



MT 200 A

Active,
processor controlled,
2-way system

SERVICE MANUAL *MANUALE DI SERVIZIO*

MT 200 A

ACTIVE, PROCESSOR CONTROLLED, 2-WAY SYSTEM

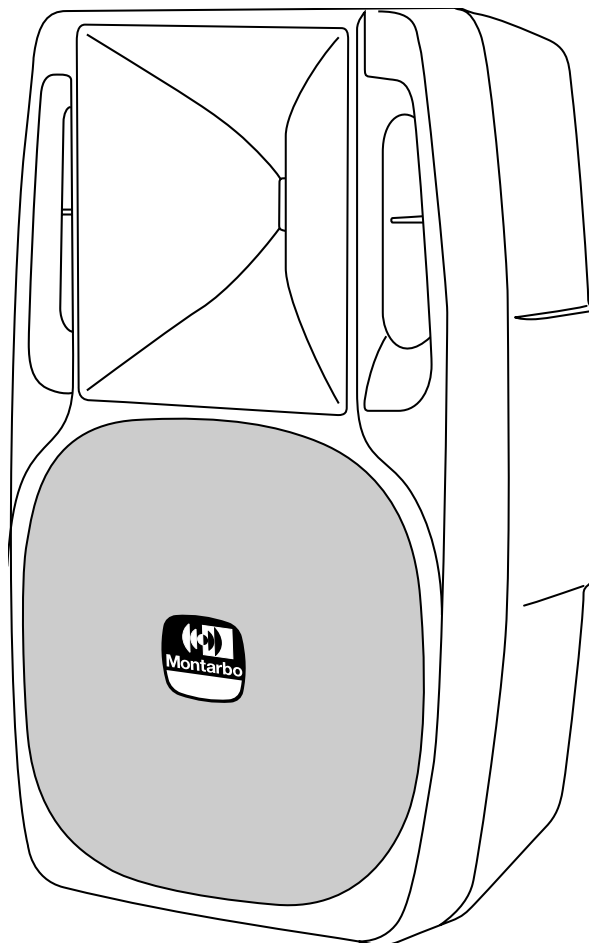


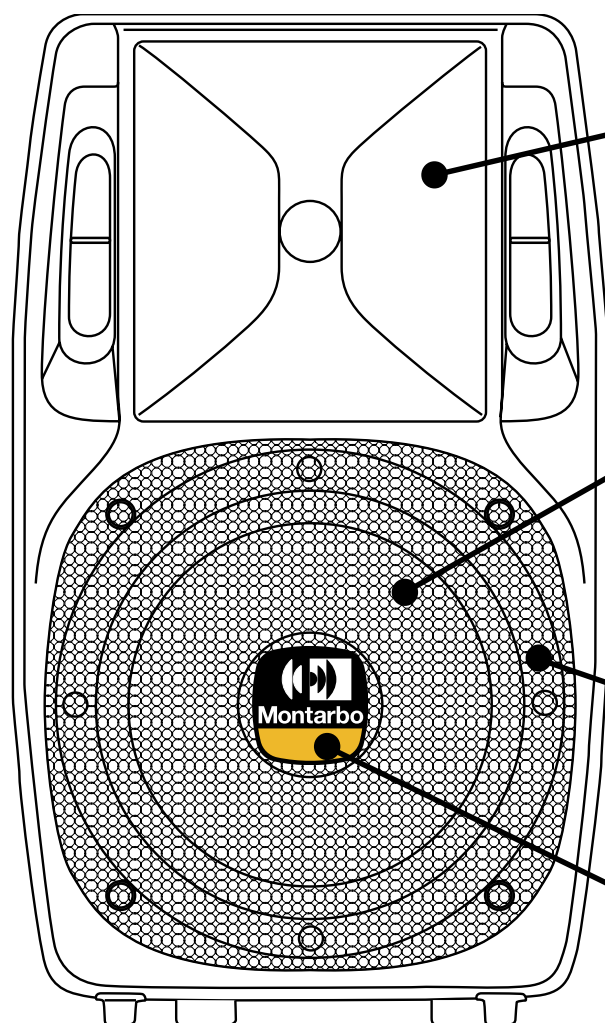
TABLE OF CONTENTS:

Spare parts
Technical specification
Electrical diagram
Assembled circuit boards
Glossary

INDICE:

*Parti di ricambio
Dati tecnici
Schema elettrico
Circuiti assemblati
Glossario*

SPARE PARTS
PARTI DI RICAMBIO



A300217

1" compression driver loaded by a
90°x60° horn

Driver a compressione da 1"
caricato a tromba (90°x60°)

A300149

8" High efficiency
Loudspeaker 8ohm
Woofer da 8" ad alta
efficienza 8ohm

D20W20A

Steel protection grille
Griglia di protezione in
verniciata

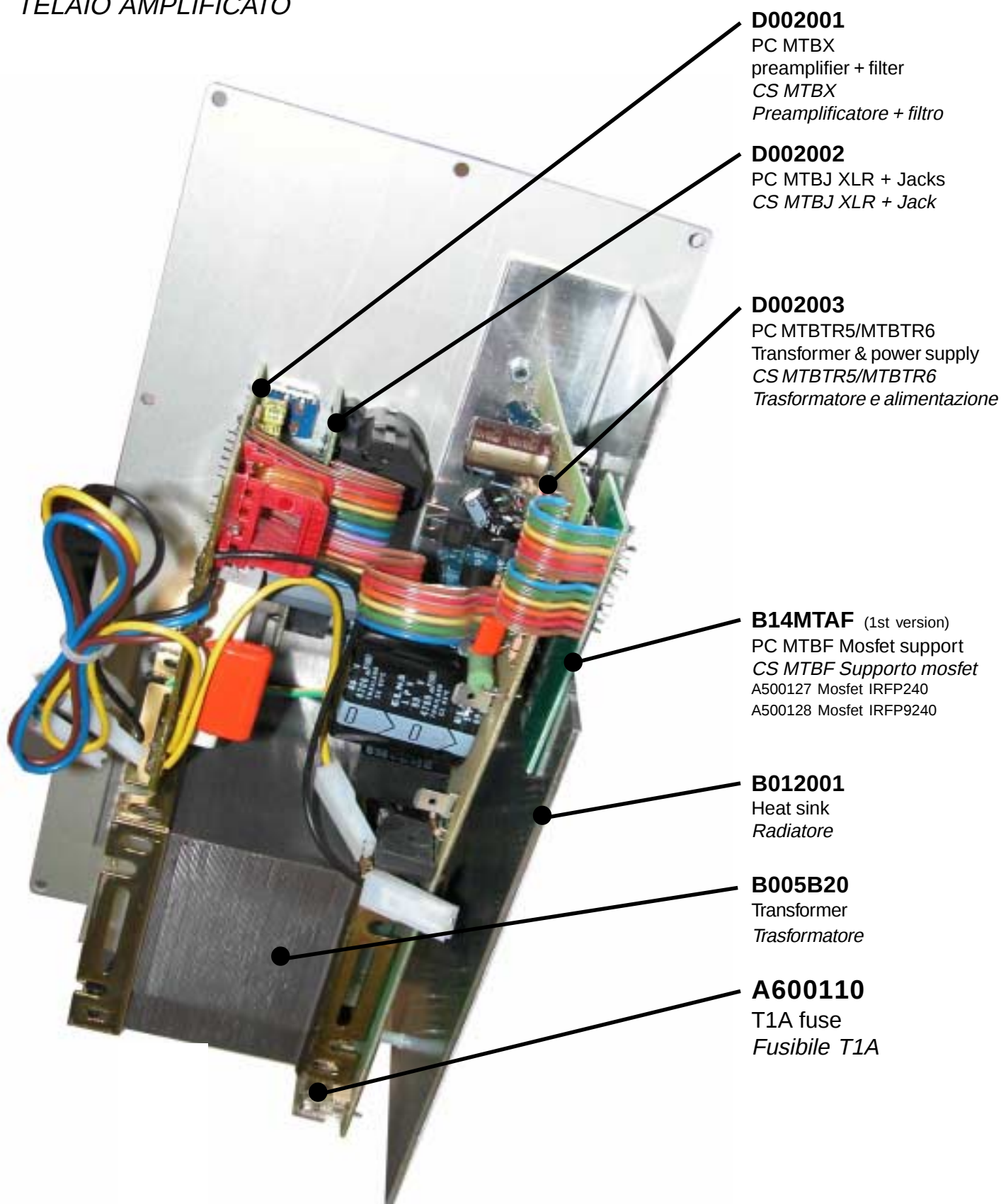
B021093

Lenticular adhesive name plate
Targhetta adesiva lenticolare

SPARE PARTS
PARTI DI RICAMBIO

D520200

AMPLIFIER CHASSIS
TELAIO AMPLIFICATO



D002001

PC MTBX
preamplifier + filter
CS MTBX
Preamplificatore + filtro

D002002

PC MTBJ XLR + Jacks
CS MTBJ XLR + Jack

D002003

PC MTBTR5/MTBTR6
Transformer & power supply
CS MTBTR5/MTBTR6
Trasformatore e alimentazione

