



Model 42A00-2 Wireless Receiver

Installation Instructions
Document Number 42I00-2 Rev. A
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DESCRIPTION

The Model 42A00-2 Supervised Wireless Receiver allows up to 64 unique wireless security transmitters to report information to an OmniLT, Omni, Omni II, Omni IIe, OmniPro, OmniPro II, Lumina, and Lumina Pro controller. The wireless transmitters replace wired door and window sensors, as well as wired smoke, motion, and glassbreak detectors. These transmitters report status information to the 42A00-2 Receiver which, in turn, processes the information and reports it to the HAI controller.

The 42A00-2 Receiver features spatial diversity, which minimizes wireless signal nulls or dead spots. The receiver may be mounted up to 1000 feet from the HAI controller.

COMPATIBLE TRANSMITTERS

The Model 42A00-2 Supervised Wireless Receiver is compatible with all 319.5 MHz GE Security (a.k.a. ITI or Interlogix) and Caddx (crystal or SAW) Learn Mode™ 63-bit wireless transmitters. This receiver is not compatible with 80-bit wireless transmitters.

INSTALLATION

Install the receiver in a central area of the premises, as high above ground as practical (allow at least a 9-inch clearance above receiver to mount the antennas).

- The receiver should be at least 5 feet from the controller or any other electronic device.
- The open-air range is 1000 feet; building construction will reduce the range.
- Avoid areas where receiver will be exposed to moisture.
- Avoid areas with excessive metal or electrical wiring. If unavoidable, mount where antennas extend above the metallic surface.

When the location of the receiver has been established:

1. Remove the cover by inserting a screwdriver into the slot on the bottom edge of the cover, push gently to release the latch, and then lift the cover from the base.
2. Remove the wireless receiver circuit board from the base by gently prying down the bottom latch while sliding the circuit board from under the two top latches.
3. Hold the base against the mounting surface and mark the two (2) mounting holes (see Figure 1). Remember to allow at least a 9-inch clearance to mount the antennas.
4. Drill a hole at each mounting hole marking and install the supplied wall anchors.
5. Mount the base, using the supplied screws, to the wall anchors.
6. Insert the antennas into the supplied antenna shrouds (see Figure 1).
7. Gently slide the top of the wireless receiver circuit board under the two top latches.
8. Snap the circuit board in at the bottom latch and secure it in place (see Figure 1).

