

GENATA™

Service Manual

32-8207

STEREO SOUND MIXER

Cat. No. 32-8207

	LINE	PART NUMBER	LOCATIONS	QTY/QTE	ICST#	PAGE
	LIGNE	NUMERO DE PIECE				
Specification						01
Block Diagram	1	S3208207	MC -180-06-00-02	1	RRJ	01
Circuit Description						01
Troubleshooting						2
PCB Views						3
Electrical Parts List						4
Exploded View						5
IC Lead Identification						6
Voltage Chart						7
Schematic Diagram						12

SPECIFICATIONS

Input Sensitivity/Impedance:

MIC	3mV / 600 ohms
PHONO 1,2	3mV / 50k ohms
CD 1,2	150mV / 50k ohms
VIDEO	150mV / 50k ohms
LINE	150mV / 50k ohms

Output Level:

MASTER	RATED: 1.5V
	MAX : 6V
RECORD	RATED: 0.775V
	MAX : 5V
PHONES	RATED: 28.28mV

S/N Ratio:

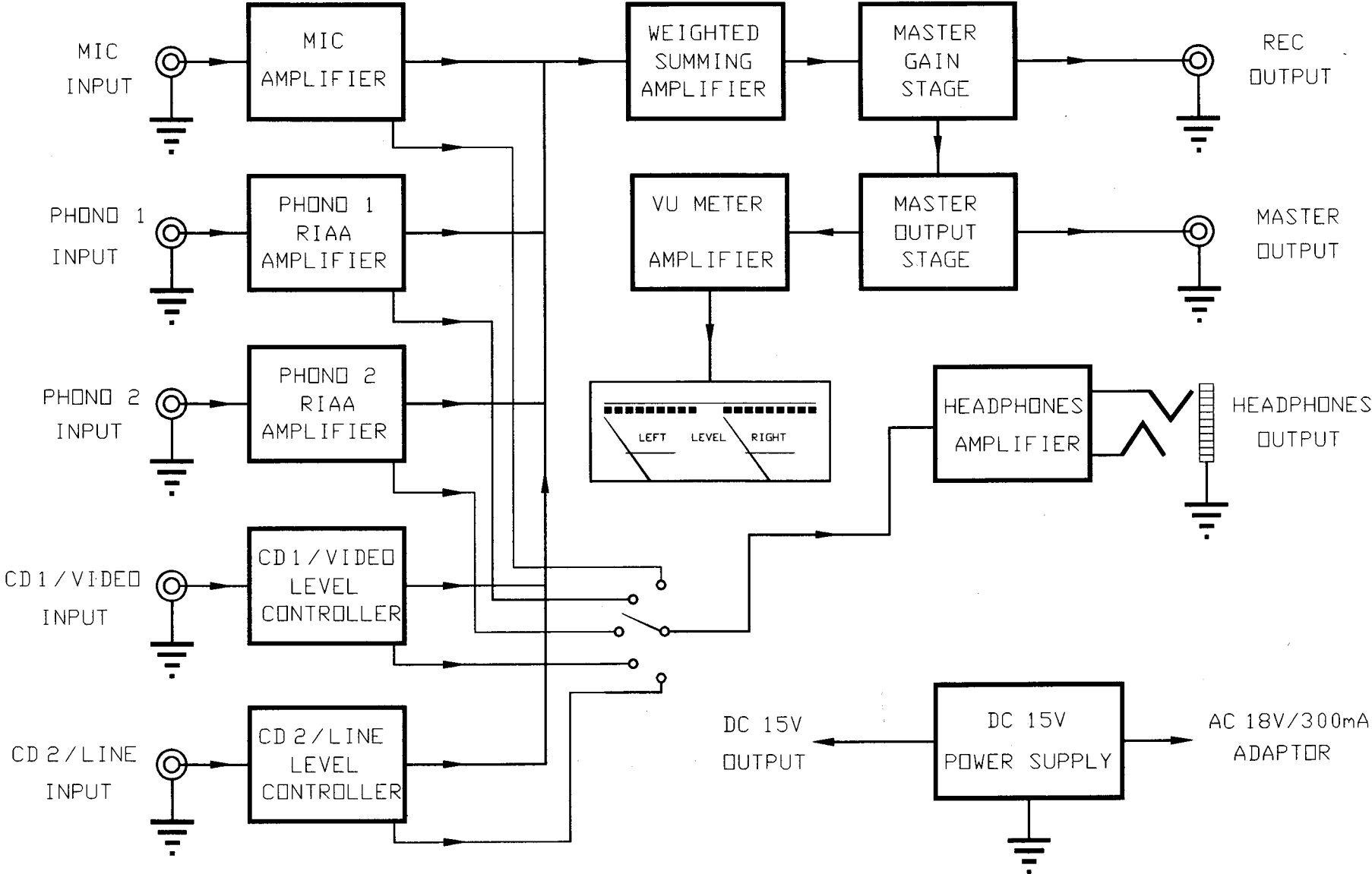
MIC	60 dB
PHONO	70 dB
CD, LINE, VIDEO	75 dB