B14MTAF (1st version)

PC MTBF Mosfet support
CS MTBF Supporto mosfet
A500127 Mosfet IRFP240
A500128 Mosfet IRFP9240

B012001

Heat sink
Radiatore

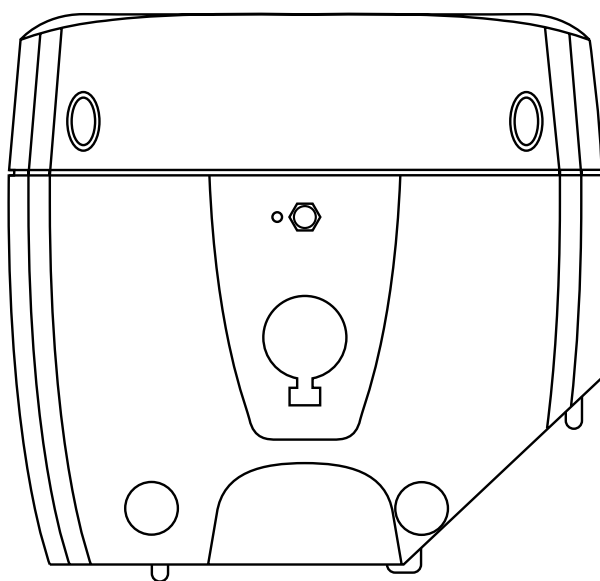
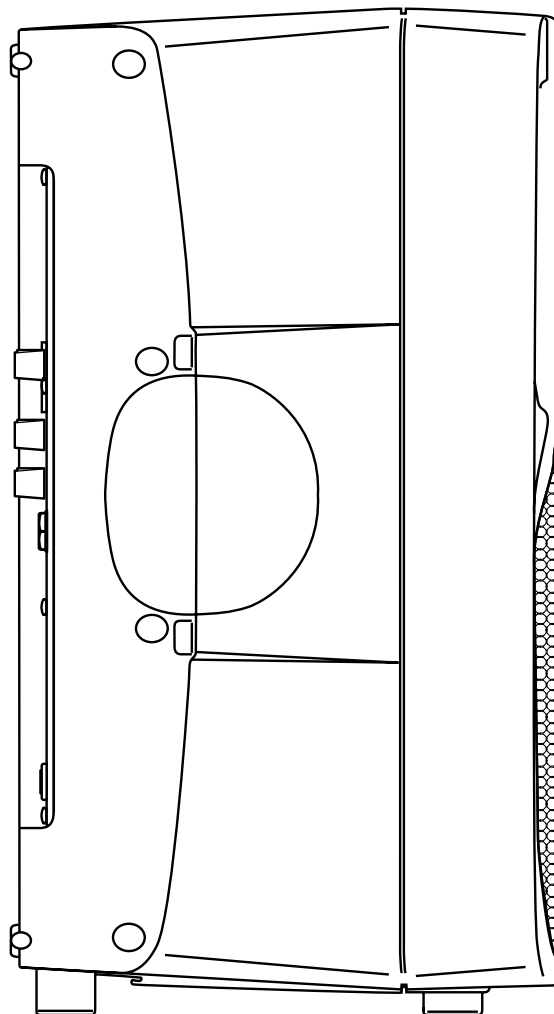
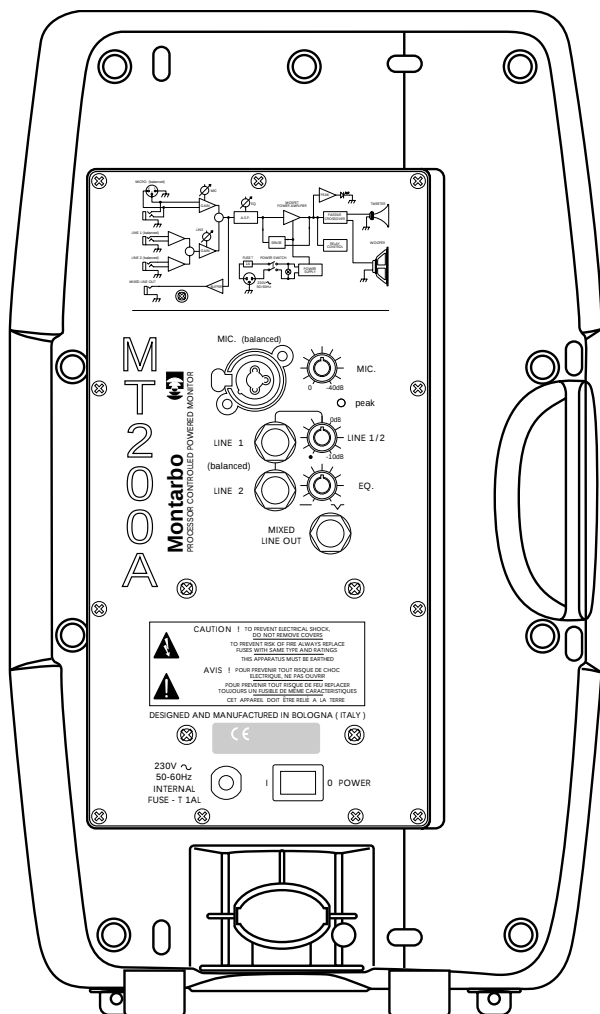
B005B20

Transformer
Trasformatore

A600110

T1A fuse
Fusibile T1A

SPARE PARTS PARTI DI RICAMBIO



SPARE PARTS PARTI DI RICAMBIO

D520200

AMPLIFIER CHASSIS
TELAIO AMPLIFICATO

D002001

PC MTBX
preamplifier + filter
CS MTBX
Preamplificatore + filtro

D002002

PC MTBJ XLR + Jacks
CS MTBJ XLR + Jack

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PC MTBTR5 /MTBTR6
Transformer & power supply
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Transformer
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Heat sink
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A300217

1" compression driver
loaded by a 90°x60° horn
Driver a compressione da 1"
caricato a tromba (90°x60°)

