

# Smartflex (FLX-4629) Operation Instructions

Owner's Manual

PNEG-1186

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**All information, illustrations, photos, and specifications in this manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.**

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### Safety Guidelines

This manual contains information that is important for you, the owner/operator, to know and understand. This information relates to protecting **personal safety** and **preventing equipment problems**. It is the responsibility of the owner/operator to inform anyone operating or working in the area of this equipment of these safety guidelines. To help you recognize this information, we use the symbols that are defined below. Please read the manual and pay attention to these sections. Failure to read this manual and its safety instructions is a misuse of the equipment and may lead to serious injury or death.



**This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.**



**DANGER** indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



**WARNING** indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



**CAUTION** indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.



**CAUTION** used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.



**NOTE** indicates information about the equipment that you should pay special attention.

The SMARTFLEX (FLX-4629) controller has combined several functions of feed system control into one unit. The following instructions will help you understand how it functions and how to set the control correctly.

### Delay Time

To set the delay time, first push the “PROG” button until the LED next to “DELAY TIME” is illuminated. Next you will need to decide if you want to set the time delay in Min and Sec or Hr and Min. To do this use the arrow keys (up or down) to change the flashing LED’s from Hr and Min to Min and Sec. Once you have done this, press the Set/Clr button once, at this point, the four digit display will begin to flash. Now use the arrow keys to enter the correct time delay that you have chosen to use. By pushing the arrow one time you will increment the time by one digit, by holding the arrow down for 3 seconds or more, it will increment at a fast rate. Once you have arrived at the chosen time setting, push the Set/Clr button once. This will set the time delay and advance you to the Max Run Timer settings.

### Max Run Timer

To set the Max Run Timer, first push the “PROG” button until the LED next to “RUN TIME” is illuminated. Next you will need to decide if you want to set the MAX RUN time in Min and Sec or Hr and Min. To do this use the arrow keys (up or down) to change the flashing LED’s from Hr and Min to Min and Sec. Once you have done this, press the Set/Clr button once, at this point the four digit display will begin to flash. Now use the arrow keys to enter the correct MAX RUN time that you have chosen to use. By pushing the arrow one time, you will increment the time by one digit, by holding the arrow down for 3 seconds or more, it will increment at a fast rate. Once you have arrived at the chosen time setting, push the Set/Clr button once. This will set the MAX RUN time and advance you to the CUMULATIVE time setting.

### Cumulative Time

Cumulative time is the amount of time that the system has run since the last time the timer has been reset. To access this function, press the “PROG” switch until the LED next to cumulative time is illuminated. At this point you can view the cumulative time and proceed without resetting or you can reset to zero. To reset to zero, you must push the Set/Clr button once, while the display is flashing. This will also advance you to set sensitivity.

### Set Sensitivity

The Smartflex has a six (6) level sensitivity adjustment that can be set to match the situation and material type that you may have. Each level will approximately double the previous setting. The factory setting is level 4 and will cover most situations and material types. If at a given setting, the system senses falling material, then you should reduce the sensor setting by one level and try it again. If the system does not shut off when full, then you should increase the sensor setting by one level and try it again.

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### Setting Guideline

Level 1	High moisture material
Level 2	High fat material
Level 3	Most feed types
Level 4	Factory setting, most feed types
Level 5	Accu-drop feeder, dry material
Level 6	Accu-drop feeder, very dry material

**IMPORTANT:** *When attempting to set sensor levels the sensor must be placed in the grommet with NO feed near the end of the sensor.*

### Sensor Adjustment

To set the sensitivity level push the “PROG” button until the LED next to the Set Sensitivity is illuminated. When the display is flashing you may use the arrow key to choose the level of sensitivity needed. Next push the Set/Clr button one time and the sensor will be calibrated.

### Alarms

There are two (2) alarm modes for the FLX-4629.

1. Pressure switch depression will display “1” and sound an alarm.
2. Max Run Timer time exceeded will display “2” and sound an alarm.

**NOTE:** *Toggle switch in the OFF position, nothing will be displayed and no alarm. To reset any alarm you must push the Set/Clr button one time.*

