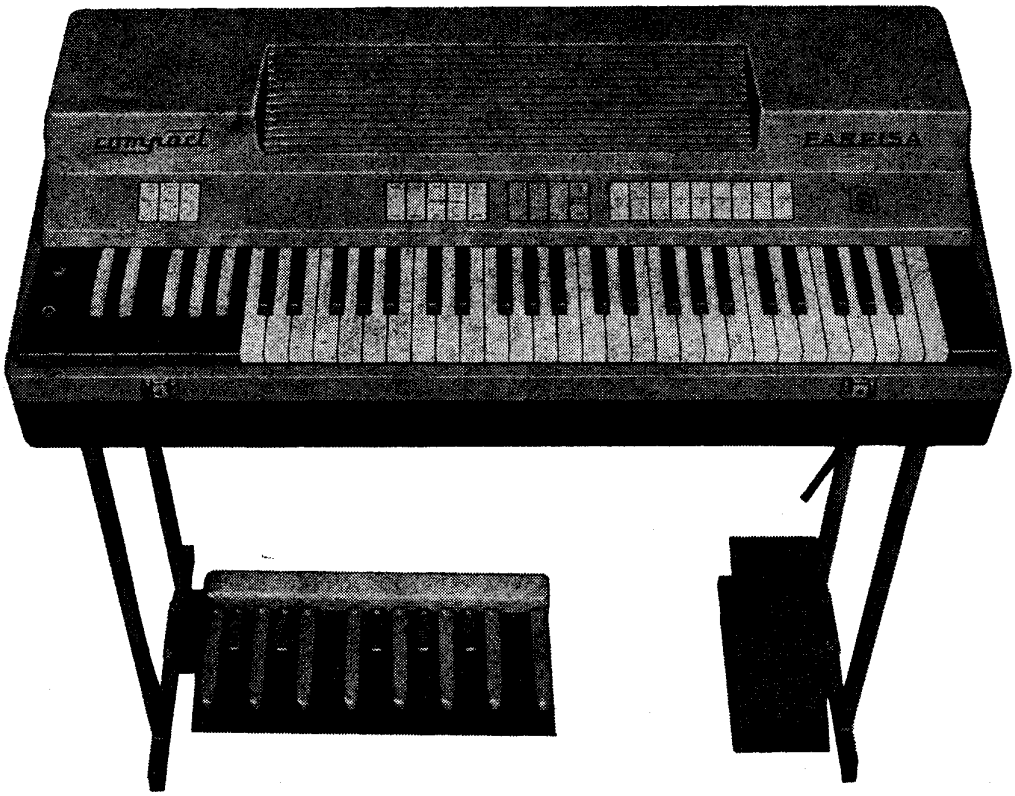
ELECTRONIC PORTABLE ORGAN

MOD. COMPACT

BY FARFISA



FARFISA S.P.A. - P.O. BOX 204 - ANCONA

Some explanation on schematics

SE - 10: Operating schematics

The schematics show the general principles, which are the following ones:

a) The signals are originated by oscillators G 10. Each one of them produces all the frequencies of same name (i. e. G 10 - C produces all Cs, G 10 - A produces all As, etc,).

b) The Vibrato is obtained operating directly on the oscillators of the various notes.

c) Every key has three contacts: the lower one operates on 16' frequencies, the medium one operates on 8' frequencies, the upper one operates on 4' frequencies.

d) All the contacts related to every octave, C - B, for 16' or 8' or 4', have common ends for connection to filters; these ends are represented by common bars and each one them is connected by means of a shielded cable to a series of switches operated by the MTB ON/OFF tab.

e) The MTB switches are meant to convey the signals to the tone stops when the MTB tab is in OFF position. In this case, inserting one tone stop (or several stops at the same time), the signals are conveyed to filter FD 10, where part of the signals is blended and then conveyed to filter FA 10 for the formation of the sharp tones (oboe, trumpet, strings).

The signals proceeding from filter FA 10 return to the tone stops and through the inserted tab, they are conveyed to the L.F. preamplifier. At the same time, in the filter FD 10, an attenuation of the higher harmonics, interesting the signals conveyed to the low pass filter, takes place, giving way to an output of sweet tune signals, ready to be conveyed, through the special tone stops (bass, flute), to the L. F. preamplifier.

f) When MTB is inserted, the switches convey the signals proceeding from the common bars to filter FD 10 through MTB stops (16' - 8' - 4'). The total blending of signals in FD 10 is then conveyed directly to the special in take of MTB, where the filtered signals, available at the outlet No. 10 of FD 10 (sweet tune) are conveyed to the outlet of MTB.

The L.F. preamplifier is connected only to the outlet of MTB and amplifies therefore only the signals conveyed to this device through 16' - 8' - 4' stops (Green tabs) with the exclusion of the tone stops (white tabs).

g) When « All Booster » is inserted, the signals proceeding from the common bars are permanently conveyed, at constant level, to filter FD-10 through MTB stops 16', 8', 4'.

SE - 11: Simplified keying schematics for Treble and Manual Bass.

It shows the wiring of the various notes, making reference to one note only (A).

SE - 12: Circuit diagram of Treble registers

The drawing reports the connections interesting the tone stops and the connections between the registers and the filters.

In the left top corner, framed in a square, it is shown the schematic diagram of MTB device.

SE - 13: Circuit diagram of Pedal registers, Vibrato and Reverb.

The drawing showing the Manual Bass and the Pedalboard stops indicates the potentiometers for the volume regulation of single notes, while the drawing related to Vibrato and Reverb shows Potentiometer R 536 for the regulation of the time of Reverberation.

SE - 14: Schematics of Master oscillators (G 10), filters (FD 10), (FA 10), Vibrato circuit and Pedal amplifier (PS 10).

The schematics show the values of all components assembled in the printed circuits for repair purpose.

SE - 15: Circuit diagram of Power Supply, Preamplifier and Reverb.

Complete electric schematis, showing the voltage rating and the features of electric components. Almost in the centre of the page it is indicated the Swell Pedal photoresistor operating as volume control.

