



6 WAY 1U Hi RACK MOUNT ZONER

OWNERS MANUAL

*For EUROPEAN 220V -230V
OPERATION*



Hz INTERNATIONAL LTD COMBE HOUSE - STOKE ST MICHAEL -BATH - SOMERSET – ENGLAND

UNPACKING

The Q – Zone has been designed as a rugged piece of professional equipment. It contains a high specification modern electronic PCB assembly and should be treated with care.

The packaging of the unit is specifically designed to safely transport this product. In the unlikely event of the product requiring servicing, it is best to return it in this packaging.

*All units are factory set for 220-230v operation. Units factory made for 110/120V supply are clearly marked on the back and should **not** be connected to any higher voltage power source.*

FITTING A POWER LEAD PLUG

The wires in the IEC/CEE mains lead are coloured: Earth: Green/Yellow Neutral: Blue Live: Brown

MOUNTING THE UNIT

This unit has been designed for rack mounting use, in a Racking enclosure made to BS5954, IEC297 or Din 41494 standards.

DO NOT USE RACKS NEAR HEATING DUCT OUTLETS, APPLIANCES OR RADIATORS.

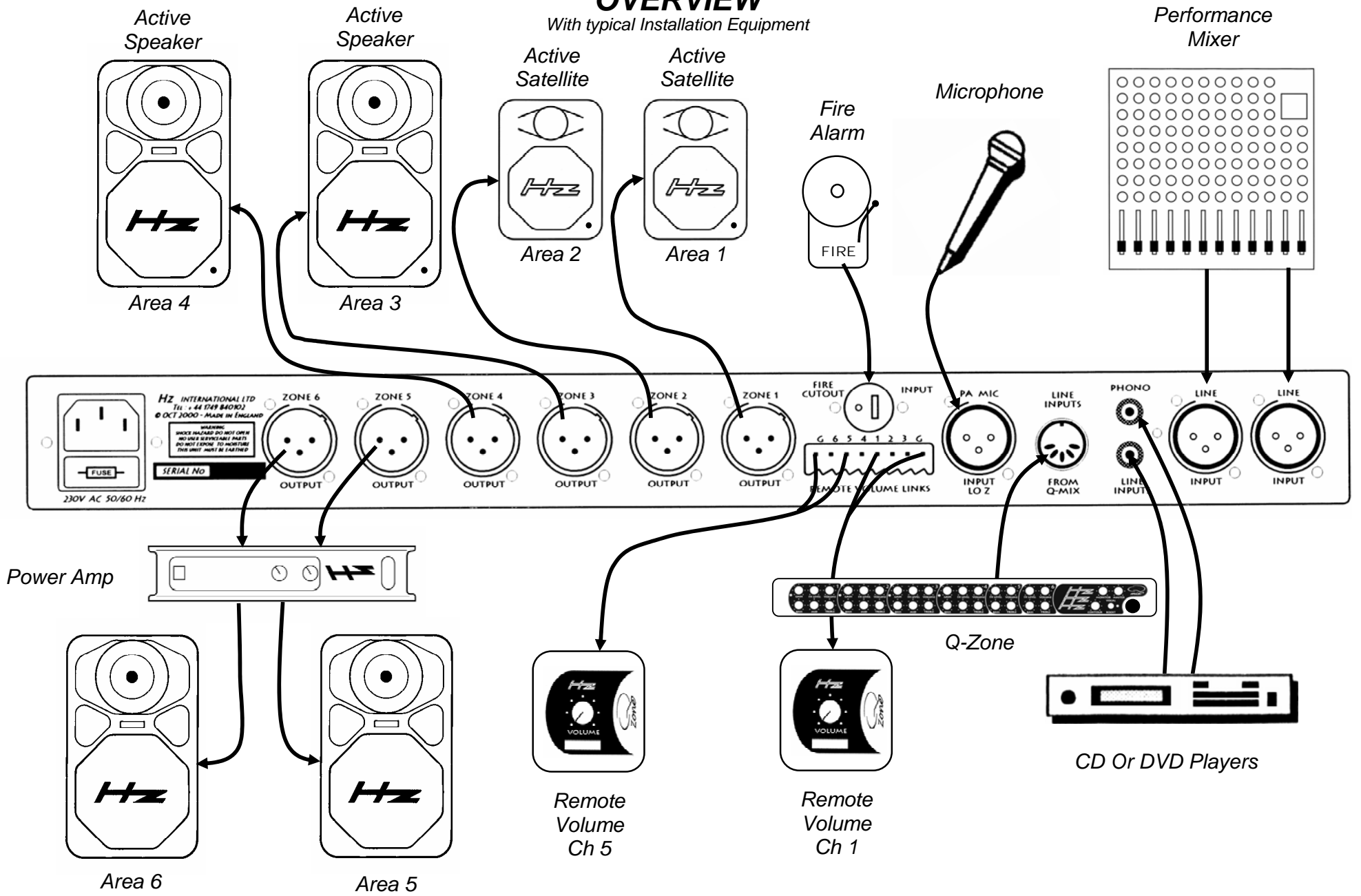
Care is required when installing these units in a rack. It is advisable to put the Rack on its back, then place all the other equipment being fitted to the rack into it before tightening the retaining screws.

