



**STYLE 6047 Wireless Remote Control
INSTALLATION, OPERATING, AND MAINTENANCE INSTRUCTIONS**

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1. INTRODUCTION

The following is intended to provide the basic instructions for installation, operation and maintenance of the Akron Brass Style 6047 Wireless Remote Controller, and to assist in attaining the best possible performance from the unit. **IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY, NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS, AND CAUTIONS. USE THIS PRODUCT CORRECTLY, AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE, OR PERSONAL INJURY, AND WILL INVALIDATE THE WARRANTY!**

2. PRODUCT RATINGS

- Input Power Requirements: 3.6V via Akron Brass Batteries P/N 60470008. Unit has space for two batteries, but only one battery is needed to power the Wireless Remote Controller.
- Controller Power Consumption: Off Mode (5 mW), Idle Mode (125 mW), Operating Mode (1.5 W)
- Battery Life: 12 continuous hours per battery, or 24 hours total, when operating at full power when LED intensity is at factory default setting.
- RF Radio
 - Output Power: 8dBm for 2.4GHz and 24dBm for 900 MHz, both meet FCC part 15 requirement for license free operation
 - Operating Frequency: 2.4 GHz or 900 MHz (see label for frequency)
 - FCC ID: MCQ-XBEE3 for 2.4 GHz, or MCQ-XB900HP for 900 MHz
 - Operational range: 250 feet (76.2m) for 2.4GHz and 300 feet (91.44m) for 900MHz outside with clear line of sight – no obstacles
- WiFi Radio
 - Output Power: 187mW
 - Operating Frequency: 2.4 – 2.5 GHz
 - FCC ID: 2AC7Z-ESPWROOM02U
 - Protocol 802.11 b/g/n
 - Operational range: 10 feet (3.048m)
- Dimensions: 6-11/32" (16.1cm) L x 5" (12.7cm) W x 2-3/8" (6.03cm) H
- Weight: 1lb (0.45kg); 1.5lbs (0.68kg) with batteries
- Environmental Conditions:
 - Operating Temperature: -20°C (-4°F) to 50°C (122°F)
 - Storage Temperature: -10°C (14°F) to 30°C (86°F) Batteries; -20°C (-4°F) to 50°C (122°F) Wireless Remote Controller
 - Suitable for use up to 6,562 feet (2,000 meters) elevation
 - Pollution Degree 2
 - Relative humidity range 60 ± 25% for temperatures up to 50°C
 - Ingress protection: IP66 equivalent

3. PRODUCT WARNINGS

	<ul style="list-style-type: none">• Indicates a hazardous situation which, if not avoided, WILL result in death or serious injury.
	<ul style="list-style-type: none">• Indicates a hazardous situation which, if not avoided, COULD result in death or serious injury.
	<ul style="list-style-type: none">• Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
	<ul style="list-style-type: none">• Addresses practices not related to personal injury.

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4. WHAT'S INCLUDED

- 6047 Wireless Remote Controller
- 2-pack of batteries
- Mounting Bracket
- Keypad symbol quick reference card

5. OVERVIEW

The Style 6047 Wireless Remote Controller allows the user to control up to two monitors and is compatible with all Akron Brass wireless receivers. It uses either a 900 MHz, or 2.4 GHz radio frequency to control the monitor. The Wireless Remote Controller can also be configured and updated over a WiFi network.

NOTICE

Please refer to the appropriate installation instructions for installing the wireless receiver and all other components.

6. BATTERIES AND CHARGER

The Wireless Remote Controller comes with two Akron Brass P/N 60470008 Lithium-ion rechargeable batteries. The batteries must be fully charged prior to first use. Akron Brass recommends using the Tenergy TN471U battery charger. Akron Brass internal P/N for this charger is 60470010.

WARNING

Using any battery other than Akron Brass P/N 60470008 can potentially damage your Wireless Remote Controller. Failure to do this increases the chance of fire and will void your warranty.

6.1 Charging Batteries

Lithium-ion batteries do not have a charge memory, so deep discharging is not required. It is better to use partial discharge cycles. After 30 charges, you should completely discharge batteries prior to charging. The battery is completely discharged when it measures 2.5V

6.2 Installing Batteries

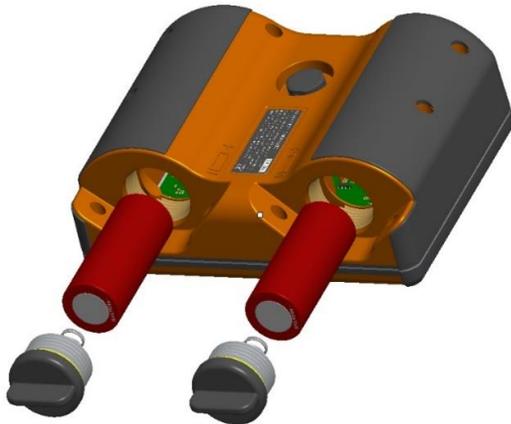
Unscrew the battery caps by turning them counterclockwise. Insert the batteries with positive terminal facing the Wireless Remote Controller. Replace battery caps by turning them clockwise until tight. Do not overtighten.

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NOTICE

Only one battery is required to power the Wireless Remote Controller. If two batteries are installed, the battery with the highest voltage will provide power.

6.3 Storing Batteries

When batteries won't be used for longer than one month, they should be stored in a cool, dry place and at 40% charge. Make sure you fully charge batteries when removing them from storage prior to use.

6.4 Disposing of Batteries

Do not dispose of the batteries in your regular trash pickup. They must be taken to a location that will properly recycle them.

6.5 Safety

⚠ WARNING

- Keep batteries in a battery safe container when not installed in Wireless Remote Controller.
- Do not expose batteries to high temperature.
- Do not charge batteries unattended.
- Do not disassemble or modify battery.
- Do not short circuit battery.
- Do not dispose of batteries in a fire.
- Using any battery other than Akron Brass P/N 60470008 can potentially damage your Wireless Remote Controller. Failure to do this increases the chance of fire and will void your warranty.

