

## warranty conditions

Only Kodio Service Centres are allowed to make warranty repairs : a list of UNI AMP Service Centres may be asked for by the purchaser or send directly to UNI AMP at Tmn Perindustrian Pusat Bandar Puchong, 47100, Puchong, Selangor, Malaysia or its authorized master distributor, This warranty is not valid if repairs are performed by unauthorized personnel or service centres.

This warranty covers only repairs and replacement of defective parts ; cost and risks of transportation as well as removal and installation of the product from the main system are for the account of the purchaser. This warranty shall not extend to the replacement of the unit.

This warranty does not cover damages caused by misuse, neglect, accident of the product as well as using the product with power supply voltage other than shown on the product, or any other power supply source / adaptor not recommended by the manufacturer.

This warranty does not cover damages caused by fire, earthquakes, floods, lightning and every cause not directly related to the unit.

This warranty does not include any indemnity in favor of the purchaser or the dealer for the period out of use of the unit; moreover the warranty does not cover any damages which may be caused to people and things when using the product.

This warranty certificate is valid only for the described product, and is not valid if modifications are made on this certificate or on the identification label applied on the product.

This warranty covers all the material and manufacturing defects and is valid for a period of 12 months from the date of purchase or for a longer period in countries where this is stated by a national law. In this case, the extension is valid only in the country where the product is purchased.

## disclaimer

Information contained in this manual is subject to change without prior notice and does not represent a commitment on the part of the vendor. UNI AMP shall not be liable for any loss or damages whatsoever arising from the use of information or any error contained in this manual.

It is recommended that all services and repairs on this product be carried out by UNI AMP or its authorized service agents.

KODIO series must only be used for the purpose they were intended by the manufacturer and in conjunction with this operating manual.

KODIO cannot accept any liability whatsoever for any loss or damages caused by service, maintenance or repair by unauthorized personnel, or by use other than that intended by the manufacturer.

# INSTRUCTION MANUAL

## DC5024 24 Channel Data Decoder

version 2 / 2010  
harmonised protocol



**Thank you** for choosing another quality product from KODIO.

KODIO has upgraded the protocols in RM series paging microphones, MatriMix as well as PMX system. With this harmonised data, all the equipments can be used or interchanged seamlessly. As such, the firmware of DC5024 has been upgraded as well, to cater for the needs.

We shall endeavor to make products with contemporary needs and yet expandable for future upgrades. We are sure you make the right decision to choose Amperes, which is not only offering the product that meets your budget, but perform beyond your expectation.

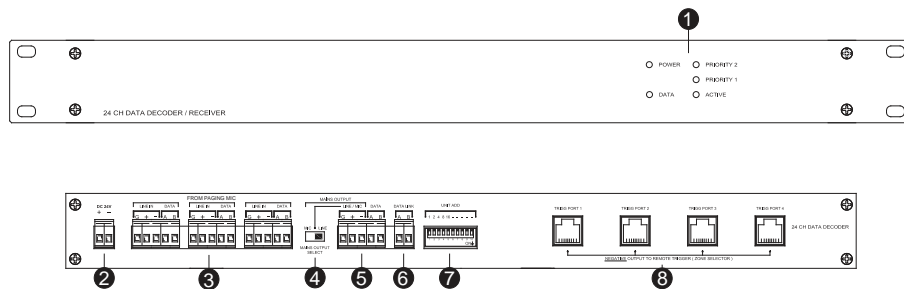
We appreciate that you read through the manual to avoid any mishandling as well as to explore the full potential this unit can offer. Keep this manual for future reference and we believe that you are getting an optimum product in its class.

## Notice On This Version Of DC5024

With new harmonised protocols, DC5024 would not be able to work with older version of RM series of paging mics. To avoid installation problem, use the product with improved protocols which can be identified through the serial numbers. New firmware of DC5024 starts from the serial number of 50241006XXXX.

On hardware connections, only minimal changes are made to this version. Please follow the instructions closely to avoid installation errors.