A300149

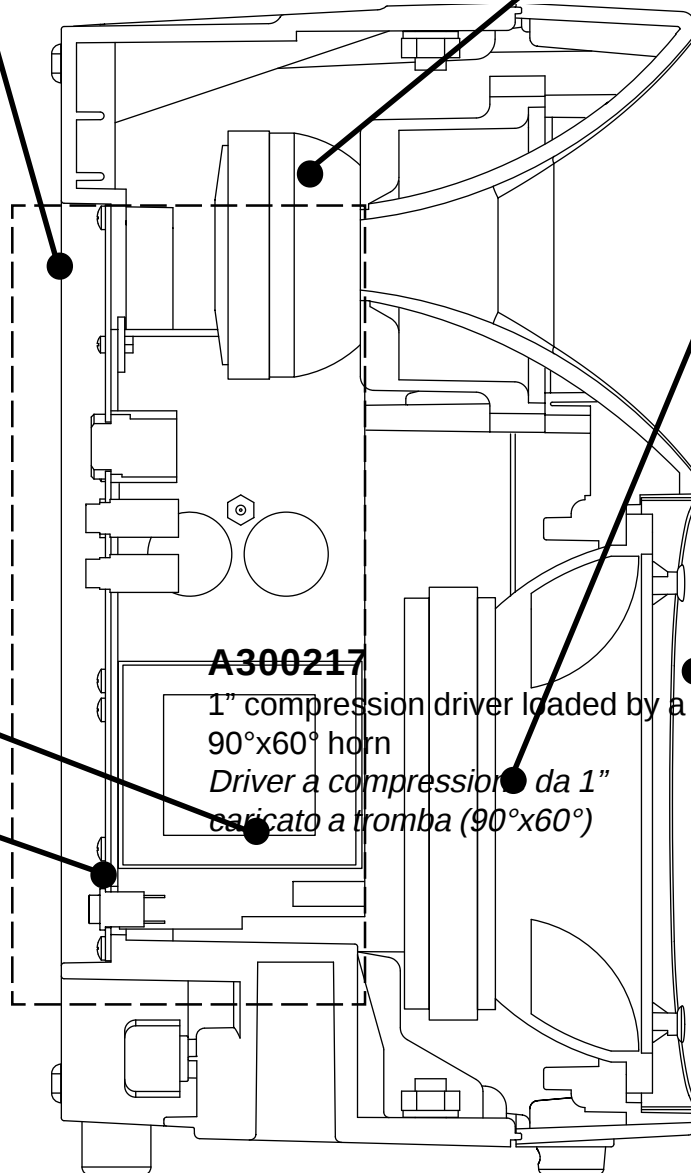
8" High efficiency
Loudspeaker 8ohm
Woofer da 8" ad alta
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Steel protection grille
Griglia di protezione in
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A300217

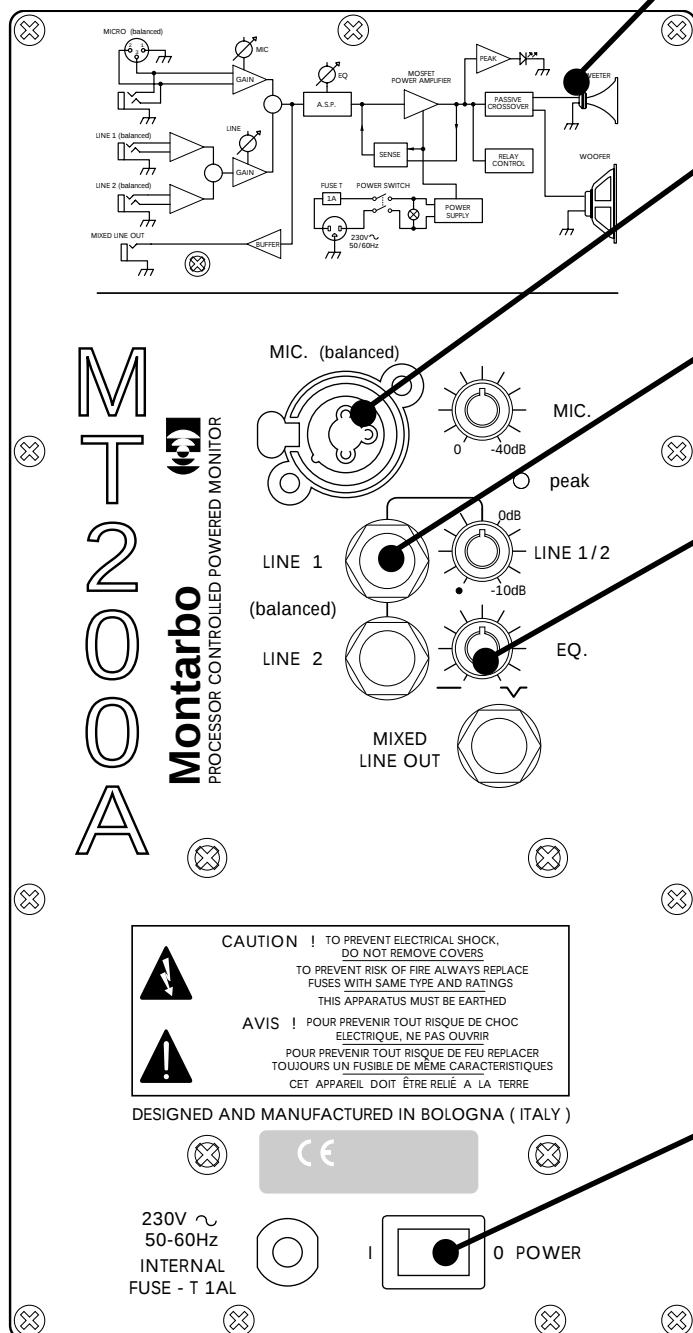
1" compression driver loaded by a
90°x60° horn
Driver a compressione da 1"
caricato a tromba (90°x60°)



SPARE PARTS PARTI DI RICAMBIO

D520200

AMPLIFIER CHASSIS
TELAIO AMPLIFICATO



B022003

Silk-screen panel
Pannello serigrafato

A603004

Xlr/jack socket
Pres a xlr+jack

A603267

Jack
Pres a jack

A608036

Black knob
Manopola nera

A900007

Red switch
Interruttore bip. rosso

TECHNICAL SPECIFICATIONS

DATI TECNICI

Speaker system

• Components:

- bass frequencies

Nominal diameter
Nominal impedance
Power capacity
Net weight
Thiele & Small Parameters

fs 80Hz
Re 5,8 ohms
Qms 2,51
Qes 0,35
Qts 0,31
Vas 11,16dm³
B.l. 13,7 ST/m
SD 213,82 cm³
Mms 22,3 gr

- high frequencies

Throat diameter
Nominal impedance
DC resistance
Power capacity
Crossover
Voice coil diameter
Overall diameter
Depth
Net weight

2-way bass reflex
custom designed to our
specifications:

8" high efficiency woofer
8"
8 ohms
200 watts
3,4 Kg

80Hz
5,8 ohms
2,51
0,35
0,31
11,16dm³
13,7 ST/m
213,82 cm³
22,3 gr
1" compression driver loaded
by a 90°x60° horn

1"
8 ohms
5,5 ohms
125 watts
1800Hz 12dB/oct
25 mm
20 mm
53 mm
800gr

- Impedance
- Frequency response

8 ohms
58Hz ÷ 20kHz
-bass: 58Hz ÷ 1800 Hz
-mid/high: 1800Hz ÷ 20kHz
98 dB
121 dB

- Sensitivity (1W / 1m)
- Max SPL

Built-in power amplifier

- Max. output power

- Frequency response
- Impedance

- Input sensitivity

- Noise referred to input
- Power supply
(Europe and Asia)
- Power supply
(USA and Canada)

MosFet - class A-B, processor
controlled
Automatic trouble-shooting.
150 Watts continuous
220 Watts peak
10Hz÷40kHz ±1dB
line 10k ohms
micro 2k ohms
line -10dB
micro -40dB
-110dB (A weighted)
230V AC 50÷60Hz
117V AC 50÷60Hz

Connections

Combined XLR and 1/4" jack
(Neutrik Combo®) for the
balanced input;
1/4" jacks for the line inputs
and for the mixed output.

Construction

Injection moulded
Polypropylene cabinet.
Steel protection grille. Stand
adaptor. Threaded insert (8M).

