Patents Pending,
Patent No. 8,591,198

Features

1. First of its kind, solid-state sensing technology with no moving parts with built in high water alarm.
2. Space age design with no mechanical contact points.
3. Green light indicates power, orange light indicates pump is activated, red light indicates high water alarm.
4. Built in dry contacts for remote alarm monitoring (RJ11 jack's two centermost pins).
5. Multipoint sealing mechanism that supersedes single surface seals.
6. Inverter rated for use with battery backup systems.
7. Standard piggy-back style connection for use with manual pumps.
8. Suitable for sump and certain sewage applications.
9. System provides integrated monitoring and alarm.

Pipe Mounting Bracket (Optional)

1. Determine bracket mounting position (Figure A).
2. Mount bracket to Ion+™ switch with screw already provided in Ion+™ switch (Figure B).
3. Mount Hose Clamp with switch around pipe at predetermined level. Cable should remain outside hose clamp (Figure C).
4. Tighten hose clamp.

Note: The Ion+™ switch is available in 6" range. The range of the switch is the distance between the On and Off levels. The Off level is at the bracket mounting screw of the switch.

CAUTION: Bottom of switch should not be mounted lower than suction inlet of pump. When installing the Ion+™ switch with the pipe mounted bracket be sure not to set the switch too low or too high on the pipe. The Ion+™ must be installed above the inlet of the pump to prevent air-locking as shown in the installation drawing.

To prevent flooding do not set the on point of the switch higher than the top of the basin.

Model	Cord	Range
iNP20306	10 ft	6 in
iNP20376	20 ft	6 in

Piggy-Back Installation

Electrical outlet must not be located in pump pit.

Electrical outlet voltage, piggy-back plug voltage and pump voltage must all be the same voltage.

DO NOT CUT plug off unit.

Ensure vent tube on plug is protected from moisture, dirt and insects and other items that could plug or block tube.

1. Insert the Ion+™ switch's piggy-back plug into the outlet.
2. Plug pump into piggy-back plug (Figure E).
3. Allow system to cycle to ensure proper installation.

Please note this product may not work in conjunction with other controllers.

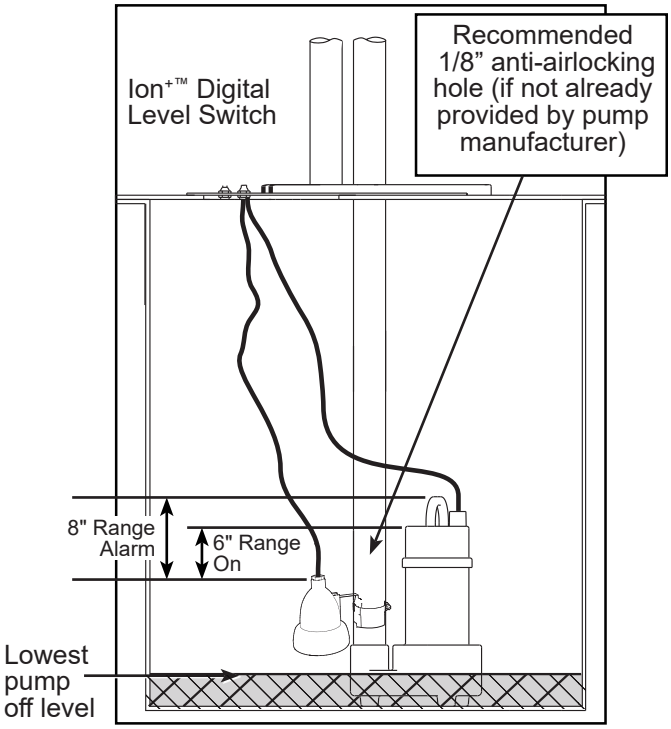
Note: The Ion+™ switch does not operate like a standard pressure switch. There are no contacts to wear out, so when pressure is applied, there will not be a click.

Safety Precautions

CAUTION: To prevent electric shock, ensure product is connected to a grounded outlet. The electrical outlet should be properly wired to a dedicated 15A circuit breaker. Proper short-circuit and overload protection must be provided at the distribution panel. Install in accordance with all local and national electrical codes.

WARNING: Electrical outlet must not be located in pump pit. For best performance, do not use electrical extension cords.

Installation Drawing



BE SURE TO MOUNT THE ION+™ SWITCH AT PROPER LEVEL.

