	SCREW NICKEL PTD. M3 x 8 CSK	PC	2.0000
2312420306	SCREW M3 x 6 CTIGHT WHITE ZINC	PC	12.0000
2313320310	SCREW M3 x 10 BRASS NICKEL PLATED	PC	1.0000
2316320310	SCREW BLK OXIDISED M3 x 10 PH	PC	8.0000
2316420306	SCREW M3 x 6 CTIGHT BLACK	PC	5.0000
2321000003	NUT HEX. YELLOW ZINC M3	PC	18.0000
2321000005	NUT HEX. YELLOW ZINC M5	PC	8.0000
2323000003	NUT HEX. BRASS NICKEL PTD. M3	PC	2.0000
2331110308	FLAT WASHER YELLOW PTD. M3 x 8 x 0.5	PC	9.0000
2331110310	FLAT WASHER YELLOW PTD. M3 x 10 x 0.5	PC	1.0000
2331200003	SPRING WASHER YELLOW ZINC M3	PC	16.0000
2331200005	SPRING WASHER YELLOW ZINC M5	PC	4.0000
2331320003	STAR WASHER YELLOW ZINC EXTERNAL M3	PC	2.0000
2332110308	FLAT WASHER NICKEL PTD. M3 x 8 x 0.8	PC	11.0000
2332320003	STAR WASHER WHITE ZINC EXTERNAL M3	PC	12.0000
2335320003	STAR WASHER BLACK EXTERNAL M3	PC	12.0000
2341240055	BOBBIN JSB-02 114 x 55	PC	1.0000
2344400527	FUSE HOLDER MF-527	PC	1.0000
2344530250	EMI FILTER WITH AC SOCKET	PC	1.0000
2511110023	ROCKER SWITCH 6A/250V	PC	1.0000
2522120012	RELAY 12V DC	PC	2.0000
2531000114	LAMINATION EI. 114 (50RM400)	KG	3.6000
2542000003	THERMAL FUSE 130/X-24	PC	1.0000
2542100012	THERMAL CKT. BKR. TPR(D) (THERMOSTAT)	PC	1.0000
2563000128	3.5 DIGIT .5" DPM/LCD PM-128	PC	2.0000
3000000035	CHASSIS FABRICATION 405D	PC	1.0000
4000000035	COVER FABRICATION 405D	PC	1.0000
5000000035	DIAL FABRICATION 405D	PC	1.0000
6000000035	CHASSIS POWDER COATING 405D	PC	1.0000
7000000035	COVER POWDER COATING 405D	PC	1.0000
8000000035	DIAL POWDER COATING 405D	PC	1.0000
9000000035	HEAT SINK ANODISING 405D	PC	1.0000
9111380101	RESISTOR 1/4W S.F.R. 5% 100 OHMS	PC	1.0000
9111380104	RESISTOR 1/4W S.F.R. 5% 100K	PC	1.0000
9111380152	RESISTOR 1/4W S.F.R. 5% 1K50HMS	PC	1.0000