Dimensions (w x h x d):
Weight

25 x 42,5 x 23 cm
10 Kg

Sistema acustico

• Componenti:

- basse frequenze

Diametro nominale
Impedenza nominale
Potenza
Peso netto
Parametri Thiele & Small

fs 80Hz
Re 5,8 ohm
Qms 2,51
Qes 0,35
Qts 0,31
Vas 11,16dm³
B.l. 13,7 ST/m
SD 213,82 cm³
Mms 22,3 gr

- alte frequenze

Diametro gola
Impedenza nominale
Resistenza DC
Potenza
Crossover
Diametro bobina
Diametro
Profondità
Peso netto

- Impedenza
- Risposta in frequenza

- Sensibilità (1W / 1m)
- Max SPL

Amplificatore

- Potenza max di uscita

- Risposta in frequenza
- Impedenza

- Sensibilità ingresso

- Rumore riferito all'in-
gresso
- Alimentazione
(Europa e Asia)
- Alimentazione
(USA e Canada)

Connessioni

Costruzione e finiture

Dimensioni (l x h x p):
Peso

Bass reflex a 2 vie
Realizzati su nostre specifiche:

woofer da 8" ad alta efficienza
8"

8 ohm
200 watt
3,4 Kg

80Hz
5,8 ohm
2,51
0,35
0,31
11,16dm³
13,7 ST/m
213,82 cm³
22,3 gr

driver a compressione da 1"
caricato a tromba (90°x60°)

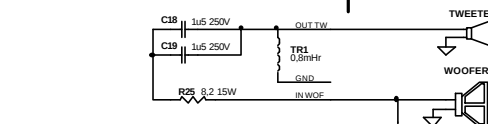
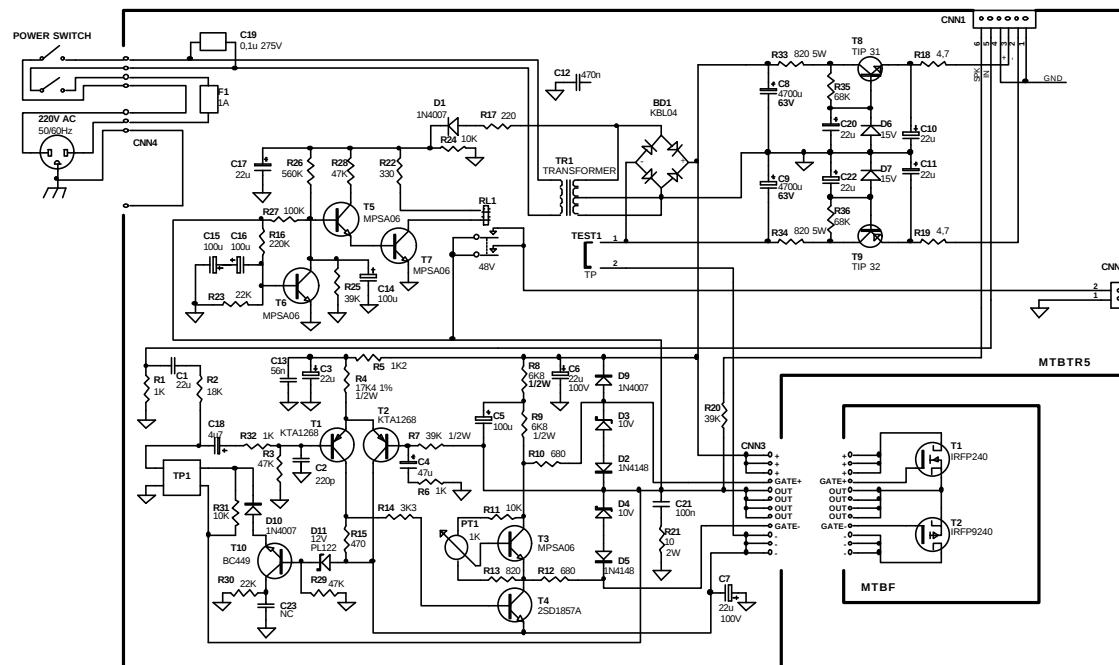
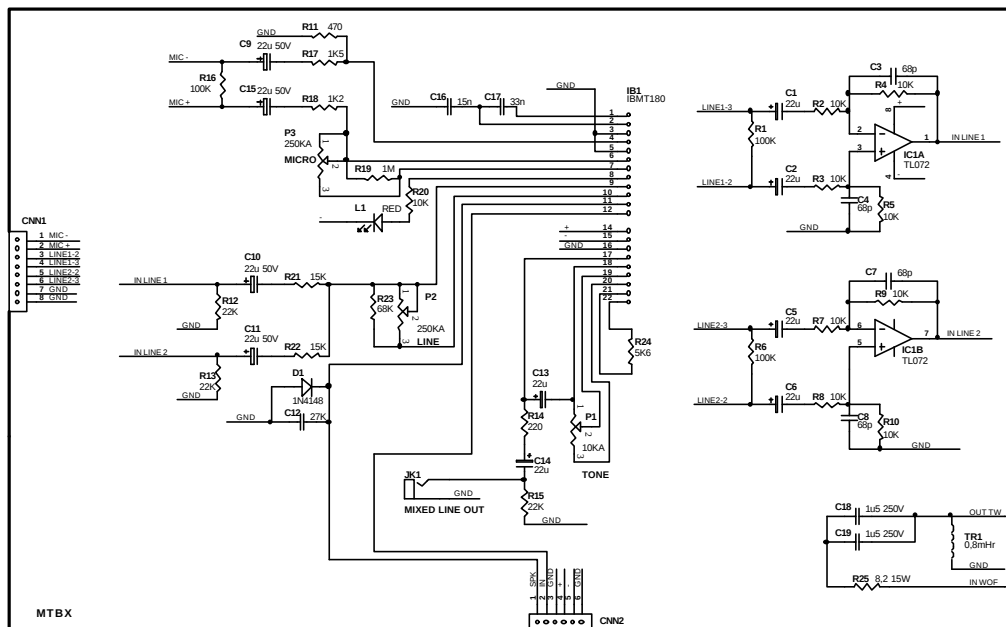
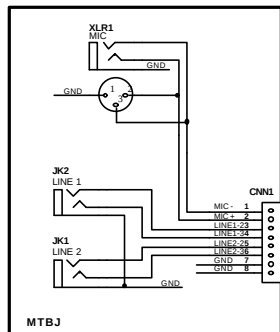
1"
8 ohm
5,5 ohm
125 watt
1800Hz 12dB/oct
25 mm
20 mm
53 mm
800gr

8 ohm
58Hz ÷ 20kHz
- bassi: 58Hz ÷ 1800 Hz
- medio/alti: 1800Hz ÷ 20kHz
98 dB
121 dB

MosFet - classe A-B con
processore attivo.
Autodiagnosi
150 Watts continui
220 Watts di picco
10Hz÷40kHz ±1dB
line 10k ohms
micro 2k ohms
line -10dB
micro -40dB
-110dB (A weighted)
230V AC 50÷60Hz
117V AC 50÷60Hz

Presa Neutrik Combo® (XLR +
jack) per l'ingresso micro
bilanciato;
Jack per gli ingressi linea e per
l'uscita miscelata
Cabinet in PP passivato
stampato ad iniezione. Griglia
di protezione in acciaio. Inserti
filettati (M8)

25 x 42,5 x 23 cm
10 Kg



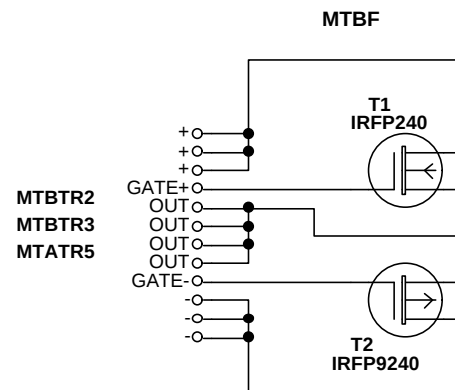
ELETTRONICA MONTARBO SRL Via G. Di Vittorio 13 40097 Castiglione di Garfagnana Bologna - ITALY			
Montarbo 			
MT 200 A			
MT 200 A - 07.93			
Size A2	FCSM No.	DWG No.	Rev 07.93
Scale		Sheet 1 of 1	

ASSEMBLED CIRCUIT BOARDS
CIRCUITI ASSEMBLATI

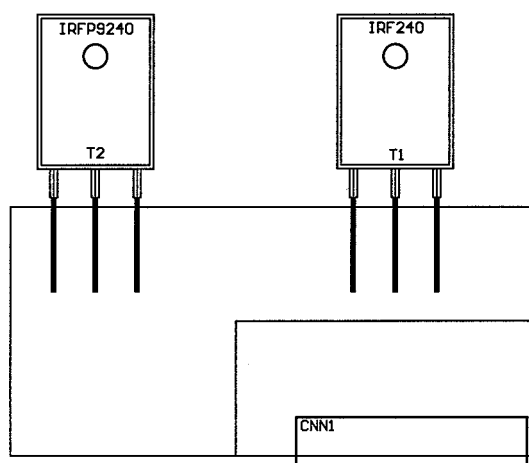
-	MTBF	Mosfet support <i>Supporto mosfet</i>
D002003	MTBTR5/MTBTR6	Power amplifier/ Power supply <i>Amplificatore/ Alimentazione</i>
D002001	MTBX	Preamplifier/ Filter <i>Preamplificatore/ Filtro</i>
D002002	MTBJ	Jacks & Xlr Neutric Combo® <i>Jack e Xlr Neutric Combo®</i>

