

**FLOODSTOP®***Preferred by the pros.*

12 VOLT BATTERY BACKUP SYSTEM

INSTRUCTION AND OPERATING MANUAL



MODEL MLFS22100
MODEL MLFS22102

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.

UNPACKING

Inspect this unit before beginning installation. Occasionally, products are damaged during shipment. If the pump or any components are damaged, contact IPS Corporation (1-833-786-7779) for replacement.



The FloodStop® System requires a 12V Deep Cycle Battery with a minimum 40 AMP/HR rating, 75 AMP/HR rating (or higher) recommended. AGM Battery is strongly recommended.

INSTALLATION



WARNING

BEFORE INSTALLING BACKUP PUMP



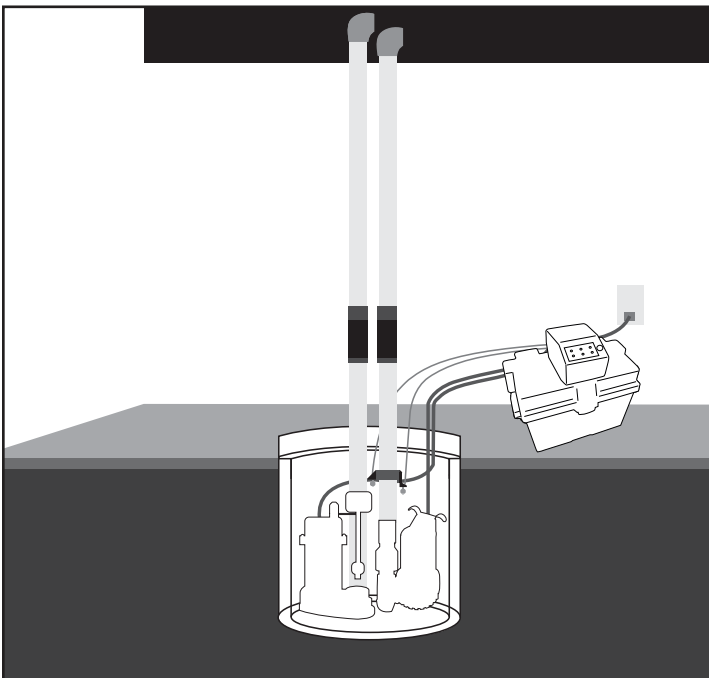
WARNING! Turn power to main pump off!

WARNING! Electric shock hazard. DISCONNECT power before servicing.



- Backup Pump must be installed using 1-1/2 in. rigid PVC pipe!
- DO NOT over tighten or cross-thread plastic fittings or check valves.
- Check valves MUST be installed in the discharge line of both the main AC pump and the back-up DC pump.
- Installation of this unit MAY take several hours. Before disabling your main pump, have a standby pump ready or an appropriate means of evacuating the sump basin.
- Verify that the existing AC pump is in good working order. If the AC pump is questionable, replace.
- Remove any debris from the sump pit and surrounding area.

The FloodStop® System can be installed with a separate discharge line (Method 1), or connected to an existing discharge line (Method 2).



METHOD 1 (Separate discharge line) - See Figure 1

1. The backup pump has a 1-1/2 in. NPT discharge. Cut a 3 ft. section of 1-1/2 in. rigid PVC pipe. Glue 1-1/2 in. pipe to a threaded fitting.
2. Screw pipe from step 2 into pump discharge.
3. Place the pump with the 3 ft. section of PVC pipe on a solid, level surface in the sump pit. Do NOT place the pump on a loose or sandy surface. Small stones or sand may damage the pump resulting in pump failure.
4. Attach a check valve (sold separately) to the top of the discharge pipe. A check valve is required for proper operation of system.

The remainder of the discharge pipe installation will vary depending on individual circumstances. Using sound plumbing practices, route the discharge pipe to an exterior wall by the shortest path. Keep turns to a minimum because they reduce flow output of the pump.

FIGURE 1 - Separate discharge line

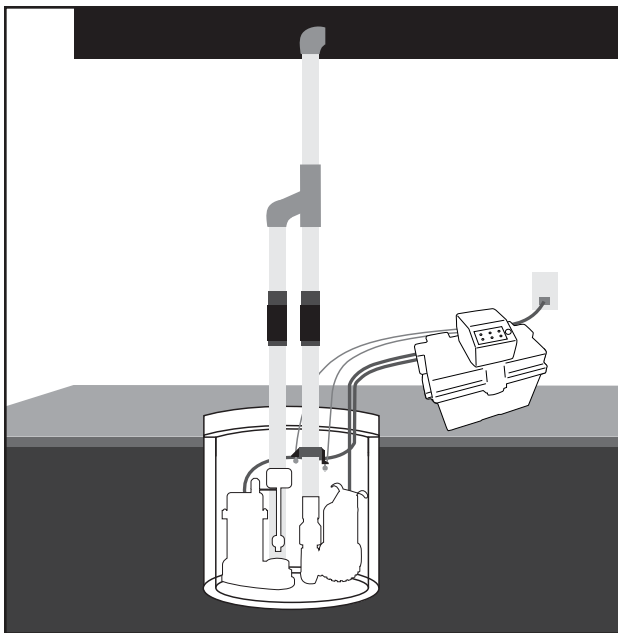


FIGURE 2 - Connecting to existing discharge line

METHOD 2 (Connecting to existing discharge line)

See Figure 2

If a separate, dedicated discharge is not desired as in Method 1, the Backup Pump can be tied into the main pump's discharge pipe by installing a "Y" connector. Two check valves will be required.