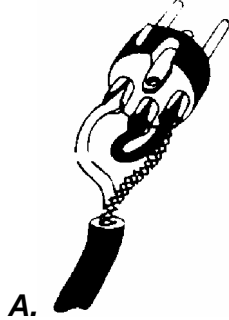
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OVERVIEW

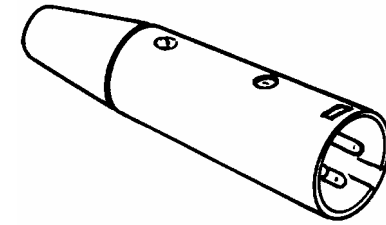
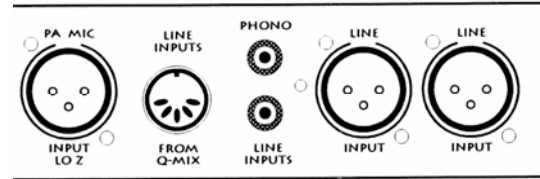
With typical Installation Equipment





Using the Q-zone

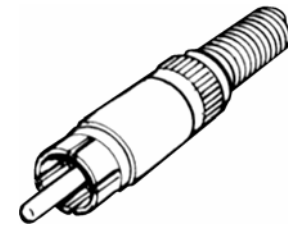
The Input Channels



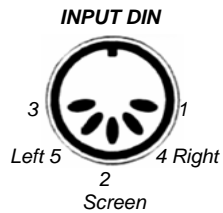
3 PIN MALE XLR

The Mic & Line inputs use XLR connectors and are designed to suit a wide range of BALANCED or UNBALANCED signals. A stereo signal from a Mixer or DJ console can be fed either into the dual Line input XLR's or the pair of phono sockets. **PLEASE NOTE these signals will be summed into MONO for zoning.** The use of a professional dynamic microphone is recommended, because this will be LOW IMPEDANCE and BALANCED. You can use low-cost HIGH IMPEDANCE mics, but the level of background noise will be higher as well as having poor sound quality.

A. = Unbalanced Male XLR B. = Balanced Male XLR



RCA PHONO

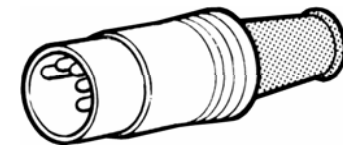


View looking into socket

Mixer to Mixer Link from Q-Mix

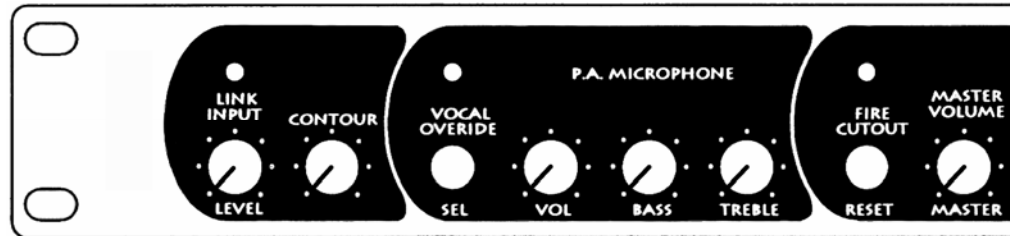
The Q-Mix can be to easily linked into a Q-zone via the mixer to mixer link.

