

Ball-bearing fan ensures long life and quiet running



VLM - 100

VLM - 205

Supplied with 19" mounting brackets.

## Description

The "VARIO-LINE" amplifier and microphone system permits the switching of up to 5 speaker zones and of the all-call function as well as the setting of the desired volume for each zone from the central unit. The amplifier can be used with any microphone, but has been optimized for the use with the "VARIO-LINE" microphone stations VLM-100, VLM-105 (digital remote control of the speaker zones) and VLM-205 (digital remote control of the speaker zones and the DM-10 digital announcement module).

Please consider the following features:

- Inputs 1 - 3 can be switched to MIC or LINE. The respective volume as well as treble and bass are controlled separately and always have priority over LINE-IN.
- All MIC inputs have gain control and switchable phantom power. The priority switches define the priority of the inputs.
- The MIC inputs are balanced on combo sockets. MIC-1 is additional on 7-pin DIN socket for PTT-MIC. The LINE inputs are via RCA sockets.
- The amplifier is equipped with an automatic DC fan as well as with all required protective devices such as overload and overheating protection as well as soft start.
- The AMP-IN and PRE-OUT sockets allow cascading of further amplifiers. The 5 output circuits may also be used for this purpose after they have been modified (0 dB control).
- The amplifier operates on mains power (230 V) or 24 V DC (emergency power supply).
- The unit is also equipped with an electronic 2-tone chime (4-tone chime optional), an electronic siren (high-low, switchable to alarm sound) and a telephone paging system (Line-in with priority); all these signals can be controlled separately on the front panel of the unit.

Small central unit „VARIO-LINE“, 120 W .... **VLA-120 C**

Small central unit „VARIO-LINE“, 240 W .... **VLA-240 C**

## Special functions

Special functions such as ground fault detection, remote of chime, siren, deactivation of priority, all-call paging and 0-dB setting element for the power extension can be integrated in the unit. Please consider the options, shown in extracts on the next pages.

- A special feature of all the models of this series is the option for integrating a sound source module into the unit. An empty compartment is provided for the installation of an additional module. The following modules are available:

### FM/AM tuner module

12 x FM + 6 x AM memory stations

**TP-10**



### Cassette player module

Autoreverse and pause function

**CP-10**



### Cassette/tuner module

Functions of TP-10 and CP-10

**CR-10**



### CD/MP3- player module

Repeat, Random, etc.

**CDP-10 M**



### CD/MP3- tuner module

RDS-Tuner and MP3-/CD-Player

**CDR-10 RDS**



### Digital text module

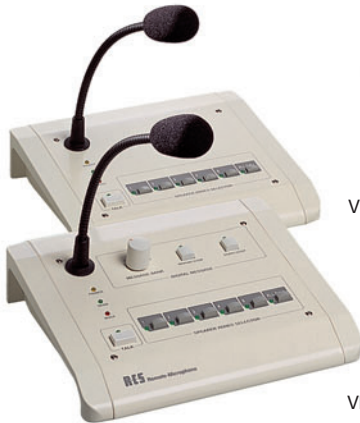
6 texts up to 4 min. 28 sec.

**DM-10**



For a detailed description of the modules see pages 20 and 21.

## Digital microphone stations



VLM -105

VLM -205

### Description

The VLM-105 and VLM-205 digital microphone stations allow remote control of the "VARIO-LINE" central units.

- The RR-10 connection panel (digital interface) is included in the scope of supply of each unit.
- The microphone stations control the 5 speaker zones, all-call paging and the condenser microphone (cardioid polar pattern) with pre-announcement chime. With model VLM-205, the DM-10 digital announcement module can be remote-controlled in addition.
- With an overall cable length of up to approx. 100 m, up to 6 VLM-105/205 stations can be connected in series. With cable lengths of up to 250 m, however, only 3 VLM-105/205 stations can be connected up.
- The desired priority as well as the desired volume can be set on the rear of each unit.
- An AUX-IN (L+R, RCA) allows insertion of CD players, cassette players, etc.
- Each unit is supplied with a 3 m data cable with RJ-45 connectors (8-pin).