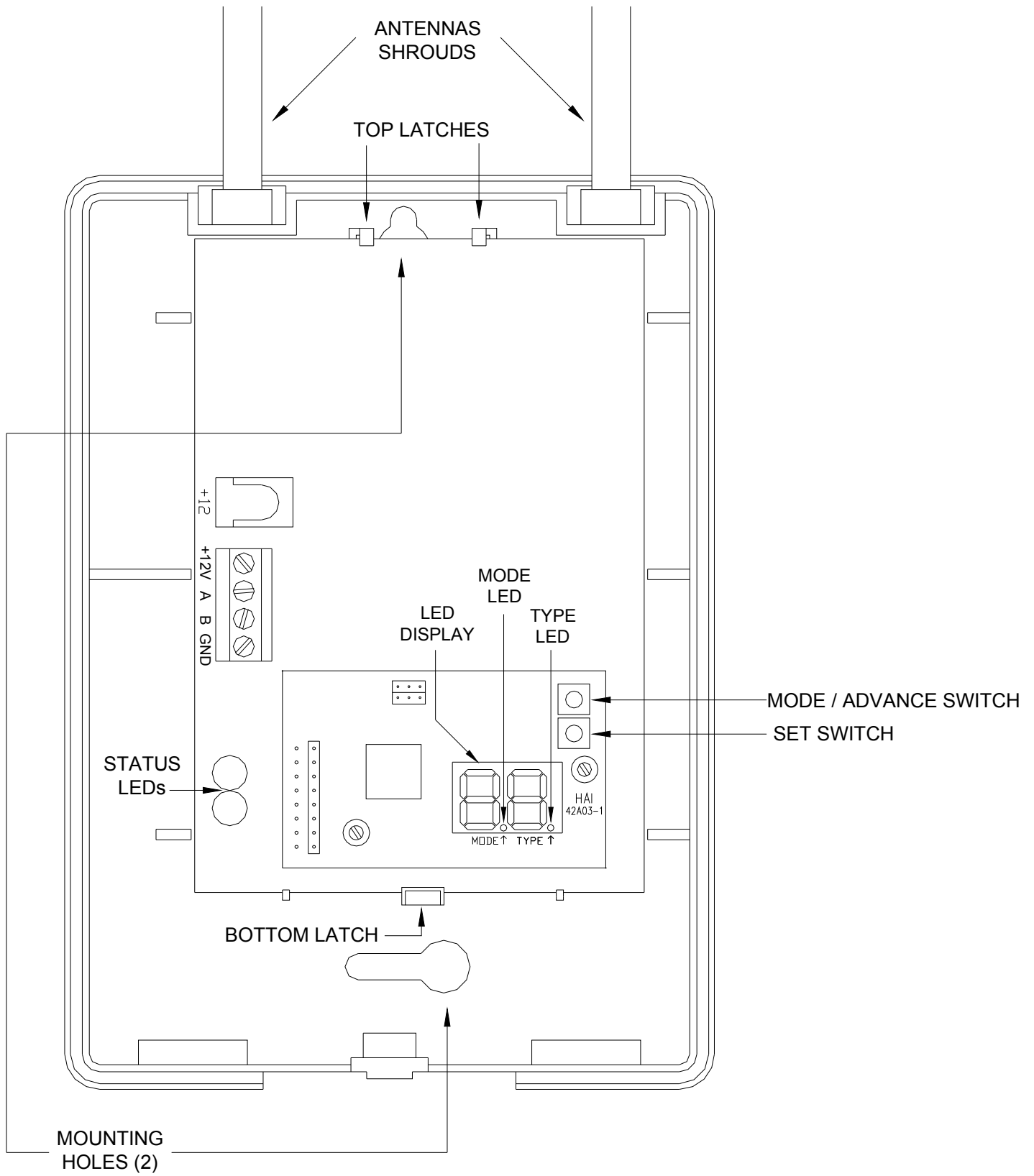


Figure 1

OPERATION

The two operating modes of the receiver are "Run" and "Setup".

In Run Mode, with the receiver connected to and communicating with the controller, the Mode LED (see Figure 1) should blink once per second. The receiver monitors the status of each transmitter. If the status condition of a transmitter changes, it is reported to the receiver and the information is updated on the LED display and the Status LED will flash. The transmitter number flashes on the display whenever a report is received from a transmitter. The display will continually display the status of any transmitters that are violated (not ready) or that have trouble. The transmitter number flashes on the display followed by the status condition(s).

LED DISPLAY	INFORMATION ABOUT THE LED DISPLAY
<i>1.1</i>	Displays the number of the transmitter with a change in condition.
<i>AL</i>	Displays that the current transmitter is "NOT READY".
<i>CO</i>	Displays that the cover was removed from the current transmitter.
<i>SF</i>	Displays that the current transmitter has a supervision failure.
<i>LO</i>	Displays that the current transmitter has reported a battery low.

NOTE: If the receiver is not communicating with the controller, the Mode LED will blink four times per second.

SET - The Set switch (see Figure 1) is used to increment or change the current selection.

MODE /ADVANCE - The Mode/Advance switch (see Figure 1) is used to enter Setup Mode, advance to the next Setup item, and to confirm a selection. It is also used to exit Setup Mode.

LED DISPLAY - The LED Display (see Figure 1) is used to show the status of each transmitter and to ensure proper setup.

MODE LED - In Run Mode, the Mode LED (see Figure 1) is used to indicate communication status with the controller. In Setup Mode, the Mode LED is used to indicate if a transmitter sends a restore code.

TYPE LED - In Setup Mode, the Type LED (see Figure 1) is used to indicate if a transmitter is supervised.

STATUS LEDs – The following table shows the status of the Status LED indicators:

Indication	Green LED	Red LED
Powered up	On	Off
Valid transmitter packet received	One flash off	Off or flashing

SETUP MODE

The Setup Mode is used to configure the general operating parameters of the receiver, to program a transmitter into the receiver, and to change the characteristics of a programmed transmitter. The Mode LED does not blink in Setup Mode.