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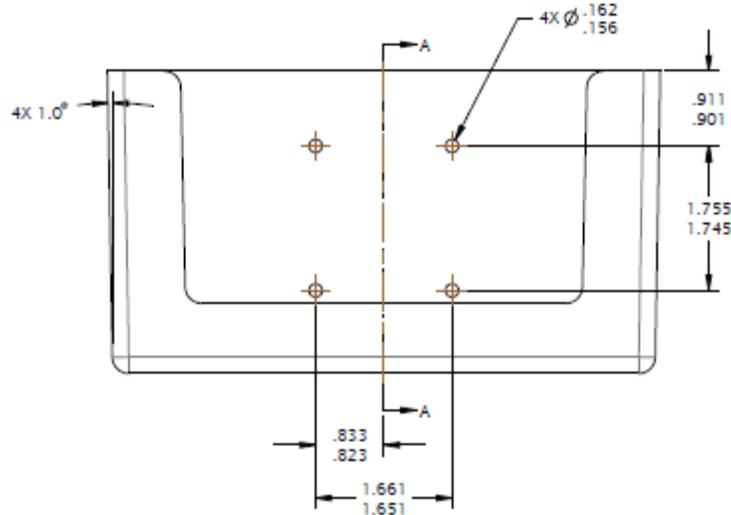
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7. INSTALLING MOUNTING BRACKET

The Wireless Remote Controller comes with a mounting bracket. The mounting bracket offers a convenient way to transport, store, and protect the wireless remote controller when not in use. The drawing below details the bolt hole pattern dimensions, so you can easily mount the bracket.



8. USING THE WIRELESS REMOTE CONTROLLER

The Wireless Remote Controller was designed to be easy to use and configure. When position feedback is present, the LEDs clearly display monitor and valve position in daylight, or the darkest night. The keypad supports relocatable tiles, so key location can be configured to accommodate user preference. The Factory default configuration is shown below. See section 9.2.2 for instructions on how to change keypad configuration.

8.1 Using Wireless Remote Controller with Akron Brass Receivers

The Wireless Remote Controller is designed to synchronize with the radio receiver used in a 6037, a 6042, and a 6052. It is designed to control Akron Brass monitors with wireless capabilities. The Wireless Remote Controller supports two different display types referred to as Enhanced and Legacy (See Section 9.2.4.2). Not all the features / functions are available for both display types. Subsequent sections of the manual will detail what display type is needed to use the function / feature.

NOTICE

Your 6032, 6037, 6042, or 6052 monitor controllers may require a firmware update to support the features and functions offered by the enhanced display type. Make sure your products firmware is at the latest version by visiting akronbrass.com and navigating to the Software/Multimedia section for your specific product. Refer to your product manual for instructions on how to perform the firmware update.

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8.2 Keypad User Interface



1.  **Straight Stream** – While this key is pressed, the monitor nozzle pattern will be commanded to extend the pattern sleeve towards the straight stream flow setting.
2.  **Stow / Deploy** - When this key is pressed, the monitor will be commanded to Stow, or Deploy. A red key border indicates the selected monitor is stowed, while a green border indicates deployed.



Stow



Deploy

3.  **Fog Stream**– While this key is pressed, the monitor nozzle pattern will be commanded to retract the pattern sleeve towards the fog stream flow setting.
4.  **Oscillate** – This key is used to perform the Oscillate function. To make the monitor oscillate, hold down the  Oscillate key to start the monitor rotating. Release the  Oscillate key when the monitor reaches the desired oscillation stop in the current direction. Once the monitor begins moving in the opposite direction, hold down the  Oscillate key until the monitor reaches the desired oscillation stop in the current direction. Once the  Oscillate key is released, the monitor will begin oscillating between these configured stops. Oscillation can be paused / resumed by holding the  Function key, while pressing the  Oscillate key.

NOTICE

If your Wireless Remote Controller is operating in the legacy display type, you can assign the  Oscillate key to behave as the Aux key. See section 9.2.4.8.



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-  **Monitor 1** – When this key is pressed, all succeeding key presses will control Monitor 1. When Monitor 1 is selected, the keys will illuminate a green border. See section 8.3
-  **Monitor 2** – When this key is pressed, all succeeding key presses will control Monitor 2. When Monitor 2 is selected, the keys will illuminate a blue border. See section 8.3
-  **Water Discharge** – When this key is pressed, the monitor is instructed to command a valve to open, so that water can be discharged from the nozzle. Water is only discharged while key is being pressed. Double clicking the key will command the valve to stay open until the key is momentarily pressed again.

NOTICE

If your Wireless Remote Controller is operating in the legacy display type, you can assign the  Water Discharge key to behave as the Aux key. See section 9.2.4.8.

-  **Function** – This key is used in combination with other keys to perform specific functions such as adjusting LED brightness, and syncing with a receiver.
-  **Joystick** – These keys are used to raise / lower and rotate the monitor. Pressing the key on a diagonal will change monitors elevation and horizontal position simultaneously.

8.3 LED User Interface

When Monitor 1 key is pressed, keys will have a green border.



1 2 3

When Monitor 2 key is pressed, keys will have a blue border.



1 2 3

- Monitor Elevation Position LEDs** – These LEDs are used to show the selected monitor's elevation position. Red LEDs indicate the monitor's elevation soft stops, while green/blue LEDs indicate operational elevation range. The white LEDs show monitor elevation position.
- Monitor Rotational LEDs** – These LEDs are used to show the selected monitor's rotational position. Red LEDs indicate the monitor's rotational soft stops, while green/blue LEDs indicate operational rotational range. The white LEDs show monitor rotational position. When monitor is oscillating, the soft stop LEDs will be yellow instead of red.

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NOTICE

If your Wireless Remote Controller is operating in the legacy display type, then the Monitor Rotational LEDs will mimic the monitor panel light. The LEDs will be either green, or blue based on what monitor is currently active.