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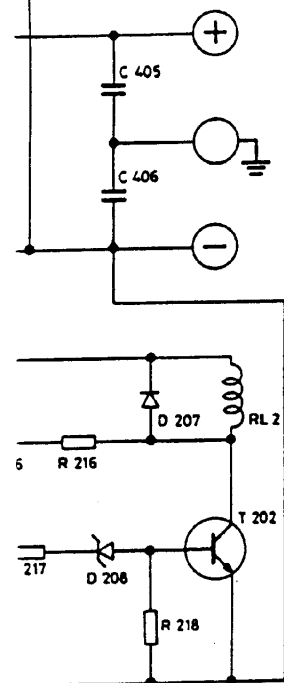
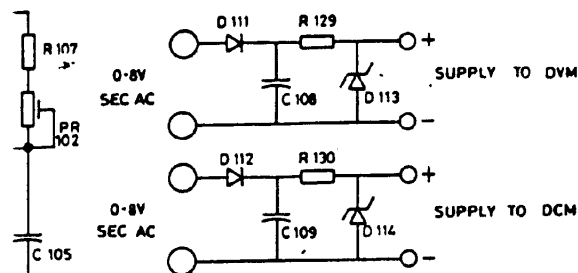
ITEM CODE	ITEM DESCRIPTION	ITEM UNIT	QUANTITY
9111380182	RESISTOR 1/4W S.F.R. 5% 1KB	PC	1.0000
9111380221	RESISTOR 1/4W S.F.R. 5% 200OHMS	PC	1.0000
9111380224	RESISTOR 1/4W S.F.R. 5% 220K	PC	1.0000
9111380331	RESISTOR 1/4W S.F.R. 5% 330OHMS	PC	1.0000
9111380332	RESISTOR 1/4W S.F.R. 5% 3K3	PC	1.0000
9111380333	RESISTOR 1/4W S.F.R. 5% 33K	PC	2.0000
9111380471	RESISTOR 1/4W S.F.R. 5% 470OHMS	PC	1.0000
9111380561	RESISTOR 1/4W S.F.R. 5% 560E	PC	1.0000
9111380682	RESISTOR 1/4W S.F.R. 5% 6K8OHMS	PC	1.0000
9112210221	CERACARB PRESET (HORZ) 220 OHMS	PC	1.0000
9113100102	POT. 23mm LIN. SHAFT 20mm WITH FLAT 1K	PC	1.0000
9113100103	POT. 23mm LIN. SHAFT 20mm WITH FLAT 10K	PC	1.0000
9113100104	POT. 23mm LIN. SHAFT 20mm WITH FLAT 100K	PC	1.0000
9125720227	CAPACITOR 0.22MFD 100V. MET.POLY.	PC	1.0000
9172100001	PCB PS4 VAR.	PC	1.0000
9172100002	PCB DPM	PC	1.0000
9311320565	SCREW YELLOW ZINC M5x65	PC	2.0000
9311320570	SCREW YELLOW ZINC M5x70	PC	2.0000
9312340310	NICKEL PTD. M3x10 C.S.K.	PC	2.0000
9331120512	FLAT WASHER YELLOW PTD. M5 x 12 x 1.0	PC	12.0000
9340060012	6MM PLASTIC SPACERS	PC	2.0000
9340300003	TO - 3 INSULATING BASE	PC	2.0000
9340400003	MICA WASHER TO - 3	PC	2.0000
9342000001	PLASTIC CLAMP BIG	PC	2.0000
9344100005	5 MM LED HOLDER	PC	3.0000
9344110005	L.E.D. HOLDER	PC	3.0000
9345400019	PUSH FIT LEGS PVC 19 MM	PC	4.0000
9346160000	POT. KNOB (PLASTIC)	PC	3.0000
9351410114	TRANSFORMER CLAMP EI 114	SET	1.0000
9352780000	BRIDGE RECTIFIER U H/S	PC	1.0000
9352850110	HEAT SINK SEC-5110	KG	0.0250
9352880220	HEAT SINK TO 220 BLACK	PC	1.0000
9353200115	BACKLITE STRIP 20 x 115 mm	PC	1.0000
9355690302	CLEAR ACRYLIC/POLYCARBONATE 70mm x 40mm x 0.5mm	PC	2.0000
9356230114	H/S COVER BLACK 114mm	PC	2.0000
9371010604	1 MM STEEL SHEET	KG	2.7100
9372420931	HEAT SINK SEC-2931 (SUDAL)	KG	0.8100
9381120240	PRIMARY CARTON 5 FLY (2)	PC	1.0000
9384010822	PLASTIC BAG 18" x 22"	PC	1.0000
9391010400	SLEEVE FIBRE GLASS M1	MT	0.3300
9391020400	SLEEVE FIBRE GLASS M2	MT	0.1000
9391030400	SLEEVE FIBRE GLASS M3	MT	0.1000
9392020000	SLEEVE PVC 2MM BLACK	MT	0.1200
9392020200	SLEEVE PVC 2MM RED	MT	0.1200
9392030200	SLEEVE PVC 3MM RED	MT	0.1400
9541110030	FUSE 20MM 3A QUICK ACTION	PC	1.0000
9554000006	BRASS TAG 6BA	PC	3.0000
9554910006	TRANSFORMER TAGS BRASS (RIVETING)	PC	7.0000
9555010048	TERMINAL LOCAL BT10	PAIR	3.0000
9999990001	LPAD SMALL SIZE	PC	3.0000
9999990002	LPAD MEDIUM SIZE	PC	1.0000
9999990003	5 FLY COVERING PAD	PC	1.0000

