



Professional Six Zone Desktop Mixing Amplifiers

A 4330	120W
A 4332	240W
A 4336	480W



Operating Instructions

JDM® 6 Zone Public Address Amplifiers

Congratulations on purchasing this 6-Zone Public Address amplifier. It is housed in a heavy duty 3RU rack mount cabinet and includes a host of features. It is ideally suited for use in shopping centres, schools, offices, medical suites, office/factory units etc.

The PA amplifier can be controlled remotely via the optional remote paging consoles.

FEATURES:

VERSATILE INPUTS:

Channels 1 - 3 are combination XLR / 6.35mm phone jack balanced connectors. The XLR are microphone level and the 6.35mm are line level (tip/ring/sleeve) inputs. Each channel also has a separate GAIN control knob on the rear panel, and a switch for phantom power. Channels 4 and 5 are RCA connections for dedicated auxiliary use.

TELEPHONE INPUT:

A telephone paging and music-on-hold input connection is provided via spring terminals on the rear panel. Music sources can be from a choice of optional modules that are installed into the front panel slot.

SLOT FOR OPTIONAL INPUT MODULES:

A slot in the front panel is provided in order to fit one of the following optional modules: A 4344A (TP-100RDS) AM/FM RDS Radio tuner module, A 4346 (CDR-100RDSU) CD/tuner/USB module.

PRIORITY MUTING:

The priority of the muting on the various Microphone inputs (Inputs 1 to 3) can be set using a switch on the rear panel. The muting sensitivity can also be adjusted via a knob on the rear panel.

REMOTE CHIME AND SIREN:

This is operated by buttons on the front panel which play various tones through the speakers. Switches on the rear panel control the settings.

ZONE SPEAKER SELECTOR:

Any combination of speakers can be selected via the front panel selector switches. ALL CALL will send the signal to all speaker zones.

PRE-AMP OUT

A pre-amp output socket is provided to enable the connection of an extra slave amplifiers or a signal processor.

24V EMERGENCY OPERATION

The unit will operate from 24V batteries for use in emergency applications. Screw terminals for battery connection are provided on the rear.

RECORDING OUTPUT:

The device can output a line-level audio signal which may be recorded on a suitable device.

AMP Section:

- Automatic variable speed fan
- Over current protection with LED indicator
- Load short circuit protection with LED indicator
- Output LED indicator
- 6 zone speaker output or ALL CALL
- 6 step speaker attenuator on each output

SAFETY INSTRUCTIONS:

- Please read these instructions before use. DO NOT switch on the mains power until installation is complete.
- DO NOT install in a confined space such as a cupboard or book case. Ensure adequate ventilation of the unit.
- DO NOT expose to any form of liquid.
- Locate the device away from any heat source, such as radiators, heating vents or in direct sunlight etc.
- DO NOT drop any foreign object or liquid inside the amplifier.
- This device should be serviced by a qualified service person.

IN THE BOX:

- JD-MEDIA PA MIXER CONSOLE
- POWER CORD
- RACK MOUNTING SCREWS AND WASHERS

OPTIONAL ACCESSORIES:

A 4352 – 6 zone paging microphone controller PCB (RR-600) with RJ45 Cat5e connections

A 4353 – 6 zone paging microphone (RC-610)

Note: Each amplifier being used with an A 4353 microphone requires an A 4352 controller PCB to operate. Up to three paging consoles can be connected in a daisy chain stretching up to 1000 metres combined total distance from the mixer amplifier.

A 4344A - AM/FM Radio Tuner module (TP-100RDS) with FM RDS

A 4346 - CD Player / AM/FM Radio Tuner module (CDR-100RDSU) with FM RDS and USB

Note: The two modules listed above fit into the slot on the PA mixer front panel. Each module includes the antenna terminal module which fits into the PA amplifier rear panel.

C 0377 - PUSH-TO-TALK Paging Mic which connects using only a 3-Pin XLR Jack.

INSTALLATION:

MOUNTING:

These amplifiers are designed to fit into standard 19" racking space, and include the left and right mounting brackets in the box.