3. **Valve Position LEDs** – These LEDs are used to show valve position for the valve assigned to the selected monitor.
 - a. **Valve Fully Closed** – All bottom LEDs will be red, and the top LEDs will be off.
 - b. **Valve Fully Open** - All bottom LEDs will be green, and all top LEDs will be white.
 - c. **Valve Partially Open** – Bottom LEDs will be lit from red to yellow to green. Red indicates valve is mostly closed, yellow indicates that valve is between open and closed, and green indicates the valve is mostly open. The top LEDs will be white and indicate the valve position relative to the bottom LEDs.

NOTICE

The soft stop LEDs have limited resolution and will not precisely indicate the actual stop position. For this reason, the white position LEDs may slightly extend into the operational range LEDs.

NOTICE

If your Wireless Remote Controller is operating in the legacy display type, then the Monitor Elevation Position LEDs and the Valve Position LEDs will be off, or dark.

8.4 Synchronizing Wireless Remote Controller with Receiver

8.4.1 General Information

Before initial operation can occur, the Wireless Remote Controller must be synchronized with a Receiver. Synchronizing establishes proper communication and ensures that the Wireless Remote Controller will control the operation of the Receiver. Synchronization must be done when the system is first put into operation, or if the Wireless Remote Controller needs to control a different Receiver. An unsynchronized Wireless Remote Controller will flash the Monitor(X) key and Fn key in unison when the Monitor(X) key is pressed. Wireless Remote Controllers are shipped unsynchronized.

8.4.2 Synchronizing Procedure

1. Make sure only the intended Receiver and monitor is powered on and on the CAN bus, where applicable.

NOTICE

Since display type is determined by the firmware running on the 6032, 6037, 6042, and 6052, it is important that all these devices be powered on when syncing. See section 8.1.

2. On the Wireless Remote Controller, press and hold the Monitor (X) key and Fn key simultaneously for 3 seconds.
3. The Monitor Elevation Position LEDs will light sequentially showing the signal strength. See section 8.7. The Valve Position LEDs will light sequentially showing transmit power.
4. If syncing was successful, the border for keys Straight Stream, Fog Stream, Stow, Oscillation, Water Discharge, and Monitor (X) will light. The monitor rotational LEDs showing monitor position will also be lit.

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8.5 LED Intensity

The LED Intensity is adjustable. Dimming the LEDs will prolong battery life. The brightness range is wide enough so that the optimum setting can be found for any lighting condition. LED Intensity can also be changed using the web browser (See section 9.2.1.7)

8.5.1 *Increasing Brightness*

Press and hold the **Fn** key while pressing the Joystick Up until the desired brightness is reached. Do NOT hold the Joystick Up.

8.5.2 *Decreasing Brightness*

Press and hold the **Fn** key while pressing the Joystick Down until the desired brightness is reached. Do NOT hold the Joystick Down.

NOTICE

The new LED Brightness setting will be preserved for the next time you use the Wireless Remote Controller.

8.6 Checking Battery Voltage

The voltage of each battery can be displayed independently. To display current battery voltage, hold down either the Monitor 1, or Monitor 2 key. The LEDs to the left of the joystick indicate the charge on the left battery, and the LEDs to the right indicate the charge on the right battery. The white LEDs indicate the charge of the battery in the Red, Yellow, and Green chart shown below.



Green	100-70%
Yellow	69-30%
Red	29-0%



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8.7 Checking RF Radio Signal Strength

RF radio signal strength can only be done when the Wireless Remote Controller is synchronized with a Receiver. To display the signal strength for Monitor 1, hold down the Monitor 1 key. For Monitor 2, hold down the Monitor 2 key. The signal strength is shown on the Monitor Position LEDs, while the Monitor X key is being held. The white LEDs indicate the signal strength in the Red, Yellow, and Green chart shown below.



Green	-40 dBm	Excellent Signal Strength
Yellow	-60 dBm	Nominal Signal Strength
Red	-80 dBm	Weak Signal Strength

8.8 Battery Power Saving States

While the Wireless Remote Controller is being used to control a monitor, it is operating in Active mode. Active mode results in largest power consumption from the batteries. After 1 minute (Active Time) of non-use, the currently selected Monitor key will begin to flash signaling that the Wireless Remote Controller is now operating in Idle mode, or a reduced power consumption state. Pressing any key, will restore Active mode. After 30 minutes (Idle Time) of non-use, the Wireless Remote Controller will enter the Off mode, which is a very low power consumption state. Either the Monitor 1 key, or Monitor 2 key must be pressed to restore Active mode. To change the default values for Active Time and Idle Time, see 8.2.1.5 and 8.2.1.6 respectively.

8.9 Monitor Setup

You can use the Wireless Remote Controller to setup a monitor. To enter monitor setup mode for monitor 1, press the Monitor 1 key along with the Straight Stream key. For monitor 2, press the Monitor 2 key along with the Straight Stream key. If display type for the active monitor is legacy, then the Fog Stream key must be held when powering on the monitor.

Once in setup mode, the Straight Stream key advances the setup code (can't go backwards) and the Fog Stream key performs the setup action and will automatically advance to the next available setup code. Only setup codes that are applicable for the monitor will appear.

Viewing Setup Codes

- If operating in the **legacy display type**, then the Monitor Rotational LEDs will mimic the monitor panel light. The LEDs will be either green, or blue based on what monitor is currently active. The two-part code can be read by counting the blinks of the Monitor Rotational LEDs. For example, code 2-1 would be two short blinks, a short pause, and then another blink.
- If operating in the **enhanced display type**, then the two-part code can be read by counting the yellow LEDs surrounding the Monitor Rotational LEDs. The first digit is on the left side, and the second is on the right. In the picture below, setup code 1-5 is shown. You know you are in setup

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mode because the Monitor Rotational LEDs will either be Green or Blue alternate from illuminating the left and right side of the circle.



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The table below lists the setup function and corresponding code.

