CCL

Burglar Alarm System Manual
Model: BAS-B

We extend a warm welcome to you on becoming a part of the Copper Connections family.
Our service support Engineers shall be working hard through our channel partners to ensure your satisfaction with the product and after sales services.
We welcome your feedback / query at service@copperconnections.com

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Features

Auto Detect Open Door
When the system is being ARMED, if any door having Magnetic Switch (Wired or Wireless) is open, the system will alert the user. The same is true for all wired sensors.

Battery (Rechargeable) In-built for backup lasting up to 15 hours. Can be extended by connecting optional adapter & batteries.

Battery Low warning – of Main Unit or Wireless Magnetic / Vibration Sensors
When the in-built Batteries of the Main Unit or any of the wireless Magnetic / Vibration Sensors goes low & the System alerts the user with a tone and a LED indication on the main panel.
Note**:** When Battery goes low in ARMED condition, intrusion will not work.
: When Battery goes low in DISARMED condition, it will not allow the User to ARM the system.

Capacity: Can connect to 50 Wireless Sensors
: Has 2 Wired zones which can connect to unlimited Wired Sensors
The system can work with up to 50 Wireless Sensors (including Wireless Remotes & Signal Repeaters) and any number of Wired Sensors as long as the total resistance of the Sensors and the wires is less than 200 Ohms.
There is one Wired Zone for Normally Closed Type Sensors and one for Normally Open Type.

Siren - Built in
One Siren comes built into the system with option to connect an external Siren.
Refer sub heading = "Siren (External)" under the main heading "Connections"

Signal Repeaters (Optional)
They are used for increasing the operating distance of Wireless Sensors from the Main Unit.
For further details, refer the heading "Signal Repeater – Wireless"

Tamper Alert in case of Vibration Sensors (VSW-T) / PIR Sensors (PIRW-T)
If VSW-T / PIRW-T are installed with the system, it will sound siren in case of Tampering of these sensors, in DISARMED as well as ARMED condition.

Tamper Switch – In Built
The main unit has in built tamper switch.
Whether the system is ARMED or DISARMED, if the main unit is removed from its bracket, the system will consider it to be an intrusion. It will sound the siren & dial out the telephone numbers.
Whenever the system is hanged on the wall bracket, it is registered. Thereafter, when the system is removed from the bracket it senses it as intrusion. In case, it is not hanged on the bracket then it does not consider it.

Wireless Remotes
One Remote is included with the system but more of them can be used.

It has functions of Panic Alarm, Remote ARM/DISARM.
The Key "By Pass ARM" operates just like "ARM" key.
For further details, refer the heading **"Wireless Sensor Registering / Deletion"**

Installation

This Burglar Alarm System is supplied with following items:
1. Main Unit   with built-in Siren & Rechargeable Batteries   -   1 No
2. Wireless Remote   -   1 No
3. Power Supply Adapter (12V 1Amp DC)   -   1 No

Installation Notes:
- Wireless Sensors can be placed within 300 ft distance from the Main Unit if there is no obstruction in between. They have to be registered in the Main Unit as explained under the heading "Wireless Sensors, Remotes & Panic Keys Registering/Deletion ". The distance between the Main Unit and Wireless sensors would be maximum when there is minimum interference of concrete walls, electric appliances etc.
- Install the Main Unit in an open & ventilated area so that the signals from different Wireless Sensors are received properly by the Main Unit. It should be installed at least 0.5 meters from ground.
  It should be ensured that no liquid spills over it.
- Do not install the Main Unit near high frequency electric appliance in order to avoid interference of electromagnetic waves.

Wireless Sensor's range checking method
Put a wireless Sensor in Traitor mode.
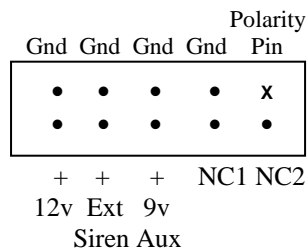Take the Sensor to maximum distance from BAS and trigger the sensor.
If mild beeps with sensor ID number is shown on BAS display that means the sensor can be installed up to that distance.