A Standard screened 5pin Din to 5pin 180° audio link leads are recommended for this application.



5 PIN DIN to DIN

The Signal Input Controls



The Input Link Level

This knob sets how much of the source signal is sent into the zoner. Too high and the signal will distort as it overloads the channel. **Too low, and the level of background hiss will be more noticeable and you may not be able to get enough signal level to the output of the mixer.**

The RED peak level LED, is set show at 0dB (0.775v) and is designed to indicate the onset of clipping (distortion), however occasional flashing of this will be observed from very dynamic sources, without causing any undesirable effects.

Setting the knob at 9'oclock gives approximately unity gain for the LINE input. Note that some sound equipment that is intended for domestic use, operates at a lower level (-10dBV) than pro-audio gear and will therefore need a higher setting to get the same level.

Contour Control

A pseudo Master Graphic EQ; turning this knob clockwise produces the infamous 'smile' curve, that most users prefer. Fully clockwise will produce a really deep bass and a give very bright top end.

Vocal Override

Use of this feature will cause all channels to 'DUCK' (Auto Fade) 'IN USE' indicated by a LED. This feature is ideally suitable for PAGING or SPECIAL ANNOUNCEMENTS

Volume Knob

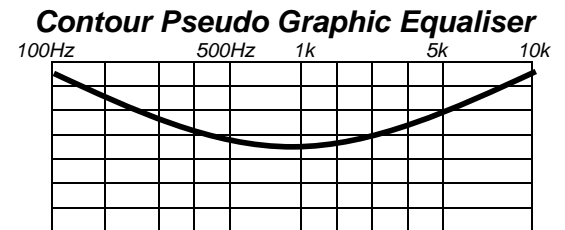
Use this to control the PA Microphone level of signal going to the Master Volume Stage.

Bass Control

Turn knob clockwise to boost low (bass) frequencies of the Microphone

Treble Control

Turn clockwise to boost high (treble) frequencies of the Microphone - Set both the knobs at the 12 'o clock position for a flat response



Vertical Calibration @ 5 dB per div

Fire Cut Out

This Feature when connected to a fire alarm system will stop sound in all zones, but allows the emergency announcements made via the PA mic channel to be heard in all areas, even if not selected at the time.

A Red LED shows that the Fire Cut Out relay is activated, pressing the button below will re-set the Fire Cut Out relay if accidentally tripped.

Master Volume Control

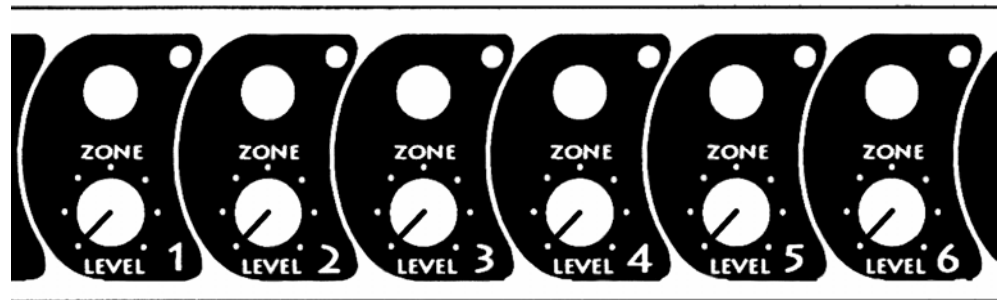
Does exactly what it says on the tin - it controls the overall volume being fed into the 6 output zones of the Q – zone

Zone Level Controls

Depress the appropriate button to send the signal to the areas selected; the green LED shows the zone is activated.

The Zone Level Control sets the volume for each zone; however if the Master Volume is set too low then this function will have less effective range.

These level controls are also able to be remotely changed, but if these are also set too low then the remote function will not have effective range.