Setup Menu Function	LED Code	Note
Setup Mode Start	slow blink	Fog resets monitor
Right Soft Limit Position	1-1	
Left Soft Limit Position	1-2	
Up Soft Limit Position	1-3	
Down Soft Limit Position	1-4	
Stow Position	1-5	Press Stow / Deploy to enter
Deploy Position	1-6	Press Function and Stow / Deploy to enter
Monitor Orientation	1-7	
Position Sensor "Zero"	1-8	
Restore Factory Defaults	1-9	
Obstacle Avoidance Disable	2-1	
Obstacle Avoidance Manual Operation	2-2	
Obstacle Avoidance Auto Operation	2-3	
Obstacle Avoidance Learn	2-4	
CAFS Dry	2-5	
CAFS Wet	2-6	
Rotate Position, Swing Arm	2-7	DeckMaster Only
Ladder Avoidance On	2-8	
Ladder Avoidance Off	2-9	
Electric Riser Disable	3-1	
Electric Riser Enable	3-2	
Attitude Off	3-3	Tuckaway Only
Attitude On	3-4	Tuckaway Only
Zero Current Measurement	3-5	Deprecated
Ladder Avoidance Position / Collision Zone Teach	3-6	
Valve Discharge Pulse Mode Off	3-7	
Valve Discharge Pulse Mode On	3-8	
CAN Valve Disable	4-1	Must press Discharge to enter
CAN Valve Enable	4-2	Must press Discharge to enter
CAN Valve Pair	4-3	
CAN Valve Calibrate	4-4	
Safe Operating Envelope (SOE) On	4-5	
Safe Operating Envelope (SOE) Off	4-6	
Stealth Broadcast On	4-9	Factory Defaults to disable
CAN Valve Preset 1	5-1	
CAN Valve Preset 2	5-2	

NOTICE

Refer to the manual that came with your monitor for detailed information on how to properly perform initial setup.

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8.10 Error Codes

If an error is detected, the code will be shown on the Monitor Rotational LEDs. You will know you have an error code because the Monitor Rotational LEDs will be red instead of the green/blue color that was showing monitor rotational operation range.

Viewing Error Codes

- If operating in the **legacy display type**, then the Monitor Rotational LEDs will mimic the monitor panel light. The LEDs will be red. The two-part code can be read by counting the blinks of the Monitor Rotational LEDs. For example, code 2-1 would be two short blinks, a short pause, and then another blink.
- If operating in the **enhanced display type**, then the two-part code can be read by counting the yellow LEDs surrounding the Monitor Rotational LEDs. The first digit is on the left side, and the second is on the right. You know you are viewing an error code because the Monitor Rotational LEDs will be Red and alternate from illuminating the left and right side of the circle.

List of Possible Error Codes

1-1 Rotation Sensor:

SWITCH: The rotation switch was not detected as part of a stow/deploy sequence.

POSITION FEEDBACK: The rotation position feedback sensor signal is missing or not changing while the monitor is moving.

1-2 Elevation Sensor:

SWITCH: The elevation switch was not detected as part of a stow/deploy sequence.

POSITION FEEDBACK: The elevation position feedback sensor signal is missing or not changing while the monitor is moving.

1-3 Swing Arm Sensor error:

3440 DeckMaster only: The swing arm hit a hard stop instead of stopping on the sensor

1-4 Attitude Sensor error:

3351 Tuckaway with autolevel only

1-5 Operator Override:

During a Stow/Deploy sequence, a command input was received which interrupted the sequence (emergency stop) or an obstacle was hit causing the monitor to stop before completing the sequence.

1-6 Obstacle Avoidance Profile Needed:

The obstacle avoidance feature was turned on, but an avoidance profile was not learned.

1-7 Rotation Hard Stop:

(position feedback units only) A hard stop was encountered during normal rotation. This is an unexpected condition and could be a sensor problem or an obstruction was hit.

1-8 Elevation Hard Stop

(position feedback units only) A hard stop was encountered during normal elevation. This is an unexpected condition and could be a sensor problem or an obstruction was hit.

1-9 Swing Arm Hard Stop:

3440 DeckMaster Only. The Swing Arm hit an obstruction between stow and deploy positions.

2-1 Electric Riser:

Electric riser function is turned on, but the riser is not available on the network

2-2 CAN Valve Not Calibrated:

Valve has been paired but was not calibrated during setup.

2-3 CAN Valve Can't be Located:

Valve has been paired and calibrated but has been removed from the CAN network or is not powered.

3-1 SOE Rotation Axis:

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Safe Operating Envelope is enabled, and rotation motion is not being permitted by external CAN device.

3-2 SOE Elevation Axis:

Safe Operating Envelope is enabled, and elevation motion is not being permitted by external CAN device.

3-3 SOE Enabled:

Safe Operating Envelope is enabled, but SOE commands are not being received by external CAN device.

NOTICE

Refer to the manual that came with you monitor for more information on error codes.

9. CONFIGURING AND UPDATING THE WIRELESS REMOTE CONTROLLER

Your Wireless Remote Controller has a built-in WiFi radio module than can interface with a web browser. The web browser must be on a Windows PC. Chrome, Edge, and Firefox are the only supported web browsers. The Web Browser interface is used to configure the Wireless Remote Controller's keypad and perform firmware updates.