## Parts Identification



### 1 LED INDICATORS

POWER LED for DC input, DATA for communication status, PRIORITY indicates either PR2 or PR1 is active and ACTIVE is for activation or normal channel

### 2 POWER SUPPLY INPUTS

The decoder is operated by using 24V DC, we recommend Amperes PS5424 power supply to be used or other regulated 24V DC power pack.

### 3 PAGING MIC CONNECTIONS

The connectors are to link to paging mics via EX5256 using 2 pair screen cable. There are 3 ports, which means three circuits would be able to be connected.

Note :

Unlike previously, this version allows any priority setting of the mic to be terminated at either one of the ports. A mix priority setting in a circuit can also be connected to a single port.

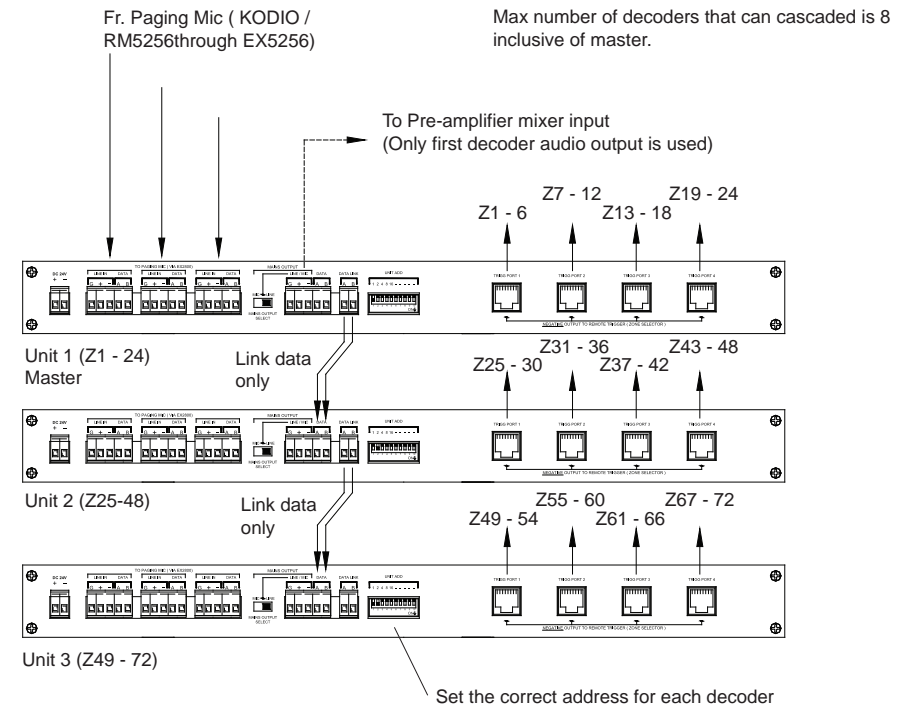
### 4 OUTPUT LEVEL SELECTOR

Output level from the decoder can be set to Mic or Line level.

### 5 AUDIO OUTPUT

Audio output from the decoder is balanced with output level determined by the level setting as per item 6.

