

Configuration Instructions

SYA ROUTER

**READ AND FOLLOW ALL SAFETY INSTRUCTIONS!
SAVE THESE INSTRUCTIONS AND DELIVER TO OWNER AFTER INSTALLATION**

IMPORTANT SAFETY INSTRUCTIONS

▲WARNING

To reduce the risk of death, injury or property damage from fire, electric shock, cuts, abrasions, falling parts, and other hazards:

- Service of the equipment must be performed by qualified service personnel.
- Installation and maintenance must be performed by a person familiar with the construction and operation of this product and any hazards involved. All applicable codes and ordinances must be followed.
- Read this document before installing, servicing, or maintaining this equipment. These instructions do not cover all installation, service, and maintenance situations. If your situation is not covered, or if you do not understand these instructions or additional information is required, contact *Synergy Lighting Controls*.

▲WARNING

Before installing, servicing, or maintaining this equipment, follow these general precautions.

To reduce the risk of electrocution:

- Make sure the equipment is properly grounded.
- Always de-energize any equipment before connecting to, disconnecting from, or servicing the equipment.

To reduce the risk of fire:

- Use supply conductors with a minimum installation temperature rating as specified.

To reduce the risk of personal injury from cuts, abrasions:

- Wear gloves to prevent cuts or abrasions from sharp edges when removing from carton, handling and maintaining this equipment.
- Do not install a damaged equipment.

Synergy Lighting Controls, a division of *Acuity Brands Inc.*, assumes no responsibility for claims arising out of improper or careless installation or handling of this product.

SAVE THESE INSTRUCTIONS

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The Automated Logic Router has several parameters which can be edited, with the IP Address option being the most commonly changed. Instructions for entering the router configuration menu and changing the IP address are shown below. A complete list of router parameters and their descriptions are shown on the next page.

Gain Access to the Router Configuration Menu

You need a terminal program such as Windows HyperTerminal and a null modem cable.

1. Connect the PC to the Automated Logic Router DB9 (serial) port using a null modem serial cable.
2. Start the Terminal software.
3. Configure the Terminal connection as follows:

Bits per second	38400
Data bits	8
Parity	None
Stop bits	1
Flow Control	None
4. Connect to the router using the new settings.
5. The Terminal screen will probably be blank.
 - type: **access** (no characters will display on the screen)
 - press: **ENTER**
 - a prompt **password:** will be displayed
 - type: **access** (no characters will display on the screen)
 - press: **ENTER**

The router parameters will be displayed. To edit a parameter, type the number of the parameter to be edited and press ENTER. Then, type in the new value and press ENTER.

Note: Parameter changes will not take effect until the router is restarted.

Changing the IP Address

The IP address is option #3 in the router configuration menu. To change the IP address, perform the following steps once the configuration menu is accessed:

1. Type **3**
2. Press **ENTER**
3. Type in the new IP Address.
4. Press **ENTER**
5. Type **1**
6. Press **ENTER** to restart the router.

The parameter change will not take effect until the router has restarted.

IMPORTANT:

Make sure the blue, 5 position dip switch, at the lower left corner of the router has **switch # 3 in the ON POSITION** (to the right).

If this switch is set to OFF, the router will automatically default to IP ADDRESS 192.168.168.0 Any user configured IP Address will be ignored by the router.

Note:

Earlier router models have a 4 position dip switch. On these routers put switch #2 in the ON POSITION.

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Router Configuration Parameters

Option 1	Restart	Restarts router firmware, necessary for certain changes to take effect.
Option 2	Display Modstat	Displays version of firmware, IP address and other router parameters.
Option 3	IP Address	Sets IP Address of Router. (See Note 1)
Option 4	Subnet Mask	Selects which IP address range will be monitored. (See Note 2)
Option 5	Default Gateway	
Option 6	BACnet/IP UDP Port	Typically set to BAC0h or 47808
Option 7	BACnet/IP Network	A number between 1 and 65535 (See Note 4)
Option 8	BACnet/Ethernet Network	A number between 1 and 65535 (See Note 5)
Option 9	BACnet/ARCnet or BACnet/MSTP Network	(See Note 6)
Option 10	Display B/IP PAD Table	Displays B/IP PAD Table (See Note 7)
Option 11	Delete B/IP PAD Table Entry	Deletes B/IP PAD Table Entry (See Note 7)
Option 12	Add B/IP PAD Table Entry	Adds B/IP PAD Table Entry (See Note 7)
Option 13	Clear B/IP PAD Table	Clears B/IP PAD Table Entry (See Note 7)

Note 1:

The IP Address setting assigns an IP address used in BACnet/IP communication. The address is given in dotted decimal. This address should be in the subnet of the network to which the router is connected. Intranets typically use non-routing IP addresses available in 3 Class ranges. Class A - 10.0.0.0 to 10.255.255.255, Class B - 172.16.0.0 to 172.31.255.255 and Class C - 192.168.0.0 to 192.168.255.255. Gateways and routers are typically addressed at a x.x.x.1 or x.x.x.254 address. Some addresses cannot be used. For example, X.X.X.0 is the NETID, X.X.X.255 is the broadcast address, and 0.X.X.X and 255.0.0.0 are reserved.

Note 2:

The Subnet Mask ID is dependent on the IP Address, and defines which IP address range be monitored. Class A mask - 255.0.0.0, Class B mask - 255.255.0.0 and Class C mask - 255.255.255.0. A zero in the mask ID allows any value in the IP address Class range to communicate.

Note 3:

The BACnet/IP UDP Port is normally set to BAC0h or 47808. It's value may be changed if needed, but any other devices communicating to this router will need to be configured accordingly.

Note 4:

The BACnet/IP Network number is a value between 1 and 65535, and any clients or routers sharing this BACnet/IP network should use the same network number. Set this value to zero to disable this network option.

Note 5:

The BACnet/Ethernet Network number is a value between 1 and 65535, and any clients or routers sharing this ethernet network should use the same network number. Set this to zero to disable this network option.

Note 6:

The BACnet/ARCNET or BACnet/MSTP Network number is a value between 1 and 65535, and any clients or routers sharing this ethernet network should use the same network number. Set this to zero to disable this network option.

**The LGE router can route either to MS/TP or to ARCNET, but not to both at the same time.

Note 7:

The BACnet/IP PAD - Protocol Packet Assembler Dissassembler. See Annex H of the BACnet standard for more details on how to configure the PAD tables.

For a more detailed explanation of the above options, consult ANNEX H and ANNEX J of the BACnet-2001 standard.