Distortion:

MIC	0.5%
PHONO	0.2%
CD, LINE, VIDEO	0.02%

Dimensions 370mm (L) x 212mm W x 65mm (H)

BLOCK DIAGRAM



CIRCUIT DESCRIPTION

THEORY OF OPERATION

AS SHOWN IN THE BLOCK DIAGRAM, THIS MIXER HAS 5 INPUTS AND 3 OUTPUTS.

THE DC 15V POWER SUPPLY ENABLES THE 18V/AC ADAPTOR TO BE CONVERTED TO $\pm 15V$ /DC AND IS USED TO FEED THE IC OF EACH STAGE AND LAMP OF THE VU METER.

THE MIC SIGNAL FROM INPUT JACK THROUGH MIC AMPLIFIER (IC2 IS A LINEAR AMP-LIFIER) MAGNIFICATION, THEN SEND TO THE MIC LEVEL CONTROL(VR1), AFTERWARD, THE MIC SIGNAL IS SEND TO THE MIXING BUS. AND THE PHONO 1(IC3.VR2)/PHONO 2 (IC4/VR3) LIKEWISE. (IC3/IC4 IS A MATCH TO RIAA CURVES UNLINEAR AMPLIFIER)

THE SIGNAL OF CD1/VIDEO FROM INPUT JACK IS DIRECTLY SEND TO THE LEVEL CON-TROL(VR4), THEN SEND TO THE MIXING BUS. AND CD2/LINE LIKEWISE.

THE SIGNAL OF MIXING BUS GOES TO THE WEIGHTED SUMMING AMPLIFIER(IC6) AND THEN ON TO THE MASTER GAIN STAGE(IC1) MAGNIFYING IT WHICH RESULTS AS OUT-PUT GOING TO THE REC OUTPUT JACKS AND THE MASTER OUTPUT STAGE (IC5), AND THE MASTER OUTPUT STAGE(IC5 IS A LINEAR AMPLIFIER) SEND THE OUTPUT SIGNAL TO THE OUTPUT JACKS.

THE SIGNAL COMING FROM THE MASTER OUTPUT STAGE(IC5) GOES THROUGH THE VU METER AMPLIFIER(IC7), WHICH IS THEN SHOWN ON THE VU METER.

THE SIGNAL(PRE-FADE) OF EACH CHANNELS GOES THROUGH THE MONITOR SELECT SWI-TCH (ROTARY SWITCH SW1)WHICH IS THEN TRANSMITTED TO THE HEADPHONE AMPLIFI-ER(IC8) & MAGNIFIED, THEN GOES TO THE HEADPHONE JACK.