COOLING:

When installing in a rack frame, never block the air vents on the side, and make sure there is enough space (44mm) on either side of the amplifier to allow air flow. Check the temperature inside the rack system to ensure it is not above 40 degrees Celsius. A cooling fan on the rear is recommended.

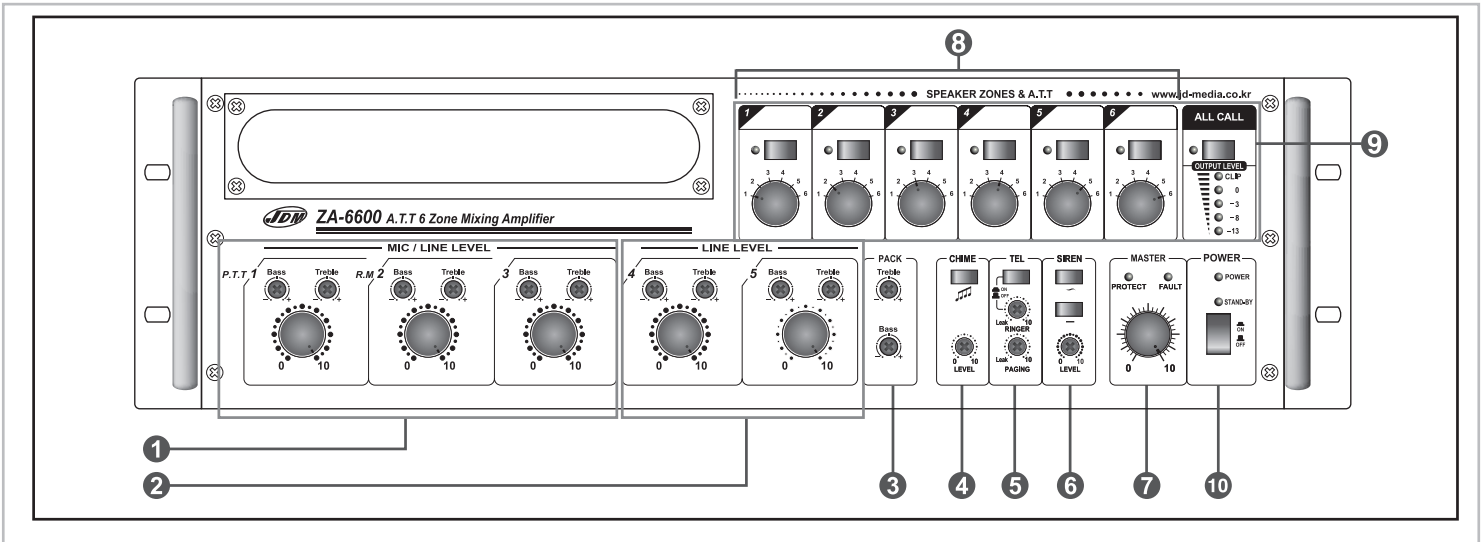


Figure 1: Front Panel Controls

FRONT PANEL CONTROLS:

1. MIC/LINE LEVEL:

A. PUSH-TO-TALK (P.T.T. 1) VOLUME / EQ:

Volume knob lets you adjust the volume level of the main paging mic (suggest C0377) or line source at input 1. BASS and TREBLE controls let you adjust the equalizer to suit your surroundings.

B. REMOTE (R.M) 2 VOLUME /EQ:

Volume knob lets you adjust the level of Input 2 and the Remote Paging Console (A4353). BASS and TREBLE controls let you adjust the equalizer to suit your surroundings.

C. VOLUME 3 / EQ:

This knob lets you adjust the volume level for mic or line Input 3, while the BASS and TREBLE controls let you adjust the equalizer to suit your surroundings.

IMPORTANT: If the priority function is activated and you supply a signal to MIC/LINE 1, then ALL other signals will be soft muted (pad), including the auxiliary signal at inputs 4 and 5, paging ringer, and the modules (if fitted) in the front panel slot (CD Player / Radio Tuner). [The jumper shunt (MS2) on the front PCB is factory set to SLAVE operation. The jump shunt is located inside the front slot below the module and is yellow.]

