

**FLOODSTOP®**

MAINLINE

Preferred by the pros.

SUMP PUMP WITH 12 VOLT BATTERY BACKUP SYSTEM

INSTRUCTION AND OPERATING MANUAL



MODEL MLFS22309
MODEL MLFS22310

Specifications

12 VDC Sump Pump

Power Supply Requirements	12 VDC
Motor	Brushless DC
AMP Rating	18 Amps
Temperature Rating	40°F to 120°F
Discharge	1-1/2" NPT

System Solid State Pump Controller

Power Supply Requirements	120 VAC, 60 Hz, 15 AMP
Electrical Ratings	12 Amps @ 120 VAC; 18 Amps @ 12 VDC
Relative Humidity	0 to 80%
Storage Temperature	0° to 70°C
Operating Temperature	0° to 50°C

The FloodStop® System requires a 12V Deep Cycle Battery (not included), 40 amp/hr minimum, 75 amp/hr or higher recommended. SLA/AGM Battery strongly recommended.

IMPORTANT!

READ ALL INSTRUCTIONS CONTAINED IN THIS MANUAL
BEFORE USING THIS PRODUCT.

Save these instructions for future reference. Failure to read and follow the warnings and instructions within this instruction manual could result in property damage, serious injury or death.



SAFETY FIRST!

This instruction manual contains very important information for you to know and understand. This information is provided for your safety and to help prevent equipment problems from occurring. Please observe all safety information labeled danger, warning and caution.



WARNING

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



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

- WARNING!** To reduce the risk of electrical shock, this system must be properly grounded in accordance with the National Electric Code (NEC) and all applicable state and local codes and ordinances. The receptacle should be protected with a Ground Fault Circuit Interrupter (GFCI).
- WARNING!** To reduce the risk of electrical shock, always disconnect the pump / system from the power source and battery BEFORE handling or servicing.
- WARNING!** Never remove the ground prong from the plug, or use an adapter that eliminates the ground prong.
- WARNING!** Never plug this pump system into an electric outlet while standing on a wet surface.
- WARNING!** Cables should be protected at all times to avoid punctures, cuts and abrasions that may result in exposed wiring. Never handle connected power cords with wet hands.
- WARNING!** The FloodStop® System has not been investigated for use in or around swimming pools, marine areas, recreational water installations, decorative fountains or any installation where human contact with the pumped fluid is common.
- WARNING!** Do not use an extension cord. Extension cords could present a safety hazard if not properly sized, become damaged or the connection falls into the sump pit. Do not attempt to disassemble the FloodStop® System controller or Backup Pump. There are no field serviceable parts or repair options!



RISK OF EXPLOSION. TO REDUCE THIS RISK, OBSERVE THE FOLLOWING WARNINGS:

- WARNING!** Do not use to pump flammable or explosive liquids such as gasoline, fuel oil, kerosene, etc.
- WARNING!** Do not use in a flammable or explosive atmosphere.



NOT SUITED FOR POTABLE WATER APPLICATIONS.

- WARNING!** Do not use this pump to transfer water that will be used for potable (drinking) water. This pump is only to be used in applications for which it is designed.



CAUTION

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



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

- CAUTION!** Do not use discharge hose. Discharge hose may whip under pressure. Use rigid piping and fittings to secure the pump in the sump basin to reduce movement.
- CAUTION!** Do not install the pump if it has been damaged in any way.
- CAUTION!** Do not carry or lift the pump by the power cord. Use the pump's lifting handle.