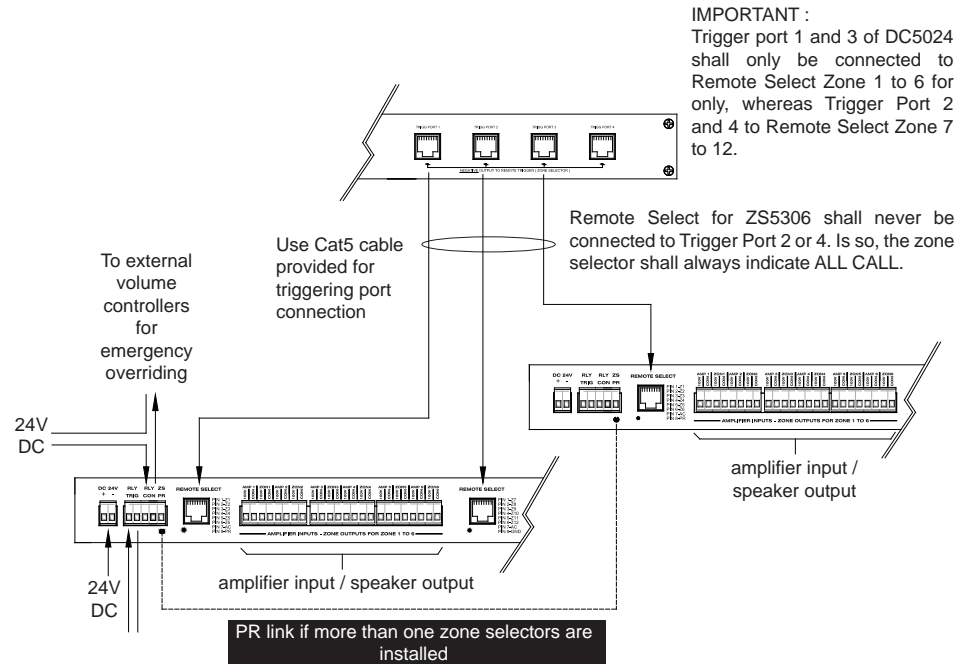
## Cascading The Units



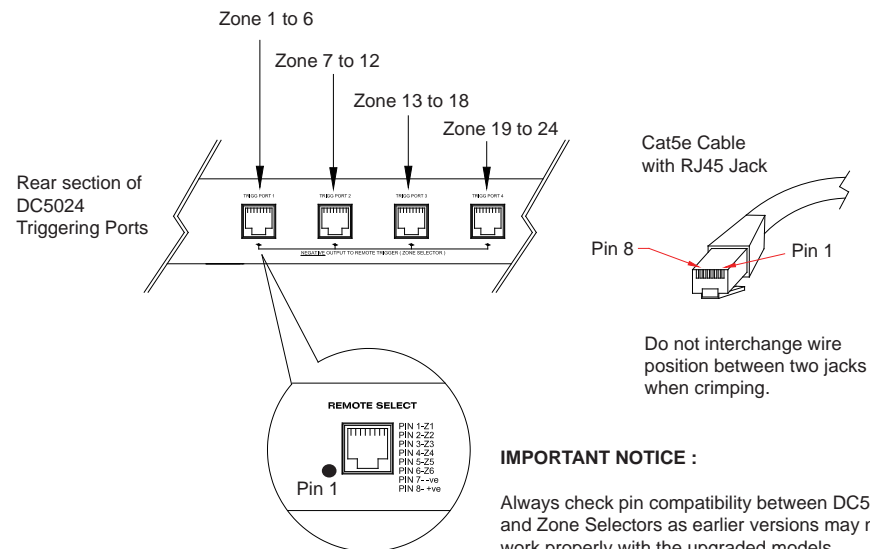
## Technical Data

Operating voltage	24V DC : 0.5 A
Power consumption	2.4W ; 100mA
Switching channels	24 channels
Max cascades qty	8 inclusive Master
Max zones	192 zones
Max mic inputs	3 lines
Output connections	RJ45
Audio and data	
Input impedance	Line 10K Ohm
Output impedance	600 Ohm balanced
Freq. response	70 - 15 kHz
Max audio input	Mic / line
Max audio output	0 dB
Data protocol	RS485
Baud rate	19.2 k bps
Dimensions (W x H x D)	482 x 44 x 130 mm
Weight	1.7 kg

## Connecting to Speaker Zone Selector



### PIN CONFIGURATIONS :



## Parts Identification ( Con't )

### 6 DATA LINK FOR CASCADE

This port shall be used if slave units are installed in the system. Link the data signal A/B to the data input of the next unit ( Part 7). Ensure correct polarity and the unit setting. See also item 9.

More than one DC5024 shall be used for larger system, such as 25 channels and above. There is no limitation on the number of units that can be cascaded.