Connections

Wireless Remote is supplied with the system. It is to be registered in the Main Unit as described under the heading **"Wireless Sensors, Signal Repeater, Remotes & Panic Keys Registering/Deletion".**

Wireless Sensors are to be registered in the Main Unit as described under **"Wireless Sensors, Signal Repeater, Remotes & Panic Keys Registering/Deletion".**

Connectors Lay Out of the Main Unit (Pins View of the Male Connector)

```
                                       Polarity
        Gnd  Gnd  Gnd  Gnd   Pin

         •    •    •    •      x
         •    •    •    •      •

         +    +    +    NC1  NC2
        12v  Ext  9v
             Siren Aux
```

A 10 pin Female connector provided with the system is to be inserted on the above shown connector. The female connector has 9 wires which are to be connected as described in the table below:

10 Pin Connector

Wire Color	To be connected to
Red	Adapter 12V DC +Ve Output.
Violet	External Siren +Ve Wire. Connect a 9 - 12V DC Type Siren (Max Wattage 300mA). If more than one external Siren is to be used than install BAS-PS and do the connections as per the BAS-PS Manual.
Pink	Auxillary +Ve 8.5 V DC Supply for Sensors. Sensors that operate 8.5V DC can be connected to this connector & GND provided the total current drawn is less than 250mA.
Brown	NC Type Wired Zone no 1 wire.
Orange	NC Type Wired Zone no 2 wire.
Black – 4 Wires	GND – Ve of 12V DC Adapter & - Ve of External Siren & - Ve of Auxillary Output & - One end of Wired Zones wires

Explanation of the pins
Connector "12V & GND" for Power Adapter for Main Unit

Connect the output lead of the Adapter (12V DC 1A) to the terminals as described below:

Terminal	Adapter Wire
12V	+ ve
GND	- ve

Connector "Siren" for External Siren
Connect a 9 - 12V DC Type Siren (Max Wattage 300mA) to the Terminals marked as "SIREN".
Do not connect Siren consuming more than 100 mA.

Connector "AUX" for giving 8.5 Volt supply to Sensors
Sensors that operate 8.5V DC can be connected to this connector & GND provided the total current drawn is less than 250mA.

NC Pins for connecting NC Type Wired Sensors
NC (Normally Connected) type Wired Sensors are to connected to the pins marked as NC.
If more than one Sensor are to be connected in one Zone then they are connected in Series. Their contact points remain Closed in ARMED condition. The contact gets Open when the sensor senses intrusion.
Connect all the "Normally Closed Type Wired Sensors" in series and terminate on NC terminals.
Any number of Wired Sensors can be connected as long as the total resistance of the Sensors and the wires is less than 200 Ohms.
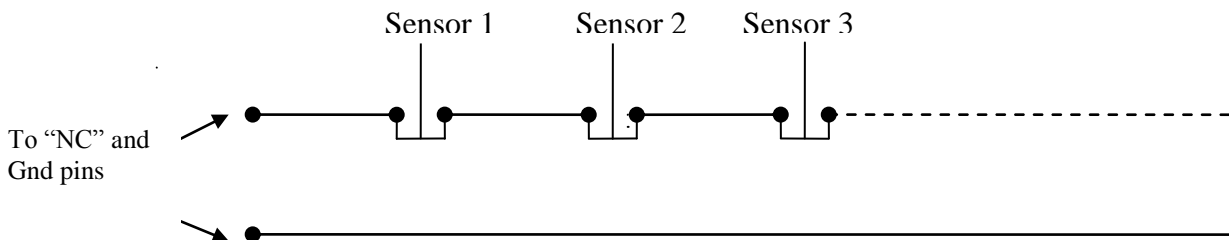

Note: The NC pins can be converted for NO (Normally Open) Type sensors, if order is placed with the company for this option.
NO (Normally Open) type Wired Sensors are connected to the same NC marked pins as shown below**:**
If more than one is to be connected in one Zone then they are connected in parallel. Their contact points remain Open in ARMED condition. The contact gets closed when the sensor senses intrusion.
Connect all the "Normally Open Type Wired Sensors" in parallel and terminate as shown below**:**
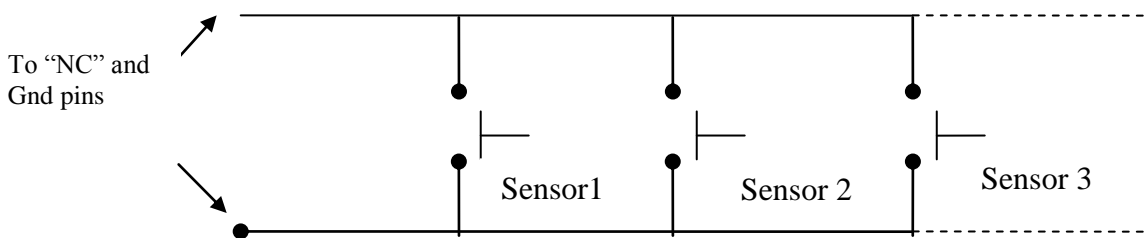
Power On Procedure
After doing all the connections, remove the Main Unit from its wall bracket.
Switch ON the 220V AC supply to the adapter.
Now hang the main unit back on its wall bracket.