PUMP PERFORMANCE

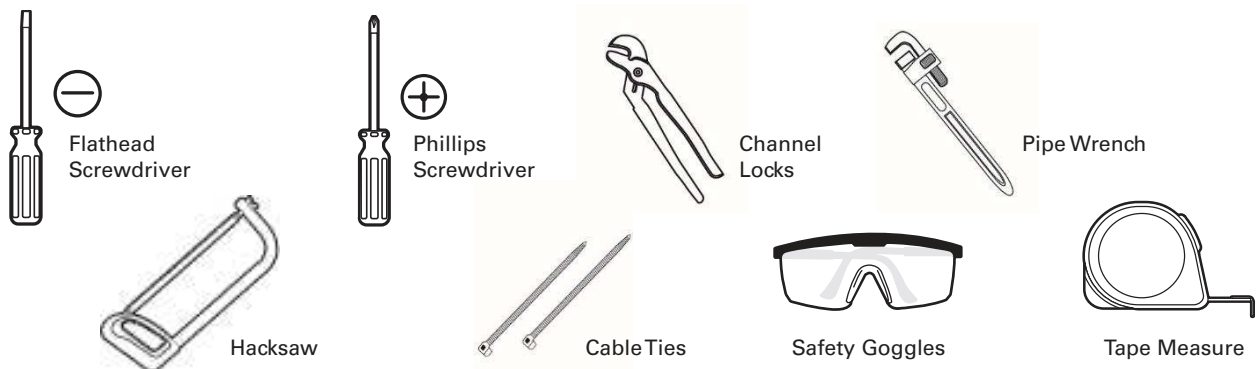
MODEL	HP	GPH of Water @ Total Feet of Lift						Max. Lift
		0 ft.	5 ft.	10 ft.	15 ft.	20 ft.	25 ft.	
MLFS22208 MLFS22212 MLFS22213	1/2	4300	3900	3500	3100	2500	1700	30 ft.
MLFS22209 MLFS22214 MLFS22215	1/3	3800	3400	3000	2500	1800	0	25 ft.

PUMP PRE-INSTALLATION

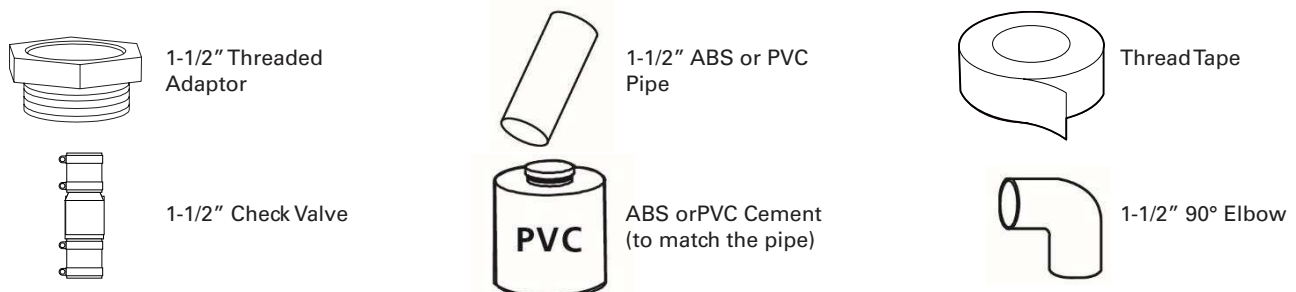
APPLICATION

- This submersible sump pump is designed for home sump applications. Use this pump only for pumping water.
- This unit is not designed as a waterfall or fountain pump, or for applications involving salt water or brine! Use with waterfalls, fountains, salt water or brine will void warranty.
- Do not use where water recirculates.
- Not designed for use as a swimming pool drainer

TOOLS REQUIRED



MATERIALS REQUIRED (NOT INCLUDED)



NOTE: Parts are not shown to scale.