To enter the Setup Mode:

- A. Press and hold the Mode/Advance switch for approximately two seconds.
- B. Press the Set switch to increment the value of a Setup item.
- C. Press the Mode/Advance switch is to advance to the next Setup item.

Receiver Address

You are first prompted to enter the receiver address. "A" is shown on the left of the display and the current address is shown on the right. Press the Set switch to increment the address value. The current address will be stored into memory when the Mode/Advance switch is pressed. Setup Mode is exited when the Mode/Advance switch is pressed and held for two seconds.

Number of Addresses

Next, you are prompted to enter the "number of addresses" (see the Setup information in this document for configuration of each HAI controller). The letter "n" is shown on the left of the display and the digit for the current number of addresses is shown on the right of the display. Press the Set switch to increment the number of addresses value. The current number of addresses will be stored into memory when the Mode/Advance switch is pressed. Setup Mode is exited when the Mode/Advance switch is pressed and held for two seconds.

Configuring Transmitters

All of the following locations are used for configuring and programming transmitters. Each new transmitter can be programmed into the receiver and each programmed transmitter, along with its characteristics, is displayed and can be modified. The transmitter number is shown in the LED Display.

If no transmitter is programmed in an address location, neither the Mode LED nor the Type LED will be lit.

If a transmitter is programmed in an address location:

1. The Mode LED indicates whether the transmitter sends restore transmissions
 - The Mode LED is on if the transmitter sends restore transmissions, and off if it doesn't.
2. The Type LED shows whether the transmitter is supervised.
 - The Type LED is on steady if the transmitter is supervised, and blinks if it isn't.

The Set switch is used to change the characteristics of a programmed transmitter. Each press of the Set switch cycles through each combination of supervised, sends restores, or no transmitter programmed.

The Mode/Advance switch is used to advance to the next transmitter address location. Setup Mode is exited by pressing and holding the Mode/Advance switch for two seconds.

TEACHING THE RECEIVER A TRANSMITTER ADDRESS

If no transmitter is programmed in an address location, a new transmitter may be programmed into that address location by activating the desired transmitter. The activated transmitter will then be entered into that address location. The transmitter must be activated according to the instructions that accompany the transmitter.

Based on the type of transmitter, the receiver will try to set the supervisory and restore characteristics that are appropriate for that type of transmitter. These can be changed as desired using the Set switch.

Once a transmitter is programmed into an address location, the transmitter address will briefly turn off whenever a transmission from that transmitter is received. This can be used to verify that the correct transmitter has been programmed and is operating reliably.

NOTE: The controller ignores the current status of each transmitter while the receiver is in Setup Mode.

TRANSMITTER SETUP

1. Press and hold the Mode/Advance button for two (2) seconds.
2. "A1" will appear. On OmniLT, Omni, Omni II, Omni IIE, and Lumina, "A1" is always used. On OmniPro, OmniPro II, and Lumina Pro, the address will depend on the number of expansion enclosures used.
3. Press the Mode/Advance button to save any changes and proceed.
4. Next, "n1" will appear. The value of "n" will determine the number of addresses used.
5. Press the Mode/Advance button to save any changes and proceed.
6. "1" will appear (1st transmitter address location). Trip the transmitter. When the 42A00-2 receives the transmission, the 42A00 will display the digit (transmitter address) with a dot on either side (the dots indicate the transmitter's characteristics).
7. Press the Mode/Advance button to save the changes and proceed.
8. "2" will appear (2nd transmitter address location). Trip the transmitter. When the 42A00-2 receives the transmission, the 42A00-2 will display the digit (transmitter address) with a dot on either side (the dots indicate the transmitter's characteristics).
9. Press the Mode/Advance button to save the changes and proceed.
10. Repeat for each transmitter address (1-64) until all transmitters have been programmed.
11. After all transmitters have been programmed, replace the cover.

RESETTING OR REMOVING A TRANSMITTER

To replace an existing transmitter, reset the characteristics of a transmitter, or remove a transmitter, enter Setup Mode as described under "Transmitter Setup" in this manual. When the transmitter address location appears on the display, remove the transmitter's characteristics by pressing the SET button until there are no dots (blinking or otherwise) on either side of the address number. The transmitter is now removed.

To replace the transmitter, simply trip the new transmitter. When the 42A00-2 receives the transmission, the 42A00-2 will display the digit (transmitter address location) with a dot on either side (the dots indicate the transmitter's characteristics).

