

4.7 DRIVE CARD SETUP PROCEDURES

NOTE: *The following procedures are to be used as a beginning basis for controller adjustment. After completing the procedure, final adjustments are to be made based on the machines function speed*

Lift, Swing, and Drive Cards

1. Center the input potentiometers. Power up the card, but do not start the engine. Place the common lead of a voltmeter on pin #6 and place the other lead on pin #8. Rotate the potentiometer, leaving the joystick in the center position, until the voltmeter reads 2.5 volts. Secure the set screw on the potentiometer. When the potentiometer is centered and the joystick is in the center position, LED #3 should not be illuminated.
2. Install test harness JLG P/N 4922012.
3. Set the minimum and maximum currents. The input potentiometer must be centered before continuing with this procedure. Power up the card, but do not start the engine. Place the current meter in series with the "A" output. Turn P3 counter clockwise until the adjustment potentiometer starts to click. This will set to maximum current to its lowest value. Move the joystick until LED #3 illuminates and hold the stick in this position. Adjust P4 until the meter equals the setting given in table #1. Rotating the adjustment potentiometer clockwise will increase the current. This will set the minimum current setting for the "A" output. To set the maximum current for the "A" output, hold the joystick in its maximum position. Turn P3 clockwise until the meter reading equals the setting in table #1. Follow the same procedure for the "B" output. Use P8 for the minimum current adjustment and P7 for the maximum current adjustment.
4. Set the ramp up and the ramp down times. Step 2 must be performed before continuing with procedure. Power up the card, but do not start the engine. Place the current meter in series with the "A" output. Move the joystick from the center position to the extreme position. Watch the meter for the time it takes the output to go to from 0 current to maximum current. This is the ramp up time. Adjust P1 until this time matches the time given in table 2. Rotating the adjustment potentiometer clockwise will increase the ramp time. To set the ramp down time, hold the joystick in the extreme position. Release the joystick and watch the meter for the time it takes the output to go from the maximum current setting to 0 current. Adjust P2 until this time matches the time in table 2. Rotating the adjustment potentiometer clockwise will increase the ramp time. Follow the same procedure for the "B" output. Use P5 for the ramp up adjustment and P6 for the ramp down adjustment.

Flow Control Card

1. Set the input potentiometer. Power up the card, but do not start the engine. Place the common lead of a voltmeter on pin #15 and place the other lead on pin #8. Rotate the potentiometer and verify the input to the card is 3.8 volts when the input potentiometer is in its minimum position. Rotate the input potentiometer to its maximum position and verify the input to the card is 0 volts.
2. Set the minimum and maximum current settings. The input potentiometer must function properly before continuing with this procedure. Turn P3 counter clockwise until the adjustment pot starts clicking. Place a current meter in series with the "A" output. Rotate the input potentiometer to its minimum setting and operate the telescope function. Adjust P4 until the meter reading matches the setting in table 1. This sets the minimum current setting for the card. Rotate the input potentiometer to its extreme position and operate the telescope function. Turn P3 clockwise until the meter reading matches the setting in Table 1. This sets the maximum current for the card.
3. Set the ramp up and the ramp down times. Step 2 must be completed before continuing with this procedure. Power up the card, but do not start the engine. Place the current meter in series with the "A" output. Turn the input potentiometer to its extreme position and operate the telescope function. Watch the meter for the time it takes the output to go from 0 current to maximum current. This is ramp up time. Adjust P1 until this time matches the time in table 2. Rotating the adjustment potentiometer clockwise will increase ramp time. To set the ramp down time, hold the telescope function switch and watch the time it takes the output to go from the maximum current down to 0 current. This is the ramp down time. Adjust P2 until this time matches the setting in table

2. Rotating the adjustment potentiometer clockwise will increase the ramp time.

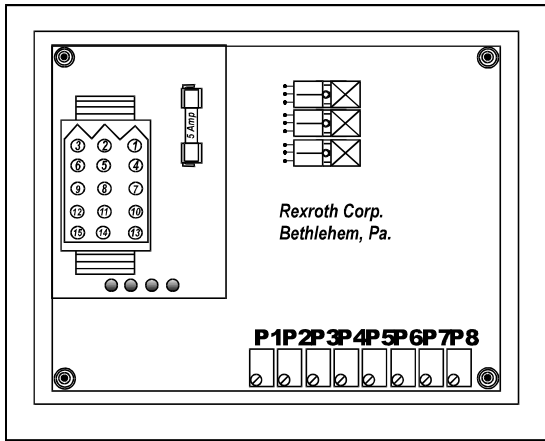


Figure 4-23. Control Card

Table 4-1. Flow Control Card Settings

Function	Minimum Current	Maximum Current
Lift Up	450 to 550 mA	1400 to 1500 mA
Lift Down	450 to 550 mA	1400 to 1500 mA
Swing Right	450 to 550 mA	1400 to 1500 mA
Swing Left	450 to 550 mA	1400 to 1500 mA
Flow Control	750 to 850 mA	450 to 550 mA
Drive Forward	40 to 60 mA	150 to 200 mA
Drive Reverse	40 to 60 mA	150 to 200 mA

Table 4-2. Flow Control Card Ramp Time

Function	Ramp Time
Lift Up	Ramp Up Time = 4:00 sec. Ramp Down Time = 3:00 sec.
Lift Down	Ramp Up Time = 4:00 sec. Ramp Down Time = 3:00 sec.
Swing Right	Ramp Up Time = 4:00 sec. Ramp Down Time = 3:00 sec.
Swing Left	Ramp Up Time = 4:00 sec. Ramp Down Time = 3:00 sec.
Drive Forward	Ramp Up Time = 4:30 sec. Ramp Down Time = 2:30 sec.
Drive Reverse	Ramp Up Time = 4:30 sec. Ramp Down Time = 2:30 sec.
Flow Control	Ramp Up Time = 3:00 sec. Ramp Down Time = 0:00 sec.

Table 4-3. Function Speeds

Function	Function Speed
	In Seconds
Telescope	
Extend	48-61
Retract	24-32
Lift	
Up	46-60
Down	33-43
Swing Speed	
Full 360	79-101
Platform Rotation	
Left	22-30
Right	22-30
Drive Speed	
	32-36 @ 200ft.

4.8 FOOT SWITCH ADJUSTMENT

Adjust so that functions will operate when pedal is at center of travel. If switch operates within last 1/4 in. (6.35 mm) of travel, top or bottom, it should be adjusted.