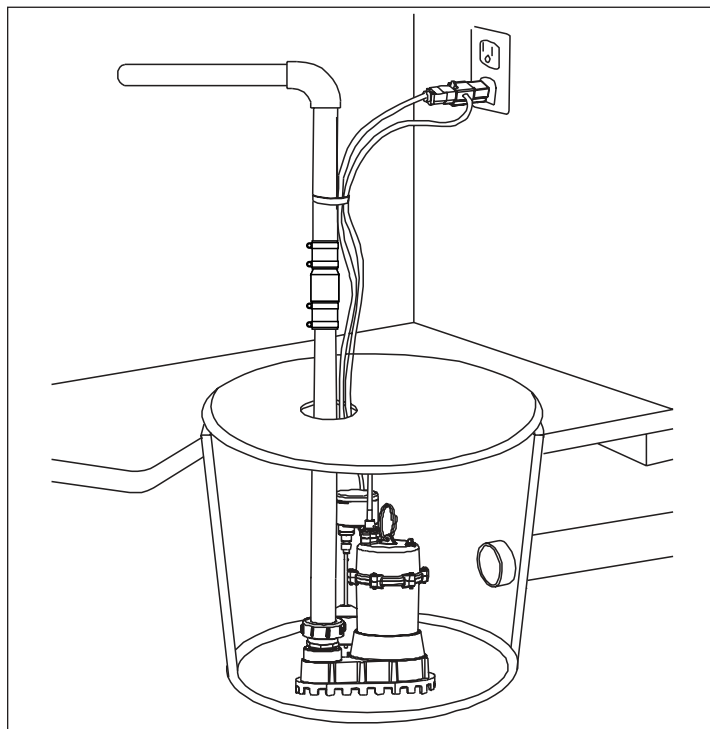
PUMP INSTALLATION

1. Set the pump on a solid, level surface in the bottom of the sump pit. If necessary, use a pump stand to provide a solid base. Avoid placing the pump on loose gravel, earth or sand.
2. Install discharge plumbing according to state and local codes. It is highly recommended that rigid PVC is used for the discharge line. Installing a union in the discharge line will make it easier to remove the sump pump for maintenance. The discharge line must be sloped downward away from the foundation to ensure that the water properly drains away and that the discharge line will not freeze during cold spells.
3. Install a check valve in the discharge line. The check valve may be positioned just above the sump basin for ease of service and/or replacement.
4. If applicable, assemble the switch to the discharge line using the attached hose clamp. Position the switch so that when the float is at its lowest position it is at least 3" above the base of the pump (just above the inlet). Make sure that the switch is positioned where the float can move up and down freely.
5. Secure power cord to the discharge pipe using cable ties to prevent switch entanglement.
6. Plug the power cord into a ground fault circuit interrupter (GFCI) protected outlet.
7. Fill the sump basin with water until the float rises and starts the pump cycle. The pump will stop when the water level falls to the switch's off position. Repeat this several times to ensure proper operation and that the switch operates freely.
8. Install the sump basin gasket / cover.



WARNING

THIS PUMP WAS NOT DESIGNED TO HANDLE SALT WATER, BRINE, LAUNDRY DISCHARGE, WATER SOFTENER DISCHARGE OR ANY OTHER APPLICATION THAT MAY CONTAIN CAUSTIC CHEMICALS. DAMAGE TO THE PUMP MAY OCCUR AND WILL VOID THE PUMP'S WARRANTY.



PUMP CARE AND CLEAN

CAUTION: Always use the handle to lift the pump. Never use the power cord to lift the pump. To avoid skin burns, unplug the pump and allow time for it to cool after periods of extended use.

DO

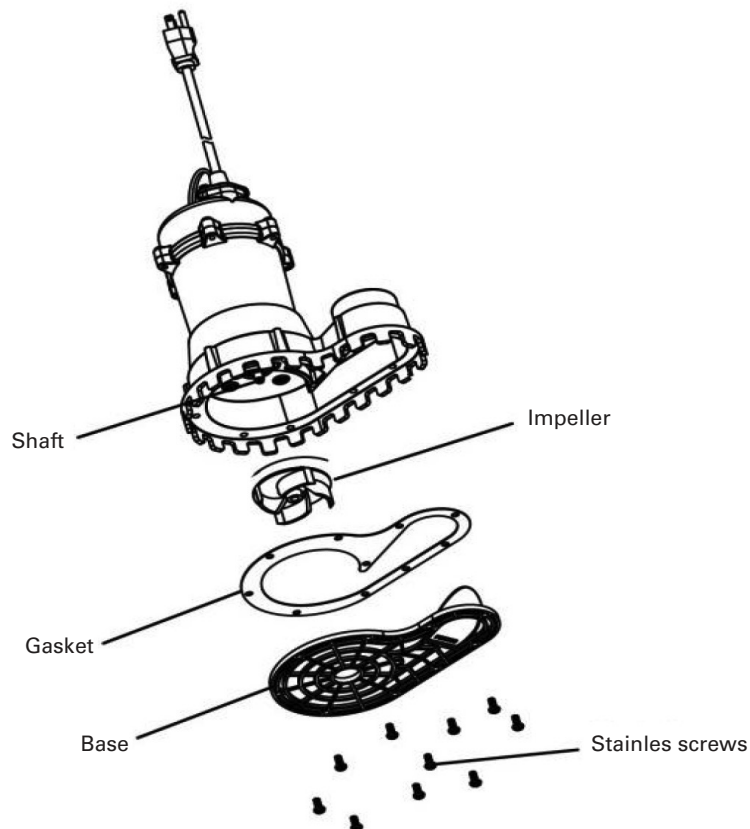
- When the power is disconnected, inspect the pump suction screen and remove all debris, then plug the pump back into the grounded (GFCI) outlet.