RESET MEMORY

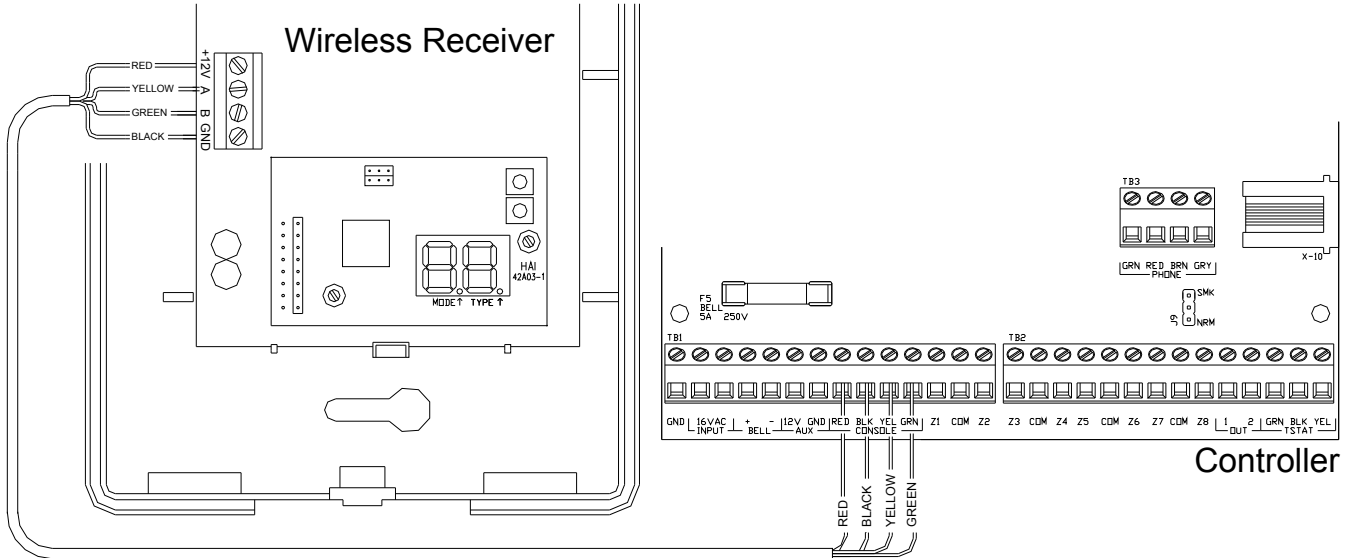
To erase all transmitters from memory and to reset to the factory default configuration, press and hold both the Set and Mode/Advance switches simultaneously for 2 seconds. The display will show "EE". If you choose to continue, press and hold the Set and Mode/Advance switches simultaneously for 2 seconds once again. Memory is reset at the end of the two seconds.

NOTE: If you choose not to reset memory at the "EE" display, don't press any keys for 10 seconds and the receiver will return to Run Mode.

CONNECTING TO OMNILT

Connect the receiver to the OmniLT controller using 4-conductor, 22-gauge or larger wire as follows:

1. Connect the "A" and "B" terminals of the 42A00-2 to the "YEL" (Yellow) and "GRN" (Green) terminals under the section marked "CONSOLE" on the OmniLT controller (Yellow = A and Green = B).
2. Connect the "+12V" and "GND" terminals of the 42A00-2 to the "RED" and "BLK" (Black) terminals under the section marked "CONSOLE" on the OmniLT controller (Red = +12V and Black = GND). Verify that the Status LED on the receiver is illuminated.



OMNILT SETUP

- A. At a console, select "Installer Setup" (press 9, installer code, then #). Press 2 for "Zones", and then press 1 # ("Wireless Receiver?" Yes = 1).
- B. When connected to OmniLT, Zones 9-24 are the wireless receiver zones.
- C. When connected to OmniLT, the receiver address on the 42A00-2 **must** be set to "A1" and the number of addresses must be set to "n1".
- D. OmniLT can handle up to 4 transmitters per zone.

