

AMPLIFIER SURVEILLANCE WITH SPARE AMPLIFIER SWITCHING •

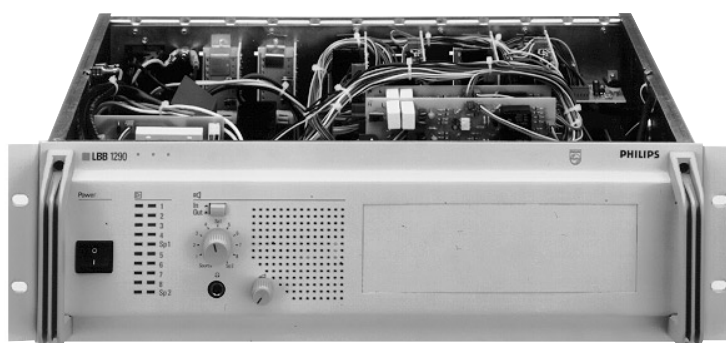
MASTER ERROR CONTACT •

AUDIO MONITORING INPUTS/OUTPUTS •

POWER SUPPLY FOR REMOTE VOLUME OVERRIDE RELAYS •

UNIVERSAL CAR RADIO SOURCE CABINET •

SM30 SOUND
MANAGEMENT SYSTEM



Introduction

The Philips Extension unit has been designed for use in audio projects. It is intended to function as an amplifier surveillance unit with spare amplifier switching, as an audio monitoring facility and as a volume override relay supply unit. Two groups of 5 amplifiers can be connected: 4 amplifiers and 1 spare amplifier which will be surveilled. However, it is possible to connect 8 amplifiers plus 1 spare amplifier. In addition, the Extension unit can be used as a car radio source cabinet.

Amplifier surveillance

A pilot tone of 20 kHz is added to each input of the amplifier connected. A detector detects the presence of the test signal at the 100 V output of the amplifiers. An amber LED indicates if a test signal is not detected on the output of an amplifier, while a green LED indicates the correct functioning of the amplifier.

Spare amplifier switching

If the output detector detects a malfunctioning amplifier, a spare amplifier is switched on by means of relays.

Fault relay

A fault relay is provided which is activated when all 10 output detectors indicate the presence of the test signal. If one detector indicates a fault, the fault relay is deactivated. The relay contacts, which are normally open, are terminated on the 48 V d.c. supply connector.

Override relay supply

Two separate 24 V d.c. supply sources are available to power external volume override relays.

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Car radio

An aerial socket and two output (L/R) cinch sockets are provided for connecting the optional car radio, which is not of the BTL-type (Bridge Tied Load). An external +12V d.c. is available to supply the radio or cassette unit. However, if the Extension unit is supplied with +48V, the radio will not function.

Monitoring

A push button and a rotary switch are available for the monitoring of the external amplifier inputs and their outputs or the car radio output via the built-in loudspeaker or headphones. If the headphones are plugged into the jack connector, the loudspeaker is disconnected.

SPECIFICATIONS

LBB 1290

SM30 SOUND MANAGEMENT SYSTEM

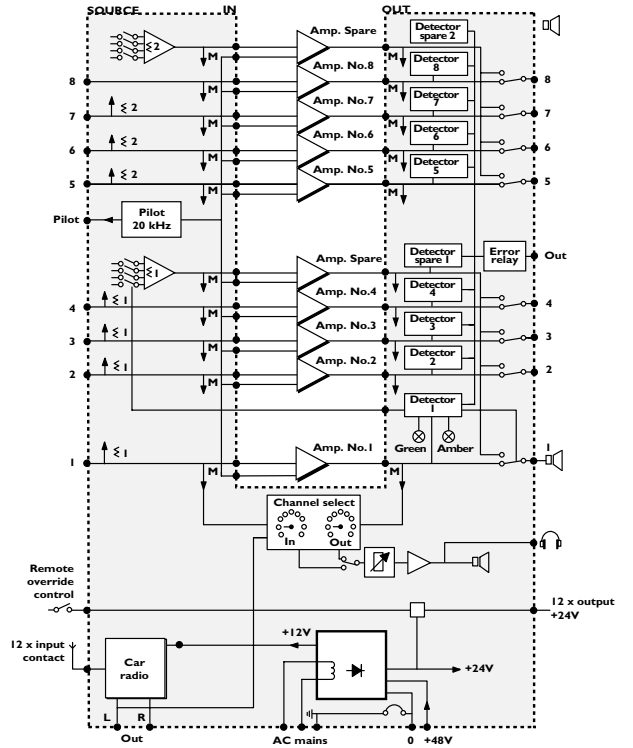
Power supply

The unit can be operated on the mains supply. The mains voltage can be adapted by changing the soldered transformer tag. An emergency DC-supply connector is provided to operate the unit on +48V d.c. To avoid earth loops caused by use of the unit in combination with other equipment, the electrical earth can be disconnected from the mechanical earth by removing a jumper.