REAR VIEW

From serial-number A 68 the position of the generator circuit-boards is as follows:

A partire dalla commessa A 68 la posizione delle piastre dei generatori è la seguente:

A	- LA	C sharp	- DO d	F	- FA
E	- MI	G sharp	- SOL d	C	- DO
B	- SI	D sharp	- RE d	G	- SOL
F sharp	- FA d	A sharp	- LA d	D	- RE

Fig. E

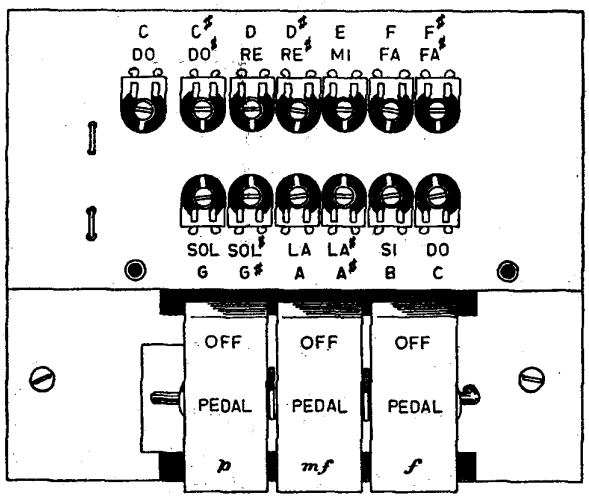

C DO
C♯ DO♯
D RE
D♯ RE♯
E MI
F FA
F♯ FA♯
SOL G
SOL♯ G♯
LA A
LA♯ A♯
SI B
DO C
OFF
PEDAL
p
OFF
PEDAL
mf
OFF
PEDAL
f

Fig. F

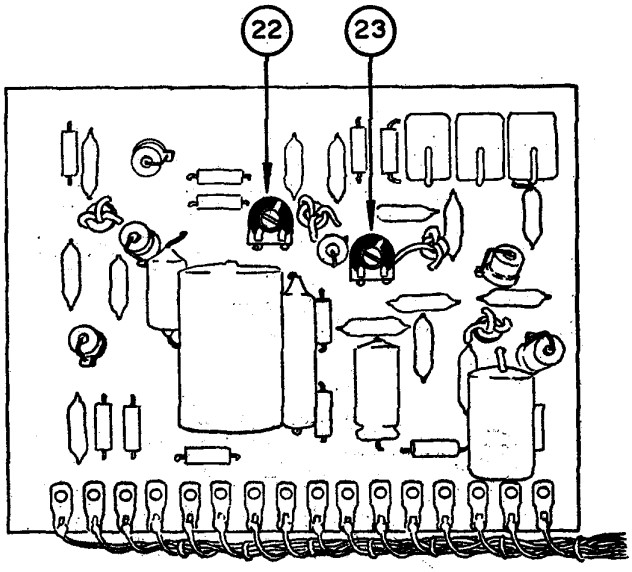

22
23

Fig. H

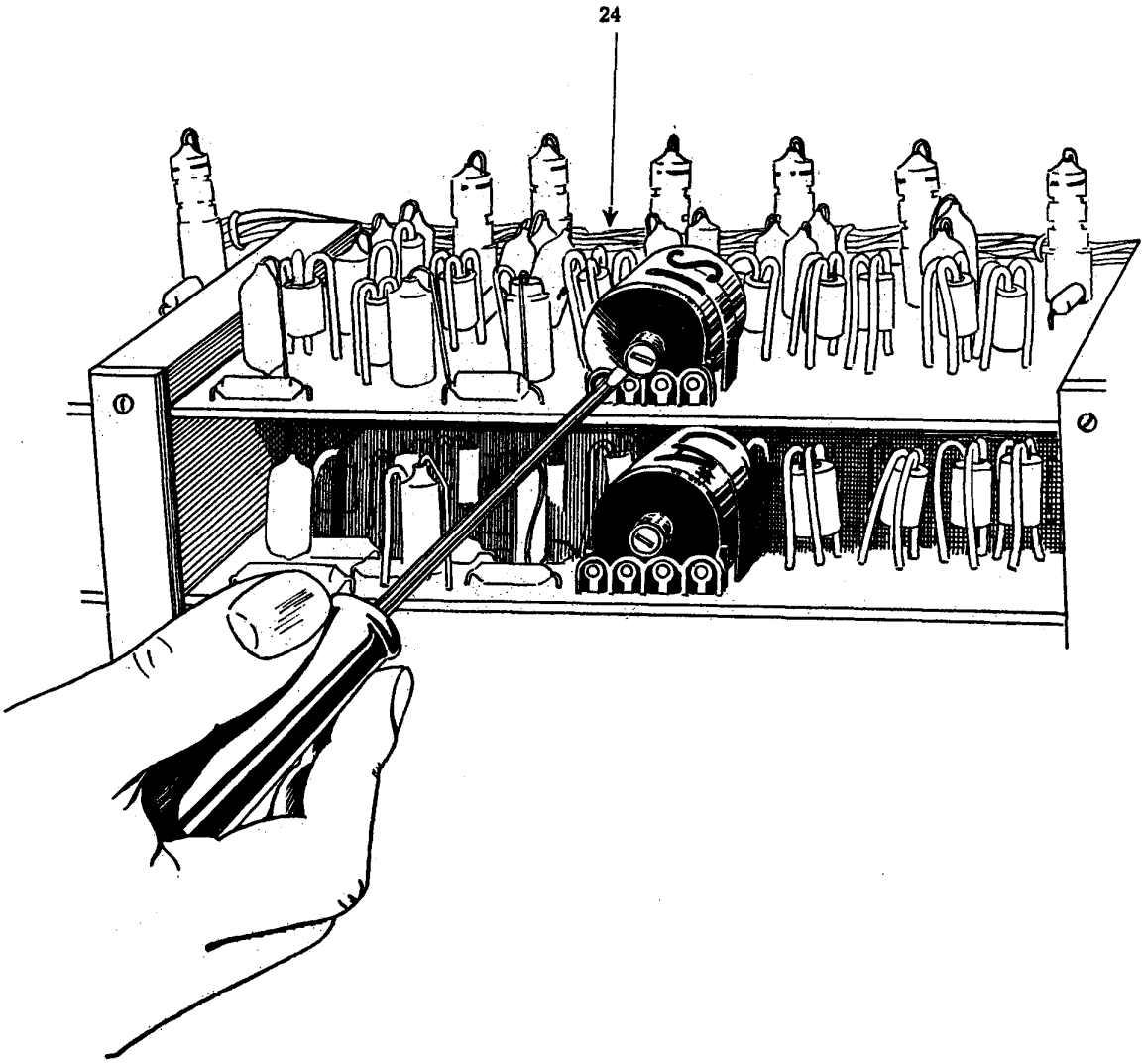
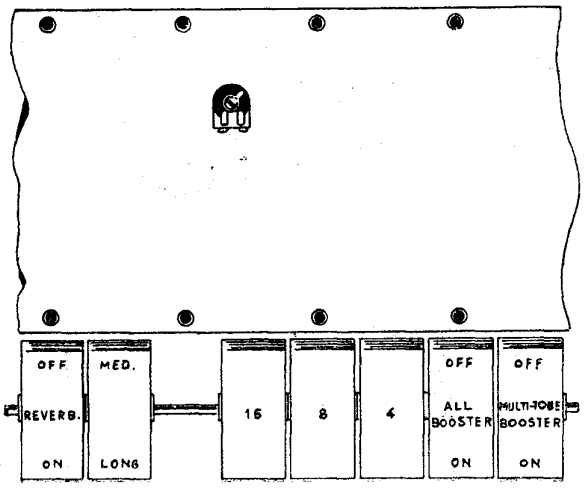
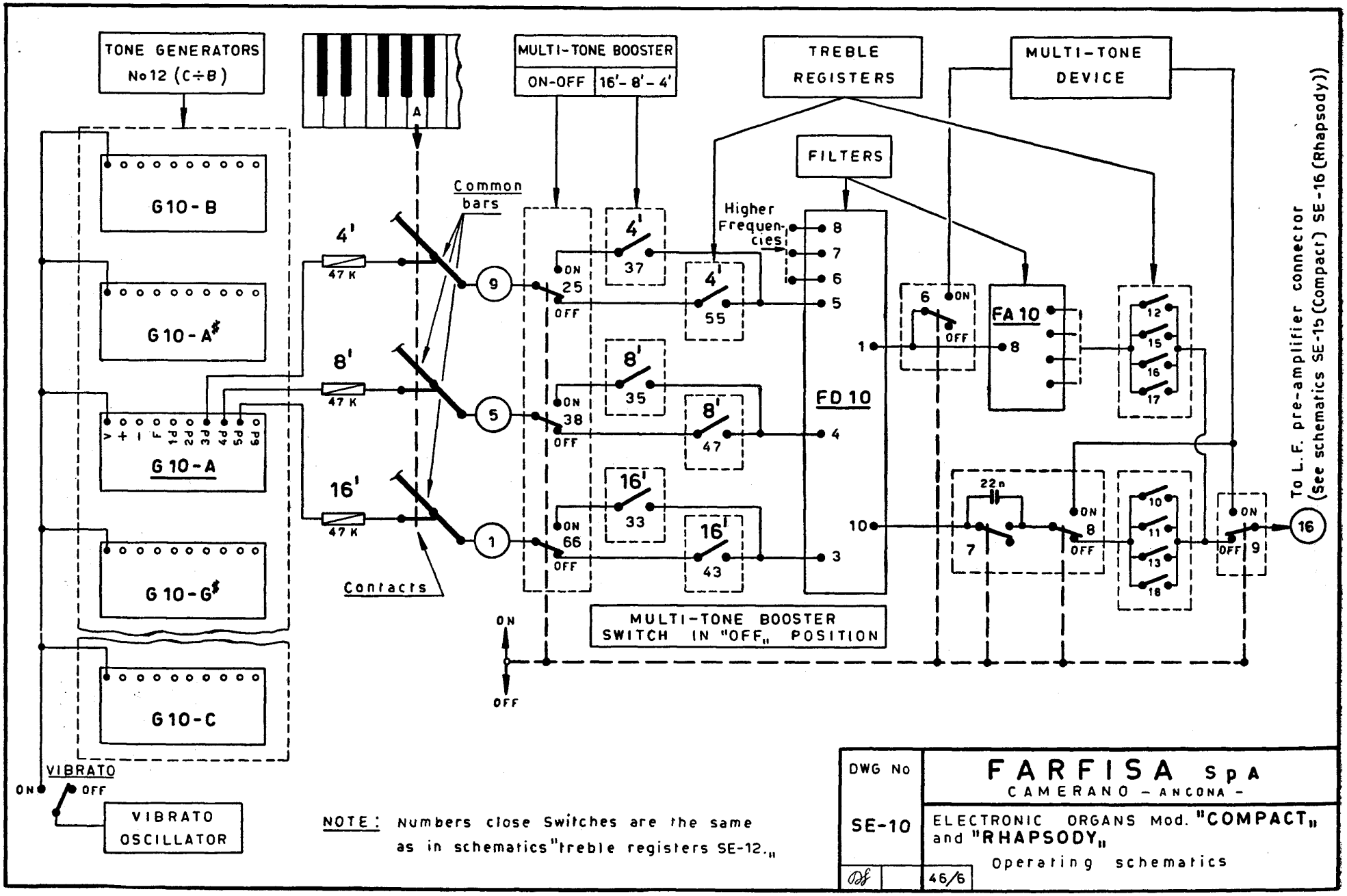

