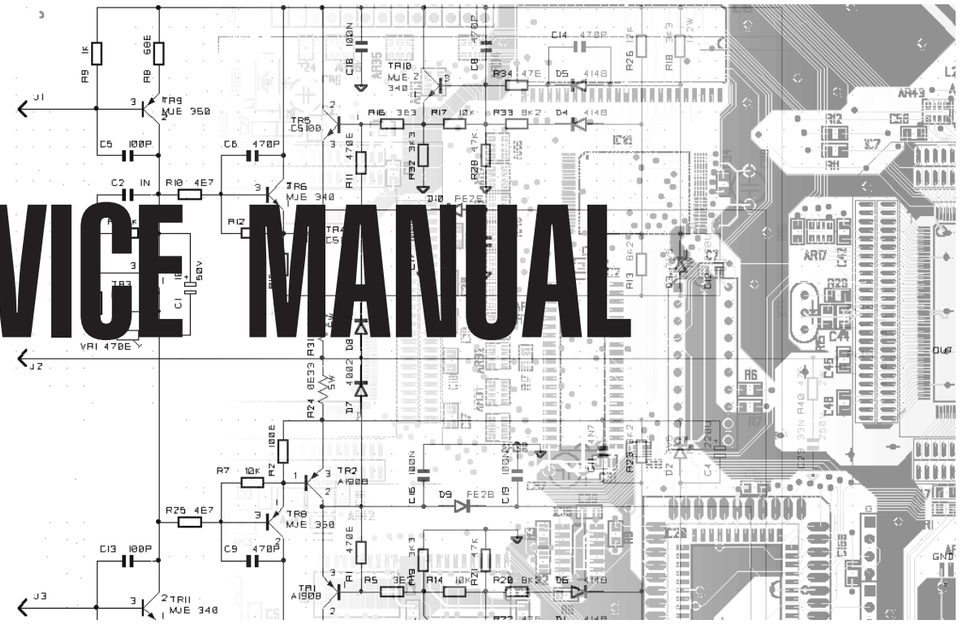
CLX2

COMPRESSOR
LIMITER
EXPANDER

ANALOGSERIES

SERVICE MANUAL



GENERALMUSIC®

CODE: 270258

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Warnings

Notice

Service must be carried out by qualified personnel only. Any tampering carried out by unqualified personnel during the guarantee period will forfeit the right to guarantee.
For a correct operation of the instrument, after having switched off, be careful to wait at least 3 seconds before switching on again.
To improve the device's specifications, the schematic diagrams may be subject to change without prior notice.
All components marked by this symbol have special safety characteristics, when replacing any of these components use only manufacturer's specified parts.
The (µ) micro symbol of capacitance value is substituted by U.
The (Ω) omega symbol of resistance value is substituted by E.
The electrolytic capacitors are 25Vdc rated voltage unless otherwise specified.
All resistors are 1/8W unless otherwise specified.
All switches shown in the "OFF" position. All DC voltages measured to ground with a voltmeter 20KOhm/V.

- Soldering point.
- Male connector.
- Female connector.
- M/F faston connector.
- Supply voltage.
- Test point.
- Flag joined with one or more flags with the same signal name inscribed.
- Logic supply ground.
- Analog supply ground.
- Chassis ground.
- Earth ground.

ATTENTION Observe precautions when handling electrostatic sensitive devices.

Address

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INPUT CH1

SIDECHAIN CH1

OUTPUT CH1

INPUT CH2

SIDECHAIN CH2

OUTPUT CH2

MNS768013 - Main Board

MNS768012 - Display-Meters Board

MNS768011 - CH2 Controls Panel Board

MNS768010 - CH1 Controls Panel Board

MNS768000 Supply Board

DRW G.BOCCATO	DWG# 550653	PCB# M241Y0015H01	GENERALMUSIC S.p.A. ITALY
CKD G.BOCCATO	DATE 06-11-2000	SCHEMATIC DIAGRAM	ALL RIGHTS ARE RESERVED. NO COPIES OR REPRODUCE THIS DOCUMENT WITHOUT WRITTEN CONSENT BY GENERALMUSIC.
APP. R.FALCONI	REV: A	CLX2	

Adjustment Procedure

These procedures are necessaries after a repairing execution.

Test Instruments

☑ Dual trace oscilloscope
☑ Millivoltmeter with dB scale
☑ Low distortion sinusoidal signal generator.
☑ Distortion meter or audio spectrum analyzer

Setup

☑ Connect the signal generator and the millivoltmeter to the input of the channel under test.
☑ Set the millivoltmeter at Vac(rms) in dB scale, set the sinusoidal signal generator at 1KHz 0dB.
☑ Connect each channel of the scope at the input and output of the channel under test.
☑ Connect the distortion meter or the spectrum analyzer at the same output.

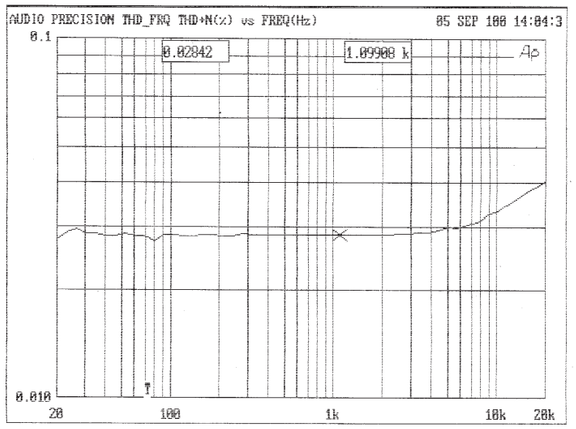
Adjustments

☑ Symmetry Adjustment

Set the THRESHOLD potentiometer at max, OUTPUT pot at 0dB and all other pots at min, press all the switches.
Adjust R108 for CH1 or R208 for CH2 to obtain the minimum distortion measured with the distortion meter, typical it must be less than 0,03% (see figure below). If you have a spectrum analyzer instead of the distortion meter, set the trimmer to read the minimum 2nd harmonic distortion.

☑ Gate Adjustment

Set the EXP/GATE potentiometer at max, THRESHOLD potentiometer at max, OUTPUT pot and all other pots at min, press all the switches.
Set the sinusoidal signal at 1KHz +10dB, turn R109 for CH1 or R209 for CH2 full clockwise, turn the trimmer counterclockwise until the CLOSE led lights. Check if the gate circuit operate correctly at 0dB and -30dB with the appropriate signal (note that the circuit opens the gate approximately a few dB before the setting of the EXP/GATE pot).



Spare Part List

Code		Description
		Accessories
277346		Owner's Manual (English-Italian)
		Assembly
130294		Mains Cable
347200		Cord Lock
110117		Fuse Holder 5x20mm for Panel
110017		T500mA Fuse 5x20mm (EU)
MNS110000		Mains Switch with Led
MNS667006		Controls Panel
MNS347001		Potentiometer Knob
		Supply Board
MNS768000		**Supply Board**
MNS237000	*	Transformer 12W 230Vac/15+15Vac
080168	*	W02M 1.5A Rectifier Diodes Bridge
030806	*	2200u 35V 20% Vert Electrolytic Capacitor
030721	*	1000u 25V 20% Vert Electrolytic Capacitor
100060	*	7815 +15V 1A Voltage Regulator
100049	*	7915 -15V 1A Voltage Regulator
		Controls Panel
MNS768010		**CH1 Controls Panel Board**
MNS768011		**CH2 Controls Panel Board**
MNS074003	*	1KB Rotary Potentiometer with 31 steps
MNS074004	*	10KB Rotary Potentiometer with 31 steps
MNS075001	*	1MA Rotary Potentiometer with 31 steps
MNS110004	*	4sw 2pos Horizontal Slider Switch
MNS110003	*	2sw 2pos Horizontal Slider Switch
MNS768012		**Display-Meters Board**
080705	*	Led 3mm 60deg Diffused Red
080706	*	Led 3mm 60deg Diffused Green
080710	*	Led 3mm 60deg Diffused Yel
		Main Board
MNS768013		**Main Board**
100084	*	TL074 Quad J-Fet Operational Amplifier
100921	*	LM339 Quad Voltage Comparator
100051	*	MC4558CP1 Dual Operational Amplifier
MNS100000	*	CA3086 Transistor Array
100932	*	DBX 2150A Low Noise Vca
090183	*	BC550C TO92 LN Npn Transistor (BC547 equivalent)
090194	*	BC560C TO92 LN Pnp Transistor (BC557 equivalent)
080103	*	1N4148 100mA 75V Signal Diode
140217	*	Jack Slim Horizontal S-F Socket

Note:

Each spare part is single quantity unless otherwise specified.
Asterisk prefix explanation:
Omitted = First level spare part.
One asterisk = Second level, part of previous listed first level part.
Two asterisk = Third level, part of previous listed second level part.
Three asterisk = ...
Any request for not above mentioned part must encompass specific description including:
1) Model name,
2) Section name,
3) Module code,
4) Reference name,
5) Quantity number.