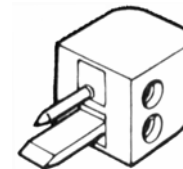
Please note that the remote maximum output level is governed by the Zone Level setting

Special Connections

Fire Alarm Connector

2 Way screw terminal connector for connection to the standard open contact relay circuit found on all approved Fire Alarm Systems

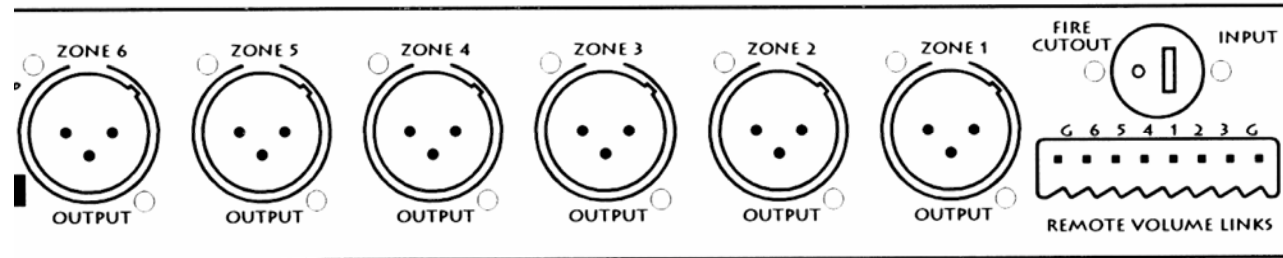
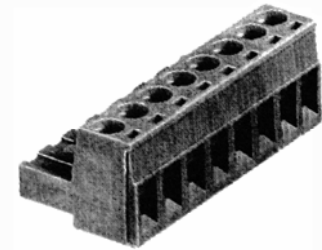
(There is no polarity to these 2 connections) If in doubt consult your service provider.



8 Way Remote Terminal

The Volume Levels of each of the six zones can be controlled from a remote location by using the 8 way plug-in screw terminal provided.

Each channel is clearly marked at the back and can be easily hooked up with just 2 wires for each zone. Connect 1 wire to the required channel and 1 wire from point **G**, to a Qzone remote volume control unit. (Small Diameter cable can be used - it does not need to be shielded)



Zone Outputs

All zones have high level balanced line outputs; this enables long cable runs with very low distortion, by eliminating main hum, RF interference, voltage drops & noise. They can drive 10V RMS into 600Ω with an output impedance of 50Ω

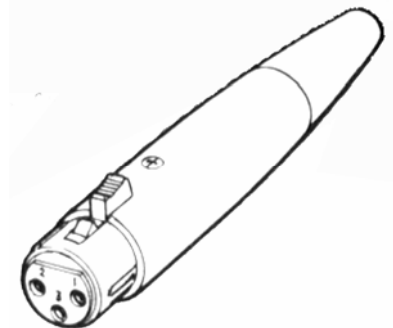


The outputs should be made with Female XLR's with the connections as show.

All outputs must use screened cable.
It is recommended that on very long runs that 'LSOH single twisted pair foil wrapped cables' be used.

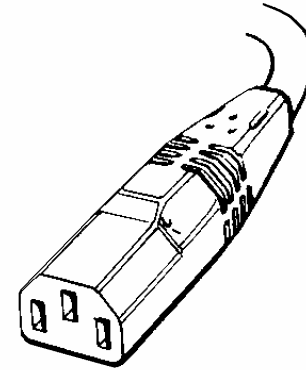
DO NOT USE 3 CORE MAINS CABLE OR SPEAKER CABLES

Pin 1 = Screen Pin 2 = Hot Pin 3 = Cold



Power Connection

The wires in the IEC/CEE mains lead are coloured: Earth: Green/Yellow Neutral: Blue Live: Brown
As these colours may not correspond with the colour markings identifying the terminal in your plug proceed as follows: Green/Yellow wire must be connected to the terminal which is marked with the letter E or coloured Green. - Brown wire must be connected to the terminal which is marked with the letter L or coloured red. - Blue wire must be connected to the terminal which is marked with the letter N or coloured black.



To get the most out of your system, It is important to have the right connections so please check to make sure all of your hook up cables are correct and you are using the right type of cable.