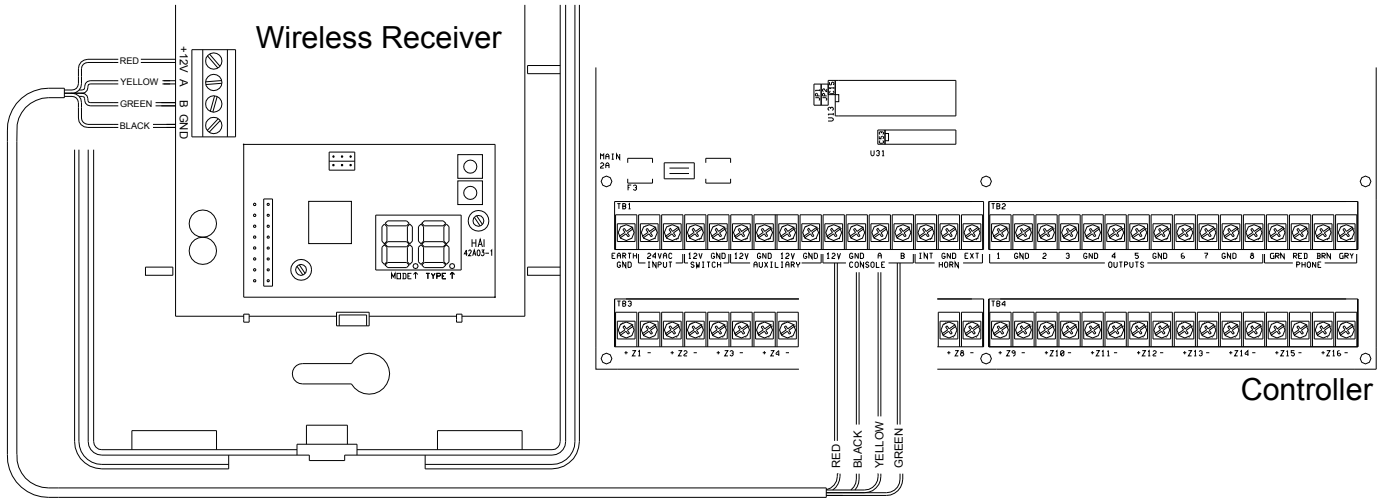
The chart below shows the relationship of each wireless transmitter on the 42A00-2 Wireless Receiver to each zone on the OmniLT.

Zones on OmniLT	Transmitter Numbers on Wireless Receiver			
Zone 09	1	17	33	49
Zone 10	2	18	34	50
Zone 11	3	19	35	51
Zone 12	4	20	36	52
Zone 13	5	21	37	53
Zone 14	6	22	38	54
Zone 15	7	23	39	55
Zone 16	8	24	40	56
Zone 17	9	25	41	57
Zone 18	10	26	42	58
Zone 19	11	27	43	59
Zone 20	12	28	44	60
Zone 21	13	29	45	61
Zone 22	14	30	46	62
Zone 23	15	31	47	63
Zone 24	16	32	48	64

CONNECTING TO OMNI / OMNIPRO

Connect the receiver to the Omni or OmniPro controller using 4-conductor, 22-gauge or larger wire as follows:

1. Connect the "A" & "B" terminals of the 42A00-2 to the "A" & "B" terminals under the section marked "CONSOLE" on the controller.
2. Connect the "+12" and "GND" terminals of the 42A00-2 to the "12V" and "GND" terminals under the section marked "CONSOLE" on the controller. Verify that the Status LED on the receiver is illuminated.



OMNI SETUP

- A. At a console, select "Installer Setup" (press 9, installer code, then #). Press 2 for "Zones", and then press 1 # ("Wireless Receiver?" Yes = 1).
- B. When connected to Omni, Zones 17-32 are the wireless receiver zones.
- C. When connected to Omni, the receiver address on the 42A00-2 **must** be set to "A1" and the number of addresses must be set to "n1".
- D. Omni can handle up to 4 transmitters per zone

The chart below shows the relationship of each wireless transmitter on the 42A00-2 Wireless Receiver to each zone on the Omni.

