

WATTS A2C-SC IntelliFlow Washing Machine Smart Water **Shutoff Instruction Manual**

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Installation Instructions IntelliFlow® Washing Machine Smart Water Shutoff Model A2C-SC / A2C-SC-WB



Leak Sensor





Read this Manual BEFORE using this equipment.

Failure to read and follow all safety and use information can result in death, serious personal injury, property damage, or damage to the equipment. Visit Watts.com with any questions. K eep this Manual for future reference.

NOTICE

This unit is not compatible with 240VAC powered washing machines or combination washers/dryers that are 240VAC powered. A Watts A2-IntelliTimer (purchased separately) may be used with the IntelliFlow® with washing machines or washer/dryers that are 240VAC powered. (See page 5).

This valve requires a 120VAC, 60 Hz, 20 amp ground fault protected circuit. *Ground Fault Interrupter – A GFI circuit is not required for proper operation of the IntelliFlow® but is strongly recommended as a safety device.

AWARNING

Surge Protection – Although a surge protector is not required for proper operation of the IntelliFlow, it is strongly recommended, especially in areas where power surges or lightning strikes frequently occur.

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Operating Instructions

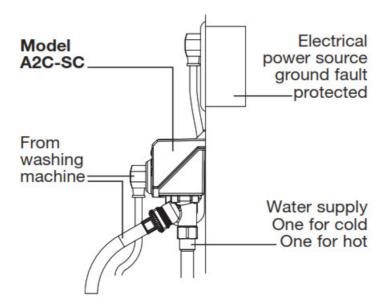
The Series A2C-SC IntelliFlow® Washing Machine Smart Water Shutoff senses your washing machine's current flow and shuts off the water supply if an inlet hose bursts. It can also connect to your local WiFi network to send you real-time text and email alerts in the event of a leak.

The IntelliFlow is equipped with a state-of-the-art electric current sensing device. When a wash cycle is started, the IntelliFlow senses the electric current flowing to the washing machine and opens the supply of water to the

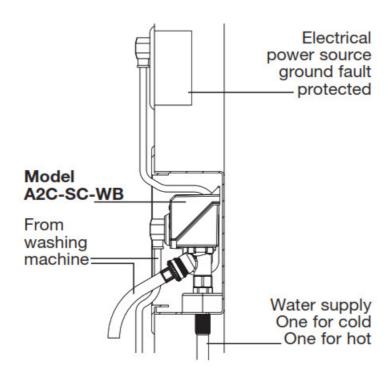
washing machine. Once the full wash cycle is complete, the device senses the low current and closes the water inlet valves, which remain closed until the machine is used again.

The floor-mounted leak sensor provides additional protection from water damage while the washing machine is in use. When water is detected at the sensor, water flow to the washing machine hose is immediately shut off.

By installing an IntelliFlow, you're helping to protect your home from potential major water damage from a burst or leaking washing machine inlet hose.



 $\frac{1}{2}$ " solder connectors for exposed piping Standardly furnished with $\frac{1}{2}$ " solder copper adapters. Either connection may be used for the hot or cold water supply.



Includes wall mount box. Wall mount box has water inlet connection holes spaced 2 %" center to center. Furnished with ½" solder connectors. Either connection may be used for the hot or cold water supply.

Setting Up and Registering your Connected IntelliFlow®

Before beginning, this procedure, ensure that there is both power and WiFi available to the IntelliFlow unit. In the event that no WiFi is enabled, your IntelliFlow unit will still protect from leaks as long as it is powered on. It can be registered at a later time.

Install the IntelliFlow unit in accordance with the installation instructions previously listed.

First, power the device on and wait for the blue light to start blinking. To begin the connection process, on your device, scan for new WiFi networks and select SSID WattsDeviceSetup-xxxxx. In order to connect to the network, enter the password "intelliflow".

Next, scan the QR code on the product hangtag/outlet sticker. If these are missing or removed, visit http://10.10.0.1/ to proceed with setup.



The setup process is a 4-step procedure. These steps must be completed sequentially.