DO NOT

- Do not disassemble the motor housing. This motor has NO repairable internal parts, and disassembly may cause leakage or dangerous electrical wiring issues.
- Do not lift the pump by the power cord.

TO CLEAN A PUMP WITH CLOGGED DEBRIS

- Unplug the pump from electrical power.
- Unscrew the stainless screws, and remove the base.
- Use a flathead screwdriver to hold the shaft, then turn the impeller counterclockwise to release the impeller.
- Remove debris from around the shaft and on/under the impeller.
- Reassemble the pump.



PUMP TROUBLESHOOTING



WARNING

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

PROBLEM	POTENTIAL CAUSE	POSSIBLE SOLUTION
Pump Will Not Run	1. Blown fuse, tripped breaker or tripped GFCI 2. Low Line Voltage 3. Switch obstructed 4. Insufficient water level 5. Motor Failure 6. Switch Failure	1. Check all electrical connections. Check for blown fuses, tripped GFCI or tripped circuit breaker. 2. Contact a licensed electrician. 3. Remove obstruction and check for free movement. 4. Water needs to rise to a level that activates the switch. 5. Replace pump. 6. Replace switch.
Pump Cycles too frequently	1. Switch Failure 2. Check valve not present or not operating properly	1. Replace switch. 2. Install or replace the check valve.
Pump Shuts off and turns on independent of switch (trips thermal overload protector). CAUTION! Pump may start unexpectedly. Disconnect power supply.	1. Switch failure 2. Switch obstructed 3. Inlet blocked or discharge blocked 4. Excessive inflow or pump not properly sized	1. Replace switch. 2. Remove obstruction and check for free movement. 3. Clean pump inlet. Check and remove any obstructions from the pump discharge line. 4. Recheck all sizing calculations to determine proper size.
Pump runs continuously	1. Impeller obstructed or damaged 2. Piping attachments too rigid or too loose to building structure	1. Clean and / or replace impeller. 2. Install a rubber coupling to isolate pump vibration for discharge line.
Pump operates noisily or vibrates excessively	1. Impeller obstructed or damaged 2. Piping attachments too rigid or too loose to building structure	1. Clean and / or replace impeller. 2. Install a rubber coupling to isolate pump vibration for discharge line.
Pump runs but delivers insufficient capacity	1. Low line voltage 2. Impeller obstructed, worn or damaged 3. Inlet blocked or discharge blocked 4. Pump undersized for application 5. Check valve stuck closed or installed backwards	1. Contact a licensed electrician. 2. Clean and / or replace impeller. 3. Clean pump inlet. Check and remove any obstructions from the pump discharge line. 4. Recheck all sizing calculations to determine proper size. 5. Remove and examine check.

BATTERY GENERAL INFORMATION

The FloodStop® 12 Volt Battery Backup System is designed to automatically remove water from a sump pit during a power outage or if the primary sump pump fails to operate properly. It is not intended as a long term replacement for a primary sump pump. This unit must be installed with a working primary sump pump. This complete kit includes a high performance DC sump pump, solid state system controller, float sensor and battery case.

BATTERY SYSTEM OPERATION

The FloodStop® 12 Volt Battery Backup System is an automatic system and will automatically operate during a power outage or when the primary sump pump fails to operate. The System automatically maintains and recharges the battery.

The FloodStop® 12 Volt Battery Backup System performs a full system test every day. The system will cycle the backup pump and test the battery performance. If any issues are found during the self test, the appropriate alarm message will be displayed, and the audible alarm will be activated.