MOSFET SUPPORT
SUPPORTO MOSFET

[illegible]



	ELETTRONICA MONTARBO VIA G. DI VITTORIO 13 CADRIANO DI GRANAROLO 40057 - BOLOGNA - ITALY				Montarbo 
	MTBF - SUPP. MOSFET				
	Size A4	FCSM No.	DWG No.		Rev 29.98
	Scale			Sheet 1 of 1	



MODIFICATION RESERVEES - ANDERUNGEN VORBEHALTEN - CON RISERVA DI MODIFICHE - ALTERATIONS RESERVED - CON RESERVA DE MODIFICACION

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BOLOGNA
ITALY

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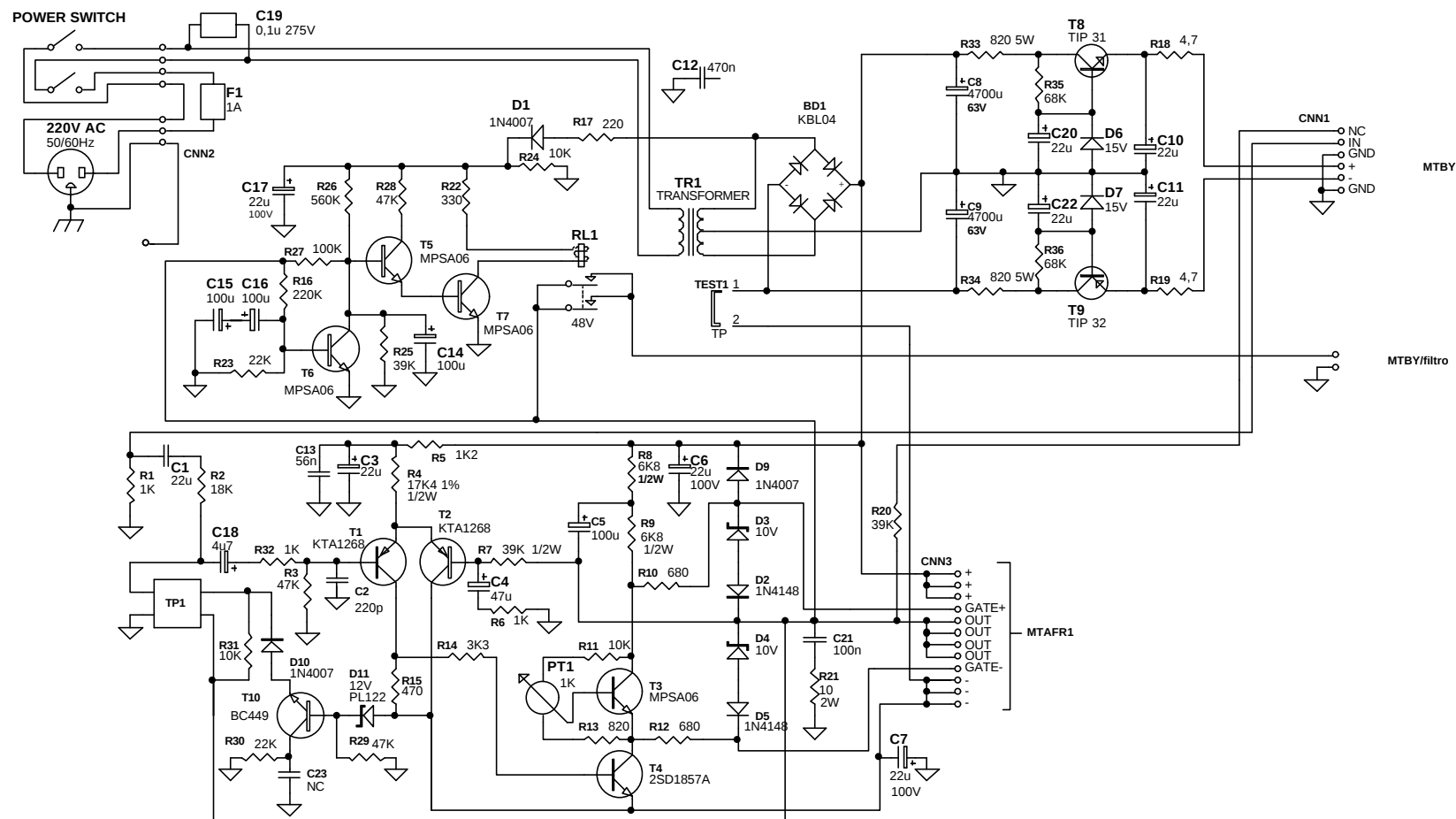
MTBF

-

CS MTBTR5/MTBTR6 POWER AMPLIFIER / POWER SUPPLY
AMPLIFICATORE / ALIMENTAZIONE3rd version
3a versione