### 7 UNIT ADDRESS DIP SWITCHES

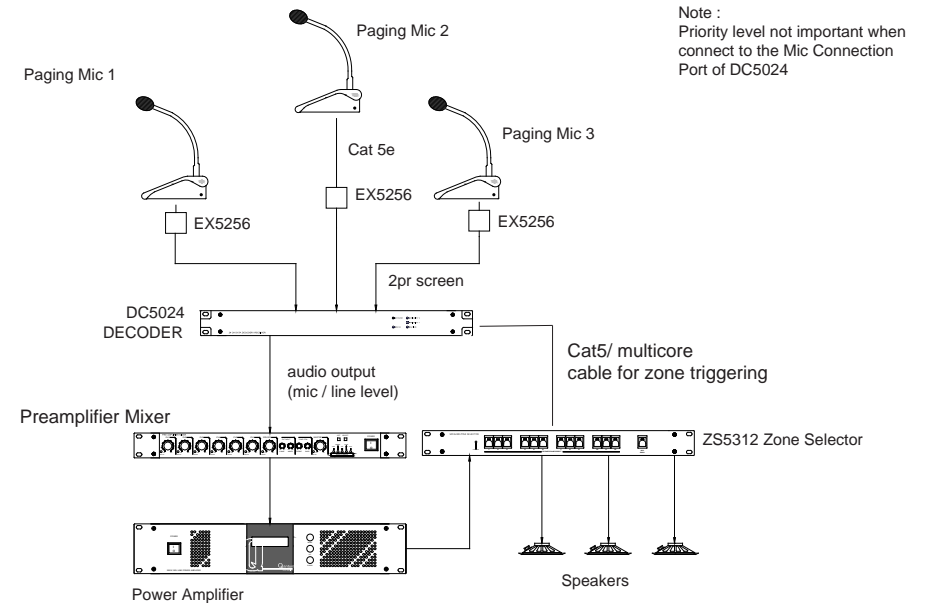
Each decoder caters for 24 channel outputs, thus each DIP setting shall comprise address for a group of 24 channels. Address setting shall be using BCD codes.

Example: 1000 0000 - Zone 1 to 24  
0100 0000 - Zone 25 to 48  
1100 0000 - Zone 49 to 72