9.1 Connecting Wireless Remote Controller to a Web Browser

1. Press and hold the  Straight Stream and  Fn key for 3 seconds to turn on the WiFi Radio.
2. On your web browser device, connect to the akronbrass WiFi network. The connection doesn't require a password.
3. Launch your web browser and go to akronbrass.net

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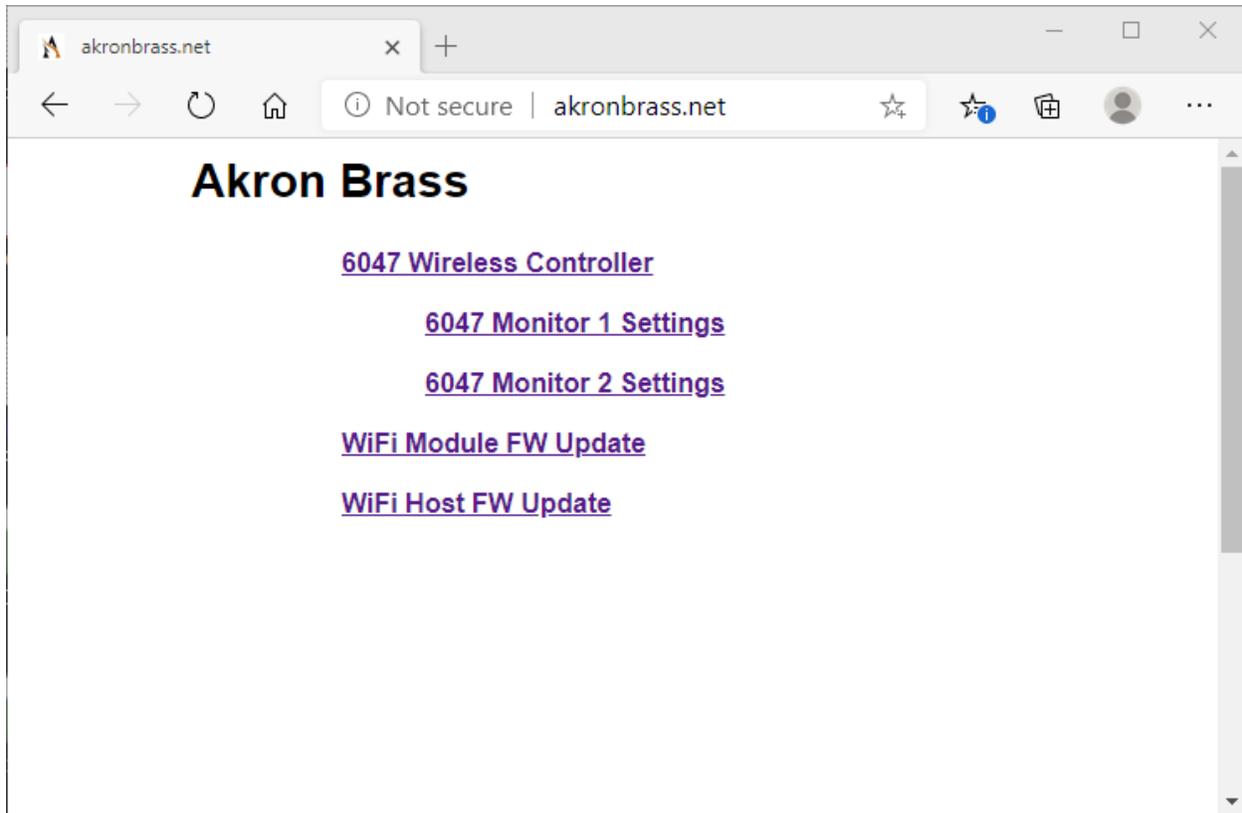
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9.2 Using the Web Browser

The AkronBrass.net home page is shown below.



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9.2.1 6047 Wireless Controller – Main Page

Select the 6047 Wireless Controller web page to view the Wireless Remote Controller's Product Identification Number (PIN), its Firmware Version, setup power management settings, change the intensity of the LEDs, restore to factory default, and configure the keys.

Main [Key Configuration](#) [Modem](#)

6047 Wireless Controller

Akron Brass PIN: 1047IS204000015
Firmware Revision: R8-9 10/16/2020

Controller No.: 1

Monitor 1 Paired: Yes
Monitor 2 Paired: No

Active Time: 60 seconds
Idle Time: 30 minutes

LED Intensity: 40%

Factory Default: No

9.2.1.1 Akron Brass PIN

This is the serial number of the product.

9.2.1.2 Firmware Revision

This is the firmware version of the Wireless Remote Controller.

9.2.1.3 Controller No.:

The Controller No. is used in when Wireless Remote Controller is operating in the enhanced display type. It is used when two Wireless Remote Controllers are used with the same receiver. If you have two Wireless Remote Controllers, select 2 from the list for the second controller. Controller No. defaults to 1.

9.2.1.4 Monitor(X) Synchronized:

This indicates the status of whether the  Monitor 1 key, or  Monitor 2 key have been synchronized with a monitor.

9.2.1.5 Active Time

Select Active Time to configure how long the Wireless Remote Controller stays at full power before switching to the Idle Time reduced power consumption state.

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9.2.1.6 Idle Time

Select Idle Time to configure how long the Wireless Remote Controller stays at the reduced Idle Time power consumption state before switching to the very low power sleep state. In the sleep state, two key presses are required to wake up.

9.2.1.7 LED Intensity

The LED Intensity is adjustable. Dimming the LEDs will prolong battery life. The brightness range is wide enough so that the optimum setting can be found for any lighting condition. LED Intensity can also be changed using the Wireless Remote Controller keypad (See section 8.5)

9.2.1.8 Factory Default

Select Factory Default to restore the Wireless Remote Controller to its factory shipped state. Any changes made to the Wireless Remote Controller will be undone except for Firmware Updates.

9.2.2 6047 Wireless Controller – Key Configuration Page

Select the 6047 Wireless Controller – Key Configuration web page to reassign key positions to locations that better fit your needs. Once you have completed assigning functions to keys, make sure you locate the plastic tile on the keypad to match the web browser configuration.

The screenshot shows a web browser window with the URL `akronbrass.net/6047 Wireless Co`. The page title is "6047 Wireless Controller". There are three tabs: "Main", "Key Configuration", and "Modem". The "Key Configuration" tab is active. The page content includes a table with two columns: "FUNCTION" and "KEY".

FUNCTION	KEY
Stream:	Key 1
Fog:	Key 3
Stow/Deploy:	Key 2
Oscillate:	Key 4
Discharge:	Key 7
Function:	Key 8
Monitor 1:	Key 5
Monitor 2:	Key 6
Up:	Down arrow
Down:	Up arrow
Left:	Right arrow
Right:	Left arrow

To the right of the table, there is a text box with the following instructions: "Select the key desired for each function. Keys are numbered from left to right starting at the upper left when viewing keypad with battery caps down." Below this, another text box says: "Arrow keys as when viewed with battery caps down."