**Microphone station** ..... **VLM-105**  
(For remote control of 5 speaker zones and all-call)

**Microphone desk** ..... **VLM-105 WO**  
as VLM-105 but without interface RR-10

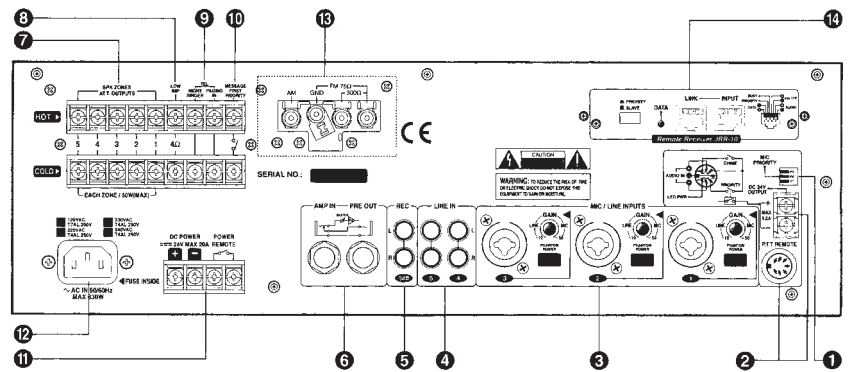
**Microphone station** ..... **VLM-205**  
(For remote control of 5 speaker zones, all-call and the DM-10 announcement module)

**Microphone desk** ..... **VLM-205 WO**  
as VLM-205 but without interface RR-10



Microphone station (condenser) with pre-announcement chime and priority switching via 7-pin DIN connector.

**Microphone station** ..... **VLM-100**



- 1 Switch for microphone priority, controls the priority of MIC-1, 2 and 3 over the other inputs.
- 2 MIC-1 with chime enables for RCS microphone station VLM-100 with 24 V DC power supply terminal for obligation call relays.
- 3 MIC-LINE input 1 - 3 with gain control on balanced combo sockets (XLR and jack) and phantom power.
- 4 LINE input 4 + 5, unbalanced RCA sockets.
- 5 REC output, unbalanced 0 dB, on RCA sockets.
- 6 AMP-IN and PRE-OUT on 6.3 mm jack, unbalanced
- 7 100 V and 70 V speaker outputs divided into 5 circuits that can be controlled separately.
- 8 Low-impedance output, 4 ohms.
- 9 NIGHT-RINGER: Contacts for the clearing of the internal bell signal (8-12 V AC necessary).

Switch on frontside to activate or deactivate it.

PAGING-IN: Electronic balanced LINE input with priority function, e.g. for the feed of signals from telephone systems.

- 10 Terminal for priority switching of the DM-10 digital announcement module. The text of bank 6 can be activated separately, e.g. through the central fire alarm system.
- 11 Terminal for 24 V DC power supply (emergency power supply) and for switching on/off of amplifier.
- 12 IEC power inlet (cold condition)
- 13 Antenna connection cable for the use of TP-10 tuner modules, RC-10 cassette/ tuner modules or CDR-10 CD/tuner modules.
- 14 Connection panel for the VLM-105 and VLM-205 remote microphone stations with respective priority switches.