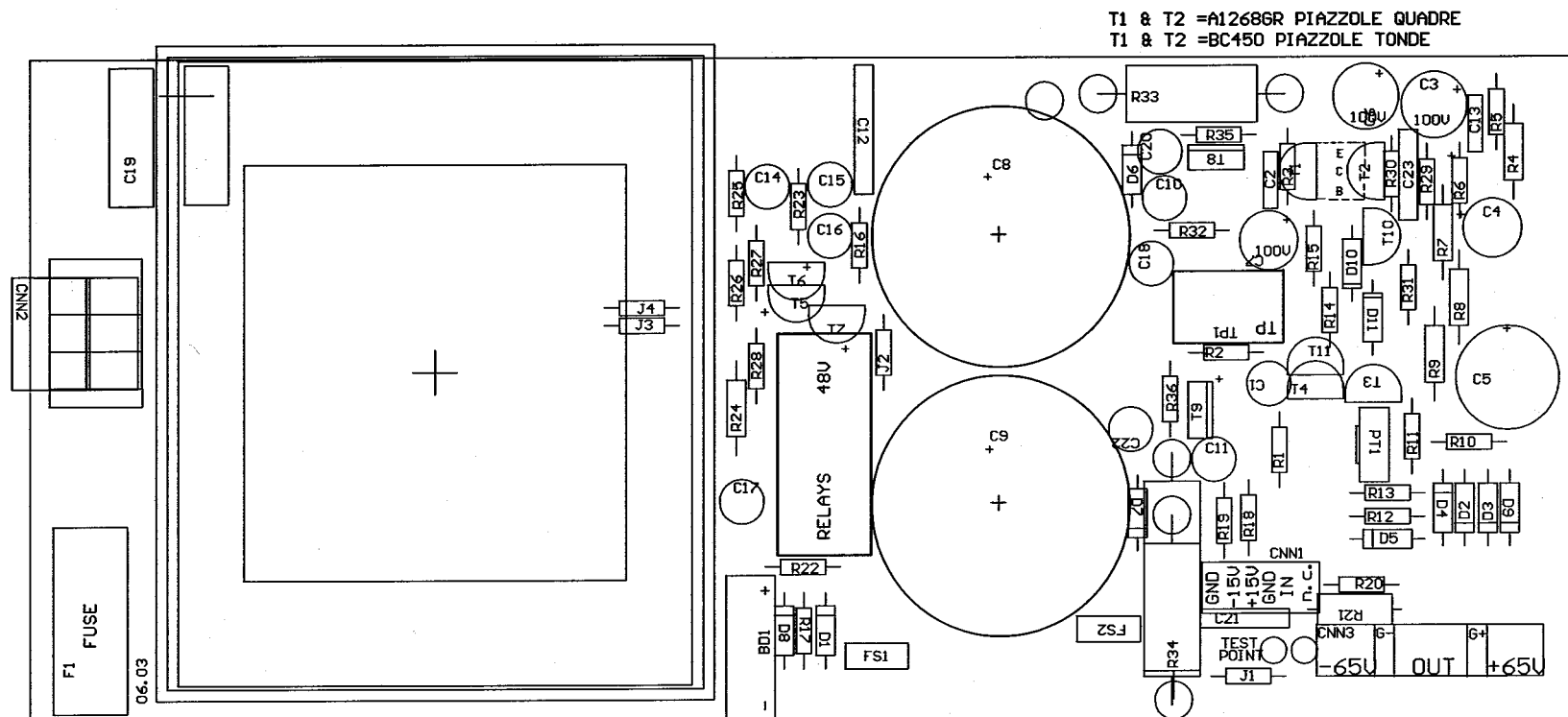
REFERENCE <i>REFERENZA</i>	CODE <i>CODICE</i>	DESCRIPTION <i>DESCRIZIONE</i>	QT.
R1 -R6 -R32	A110102	RESISTOR <i>RESIST. 1/4W 5% 1KΩ</i>	3
R2	A110183	RESISTOR <i>RESIST. 1/4W 5% 18KΩ</i>	1
R3 -R28 -R29	A110473	RESISTOR <i>RESIST. 1/4W 5% 47KΩ</i>	3
R4	A111174	RESISTOR <i>RESIST. 1/4W 1% 17K4Ω</i>	1
R5	A110122	RESISTOR <i>RESIST. 1/4W 5% 1K2Ω</i>	1
R7	A100393	RESISTOR <i>RESIST. 1/2W 5% 39KΩ</i>	1
R8 -R9	A100682	RESISTOR <i>RESIST. 1/2W 5% 6K8Ω</i>	2
R10 -R12	A110681	RESISTOR <i>RESIST. 1/4W 5% 680Ω</i>	2
R11 -R24 -R31	A110103	RESISTOR <i>RESIST. 1/4W 5% 10KΩ</i>	3
R13	A110821	RESISTOR <i>RESIST. 1/4W 5% 820Ω</i>	1
R14	A110332	RESISTOR <i>RESIST. 1/4W 5% 3K3Ω</i>	1
R15	A110471	RESISTOR <i>RESIST. 1/4W 5% 470Ω</i>	1
R16	A110224	RESISTOR <i>RESIST. 1/4W 5% 220KΩ</i>	1
R17	A110221	RESISTOR <i>RESIST. 1/4W 5% 220Ω</i>	1
R18 -R19	A110478	RESISTOR <i>RESIST. 1/4W 5% 4,7Ω</i>	2
R20 -R25	A110393	RESISTOR <i>RESIST. 1/4W 5% 39KΩ</i>	2
R21	A140100	RESISTOR <i>RESIST. 2W 5% 10Ω PR37=PR02</i>	1
R22	A110331	RESISTOR <i>RESIST. 1/4W 5% 330Ω</i>	1
R23 -R30	A110223	RESISTOR <i>RESIST. 1/4W 5% 22KΩ</i>	2
R26	A110564	RESISTOR <i>RESIST. 1/4W 5% 560KΩ</i>	1
R27	A110104	RESISTOR <i>RESIST. 1/4W 5% 100KΩ</i>	1
R33 -R34	A150821	RESISTOR <i>RESIST. 5W 5% 820Ω</i>	2
R35 -R36	A110683	RESISTOR <i>RESIST. 1/4W 5% 68KΩ</i>	2
J1 -J2 -J3 -J4	A110000	RESISTOR <i>RESIST. 1/4W 5% 0Ω</i>	4
C1 -C10 -C11 -C20 -C22	A2432AB	CAPACITOR <i>COND. RE2-50V 220MMA-T2 (22μF 50V)</i>	5
C2	A226221	CAPACITOR <i>COND. CR 220pF 100V 10% 05</i>	1
C3 -C6 -C7 -C17	A244226	CAPACITOR <i>COND. EV 22μF 100V 8X12</i>	4
C4	A2433AD	CAPACITOR <i>COND. RE2-25V 470MMA-T2 (47μF 25V)</i>	1
C5	A244231	CAPACITOR <i>COND. EV RSH 100μF 100V 13x20</i>	1
C8 -C9	A232480	CAPACITOR <i>COND. 4700μF 80V SNAP-IN</i>	2
C12	A216474	CAPACITOR <i>COND. PL 470nF 100V 10% 15</i>	1
C13	A217563	CAPACITOR <i>COND. PL 56nF 100V 5% 05</i>	1
C14 -C15 -C16	A2434AA	CAPACITOR <i>COND. RE3-25V 101MAA-T2 (100μF 25V)</i>	3
C18	A2435AH	CAPACITOR <i>COND. R2B-50V 4R7μ-T2 (4m7F 50V NP)</i>	1
C19	A214105	FILTER <i>FILTRO R40-KI-3100-5001M</i>	1
C21	A216104	CAPACITOR <i>COND. PL 100nF 100V 10% 10</i>	1
C23	-	NC	
PT1	A434102	POTENTIOMETER TRIMMER <i>TRIMMER PR REG. ORIZ. 1KA P10</i>	1
T1 -T2	A500003	TRANSISTOR <i>TRANSIST KTA1268</i>	2
T3 -T5 -T6 -T7	A500053	TRANSISTOR <i>TRANSIST MPSA 06 NPN</i>	4
T4	A500041	TRANSISTOR <i>TRANSIST 2SD1857A</i>	1
T8	A500025	TRANSISTOR <i>TRANSIST TIP 31C</i>	1
T9	A500026	TRANSISTOR <i>TRANSIST TIP 32C</i>	1
T10	A500122	TRANSISTOR <i>TRANSIST BC 449 A</i>	1
D1 -D9 -D10	A510001	DIODE <i>DIODO 1N4007</i>	3
D2 -D5	A510003	DIODE <i>DIODO 1N4148</i>	2
D3 -D4	A510100	ZENER DIODE <i>ZENER 10V 1W</i>	2
D6 -D7	A510150	ZENER DIODE <i>ZENER 15V 1W</i>	2
D11	A510120	ZENER DIODE <i>ZENER 12V 1W</i>	1
F1	A600110	FUSE <i>FUSIBILE T 1A</i>	1
F1	A600804	FUSE HOLDER <i>PORTAFUSIBILE C1010+ COPERCHIO</i>	1
BD1	A605008	BRIDGE DIODES <i>PONTE R KBL 04 2A 400V</i>	1
RL1	A605150	RELAY <i>RELE` M.I.SH 248 L.</i>	1
TP1	A601499	RED LIGHT EMITTED DIODE <i>LED L-53SRC/C 5 HY-LUM C ROS</i>	1
TP1	A601552	PHOTORESISTOR <i>FOTORESISTENZA VT 90N1</i>	1
TP1	B005768	CAP (FOR WAVE TRAP) <i>CAPPUCCIO TRAPP 10x15 PVC</i>	1
TP1	B005769	CAP (FOR WAVE TRAP) <i>CAPPUCCIO TRAPP 7,2x10,5 P</i>	1
TR1	B005B20	TRANSFORMER <i>TRASFORMATORE MT200A</i>	1
CNN1	A603716	FLAT CABLE <i>PIATT. PFS 0033 150mm 6C</i>	1
CNN2	A603360	TERMINAL <i>MORS. WMSM/03/09V1</i>	1
CNN3	A603714	FLAT CABLE <i>PIATT. PFS0129 40mm 6C 0300/1</i>	2
MTBTR5/MTBTR6	B14MTBT	PRINTED CIRCUIT <i>CS MTBTR5/MTBTR6 TRASF. CON REG.</i>	1
-	A603701	TAG <i>PAGLIETTA x CS L979</i>	2
-	A603735	PCB SPADE TERMINATOR <i>FASTON MASC. CS TE342 08</i>	2
-	A603751	EYELET TERMINAL <i>CAPOC. OCCHIELLO BLU D5</i>	1
-	A606356	YELLOW/GREEN CABLE <i>CAVO D 0,5 GIALLO/VERDE</i>	mt 0,3
-	B0047R3	SPACER <i>DISTANZ. CS RLCBSRS-08-01</i>	2

[illegible]



ELETTRONICA MONTARBO VIA G. DI VITTORIO 13 CADRIANO DI GRANAROLO 40057 - BOLOGNA - ITALY			
MTBTR5/R6 - AMPLIFICATORE / TRASFORMATORI			
Size A3	FCSM No.	DWG No.	Rev 10.03
Scale			Sheet 1 of 1