FIGURE A

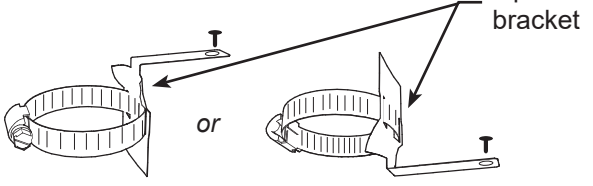


FIGURE B

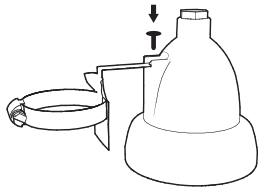


FIGURE C

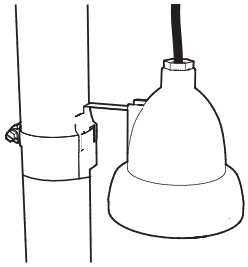
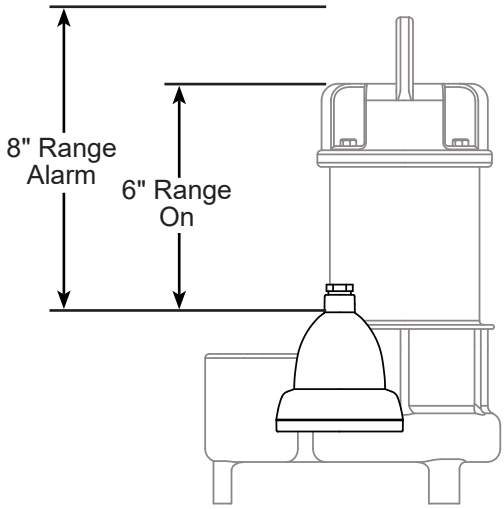
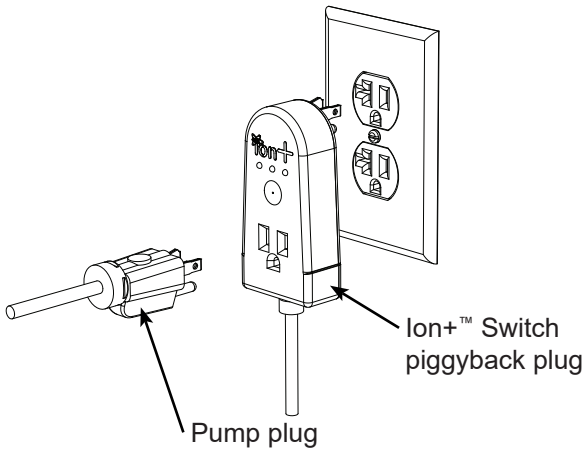


FIGURE D



NOTE: If you purchased a pump with the Ion+™ switch hard-mounted to the pump **(Figure D)** and the installation requires the switch be mounted to the pipe, the pipe-mount bracket is sold separately, PN: IN-SPB1-1.

FIGURE E



Troubleshooting

Switch Does Not Turn On Pump

1. Test the pump without the Ion+™ switch
    a. Plug the pump directly into the wall outlet, without plugging it into the switch plug.
    b. If pump still does not run, see the troubleshooting section in the pump manual.
    c. If the pump does run, continue to the next step.
2. Test the switch with the pump
    a. Plug the pump into the Ion+™ switch and plugging the Ion+™ switch plug into the wall. You will see the green light come on.
    b. Push up on the sensing plate through the center hole on the underside of the switch. Note that, being an electronic switch, you will not hear a clicking sound. If it is working, you will see an orange light come on, along with the green run light.
    c. If the pump does not turn on, the switch will have to be replaced.
    d. If the pump does turn on, continue to the next step.
3. Verify the range of the switch
    a. The part number can be found on the switch cord tag.
        i. INP 20306… = 6" range
    b. For a pipe-mounted switch, see Page 2, Installation Drawing to verify that the On level is appropriate for your basin.
        i. Lower the switch on the pipe so the On level is at a point within the basin, insuring that the Off level does not fall below the minimum level shown in the Installation Drawing.
        ii. If the On level is still too high, the switch will have to be replaced with a lower range Ion+™ switch.
    c. For a pump-mounted switch, see Page 2, Figure D to verify that the On level is appropriate for your basin.
        i. If the On level is too high, the switch will have to be replaced.

Switch Does Not Turn Off Pump

1. Unplug the pump from the Ion+™ and then unplug the Ion+™ from the wall outlet.
2. Plug the pump back into the Ion+™ and plug the Ion+™ back into the wall outlet.
    a. If the pump does not turn on right away, and the water level is not at the On level, let the pump go through an On / Off cycle a few times to insure that the switch is functioning properly. The basin may need to be filled with a garden hose or bucket.
    b. If the pump turns on right away, and the water level is not at the On level, the switch will have to be replaced.