Front Panel LED Indications
There are 5 LEDs on the front panel marked as ARMED,READY, Main Batt, Sensor Batt & Sensor Open.
Following table illustrates the various conditions**:**
LED Locations and Names

Location	Name
Front Panel – 1st from left	Main Batt
Front Panel – 2nd from left	Snsr Batt
Front Panel – 3rd from left	Snsr Open
Back Side – Inside the unit	D5 – It is parallel to "Main Batt" and works exactly like "Main Batt"

Condition	Indication	
	When system is DISARMED	**When system is ARMED**
When a normal Sensor is Open	No indication	Siren gets ON and ARM LED blinks
When any Sensor in TRAITOR mode is Open	System gives Beeps and "Sensor Open" LED glows.	Siren gets ON and ARM LED blinks.
When battery of any Sensor gets low.	System gives beeps & "Sensor Batt" LED glows.	System gives continuous tone & "Sensor Batt" LED glows.
When Main Unit Battery gets low.	System gives beeps & "Main Batt" LED glows.	System gives continuous tone & "Main Batt" LED glows.
When any Sensor is open or any battery is low and system is being ARMED.	Siren will sound with long intervals and relevant LED will glow.	Not applicable.
When system is ARMED and then again ARM key is pressed on Remote.	Not Applicable	System will give 4 beeps.
When system is DISARMED and then again DISARM key is pressed on Remote.	System will give 4 beeps.	Not Applicable

Arm

While moving out of the premises, ARM the system by pressing the "ARM" key on the Wireless Remote.

You can ARM the system and leave the Remote inside the premises, if required. In this case close all the sensors, ARM the system. Now leave the premises within 10 secs and close the door.

In ARM state, the "ARM" LED on the main unit would glow RED.

Now, whenever any sensor is triggered, the system will activate the siren after 10 secs.

Note**:** In case of PANIC button being pressed, there is no delay.

Battery Mode - Power Switch Off

When AC mains is not present, the system shifts to the battery mode and keeps the system running. In this mode the "Ready" LED blinks, in DISARM mode. In ARM mode, the "ARM" LED will glow + "Ready" LED will blink.

If it is required to switch OFF the system when running in Battery mode, do the following programming.

Procedure**:**

Press "ADD" key and "DEL" key together for 10 secs to switch OFF the system. System can be switched OFF only in battery mode.

Note**:** The system gets ON automatically when the mains AC is restored.

: The system cannot be switched OFF if mains AC is connected to it.

: The system has built-in rechargeable Li batteries. If longer back up is required then install BAS-PS-B optional supply.

Disarm

While entering the premises, DISARM the system by pressing "DISARM" Key on the Wireless Remote within 10 secs of entering the premises.

Panic Key

The Wireless Remote supplied with the system has a Key marked as "PANIC".

On pressing this key, the Siren will start hooting.

This would happen whether the System is in ARMED mode or DISARMED mode.

If desired, more Panic Switches can be registered in the system. Following are the type of Switches that can be added**:**

Wireless Remotes (one is supplied with the system and more can be registered)

Wired Panic Switches

Programming**:**

Refer the heading "Wireless Sensors, Remotes & Panic Keys Registering/Deletion "

Operation**:** Panic activation from the Remote.

Press "PANIC" Key.

Siren starts hooting and the system dials out on the Telephone line.

Note**:** Wired PANIC switches would work only when the system is ARMED.

Signal Repeater – Wireless

Put the Signal Repeater ON by sliding the Slide Switch on the TOP of the Signal Repeater. The Green LED marked as "Power" will turn ON.