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ELETTRONICA

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MTBTR6
D002003

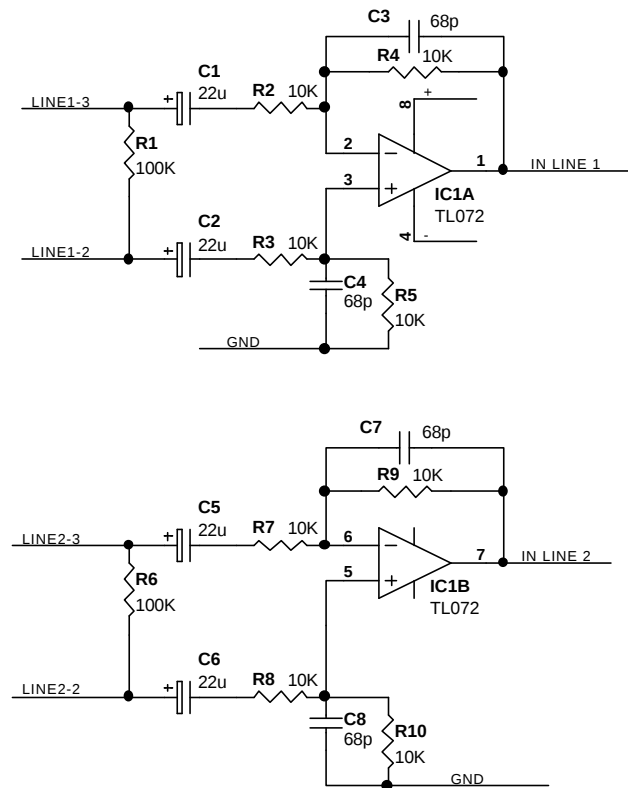
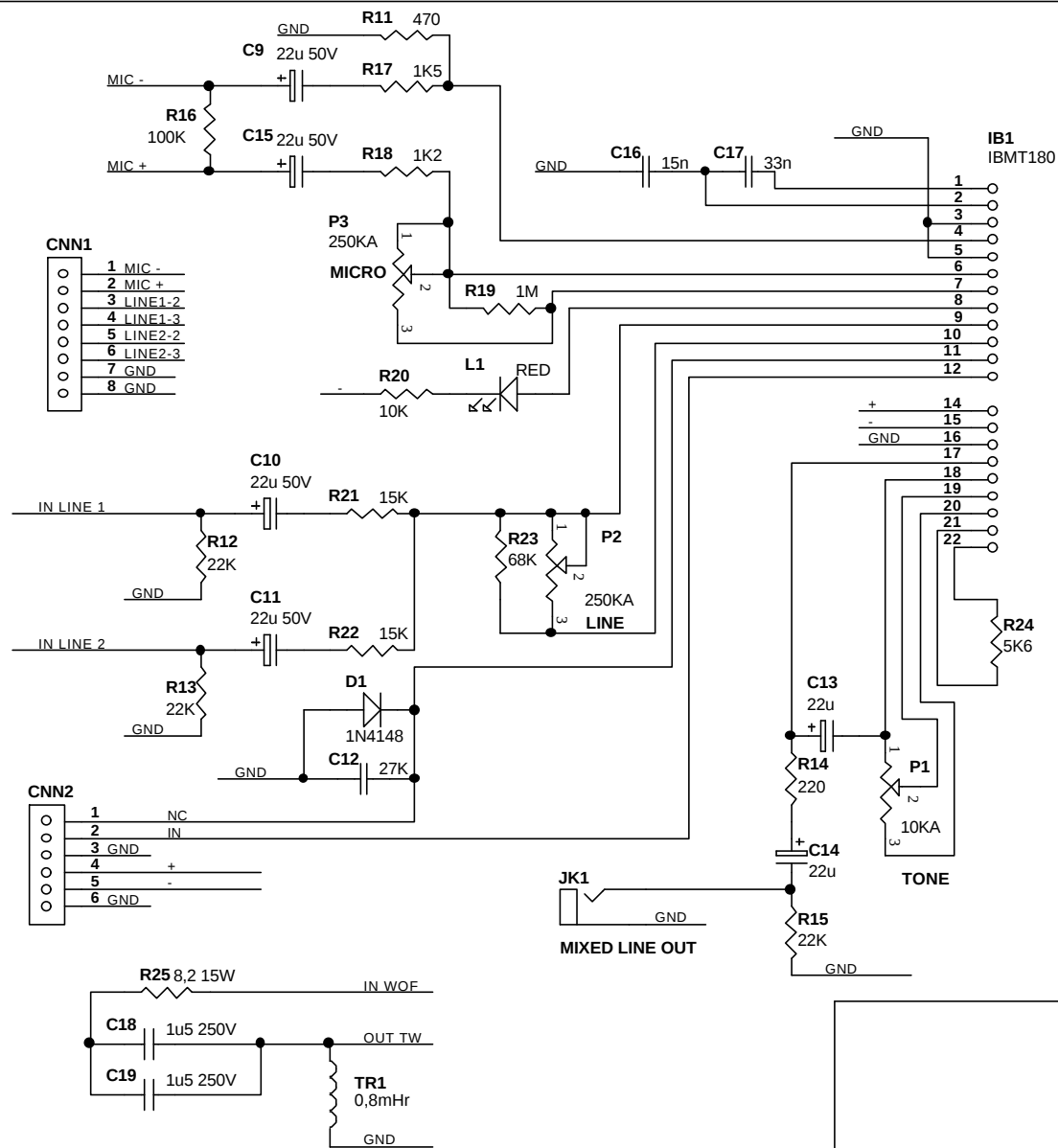
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CS MTBX

PREAMPLIFIER / FILTER
PREAMPLIFICATORE / FILTRO

[illegible]



ELETTRONICA MONTARBO srl
VIA G. DI VITTORIO 13
CADRIANO DI GRANAROLO
40057 BOLOGNA - ITALY

Montarbo

MTBX1

Size
A4

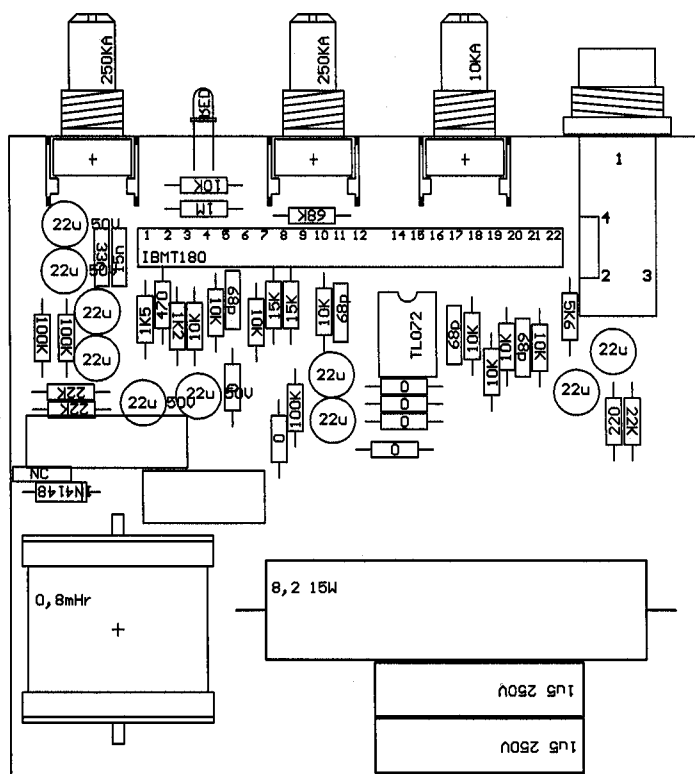
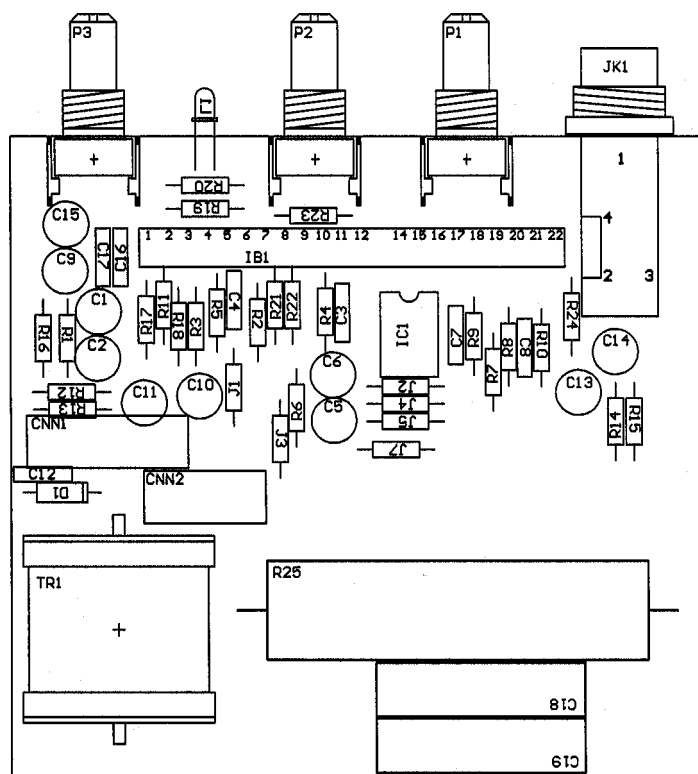
FCSM No.

