

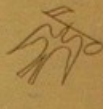


STEREO MASTER  
AUDIO CONTROL  
MODEL 400-C

THE FISHER

*Stereo*

RUMBLE  
FILTER



EQUALIZATION



BALANCE



CHANNEL A



CHANNEL B



VOLUME



VOLUME

400





THE FISHER

Stereophonic

STEREO MASTER  
AUDIO CONTROL  
MODEL 400

PHONO  
MIC  
INPUT

TUNER

AUX 1

AUX 2

LOUDNESS  
CONTOUR

EQ

BALANCE

BASS

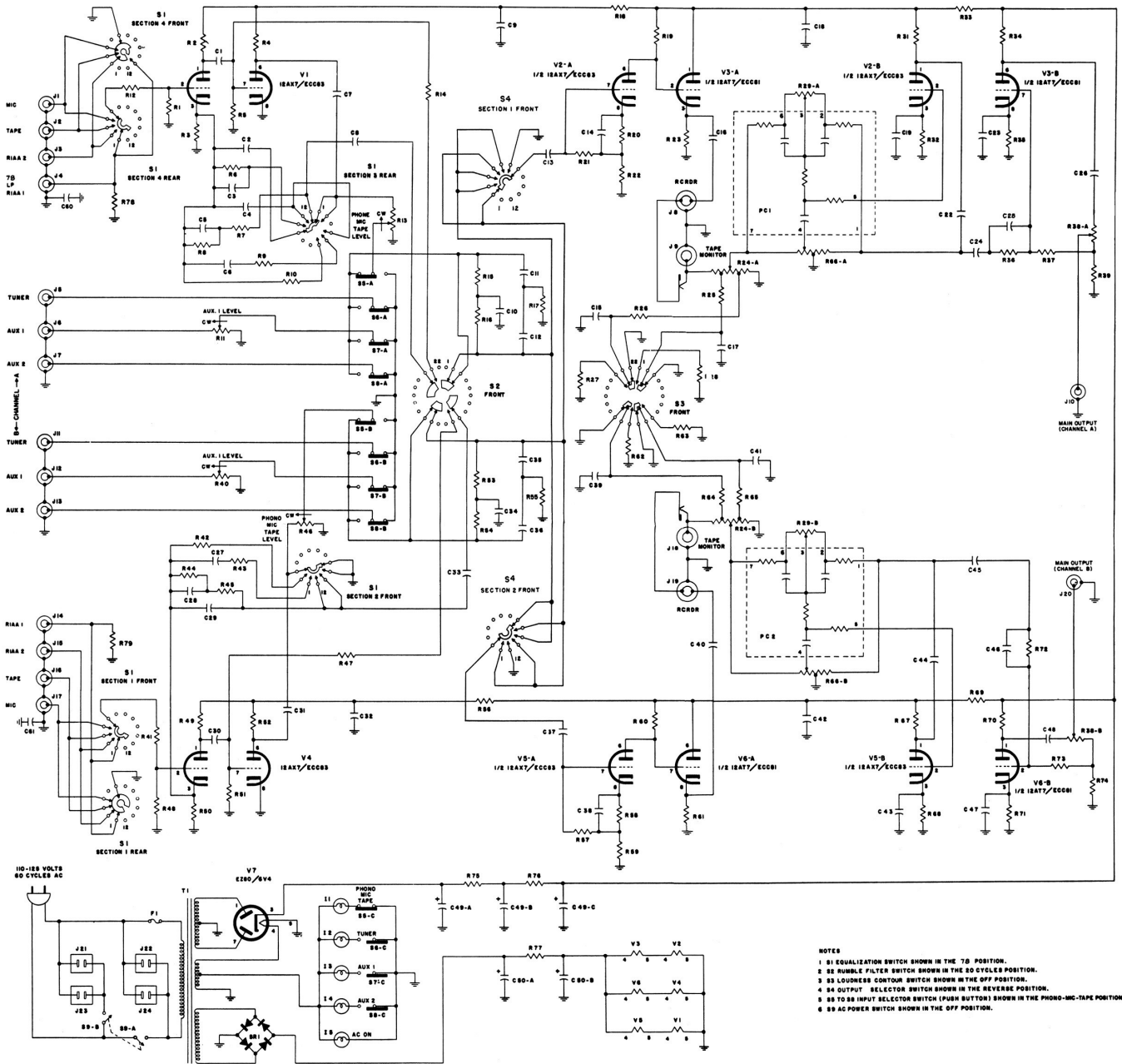
TREBLE

VOLUME

OUTPUT SELECTOR

CHANNEL A+B  
CHANNEL B+A  
CHANNEL A  
CHANNEL B

400



- NOTES
- 1 S1 EQUALIZATION SWITCH SHOWN IN THE 70 POSITION.
  - 2 S2 RUMBLE FILTER SWITCH SHOWN IN THE 50 CYCLES POSITION.
  - 3 S3 LOUDNESS CONTOUR SWITCH SHOWN IN THE OFF POSITION.
  - 4 S4 OUTPUT SELECTOR SWITCH SHOWN IN THE REVERSE POSITION.
  - 5 S5 TO 50 INPUT SELECTOR SWITCH (PUSH BUTTON) SHOWN IN THE PHONO-MIC-TAPE POSITION.
  - 6 S6 AC POWER SWITCH SHOWN IN THE OFF POSITION.