24

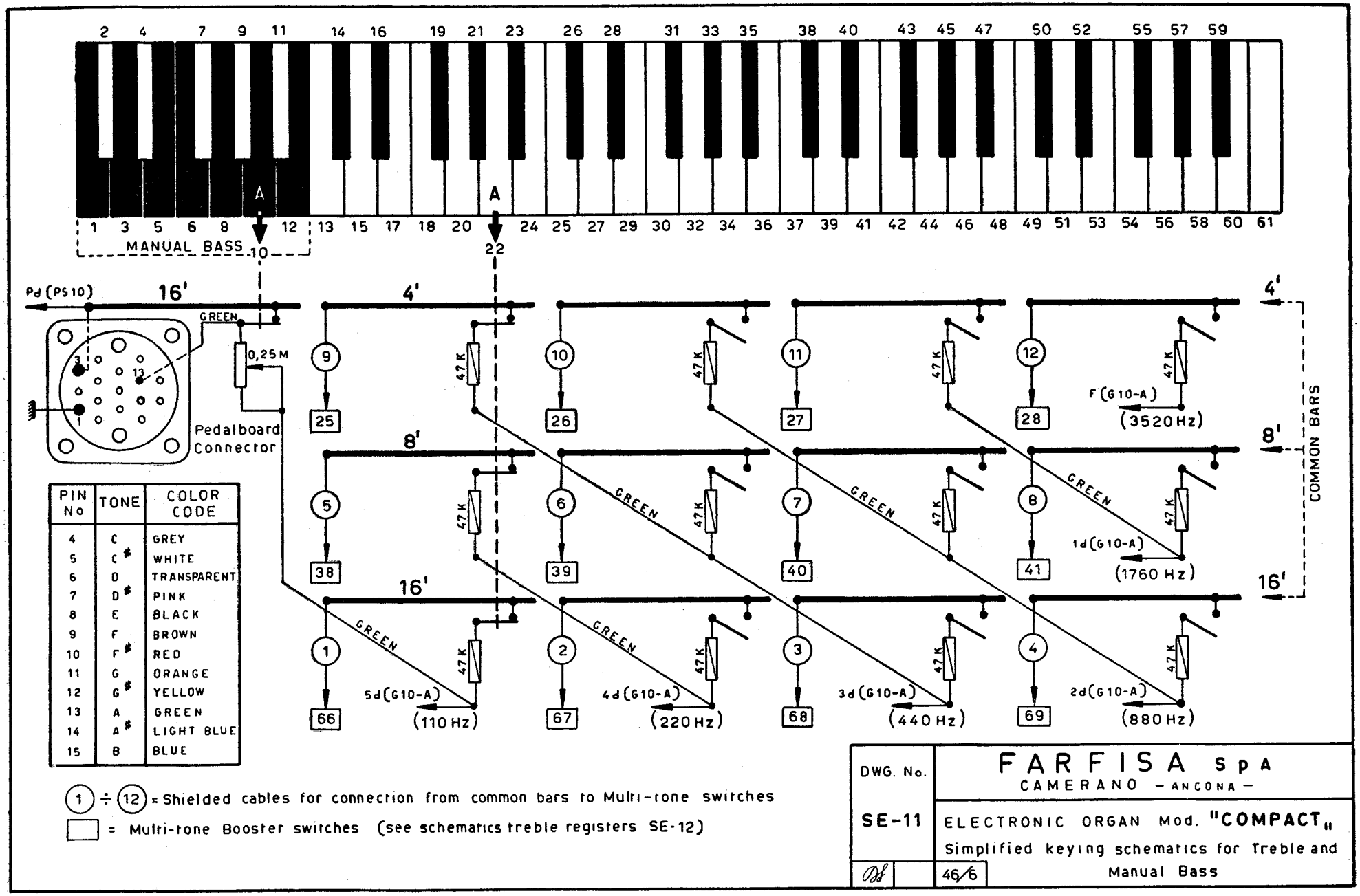
Fig. G


OFF
REVERB.
ON
MED.
LONG
16
8
4
OFF
ALL BOOSTER
ON
OFF
MULTI-TONE BOOSTER
ON



NOTE: Numbers close Switches are the same as in schematics "treble registers SE-12."

DWG No	FARFISA SpA CAMERANO – ANCONA –
SE-10	ELECTRONIC ORGANS Mod. "COMPACT" and "RHAPSODY" Operating schematics
	46/6

