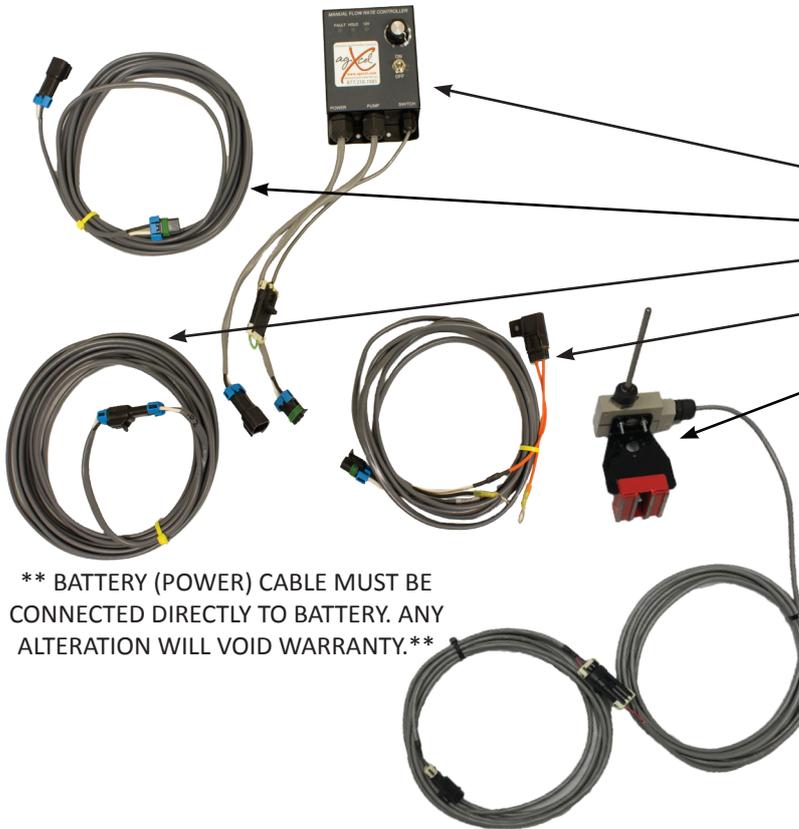


**MANUAL RATE CONTROL KIT
SINGLE PUMP PN#563
DUAL PUMP PN#564**



**116 E 6TH ST
KEARNEY NE 68847**

877.218.1981



**** BATTERY (POWER) CABLE MUST BE CONNECTED DIRECTLY TO BATTERY. ANY ALTERATION WILL VOID WARRANTY.****

MANX CONTROL KIT SINGLE PN#563		
PN#	ITEM	QTY
17934	MANX CONTROLLER	1
18113	15 FT EXTENSION	1
53660	20 FT EXTENSION	1
17944	BATTERY CABLE 15FT **	1
ONLY 1 KIT BELOW WILL BE INCLUDED:		
53824*	RUN/HOLD KIT*	1
54066*	MERCURY SWITCH KIT*	1

*KITS WILL COME WITH EITHER A MERCURY SWITCH OR AN IMPLEMENT SWITCH.

KIT COMES WITH STANDARD 15FT AND 20FT EXTENSIONS PER PUMP WITH AN IMPLEMENT SWITCH KIT (OR MERCURY SWITCH KIT) WITH TWO 15FT EXTENSIONS AND MAGNET MOUNT. IN CASE OF A DUAL PUMP CONFIGURATION A "Y" HARNESS IS INCLUDED TO CONTROL BOTH PUMPS.