1. This pump has a 1-1/2 in. NPT discharge.
2. Cut a 3 ft. section of 1-1/2 in. rigid PVC pipe. Glue 1-1/2 in. pipe to a threaded fitting.
3. Screw pipe from step 2 into pump discharge.
4. Place the pump with the 3 ft. section of PVC pipe on a solid, level surface in the sump pit. Do NOT place the pump on a loose or sandy surface. Small stones or sand may damage the pump resulting in pump failure.
5. Attach a check valve (sold separately) to the top of the discharge pipe. A check valve is required for proper operation of system.
6. Duplicate the discharge piping arrangement for the primary AC pump if the existing discharge line has to be adjusted to accommodate a second pump.
7. Glue a 45° elbow to the pipe on the Backup DC Pump. Glue a "Y" adapter to the pipe on the main pump, as shown in illustration for Method 2.
8. Glue a short piece of PVC pipe between the 45° elbow and the "Y".

The remainder of the discharge pipe installation will vary depending on individual circumstances. Using sound plumbing practices, route the discharge pipe to an exterior wall by the shortest path. Keep turns to a minimum because they reduce flow output of the pump.



THE CHECK VALVES FOR BOTH PUMPS MUST BE INSTALLED BELOW THE "Y" FITTING!

The remainder of the discharge pipe installation will vary depending on individual circumstances. Using sound plumbing practices, route the discharge pipe to an exterior wall by the shortest distance.

AFTER PLUMBING IS COMPLETED, FOR BOTH METHODS 1 AND 2:

Install float sensors at least 10" - 12" above bottom of sump pit, making sure that the sensors are at least 1" - 2" higher than the normal "on" level for main pump

Make sure power wires and hose clamp ends do not interfere with float switches or pump operation. Failure to position properly may cause improper operation. Position all switches so they will not interfere with any portion of the plumbing, wiring, or sump pit.

BACK-UP PUMP OPERATION:

1. The backup pump will turn on when either the bottom or top float sensor rises and is engaged for 3 seconds.
2. The backup pump will keep running for 10 seconds after the float sensor drops.
3. Your FloodStop® System activates and tests the backup pump and battery health at least 3 times per week.



WARNING!

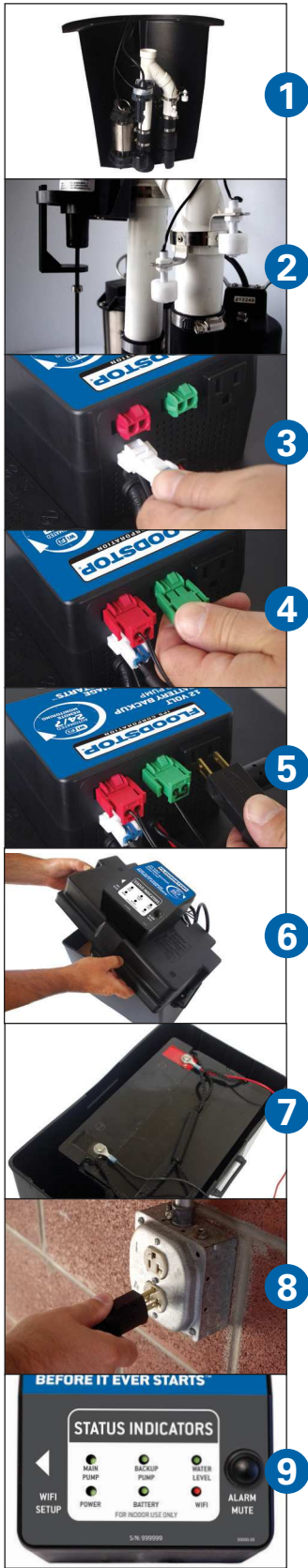
The FloodStop® System TESTS MAY OCCUR AT ANY TIME. THE BACKUP PUMP MAY CYCLE AT ANY TIME WITHOUT NOTICE.



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.