Note: It is preferred to keep the volume output level at or below '0' on the LED indicator, while setting the MASTER volume to the two o'clock position. The speaker volume at this level could be very loud.

2. LINE LEVEL:

A. VOLUME 4 / EQ:

This knob lets you adjust the volume level for the RCA line Input 4, while the BASS and TREBLE controls let you adjust the equalizer to suit your surroundings.

B. VOLUME 5 / EQ:

This knob lets you adjust the volume level for the RCA line Input 5, while the BASS and TREBLE controls let you adjust the equalizer to suit your surroundings.

3. PACK EQUALIZER:

BASS and TREBLE control for pack series.

These Bass and Treble knobs control the bass and treble signals of the optional tuner or CD player, but only when either is installed in the front slot of the amplifier.

4. CHIME:

Pushing the CHIME button once will activate the two or four tone chime. Use the knob to adjust the signal level. This is for pre-signal or an alert signal. (Set the chime tone pattern by adjusting the jump shunt MS1 on the front PCB). If the CHIME volume is set high enough, it will soft mute (pad) all other audio inputs.

5. TELEPHONE:

A. TEL NIGHT RINGER:

Allows you to hear the telephone ring via the speakers in other zones. Push the button in to activate the feature.

B. PAGING:

Allows you to page someone using a connected telephone system.

IMPORTANT: Activate the paging microphone, and the audio from all other inputs will be muted. The jump shunt (MS2) on front PCB is factory set to SLAVE position to give priority to paging operations. If the priority dip-switches on the rear panel for inputs 1, 2, are 3 and set to on, these will then be given priority over the paging microphone function.

6. SIREN:

This is for emergency situations. Two sounds are offered depending on which button is pressed: Alert siren curve (repeat) Alert siren flat (continuously).

7. MASTER:

The output volume for the amplifier, which is a mixing of volumes from all input devices, is finally governed by the MASTER volume control knob. When the two LED lights are lit, they signal problems with the device.

8. SPEAKER ZONES & A.T.T:

1-6 speaker zones can each be switched on independently. The attenuator knobs control the output signal for the speaker zones. Any combination of speakers can be activated at any given time.

9. ALL CALL:

Press this button to direct the source audio to all speaker zones at once.

10. POWER:

Press switch to turn unit on or off.

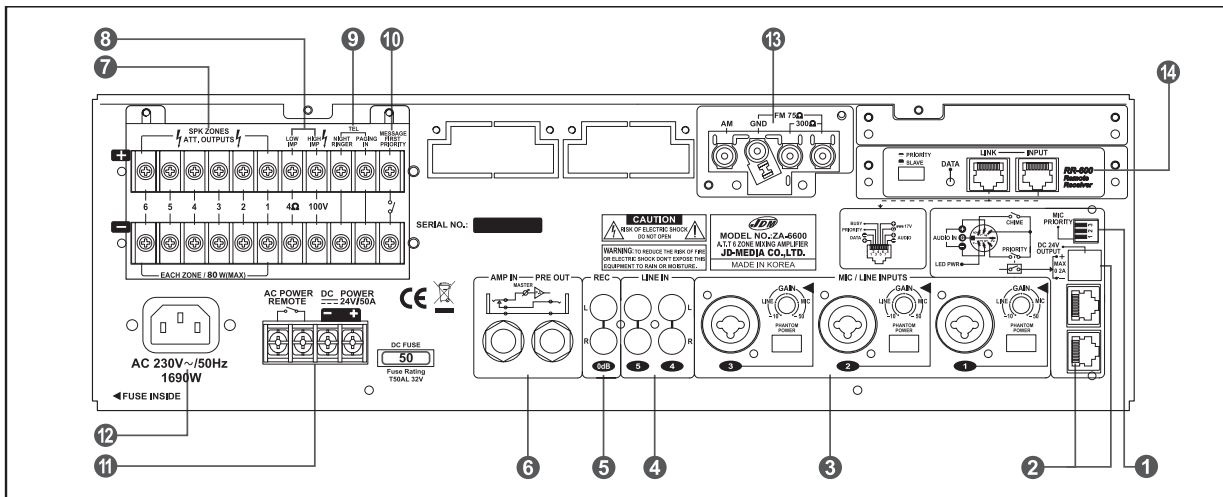


Figure 2: Rear Panel Controls

REAR PANEL CONTROLS:

1. MIC PRIORITY SWITCH:

These are the priority-setting switches for microphone inputs 1, 2 and 3. To change priority ranking from No.3 to No.2 turn switch lever to the right.