### Standard Configuration

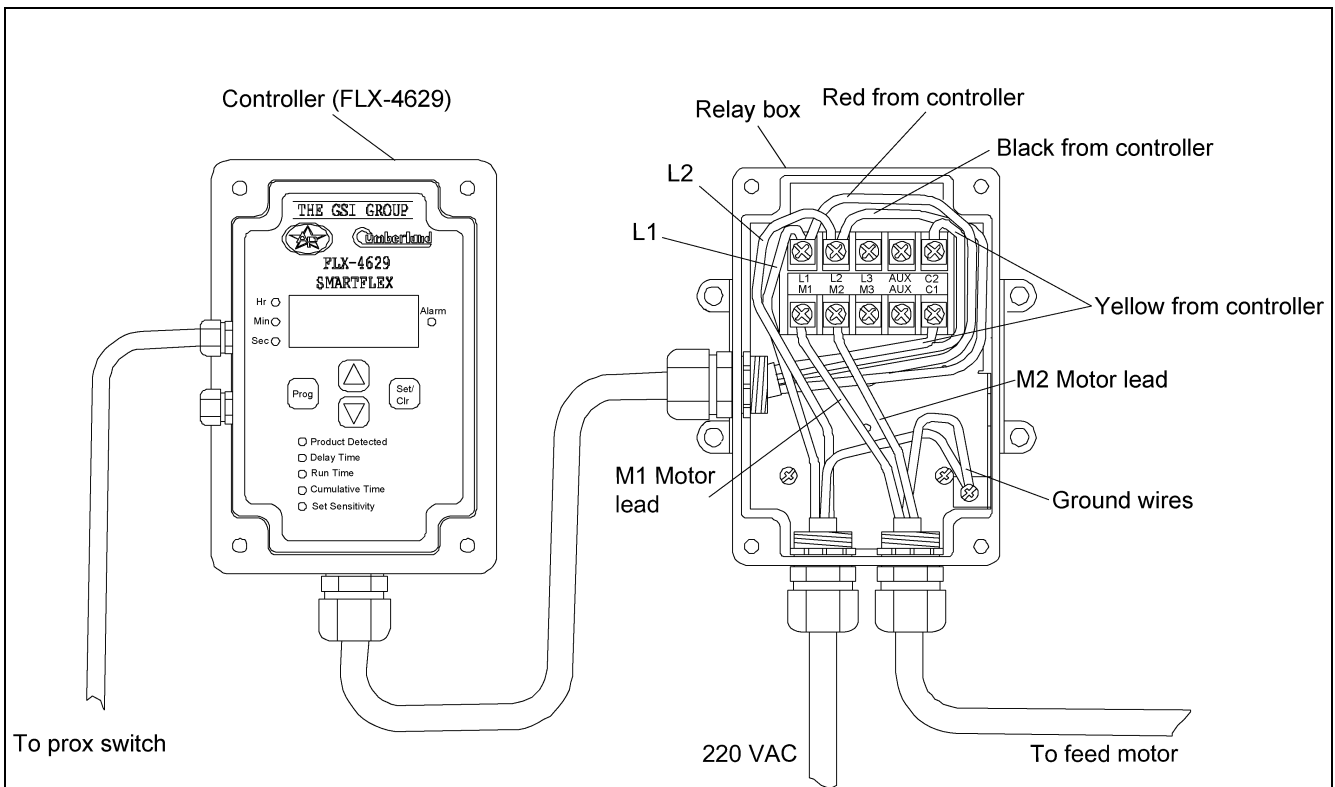
The standard configuration of the Smartflex uses proximity sensor AP-2984. The two (2) wires from the proximity sensor connect to terminal 1 and 2 on the PC board in the lid of the controller. In order for the sensor adjustment to work, the Smartflex must be connected to proximity sensor AP-2984.

### Optional Configurations

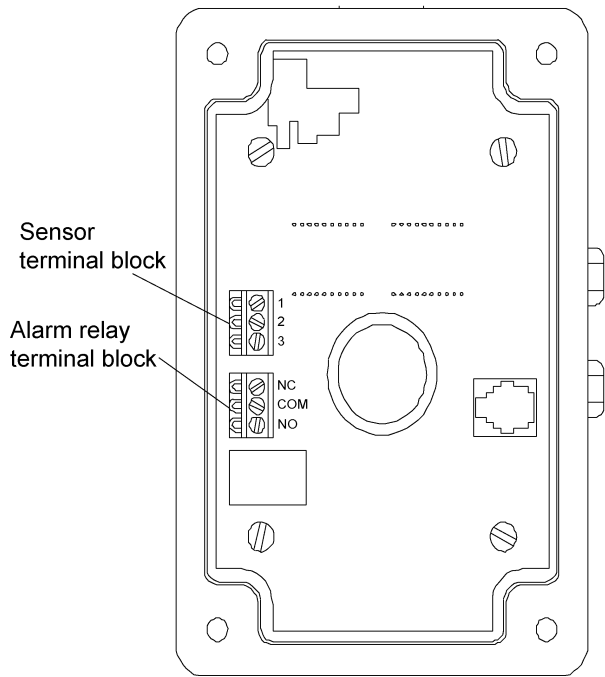
The FLX-4629 can be used without a prox switch, as a extension unit, or with a mechanical switch (such as a hopper level switch) if necessary.