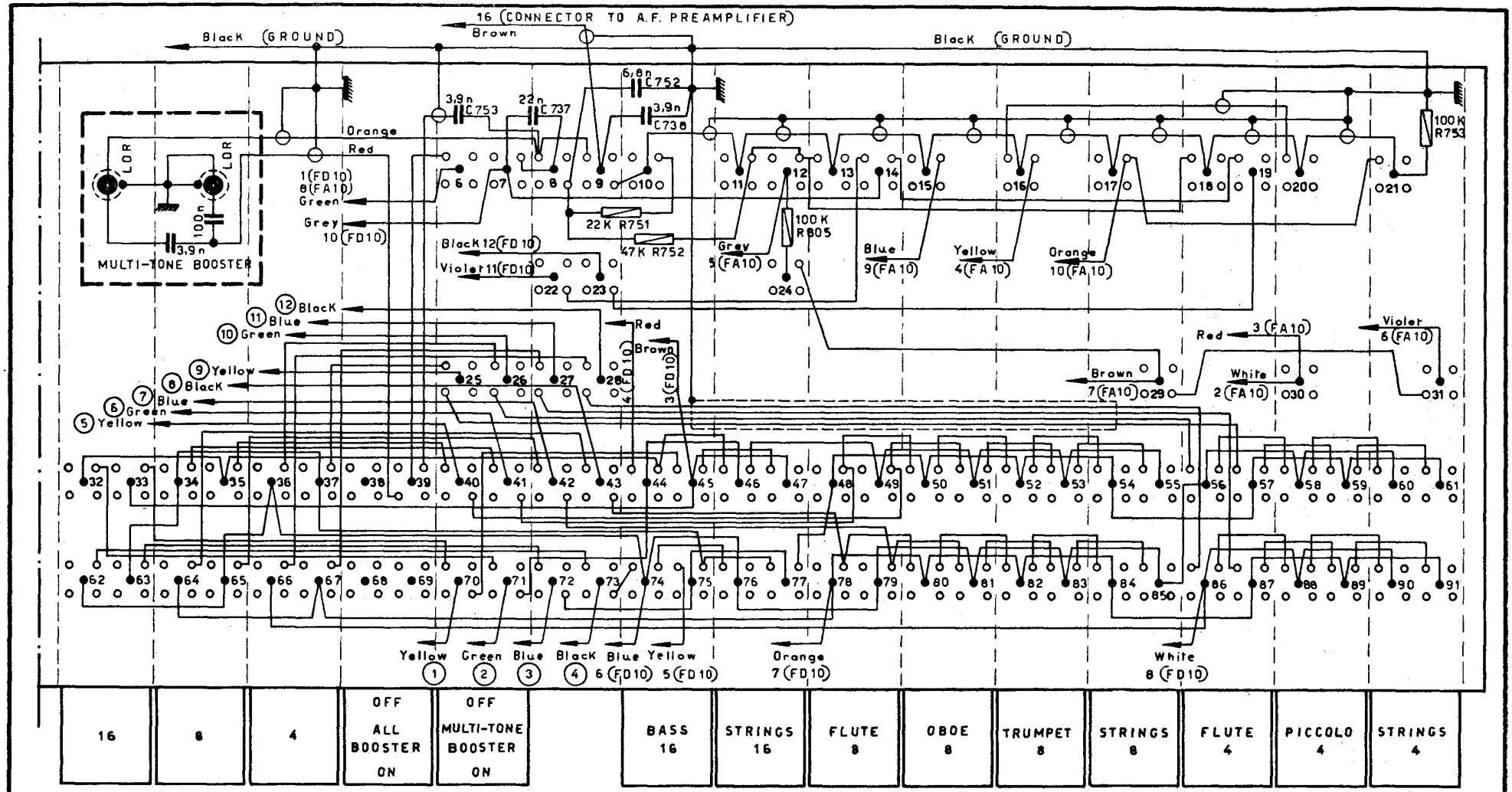


PIN No	TONE	COLOR CODE
4	C	GREY
5	C♯	WHITE
6	D	TRANSPARENT
7	D♯	PINK
8	E	BLACK
9	F	BROWN
10	F♯	RED
11	G	ORANGE
12	G♯	YELLOW
13	A	GREEN
14	A♯	LIGHT BLUE
15	B	BLUE

(1) ÷ (12) = Shielded cables for connection from common bars to Multi-tone switches

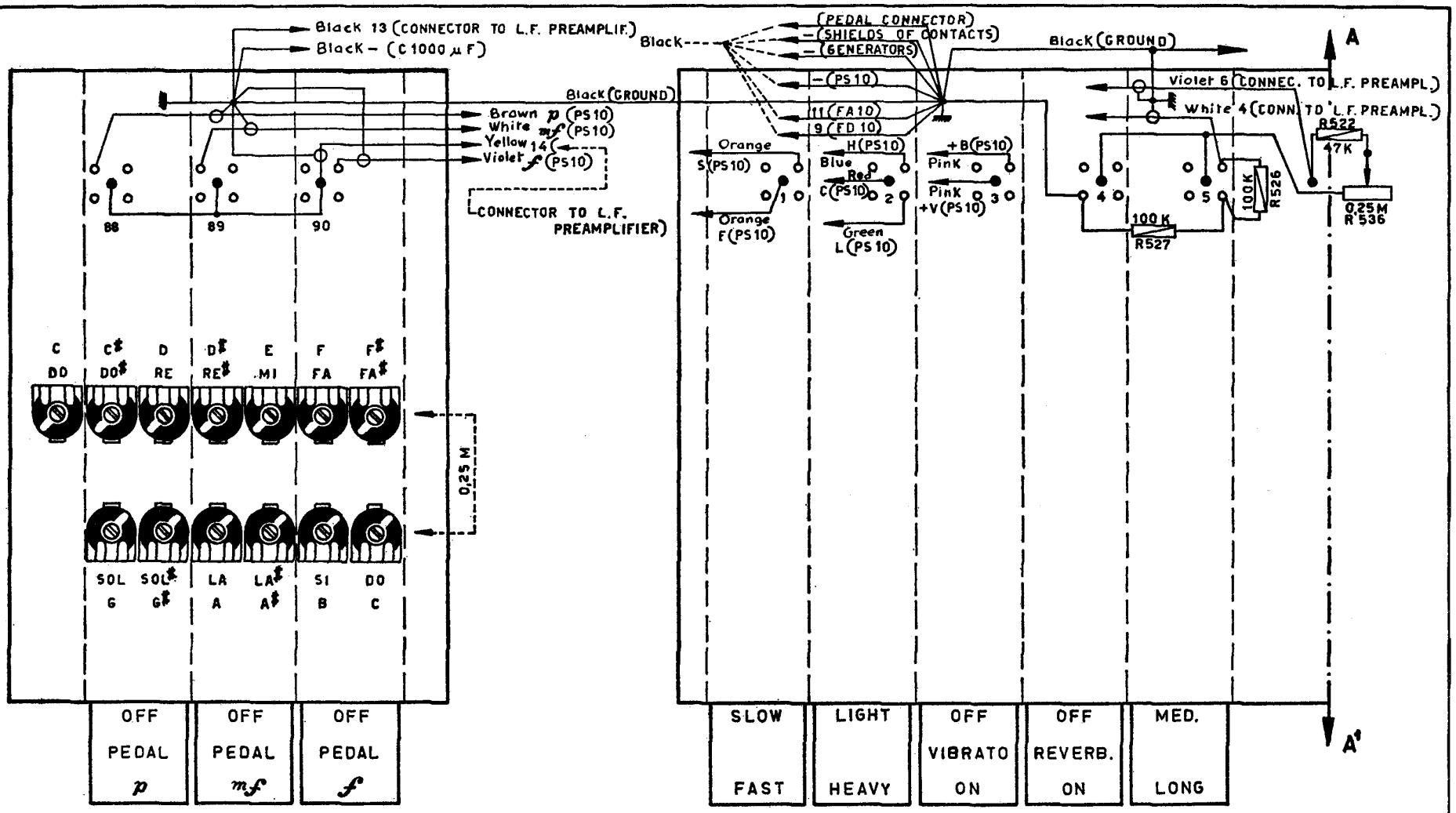
□ = Multi-tone Booster switches (see schematics treble registers SE-12)

DWG. No.	FARFISA SpA CAMERANO – ANCONA –
SE-11	ELECTRONIC ORGAN Mod. "COMPACT" Simplified keying schematics for Treble and Manual Bass
DB	46/6