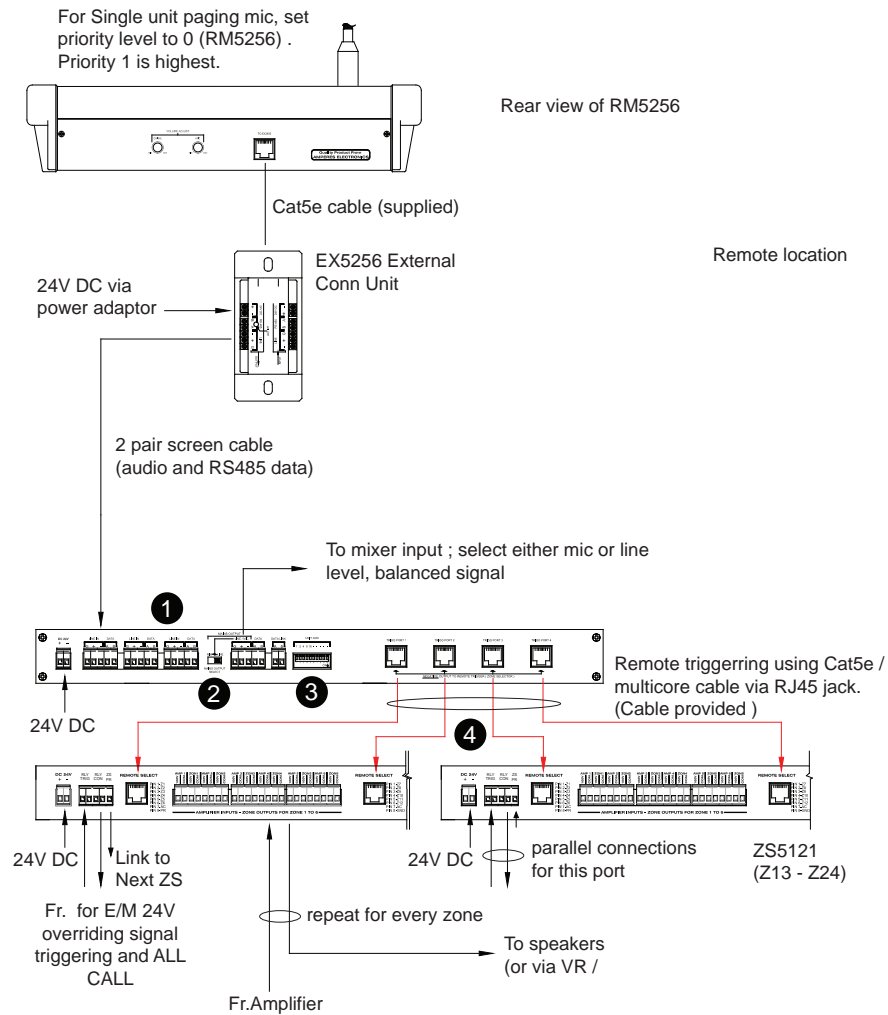
### 8 TRIGGERING PORT

Connect the zone selector's triggering port using RJ45 connector that is provided with each zone selector. Care has to be taken when using different type of zone selector. Please refer to section "Connection of Triggering Port" for details.

## General Schematic Diagram

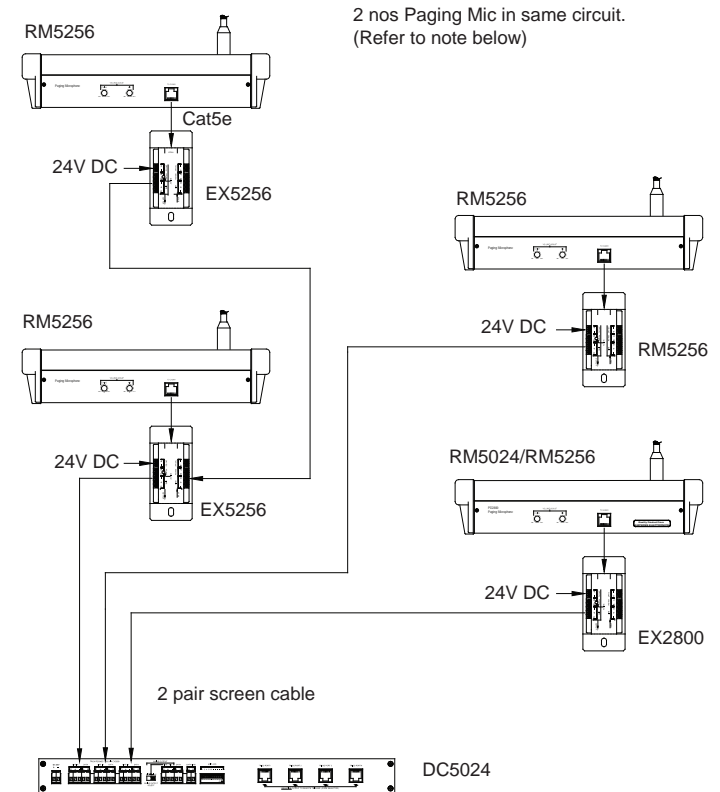


## Connecting The Unit - Single Unit Installation



- 1 Paging mic can be connected to any of the port regardless of the priority setting at the paging console.
- 2 Use this switch to select the audio output level ; mic or line level when connecting to pre-amplifier mixer
- 3 Set unit address ; each address represents one unit of decoder of 24 zones.  
example : 10000 0000 - Zone 1 to 24  
01000 0000 - Zone 25 to 48
- 4 Each connection port is for 6 zones triggering. Connect the correct port according to the zone numbering. (See section : Connection to speaker zone selector)

## Multipoint Paging Installations



### NOTE :

Paging mic can be set to any priority in a circuit and can be connected to any of the ports at DC5024.

### RM5024 :

In a circuit with 2 or more RM5024, the unit which is triggered first would be served and the other left in busy mode.

3 levels of priority available for RM5024.

### RM5256 :

Any mic in active would be bypassed when a mic with higher priority is activated.

9 levels of priority available for RM5256.