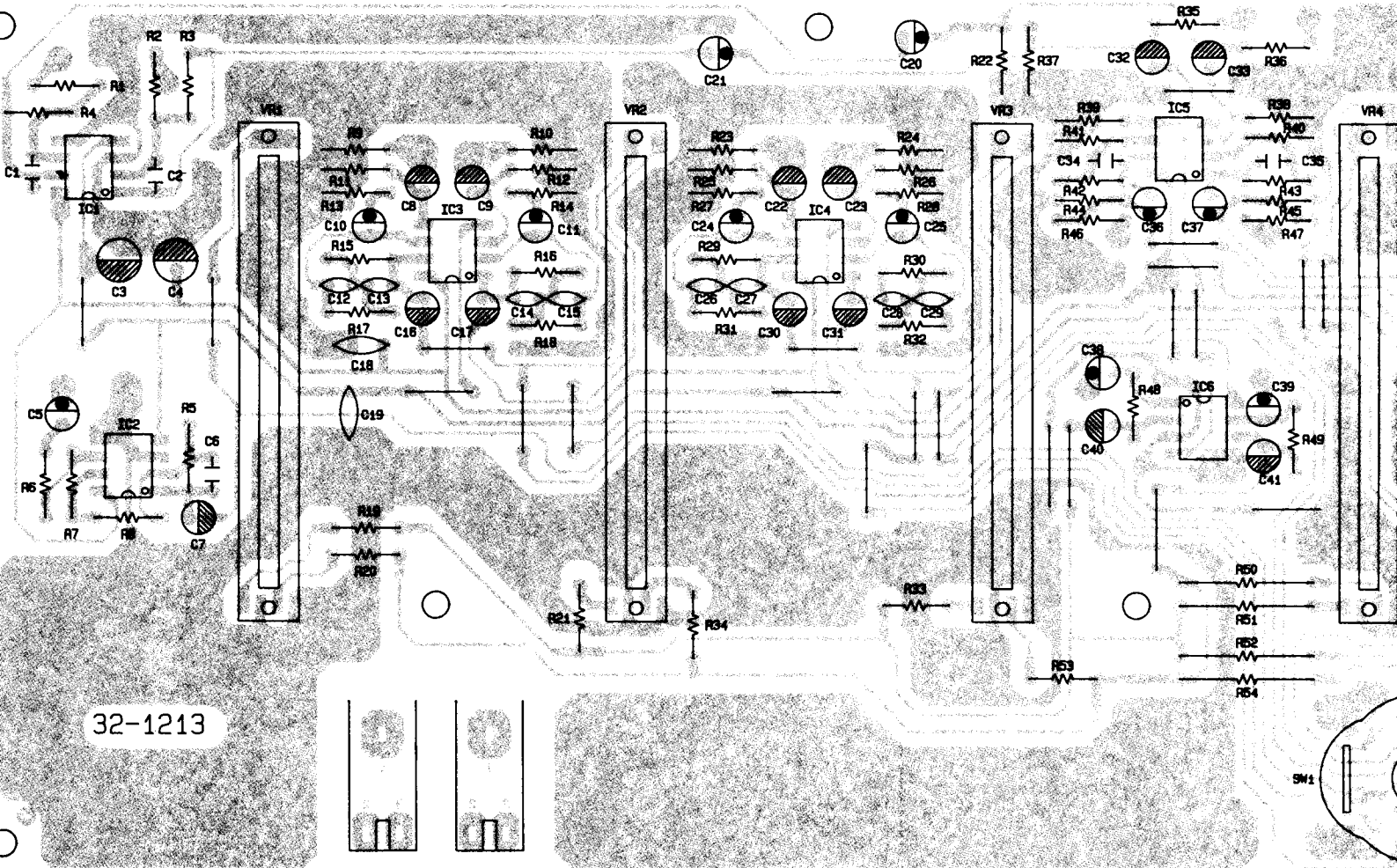
TROUBLESHOOTING

THIS TROUBLESHOOTING GUIDE SUGGEST AREAS TO CHECK TO FIND PROBLEMS. IN GENERAL, EACH FAULT IS FOLLOWED BY A LIST OF POINTS TO CHECK. THESE POINTS RANGE FROM THE MOST POSSIBLE TO THE LEAST LIKELY.