① ÷ ⑫ = Shielded cables for connection to common bars of contacts
1÷12 (FD10) = Filter output round tones
1÷11 (FA10) = Filter output sharp tones

DWG No	FARFISA SpA CAMERANO – ANCONA –
SE-35	ELECTRONIC ORGAN Mod. "COMPACT II" Treble registers circuit diagram
	56/4

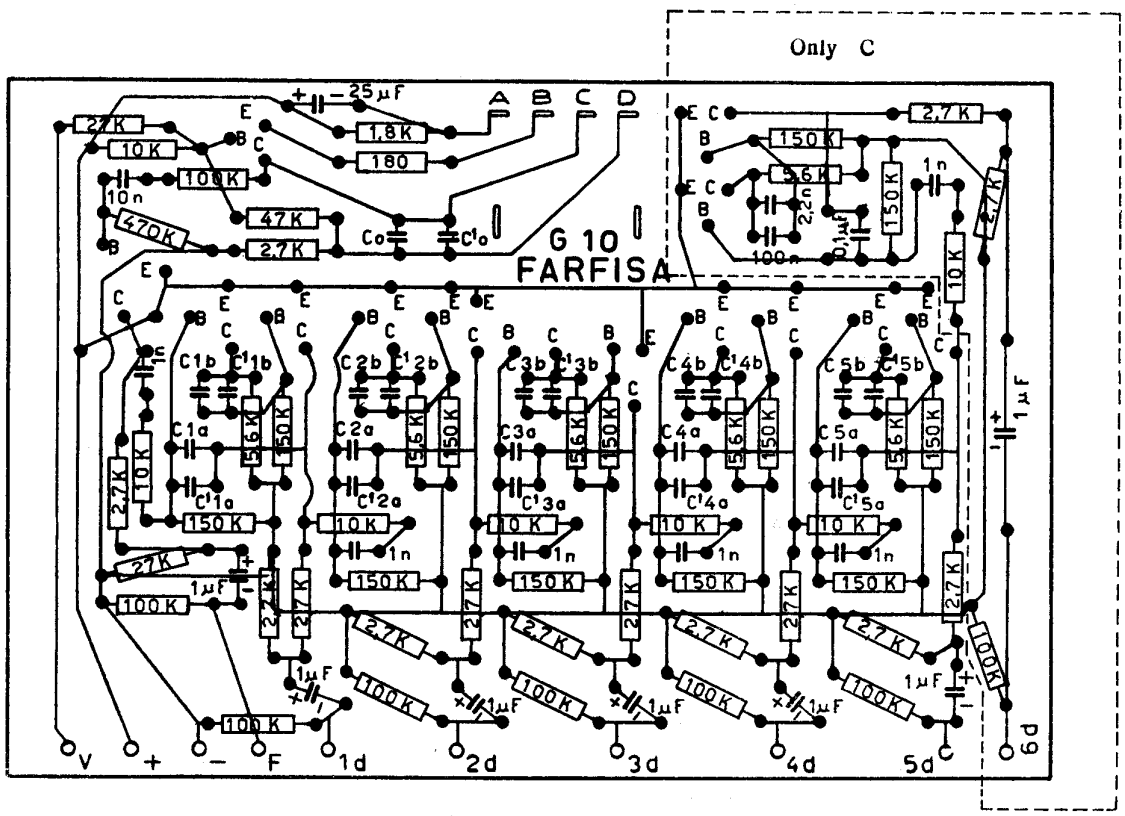


(PS 10) = Printed circuit "Vibrato" and amplifier of "Pedal"

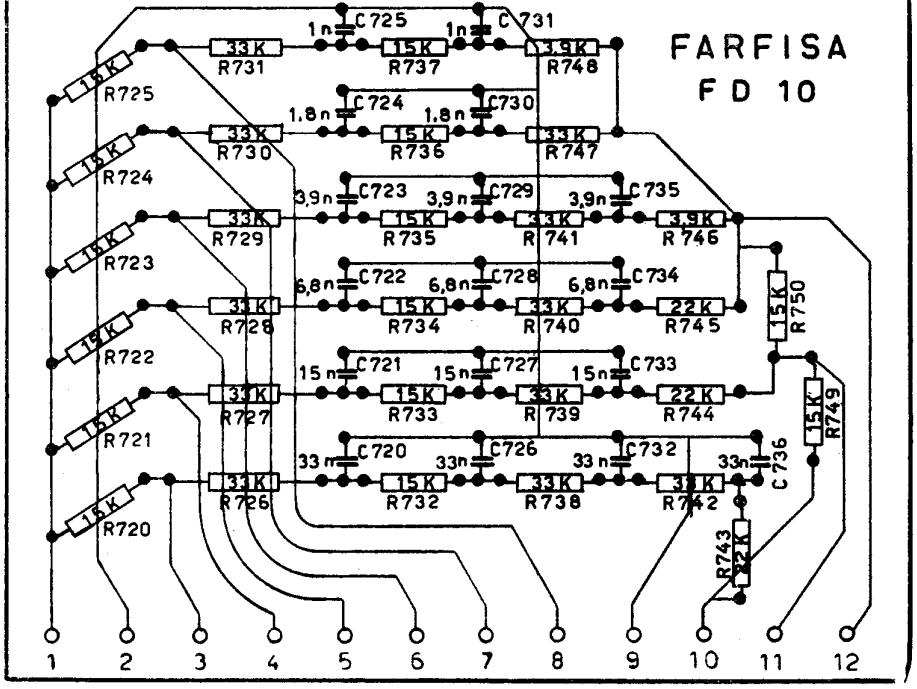
DWG No	FARFISA SpA CAMERANO – ANCONA –
SE-13	ELECTRONIC ORGANS Mod. "COMPACT" and "RHAPSODY" Circuit diagram of Pedal registers, Vibrato and Reverb.
Dff	46/6