SPECIFICATION OF REGULATED DC POWER SUPPLY : PS-405 D

1. INPUT VOLTAGE : 230 V $\pm$ 10%, 50 Hz
2. OUTPUT VOLTAGE : 0-40 V DC (+ 4V, - 0.0V)
3. OUTPUT CURRENT : 0.02A-5.0A DC
4. REGULATION OF OUTPUT VOLTAGE FOR 100% LOAD CHANGE : $\leq$ 30 mV
5. REGULATION OF OUTPUT VOLTAGE FOR $\pm$ 10% OF INPUT VOLTAGE CHANGE : $\leq$ 0.05%
6. OUTPUT CURRENT REGULATION FOR $\pm$ 10% OF INPUT VOLTAGE CHANGE : $\leq$ 0.05%
7. OUTPUT CURRENT REGULATION FOR 100% LOAD CHANGE : $\leq$ 20 mA
8. RIPPLE (40V/5A) AT 230 V AC : 3 mV (MAX) EFFECTIVE
9. DIMENSION (H x W x D) mm : (120 x 310 x 250)
10. WEIGHT : 7.0 Kg. APPROX.
11. MAX. INPUT POWER : 360 VA
12. MIN. DC OUTPUT VOLTAGE AT WHICH (5.0A) CAN BE LOADED : 0.8V DC

12. FEATURES :-

1. GREEN L.E.D. INDICATION FOR CV & RED L.E.D. FOR CC MODE INDICATION.
2. SEPERATE DIGITAL PANEL METERS FOR VOLTAGE AND CURRENT INDICATION.
3. THERMAL FUSE ON THE PRIMARY OF TRANSFORMER.
4. IN LINE FUSE IN SERIES WITH PRIMARY OF THE TRANSFORMER.
5. DOUBLE RELAY SWITCHOVER CKT USED TO SELECT THE SECONDARY TAPS OF TRANSFORMER TWICE THROUGHOUT THE VOLTAGE RANGE. (AT 13V & 25V)
6. A RED L.E.D. INDICATION FOR OUTPUT CUT DUE TO THE OVERHEATING OF HEATSINK. THIS OUTPUT CUT IS AUTOMATICALLY RESETABLE.
7. MAINS CORD IS NOT BEEN INCLUDED WITH THE SAMPLE.



R 101	270Ω 1/2W	R 401	0.22Ω, 5W	D 201	—
R 102	4K7	R 402	—	D 202	—
R 103	390Ω 1/2W	R 403	—	D 203	1N 4002
R 104	180K/220K/270K	R 404	0.22Ω, 5W	D 204	—
R 105	1K5			D 205	6.2V FZ
R 106	3K3			D 206	1N 4002
R 107	470Ω/560Ω/680Ω			D 207	—
R 108	33K			D 208	6.2V FZ
R 109	100Ω	C 101	220/25V		
R 110	—	C 102	1000/16V	B 401	10A RECT
R 111	—	C 103	10 KPF		
R 112	100Ω	C 104	100/35V	T 101	TIP 31A
R 113	1K2	C 105	1/63V	T 102	2 SC 2236
R 114	10K	C 106	10 KPF		
R 115	330Ω(MFR)	C 107	0.22μF/100V	T 201	2 SD 468C
R 116	—	C 110	220/35V	T 202	2 SD 468C
R 117	—	C 111	—		
R 118	1K5			T 401	7N 3773
R 119	—	C 201	470μF/35V	T 402	—
R 120	8K2 1W	C 202	100 KPF		
R 121	33K (MFR)	C 203	10/16V	IC 101	LM 336 (2.5V)
R 122	220Ω(MFR)	C 204	10/16V	IC 102A	LM 1458
R 123	470Ω(MFR)			IC 102B	—
R 124	6K8 (MFR)				
R 125	—			IC 201	7812
R 126	10K	C 401	5800/80V	IC 202	LM 1458
R 127	4K7	C 402	100/50V		
R 128	4K7	C 403	—	RL 1	12V RELAY
		C 405	10KPF	RL 2	—
		C 406	—	RL 3	THERMAL RELAY
R 201	4K7	D 101	—	F 1	3-AMPS
R 202	3K3	D 102	1N 4002	F 2	3 AMPS
R 203	10K	D 103	6.2V FZ		FAST BLOW
R 204	56K	D 104	12V FZ		
R 205	33K	D 105	LED (RED)	OPM PCB	
R 206	10K	D 106	1N 4148	R 126	100Ω 1/4W
R 207	100K	D 107	LED (GREEN)	R 127	—
R 208	3K3	D 108	—	C 108	100/16V
R 209	10K	D 109	1N 4002	C 109	—
R 210	4K7	D 110	6A 03	D 111	1N 4002
R 211	3K3	D 111	—	D 112	—
R 212	10K	D 112	—	D 113	9.1VZ
R 213	47K	D 113	—	D 114	—
R 214	10K	D 114	—		
R 215	10K	D 115	LED (RED)		
R 216	100K			RB C	33K
R 217	3K3			RA C	3K3
R 218	10K			RB V	100K
				RA V	100Ω

NOTE :

ALL RESISTORS ARE 1/4W OHMS AND CAPACITORS IN MICRO-FARAD UNLESS SPECIFIED OTHERWISE.

PR 101 - VOLTAGE ADJUST PRESET - 220Ω (CERACARB)
 PR 102 - CURRENT ADJUST PRESET - 20K
 PT 101 - VOLTAGE ADJUST POT - 10K (COARSE)
 PT 102 - VOLTAGE ADJUST POT - 1K (FINE)
 PT 103 - CURRENT ADJUST POT - 100K

SONODYNE INTL. LIMITED., SEEPZ, BOMBAY.

DATE: 5-2-96

MODEL : PS 405D

B/N 511447

DRG. NO: SIL/16/0028

DRN BY:

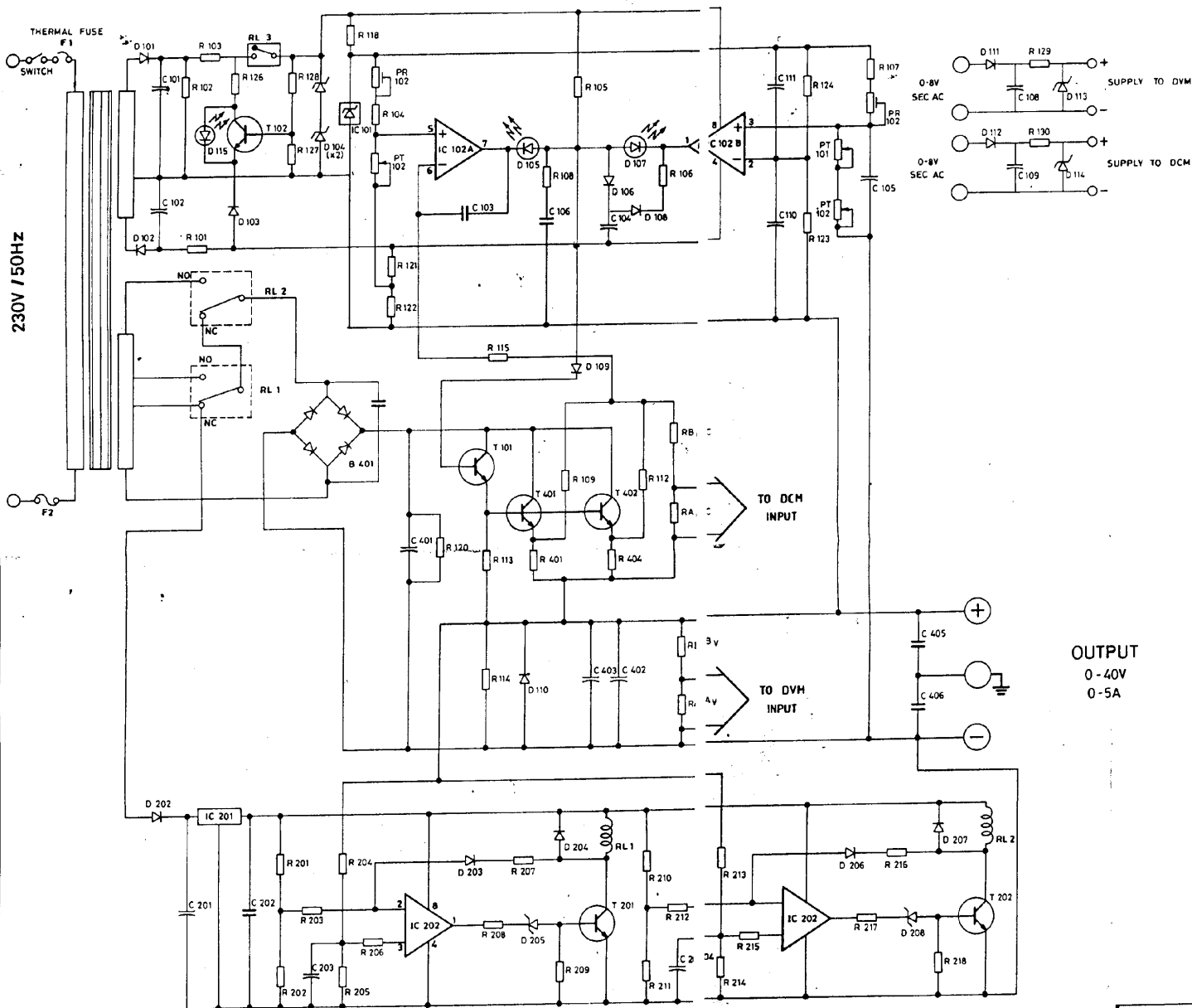
ALTAF

CHD BY:

REV DATE

REV

230V / 50Hz



R 101	220Ω 1/2W	R 401	0.22Ω, 5W	D 201	—
R 102	4K7	R 402	—	D 202	—
R 103	390Ω 1/2W	R 403	—	D 203	1N 4002
R 104	180K/220K/270K	R 404	0.22Ω, 5W	D 204	—
R 105	1K5	D 205	6.2V FZ	D 206	—
R 106	3K3	D 206	1N 4002	D 207	—
R 107	470Ω/560Ω/580Ω	D 208	6.2V FZ	D 209	—
R 108	33K	C 101	220/25V	B 401	10A RECT
R 109	100Ω	C 102	1000/16V	T 101	TIP 31A
R 110	—	C 103	10 KPF	T 102	7 SC 2236
R 111	—	C 104	100/35V	T 201	2 SD 468C
R 112	100Ω	C 105	1/63V	T 202	2 SD 468C
R 113	1K2	C 106	10 KPF	C 107	0.22μF/100V
R 114	10K	C 108	—	C 109	—
R 115	330Ω (MFR)	C 110	220/35V	C 111	—
R 116	—	C 201	470μF/35V	T 401	2N 3773
R 117	—	C 202	100 KPF	T 402	—
R 118	1K5	C 203	10/16V	IC 101	LM 336 (2.5V)
R 119	—	C 204	10/16V	IC 102A	LM 1458
R 120	8K2 1W	IC 102B	—	IC 102B	—
R 121	33K (MFR)	IC 201	7812	IC 202	LM 1458
R 122	220Ω (MFR)	RL 1	12V RELAY	RL 2	—
R 123	470Ω (MFR)	RL 3	THERMAL RELAY	—	—
R 124	6K8 (MFR)	—	—	—	—
R 125	—	—	—	—	—
R 126	10K	—	—	—	—
R 127	4K7	—	—	—	—
R 128	4K7	—	—	—	—
R 201	4K7	D 101	1N 4002	F 1	3-AMPS
R 202	3K3	D 102	—	F 2	3 AMPS
R 203	10K	D 103	6.2V FZ	—	FAST BLOW
R 204	58K	D 104	12V FZ	—	—
R 205	33K	D 105	LED (RED)	—	—
R 206	10K	D 106	1N 4148	R 126	100Ω 1/4W
R 207	100K	D 107	LED (GREEN)	R 127	—
R 208	3K3	D 108	—	C 108	100/16V
R 209	10K	D 109	1N 4002	C 109	—
R 210	4K7	D 110	6A 03	D 111	1N 4002
R 211	3K3	D 111	—	D 112	—
R 212	10K	D 112	—	D 113	9.1VZ
R 213	47K	D 113	—	D 114	—
R 214	10K	D 114	—	—	—
R 215	10K	D 115	LED (RED)	—	—
R 216	100K	—	—	RB C	33K
R 217	3K3	—	—	RA C	3K3
R 218	10K	—	—	RB V	100K
		—	—	RA V	100Ω

NOTE:

ALL RESISTORS ARE 1/4W OHMS AND CAPACITORS IN MICRO-FARAD UNLESS SPECIFIED OTHERWISE.

PR 101 - VOLTAGE ADJUST PRESET - 220 Ω (CERACARB)

PR 102 - CURRENT ADJUST PRESET - 20K

PT 101 - VOLTAGE ADJUST POT - 10K (COARSE)

PT 102 - VOLTAGE ADJUST POT - 1K (FINE)

PT 103 - CURRENT ADJUST POT - 100K

SCHEMATIC CIRCUIT DIAGRAM OF MODEL PS 405D

SONODYNE INTL. LIMITED., SEEPZ, BOMBAY.			DATE: 5-2-96	
MODEL : PS 405D		B/N 511447		DRG. NO: SIL/16/0028
DRN BY:	CHO BY:	REV DATE	REV	
ALTA				