FEATURES:

- Rheostat manual speed control for 12-volt pumps
- 6" wiring for power input and output for motor standard
- Sealed heavy-duty electrical connectors
- Reverse polarity protection
- On/Off control switch with power indicator lamp
- Smoother adjustment of pump flow/pressure, which results in reduced sensitivity at the top of the adjustment scale
- Optional stainless steel ammonia gauge can be mounted either outside of the cab or onto the control box with the provided bracket (PN# 53769)
- Run/Hold circuit on 35 amp units
- Control mounted hardware included
- All AgXcel Manual Rate Controllers are backed by a 1-year warranty

MANX CONTROL KIT DUAL PN#564		
PN#	ITEM	QTY
17934	MANX CONTROLLER	1
18113	15 FT EXTENSION	2
53660	20 FT EXTENSION	2
17944	BATTERY CABLE 15FT **	1
17945	"Y" PUMP CABLE	1
ONLY 1 KIT BELOW WILL BE INCLUDED:		
53824*	RUN/HOLD KIT*	1
54066*	MERCURY SWITCH KIT*	1

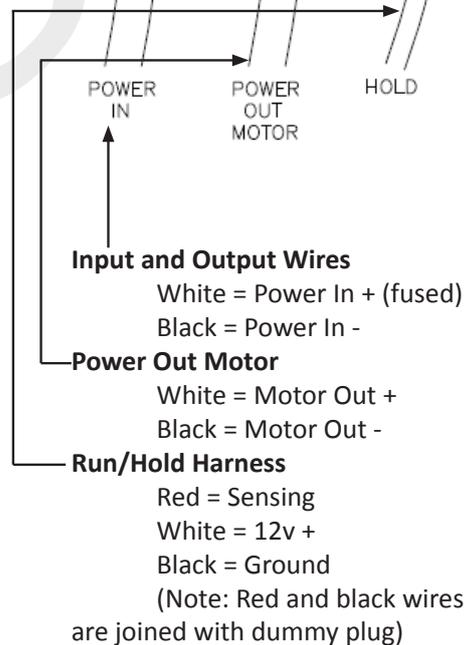
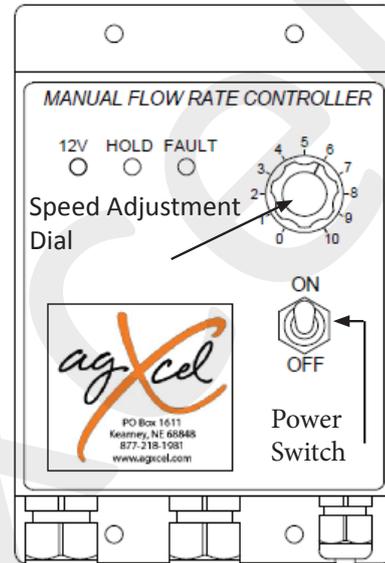
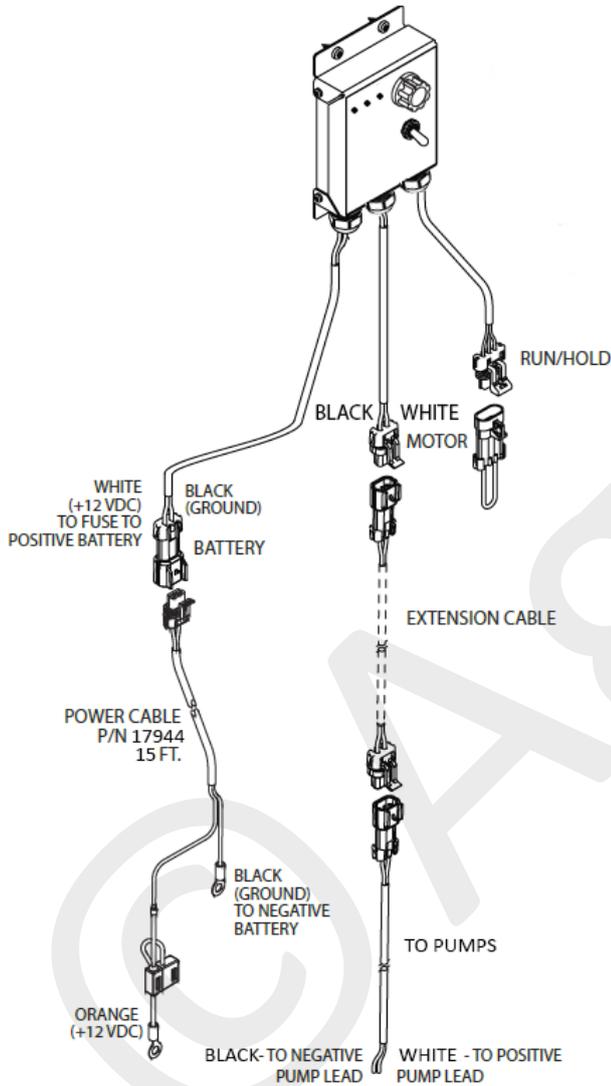