DWG No.

Rev
45.02

Scale

Sheet
1 of 1



MODIFICATION RESERVEES - ANDERUNGEN VORBEHALTEN - CON RISERVA DI MODIFICHE - ALTERATIONS RESERVED - CON RESERVA DE MODIFICACION

ELETTRONICA **Montarbo**



BOLOGNA
s.r.l. ITALY

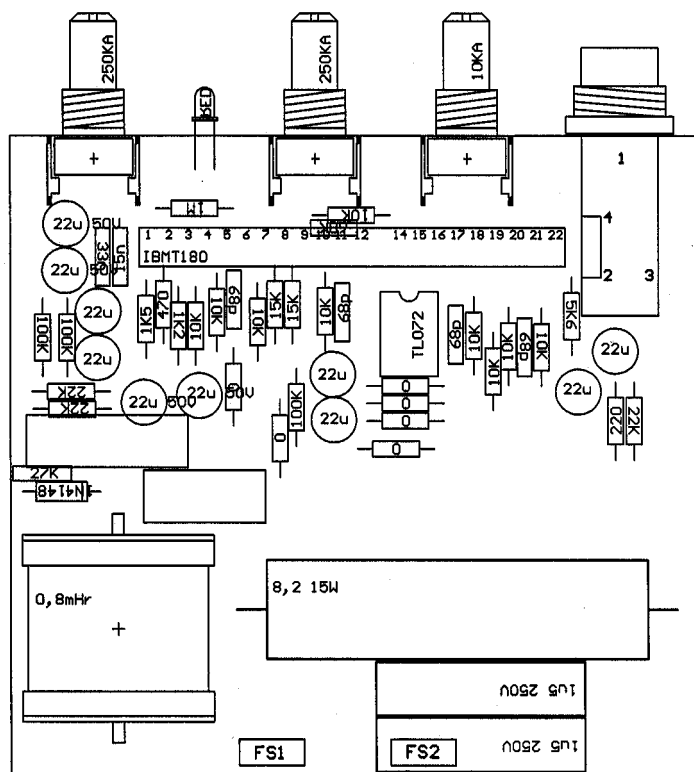
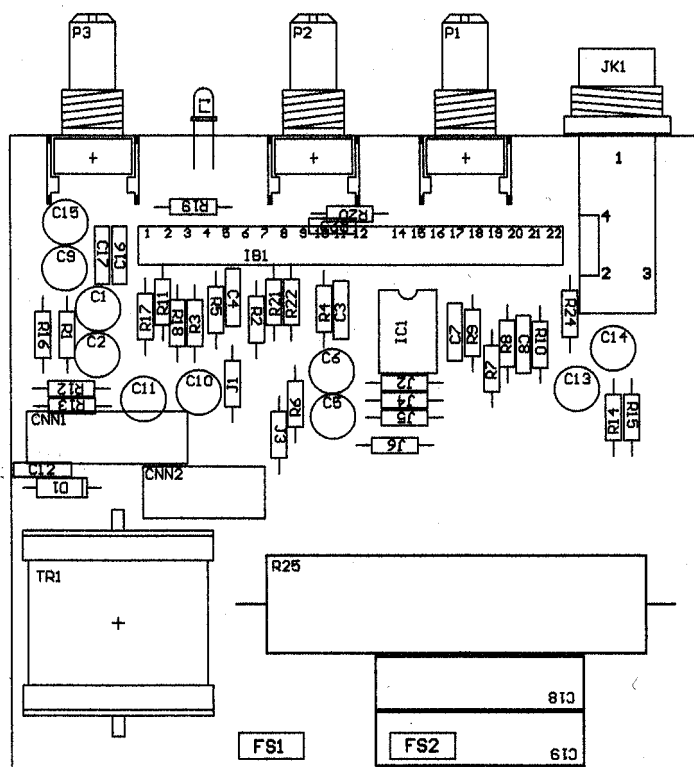
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archivio

oggetto

MTBX
D002001



MODIFICATION RESERVEES - ANDERUNGEN VORBEHALTEN - CON RISERVA DI MODIFICHE - ALTERATIONS RESERVED - CON RESERVA DE MODIFICACION

ELETTRONICA **Montarbo**



BOLOGNA
s.r.l. ITALY

data

11.03

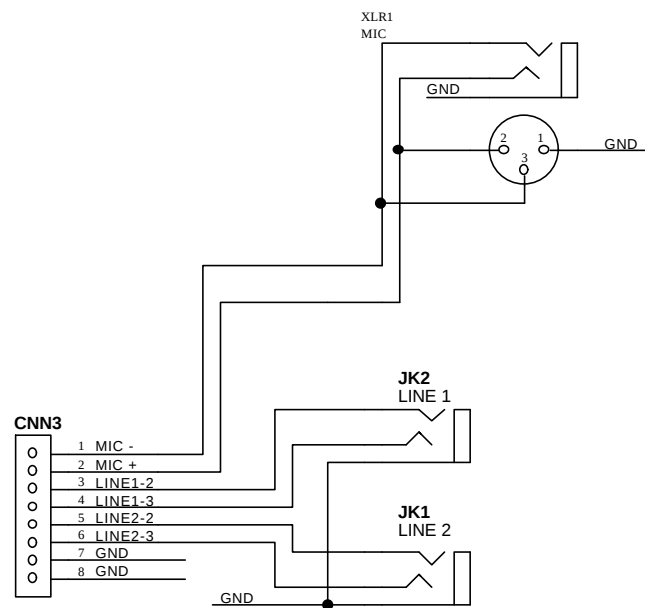
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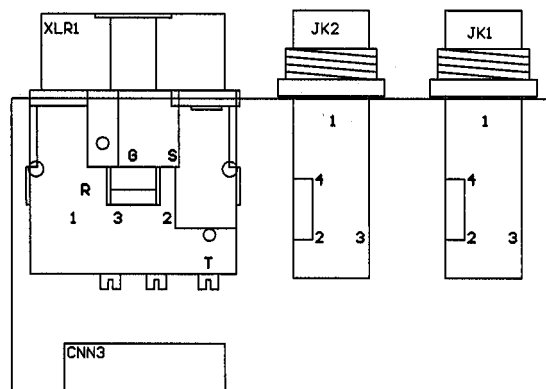
MTBX
D002001

JACKS & NEUTRIC COMBO® XLR
JACK E XLR NEUTRIC COMBO®

[illegible]



	ELETTRONICA MONTARBO srl VIA g. DI VITTORIO 13 CADRIANO DI GRANAROLO 40057 - BOLOGNA - ITALY				Montarbo 
	MTBJ1				
	Size A4	FCSM No.	DWG No.		Rev 45.02
	Scale			Sheet 1 of 1	



MODIFICATION RESERVEES - ANDERUNGEN VORBEHALTEN - CON RISERVA DI MODIFICHE - ALTERATIONS RESERVED - CON RESERVA DE MODIFICACION

ELETTRONICA **Montarbo**



BOLOGNA
s.r.l. ITALY

data

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