At the bottom left of the page, there is a link: [Return to Home Page](#)

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9.2.3 6047 Wireless Controller – Modem Page

The 6047 Wireless Controller – Modem Page is useful if you are having RF Radio communication issues. The Modem Page shows the frequency band, signal strength, baud rate, and the count of good and bad data packets contained in the current RF Radio communication session. You can reset the count of good/bad data packets.

The screenshot shows a web browser window with the address bar displaying 'akronbrass.net/6047 Wireless Co'. The page has three tabs: 'Main', 'Key Configuration', and 'Modem', with 'Modem' selected. The main heading is '6047 Wireless Controller'. Below the heading, the following data is displayed:

- Radio Band: 2.4 GHz
- Signal Level: -150 dBm
- Baud Rate: 57600
- Radio Tx Attempts: 0
- Radio Tx_Success: 0
- Radio Tx_Status: 0
- CAN Packets Sent: 0
- CAN Packets Received: 0
- Radio Resets: 0
- Reset Counters: No

At the bottom left of the page, there is a link: [Return to Home Page](#).

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9.2.4 6047 Monitor 1 / 2 Settings – Main Page

The 6047 Monitor 1 / 2 Settings – Main Page is used to configure how the Wireless Remote Controller interfaces with a monitor. The 6047 Monitor 1 / 2 Settings – Main Page will show different items based on whether the Wireless Remote Controller is operating in enhanced, or legacy display type. For the screenshots below, Monitor 1 is showing the enhanced display type items, and Monitor 2 is showing the legacy.

6047 Monitor 1 Settings

Monitor Active: No
Display Type: Enhanced
Receiver PIN: 1052IS190501049

Monitor PIN: 1032IS164401137 Reset device after changing.

Control Priority: High (52)

Rotation Ramp Time: Off
Elevation Ramp Time: Off

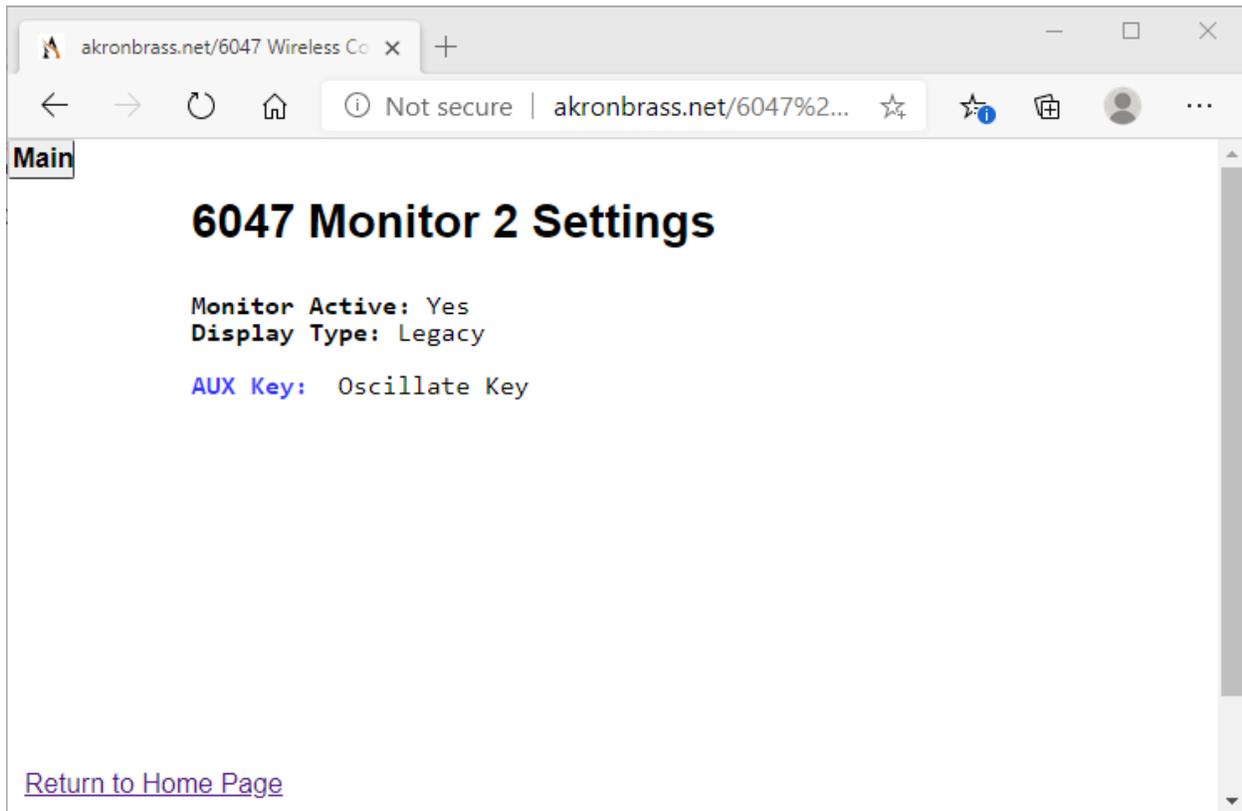
[Return to Home Page](#)

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9.2.4.1 Monitor Active

The Wireless Remote Controller can control two monitors. When viewing the 6047 Monitor 1 Settings page, Monitor Active will be “Yes” if Monitor 1 key was pressed. If you then navigate over and view the 6047 Monitor 2 Settings page, Monitor Active will be “No”, since the Monitor 2 was not pressed. Only one monitor can be active at a time.

9.2.4.2 Display Type

Display Type indicates features and functions listed in Section 8.2 and 8.3 are enabled. Display Type is determined by what firmware is supported by the active Monitor. Display Type will either be Enhanced, or Legacy.

9.2.4.3 Receiver PIN

This is the serial number of the synchronized receiver.