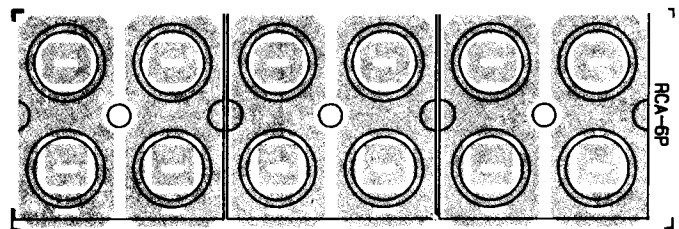
FAULT	POINTS TO CHECK
DEAD UNIT (VU METER NO LIGHT)	<ul style="list-style-type: none"> * CHECK THE AC ADAPTOR. * CHECK THE POWER SWITCH. * CHECK THE POWER INPUT JACK.
VU METER WITH LIGHT BUT MASTER OUTPUT NO SIGNAL	<ul style="list-style-type: none"> * CHECK THE VOLTAGE REGULATORS. (IC9,IC10) * CHECK IC6,IC1,IC5,IC7
VU METER WORKS BUT MASTER OUTPUT NO SIGNAL OUTPUT	<ul style="list-style-type: none"> * CHECK THE WIRE CONNECTED BETWEEN R46, R47 AND MASTER OUTPUT JACKS.
MIC CHANNEL NOT WORKING	<ul style="list-style-type: none"> * CHECK IC2 AND SURROUNDING PARTS
PHONO 1 NOT WORKING	<ul style="list-style-type: none"> * CHECK IC3 AND SURROUNDING PARTS
PHONO 2 NOT WORKING	<ul style="list-style-type: none"> * CHECK IC4 AND SURROUNDING PARTS
HEADPHONE OUTPUT NOT WORKING	<ul style="list-style-type: none"> * CHECK IC8 AND SURROUNDING PARTS

PRINTED CIRCUIT BOARD

MAIN PCB

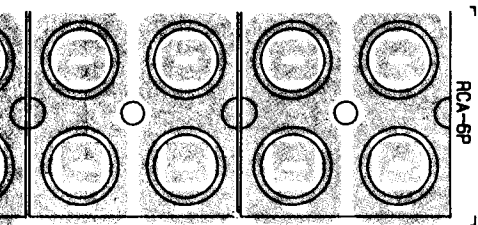
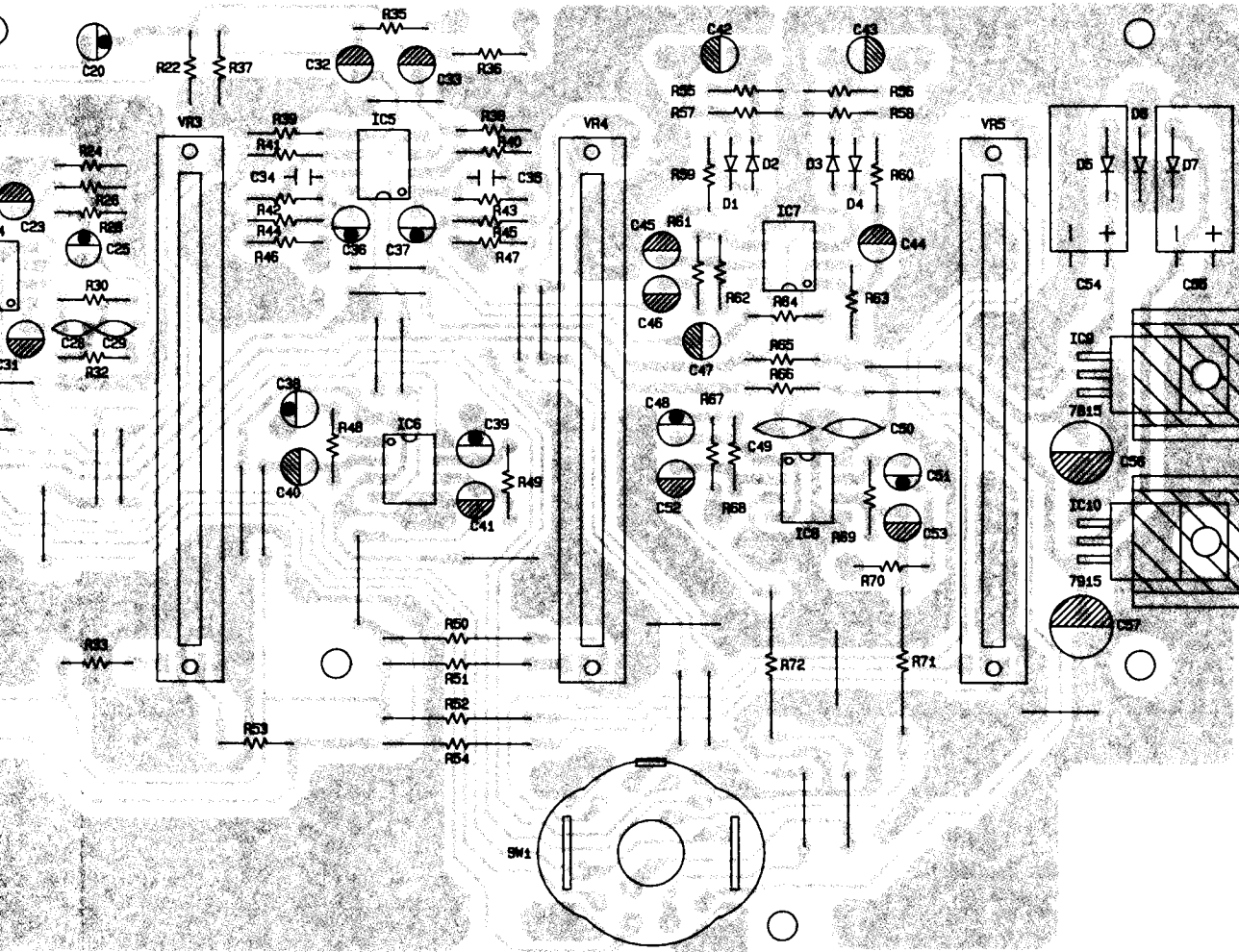


