

dbx PROFESSIONAL PRODUCTS

DriveRack® / ZonePRO™

ZC Series Wall-Mounted Zone Controllers

**ZC
Series**



ZC-1-4
ZC-6-9
ZC-Fire
ZC-BOB

→ *User Guide*

DECLARATION OF CONFORMITY

Manufacturer's Name:	dbx Professional Products
Manufacturer's Address:	8760 S. Sandy Parkway Sandy, Utah 84070, USA
declares that the product:	
Product name:	dbx Zone Controllers Models: ZC1, 2, 3, 4, 6, 7, 8, 9, FIRE and BOB
Note:	Product name may be suffixed by the letters -EU.
Product option:	none
conforms to the following Product Specifications:	
Safety:	IEC 60065-98
EMC:	EN 55013 (1990) EN 55020 (1991)
Supplementary Information:	
The product herewith complies with the requirements of the Low Voltage Directive 73/23/EEC and the EMC Directive 89/336/EEC as amended by Directive 93/68/EEC.	
Vice-President of Engineering 8760 S. Sandy Parkway Sandy, Utah 84070, USA Date: February 3, 2003 Revised: September 10, 2004	
European Contact:	Your local dbx Sales and Service Office or Harman Music Group 8760 South Sandy Parkway Sandy, Utah 84070 USA Ph: (801) 566-8800 Fax: (801) 568-7583



The symbol shown above is an internationally accepted symbol that warn of potential hazards with electrical products. The exclamation point in an equilateral triangle indicates that it is necessary for the user to refer to the owner's manual.

Zone Controller Wiring

The Zone Controllers, (ZC-1, ZC-2, ZC-3, ZC-4, ZC-6, ZC-7, ZC-8, ZC-9, and ZC-Fire) can be wired serially or in parallel. To wire in series each Zone Controller must have an identification or zone number chosen using the DIP switches on the side of the controller (see diagram A). Each controller must have a unique number chosen although there may be multiple Zone Controllers controlling a single zone, or a single Zone Controller that controls multiple outputs. The Zone Controllers can then be wired together and connected to the DriveRack 220i, 260 or ZonePRO units (see diagram B).

The Zone Controllers may also be wired in parallel with the use of the ZC-BOB. To wire in parallel (home run cabling), each controller must have a unique identification or number chosen using the DIP switches on the rear of the panel (see diagram A). To wire in parallel, each controller must be wired into a port of the ZC-BOB with a connecting wire going to the DriveRack or ZonePro (see diagram C). Diagram D shows the typical wiring for ZC-4 Euroblock connections in which the installer needs to use SPDT (single-pole, double-throw) switches with one side being connected to 5 volts (+VREF) and the other side to ground (GND). Diagram E shows the proper way to interface the ZC-Fire to the fire alarm system. Use only the relay/switch closure or the 5-24V DC inputs. Do not use both inputs at the same time. For information regarding ZC setup, please see the respective manual for the Driverack or ZonePro unit that you are setting up.

Diagram A

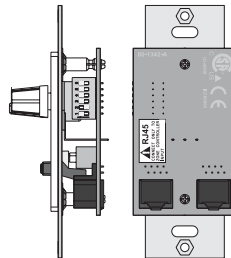


Diagram B

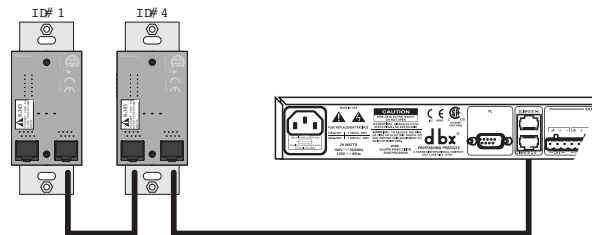


Diagram C

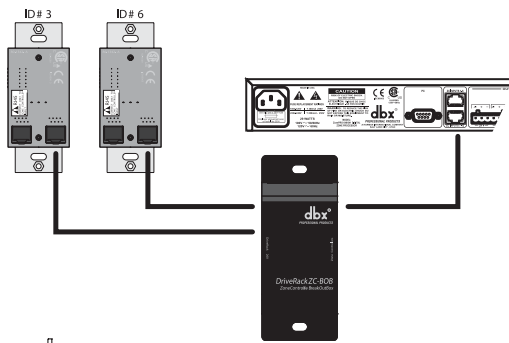
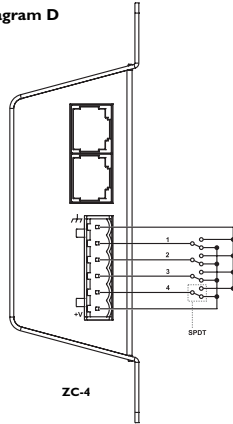


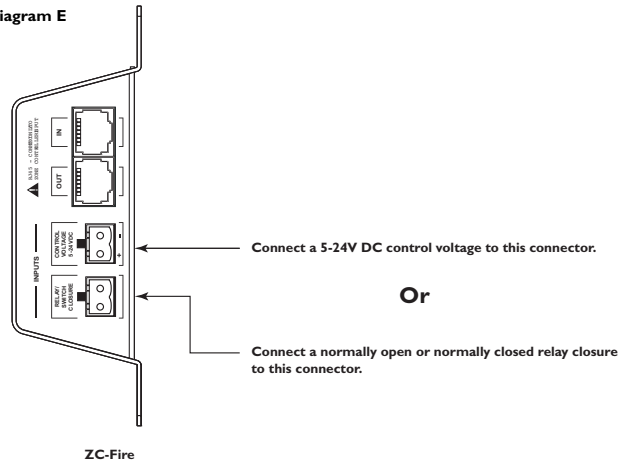
Diagram D



SW4	SW3	SW2	SW1	ZC-4 Binary App notes Hex	Setting
0	0	0	0	0	0
0	0	0	1	1	1
0	0	1	0	2	2
0	0	1	1	3	3
0	1	0	0	4	4
0	1	0	1	5	5
0	1	1	0	6	6
0	1	1	1	7	7
1	0	0	0	8	8
1	0	0	1	9	9
1	0	1	0	A	10
1	0	1	1	B	11
1	1	0	0	C	12
1	1	0	1	D	13
1	1	1	0	E	14
1	1	1	1	F	15