The Switch has 3 positions**:** Right position is for OFF. The middle & Left position are for ON and are same.

The Display will show digits 0 to 9 one by one and then the Display will turn OFF.

Now register the Signal Repeater in the Main Unit as described under the heading "Wireless Sensors, Remotes & Panic Keys Registering / Deletion"

Note**:** After registration is complete, the "Alarm" Key on the Signal Repeater works as PANIC Switch.

: Number of Signal Repeaters can be registered and used for extending the range from one Signal Repeater to

another.

 : Every Signal Repeater consumes one of the 50 Wireless Sensors capacity of the system.

 : SW and FSW do not work through Signal Repeaters.

Wireless Sensors, Signal Repeater, Remotes & Panic Keys Registering/Deletion

Maximum 50 Wireless Sensors (including Wireless Remotes & Signal repeaters) can be used in this system.

Every Wireless Sensor / Remote / Panic has a unique security code & has to be registered in the Main Unit in order to make it functional.

Process to register a Wireless Sensor in NORMAL Mode or to convert from Traitor mode to Normal Mode:
 Make sure that the unit is working on the mains and not on Battery.
 Press "ADD" key for 10 secs
 "Main Batt" LED starts blinking.
 Release the "ADD" Key
 Activate the Sensor to be registered or Press any key of the Remote or activate Tamper switch of Signal Repeater.
 "Main Batt" LED will turn ON for 3 sec & system will give a 3 secs beep
    – This indicates that the sensor is successfully registered.
     Note**:** If Sensor is not registered, 4 fast beeps will be heard.
      : Sensor doesn't register if it has been already registered.
 Press more sensors one by one and register.
 If no action is done for 20 secs, the system will come out of the Registering mode.
Note: Before registering any Wireless Sensor, register the Remote first. The process to register the Remote is same as above.

Process to register a Wireless Sensor in TRAITOR Mode:
 Remove the Adaptor of the Main Unit and let the unit work on Battery.
 Press "ADD" key for 10 secs
 "Main Batt" LED starts blinking.
 Release the "ADD" Key
 Activate the Sensor to be registered.
 "Main Batt" LED will turn ON for 3 sec & system will give a 3 secs beep
    – This indicates that the sensor is successfully registered.
     Note**:** If Sensor is not registered, 4 fast beeps will be heard.
      : Sensor doesn't register if it has been already registered.
 Press more sensors one by one and register.
 If no action is done for 20 secs, the system will come out of the Registering mode.

Process to register a Wireless Sensor in Always ARMED Mode:
 Remove the Adaptor of the Main Unit and let the unit work on Battery.
 Press "ADD" key & keep it pressed.
 "Main Batt" LED starts blinking.
 Activate the Sensor to be registered in Always ARMED mode.
 "Main Batt" LED will turn ON for 3 sec & system will give a 3 secs beep
    – This indicates that the sensor is successfully registered.
     Note: If Sensor is not registered, 4 fast beeps will be heard.
      : Sensor doesn't register if it has been already registered.
 Press more sensors one by one and register.

Deletion of registration

All Wireless Sensors / Remotes / Signal Repeaters registration can be deleted from the Main Unit.

Procedure**:**
 Press "DEL" key for 10 Secs
 "Main Batt" LED will blink for 5 secs.
 Note**:** Selected Sensors cannot be deleted. All have to be deleted together.

Converting a Wired Zone into TRAITOR Zone

To convert one or both the Wired Zones to Normal Mode, program as below**:**
 Remove the Adaptor of the Main Unit & let the unit run on Battery.
 Open the 2 pins of the NC Wired Zone. (In case of NO Type short the 2 pins of the NO Wired Zone)
 Press "ADD" key for 10 secs
 "Main Batt" LED starts blinking.
 Release the "ADD" Key
 Press "DISARM" Key from Remote
 "Main Batt" LED will turn ON for 3 sec & system will give a 3 secs beep
    – This indicates that the operation is successful.
     Note**:** If operation is not successful, 4 fast beeps will be heard.
      : Sensor doesn't register if it has been already registered.
 If no action is done for 20 secs, the system will come out of the Registering mode.
 Note**:** If both the Wired Zones are to be made TRAITOR Zones, repeat the above procedure for the 2nd Zone as well.