**DO NOT
SWITCH or LINK + & - TERMINALS
IF IN DOUBT CALL HELP LINE
PLEASE REMEMBER YOUR SYSTEM IS
ONLY AS GOOD AS ITS WEAKEST POINT
THIS IS GENERALLY
THE HOOK UP WIRES
NEARLY ALL SOUND SYSTEM
FAULTS CAN BE TRACED BACK
TO POOR WIRING CHECK
ALL YOUR CABLES REGULARLY
HELP LINE (UK) 44 1749840102**

Trouble Shooting

Although the greatest care has been taken in the manufacture of this mixer, the possibility remains that faults could occur during use or difficulties could be experienced during initial installation.

The cause, however, will rarely be found to be internal to the be the mixer. Below is a list of symptoms and possible causes. Some of the suggested causes may appear obvious, but they can be easily overlooked.

Under no circumstances should you open the mixer; as this is dangerous, and will expose you to mains voltages; it will also invalidate all rights under the guarantee.

- 1. After turning on the 'power' switch the 'power' indicator does not light-
The mains plug is not pushed far enough into the mixer.
Check there is a supply to the mains socket.
Check supply using an alternative electrical appliance.
The mains input fuse is broken, at back of mixer, replace using QB 250mA 20mm fuse.*
- 2. When the controls are advanced no sound is heard-
Check the input signal is connected to input socket.
Check the input signal is connected to channel being used
Move input plug to another channel, or use controls on connected channel.*
- 3. Even when the output is low, the output sounds distorted-
Check the input gain is not too high - peak LED will be on
Check the input signal is not too high - peak LED will be on*
- 4. Check the mic is plugged into a mic channel
Check the mic cable a balanced 3 wire type*

GUARANTEE

YOUR EQUIPMENT IS GUARANTEED FOR A PERIOD OF THIRTY-SIX MONTHS TAKEN FROM THE DATE OF PURCHASE OF THE PRODUCT AGAINST ANY DEFECTS DUE TO FAULTY MATERIALS OR FAULTY MANUFACTURING. DURING THIS PERIOD, REPAIRS TO THE EQUIPMENT WILL BE CARRIED OUT WITHOUT CHARGE FOR LABOUR OR MATERIALS BY ANY AUTHORISED DEALER OR THE FACTORY SUBJECT TO THE FOLLOWING CONDITIONS.

- 1. The fault must be entirely due to faulty materials or faulty manufacture.*
- 2. The defect must not have been caused by bad installation, accidental damage, misuse or failure to comply with the instructions given in this users manual.*
- 3. The equipment must be used solely for audio applications and is subject to fair wear and tear, for commercial usage.*
- 4. If at any time during the guarantee period part or parts of the equipment are replaced with a part or parts not supplied or approved by us or if the equipment has been dismantled or repaired by any person not authorised by the us, then guarantee shall immediately cease and become void.*
- 5. Evidence of the date of purchase (invoice, receipt or finance agreement) must be produced at the service department to obtain the benefit of this guarantee. Any carriage charges relating to the guarantee will be the responsibility of the purchaser.*
- 6. This guarantee applies to the original purchaser only and the equipment must have been purchased or financed from new, the guarantee cannot be assigned or transferred.*
- 7. Any defective part that has been replaced shall become the property of the company and the right is reserved by the company to replace the equipment or repair it at the option of the company.*
- 8. This guarantee applies to equipment purchased and used within the E.E.C. The importers of equipment in non E.E.C. countries are responsible for the guarantee of this equipment. Parts required under guarantee are free. Shipping charges for components will be charged at cost.*
- 9. Knobs, potentiometers, switches and chassis mount connectors are not covered under the terms of this guarantee.*
- 10. The guarantee does not cover equipment that is in industrial use or which are the subject of rental or hire agreement.*
- 11. The guarantee shall become void if the equipment is at anytime used on any supply circuit or voltage range other than that specified on the equipment.*
- 12. THIS GUARANTEE DOES NOT IN ANY WAY AFFECT YOUR STATUTORY RIGHTS AS A CONSUMER WITHIN THE E.E.C.*

THE INFORMATION CONTAINED IN THIS MANUAL IS CORRECT AT THE TIME OF GOING TO PRESS, HOWEVER IN LINE WITH HZ'S POLICY OF CONTINUAL DEVELOPMENT SOME OF THE DETAILS MAY CHANGE ON FUTURE MODELS.

E & OE