

- P.A. POWER AMPLIFIERS FOR TABLE-TOP AND 19" RACK MOUNTING •
- BALANCED AUDIO INPUTS WITH PRE-SET SENSITIVITY CONTROLS •
- MATCHING TRANSFORMER FOR LOUDSPEAKERS WITH 100V, 70V AND 50V TAPPINGS •
- EASILY APPLIED EMERGENCY EXTERNAL BATTERY SUPPLY WITH REMOTE SWITCHING •
- BUILT-IN MONITORING FACILITY WITH VU METER AND HEADPHONE •

The SQ45 range of public address 'high performance audio power amplifiers' have been designed to fulfil most professional public address requirements. Due to their architectural design and high degree of versatility, they complement any tailored P.A. system; making them ideal for multi-zone projects requiring amplification for a variety of audio signals simultaneously.

Ease of installation, together with excellent 'reliability' and service 'accessibility', have been optimized in their design.

The standard compact mechanical housing, for the range of SQ45 amplifiers is designed to accommodate up to a maximum of four individual power amplifiers. The amplifiers are available in the following configurations:

- LBB 1342/40 - (1 x 100Watt)
- LBB 1343/40 - (2 x 100Watt)
- LBB 1344/40 - (1 x 200Watt)
- LBB 1346/40 - (4 x 100Watt)
- LBB 1347/40 - (2 x 200Watt)
- LBB 1348/40 - (1 x 400Watt)



LBB 1342, 1343, 1344, 1346, 1347 and 1348

SQ45 HIGH PERFORMANCE POWER AMPLIFIER

Each housing uses a common power supply for all amplifier modules, therefore saving both cost and space. Each individual amplifier module incorporates two audio line level inputs; a **'Music'** input and a **'Priority Call'** input.

To use the power amplifier as a free-standing table-top version, a top-cover plate type number LBB 1349/30 can be ordered separately.

The **'Music'** input with adjustable pre-set volume control is ideally suited for distributing one out of several, continuous background music sources.

The **'Priority Call'** input with a fixed input level is used for occasional paging and other calls.

An in-built relay switches the amplifier from the **'Music'** input to the **'Priority Call'** input. The **'Music'** input is

functional when the relay is activated (see diagram).

The change over from the **'Music'** input to the **'Priority Call'** input can be controlled remotely if used in combination with a remote switching contact. Such a function can be achieved with the Philips' SM30 Sound Management System, or the SM40 Microprocessor Controlled Distribution centre.

Due to SQ45's built-in loudspeaker matching transformer providing a choice of three line output voltages (50, 70 and 100V), large groups of loudspeakers, covering large areas, may be connected.

The transformer coupled outputs are fed to the loudspeakers via a Mate-N-Lok connector at the rear of the amplifier providing ease of installation.

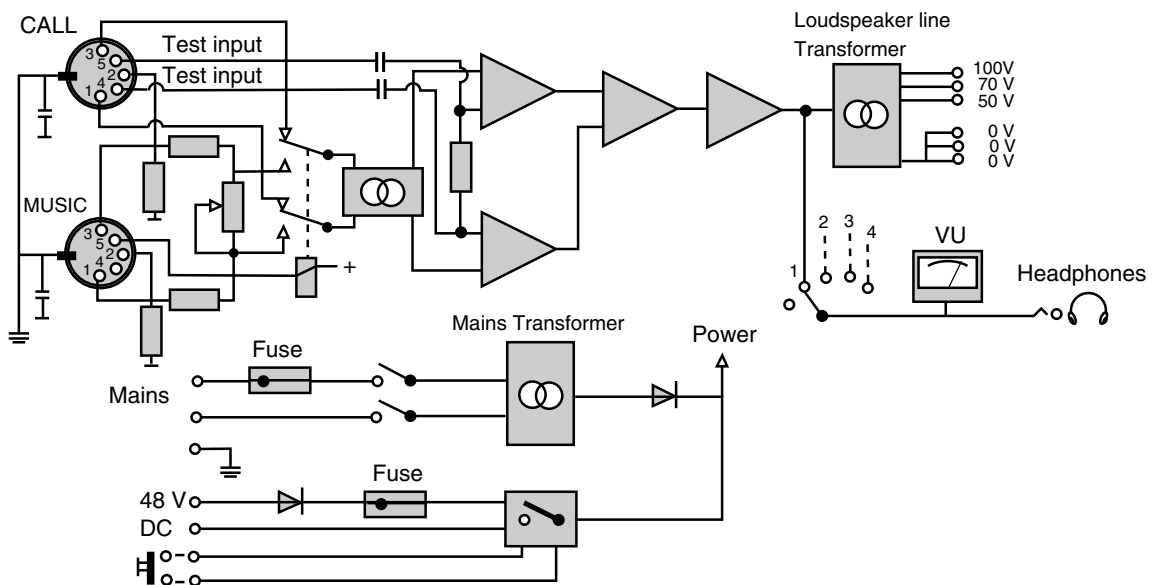
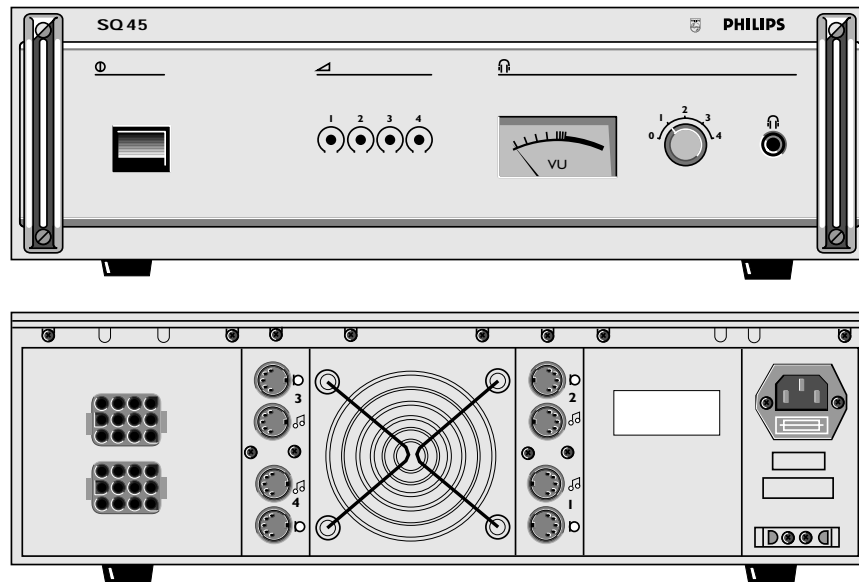
SPECIFICATIONS