Converting a Wired Zone into Always ARMED Zone

To convert one or both the Wired Zones to Always ARMED Mode, program as below**:**
 Remove the Adaptor of the Main Unit & let the unit run on Battery.

Open the 2 pins of the NC Wired Zone. (In case of NO Type short the 2 pins of the NO Wired Zone)
Press "ADD" key for 10 secs
"Main Batt" LED starts blinking.
Release the "ADD" Key
Press "ARM" Key from Remote
"Main Batt" LED will turn ON for 10 sec & Siren will sound.
– This indicates that the operation is successful.
Note: If operation is not successful, 4 fast beeps will be heard.
Short the 2 pins of Wired Zone
Press DISARM key from Remote.
The Siren sound will stop
If no action is done for 20 secs, the system will come out of the Registering mode.
Note: If both the Wired Zones are to be made Always ARMED Zones, repeat the above procedure for the 2nd Zone as well.

Converting a Wired Zone into Normal Zone

To convert one or both the Wired Zones to Normal Mode, program as below:
Connect the Adaptor of the Main Unit to a 220V supply.
Open the 2 pins of the NC Wired Zone. (In case of NO Type short the 2 pins of the NO Wired Zone)
Press "ADD" key for 10 secs
"Main Batt" LED starts blinking.
Release the "ADD" Key
Press "DISARM" Key from Remote
"Main Batt" LED will turn ON for 3 sec & system will give a 3 secs beep
– This indicates that the operation is successful.
Note: If operation is not successful, 4 fast beeps will be heard.
: Sensor doesn't register if it has been already registered.
If no action is done for 20 secs, the system will come out of the Registering mode.
Note: If both the Wired Zones are to be made TRAITOR Zones, repeat the above procedure for the 2nd Zone as well.

Precautions

- Do not install 2 or more Wireless Vibration Sensors on a same panel.
- Do not install 2 or more Magnetic Vibration Sensors on a same panel.
- **While installing any Wireless Sensor, do not open the Antennae of Main Unit or the Sensor. The distance of the Sensor from Main Unit should be such that it works without opening either of the Antennae.**
- Check working of all the sensors, built-in siren at regular intervals.

Trouble Shooting

Problem: False Alarm from PIR.
Reasons could be:
There are many PIR of different quality. In the summer, a PIR can get triggered due to high temperatures and variations.
They can also get triggered due to the movements of curtains or mouse or pets.
Solution: - Choose the PIR with better quality.
- Install the PIR in a different place.
- Shorten the detecting area of the PIR.
Problem: The Wireless Remote does not work.
Reasons could be:
- The power of the cell has gone low.
- ID code not matching between the remote controllers and main unit.
Delete the Wireless Remote and register again as explained in this manual.
Problem: The Sensing Distance is too short between the Wireless Sensors and the Main Unit.
Reasons could be:
- Some other transmitting equipment in the area could be effecting the wireless range of the system..
- The Mains AC voltage is too low or the battery of the Wireless Sensor is low.
Problem: Siren not working.
Reasons could be: - The wires to the siren are short or broken.
- The +ve / -ve wires of the Siren might be connected in reverse polarity.

Technical Specifications

Input	: AC 100V to 280V
Frequencies used	: 866 MHz
General distances covered	
by wireless sensors	: Approximate 300 ft in open area. (In case of SW / FSW it is 165 ft)
Standby current	: 26 mA at 12V DC.
Working current	: 43 mA at 12V DC without Siren
	: 506 mA at 12V with Internal Siren

Ambient Temperature	: 10°C to +45°C
Ambient Humidity	: 95% Maximum
Power Adapter	: 12V DC 1A
Built-in Battery Backup	: Rechargeable 7.4V 500mAh Lithium Battery.
Capacity	: Can connect to 50 Wireless Sensors. (including Wireless Remotes & Signal Repeaters) Has 2 Wired zones which can connect to unlimited Wired Sensors as long as the total resistance of the Sensors and the wires is less than 200 Ohms.