- 1. Product Registration This step registers your Connected IntelliFlow.
 - a. Required Information: Full name, States/Province, ZIP/Postal Code
 - b. Optional Information: Full address
- 2. Washing Machine This step sets up your washing machine profile.
 - a. Select the voltage supplied to your washing machine.
 - b. Optionally, enter the Brand and Model Number for your washing machine.
- 3. Notifications This step will enable the Connected IntelliFlow to send notifications in the event a leak is detected.
 - a. Required information: Email address
 - b. Optional information: Mobile phone number
- 4. Connect This step will connect your Connected IntelliFlow to the WiFi network of your choosing.
 - a. Select the WiFi network you wish to connect to. Please ensure that the WiFi is 2.4 Ghz. IntelliFlow doesn't support 5 Ghz networks. i. If your network does not appear, it can be entered manually by selecting "Other Network." ii. Enter WiFi network name.
 - b. Enter your WiFi network password. Upon completion of the 4th step, your Connected IntelliFlow will send a test notification to the email address and optional mobile phone number specified in step 3.

To reset your Connected IntelliFlow and clear all stored WiFi network and notification information, hold down the black button on the front of the unit for 10 seconds. The above set-up procedure can then be completed to reregister your Connected IntelliFlow.

If you do not want to connect the IntelliFlow to a WiFi network, press and hold the black reset button for 3 seconds to disable WiFi connectivity. WiFi can be re-enabled by holding the reset button for 3 seconds. If the IntelliFlow has been registered prior to disabling WiFi, the device will automatically re-connect upon re-enabling WiFi if the registered WiFi network is active with the same password.

Operating Specifications

Electrical Rating: 120VAC, 60 Hz

Circuit Breaker Requirements: 20A GFI*
Max. Appliance Current Rating: 15A
Current Draw: 20mA (with appliance off)
Electrical Cord: 6 ft. type SJT 14 AWG
Max. Temperature: 180°F (82°C)

Max. Operating Pressure Differential: 80 psi (5.5 bar)

Valve Body: Reinforced Polysulfone Rubber Goods: Buna-N, EPDM

Max. Pressure: 150psi (10.3 bar)

*Ground Fault Interrupter – A GFI circuit is not required for proper operation of the IntelliFlow but is strongly recommended as a safety device. In accordance with National Electric Code, NFPA 70, Section 210.11 Branch Circuits Required, at least one 20-ampere branch circuit shall be provided to supply the laundry receptacle outlets(s) required by Section 210.52(F). This circuit shall have no other outlets.



*Surge Protection – Although a surge protector is not required for proper operation of the IntelliFlow, it is strongly recommended, especially in areas where power surges or lightning strikes frequently occur.

Installing the A2C-SC IntelliFlow®



Power MUST be off during installation or servicing of the valve!

Do not plug the valve into the supply circuit until the completion of assembly.

NOTICE

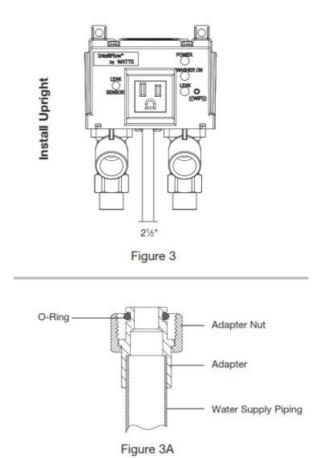
For Vertical Installation Only!

- 1. Shut off the electrical power supply to the electrical receptacle to be used with the IntelliFlow.
- 2. Shut off both hot and cold water supply lines.
- 3. If retrofitting to an existing installation, disconnect the washing machine hoses from the existing shutoff valve(s).
- 4. Loosen the two (2) adapter nuts and remove both adapters from the IntelliFlow valve body.
- 5. Place adapter nuts over piping prior to soldering adapters.
- 6. Solder adapters onto the piping.

NOTICE

Piping must be 2 %" on the center (Figure 3).

- 7. Place O-rings on adapter grooves (Figure 3A).
- 8. Align and slip the valve body over adapters. Tighten adapter nuts.



NOTICE

Use of the IntelliFlow® Washing Machine Smart Water Shutoff outlet for appliances other than a washing machine is not recommended and voids the warranty.

NOTICE

Do not over-tighten nuts.

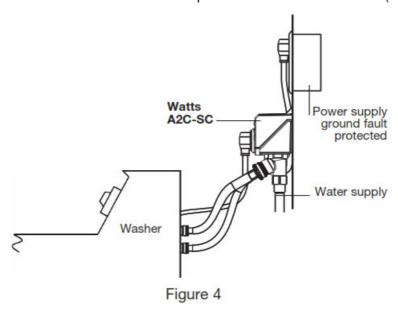
To avoid cross-threading, check thread alignment.

