

Franklin Electric Co., Inc. Oklahoma City, OK 73157-2010 www.LittleGiantPump.com customerservice@lgpc.com RFSN-10 Liquid Level Control Mechanical Remote Float Switch

RFSN-6 RFSN-9

INTRODUCTION

The Little Giant liquid level control is designed to be used with Little Giant Effluent and Sewage pumps or other pumps rated 13 amps or less.

Little Giant products are carefully packaged, inspected and tested to insure safe operations and delivery. When you receive your switch, examine it carefully to determine that there are no parts missing or which may have been damaged or broken during shipment. If damage has occurred, make notation and notify and/or return to the firm from which you purchased the switch and they will assist you in replacement or repair.



- 1. Read all instructions and safety guidelines thoroughly. Failure to follow guidelines and instructions could result in serious bodily injury and/or property damage.
- 2. During operation, the area around the pump and switch may be covered with water. Take care when handling switch or pump. Do not pull pump out of the water by the power cord.
- Disconnect all electrical service to the pump and unplug the pump and/or switch before working on the unit or handling the unit.
- 4. Make sure all outlets used are grounded.
- 5. Do not stand in water while changing fuses, resetting circuit breakers or repairing switch or pump.

Figure 1.







ELECTRICAL CONNECTIONS



- The level control switch is supplied with three-prong grounding plug. The switch must be used with pumps that are equipped with three-prong grounding plugs. Do not remove the third pin from the plug. The receptacles should be properly grounded, grounding-type receptacle.
- 2. Separate branch circuit is recommended. Do not use extension cord.
- Be sure electrical connections cannot be reached by rising water. Under no circumstances should outlet box or receptacle be located where it may become flooded or submerged by water.

INSTALLATION

If screw which is provided is lost, use only a #10-16 x $\frac{1}{2}$ long tapping screw. Longer screws can crack the cover (see Figure 2).

- Attach cord clamp to pump cover. The clamp and pump handle must be positioned to allow free operation of float. Be sure to locate and switch power cords away from switch float.
- 2. A minimum tether length of 3½" is recommended for use with Little Giant Effluent and Sewage pumps or other pumps rated 13 amps or less. Tether length to be 3½" when attached to pump on the #6 series pumps. The tether length is measured as shown in Figure 2.
- 3. A sump with a minimum diameter of 14" is required for the #6 series sump pumps.
- 4. A sump with a minimum diameter of 18" is required for the Little Giant Effluent and Sewage pumps or other pumps rated 13 amps or less.
- 5. After desired tether length is established, hand tighten clamp screw.
- 6. For universal installation, refer to Figure 1.
 - a. Attach switch cord using the cable tie provided to any convenient rigid surface about 2" below the desired turn-on level. Do not tighten cable tie until turn-on and turn-off levels are established
 - b. Increase cord length between float and tie point increases on-off differential. Decreasing cord length between float and tie point decreases on-off differential.
 - c. Tighten cable tie securely after turn-on and turn-off levels are established.

CAUTION: To prevent damage to pump, do not set switch turn-off level below 2" above bottom of pump base. Also be certain that pump is secured in position so float cannot become stuck between the pump and the basin which could prevent pump from coming on or going off. Be certain cable tie is secure so switch cord does not accidentally slip and change set on/off levels.

SWITCH ADJUSTMENTS

(approximate measurements, in inches)

Pumping Range (Dim "A")	5.5	6	8	12	13	18	19	23	25
Tether Length (Dim "B")	3	4	6	8	10	12	13	15	17

TESTING

Without water in sump, plug pump cord into the back of the switch plug. Plug switch into outlet. Lift float and listen for pump to operate. Do not run pump for more than 5 seconds. Next, run water into sump where pump is installed. Fill the sump to the "on" level and allow the pump to remove water to the "off" level. Make adjustment per "Switch Adjustments Chart" above.

DIRECT WIRING

FOR DIRECT WIRING INSTALLATION, REFER TO FIGURE 3 (SCHEMATIC).

WARNING: In a 230V direct wire installation, one side of the line going to the pump is always "HOT". This condition exists whether the float switch is "ON" or "OFF". To avoid hazards when installing or servicing, install a double-pole disconnect near pump installation.



Check local electrical and building codes before installing. This installation must be in accordance with their regulations as well as the most recent edition of the National Electrical Code Handbook (NEC).

MANUAL PUMP OPERATION POSSIBLE BY PLUGGING PUMP DIRECTLY INTO OUTLET. (Plug configuration may vary depending on voltage.)

NOTE: Franklin Electric Co. cannot be responsible for damages caused by the faulty or negligent installation of this control. If you feel that you may encounter problems in installing this device, we respectfully suggest you engage the services of a competent plumber, electrician, or qualified service person.

ADDITIONAL INFORMATION

CAUTION: To prevent damage to pump, do not set switch turn-off level below 2" above bottom of pump base. Also, be sure that the pump is secured in its position so the float will not become stuck between the pump and the basin, which could prevent the pump from turning "ON" or "OFF". Be sure the cable tie is secure so the switch cord does not accidentally slip and change the pre-set ON/OFF levels.

LIMITED WARRANTY

THIS WARRANTY SETS FORTH THE COMPANY'S SOLE OBLIGATION AND PURCHASER'S EXCLUSIVE REMEDY FOR DEFECTIVE PRODUCT.

Franklin Electric Company, Inc. and its subsidiaries (hereafter "the Company") warrants that the products accompanied by this warranty are free from defects in materials or workmanship of the Company that exist at the time of sale by the Company and which occur or exist within the applicable warranty period. Any distributor, sub-distributor, recipient, end-user and/or consumer agrees that by accepting the receipt of the products, the distributor, subdistributor, recipient, end user and/or consumer expressly agrees to be bound by the terms of the warranty set forth herein.