LBB I342, I343, I344, I346, I347 and I348

SQ45 AMPLIFIERS

An additional feature included in all SQ45 range of amplifiers, is a balanced 'Test Input' facility, used for injecting a 20 kHz 'pilot-tone' to monitor the amplifiers performance. If used in combination with the SM40 micro-processor controlled surveillance system, all amplifiers, loudspeaker cabling and speakers will be constantly monitored.

The mains transformer may be tapped for different a.c. mains voltages, 110, 127, 220-230 and 240V, and a D.C. emergency battery supply may be used for emergency powering. The mains supply is connected via a 2.5 m long mains lead, terminated with a 2-pole mains plug with earth contacts.



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SQ45 AMPLIFIERS

Mains supply : 110, 127, 220-230 or 240V at 50-60Hz
Inrush current limiter : 30 A
 (On delivery the amplifier is connected for 220-230V A.C.)

Emergency Battery supply : +48V polarity protected
 (0 to ground)
Inrush current limiter : 1 A
Power output :

	Vdc (min)	Vdc (nom)	Vdc (max)
	42V	48V	73V

Power output rel. to rated output power

	-4 dB	-3 dB	0 dB	+1 dB

Power consumption (max) : 4 x 100W, 2 x 200W, 1 x 400W
at rated output power : 1200VA
at rated output power
-8dB (VU = 0 dB) : 500VA
no audio signal : 50VA
switch on delay time : ≤ 4 seconds

Battery Supply 48V DC
at rated output -3dB : 10A
at rated output
-8dB (VU = 0 dB) : 5A
no audio signal : 0.6A

INPUTS

Audio ('Music') input

balanced

Input sensitivity : 0.5 - 10 Volt (adjustable)
Input impedance : 10 k Ohms

Priority ('Call') input

balanced

Input sensitivity : 1 Volt (0.5 Volt using jumper)
Input impedance : 10 k Ohms

Surveillance ('Test') input

balanced

Input sensitivity : 500 mV (20 kHz)
 for rated output - 20 dB
Input impedance : 10 k Ohms at 20,000 Hz

Signal-to-noise ratio : > 90 dB (typical) > 87dB (flat)

Cross talk damping : > 70 dB at 5 kHz

Frequency response

measured at 10dB below

rated output power : 50 to 20,000 Hz (-3dB)

Distortion (THD) : < 0.5% (at rated output power at 1kHz)

Radiation : acc. to EN55013

Immunity : acc. to EN 55020

(council directive 89/336 EEC)

Power Bandwidth : 50 - 20,000 Hz (THD = 2%) (-3dB)

Monitor output : Headphone impedance

8 - 600 Ohms

VU-meter : '0' mark = 40V +/- 0.5 dB at 1 kHz on 100V output

Output Data per Amplifier

Rated output power (per IEC 268.3)

	100W	200W	400W

Max load capacity

	100W	200W	400W
100 V output	50 nF	100nF	200 nF
70 V output	100 nF	200nF	400 nF
50 V output	200 nF	400nF	800 nF

Min. Load Impedance

(Ohms)

	100W	200W	400W
100 V output	100 Ω	50 Ω	25 Ω
70 V output	50 Ω	25 Ω	12.5 Ω
50 V output	25 Ω	12.5 Ω	6 Ω

Configuration

(per type No)

	100W	200W	400W
LBB 1342/40	1 x	-	-
LBB 1343/40	2 x	-	-
LBB 1344/40	-	1 x	-
LBB 1346/40	4 x	-	-
LBB 1347/40	-	2 x	-
LBB 1348/40	-	-	1 x

The output circuit is protected against any misloading, short-circuit or being driven with any frequency.

The amplifier can withstand switching on and off without being damaged while:

- the amplifier delivers full power;
- the amplifiers input and output are disconnected.

Type No.	Weight (approx. kg unpacked)	
LBB 1342/40	11.5	
LBB 1343/40	12.7	
LBB 1344/40	11.6	
LBB 1346/40	19.3	
LBB 1347/40	18.6	
LBB 1348/40	16.4	

Safety : according to IEC 65 and BS 415

ENVIRONMENTAL CONDITIONS

Operating temperature : -10° to + 55°C

Storage temperature : -40° to + 70°C

Relative humidity : 95%

Dimensions (H x W x D) : 133 x 440 x 360mm (3U, 19"

rack height)

H = 133 mm (3U)

W = 440 mm (incl. 19" brackets W = 483 mm)

D = 360 mm incl. handgrips

Build-in depth = 310 mm (19" rack)

COLOUR

Cabinet : Dark mushroom

Hand grips : Grey

This product is manufactured to comply with the radio interference requirements of the Council Directive, 4th November 87/308/EEC.

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SQ45 AMPLIFIERS



PHILIPS

Let's make things better.