Zones on Omni	Transmitter Numbers on Wireless Receiver			
Zone 17	1	17	33	49
Zone 18	2	18	34	50
Zone 19	3	19	35	51
Zone 20	4	20	36	52
Zone 21	5	21	37	53
Zone 22	6	22	38	54
Zone 23	7	23	39	55
Zone 24	8	24	40	56
Zone 25	9	25	41	57
Zone 26	10	26	42	58
Zone 27	11	27	43	59
Zone 28	12	28	44	60
Zone 29	13	29	45	61
Zone 30	14	30	46	62
Zone 31	15	31	47	63
Zone 32	16	32	48	64

OMNIPRO SETUP

- A. When connected to an OmniPro, the 42A00-2 is recognized as an Expansion Enclosure. The 42A00-2 can handle up to 64 wireless zones, in groups of 16. Each group of 16 zones is considered 1 Expansion Enclosure.
- B. At a console, select “Installer Setup” (press 9, installer code, then #). Press 2 for “Zones”. Press the down arrow once, then enter the number of expansion enclosures (groups of 16 wireless zones) being used.
- C. The wireless zones on the OmniPro start on Zone 33 (if no 17A00-1 expansion enclosures are used).
- D. The 42A00-2 address is set at 1 (A1) (if no 17A00-1 expansion enclosures are used).
- E. If the OmniPro has 1 17A00-1 expansion enclosure, the wireless zones start on Zone 49. The 42A00-2 address is then set to 2 (A2).
- F. If the OmniPro has 2 17A00-1 expansion enclosures, the wireless zones start on Zone 65. The 42A00-2 address is then set to 3 (A3).
- G. If the OmniPro has 3 17A00-1 expansion enclosures, the wireless zones start on Zone 81. The 42A00-2 address is then set to 4 (A4).

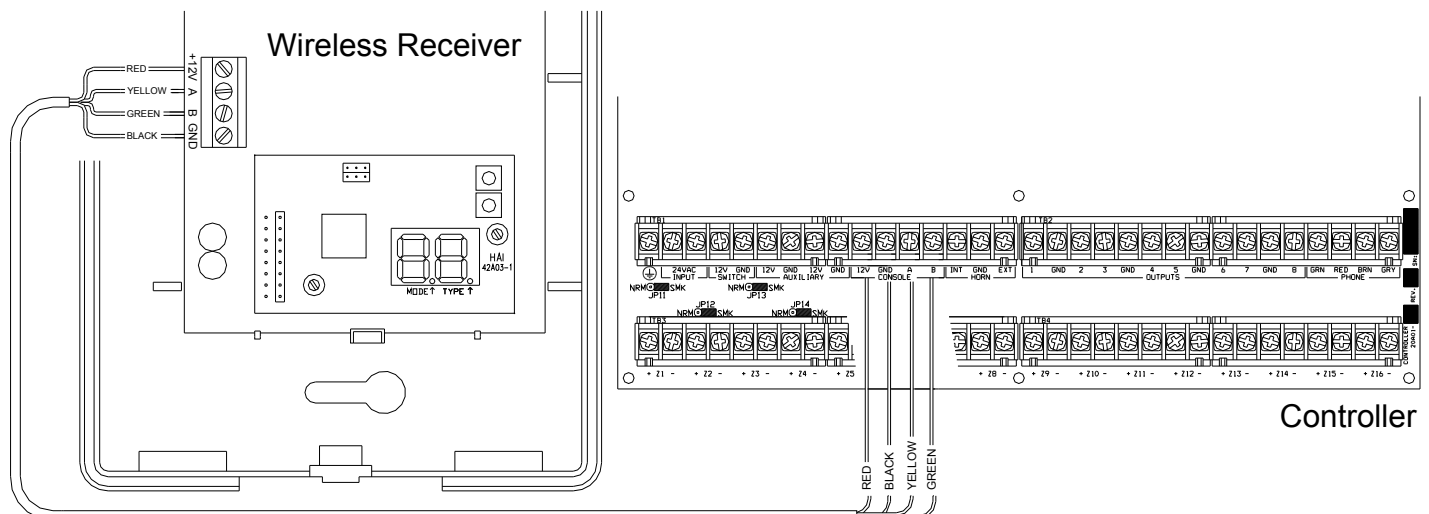
The chart below describes where each group of wireless transmitters (groups of 16) on the 42A00-2 Wireless Receiver relates to each group of zones (groups of 16) on the OmniPro in accordance with the “number of addresses” assigned (n1-4).

