combi-specsheet

LANG-Intercom-pack

including:

ASL BS 216

ASL PS 260T

Zähl ASD-8

BASIC SERIES

USER MANUAL

FOR THE

BS 216

DUAL CHANNEL MASTER STATION

CONTENTS

9.0 PARTY LINE, TECHNICAL CONCEPT

ASL's BASIC Series offers a complete two way ('full duplex') communications system.
Users of the system are connected via a 'party line'. Master stations (with built-in power supply), beltpacks and power supplies are interconnected via standard microphone cable. One wire is used as an audio line, one as a power line and the screen of the cable functions as earth/return.

Current drive is used for signal transfer. Each station utilises a current amplifier to amplify the microphone signal and place it on the common audio line where, due to the constant line impedance (situated in the power supply between XLR pin 3 and 1), a signal voltage is developed which can be further amplified and sent to the headphones.

This principle has three advantages:

- the use of a single audio line allows several stations to talk and listen simultaneously.
- due to the high bridging impedance offered by each station, the number of stations 'on line' has no influence on the level of the communications signal.
- power and audio to the intercom stations use the same cable.

The Call signal is also sent as a current on the audio line. It develops a DC potential over the line impedance which will be sensed by each station and interpreted as a Call signal.

10.0 GUARANTEE

This unit is warranted by ASL Intercom to the original end-user purchaser against defects in workmanship and materials in it's manufacture for a period of one year from date of shipment to the end-user.

Faults arising from misuse, unauthorised modifications or accidents are not covered by this warranty. If the unit is faulty it should be sent in it's original packing, to the supplier or your local ASL dealer, with shipping prepaid. A note must be included stating the faults found and a copy of the original suppliers invoice.

THIS PRODUCT WAS DESIGNED, DEVELOPED AND MANUFACTURED BY:

ASL-intercom BV
MAARSSEN (UTRECHT) HOLLAND.

11.0 TECHNICAL SPECIFICATIONS BS 216

POWER SUPPLY	
mains voltage range	100 - 240 V 50/ 60Hz AC
DC output voltage	+30 V +/-5% DC
ripple and noise	< 11 mV rms
max. output current	1.8 A continuous /2.31 A peak
MIC. PREAMP	
mic. impedance	200 ohms
gain	40 dB - 70 dB (adjustable internally)
presence filter	+6 dB at 5 kHz
frequency response	200 Hz - 13 kHz (-3 dB)
V electret mic	+ 9 V DC
HEADPHONES DRIVER AMP	
max. load	200 ohms
max. output level	8 V rms (200 ohms)
max. output power	0.16 W rms (each can)
SIDETONE	
rejection	0 - 30 dB adjustable
BUZZER	
max. SPL	100 dBA
AUX INPUT	
Input impedance	30 Kohms (balanced line level) 4.6 Kohms (balanced mic level)
Nominal input level	-18 dBu to +6dBu (line level) -38 dBu to -14 dBu (mic level)
max. input level	+22 dBu (line level) +2 dBu (mic level)
Phantom power	+30V DC (mic level selected)
DIMENSIONS AND WEIGHT	
width	19" (483 mm)
height	1U (44.5 mm)
depth	124 mm
weight	1.85 Kg
GENERAL SYSTEM SPECIFICATIONS	
intercom line impedance	350 ohms (1kHz) 2.2 Kohms (DC)
intercom line audio level	nom. -18 dBu max. +4 dBu
dynamic range	80 dB
call send signal	2.8 mA
call receive signal threshold	+2.4 V DC
supply voltage	+30 V DC (12 V to 32 V)

Note: 0 dBu = 775 mV into open circuit.

ASL reserves the right to alter specifications without further notice.