PRINTED CIRCUIT G 10 - TONE GENERATOR C ÷ B

DWG No SE - 14	46 / 6

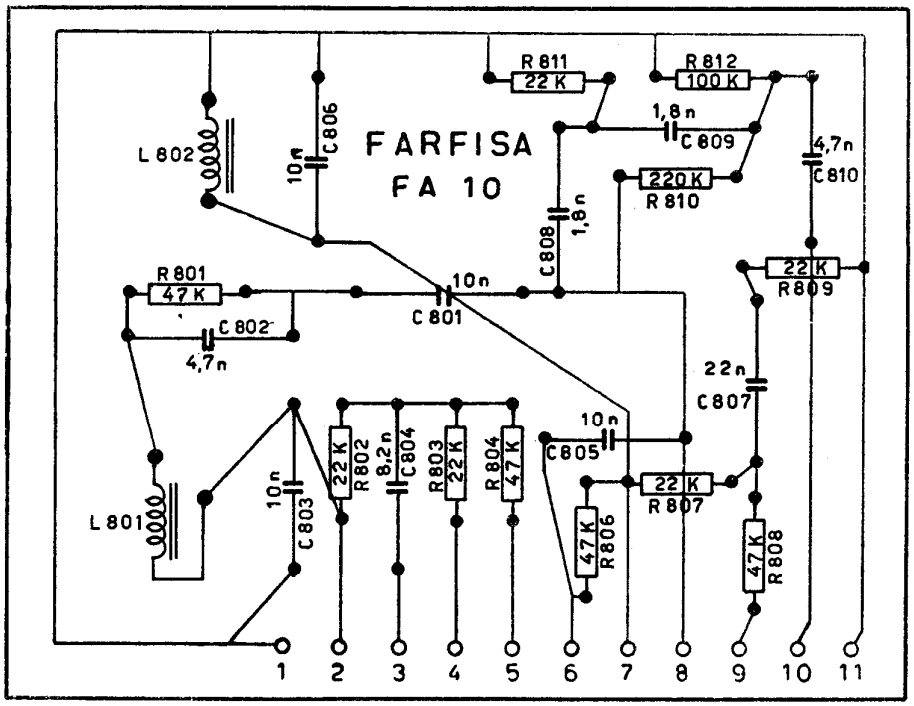


	Co	C'o	C1a + C'1a	C1b + C'1b	C2a + C'2a	C2b + C'2b	C3a + C'3a	C3b + C'3b	C4a + C'4a	C4b + C'4b	C5a + C'5a	C5b + C'5b
C DO	5,6 n	0,82 n	3,3 n	3,9 n	6,6 n	8,2 n	13,6 n	18 n	28 n	33 n	54 n	68 n
C♯ DO♯	15 n	—	6,5 n	8,2 n	13,4 n	18 n	27 n	33 n	52 n	68 n	104 n	120 n
D RE	12 n	1,5 n	6 n	6,8 n	12 n	15 n	25 n	33 n	50 n	56 n	98 n	120 n
D♯ RE♯	12 n	—	5,7 n	6,8 n	11,3 n	15 n	23 n	27 n	46 n	56 n	92 n	120 n
E MI	8,2 n	1 n	5,5 n	6,8 n	11 n	15 n	22 n	27 n	43 n	56 n	84 n	100 n
F FA	8,2 n	—	5 n	5,6 n	10 n	12 n	21 n	27 n	41 n	47 n	82 n	100 n
F♯ FA♯	6,8 n	1 n	4,6 n	5,6 n	9,2 n	12 n	18 n	22 n	37 n	47 n	74 n	100 n
G SOL	5,6 n	0,82 n	4,3 n	5,6 n	8,6 n	10 n	18 n	22 n	36 n	47 n	72 n	82 n
G♯ SOL♯	10 n	—	3,8 n	4,7 n	8,2 n	10 n	17 n	22 n	35 n	47 n	69 n	82 n
A LA	8,2 n	1,5 n	3,6 n	4,7 n	7,8 n	10 n	16 n	22 n	33 n	39 n	64 n	82 n
A♯ LA♯	8,2 n	—	3,4 n	3,9 n	7,2 n	8,2 n	16 n	22 n	29 n	39 n	59 n	68 n
B SI	6,8 n	1 n	3,1 n	3,9 n	6,2 n	8,2 n	13,5 n	18 n	28 n	33 n	56 n	68 n