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AVAILABLE EXTENSIONS	
PN#	ITEM
17939	5 FT EXTENSION
17958	10 FT EXTENSION
18113	15 FT EXTENSION
53660	20 FT EXTENSION
53661	30 FT EXTENSION
53662	40 FT EXTENSION
19630	50 FT EXTENSION
53663	60 FT EXTENSION



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INSTALLATION AND OPERATION:

1. Verify that the motor/pump to be operated draws less than or equal to the control's rated capacity at full load. The control has an in-line fuse sized to the unit's capacity. Locate the control unit inside the tractor cab (out of the weather) and mount with the provided #10 screws.
2. **** IMPORTANT **** Only connect the harness with the WHITE and BLACK wires to the power source. The white wire is positive and the black is negative. Use a minimum of 12 AWG for the 35A control. If not connected directly to power source this will void warranty.
3. Connect the harness with the white and black wires to the motor. The white wire is positive and the black wire is negative. Use a minimum of 12 AWG for the 35A control. You must run both wires to the motor connections - do not run the black wire to ground.
4. **OPTIONAL EQUIPMENT:** Mount the pressure gauge (PN#53769) either outside of the cab or to the side of the controller using the supplied bracket. Connect the port of the gauge to an output line of the pump with the provided 1/4" poly tubing and 1/4" npt push-connect fittings. The tubing splice connector can be used as a line disconnect near the implement.
5. Run/Hold optional connection
 - For use with a N.O. (normally open) whisker switch, cut the looped wire in the dummy plug and connect to your switch wires. A smaller gauge wire (18 AWG minimum) may be used for this low current circuit.
 - For use with a hall-effect sensor, remove the dummy plug and attach the plug from your sensor.

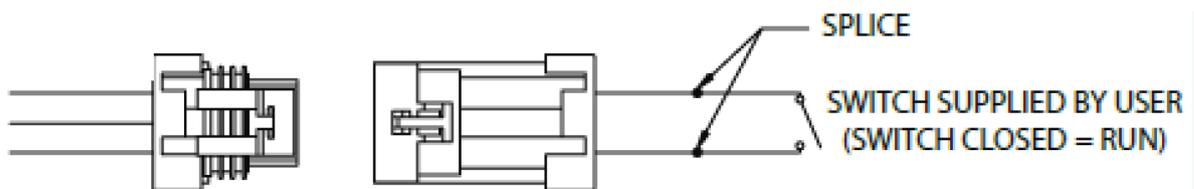
TROUBLESHOOTING:

IF MOTOR WILL NOT RUN:

1. Check polarity of power connections (the control unit protected from reverse polarity).
2. Check for loose connections and a good ground.
3. Check for power (and proper voltage of 12-14 volts). Note that the unit will not run from a battery charger and that the LED should be illuminated if the power switch is set to "ON".
4. Check that the run/hold dummy plug is in place, or check that the tool bar switch is functioning correctly.

IF MOTOR SPEED IS NOT BEING CONTROLLED (MOTOR IS ON BUT ONLY AT SINGLE SPEED)

5. Insure that BOTH of the motor wires (white and black) are attached to the motor leads DIRECTLY. Do not run the black wire to system ground.