- 9. Connect the washing machine hoses to IntelliFlow's hot and cold water outlets.
- 10. Plug the washing machine into IntelliFlow's electrical outlet.

NOTICE

Appliance current rating must not exceed 15 amps.

11. Plug the IntelliFlow's power cord into the electrical receptacle that has been turned off (Figure 4).



The IntelliFlow requires a 120VAC, 60Hz, 15 amp ground-fault protected receptacle.*

Install leak sensor.

*Ground Fault Interrupter – A GFI circuit is not required for proper operation of the IntelliFlow but is strongly recommended as a safety device.

NOTICE

The IntelliFlow will detect any current flow to the washing machine when the washing machine is off. During startup or at any time during troubleshooting, the IntelliFlow valve can be reset to OFF condition by unplugging and reinstalling the leak sensor.

- 13. Turn on both hot and cold water supply lines, and check for leaks.
- 14. If there are no leaks, make sure the hoses are connected and turn the electrical power back on.
- 15. Installation/activation procedure for connected IntelliFlow.

NOTICE

Do not plug the valve into the electrical supply circuit until you have completed installing the unit and reconnecting the water supply lines.

Installing the IntelliFlow® Wall Box Unit (A2C-SC-WB)

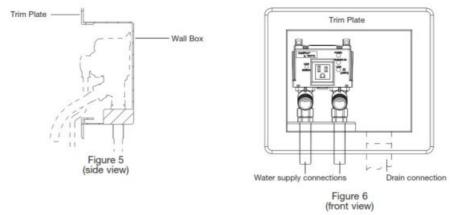


Power MUST be off during installation or servicing of the valve!

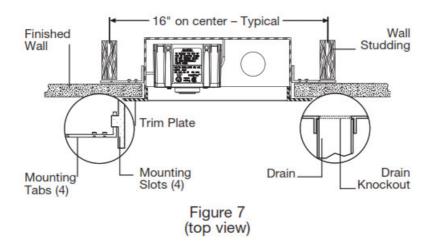
Do not plug the valve into the supply circuit until completion of assembly.

NOTICE For Vertical Installation Only!

- 1. Shut off the electrical power supply to the electrical receptacle to be used with the IntelliFlow.
- 2. Shut off both hot and cold water supply lines.
- 3. Remove trim plate (Fig. Nos. 5 & 6) and set it aside until you've completed wall finishing (painting, wallpapering, paneling, etc.).



- 4. Install the four mounting tabs provided in slots on the sides of the wall box enclosure (Fig. No. 7).
- 5. Position the A2C-SC-WB between the wall studs as shown in Fig. No. 7. Check that it is level and fasten the mounting tabs to the studs.
- 6. Remove drain plug knock out. Install drain piping and water supply piping to the appropriate IntelliFlow connection. Either IntelliFlow connection may be used for the hot or cold water supply.



NOTICE

Excessive heat from soldering can damage plastic components. Use a heat sink to prevent damage.

- 7. Place O-rings on adapter grooves (Figure No. 3A).
- 8. Align and slip the valve body over adapters. Tighten adapter nuts.

NOTICE

Do not overtighten nuts. To avoid cross-threading, check thread alignment.

- 9. Prior to installing wall materials, turn on the water supply (both hot and cold) and test for leaks. Test drain piping for leaks.
- 10. Turn off the water supply until you've completed installing wall materials.

NOTICE

Installation must comply with local codes and ordinances. Inspection and approval of installation by local authorities may be required prior to installation of wall material. Check with local plumbing authorities for requirements.

- 11. Once you've finished the wall, install a trim plate, connect washing machine water supply hoses to the IntelliFlow valve and to the washing machine.
- 12. Plug the washing machine into IntelliFlow's electrical outlet.

NOTICE

Appliance current rating must not exceed 15 amps.

13. Insert the IntelliFlow's power cord into the electrical receptacle that has been turned off

NOTICE

The IntelliFlow requires a 120VAC, 60Hz, 15 amp ground-fault protected receptacle.*

14. Install leak sensor.

NOTICE

The IntelliFlow will detect any current flow to the washing machine when the washing machine is off. During startup or at any time during troubleshooting, the IntelliFlow valve can be reset to OFF condition by unplugging and reinstalling the leak sensor.

- 15. Turn on both hot and cold water supply lines, and check for leaks.
- 16. If there are no leaks, make sure the hoses are connected and turn the electrical power back on. Installation of the IntelliFlow A2C-SC-WB Wall Box Unit is now complete.

Installing the Watts Model A2-LS Leak Sensor

Description

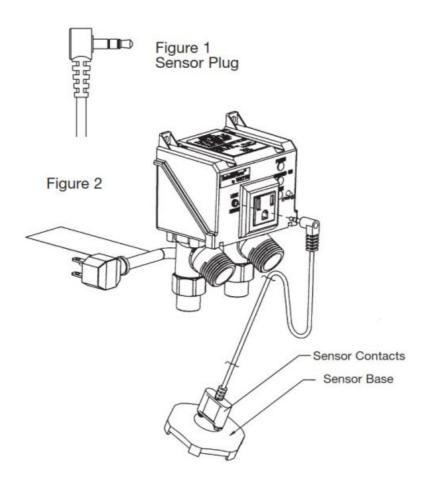
The Watts Model A2-LS Leak Sensor plugs into the receptacle on the front panel of the Watts IntelliFlow Series

A2C-SC / A2C-SC-WB. The base of the sensor is placed on the floor close to the washing machine. Upon detection of water at the sensor, the IntelliFlow immediately shuts off the water supply to the washing machine hoses in order to prevent catastrophic water damage.

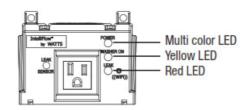
Installation

- 1. Insert the leak sensor contacts into the two holes on the top of the sensor base until the plug comes to a stop (Figure 2).
- 2. Place the sensor base on the floor behind the washing machine as close to the fill hoses as possible. Ensure that the sensor base is lying flat with all feet in contact with the floor surface.
- 3. Insert the leak sensor plug (Figure 1) into the leak sensor receptacle on the front panel (Figure 2).

Note: Some washing machine models include circuitry that causes a slight current draw at all times. These models when connected to the IntelliFlow can cause the water supply to be energized continuously (Yellow LED: ON). The IntelliFlow can be reset by unplugging and reinstalling the leak sensor.



Troubleshooting Guide



PROBLEM	SOLUTION
1.No water flow from either hot or c old water supply hose:	
la. MULTI COLOR LED: Green/Blue YELLOW LED: OFF R ED LED' OFF	 Plug the washing machine into IntelliFlow and turn on the washing ma chine. Unplug the leak sensor, wait for the Winking red light and replug it in. Start the wash cycle. hi not working, confirm that the washing machine is working
Ib. MULTI COLOR LED: GreeM3lue YELLOW LED' OFF RED LED: ON This indicates that the valve did not open	 Leak sensor has detected water. Ensure that the washing machine is off Unplug IntelliFlow from the electrical outlet Check for broken or leaking hoses or water leaks Correct problem, dry off the sensor, then re-insert plug into outlet to re set valve. Tum on the washing machine.
Ic. MULTI COLOR LEO: Green/Blue YELLOW LED: OFF R ED LED: BLINKING	 IntelliFlownntelliTime internal timing circuit has timed out. When the Y ellow LED is Off, turn off the washing machine to reset the timing circuit. Unplug and then plug back in the sensor. Tum on the washing machine.
1 d. ALL LEDs OFF	Plug IntelliFlow into the electrical outlet. Check electrical outlet for power (reset ground fault).
2. No water flow from one hose – (either Hot or Cold): MULTI COLOR LED: ON YELLOW LED: ON RED LED: OFF	Service strainers on washing machine hoses. Service strainers on IntelliFlow (see figure below). Caution prior to servicing strainers, first remove power to IntelliRow by un plugging, then shut off both hot and cold water supply to IntelliFlow. Strainer O-Ring
3. MULTI-COLOR LED: ON YELL OW LED: ON RED LEO: OFF	Some washing machine models include circuitry that causes a slight curr ent draw at all times. These models when connected to the IntelliFlow can cause the water supply to be energized continuously (Yellow LED: O N). The IntelliFlow can be reset by unplugging and reinstalling the leak se nsor. If this does not resolve this issue, the use of the A2 intelliTimer is re quired with the system in use.

4. Unit feels warm	This condition is normal. Internal operating temperatures may cause unit to feel warm to the touch.
5. Unit cycles ON/OFF	Installation in a horizontal position can cause abnormal overheating of the unit which causes this cycling condition. Unit must be installed in an uprig ht position as shown on pages 2 and 3.
6. Can't connect to WiFi Network	Check if WiR is 2.4 GHz. IntelliFlow is not compatible with 5 GHz WiFi. Make sure that the Multicolor LED is Blue. If it isn't press & hold the butto n for 3 seconds to enable Wi-FI (Blue/blinking blue). Ensure there is sufficient <i>VOA</i> signal strength, and for any firewall issues blocking communication.
7. RED LED Blinking	Indicates sensor is not plugged in. Plug in the sensor.
8. MULTI COLOR LED Blinking BL UE	Check internet connectivity on your router.
9. MULTI COLOR LED Blinking RE D	Call Watts Technical support.

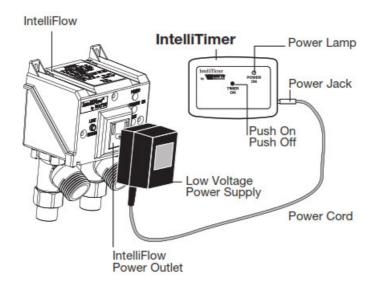
Accessories: Watts A2-IntelliTimer

The Watts A2-IntelliTimer is an optional accessory used in conjunction with the Watts IntelliFlow Washing Machine Smart Water Shutoff. It is a remote timer which allows the IntelliFlow to be used in applications where the washing machine or a combination washer/dryer is 240VAC powered. (The IntelliFlow is not compatible with 240VAC powered appliances). The timer initiates a two-hour cycle when the button is depressed.

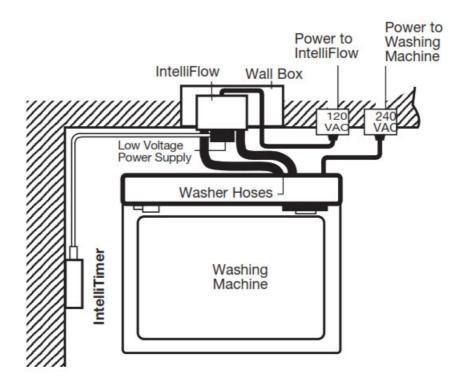


The A2-IntelliTimer low-voltage power supply is plugged into the IntelliFlow power outlet. The remote solid-state timer is installed in a location that is convenient to the user and connected to the low-voltage power supply. Activation of the push button on the timer causes the current to flow, which is detected by the IntelliFlow. The

IntelliFlow then actuates the solenoid valves, allowing water to flow to the washing machine. This also begins a timing sequence of two hours, which, upon its completion de-energizes the IntelliFlow, shutting off the flow of water to the washing machine. The timing sequence can be interrupted by activating the push-button a second time. A Green LED is illuminated whenever the A2-IntelliTimer is energized.

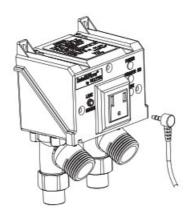


Typical Installation



Front Panel Status Indicators

GREEN LED: ON: Unit powered	This lamp is illuminated whenever the IntelliFlow is plugged into a powered wall outlet.
YELLOW LED: ON : Water supply open OFF : Water supply closed Sensor Plug	This lamp is illuminated whenever the IntelliFlow senses current flow (the washing machine is turned on). It is off when the washing machine is turned off.
	NOTICE
	Some washing machine models include circuitry that causes a slight current draw at all times. These models when connected to the IntelliFlow can cause the water supply to be energized continuously (YELLOW LED: ON).
RED LED: ON: Leak sensed	This lamp is illuminated when the leak sensor is installed and wa ter has been detected at the sensor. The water supply to the washing machine hoses are interrupted when a leak is detected.
BLINKING: Unit timed out	This lamp blinks whenever the internal timing circuit has timed o ut and has shut off the water supply to the washing machine hos es. Turning the washing machine Off then On will reset the timin g circuit.
FAINT BLINK: (3-5 seconds)	This condition indicates the leak sensor is unplugged. To provide the maximum level of protection, it is recommended that the leak sensor be installed at all times.
User Button	Press for 3 seconds to turn WiFi on or off. Press for 10 seconds to factory reset the IntelliFlow and erase all user information.



What is Surge Protection?

In many locations, changes in the AC voltage supply to the home by the electrical utility company can occur. Both lower-voltage (brownouts) and high-voltage (surges) can occur. Lightning strikes can also cause high-voltage spikes to occur.

All electronic equipment is designed to operate properly within a voltage range. However, high-voltage surges or spikes can damage sensitive circuitry within electronic equipment.

Surge protectors prevent voltage spikes from reaching electronic equipment.

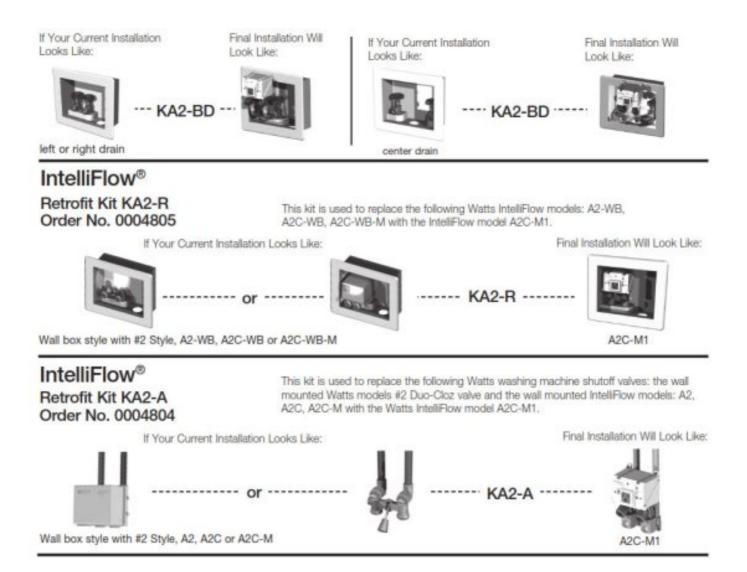
What is Ground Fault Protection?

In many locations, an electrical differential between electrical ground and a water pipe ground can exist. A person touching both grounds could receive a shock that may cause injury or death. A ground fault interrupter circuit (GFI) detects the differential and removes electrical power before an injury can occur.

The IntelliFlow does not cause or change the electrical differential that exists.

IntelliFlow® Retrofit Kit Options

IntelliFlow® Retrofit Installation Kit KA2-BD Order No. 0004800



Limited Warranty: Watts (the "Company") warrants each product to be free from defects in material and workmanship under normal usage for a period of one year from the date of original shipment. In the event of such defects within the warranty period, the Company will, at its option, replace or recondition the product without charge.

THE WARRANTY SET FORTH HEREIN IS GIVEN EXPRESSLY AND IS THE ONLY WARRANTY GIVEN BY THE COMPANY WITH RESPECT TO THE PRODUCT. THE COMPANY MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED. THE COMPANY HEREBY SPECIFICALLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

The remedy described in the first paragraph of this warranty shall constitute the sole and exclusive remedy for breach of warranty, and the Company shall not be responsible for any incidental, special, or consequential damages, including without limitation, lost profits, or the cost of repairing or replacing other property which is damaged if this product does not work properly, other costs resulting from labor charges, delays, vandalism, negligence, fouling caused by foreign material, damage from adverse water conditions, chemical, or any other circumstances over which the Company has no control. This warranty shall be invalidated by any abuse, misuse, misapplication, improper installation, or improper maintenance or alteration of the product. Some states do not allow limitations on how long an implied warranty lasts, and some states do not allow the exclusion or limitation of incidental or consequential damages. Therefore the above limitations may not apply to you. This Limited Warranty gives you specific legal rights, and you may have other rights that vary from State to State. You should consult applicable state laws to determine your rights. SO FAR AS IS CONSISTENT WITH APPLICABLE STATE LAW, ANY IMPLIED WARRANTIES THAT MAY NOT BE DISCLAIMED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND

FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO ONE YEAR FROM THE DATE OF ORIGINAL SHIPMENT.



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Documents / Resources



WATTS A2C-SC IntelliFlow Washing Machine Smart Water Shutoff [pdf] Instruction Manual A2C-SC, A2C-SC-WB, IntelliFlow Washing Machine Smart Water Shutoff

References

• Watts | Plumbing, Heating and Water Quality Solutions

Manuals+,