BATTERY INFORMATION

This system is designed to operate reliably with a 12V Deep Cycle Battery (not included). A FloodStop® Maintenance Free AGM Deep Cycle Battery is recommended. The use of wet-cell batteries is strongly discouraged. Automotive batteries are not suitable for this application and will result in system failure.

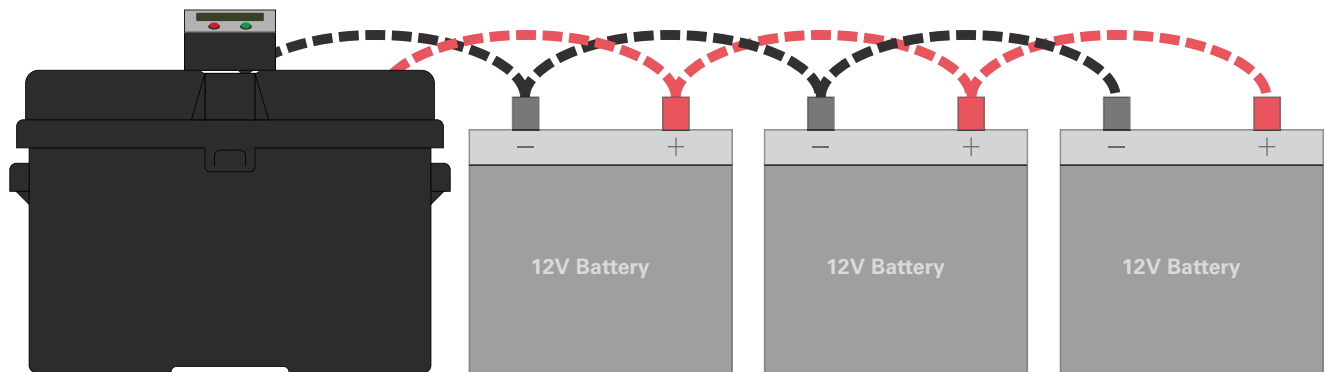


WARNING

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR INJURY:

- Wear safety glasses when connecting or disconnecting the battery.
- Keep sparks or flames away from the battery.
- Keep metal tools from contacting the battery posts and creating a short across the terminals. A short circuit may cause an explosion.
- Follow all instructions published by the battery manufacturer. Failure to do so may result in property damage, serious injury, or death.

Multiple 12VDC Deep Cycle Batteries may be connected in parallel.
A FloodStop® Maintenance Free AGM Deep Cycle Battery is recommended.



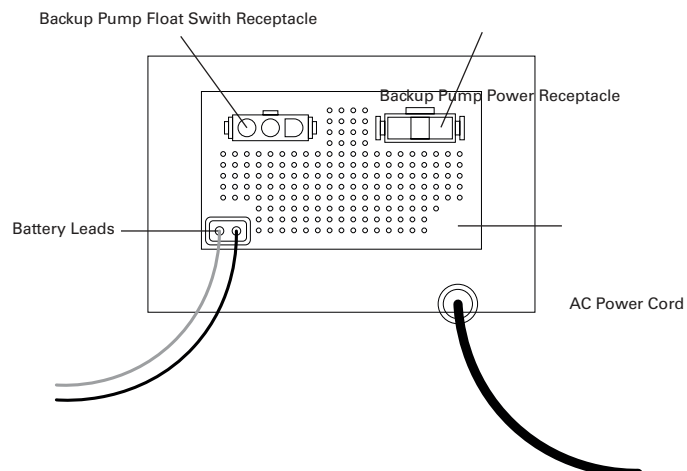
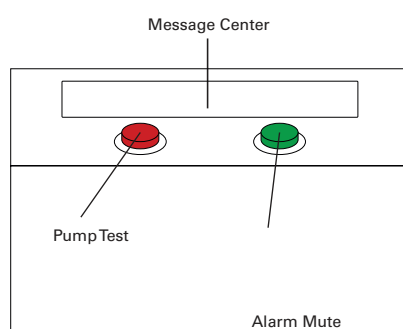
USING THE CONTROLLER BUTTONS ON BATTERY

The FloodStop® 12 Volt Battery Backup System features two push buttons on the controller.