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RUN/HOLD KIT (PN#53824):

1. Run/Hold optional connection (If not using be sure to use provided loop to close circuit)
 - For use with a N.O. (normally open) whisker switch, cut the looped wire in the dummy plug and connect to your switch wires. A smaller gauge wire (18 AWG minimum) may be used for this low current circuit.
 - For use with a hall-effect sensor, remove the dummy plug and attach the plug from your sensor.

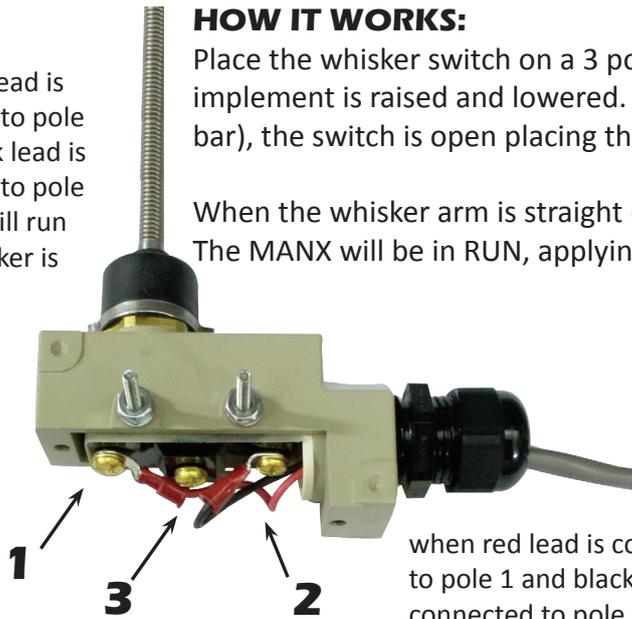
when red lead is connected to pole 1 and black lead is connected to pole 2 pumps will run when whisker is straight

HOW IT WORKS:

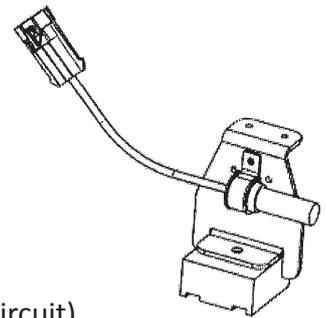
Place the whisker switch on a 3 point arm or wheel frame that changes angle as the implement is raised and lowered. When the whisker arm is bent up (against the toolbar), the switch is open placing the MANX in HOLD, not applying fertilizer.

When the whisker arm is straight (not touching the toolbar), the switch will be closed. The MANX will be in RUN, applying fertilizer.

* The Whisker switch will work with many other controllers. However, the polarity might be reversed from the positions described above.



when red lead is connected to pole 1 and black lead is connected to pole 3 pumps will run when whisker is bent



MERCURY SWITCH KIT (PN#54066):

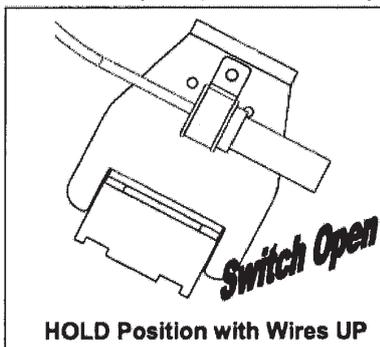
Run/Hold optional connection (If not using be sure to use provided loop to close circuit)

HOW TO ADJUST:

If your controller is turning off product application before or after you want, tilt the switch. If it turns off after you want when lifting the implement, tip more to the HOLD position. If product application should begin sooner when you lower the implement, tip more to the RUN position.

HOW TO TEST:

To test the run/hold mercury switch you will need a volt meter. Set the meter to test continuity (or ohms). With the wires down, you should have continuity between the two pins in the connector. With the wires up, the switch should be open (no continuity).



MOUNT THE SWITCH ON:

- 3 point arm if in use
- Planter wheel frame that changes angle
- Drill opener frame if openers are pivoted to raise out of ground.