32-1213



PRINTED CIRCUIT BOARD

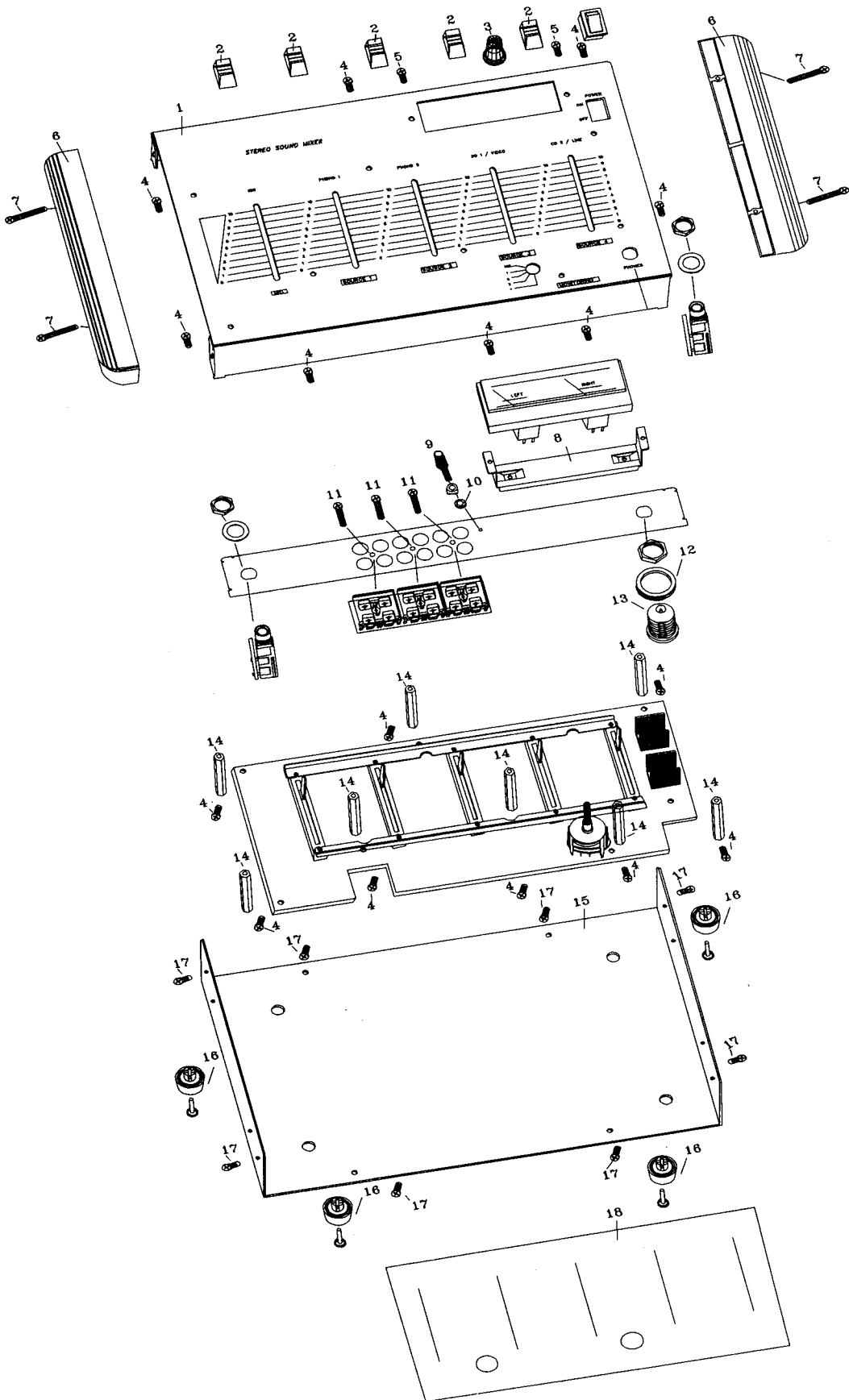
MAIN PCB



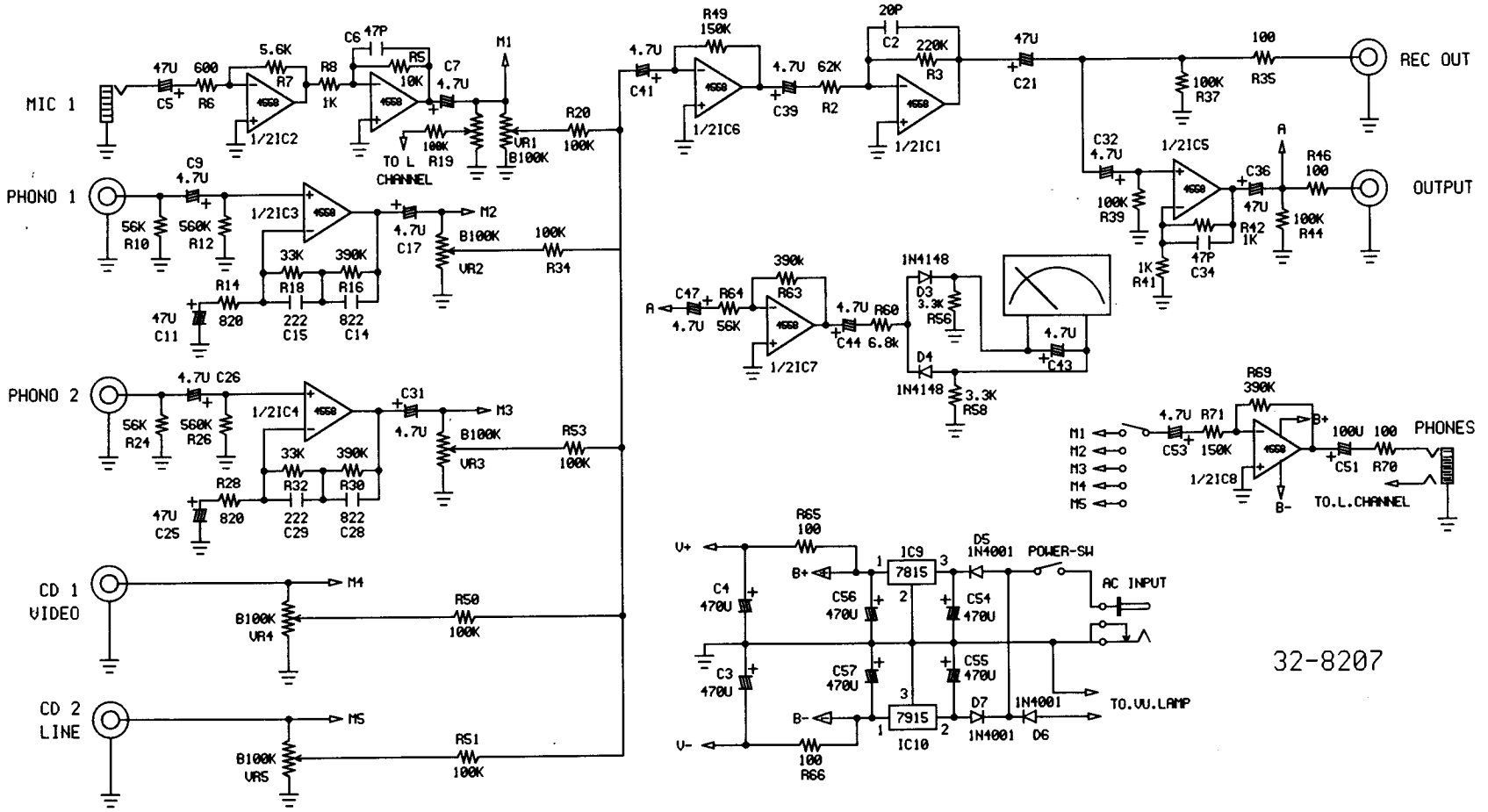
Ref.No.	Description	RS Part No.	MFR'S PART NO.
RESISTORS			
R42	RESISTORS CARBON 1/4W±5% 1K OHM		12RCT1/4J1K
R43	RESISTORS CARBON 1/4W±5% 1K OHM		12RCT1/4J1K
R44	RESISTORS CARBON 1/4W±5% 100K OHM		12RCT1/4J1K
R45	RESISTORS CARBON 1/4W±5% 100K OHM		12RCT1/4J1K
R46	RESISTORS CARBON 1/4W±5% 100 OHM		12RCT1/4J100
R47	RESISTORS CARBON 1/4W±5% 100 OHM		12RCT1/4J100
R48	RESISTORS CARBON 1/4W±5% 150K OHM		12RCT1/4J150K
R49	RESISTORS CARBON 1/4W±5% 150K OHM		12RCT1/4J150K
R50	RESISTORS CARBON 1/4W±5% 100K OHM		12RCT1/4J100K
R51	RESISTORS CARBON 1/4W±5% 100K OHM		12RCT1/4J100K
R52	RESISTORS CARBON 1/4W±5% 100K OHM		12RCT1/4J100K