The PUMPTEST button activates the backup pump. The pump will continue to run as long as the button is pressed. Do not run the backup pump in a dry sump pit for extended periods.

The ALARM MUTE button will silence the audible alarm for 24 hours when pressed. It will also clear the alarm message from the LCD screen, so take note of the cause of the alarm. If the same alarm repeats during the 24 period, the audible alarm will not sound. If a different alarm is triggered during this period, the audible alarm will sound. Pressing the alarm mute button a second time will cancel the alarm mute.

To activate the system test, press and hold the ALARM MUTE button.
This will activate the full system test sequence.



MESSAGES

The FloodStop® 12 Volt Battery Backup System displays **Informational** and **Alarm** messages on the Message Center.

Informational messages do not require immediate attention and do not sound an alarm. If more than one message is active, they rotate on the display.

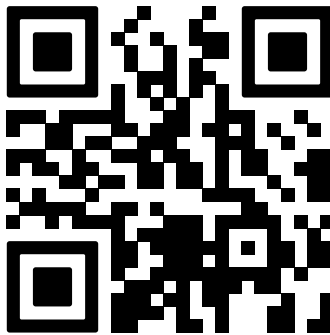
INFORMATIONAL MESSAGES		
System OK	Displayed when no messages active or after alarm muted.	System working properly.
Pump Running	Displays when the pump is on, showing in seconds the length of time the pump is on.	System working properly.
AC Power Failure	Displayed if AC power is lost.	Check that the unit is plugged in. Check GFI/breaker for trip. Normal during power loss.

Alarm messages require your immediate attention and will sound the unit's audible alarm. If more than one alarm is active, they rotate on the display. Alarm messages take precedence over information messages, no informational messages are displayed when there is an active alarm.

ALARM MESSAGES		
Reverse Polarity	Battery Red/Black leads are connected backwards	Connect leads to correct terminals
PWR OK/Backup ON	Backup pump is on while AC power is present	Check primary sump pump for proper orientation. Replace pump if necessary.
CHECK PUMP	Backup pump active but no current draw is detected	Check that pump cord is firmly connected to controller jack. Call for service.
Batt Low Voltage	Battery voltage drops below 11.4 volts (50% discharged)	Check that Unit is plugged in. Check GFI/breaker for trip. Normal during extended power loss.
Batt Crit Voltage	Battery voltage drops below 11.4 volts (50% discharged)	Check that unit is plugged in. Check GFI/breaker for trip. Replace battery if power remains out.
Auto test Failed	System fault detected during system self-test. Alarm message will be displayed alternately	Correct the issue in the displayed alarm message
Excessive Runtime	Backup pump has run more than 50 seconds	Check that backup float sensor can move freely, not caught on wires. Normal during extremely heavy rains
Check Fuse / Batt	Blown fuse	Check that pump cord is firmly connected to controller jack. Call for service
Batt Not Detected	No battery is detected	Check Battery connections. Replace battery if necessary.

TERMS AND CONDITIONS OF SALE

Orders for this product are expressly made conditional on buyer's assent to company's terms and conditions of sale, which can be found by scanning the QR code below, or are available upon request by mail. Any terms and conditions in any of buyer's documents that are inconsistent with or add to seller's terms and conditions of sale are hereby rejected and are not binding upon company.



Installed by:

Model:

Date of Installation:

Serial Number:

NOTES

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FLOODSTOP®

Preferred by the pros.



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www.ipscorp.com

Warranty

See warranty information for more details.

All dimensions listed are nominal. MAINLINE® reserves the right to make product and material changes at any time without notice.