2. P.T.T PAGING CONSOLE INPUTS (RJ45 JACKS):

Not used (Note: Do not plug A4353 into these sockets).

3. MIC/LINE INPUT:

Inputs 1-3 allow you to connect balanced microphone (XLR) or line (TRS) sound sources. The GAIN knob varies the input signal from -10dB to -50dB, depending on the type of source plugged in. If the MASTER volume output LED meter flashes red, this indicates clipping. Adjust the GAIN control to a level so that clipping ceases.

The XLR and 6.35mm phono combo socket has been redesigned for MIC/LINE input, and can supply phantom power to a condenser mic connected via the XLR connection. Pin 1 on the XLR and the sleeve on the phone jack are grounded.

IMPORTANT: Turn the volume control on the front panel anti-clockwise to decrease the level when you are using phantom power, so as to avoid damaging the speakers.

4. LINE IN 4-5:

Inputs 4 and 5 are used for the connection of line-level equipment such as a cassette deck or a CD-player. The stereo signal of the connected sound sources is internally converted into a mono signal.

5. REC:

Recording output has been installed using two unbalanced RCA jacks. All signals can be recorded but recording output level (0 dB gain) cannot be adjusted by master volume, since it is wired to be pre-fader. This output could be connected to a logging recorder of some type.

6. AMP IN / PRE OUT:

A. AMP IN:

This unbalanced input is for a direct signal input from external equipment (+4dB level). It is controlled by the Master volume control on the front panel. A signal processor receiving a signal from the PRE OUT can 'return' the processed signal to the AMP IN.

B. PRE OUT:

This 6.35mm jack is for connecting an unbalanced line level output signals to an external amplifier or a signal processor such as an equalizer. The signal is pre-fader with respect to the Master volume.

IMPORTANT: The output impedance should be 600ohm for pre-amp operation.

7. SPEAKER ZONES & ATT. OUTPUT:

Pushing a speaker zone selector button (front panel no.8) will assign the Master Volume output signal to the selected zone. If the ALL CALL button is pressed, the zone selector of remote controller (A4353) is activated, and the selected zone output is reset to 100v/70v output.

8. LOW/HIGH IMPEDANCE OUTPUT:

These spring terminals provide connections for either low impedance (4ohm) or high impedance (100V) speaker output in conjunction with A.T.T (Attenuator) control knobs for each zone on the front panel. Only one or the other, not both simultaneously. See Fig. 3.

9. TELEPHONE:

NIGHT RINGER:

Connect this terminal to telephone line so that you can hear the telephone ring via speakers in other offices.

PAGING IN:

Connect this terminal to the telephone exchanger so that the paging call can be heard through the telephone speakers.

10. MESSAGE FIRST PRIORITY:

11. DC POWER:

This terminal is for a battery connection to provide emergency power to the unit. The battery connection cable has to be three millimetres in diameter and should not be any longer than seven meters. The fuse is located on the internal amp PCB at FU3.

AC POWER REMOTE:

Wiring these terminals enables the amplifier to be turned on or off by remote control.

12. AC POWER INPUT:

Connect power plug and then switch the main power button to ON position to begin operating the unit. Reverse the procedure to remove unit from the wall socket. Remember to disconnect the power cord to replace a blown power fuse, which is located internally on the power PCB at FU1.