# VOLTAGE AND RESISTANCE MEASUREMENTS

Fisher 400-C

## Voltage Reference Chart

Set line voltage at 117 volts AC, 50-60 cycles. All readings are in DC volts with respect to chassis ground. Allow 15-minute instrument warm-up before taking measurements.

SYMBOL TUBES	TUBE SOCKET TERMINAL NUMBERS								
	1	2	3	4	5	6	7	8	9a
V1	85	0	P	12.6	0	90	N	0	6.3
V2	170	0	1.3	12.6	0	155	N	15	6.3
V3	265	155	155	25.2	12.5	125	0	1.3	18.9
V4	85	0	P	12.6	0	90	N	0	6.3
V5	170	0	1.3	25.2	12.6	155	6.3	15	18.9
V6	125	0	1.3	25.2	12.6	265	155	155	18.9
V7	300 AC	X	365	6.3 AC	0	X	300 AC	X	X

SUPPLY CAPACITORS	TERMINAL SYMBOLS	VOLTAGE
C9	▲	185
C18c	■	265
C32c	—	185
C42c	●	265
C49-A	◐	365
C49-B	■	340
C49-C	▲	320
C50-A	▲	30
C50-B	●	25

CHART NOTES	
AC	Reading in AC volts
N	Less than 1 volt DC, negative
P	Less than 1 volt DC, positive
X	No connection
a	Dual-filament junction, V1-V6
c	Sections of C9 (See parts list)

All readings below taken with a vacuum-tube voltohmmeter with respect to chassis ground. All input selector pushbuttons out, and level set adjustments at minimum. Volume control at minimum. Bass, treble, and channel balance controls at mid-position. Loudness contour control off. Rumble filter at 20 cycles. Equalization selector at RIAA 1. Output selector at STANDARD.

## Resistance Reference Chart

Disconnect the chassis AC power cord. Discharge all electrolytic capacitors to chassis ground through a 100-ohm resistor. Disconnect all cables to associated equipment. Readings are in ohms with respect to chassis ground.

SYMBOL TUBES	TUBE SOCKET TERMINAL NUMBERS								
	1	2	3	4	5	6	7	8	9a
V1	350K+	100K	2700	12+	0	350K+	10M	0	8+
V2	350K+	450K	1500	12+	0	350K+	2.2M	30K	8+
V3	350K+	350K+	56K	12+	12+	350K+	340K	330	12+
V4	350K+	100Kb	2700	12+	0	350K+	10M	0	8+
V5	350K+	450K	1500	12+	12+	350K+	2.2M	30K	12+
V6	350K+	340K	330	12+	12+	350K+	350K+	56K	12+
V7	135	X	350K+	L	0	X	135	X	X

SUPPLY CAPACITORS	TERMINAL SYMBOLS	RESISTANCE
C9	▲	350K+
C18c	■	350K+
C32c	—	350K+
C42c	●	350K+
C49-A	◐	350K+
C49-B	■	350K+
C49-C	▲	350K+
C50-A	▲	21+
C50-B	●	12+

CHART NOTES	
K	Kilohm
L	Less than 1 ohm
M	Megohm
X	No connection
+	Minimum reading, rising as electrolytic capacitors charge.
a	Dual-filament junction, V1-V6
b	9K reading with equalization selector in EUR or LP position.
c	Sections of C9 (See parts list)

# PARTS DESCRIPTION LIST

## CAPACITORS

20% tolerance for all capacitors, unless noted otherwise.