Contact your sales representative for more information or visit our website at mainlinecollection.com



WARRANTY INFORMATION

Mainline products will be covered by IPS Diversified Products Group ("Seller")'s limited warranty. It is as follows:

Warranty. For a period of one year from the date of shipment**, and provided payments for the products have been made by Buyer to Seller, Seller warrants to Buyer that its products: (i) substantially conform to Seller's published specifications and (ii) are free from defects in material or workmanship. Product performance is limited by the capability of the structure and/or system it is installed in. If a warranted product fails to conform to these warranties, Buyer must promptly notify Seller in writing. For a valid warranty claim, Seller will, at its discretion and at no product charge to the Buyer: (i) repair the product; (ii) replace the product; or (iii) offer a full refund of that portion of the purchase price allocable to the non-conforming product. Warranty repair or replacement by Seller will not extend or renew the applicable warranty period. Buyer will obtain Seller's agreement on the specifications of any tests it plans to conduct to determine whether a product non-conformance exists. Buyer will bear the costs of access for Seller's remedial warranty efforts (including removal and replacement of systems, structures or other parts of Buyer's facility), de-installation, decontamination and re-installation. THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. This warranty allocates the risks of product failure between Seller and Buyer. This allocation is recognized by both parties and is reflected in the price of the products. Buyer acknowledges that it has read this warranty, understands it, and agrees to and is bound by its terms.

**The products listed below have different warranty periods. All other terms of the Limited Warranty set forth herein apply to these products, just the duration of the warranty is different. Duration of the warranty begins at date of shipment.

Studor Products: 3 years

Water-Tite Roofing Products: Life of the current roof system

Roof Top Blox: 20 years

Test-Tite Pneumatics: 2.5 years

AB&A: 6 months

FloodStop Pumps and Smart Accessories: 3 years

What is Not Covered by Warranty. No representative of Seller has authority to waive, alter, vary or add to the scope of the warranty without prior written approval of an officer of Seller. Seller's warranty does not apply to: (i) products impacted by adverse water conditions, extreme weather or temperatures, or other natural conditions; (ii) improper or unauthorized repair, installation or maintenance of the products by a party other than Seller; (iii) use for purposes or under conditions other than those for which designed, or other abuse, negligence, misuse, unauthorized access, or normal wear and tear; (iv) unauthorized attachments, modifications or disassembly; (v) damage during shipping; or (vi) products purchased from unauthorized distributors, resellers or internet sites. Buyer's care in selection, adequate testing at time of installation and proper installation, operation and maintenance of all products is required for adequate performance.



Limitations of Liability. NOTWITHSTANDING ANY PROVISION OF THIS CONTRACT OR THE LAW, IT IS EXPRESSLY AGREED THAT SELLER'S TOTAL LIABILITY FOR ANY DAMAGES, COSTS OR EXPENSES ARISING OUT OF OR RELATED TO THIS CONTRACT OR ITS PRODUCTS, WHETHER BASED IN CONTRACT, WARRANTY, INDEMNITY, TORT/EXTRA-CONTRACTUAL LIABILITY (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE, IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE PRODUCT, AS APPLICABLE, OR, AT SELLER'S OPTION, A RETURN OF AN AMOUNT THAT WILL NOT EXCEED THE PURCHASE PRICE. UNDER NO CIRCUMSTANCES WILL SELLER, ITS OFFICERS, DIRECTORS, EMPLOYEES OR ASSIGNS BE LIABLE FOR ANY OTHER REMEDY, LOSS, COST, DAMAGE OR EXPENSE WHETHER DIRECT OR INDIRECT. IN NO EVENT WHATSOEVER WILL SELLER BE LIABLE FOR ANY CONSEQUENTIAL, LIQUIDATED, EXEMPLARY OR PUNITIVE DAMAGES, INCLUDING BUT NOT LIMITED TO, LOSS OF USE, INCOME, PROFIT, OR PRODUCTION; INCREASED COST OF OPERATION; SPOILAGE OR DAMAGE TO MATERIAL OR DATA; OR CHANGE OUT COSTS. BUYER WILL INDEMNIFY, DEFEND AND HOLD SELLER HARMLESS FROM ANY LOSS, COST, EXPENSE, DAMAGE, OR CAUSE OF ACTION TO OR BY A THIRD PARTY THAT EXCEEDS THESE LIMITATIONS OF LIABILITY.

**Effective July 1, 2023, due to an update in California law, the start date for product warranties will now be aligned with the date of delivery of the product. This change is for all Mainline products purchased on or after July 1, 2023 by California consumers. (California Legislative Information AB-2912)*