Zones on OmniPro (in groups of 16)				
	Zones 33-48	Zones 49-64	Zones 65-80	Zones 81-96
n1	Transmitters: 1-16, 17-32, 33-48, and 49-64			
n2	Transmitters: 1-16 and 33-48	Transmitters: 17-32 and 49-64		
n3	Transmitters: 1-16 and 49-64	Transmitters: 17-32	Transmitters: 33-48	
n4	Transmitters: 1-16	Transmitters: 17-32	Transmitters: 33-48	Transmitters: 49-64

CONNECTING TO OMNI II / OMNI IIe / OMNIPRO II / LUMINA / LUMINA PRO

Connect the receiver to the Omni II, Omni IIe, OmniPro II, Lumina, or Lumina Pro controller using 4-conductor, 22-gauge or larger wire as follows:

1. Connect the "A" & "B" terminals of the 42A00-2 to the "A" & "B" terminals under the section marked "CONSOLE" on the controller.
2. Connect the "+12" and "GND" terminals of the 42A00-2 to the "12V" and "GND" terminals under the section marked “CONSOLE” on the controller. Verify that the Status LED on the receiver is illuminated.



OMNI II / OMNI IIe / LUMINA SETUP

- A. At a console, select "Installer Setup" (press 9, installer code, then #). Press 2 for "Zones", and then press 1 # ("Wireless Receiver?" Yes = 1).
- B. When connected to Omni II, Omni IIe, or Lumina, Zones 33-48 are the wireless receiver zones.
- C. The receiver address on the 42A00-2 **must** be set to "A1" and the number of addresses must be set to "n1".
- D. This configuration can handle up to 4 transmitters per zone

The chart below shows the relationship of each wireless transmitter on the 42A00-2 Wireless Receiver to each zone on the Omni II, Omni IIe, and Lumina.

Zones on Omni IIe / Lumina	Transmitter Numbers on Wireless Receiver			
Zone 33	1	17	33	49
Zone 34	2	18	34	50
Zone 35	3	19	35	51
Zone 36	4	20	36	52
Zone 37	5	21	37	53
Zone 38	6	22	38	54
Zone 39	7	23	39	55
Zone 40	8	24	40	56
Zone 41	9	25	41	57
Zone 42	10	26	42	58
Zone 43	11	27	43	59
Zone 44	12	28	44	60
Zone 45	13	29	45	61
Zone 46	14	30	46	62
Zone 47	15	31	47	63
Zone 48	16	32	48	64

OMNIPRO II / LUMINA PRO SETUP

- A. OmniPro II and Lumina Pro can have two 42A00-2 Wireless Receivers connected. When connected to an OmniPro II or Lumina Pro, the 42A00-2 is recognized as an Expansion Enclosure. Each 42A00-2 can handle up to 64 wireless zones, in groups of 16. Each group of 16 zones is considered 1 Expansion Enclosure (8 Expansion Enclosures maximum).
- B. At a console, select "Installer Setup" (press 9, installer code, then #). Press 2 for "Zones". Press the down arrow once, then enter the number of expansion enclosures (groups of 16 wireless zones) being used.
- C. The wireless zones on the OmniPro II and Lumina Pro start on Zone 49 (if no 17A00-1 expansion enclosures are used).
- D. The 42A00-2 address is set at 1 (A1) (if no 17A00-1 expansion enclosures are used).
- E. If 1 17A00-1 expansion enclosure is being used, the wireless zones start on Zone 65. The 42A00-2 address is then set to 2 (A2).
- F. If 2 17A00-1 expansion enclosures are being used, the wireless zones start on Zone 81. The 42A00-2 address is then set to 3 (A3).
- G. If 3 17A00-1 expansion enclosures are being used, the wireless zones start on Zone 97. The 42A00-2 address in then set to 4 (A4).
- H. If 4 17A00-1 expansion enclosure are being used, the wireless zones start on Zone 113. The 42A00-2 address is then set to 5 (A5).
- I. If 5 17A00-1 expansion enclosures are being used, the wireless zones start on Zone 129. The 42A00-2 address is then set to 6 (A6).
- J. If 6 17A00-1 expansion enclosures are being used, the wireless zones start on Zone 145. The 42A00-2 address in then set to 7 (A7).
- K. If 7 17A00-1 expansion enclosures are being used, the wireless zones start on Zone 161. The 42A00-2 address in then set to 8 (A8).