CONNECTING THE FLOODSTOP SYSTEM CONTROLLER



1. Install the Backup Pump using good plumbing practices. Both the Primary and Backup pumps should set on the bottom of the basin.
2. Install the switches for the primary pump and backup pump. The ON level of the lowest backup switch should be approximately 1" - 2" higher than the ON level of the primary sump pump.
3. Connect the Backup Sump Pump to the FloodStop® System Controller's white jack.
4. Connect the backup switches to the FloodStop® System Controller's color coded jacks.
5. **VERY IMPORTANT!** Connect the Main Sump Pump to the FloodStop® System controller using the AC outlet located on the back of the controller. **DO NOT CONNECT THE MAIN PUMP TO AN AC WALL OUTLET.**
6. Open the battery case and place 12 Volt battery inside.
7. Connect the FloodStop® System controller to the battery. Black to – (negative), Red to + (positive). Replace and lock the lid onto the battery case. The FloodStop® System will initialize and boot up. All status LEDs will initially be GREEN. Within 20 seconds, the Power status LED will turn RED. The WiFi status LED may alternate between RED/Green as the controller searches for a local WiFi signal.
8. Plug the FloodStop® System controller into an AC wall outlet. The Power status LED will turn green. Consult your local codes for GFCI requirements. **THE CONTROLLER POWER CORD IS THE ONLY POWER CORD THAT PLUGS INTO AN AC WALL OUTLET. ALL OTHER CONNECTIONS PLUG INTO THE CONTROLLER.**
9. The FloodStop® System is now ready for alert testing.



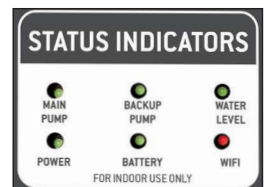
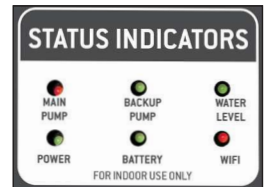
TEST THE SYSTEM IN THIS ORDER! IT'S RECOMMENDED TO RUN INITIAL CYCLES WITH WATER AND CHECK ALL PLUMBING FOR LEAKS DURING TESTING.

Lift the lowest Battery Backup switch and hold. Release when the battery backup pump cycles. The BACKUP PUMP status LED will remain GREEN. The MAIN PUMP status LED will turn RED and the alarm will sound. Press ALARM MUTE to silence, if desired.

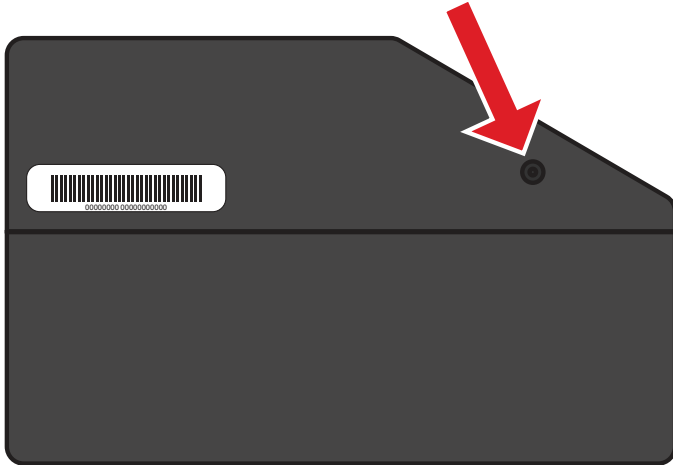
REFILL BASIN WITH WATER.

Cycle the Primary Sump Pump. The alarm will stop and the MAIN PUMP status LED will turn GREEN.

The WiFi status LED will remain GREEN after the completing the WiFi setup with the FloodStop® System app.



WIFI CONNECTION



Download the FloodStop App from the App Store (iOS devices) or Google Play (Android devices).

Press the WiFi Setup Button (located on the left-hand side of the controller) for 3 seconds. The "WiFi" LED will turn AMBER.

Open the FloodStop App and follow the on-screen instructions to connect to a WiFi network.

The "WiFi" LED will turn GREEN when successfully connected.

STATUS INDICATOR REFERENCE CHART

Use the chart below to identify the message associated with the color of each LED light on the FloodStop Controller.


Y = Yellow
R = Red

MAIN PUMP	R	Main Pump Fail - Backup Pump Activated
	R	High Amp Draw - Jammed Pump
	R	Excessive Run Time

BACKUP PUMP	R	Backup Pump Fail
	R	High Amp Draw - Jammed Pump
	R	Excessive Run Time

WATER LEVEL	R	High Water Alert
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POWER	R	AC Outage
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BATTERY	Y	Low Battery - 25% Charge
	R	Critical Battery - 10% Charge
	R	No Battery
		Reverse Polarity

WIFI	Y	WiFi Setup Mode
	R	Offline / Attempting to Connect

ALARM MUTE BUTTON

- Silences the alarm for 24 hours
- Press and hold for 10 seconds to initiate system test

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:



FLOODSTOP®

Preferred by the pros.



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Collierville, TN 38017
Phone: 800-888-8312
Fax: 901-853-5008
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)*