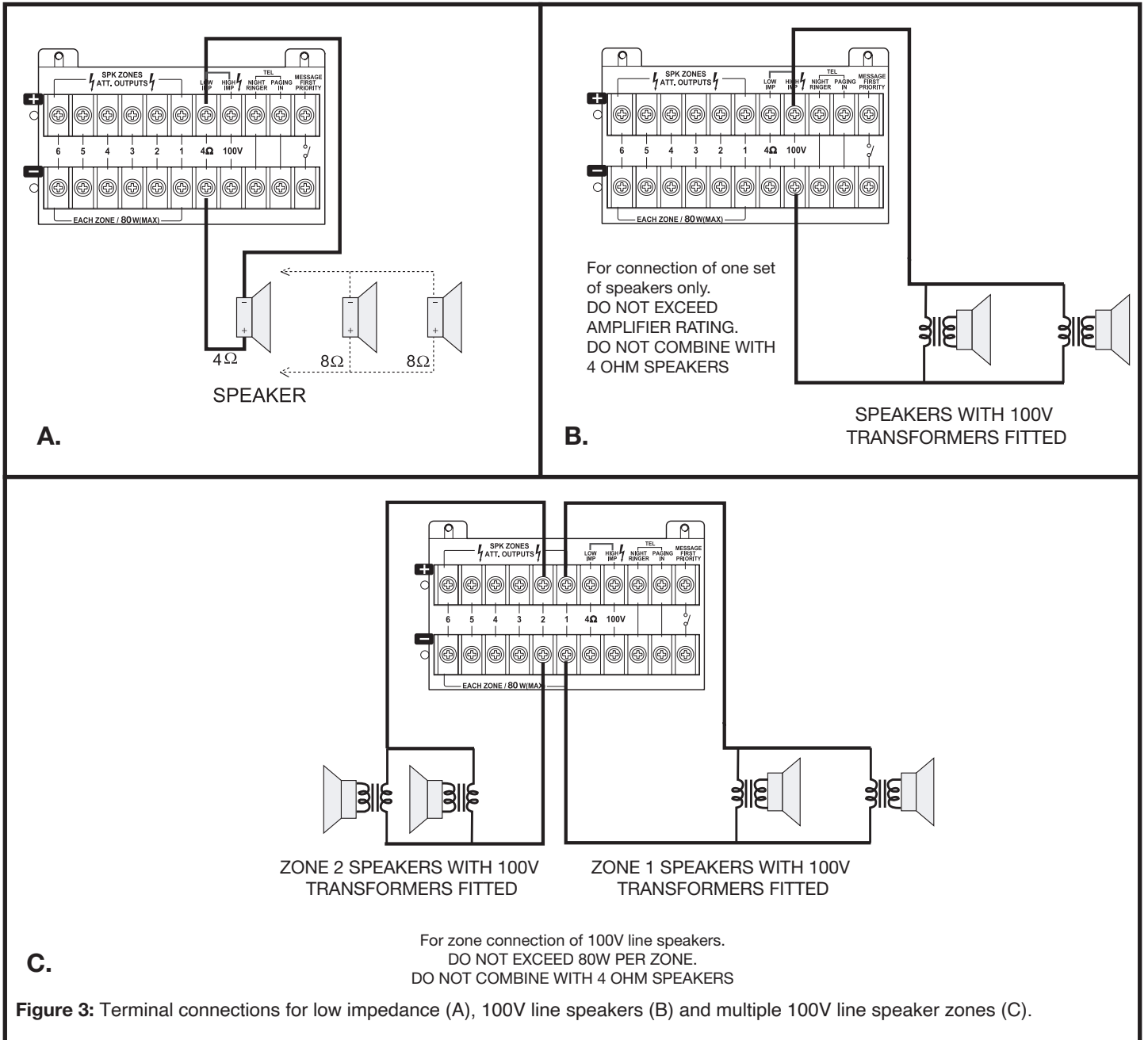


Figure 3: Terminal connections for low impedance (A), 100V line speakers (B) and multiple 100V line speaker zones (C).

OPTIONAL ACCESSORIES:

13. ANTENNA TERMINAL (OPTION):

Refer to the Installation manual for the A 4344A or the A 4346 for further details. The antenna PCB module is included with these accessories.