9.2.4.4 Monitor PIN

This is the serial number of the monitor.

9.2.4.5 Control Priority

Control Priority is used to change what priority the Wireless Remote Controller has on the CAN bus network. On the CAN bus network, the Wireless Remote Controller acts just like a joystick. If your CAN bus network has a wired joystick and the Wireless Remote Controller, then control priority is needed to assign what device has a higher priority. You can select the priority from Lowest to Highest in six increments. The higher priority joystick device will override the lower priority joystick if both are trying to control the monitor.

9.2.4.6 Rotation Ramp Time

Rotation Ramp Time is the time it takes for the motor rotating the monitor to reach maximum speed. If ramp time is at 2 seconds, then the motor rotating the monitor will take 2 seconds to reach maximum

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speed. Entering a non-zero value for ramp time will cause the monitor rotation to start out slow and then ramps up to give better position control. If “Off” is selected from the list, the rotation motor will instantly reach maximum speed.

9.2.4.7 Elevation Ramp Time

Elevation Ramp Time is the time it takes for the motor elevating the monitor to reach maximum speed. If ramp time is at 2 seconds, the motor elevating the monitor will take 2 seconds to reach maximum speed. Entering a non-zero value for ramp time will cause the monitor rotation to start out slow and then ramps up to give better position control. If “Off” is selected from the list, the elevation motor will instantly reach maximum speed.

9.2.4.8 AUX Key

If your Wireless Remote Controller is operating in the legacy display type, then you need to assign a key to behave as the Aux key. You can assign the Aux key to be either the  Water Discharge, the  Oscillate key, or to no key.

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9.2.5 WiFi Module Firmware Update

From time to time, the firmware running in the Wireless Remote Controller WiFi module will require updating. Reasons requiring an update are most likely the result of adding more features to the Web Browser interface.

To update the WiFi Module firmware, perform the following steps.

1. Download **60xx000x_Rx-x.bin** from *akronbrass.com* 6047 product page and store it on your PC.
2. Enable 6047 WiFi module, connect to *akronbrass* WiFi access point, browse to *akronbrass.net*.
3. Click on WiFi Module FW Update
4. Click the Choose File button and browse to the file location for 60xx000x_Rx-x.bin and select it.
5. Click on the Update button and wait for the web page pop-up indicating Success. This should take about two minutes.

NOTICE

Only one Wireless Remote Controller can be connected to the akronbrass WiFi network, so make sure the device requiring the update is only one connected.

ABM Wi-Fi Module Update
FW Rev 1.0.0087

Select File to Upload

Choose File No file chosen

Update

This may take several minutes

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9.2.6 WiFi Host Firmware Update

From time to time, the firmware running in the Wireless Remote Controller host microcontroller will require updating. Reasons requiring an update are most likely the result of adding more features to the Web Browser interface, or to support more functionality added to monitors.

To update the host microcontroller, perform the following steps.

1. Download **60470001_Rx-x.hex** from the *akronbrass.com* 6047 product page and store it on your PC.
2. Enable the 6047 WiFi module, connect to *akronbrass* WiFi access point, browse to *akronbrass.net*.
3. Click on WiFi Host FW Update **Note:** Do not press any key on the 6047 during this procedure.
4. Click the Choose File button and browse to the file location for 60470001_Rx-x.hex and select it.
5. Click on the Upload button and wait for the web page pop-up indicating Success. This should take about two minutes.

ABM Device Update

Select File to Upload

Choose File No file chosen

Upload

This may take several minutes

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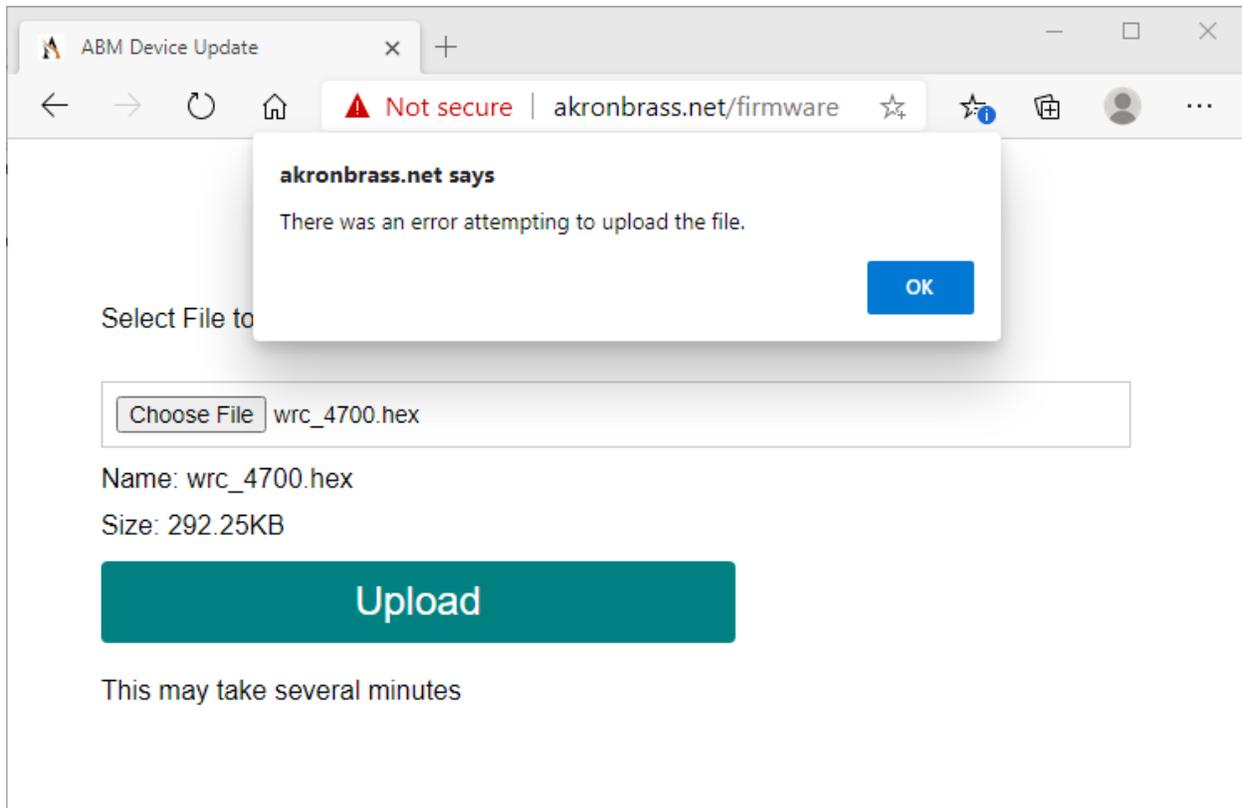