Symbol	Description	Order No.
C1	Two in parallel; Ceramic disc, .005 uf, 500V	C-50089-1
C2	Ceramic, 220 uuf, 10%, 1000V	C-50072-20
C3	Ceramic disc, 820 uuf, 10%, 1000V	C-50072-7
C4	Ceramic disc, 390 uuf, 10%, 1000V	C-50072-6
C5	Ceramic disc, 1800 uuf, 10%, 1000V	C-50072-8
C6	Ceramic disc, 560 uuf, 10%, 1000V	C-50072-14
C7	Molded, .022 uf, 10%, 125V	C-50074-18
C8	Ceramic disc, .005 uf, 500V	C-50089-1
C9	Electrolytic, four section: C9: 10 uf, 200V C18: 30 uf, 300V C32: 10 uf, 200V C42: 30 uf, 300V	C-657-126
C10	Molded, .01 uf, 10%, 250V	C-50074-25
C11, 12	Ceramic disc, .005 uf, 500V	C-50089-1
C13, 14	Molded, .01 uf, 10%, 250V	C-50074-25
C15	Molded, .047 uf, 10%, 250V	C-50074-27
C16	Molded, 0.47 uf, 250V	C-50074-29
C17	Molded, .022 uf, 10%, 250V	C-50074-26
C18	Electrolytic section, 30 uf	Part of C9
C19	Electrolytic, 25 uf, 6V	C-639-114
C20	Not used	—
C21	Not used	—
C22	Molded, 0.1 uf, 10%, 250V	C-50074-28
C23	Electrolytic, 25 uf, 6V	C-639-114
C24	Molded, .027 uf, 10%, 250V	C-50074-22
C25	Ceramic, 15 uuf NPO, 10%, 500V	CC20CJ150K5
C26	Molded, 0.47 uf, 250V	C-50074-29
C27	Ceramic disc, 560 uuf, 10%, 1000V	C-50072-14
C28	Ceramic disc, 1800 uuf, 10%, 1000V	C-50072-8
C29	Ceramic disc, 390 uuf, 10%, 1000V	C-50072-6
C30	Two in parallel; Ceramic disc, .005 uf, 500V	C-50089-1
C31	Molded, .022 uf, 10%, 250V	C-50074-26
C32	Electrolytic section, 10 uf	Part of C9
C33	Ceramic disc, .005 uf, 500V	C-50089-1
C34	Molded, .01 uf, 10%, 250V	C-50074-25
C35, 36	Ceramic disc, .005 uf, 500V	C-50089-1
C37, 38	Molded, .01 uf, 10%, 250V	C-50074-25
C39	Molded, .022 uf, 10%, 250V	C-50074-26
C40	Molded, 0.47 uf, 250V	C-50074-29
C41	Molded, .047 uf, 10%, 250V	C-50074-27
C42	Electrolytic section, 30 uf	Part of C9
C43	Electrolytic, 25 uf, 6V	C-639-114
C44	Molded, 0.1 uf, 10%, 250V	C-50074-28
C45	Molded, .027 uf, 10%, 250V	C-50074-22
C46	Ceramic, 8 uuf ±0.5 uuf NPO, 500V	CC20CJ080D5
C47	Electrolytic, 25 uf, 6V	C-639-114
C48	Molded, 0.47 uf, 250V	C-50074-29
C49	Electrolytic, three-section: C49-A: 30 uf, 400V C49-B: 30 uf, 350V C49-C: 30 uf, 350V	C-657-125
C50	Electrolytic, two-section: C50-A: 1000 uf, 30V C50-B: 1000 uf, 30V Note: Use C-546-116 to replace C-552-106 used on some units.	C-546-116
C51-59	Not used	—
C60, 61	Ceramic, 100 uuf, N1500, 10%, 1000V	C-50070-6

## RESISTORS AND POTENTIOMETERS

In ohms, 10% tolerance, 1/2 watt, unless otherwise noted. K = Kilohm. M = Megohm.