NOTE: If two 42A00-2 Wireless Receivers are connected, the first 42A00-2 must be addressed between 1-4 (A1-A4), and the second must be addressed between 5-8 (A5-A8).

The charts below describe where each group of wireless transmitters (groups of 16) on the 42A00-2 Wireless Receiver relates to each group of zones (groups of 16) on the OmniPro II or Lumina Pro in accordance with the number of addresses assigned (n1-4).

Zones on OmniPro II and Lumina Pro (in groups of 16) when 42A00-2 is set to address "A1"				
	Zones 49-64	Zones 65-80	Zones 81-96	Zones 97-112
n1	Transmitters: 1-16, 17-32, 33-48, and 49-64			
n2	Transmitters: 1-16 and 33-48	Transmitters: 17-32 and 49-64		
n3	Transmitters: 1-16 and 49-64	Transmitters: 17-32	Transmitters: 33-48	
n4	Transmitters: 1-16	Transmitters: 17-32	Transmitters: 33-48	Transmitters: 49-64

Zones on OmniPro II and Lumina Pro (in groups of 16) when 42A00-2 is set to address "A5"				
	Zones 113-128	Zones 129-144	Zones 145-160	Zones 161-176
n1	Transmitters: 1-16, 17-32, 33-48, and 49-64			
n2	Transmitters: 1-16 and 33-48	Transmitters: 17-32 and 49-64		
n3	Transmitters: 1-16 and 49-64	Transmitters: 17-32	Transmitters: 33-48	
n4	Transmitters: 1-16	Transmitters: 17-32	Transmitters: 33-48	Transmitters: 49-64

HAI CONTROLLER INDICATIONS

When the condition of a transmitter changes state, the HAI console will display that condition as follows:

Transmitter Condition	HAI Console Display
When a transmitter (zone) is violated	Zone Name "NOT RDY"
When a cover is removed from a transmitter	Zone Name "NOT RDY"
When a supervisory failure is reported	Zone Name "TRBL NOW"
When a battery low is reported	Zone Name "HAD TRBL"

SPECIFICATIONS

Dimensions: 4.5W x 6.4H x 1.2D, excluding antennas

Nominal Current Consumption: 45mA

Operating Temperature: 32° F - 120° F (0° C - 49° C)

Maximum Humidity: 90% relative humidity, non-condensing

Note: This product cannot be sold in the state of California if used to receive fire signals (per section 208-g, Chapter 1.5 Construction Materials and Equipment Listings, Title 19, California Code of Regulations).

FCC NOTICE

This device complies with FCC Rules Part 15. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference that may be received, including interference that may cause undesired operation.

QUICK-REFERENCE SETUP GUIDE

To enter Setup Mode, press and hold the Mode/Advance switch for 2 seconds.

DISPLAY	DESCRIPTION	SET SWITCH	MODE/ADVANCE SWITCH
<i>R 1</i>	Enter the receiver address	Changes the current address (1-8)	Advances to the next item
<i>n 1</i>	Enter number of addresses	Changes number of addresses (1-4)	Advances to the next item
<i>1</i>	Displays the status of transmitter 1	Changes characteristics of transmitter	Advances to the next transmitter
<i>2</i>	Displays the status of transmitter 2	Changes characteristics of transmitter	Advances to the next transmitter
<i>3</i>	Displays the status of transmitter 3	Changes characteristics of transmitter	Advances to the next transmitter

Characteristics of Transmitters:

DISPLAY	MODE LED	TYPE LED	DESCRIPTION OF THE DISPLAY
<i>1</i>	OFF	OFF	No transmitter is programmed at this address
<i>1*</i>	OFF	BLINKS	This transmitter is not supervised and doesn't send restore transmissions
<i>. 1*</i>	ON	BLINKS	This transmitter is not supervised but sends restore transmissions
<i>1.</i>	OFF	ON	This transmitter is supervised but doesn't send restore transmissions
<i>. 1.</i>	ON	ON	This transmitter is supervised and sends restore transmissions

To reset memory, press and hold the Set and Mode/Advance switches together for 2 seconds.

DISPLAY	DESCRIPTION	SET SWITCH
<i>E E</i>	Erase EEPROM ? (Reset Memory)	Press and hold Set & Mode/Advance switches together for 2 seconds