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9.2.7 Firmware Update Failure

If the firmware update of 9.2.5, or 9.2.6 didn't succeed, you will see a web page pop-up indicating a failure to upload the file. If this has occurred, perform the following steps.

1. Disconnect from the *akronbrass* WiFi access point.
2. Wait at least 1 minute.
3. Press any key on the 6047.
4. Re-connect to the *akronbrass* WiFi access point.
5. Browse to *akronbrass.net/firmware*
6. Choose the file again and click the Upload button.



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10. KEY FUNCTION SHORTCUT TABLE

One or Two Keys Pressed		Duration	Action	Comment
Monitor 1	Function	Long	Synchronize Monitor 1	Synchronize Monitor 1 key to control monitor 1.
Monitor 2	Function	Long	Synchronize Monitor 2	Synchronize Monitor 2 key to control monitor 2.
Monitor 1	Straight Stream	Long	Monitor 1 Setup Mode	Put monitor 1 in configuration mode.
Monitor 2	Straight Stream	Long	Monitor 2 Setup Mode	Put monitor 2 in configuration mode.
Function	Up / Down	Short	Increase / Decrease LED brightness	
Monitor 1		Hold	Battery and Signal Level	Circle shows battery levels; vertical bar shows Monitor 1 signal.
Monitor 2		Hold	Battery and Signal Level	Circle shows battery levels; vertical bar shows Monitor 2 signal.
Stow / Deploy		Long	Stow if Deployed	Monitor color when deployed, red when stowed.
Stow / Deploy		Long	Deploy if Stowed	Red when stowed, monitor color when deployed.
Straight Stream	Function	Long	Device Configuration	Turns on Wi-Fi access point.
Stow / Deploy	Function	Short	Deploy Configuration	Monitor color when function key pressed in setup mode.
Stow / Deploy		Short	Stow Configuration	Red color in setup mode.
Oscillate		Any	Set Oscillation Stops	Flashing when oscillating or paused.
Oscillate	Function	Short	Pause / Resume Oscillation	Red when function key is pressed during oscillation.
Water Discharge		Short	Water Discharge	Control per monitor configuration.
Straight Stream		Short	Command nozzle to move towards straight stream	“
Fog Stream		Short	Command nozzle to move towards fog stream	“
Up		Short	Up	“
Down		Short	Down	“
Left		Short	Left	“
Right		Short	Right	“
Monitor 1	Monitor 2	Long	Restart Device	Reset the wireless controller.
Monitor 1	Fog Stream	Long	Restart Monitor 1	Reset monitor 1.
Monitor 2	Fog Stream	Long	Restart Monitor 2	Reset monitor 2.

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11. FREQUENTLY ASKED QUESTIONS

What kind of battery life does it have? With both batteries installed, you can expect 24 hours of continuous run time.

What kind of batteries does it take? The new Wireless Remote Controller uses lithium-ion rechargeable batteries Akron Brass P/N 60470008.

Will the new Wireless Remote Controller work with my existing monitor/wireless receiver? Yes, although there are several things needed to take advantage of all the new features. You will need to update the firmware in your wireless receiver. Also, the position indicator function requires a monitor with position feedback, just like our current hardware.

How do I sync the Wireless Remote Controller with my monitor? With the monitor and remote powered up, press and hold the  Monitor 1 or  Monitor 2 key along with the  Function key for several seconds.

How do I get into the setup menu with this Wireless Remote Controller? With both the monitor and remote powered on, simply press and hold the  Monitor 1 or  Monitor 2 key along with the  Straight Stream for 4 seconds. If display type for the active monitor is legacy, then the  Straight Stream key must be held when powering on the monitor.

How do I read setup codes or fault codes on the new remote? See Section 8.9 and 8.10 of this manual.

How do I control a valve with this remote? First, you need to have a valve connected to the monitor and have it properly assigned and calibrated. The monitor will open and close its assigned valve when the  Water Discharge key is pressed. Only a CAN valve supports viewing the valve position on the Wireless Remote Controller.

12. REPLACEMENT PARTS

Part Number	Description
60470008	2-Pack of Li-ion batteries
60470010	Tenergy TN471U 2-bay Universal Battery Charger
60470004	Button Tile Replacement Kit
60470005	Battery Cap Replacement Kit
60470009	Mounting Bracket

13. WARRANTY STATEMENT

WARRANTY AND DISCLAIMER*: We warrant Akron Brass products for a period of one (1) year after purchase against defects in materials or workmanship. Akron Brass will repair or replace product which fails to satisfy this warranty. Repair or replacement shall be at the discretion of Akron Brass. Products must be promptly returned to Akron Brass for warranty service. We will not be responsible for: wear and tear; a failure due to having used any battery in the wireless remote controller other than Akron Brass P/N 60470008, any improper installation, use, maintenance or storage; negligence of the owner or user; repair or modification after delivery; failure to follow our instructions or recommendations; or anything else beyond our control. WE MAKE NO WARRANTIES, EXPRESS OR IMPLIED, OTHER THAN THOSE INCLUDED IN THIS WARRANTY STATEMENT, AND WE DISCLAIM ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. Further, we will not be responsible for any consequential, incidental or indirect damages (including, but not limited to, any loss of profits) from any cause whatsoever. No person has authority to change this warranty.

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