I. APPLICABLE WARRANTY PERIOD

The products accompanied by this warranty shall be covered by this Limited Warranty for a period of 12 months from the date of original purchase by the consumer. In the absence of suitable proof of purchase date, the warranty period of this product will begin to run on the product's date of manufacture.

II. INSTRUCTIONS APPLICABLE TO THIS LIMITED WARRANTY

- 1. Consumers wishing to submit a warranty claim must return the products accompanied by this warranty to the point of purchase for warranty consideration.
- 2. Upon discovery of a defect, any personal injury, property damage or any other type of resulting damage, if applicable, shall be reasonably mitigated to the extent possible.
- At its discretion, the Company may inspect products either at its facilities or in the field, and after determination of a warranty claim, will, at its option, repair or replace defective parts. Repaired or replaced parts will be returned freight prepaid by the Company.
- 4. This warranty policy does not cover any labor or shipping charges. The Company shall not be liable for any costs or charges attributable to any product testing, maintenance, installation, repair or removal, or for any tools, supplies, or equipment needed to install, repair, or remove any product.

III. LIMITATIONS APPLICABLE TO THIS LIMITED WARRANTY THIS WARRANTY DOES NOT APPLY TO ANY OF THE FOLLOWING:

- Any product that is not installed, applied, maintained and used in accordance with the Company's published instructions, applicable codes, applicable ordinances and/or with generally accepted industry standards.
- 2. Any product that has been subject to misuse, misapplication, neglect, alteration, accident, abuse, tampering, acts of God (including lightning), acts of terrorism, acts of war, fire, improper storage or installation, improper use, improper maintenance or repair, damage or casualty, or to an excess of the recommended maximums as set forth in the product instructions.
- 3. Any product that is operated with any accessory, equipment, component, or part not specifically approved by the Company.
- 4. Use of replacement parts not sold by the Company, the unauthorized addition of non-Company products to other Company products, and the unauthorized alteration of Company products.
- 5. Products damaged by normal wear and tear, normal maintenance services and the parts used in connection with such service, or any other conditions beyond the control of the Company.
- 6. Any product that has been used for purposes other than those for which it was designed and manufactured.
- 7. Any use of the product where installation instructions and/or instructions for use were not followed.

The Company reserves the right at any time, and from time to time, to make changes in the design and/or improvements upon its product without thereby imposing any obligation upon itself to make corresponding changes or improvements in or upon its products already manufactured and/or previously sold. The Company further reserves the right to substitute parts or components of substantially equal quality in any warranty service required by operation of this Limited Warranty.

This written Limited Warranty is the entire warranty authorized and offered by the Company. There are no warranties or representations beyond those expressed in this document.

THIS WARRANTY AND REMEDY IS IN LIEU OF ALL OTHER WARRANTIES AND REMEDIES INCLUDING WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY SPECIFICALLY DISCLAIMED AND EXPRESSLY EXCLUDED. CORRECTION OF NON-CONFORMITIES, IN THE MANNER AND FOR THE PERIOD OF TIME AS SET FORTH ABOVE, SHALL CONSTITUTE FULFILLMENT OF ALL LIABILITY OF THE COMPANY TO THE PURCHASER WHETHER BASED ON CONTRACT, NEGLIGENCE, OR OTHERWISE.

THE COMPANY SHALL NOT BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES SUCH AS, BUT NOT LIMITED TO:

DAMAGE TO OR LOSS OF OTHER PROPERTY OR EQUIPMENT, LOSS OF USE OF EQUIPMENT, FACILITIES OR SERVICE, LOSS OF PROFIT OR SALES, COST OF PURCHASES OR REPLACEMENT GOODS, CLAIMS OF CUSTOMERS OF THE PURCHASER, FAILURE TO WARN AND/OR INSTRUCT, LOSS OF OTHER PRODUCTS, OR COSTS OF ENVIRONMENTAL REMEDIATION, OR DIMINUTION IN PROPERTY VALUE. THE REMEDIES OF THE PURCHASER SET FORTH HEREIN ARE EXCLUSIVE, AND THE LIABILITY OF THE COMPANY SHALL NOT, EXCEPT AS EXPRESSLY PROVIDED HEREIN, EXCEED THE PRICE OF THE PRODUCTS UPON WHICH SUCH LIABILITY IS BASED. DAMAGES AS SET FORTH IN THIS PARAGRAPH SHALL BE REASONABLY MITIGATED TO THE EXTENT POSSIBLE. THIS PARAGRAPH SHALL ALSO APPLY TO ALL DAMAGES RESULTING FROM CONDITIONS SET FORTH IN SECTION III ABOVE AND (1) DEFECTS IN PRODUCT PROTOTYPES OR REPLACEMENT PART PROTOTYPES THAT HAVE NOT BEEN PUT INTO PRODUCTION. CIRCULATED AND SOLD BY THE COMPANY, AND/OR (2) DEFECTS THAT WERE NOT FOUND AT THE TIME OF SALE DUE TO SCIENTIFIC AND TECHNOLOGICAL REASONS.

This Limited Warranty gives you specific legal rights. You may have other rights, which vary according to the applicable laws and regulations. Where any term of this warranty is prohibited by such laws, it shall be null and void, but the remainder of this warranty shall remain in full force and effect.

DISCLAIMER: Any oral statements about the product made by the seller, the Company, the representatives or any other parties, do not constitute warranties, shall not be relied upon by the user, and are not part of the contract for sale. Seller's and the Company's only obligation, and buyer's only remedy, shall be the replacement and/or repair by the Company of the product as described above. Before using, the user shall determine the suitability of the product for his intended use, and user assumes all risk and liability whatsoever in connection therewith.

For Technical Assistance, please contact......1.800.701.7894

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