R53	RESISTORS CARBON 1/4W±5% 100K OHM		12RCT1/4J100K
R54	RESISTORS CARBON 1/4W±5% 100K OHM		12RCT1/4J100K
R55	RESISTORS CARBON 1/4W±5% 3.3K OHM		12RCTY4J3.3K
R56	RESISTORS CARBON 1/4W±5% 3.3K OHM		12RCT1/4J3.3K
R57	RESISTORS CARBON 1/4W±5% 3.3K OHM		12RCT1/4J3.3K
R58	RESISTORS CARBON 1/4W±5% 3.3K OHM		12RCT1/4J3.3K
R59	RESISTORS CARBON 1/4W±5% 6.8K OHM		12RCT1/4J6.8K
R60	RESISTORS CARBON 1/4W±5% 6.8K OHM		12RCT1/4J6.8K
R61	RESISTORS CARBON 1/4W±5% 56K OHM		12RCT1/4J56K
R62	RESISTORS CARBON 1/4W±5% 390K OHM		12RCT1/4J390K
R63	RESISTORS CARBON 1/4W±5% 390K OHM		12RCT1/4J390K
R64	RESISTORS CARBON 1/4W±5% 56K OHM		12RCT1/4J56K
R65	RESISTORS CARBON 1/4W±5% 100 OHM		12RCT1/4J100
R66	RESISTORS CARBON 1/4W±5% 100 OHM		12RCT1/4J100
R67	RESISTORS CARBON 1/4W±5% 100 OHM		12RCT1/4J100