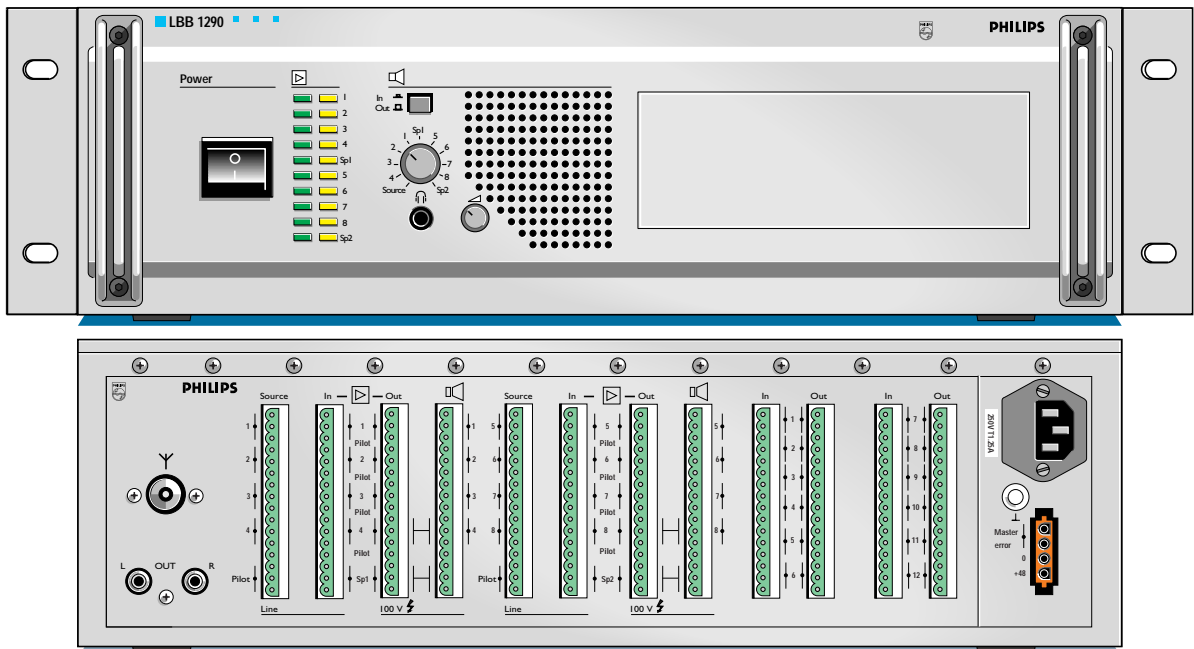
Construction

The Philips Extension unit has been designed for 19" rack mounting and has been constructed in accordance with the SM30 and SQ45 frame casing. Although the casing design of the Extension frame is similar to the SM30, it can also be used in combination with the SM40 Sound Management System. A removable cover is provided for the insertion slot for the car radio.

BLOCK DIAGRAM EXTENSION UNIT LBB 1290/00



FRONT AND REAR VIEW EXTENSION UNIT LBB 1290/00



SPECIFICATIONS

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SM30 SOUND MANAGEMENT SYSTEM

TECHNICAL DATA

Mains supply

mains voltage : 110, 127, 220, 240V $\pm 10\%$
on delivery : 230V +6/-10%

Power consumption

without override relays connected : 70 VA
with maximum load : 140 VA

External DC supply

voltage : +48V -6/+10V

Car radio supply

DC voltage : +12V $\pm 10\%$
max. load : 0.75 A

Override relay supply

DC voltage : +24V +25/-10%
max. load : 0.75 A

Inputs

symmetrical inputs
signal level : 500 - 1000 mV
load impedance : $> 3k\Omega$

Output relays

contacts : 2-pole (make/break)
effective audio current : 2A
effective audio signal level : 100V

Pilot generator

frequency : 20 kHz $\pm 3\%$
signal level : 500 mV ± 1 dB
source impedance unbalanced : $< 50 \Omega$

Fault relay

contacts : normally opened
max. current : 1A

Cross talk

**attenuation at 5 kHz between
separate channels** : > 75 dB

Mechanical data

dimensions (HxWxD) : 143 x 483 x 362 mm
colour : light grey
weight : 9 kg

Environmental

operating temperature : -10 to +55°C
storage temperature : -40 to +70°C
relative humidity : 15 to 95%

Safety

according to : IEC 65 and BS 415

SPECIFICATIONS

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SM30 SOUND MANAGEMENT SYSTEM



PHILIPS

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