Terms of Warranty

Copper Connections Pvt. Ltd warrants that this product is manufactured under stringent quality standards, making it free from defects in material and workmanship, as per the following terms and conditions:

1. The limited warranty for the system is valid for a period of twelve months from the date of purchase or fifteen months from the date of manufacture which ever is earlier.
2. The limited warranty extends only to the original consumer/ purchaser of the product and is not assignable or transferable to any subsequent purchaser/ end user.
3. During the limited warranty period, Copper Connections Pvt. Ltd or its authorised service network will repair or replace, at Copper Connections Pvt. Ltd option, any defective product or parts thereof with a new or factory rebuild replacement items and return the product to the consumer in working conditions. No charge will be made to the consumer for either parts or labour in repairing or replacing the product. All replaced parts shall becomes the property of Copper Connections Pvt. Ltd.
4. Repaired product will be warranted for a balance of original warranty period.
5. Upon request from Copper Connections Pvt. Ltd or its authorised service centre, the consumer must provide purchase receipt or other information to prove the date and place of purchase.
6. This Burglar Alarm System (like any other commercial or residential alarm system) does not guarantee protection against burglary, fire or other emergency because of variety of reasons.
   A properly installed and maintained system may reduce the risk of a burglary, robbery, fire or other events, but it is not an insurance or a guarantee that such will not occur or that there will be no personal injury or property loss as a result.
7. In no case shall seller be liable to anyone for any consequential or incidental damages for breach of this warranty, even if the loss or damage is caused by the seller's own negligence or fault. Consequently, seller shall have no liability for any personal injury, property damage or other loss based on a claim "The product failed to give warning / alarm". However, if seller is held liable, whether directly or indirectly, for any loss or damage arising under this warranty or otherwise regardless of cause, seller's maximum liability shall not in any case exceed the purchase price of the product.
8. The consumer shall have no benefit or coverage if any of the following conditions are applicable:
   a) The product has been subjected to abnormal use, abnormal condition, improper storage, exposure to excessive Temperature, moisture, dampness or fire etc., unauthorised modifications, unauthorised connections, unauthorised repairs.
   b) Copper Connections Pvt. Ltd was not notified by consumer of the alleged defect or malfunction of the product during the limited warranty period.
   c) The product was used with or connected to equipment not fit for use with Copper Connections Pvt. Ltd system or used in other than its intended use.
   d) INCASE HIGH VOLTAGES APPEAR ON EARTH.
   e) THE DAMAGE IS CAUSED BY LIGHTENING OR DUE TO SPIKES/ SURGES/ HIGH VOLTAGES FROM AC MAIN SUPPLY.
9. The consumer may contact the authorised dealer to call the service personnel for carrying out repairs or maintenance and the same would be attended within a reasonable response time assigned to the dealer. The consumer will be billed for parts or labour charges not covered by this limited warranty.
10. The consumer will be billed for parts or labour charges not covered by this limited warranty.
11. If the product is brought to Copper Connections Pvt. Ltd for repairs, after the warranty period , Copper Connections Pvt. Ltd normal service policy shall apply and customer shall be charged accordingly.
12. In no event shall Copper Connections Pvt. Ltd or their authorised dealer be liable for special or consequential damages or any delay in the performance of this warranty due to causes beyond their control. Copper Connections Pvt. Ltd shall not be liable for incidental or consequential damage or a loss of anticipated benefits or profits, loss or impairment of privacy of conversation, work stoppage or loss or impairment of data arising out of the use or inability to use the product. Company's liability in no event and under no circumstances shall exceed the price paid to the company for goods stated in the invoice.
13. Copper Connections Pvt. Ltd neither assumes nor authorises any authorised service centre or any person or entity to assume for it any other obligation or liability beyond what is expressly provided by this limited warranty. All warranty information, product features and specifications are subject to change without prior notice.
14. Any dispute arising out of this warranty shall be subjected to jurisdiction of the arbitrator within the city of Delhi.
15. The decision of Copper Connections Pvt. Ltd on defects, damages etc shall be final and binding on the parties and no dispute regarding this, could be agitated before any civil court. Part No. CC-BAS-B-MNL-5

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An ISO:9001:2008 Certified Company

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Wireless Sensor Numbers & their corresponding Names

S. No	Sensor ID No.	Sensor Type	Location of the Sensor
01			
02			
03			
04			
05			
06			
07			
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31			
32			

Wired Zones Index

Number 1		Number 2		Number 3		Number 4	
Type	Location	Type	Location	Type	Location	Type	Location

Wired Zones Index

Number 5		Number 6		Number 7		Number 8	
Type	Location	Type	Location	Type	Location	Type	Location