Switches SW1-SW4 correspond to switch inputs 1-4 on the ZC4's EuroBlock connector. Each switch connected to the ZC4 must be a Dual Pole Single Throw (DPST). One pole of each switch should be connected to the ground reference on the ZC4's EuroBlock connector while the other pole should be connected to the +V reference. Because there are four switch inputs, there are 16 possible switch combinations. In the chart above, a "0" corresponds to a switch connected to +V reference, while a "1" corresponds to the switch being connected to ground. None of the poles should be left hanging but should either be connected to +V or ground.

Diagram E



Zone Controller Maximum Cable Length

Note - The following cable lengths were achieved using Cat5 Enhanced cable exhibiting a maximum D.C. resistance of 29 Ohms per 1,000 feet. When connecting Zone Controllers in series, the following cable length restrictions apply:

- As shown in Diagram F, any (3) Zone Controllers may be wired in series as long as the total cable length does not exceed 600 feet.
- Any (6) Zone Controllers may be wired in series as long as the total cable length does not exceed 300 feet. Refer to Diagram G.
- Cable runs of up to 1,000 feet may be achieved using "Home Run" wiring. An example of this is shown in Diagram H. A dbx Zone Controller Break Out Box (dbx ZC-BOB) is used to parallel several cable runs. It should be noted that a 1,000 foot cable with a single Zone Controller may be connected directly to the DriveRack or ZonePro.

Diagram F

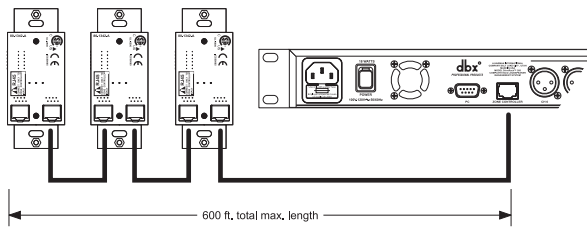


Diagram G

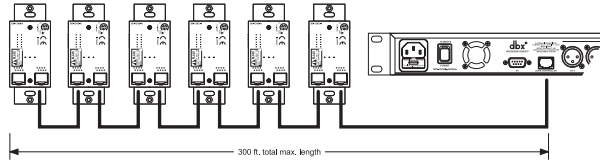
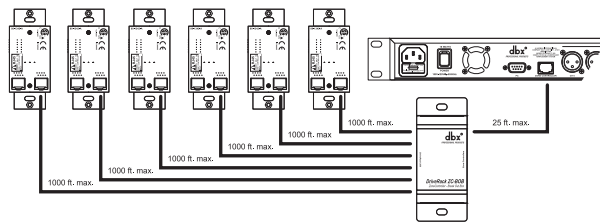


Diagram H



Cable Spec: Cat5 Cable - 4-Twisted Pairs of 24AWG wire

RJ-45 (8-Position)		RJ-45 (8-Position)
1	White/Orange	1 -VREF
2	Orange	2 -Zone 1
3	White/Green	3 -Zone 2
4	Green	4 -Zone 3
5	White/Blue	5 -Zone 4
6	Blue	6 -Zone 5
7	White/Brown	7 -Zone 6
8	Brown	8 -GND

Zone Controller Compatibility Chart

ZC	DriveRack 220i	DriveRack 260	ZonePro 640/641	ZonePro 1260/1261
1	x	x	x	x
2	x	x	x	x
3	x	x	x	x
4	x	x	x	x
FIRE			x	x
6			x	x
7			x	x
8			x	x
9				x
BOB	x	x	x	x

Safety Warning:

The installation of the Zone Controllers MUST be accomplished with the use of cable which is rated VW-1 or higher. Common NEC designations which meet this rating include: CMP, CMR, CMG, CM and CMX.

Specifications:

Connections:

- ZC-1, ZC-2, ZC-3, ZC-6, ZC-7, ZC-8 and ZC-9 Connectors: (2) RJ-45
- ZC-4 Connectors: (2) RJ-45, (1) 6-pin Phoenix
- ZC-BOB Connectors: (7) RJ-45
- ZC-Fire Connectors (2) RJ-45, (2) 2-Pin Phoenix

Wiring:

Maximum Cable Length depends on number of Zone Controllers and wiring schematic.

Series Wiring:

Maximum Cable Length varies with number of Zone Controllers. For Example, Three Zone Controllers: 600 ft. Six Zone Controllers: 300 ft.

Parallel Wiring:

Using a ZC-BOB, Up to Six Zone Controllers: 1000 ft.
Cable: CAT5 or CAT5E with <28.6 Ohm/M (Ohm/1000 ft.) nominal DCR and rated VW-1 or higher.

Safety Agency Approvals:

UL 6500, IEC 60065, EN 55013, E60065

SHIPPING WEIGHT:

.7 lb.

Dimensions:

