

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

### Operating Instructions and Parts Manual

### Sumps



Scan the QR code or visit [www.waynepumps.com](http://www.waynepumps.com) for the full manual in English and Español. If you are having trouble scanning the QR code, type the following URL into your internet browser to access the manual, [www.waynepumps.com/wayne-operating-manuals/](http://www.waynepumps.com/wayne-operating-manuals/)

#### SPECIFICATIONS

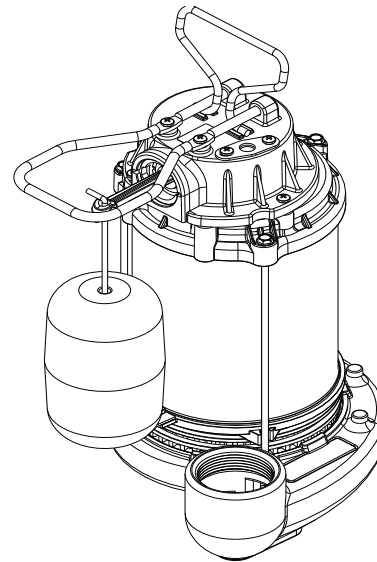
<b>POWER SUPPLY REQUIREMENTS</b>	120 V, 60 Hz
<b>MOTOR</b>	Single Phase, Dielectric Oil Filled
<b>HORSEPOWER</b>	1 HP ..... (CDU1000) 3/4 HP ..... (CDU980E) 1/2 HP..... (CDU800SS, CICDU800 ..... CDU800, SPF50, CDT50) 1/3 HP ..... (CDU790SS, CICDU790, ..... CDU790, SPF33, WST33)
<b>CIRCUIT REQUIREMENTS</b>	15 A (minimum)
<b>DIMENSIONS</b>	11-1/2 in. high x 9-3/4 in. base
<b>ON LEVEL (FACTORY SET)</b>	Vertical: Approximately 9 in. Tether: Approximately 13 in.
<b>OFF LEVEL (FACTORY SET)</b>	Vertical: Approximately 4 in. Tether: Approximately 7 in.

#### CONSTRUCTION

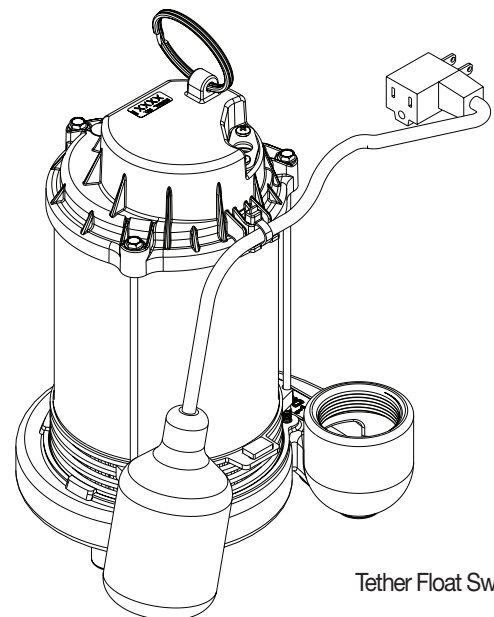
<b>MOTOR HOUSING</b>	Cast Iron (CICDU800, CICDU790) Stainless Steel (CDU1000, CDU980E, CDU800SS, CDU790SS) Coated Steel (CDU800, CDU790, SPF33, SPF50, CDT50) Reinforced Thermoplastic (WST33)	
<b>VOLUTE</b>	<u>CDU1000, CDU980E, CDU800, CDU800SS, CICDU800</u> <u>CDU790, CDU790SS, CICDU790, CDT50</u> Cast Iron	<u>SPF33, SPF50, WST33</u>  Glass Reinforced Thermoplastic
<b>IMPELLER</b>	Glass Reinforced Thermoplastic	
<b>SHAFT</b>	Steel	
<b>DISCHARGE</b>	1-1/2 in. NPT	

#### PERFORMANCE GAL/HR

Model	HP	Discharge Head (Lift Distance)				
		0 ft	5 ft	10 ft	15 ft	20 ft
CDU1000	1	6100	5460	5100	4560	3840
CDU980E	3/4	5490	5076	4600	4100	3500
CDU800SS, CICDU800, CDU800, CDT50	1/2	5100	4500	3840	3060	2040
CDU790SS, CICDU790, CDU790	1/3	4600	3810	3060	2220	1200
SPF50	1/2	4300	3900	3360	2700	1260
SPF33	1/3	3750	3300	2718	1920	-
WST33	1/3	3000	2610	2130	1404	400



Vertical Float Switch



Tether Float Switch

\*Images are for illustration purposes only.  
Not all models are shown.

Intended for Indoor Use Only

[www.waynepumps.com](http://www.waynepumps.com)

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# INSTALLATION MANUAL

## SUMP PUMP DESCRIPTION

Sump pumps are automatic pumps used to remove ground water from sump pits. The most common application is for basement drainage to prevent flooding in residential buildings. These sumps are designed to pump clear water only. These pumps are not designed to be used with a portable generator. These pumps are intended for indoor use only.

Intended for indoor use only. Installation of this pump outdoors, unprotected from the weather, may cause hazardous conditions and will void warranty. If using outdoors, protect pump from direct weather elements such as sun, rain, sleet, snow, and extreme temperature changes. Water inside the pump may freeze, limiting its performance and damaging the pump and pipes.

## UNPACKING

Inspect this unit before it is used. Occasionally, products are damaged during shipment. If the pump or components are damaged, return the unit to the place of purchase for replacement, or call Customer Support (800-237-0987)

## SAFETY SIGNAL WORDS

This manual contains information that is very important to know and understand. This information is provided for SAFETY and to PREVENT EQUIPMENT PROBLEMS. To help recognize this information, observe all safety information labeled danger, warning, caution, and notice.

## IMPORTANT SAFETY INFORMATION

### **WARNING**

**WARNING INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN DEATH OR SERIOUS INJURY.**

**RISK OF ELECTRIC SHOCK. TO REDUCE THIS RISK, OBSERVE THE FOLLOWING WARNINGS:**



**MAKE SURE THERE IS A PROPERLY GROUNDED RECEPTACLE AVAILABLE.** This pump is supplied with a grounding conductor and grounding-type attachment plug. To reduce the risk of electric shock, be certain that it is connected only to a properly grounded, grounding-type receptacle.

**FOR ADDED SAFETY** the receptacle must be protected with a ground fault circuit interrupter (GFCI). All wiring must be performed by a qualified licensed electrician and comply with the National Electric Code and all applicable local codes and ordinances.

**NEVER REMOVE THE GROUND PRONG** from the plug or bypass the grounding wires.

**MAKE SURE THE POWER SUPPLY HAS A FUSE OR CIRCUIT BREAKER** rated to handle the current (amps) noted on the pump nameplate or cord tag.

**ALWAYS DISCONNECT THE PUMP** from power supply before installing, servicing or making any adjustments.

**DO NOT WALK** on the floor when water is present until all power is turned off. If the electric panel is in the basement, call an electrician.

**NEVER HANDLE A PUMP** or motor with wet hands or when standing on a wet or damp floor while the pump is plugged into the power supply.

**RISK OF ELECTRIC SHOCK.** This pump has not been investigated for use in swimming pool and marine areas.

**DO NOT USE TO PUMP FLAMMABLE OR EXPLOSIVE FLUIDS** such as gasoline, fuel oil, kerosene, etc. Do not use in a flammable and/or explosive atmosphere. Pump should only be used to pump clear water. Personal injury and/or property damage will result and void warranty.

**PUMPS ARE NOT DESIGNED TO TRANSFER WATER INTENDED FOR DRINKING.** Do not use the pump for moving water that will be used for potable/drinking water. Pump should only be used in applications for which it is designed.

### **WARNING**

**DO NOT USE AN EXTENSION CORD OR SURGE PROTECTOR.** Extension cords and/or surge protectors could present a safety hazard if not sized properly, become damaged or the connection falls into the sump. If receptacle is not within reach of the pump's power cord, contact a qualified licensed electrician to install a new receptacle.

### **CAUTION**

**CAUTION INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, MAY RESULT IN MINOR OR MODERATE INJURY.**

**TO REDUCE THE RISK OF HAZARDS THAT CAN CAUSE INJURY OR PROPERTY DAMAGE, OBSERVE THE FOLLOWING WARNINGS:**



PLEASE SEE [WWW.WAYNEPUMPS.COM](http://WWW.WAYNEPUMPS.COM) FOR PRODUCT INFORMATION AND INSTALLATION VIDEOS

**IT IS THE INSTALLER'S RESPONSIBILITY TO MAKE SURE THE PUMPS AUTOMATIC SWITCH IS ABLE TO OPERATE WITHOUT ANY OBSTRUCTIONS WITHIN THE BASIN.** It is recommended that the installer test and observe the pump's operation for several cycles after installation.

**IT IS REQUIRED TO USE RIGID PIPING AND FITTINGS** to secure the pump in the basin and reduce pump movement. Pump movement can prevent the switch from operating correctly. Do not use flexible hosing.

**IT IS REQUIRED TO USE A CHECK VALVE** with this pump to prevent the back-flow of water after each pump cycle.

**DO NOT INSTALL OR OPERATE THE PUMP IF IT HAS BEEN DAMAGED IN ANY WAY.**

**DO NOT LIFT OR CARRY THE PUMP BY THE POWER CORD.** Use the pump's handle or lift ring.

**DO NOT USE THIS PUMP IN MUD, SAND, CEMENT, OIL CHEMICALS, GREY WATER, OR ANY OTHER WATER THAT IS NOT CLEAR GROUND WATER.**

**DO NOT USE SUMP PUMPS TO HANDLE RAW SEWAGE.**

**AN INDEPENDENT HIGH WATER ALARM OR BACK UP PUMP SHOULD BE USED** when risk of property damage from high water levels exists.

**REPLACE THE TETHER SWITCH EVERY TWO (2) YEARS.** This required maintenance will reduce the risk of improper pump operation, switch failure and/or flooding.

## CALIFORNIA PROPOSITION 65

### **WARNING**

This product can expose you to chemicals, including DEHP, which is known to the State of California to cause cancer, birth defects and reproductive harm. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

### **WARNING**

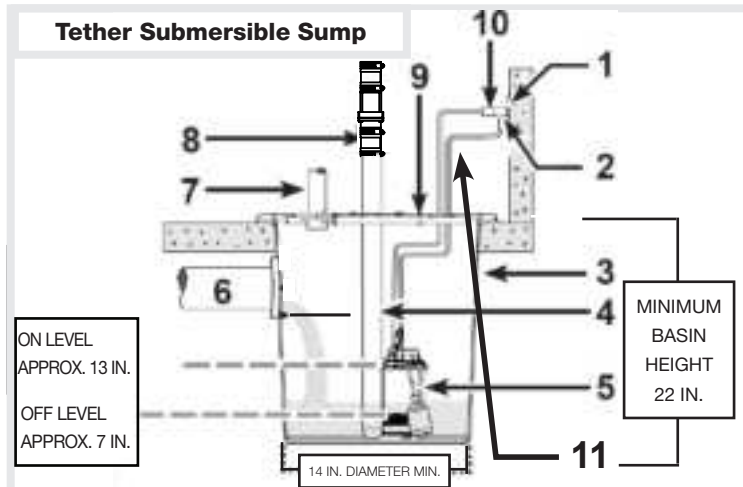
**TETHER FLOAT SWITCH** This float is not adjustable. By adjusting the tether switch it can affect the specifications of the application of the pump and can change the life expectancy of the unit.

# INSTALLATION MANUAL

## TYPICAL SUMP INSTALLATION

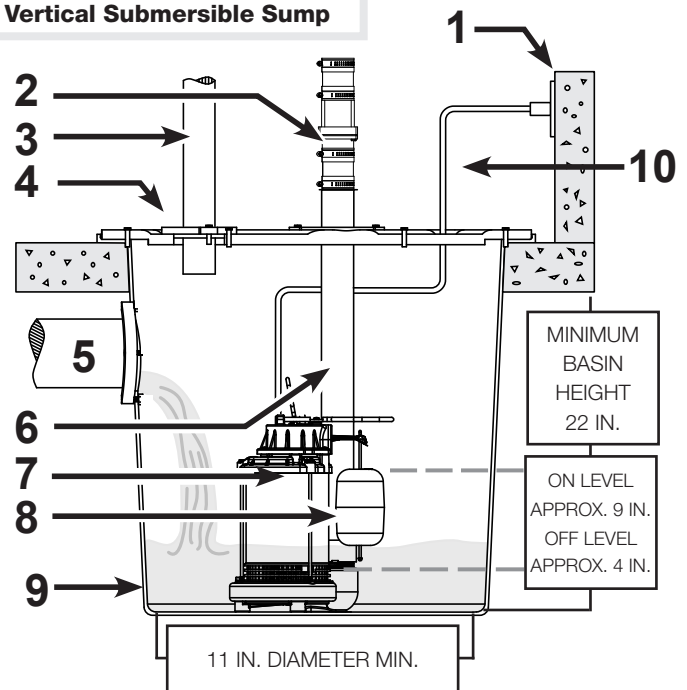
1. This installation must be in accordance with the National Electric Code and all applicable local codes and ordinances.
2. Use a basin (purchased separately) or pit that is large enough to accommodate the pump.
3. Clean the basin/pit of all debris.
4. If using a basin, place the pump directly on the bottom of the basin. To prevent damage set the pump on a solid, level surface. Do not place pump directly on clay, earth, gravel or sand. A brick or block must be installed under the pump to provide a solid base.
5. Position pump so the switch is away from the inlet so switch is clear from incoming water. Verify the switch has at least 1 in. clearance to the side wall of the basin and is free to move throughout its movement. If optional control device or float is used, follow mounting instruction supplied with device or float.
6. Install discharge plumbing according to local, regional and state codes. Rigid PVC pipe is required. Do not use flex hosing in a permanent application.
7. Install a check valve (required) to prevent back-flow. The Wayne check valve (57028-001) may be positioned just above the basin to allow easy removal of the pump for cleaning and service.
8. Install a gate valve or ball valve if required by local, regional or state code.
9. Secure power supply cord to discharge pipe using cable or zip ties to prevent possible switch entanglement.
10. Connect pump power supply cord to a ground fault circuit interrupter (GFCI) receptacle.
11. Fill the basin/pit with water. The pump will start when the water level has reached the switch-on level.
12. The pump will stop when the water level has reached the switch-off level.
13. Verify the switch is operating without any obstruction from the pump, piping and basin.
14. Fill the basin/pit with water again. While the pump is draining the basin/pit, verify the discharge pipe is carrying the water to a point at least 3 ft. away from the foundation. If the discharge line is exposed to freezing temperatures, the pipe must be positioned in a downward slope away from the foundation so any remaining water will drain away and not freeze.
15. Secure the basin cover and gasket to the basin to prevent debris from falling into the basin, prevent personal injury, and to contain gases and/or odors.

### Tether Submersible Sump



- |                         |                              |
|-------------------------|------------------------------|
| 1. GFCI GROUNDED OUTLET | 7. VENT PIPE                 |
| 2. PIGGYBACK PLUG       | 8. CHECK VALVE               |
| 3. BASIN                | 9. GASKET/BASIN LID          |
| 4. DISCHARGE PIPE       | 10. PUMP POWER CORD          |
| 5. PUMP                 | 11. TETHER SWITCH POWER CORD |
| 6. DRAIN TILE OUTLET    |                              |

### Vertical Submersible Sump



- |                      |                   |
|----------------------|-------------------|
| 1. GFCI OUTLET       | 6. DISCHARGE PIPE |
| 2. CHECK VALVE       | 7. SUMP PUMP      |
| 3. VENT PIPE         | 8. FLOAT          |
| 4. GASKET/BASIN LID  | 9. BASIN          |
| 5. DRAIN TILE OUTLET | 10. POWER CORD    |

## TROUBLESHOOTING WARNINGS

### **WARNING**

**ALWAYS DISCONNECT THE PUMP FROM POWER SUPPLY** before installing, servicing or making any adjustments.

### **WARNING**

**LET PUMP COOL FOR A MINIMUM OF 2 HOURS BEFORE ATTEMPTING TO SERVICE.** Submersible pumps contain oil that become pressurized and hot under normal operating conditions.

1. Submersible pump models have permanently lubricated bearings and require no additional lubrication.
2. Submersible pumps contain dielectric oil for cooling. Dielectric oil can be harmful to the environment. Follow state environmental laws when disposing of pump.
3. The pump motor is equipped with automatic resetting thermal protector and may restart unexpectedly. Protector tripping is an indication of motor overloading as a result of operating the pump at low heads, excessively high or low voltage, inadequate wiring, incorrect motor conditions, or at the end of product life.

## TROUBLESHOOTING CHART

<i><b>Symptoms</b></i>	<i><b>Possible Cause(s)</b></i>	<i><b>Suggested Remedies</b></i>
Pump will not start or run	<ol style="list-style-type: none"> <li>1. Water level too low</li> <li>2. Blown fuse or tripped circuit breaker</li> <li>3. Low supply voltage</li> <li>4. Motor</li> <li>5. Switch</li> <li>6. Inlet screen clogged</li> <li>7. Switch obstruction</li> </ol>	<ol style="list-style-type: none"> <li>1. Water must be at the appropriate level to activate switch</li> <li>2. If blown, determine cause and then either replace with proper sized fuse or reset breaker</li> <li>3. Contact an electrician</li> <li>4. Replace pump</li> <li>5. Replace tether switch or replace pump</li> <li>6. Remove debris</li> <li>7. Remove obstruction to ensure free motion of switch</li> </ol>
Pump starts and stops too often	<ol style="list-style-type: none"> <li>1. Back-flow of water from discharge pipe</li> <li>2. Switch</li> <li>3. Check valve not functioning properly or leaking</li> </ol>	<ol style="list-style-type: none"> <li>1. Install check valve</li> <li>2. Replace tether switch or replace pump</li> <li>3. Remove and examine check valve for proper installation and free operation. Replace check valve if necessary.</li> </ol>
Pump shuts off and turns on independently of switch (trips thermal overload protection)	<ol style="list-style-type: none"> <li>1. Excessive water temperature</li> <li>2. Switch</li> <li>3. Switch obstruction</li> <li>4. Obstruction in discharge pipe</li> <li>5. Low supply voltage</li> </ol>	<ol style="list-style-type: none"> <li>1. Pump should not be used for water above 77° F</li> <li>2. Replace tether switch or replace pump</li> <li>3. Remove obstruction to ensure free motion of switch</li> <li>4. Remove obstruction in discharge piping</li> <li>5. Contact an electrician</li> </ol>

# INSTALLATION MANUAL

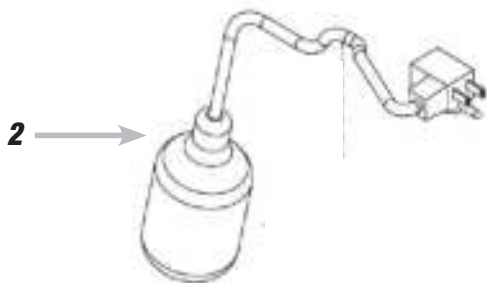
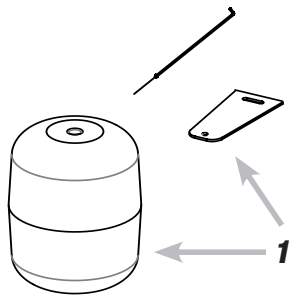
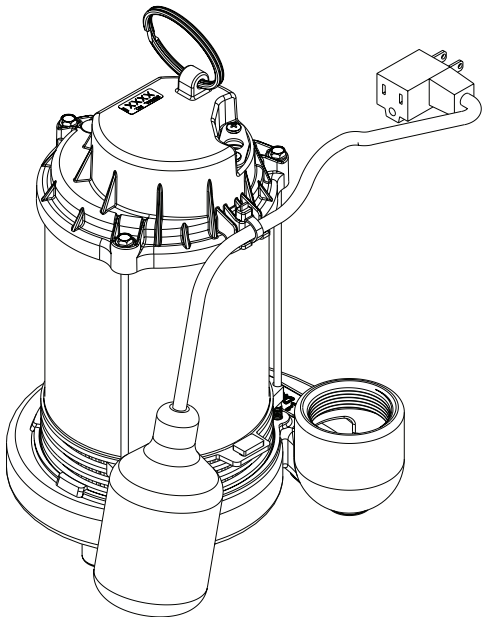
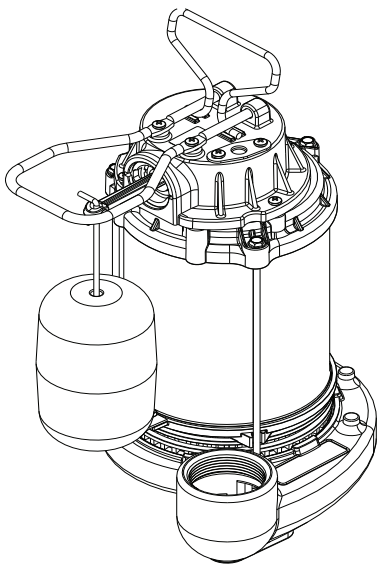
## TROUBLESHOOTING CHART (CONTINUED)

<i>Symptoms</i>	<i>Possible Cause(s)</i>	<i>Suggested Remedies</i>
Pump trips GFCI	1. Bad GFCI 2. Bad pump	1. Contact an electrician to replace GFCI 2. Replace pump
Pump operates noisily or vibrates excessively	1. Worn bearings 2. Impeller broken 3. Piping attachments to building structure too rigid or too loose	1. Replace pump 2. Replace pump 3. Install rubber coupling (available at local hardware stores) to isolate pump vibration from discharge plumbing
Pump will not shut off	1. Switch 2. Switch obstructions 3. Restricted discharge (obstruction in piping) 4. Excessive inflow or pump not properly sized for application	1. Replace tether switch or replace pump 2. Remove obstruction to ensure free motion of switch 3. Remove obstruction from discharge piping 4. Recheck all sizing calculations to determine proper pump size
Pump operates but delivers little or no water	1. Low supply voltage 2. Inlet screen clogged 3. Broken impeller 4. Pump not properly sized for application 5. Check valve stuck closed or installed backwards 6. Shut off valve closed	1. Contact an electrician 2. Remove debris 3. Replace pump 4. Recheck all sizing calculations to determine proper pump size 5. Remove and examine check valve for proper installation and free operation 6. Open valve

## ROUTINE SUMP MAINTENANCE

The pump should be inspected 3-4 times per year for pump movement or buildup of debris on the switch or float. Reposition pump if it has moved. Remove any debris that could interfere with the operation of the switch. Lack of proper routine maintenance will void warranty.

- Make sure the pump is plugged in to a working ground fault circuit interrupter (GFCI) outlet and the cord is in good shape. In damp areas, GFCI breakers may trip, effectively shutting off the sump pump. Check in on your sump pump and reset the GFCI if necessary.
- Ensure the pump is standing upright. Vibrations during operation can cause it to fall or tilt onto one side. This can jam the float so it can't activate the pump.
- Pour a bucket of water into the pit to make sure the pump starts automatically and the water drains quickly once the pump is on. If the pump doesn't start, have it serviced or replaced.
- Check the inlet screen and clear away any small stones or debris.
- Replace the tether switch every two (2) years. This maintenance is required and will reduce the risk of improper pump operation, switch failure and/or flooding.



REPAIR KITS		
REF. NO.	DESCRIPTION	PART NUMBER
1	FLOAT KIT	60038-WYN1
2	TETHER SWITCH	56835-002



# INSTALLATION MANUAL

**FOR REPLACEMENT  
PARTS OR CUSTOMER SUPPORT,  
CALL 1-800-237-0987**

**ADDRESS PARTS CORRESPONDENCE TO:  
WAYNE Water Systems  
101 Production Drive  
Harrison, OH 45030 U.S.A.**

***Please provide following information:***

- Model number
- Serial number on cord tag (not to be removed)
- Part description and number as shown in parts list

## LIMITED WARRANTY

This Limited Warranty can also be found online at [www.waynepumps.com](http://www.waynepumps.com) and in the documentation we provide with the Product.

### **WHAT DOES THIS WARRANTY COVER?**

This Limited Warranty covers defects in materials and workmanship of Wayne sump pump models SPF33, SPF50, CDT50, WST33, CDU790, CDU800, CDU790SS, CICDU790, CDU800SS, CICDU800, CDU980E, and CDU1000 (a "Product") manufactured by Wayne Water ("we") for the Warranty Period as defined below.

### **WHO MAY USE THIS WARRANTY?**

This Limited Warranty is extended only to the consumer who originally purchased the Product ("you"). It does not extend to any subsequent owner or other transferee of the Product.

### **HOW LONG DOES THE COVERAGE LAST?**

This Limited Warranty starts on the date of your purchase and lasts for one year (SPF33, SPF50), two years (CDT50, WST33), three years (CDU790, CDU800), and five years (CDU790SS, CICDU790, CDU800SS, CICDU800, CDU980E, CDU1000); however, if you cannot establish proof of purchase from an authorized dealer in the form of a sales receipt or other documents that establish proof purchase from an authorized dealer ("Proof of Purchase"), then this Limited Warranty will start on the date the Product was manufactured and lasts one year (SPF33, SPF50), two years (CDT50, WST33), three years (CDU790, CDU800), and five years (CDU790SS, CICDU790, CDU800SS, CICDU800, CDU980E, CDU1000) (the "Warranty Period"). The Warranty Period is not extended if we repair or replace the Product.

We limit the duration and remedies of all implied warranties, including without limitation the warranties of merchantability and fitness for a particular purpose to the duration of the Warranty Period. Some states do not allow limitations on how long an implied warranty lasts so this limitation may not apply to you.

### **WHAT ARE YOUR REMEDIES?**

With respect to any defective Product during the Warranty Period, we will repair or replace such Product (or the defective part) free of charge. We will also pay for shipping fees to return the repaired or replacement Product to you.

### **WHAT DOES THIS WARRANTY NOT COVER?**

This Limited Warranty does not cover any damage arising from (a) external causes such as accident, abuse, misuse, neglect, or other events beyond our reasonable control, (b) improper installation, improper maintenance, improper use, or failure to follow the Product instructions, (c) modifications, or (d) normal wear and tear.

The remedies described in this Limited Warranty above are your sole and exclusive remedies for any breach of this Limited Warranty. Also, consequential and incidental damages are not recoverable under this Limited Warranty. Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you.

### **HOW DO YOU OBTAIN WARRANTY SERVICE?**

To obtain warranty service, you must call 1-800-237-0987 during the Warranty Period to obtain a Return Authorization Number ("RAN") and instructions to return the Product to us or an authorized dealer. Be prepared to provide the Product's model number and serial number and Proof of Purchase. No warranty service will be provided without an RAN. You will be responsible for all shipping fees required to deliver the Product to us or our authorized dealer.

### **HOW DOES STATE LAW APPLY?**

This Limited Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

DO NOT MAIL THIS FORM TO Wayne Water. Use this form only to maintain your records.

MODEL NO. \_\_\_\_\_ SERIAL NO. \_\_\_\_\_ INSTALLATION DATE \_\_\_\_\_