R68	RESISTORS CARBON 1/4W±5% 390K OHM		12RCT1/4J390K
R69	RESISTORS CARBON 1/4W±5% 390K OHM		12RCT1/4J390K
R70	RESISTORS CARBON 1/4W±5% 100 OHM		12RCT1/4J100
R71	RESISTORS CARBON 1/4W±5% 150K OHM		12RCT1/4J150K
ICS			
IC1	OPRATIONAL AMPLIFIER IC NJM4558DD		03ICNJM4558DD
IC2	OPRATIONAL AMPLIFIER IC NJM4558DD		03ICNJM4558DD
IC3	OPRATIONAL AMPLIFIER IC NJM4558DD		03ICNJM4558DD
IC4	OPRATIONAL AMPLIFIER IC NJM4558DD		03ICNJM4558DD
IC5	OPRATIONAL AMPLIFIER IC NJM4558DD		03ICNJM4558DD
IC6	OPRATIONAL AMPLIFIER IC NJM4558DD		03ICNJM4558DD
IC7	OPRATIONAL AMPLIFIER IC NJM4558DD		03ICNJM4558DD
IC8	OPRATIONAL AMPLIFIER IC NJM4558DD		03ICNJM4558DD
IC9	VOLTAGE REGULATOR IC NJM7815		03ICNJM7815
IC10	VOLTAGE REGULATOR IC NJM7915		03ICNJM7915