To use it as a extension unit without a prox switch, add a jumper wire from terminal 1 to terminal 3 on the PC board in the lid of the controller. This will allow the pressure switch of the unit to operate without setting off the alarm.

To use with a mechanical switch, hook the two (2) wires from the mechanical switch to terminal 1 and 2 on the PC board in the lid of the controller.



**NOTE:** Connect 220 VAC to L1 and L2 of relay  
 Connect motor leads to M1 and M2 of relay  
 for 3 phase power use terminal L3 and M3 also.



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# NOTES



## Limited Warranty

The GSI Group, LLC. ("GSI") warrants products which it manufactures to be free of defects in materials and workmanship under normal usage and conditions for a period of 12 months after sale to the original end-user or if a foreign sale, 14 months from arrival at port of discharge, whichever is earlier. The end-user's sole remedy (and GSI's only obligation) is to repair or replace, at GSI's option and expense, products that in GSI's judgment, contain a material defect in materials or workmanship. Expenses incurred by or on behalf of the end-user without prior written authorization from the GSI Warranty Group shall be the sole responsibility of the end-user.

**Warranty Extensions:** The Limited Warranty period is extended for the following products:

	Product	Warranty Period
<b>AP Fans and Flooring</b>	Performer Series Direct Drive Fan Motor	3 Years
	All Fiberglass Housings	Lifetime
	All Fiberglass Propellers	Lifetime
<b>Cumberland Feeding/Watering Systems</b>	Feeder System Pan Assemblies	5 Years **
	Feed Tubes (1.75" & 2.00")	10 Years *
	Centerless Augers	10 Years *
	Watering Nipples	10 Years *
<b>Grain Systems</b>	Grain Bin Structural Design	5 Years
<b>Grain Systems Farm Fans Zimmerman</b>	Portable & Tower Dryers	2 Years
	Portable & Tower Dryer Frames and Internal Infrastructure †	5 Years

\* Warranty prorated from list price:

0 to 3 years – no cost to end-user  
 3 to 5 years – end-user pays 25%  
 5 to 7 years – end-user pays 50%  
 7 to 10 years – end user pays 75%

\*\* Warranty prorated from list price:

0 to 3 years – no cost to end-user  
 3 to 5 years – end-user pays 50%

† Motors, burner components and moving parts not included. Portable Dryer screens included. Tower Dryer screens not included.

GSI further warrants that the portable and tower dryer frame and basket, excluding all auger and auger drive components, shall be free from defects in materials for a period of time beginning on the twelfth (12<sup>th</sup>) month from the date of purchase and continuing until the sixtieth (60<sup>th</sup>) month from the date of purchase (extended warranty period). During the extended warranty period, GSI will replace the frame or basket components that prove to be defective under normal conditions of use without charge, excluding the labor, transportation, and/or shipping costs incurred in the performance of this extended warranty.

### Conditions and Limitations:

THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE LIMITED WARRANTY DESCRIPTION SET FORTH ABOVE. SPECIFICALLY, GSI MAKES NO FURTHER WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE IN CONNECTION WITH: (i) PRODUCT MANUFACTURED OR SOLD BY GSI OR (ii) ANY ADVICE, INSTRUCTION, RECOMMENDATION OR SUGGESTION PROVIDED BY AN AGENT, REPRESENTATIVE OR EMPLOYEE OF GSI REGARDING OR RELATED TO THE CONFIGURATION, INSTALLATION, LAYOUT, SUITABILITY FOR A PARTICULAR PURPOSE, OR DESIGN OF SUCH PRODUCTS.

GSI shall not be liable for any direct, indirect, incidental or consequential damages, including, without limitation, loss of anticipated profits or benefits. The sole and exclusive remedy is set forth in the Limited Warranty, which shall not exceed the amount paid for the product purchased. This warranty is not transferable and applies only to the original end-user. GSI shall have no obligation or responsibility for any representations or warranties made by or on behalf of any dealer, agent or distributor.

GSI assumes no responsibility for claims resulting from construction defects or unauthorized modifications to products which it manufactured. Modifications to products not specifically delineated in the manual accompanying the equipment at initial sale will void the Limited Warranty.

This Limited Warranty shall not extend to products or parts which have been damaged by negligent use, misuse, alteration, accident or which have been improperly/inadequately maintained. This Limited Warranty extends solely to products manufactured by GSI.

Prior to installation, the end-user has the responsibility to comply with federal, state and local codes which apply to the location and installation of products manufactured or sold by GSI.

This equipment shall be installed in accordance with the current installation codes and applicable regulations which should be carefully followed in all cases. Authorities having jurisdiction should be consulted before installations are made.



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