14. REMOTE CONTROL RECEIVER (A 4352):

Connects to remote paging consoles

(A 4353). Power, data and control signals are all transmitted along a single strand of UTP cable. The combined total length of cable from the amplifier to the last A 4353 paging console is 1200m. Either the INPUT socket or the LINK socket on the rear panel module (A 4352) can be used to connect to the remote paging console. Therefore it is possible to have two daisy chains of RPCs connected to the amplifier simultaneously.

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SETTING PRIORITY FUNCTIONS:

When shipped the amplifier is factory preset as follows:

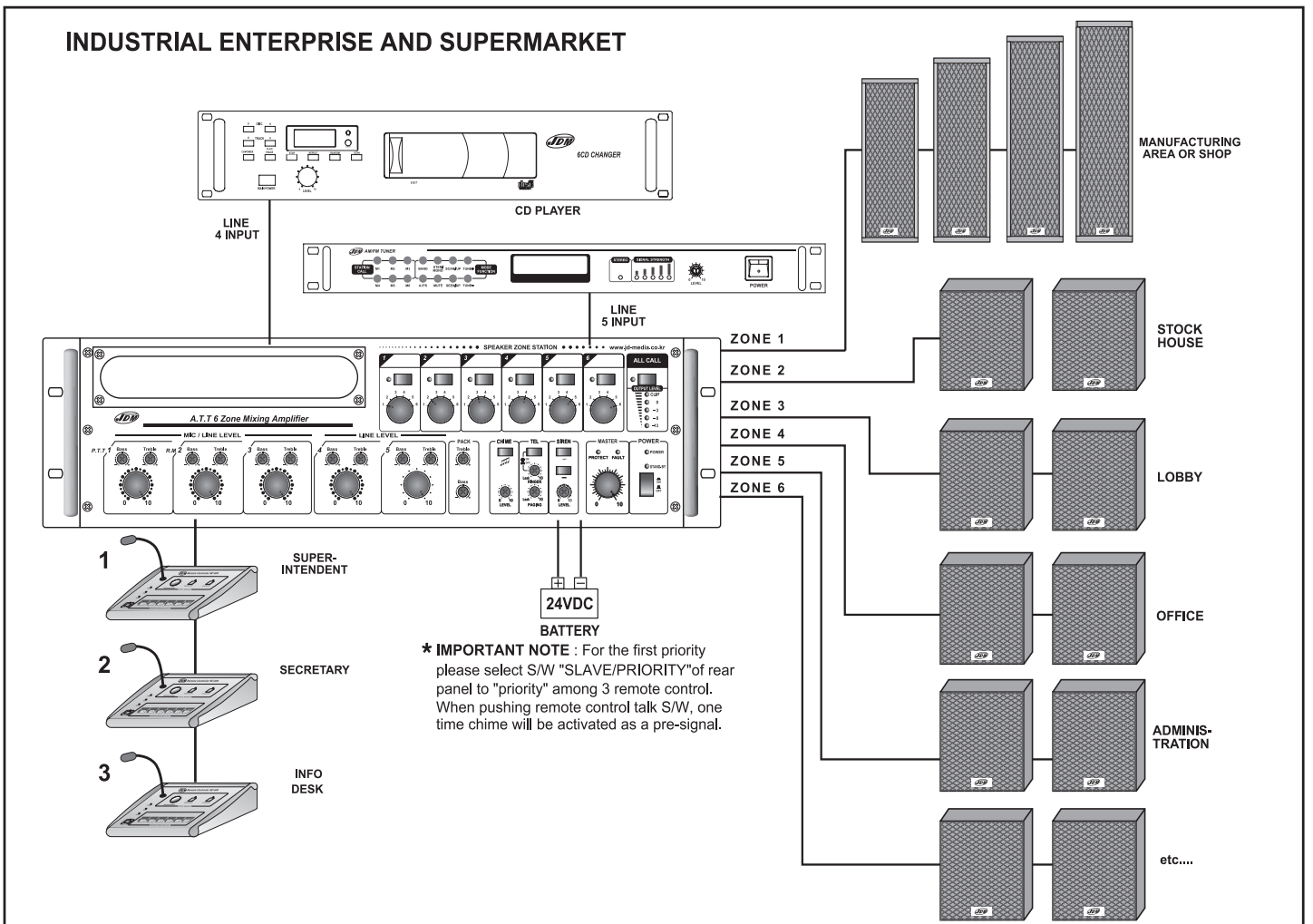
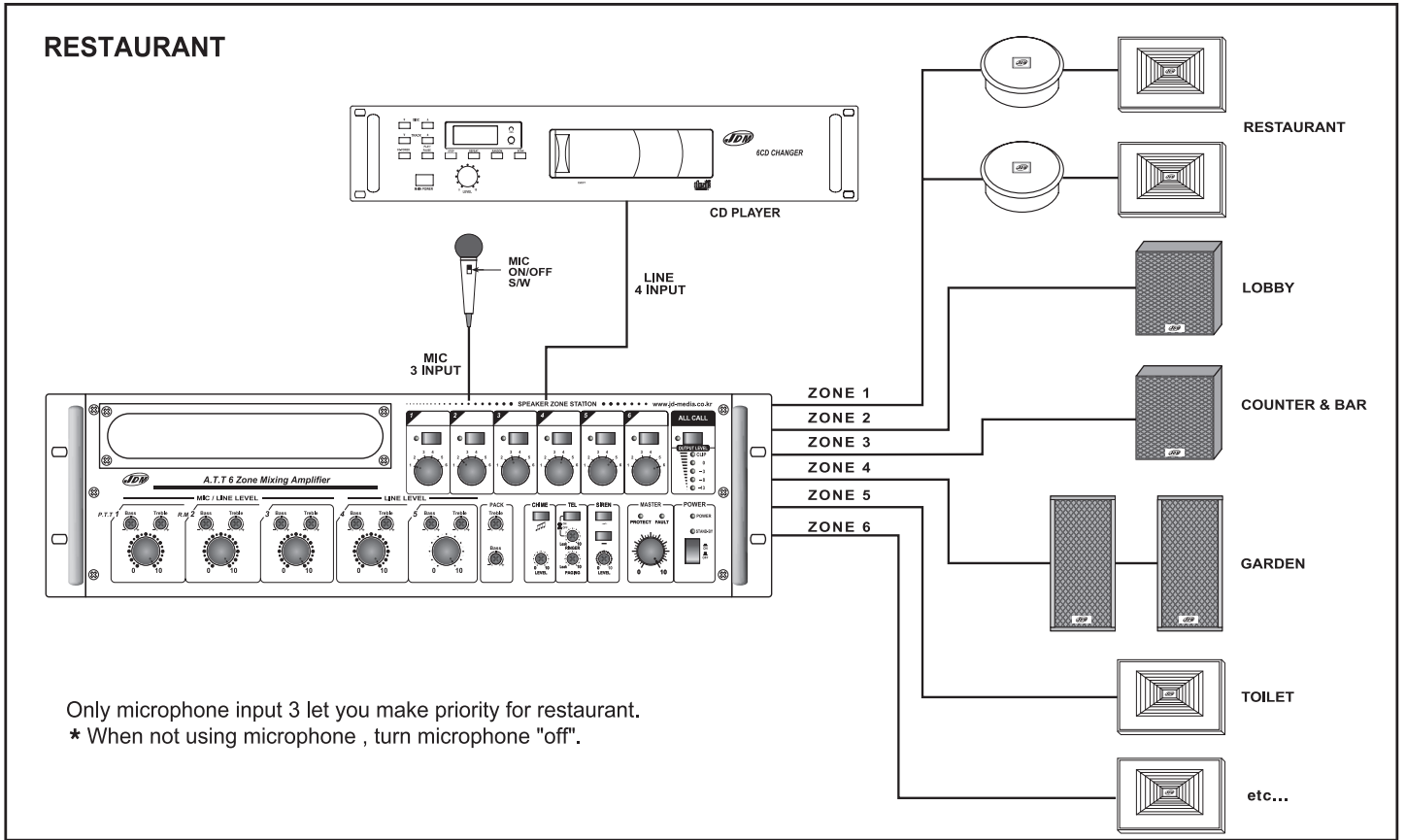
- PCB jumper shunt MS2 (yellow) is set to “SLAVE” position.
- Tel-Paging / Night Ringer is set to the same priority as Radio / CD module, and is linked to the setting position of jumper MS2.
- The following chart shows the priority ranking against all system input signals.