### Technical data VLA-120C - VLA-240C

Output power	VLA-120: 120 W RMS (max. 180 W) - VLA-240C: 240 W RMS (max. 360 W)
Frequency resp., noise level	50 Hz - 18000 Hz (better than -3 dB), MIC: better than 70 dB, LINE: better than 80 dB
THD	better than 1 % at 1 kHz
Inputs	MIC/LINE 1- 3: -50 dBu (2.45 mV), 5 k ohms, balanced MIC/LINE 1-3: -10 dBu (245 mV), 5 k ohms, balanced LINE 4 - 5: -10 dBu (245 mV), 15 k ohms, unbalanced TELEPHONE PAGING: -50 dBu (245 mV), 5 kohms, elect. balanced REMOTE MIC: -10 dBu (2.45 mV), 10 k ohms, unbalanced AMP IN: 0 dBu (775 mV), 10 k ohms, unbalanced
Outputs	PRE OUT: 0 dBu (775 mV), 3 k ohms, unbalanced PRE OUT: 0 dBu (775 mV), 100 ohms, unbalanced
Outputs, speakers	100 V or 70 V and 4 ohms low-impedance Control steps: 100 V - 70 V - 50 V - 25 V - 12.5 V - 8.9 V on 5 zones and all-call
Two- or Fourtone chime	volume can be set on the front panel, chime type switchable by jumper
Siren	continuous tone or high-low, can be set on front panel
Telephone paging	can be set on the front panel (night ringer also adjustable)
Phantom power	on all MIC inputs (combo socket for XLR and 6.3 mm jack)
Treble and bass controls	on the front panel, separately for inputs 1 - 5 and audio source module
Gain	on the front panel for inputs 1 - 3
Priority	can be set separately for MIC 1 - 3 on the rear
Power supply	230 V mains (50/60 Hz) and 24 V DC (emergency power supply)
Power consumption	VLA-120 C: 350 W - VLA-240 C: 630 W VLA-120 C: 1/8-0.8 A - rated-1.8 A - VLA-240C: 1/8-1.6 A - rated-3.2A
Dimensions WxHxD, weight	483x133x352 mm, weight VLA-120 C approx. 13.0 kg, VLA-240 C approx. 14.5 kg

## Example 1: 5 speaker lines, total power 1680 W

## VL-SERVICE 01

Up to 4 speaker zones are adapted to LINE level for cascading with further amplifiers.:

30 x BC-006



6 x PB-730



40 x RC-110



13 x DH-130S



1 x PB-1210



BA-240 C



BA-240 C



BA-480 C



BA-480 C



4x 0-dB adjustment (internal)



VLA-240C



VLM-105



VLM-105



VLM-100, since no DM-10

## EXAMPLE 2: School with recess chime and alarm siren

## VL-SERVICE 03

Additional input for the external control of chime, siren and All-Call:

Staff room

Corridors 1 & 2

Rooms 1-19

Sports hall

School yard



FIRE DETECTION CENTER

SIREN

CHIME

DCF-RADIO CLOCK TIMER

## VL-SERVICE 01

### 0-dB adjustment for power extension

The desired numbers of speaker zones are adapted to LINE level for cascading with further amplifiers.

1. Power extension up to 3000 W
2. Separate control- and switchable lines remain
3. 0-dB adjustment internal (please indicate desired number with the order)

0-dB adjustment, for power extension... **VL-SERVICE 01**

## VL-SERVICE 02

### Installation PCM-100

Installation PCM-100 special (7 chime types & DIN-siren)

1. Option from 7 different chime types (1-tone, 2-tone, 3-tone, 4-tone, from 2-tone up or down)
2. To be controlled separately via potential-free contacts
3. Siren compliant to DIN 33404

Installation PCM-100..... **VL-SERVICE 02**

## VL-SERVICE 03

### Input for the external control of 4-tone chime, siren and All-Call

Input for the external control of 4-tone chime, siren and All-Call:

1. For release of chime and siren via potential free contacts, e.g. by BMZ, clock timer, remote microphone etc.
2. Simultaneous release of All-Call
3. 2-tone chime as pre-chime of remote mic.

Input for the external control .... **VL-SERVICE 03**

## VL-SERVICE 04

### 2 chime types

Input for the external control of 4-tone chime and 2-tone chime as pre-chime of remote microphone:

1. For release of 4-tone chime via potential free contacts, e.g. by clock timer (recess chime)
2. Simultaneous release of All-Call
3. 2-tone chime as pre-chime of remote mic.

2 chime types..... **VL-SERVICE 04**

## VL-SERVICE 05

### Potential free contacts

Input for potential free contacts for external control of the 5 or 6 speaker lines:

1. Easy activation of desired speaker lines, e.g. via substation, key pad or clock timer
2. 7-pin DIN-socket as interface

Potential free contacts..... **VL-SERVICE 05**

## VL-SERVICE 06

### Ground leak monitoring

Module installation for ground leak monitoring:

1. Monitoring of the 100V-outputs for ground leak
2. Alarm tone at fault

Ground leak monitoring..... **VL-SERVICE 06**