To Test Switch Alarm Mode

1. Applying constant pressure, push on sensing plate past the 6" turn on point. Once the orange light comes on, continue pushing until you see the orange light flash. The red light will turn on next and then the audio alarm will sound.
2. If you can not push the sensing plate hard enough to activate alarm mode, the switch will need to be replaced.

Note: When the Ion+™ switch goes into alarm mode, the orange light will flash. All lights will go blank and it will then go into alarm mode.

Warranty is VOID if...

1. Using an extension cord.
2. Power cord has been cut or the grounding prong removed or using an adapter fitting.
3. The switch has been disassembled or tampered with.
4. Any tags or labels have been removed.

3 Year Residential Warranty

1. Coverage and Term. Metropolitan Industries, Inc. ("**Metropolitan**") warrants to the original purchaser (the "Buyer") of each Ion|StormPro product (the "product"), that any part thereof which proves to be defective in material or workmanship within three (3) years from date of manufacture, will be replaced at no charge with a new or remanufactured part, F.O.B. factory. Buyer shall be responsible for all freight charges and all costs of field labor or other charges incurred in the removal and/or reinstallation of any product, part or component thereof.

2. Exclusions. **THE WARRANTY IS SUBJECT TO THE FOLLOWING CONDITIONS AND EXCLUSIONS:**

(a) The Warranty excludes products or workmanship which becomes defective as a result of: (i) earthquake, fire, storms, the elements or any other acts of God; (ii) normal wear and tear from use; (iii) accident, misuse, abuse or neglect; (iv) modifications made by Buyer or any third party, other than **Metropolitan**; and (v) Buyer's failure to properly install, maintain, service and/or operate the product under normal conditions and according to manufacturer's instructions.

(b) **Metropolitan** shall not be responsible for, and the Warranty shall not cover, extended damage which occurs because of Buyer's failure to notify **Metropolitan** promptly in writing of apparent defects.

(c) Any part or component designated as manufactured by anyone other than **Metropolitan** shall be covered only by the express warranty of the manufacturer thereof.

(d) The Warranty shall lapse upon Buyer's failure to fully comply with the terms and conditions of its contract with **Metropolitan**, including Buyer's failure to pay the purchase price for the product or any portion thereof. Buyer's subsequent compliance with the terms and conditions of any such contract, will not cause the term of the Warranty to extend beyond the time period set forth above.

(e) No actions taken by **Metropolitan** to correct a defect in a product shall extend the Warranty beyond the period set forth above. **Metropolitan** shall not be obligated to remedy any defect, where otherwise required pursuant to the Warranty unless and until Buyer notifies **Metropolitan** in writing of the defect and then only if such notification is made prior to the expiration of the period set forth above.

3. Process of Claims and Repairs. **Metropolitan** agrees that if the product or any part or component thereof shall fail to conform to the terms of this Warranty, **Metropolitan** shall replace such nonconforming product, part or component at the original point of delivery and furnish instruction for its disposition. Any transportation charges involved in such disposition and all costs of field labor or other charges incurred in the removal and/or reinstallation of any product, part or component thereof shall be the responsibility of Buyer.

4. Limitation on Liability. Notwithstanding any provision to the contrary, **Metropolitan's** entire liability under this Warranty shall not in the aggregate exceed, and Buyer's exclusive and sole remedies are, to the extent permitted by law, shall be to secure replacement of the defective product. **UNDER NO CIRCUMSTANCES SHALL METROPOLITAN BE LIABLE UNDER THE WARRANTY FOR ANY INDIRECT, PUNITIVE, SPECIAL, EXEMPLARY, CONSEQUENTIAL OR INCIDENTAL DAMAGES (INCLUDING LOST PROFITS, REVENUE, USE OR ECONOMIC ADVANTAGE).**

5. Express Waiver of Any Other Warranties. **THE EXPRESS WARRANTY SET FORTH IN THIS WRITTEN WARRANTY IS THE ONLY WARRANTY MADE BY METROPOLITAN, OR ANY OTHER PARTY, IN CONNECTION WITH ANY PRODUCT PURCHASED FROM METROPOLITAN. NEITHER METROPOLITAN, NOR ANY OTHER PARTY, MAKES ANY OTHER EXPRESS OR IMPLIED WARRANTY WHICH IS NOT SET FORTH HEREIN, AND METROPOLITAN HEREBY DISCLAIMS AND BUYER HEREBY WAIVES ALL IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.**

6. Not Transferable. The Warranty may not be transferred and shall be void on the sale or other transfer of the product.

7. Products and Warranty Subject to Change. **Metropolitan** reserves the right to make revisions to its products and their specifications, and to revise this Warranty and related information without notice.