The MS2 jumper shunt is accessed by removing the front module slot panel. If a tuner or CD player / Tuner is fitted, this will need to be removed to access the jumper.

The priorities are as follows:

PRIORITY RANKING	SIGNAL INPUTS	CONDITION – SLAVE or PRIORITY	OUTPUTS RESULTING
1	Digital Message DM-100	Not Supported	Only the Digital Message system’s emergency broadcast message will have top priority.
2	P.T.T. Mic.	To set: A. Put jumper shunt (MS2) to “PRIORITY”, B. Set paging console microphone control PCB (A4352) push button to “SLAVE”. See rear panel drawing Fig 2, item 14 in this manual. C. Set slide switch on the rear of the Remote Paging Console microphone (A4353) to “SLAVE”	Output only for P.T.T. mic and optional modules (A4344A, A4346). Others will be muted, including auxiliary inputs 4 and 5, paging ringer, Tuner or CD/Tuner modules (if fitted) in the front panel slot.
3	Remote Paging Console Mic, priority over P.T.T. Mic	To set: A. Put paging console microphone control PCB (A 4352) push button switch to “PRIORITY”. (See rear panel drawing Fig 2, item 14). All other condition settings for priority remain as above.	Remote Paging Console microphone given priority over other mics except P.T.T. Mic.
4	MIC 1, 2, 3 priority, Tel Paging	To set: A. Use amplifier rear panel DIP switches (see Fig 2, no. 1) and set “ON” as appropriate for microphone 1, 2 or 3. B. Set Jumper Shunt (MS2) to “SLAVE”	Chime / Siren, Ringer, Line 4 & 5, signals are soft muted by Mics 1, 2, or 3 and TEL Paging.
5	MIC 1, 2, 3, Chime / Siren	To set: A. Use amplifier rear panel DIP switches (see Fig 2, no. 1) and set all “OFF: B. set amplifier rear panel (No. 1 on Fig 2) MIC PRIORITY switch (1,2 or 3): set to “OFF” Jumper Shunt (MS2): set to “SLAVE”	Ringer, Line 4 & 5, signals are soft muted by Mics 1, 2, or 3 and Chime / Siren.

Typical installation diagrams.



JDM® 6 Zone Public Address Amplifiers

SPECIFICATIONS:

A 4330 Power:	120 watts RMS	Telephone input:	245mV
A 4332 Power:	240 watts RMS	A 4330 Rated current (AC operation):	3.6A
A 4336 Power:	480 watts RMS	A 4332 Rated current (AC operation):	6.4A
Distortion THD:	< 1% @ 1kHz	A 4336 Rated current (AC operation):	14A
Signal to Noise Ratio:	Line: >80dB Mic: >70dB	Power supply:	240V AC or 24V DC
Frequency Response.....	55Hz - 16kHz, ±3dB	Dimensions:	≈430W x 352D x 133H mm
Mic input sensitivity:	2.45mV balanced	A 4330 Weight:	13kg
Line inputs sensitivity:	245mV	A 4332 Weight:	14kg
Amplifier input sensitivity:	1.23mV	A 4336 Weight:	20kg

JDM Distributors warrants this product for 2 years from date of purchase from its resellers to the consumer. If this item is part of an installation or another product, please contact the installer or supplier for your warranty.

During the warranty period, we undertake to repair or replace your product at no charge if found to be defective due to a manufacturing fault. The warranty excludes damage by misuse or incorrect installation (i.e. failure to install and operate device according to specifications in the supplied instruction manual), neglect, shipping accident, or no fault found, nor by use in a way or manner not intended by the supplier.

For repair or service please contact your **PLACE OF PURCHASE**.

It is at JDM discretion as to whether the goods will be repaired or replaced (whilst under warranty); and as to whether identical goods will be used to replace the item due to changes of models / products.

Note: Under no circumstances should you attempt to repair the device yourself or via a non-authorized JDM service centre, as this will invalidate the warranty!

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.