Ref.No.	Description	RS Part No.	MFR'S PART NO.
DIODES			
D1	DIODE 1N4148		10DIT1N4148
D2	DIODE 1N4148		10DIT1N4148
D3	DIODE 1N4148		10DIT1N4148
D4	DIODE 1N4148		10DIT1N4148
D5	DIODE 1N4001		10DIT1N4001
D6	DIODE 1N4001		10DIT1N4001
D7	DIODE 1N4001		10DIT1N4001
SLIDE POTENTIOMETERS & SWITCHS			
VR1	SLIDE POTENTIOMETER 60mm	100K B*2	16SV60F1572B100K
VR2	SLIDE POTENTIOMETER 60mm	100K B*2	16SV60F1572B100K
VR3	SLIDE POTENTIOMETER 60mm	100K B*2	16SV60F1572B100K
VR4	SLIDE POTENTIOMETER 60mm	100K B*2	16SV60F1572B100K
VR5	SLIDE POTENTIOMETER 60mm	100K B*2	16SV60F1572B100K
SW1	ROTARY SWITCH 5 BAND	2 CIRCUIT	63SWR05L2S12P1B
CAPACITORS			
C1	CERAMIC ±10%	20PF/100V	09CC100K20PF
c2	CERAMIC ±10%	20PF/100V	09CC100K20PF
c3	ELECTROLYTIC ±10%	470UF/16V	05CE16M470UF
C4	ELECTROLYTIC ±10%	470UF/16V	05CE16M470UF
C5	ELECTROLYTIC ±10%	47UF/16V	05CE16M47UF
C6	CERAMIC ±10%	47PF/100V	09CC100K47PF
c7	ELECTROLYTIC ±10%	4.7UF/50V	05CE50M4.7UF
C8	ELECTROLYTIC ±10%	4.7UF/50V	05CE50M4.7UF
c9	ELECTROLYTIC ±10%	4.7UF/50V	05CE50M4.7UF
C10	ELECTROLYTIC ±10%	47UF/16V	05CE16M47UF
C11	ELECTROLYTIC ±10%	47UF/16V	05CE16M47UF
C12	MYLAR ±10%	0.0022UF/100V	08CM100J0.0022UF
C13	MYLAR ±10%	0.0082UF/100V	08CM100J0.0082UF
C14	MYLAR ±5%	0.0082UF/100V	08CM100J0.0082UF
C15	MYLAR ±5%	0.0022UF/100V	08CM100J0.0022UF
C16	ELECTROLYTIC ±20%	4.7UF/50V	05CE50M4.7UF
C17	ELECTROLYTIC ±20%	4.7UF/50V	05CE50M4.7UF
C18	MYLAR ±5%	0.1UF/100V	08CM100J0.1UF
C19	MYLAR ±5%	0.1UF/100V	08CM100J0.1UF
c20	ELECTROLYTIC ±20%	47UF/16V	05CE16M47UF
c21	ELECTROLYTIC ±20%	47UF/16V	05CE16M47UF
c22	ELECTROLYTIC ±20%	4.7UF/50V	05CE50M4.7UF
C23	ELECTROLYTIC ±20%	4.7UF/50V	05CE50M4.7UF
C24	ELECTROLYTIC ±20%	47UF/16V	05CE16M47UF
C25	ELECTROLYTIC ±20%	47UF/16V	05CE16M47UF
C26	MYLAR	0.0022UF/100V	08CM100J0.0022UF
C27	MYLAR ±5%	0.0082UF/100V	08CM100J0.0082UF

EXPLODED VIEW



MANUFACTURED IN CHINA. IMPORTED FOR/IMPORTE POUR
InterTAN CANADA LTD., BARRIE, CANADA, L4M 4M5
InterTAN AUSTRALIA LTD., A.C.N. 002 511 944
InterTAN U.K. LTD., WEST MIDLANDS, WS3 7PS
TRADEMARK OF InterTAN INC.



32-8207

LEFT CHANNEL