ANALOG

ASL

INTERCOM

PS 260T

DUAL CHANNEL AUDIO INTERFACE

8.0 TECHNICAL SPECIFICATIONS

Intercom Line Driver
Max. output current: 3 mA rms
output impedance: > 150 Kohm

Input Amplifier
input impedance: 600 ohm (transformer balanced)
input level: +30 dBu to -10 dBu
frequency response: 150 Hz – 20 kHz (-3 dB)

Output Amplifier
output impedance : 600 ohm (transformer balanced)
maximum load: 600 ohms
max. output level: +20 dBu to -20 dBu
frequency response: 150 Hz - 20 kHz (-3 dB)

Side Tone Trimming
Rejection: better than 30 dB

Dimensions & Weight
width 19" (483mm)
height 1U (1,75" / 44.5mm)
depth 126 mm
weight 1565 grams

Party Line Specifications
supply voltage: +30V DC (12V to 32V DC)
supply current: 33 mA quiescent / each
audio line level: -18 dBu to 0 dBu
signal-to-noise: 80dB
station bridging impedance: > 150 kOhm

0 dBu is defined as 775 mV into open circuit

ASL reserves the right to alter specifications without prior notice

8. Technical Data

8.1. General

Typical operating condition: source 50 Ω, load 5 kΩ, reference level +6dBu

Frequency response 20 Hz ... 20 kHz -0,5 dB typ.

THD at reference level 20 Hz < 0,1 %, 40 Hz < 0,03, 60 Hz ... 20 kHz < 0,015 %

Crosstalk between any two channels 1 kHz > 100 dB, 20 kHz > 90 dB

Noise unweighted 20 Hz ... 20 kHz, RMS, gain 0 dB

- one input assigned to one output < -96 dBu
- eight inputs assigned to one output < -90 dBu

8.2. Line Inputs

Transformer balanced floating

Input impedance > 10 kΩ

CMRR 50 Hz > 80 dB, 15 kHz > 50 dB

Maximum input level +22 dBu

THD +22 dBu, source 50 Ω 20 Hz < 0,1 %, 40 Hz ... 20 kHz < 0,05 %

8.3. Line Outputs

Transformer balanced floating

Output impedance typ. 50 Ω

CMRR 50 Hz > 80 dB, 15 kHz > 40 dB

Maximum output level +22 dBu (40 Hz ... 20 kHz)

Maximum load at +22 dBu 600 Ω *

THD +22 dBu 600 Ω 40 Hz < 0,3 %, 1 kHz < 0,1 % *

* *Note on "22 dBu 600 Ω": Output is set to +22 dBu without load, then loaded with 600 Ω*

8.4. Power Inputs

ASD-8 requires well regulated DC in a range of 12-24V. A maximum of 27V DC must not be exceeded even by short voltage spikes.

A stable mains protective earth (PE) on the power supply mains inlet is mandatory.

The 0V pins of both ASD-8 power inputs are short circuited inside the unit. The positive pins of the power supply inputs are decoupled by diodes. I.e. both inputs may be operated at the same time.

If both power supplies deliver the same voltage, load is shared. If they deliver different voltages, the one with the higher voltage is loaded only.

Power consumption is typically 12W ... 25W, but for short periods of time these values may be exceeded substantially. The power supply we deliver with ASD-8 has been selected to be capable for such operation. Hence we assume that the unit is operated with this power supply. In case ASD-8 is operated with other power supplies we do not guarantee for correct function of the unit or any damage. Furthermore warranty will be void.

Note: All data are typical values under normal operating conditions. Different values may apply, especially when equipment is exposed to extreme temperature, shocks/vibrations, high electro-magnetic fields etc.

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9. Measures and Weights

9.1. ASD-8 Unit

Case	19" 1 HU, anodised aluminium/zinc-coated steel
Overall measure W x H x D	483 mm x 44,5 mm x 226 mm
Thickness of front panel	3 mm
Insertion depth	222 mm
Weight	approx. 3,4 kg

9.2. Power Supply

Measure L x W x H	120 mm x 55 mm x 37 mm
Weight	0,4 kg
Length of fixed cable (DC to unit)	approx. 1,6 m
Length of mains cable	1,5 m - 2,0 m

9.3. Delivery form

Cardboard box	approx. 610 mm x 410 mm x 170 mm
Gross weight	approx. 5,3 kg

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