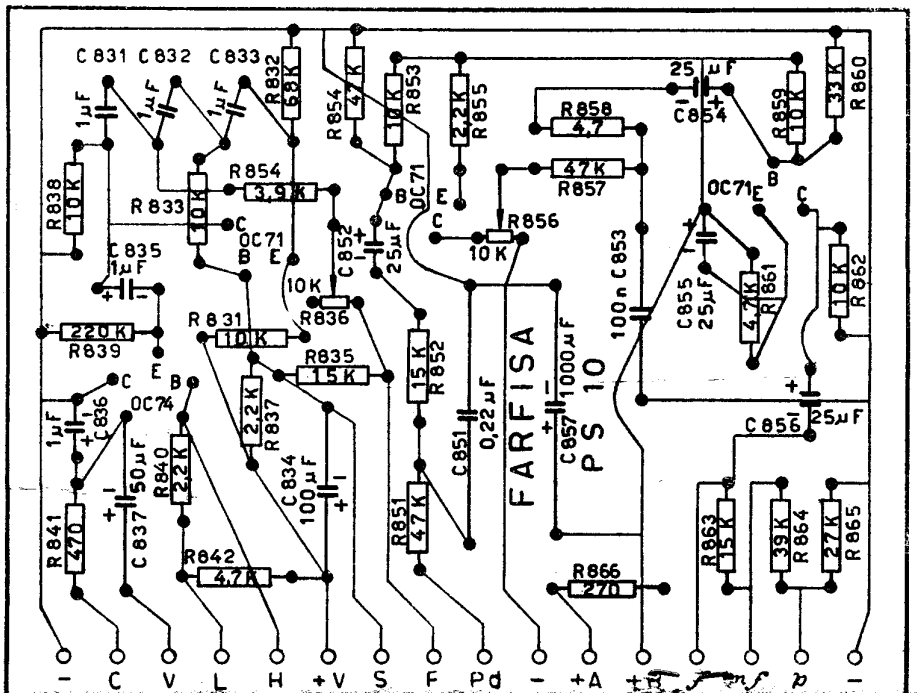
Printed circuit FD 10

round tones filter



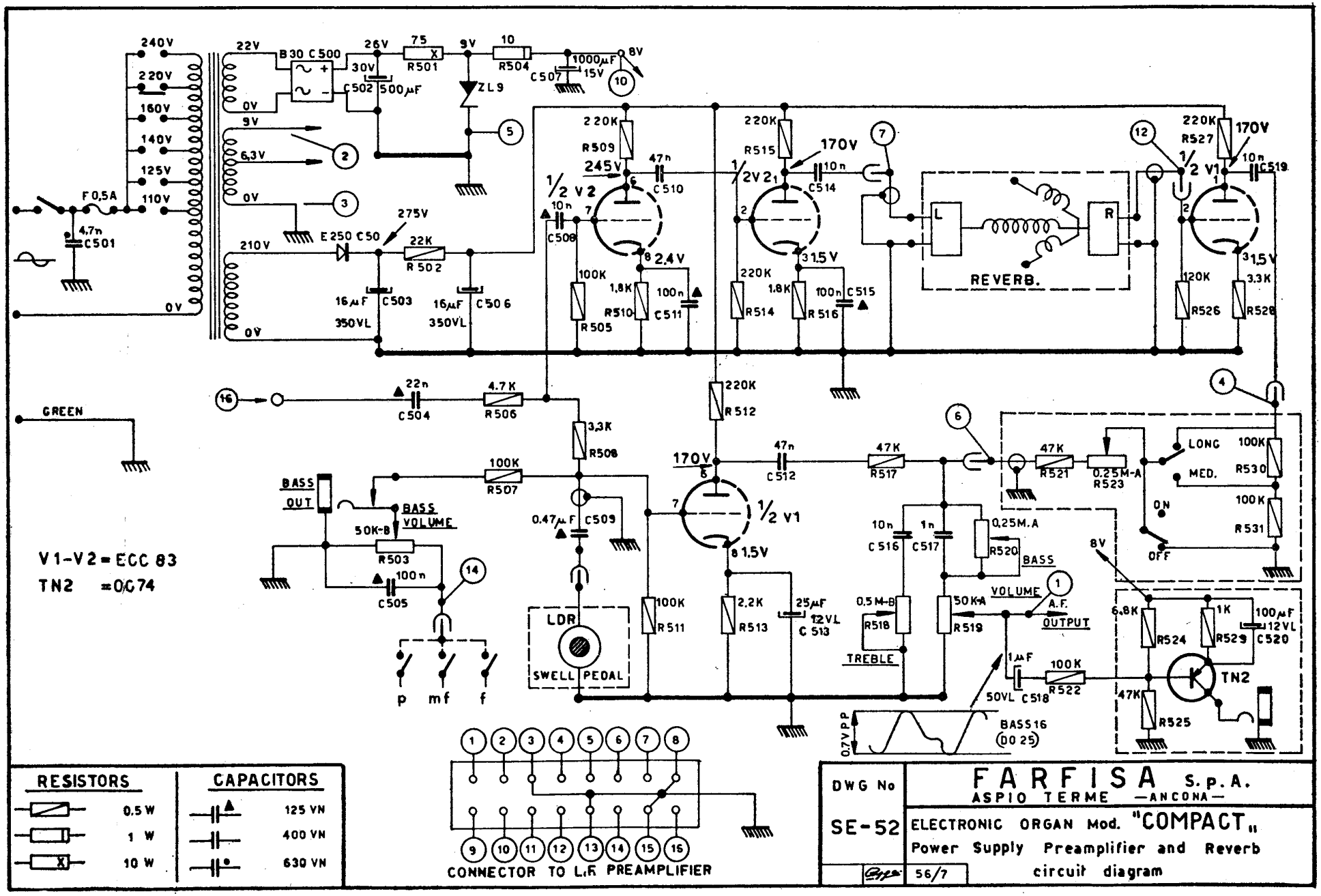
Printed circuit FA 10

sharp tonos filter



Printed circuit PS 10

vibrato and amplifier of pedal


240V
220V
160V
140V
125V
110V
0V
F 0,5A
4,7n C501
22V
B30 C500
26V
75
X
R501
9V
10
R504
1000µF 15V
C507
8V
10
30V
C502 500µF
ZL9
5
9V
6,3V
2
0V
3
210V
E 250 C50
275V
22K
R502
16µF C503
350VL
16µF C506
350VL
0V
220K
R509
245V
47n
C510
1/2 V2
10n
C508
100K
R505
1,8K
R510
100n
C511
8 2,4V
220K
R515
170V
10n
C514
1/2V2
220K
1,8K
R516
100n C515
3 1,5V
REVERB.
L
R
7
12
220K
R527
170V
1/2 V1
10n C519
120K
R526
3,3K
R528
3 1,5V
16
22n
C504
4.7K
R506
GREEN
3,3K
R508
100K
R507
220K
R512
170V
47n
C512
47K
R517
6
4
47K
R521
0.25M-A
R523
LONG
MED.
ON
OFF
100K
R530
100K
R531
BASS
OUT
BASS
VOLUME
50K-B
R503
100n
C505
14
0.47µF C509
1/2 V1
8 1,5V
10n
C516
1n
C517
0,25M.A
R520
BASS
8V
VOLUME
1
A.F.
OUTPUT
0,5M-B
R518
TREBLE
50K-A
R519
100K
R511
2,2K
R513
25µF 12VL
C 513
LDR
SWELL PEDAL
p mf f
1µF
50VL C518
100K
R522
6,8K
R524
1K
R529
100µF 12VL
C520
TN2
47K
R525
0,7V P-P
BASS16
(DO 25)
V1-V2 = ECC 83
TN2 = OC74
1 2 3 4 5 6 7 8
9 10 11 12 13 14 15 16
CONNECTOR TO L.F. PREAMPLIFIER
RESISTORS
0.5 W
1 W
10 W
CAPACITORS
125 VN
400 VN
630 VN
DWG No
SE-52
FARFISA S.p.A.
ASPIO TERME —ANCONA—
ELECTRONIC ORGAN Mod. "COMPACT"
Power Supply Preamplifier and Reverb
circuit diagram
56/7