Symbol	Description	Order No.
R1	Composition, 100K	RC20BF104K
R2	Composition, 330K, 1W	RC30BF334K
R3	Composition, 2700, 1W	RC30BF272K
R4	Composition, 220K	RC20BF224K
R5	Composition, 10M	RC20BF125K
R6	Composition, 1.2M	RC20BF126K
R7	Composition, 270K	RC20BF274K
R8	Composition, 2.2M	RC20BF225K
R9	Composition, 120K	RC20BF124K
R10	Composition, 390K	RC20BF394K
R11	Potentiometer, 250K, level set	R-657-134
R12	Composition, 10K	RC20BF103K
R13	Potentiometer, 250K, level set	R-657-134
R14	Composition, 3.3M	RC20BF335K
R15, 16	Composition, 2.2M	RC20BF225K
R17	Composition, 1M	RC20BF105K
R18	Composition, 100K	RC20BF104K
R19	Composition, 220K	RC20BF224K
R20	Composition, 2700	RC20BF272K
R21	Composition, 2.2M	RC20BF225K
R22	Composition, 27K	RC20BF273K
R23	Composition, 56K, 1W	RC30BF563K
R24	Potentiometer, dual, volume: R24-A: 100K R24-B: 100K	R-730-118
R25	Composition, 10K	RC20BF103K
R26	Composition, 4700	RC20BF472K
R27	Composition, 8200	RC20BF822K
R28	Composition, 18K	RC20BF183K
R29	Potentiometer, dual, bass: R29-A: 1M R29-B: 1M	R50160-5
R30	Composition, 470K	RC20BF474K
R31	Composition, 100K	RC20BF104K
R32	Composition, 1500	RC20BF152K
R33	Composition, 10K	RC20BF103K
R34	Composition, 47K, 1W	RC30BF473K
R35	Composition, 330	RC20BF331K
R36	Composition, 470K	RC20BF474K
R37	Composition, 330K	RC20BF334K
R38	Potentiometer, dual channel balance: R38-A: 25K R38-B: 25K	R-657-154
R39	Composition, 8200	RC20BF822K
R40	Potentiometer, 250K level set	R-657-134
R41	Composition, 10K	RC20BF103K
R42	Composition, 390K	RC20BF394K
R43	Composition, 120K	RC20BF124K
R44	Composition, 2.2M	RC20BF225K
R45	Composition, 270K	RC20BF274K
R46	Potentiometer, 250K, level set	R-657-134
R47	Composition, 3.3M	RC20BF335K
R48	Composition, 100K	RC20BF104K
R49	Composition, 330K, 1W	RC30BF334K
R50	Composition, 2700, 1W	RC30BF272K
R51	Composition, 10M	RC20BF106K
R52	Composition, 220K	RC20BF224K
R53, 54	Composition, 2.2M	RC20BF225K
R55	Composition, 1M	RC20BF105K
R56	Composition, 100K	RC20BF104K
R57	Composition, 2.2M	RC20BF225K
R58	Composition, 2700	RC20BF272K
R59	Composition, 27K	RC20BF273K
R60	Composition, 220K	RC20BF224K
R61	Composition, 56K, 1W	RC30BF563K
R62	Composition, 18K	RC20BF183K

R63	Composition, 8200	RC20BF822K
R64	Composition, 10K	RC20BF103K
R65	Composition, 4700	RC20BF472K
R66	Potentiometer, dual, treble: R66-A: 500K R66-B: 500K	R50160-4
R67	Composition, 100K	RC20BF104K
R68	Composition, 1500	RC20BF152K
R69	Composition, 10K	RC20BF103K
R70	Composition, 47K, 1W	RC30BF473K
R71	Composition, 330	RC20BF331K
R72	Composition, 470K	RC20BF474K
R73	Composition, 330K	RC20BF334K
R74	Composition, 8200	RC20BF822K
R75, 76	Composition, 1200, 1W	RC30BF122K
R77	Composition, 10, 2W	RC40BF100K
R78, 79	Composition, 100K	RC20BF104K

## MISCELLANEOUS

Symbol	Description	Order No.
F1	Fuse, 0.5 ampere	F-3297
I1-5	Lamp, channel indicator, AC pilot	A-50118
J1-4	Jack, dual	J-50081-1
J5-7	Jack, triple	J-50081-3
J8, 10	Jack, dual	J-50081-1
J9	Jack, shorting, monitor	J-50088
J11-13	Jack, triple	J-50081-3
J14-17	Jack, dual	J-50081-1
J18	Jack, shorting, monitor	J-50088
J19, 20	Jack, dual	J-50081-1
J21-24	Receptacle, auxiliary AC	J-546-129
PC1, 2	Printed ckt, tone control	PC-657-140
S1	Switch, equalization selector	S-657-131
S2	Switch, rumble, filter	S-657-132
S3	Switch, loudness contour	S-657-138
S4	Switch, output selector	S-657-150
S5-8	Switch assembly, four pushbuttons, input channel selector	S-657-129
S9	Part of R24	—
SR1	Selenium rectifier, filament supply	SR-50093
T1	Transformer, power	T-657-115
—	Shielded cable, 4 feet, with molded plugs	A5-50004-1
—	Plug, standard RETMA	P-1031

## MECHANICAL PARTS

Symbol	Description	Order No.
—	Jewel, red, AC pilot	I-50147-1
—	Jewel, green, channel indicator	I-50147-4
—	Retaining ring, jewel	A-50007
—	Knob, with gold triangle	E-50108-2
—	Knob, pushbutton	E-546-108
—	Knob, lever	E-546-135
—	Knob, dual rear	E50152
—	Knob, dual front	E50153-1
—	Fuse holder, with cover	X-1036
—	Tube shield	E-3287
—	Bottom cover	A5-657-143

## MOUNTING HARDWARE

Symbol	Description	Order No.
—	1/2-inch shelf mounting:	
—	Machine screw, 1-inch/8-32/RH, four required	H1215383AA
—	Stand-off washer, 1/4-inch, four required	A-657-147
—	3/4-inch shelf mounting:	
—	Machine screw, 1-inch/8-32/RH, four required	H1215383AA
—	Flat washer, four required	H101W106AA
—	Leg mounting, without cabinet:	
—	Plastic leg, four required	H-657-145
—	Machine screw, 1/2-inch/8-32/RH, four required	H1215378AA