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# CONTROL KITS **POWER PLOW® Joystick Control** with SECURITY GUARD™ Snowplow Anti-Theft System

# **Operating Instructions**

#### WARNING

To prevent accidental movement of the blade, always turn the ON/OFF switch to OFF whenever the snowplow is not in use. The control indicator light will turn off.

# SECURITY GUARD SYSTEM OVERVIEW

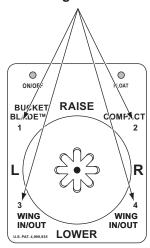
The SECURITY GUARD feature was developed as an electrical anti-theft system for snowplows. The system provides a deterrent from theft and/or non-permitted use by allowing you to electronically lock the snowplow's hydraulic functions.

Most POWER HITCH™ 2 snowplow controls and plow modules come equipped with the SECURITY GUARD system. You will need to ensure that the control and the plow module on the hydraulic unit are both SECURITY GUARD system enabled (see illustration to the right for proper identification of these components).

To use this function, you must complete the "Activation" process.

Each control is equipped with an ON/OFF switch and an indicator light to show when the control is powered ON or OFF. The controls are powered by the vehicle's battery, so your vehicle ignition (key) switch must be ON to use the controls.

**SECURITY GUARD System Enabled Controls Have** Numbers 1 Through 4 on the Faceplate.



The security equipped controls can be identified by the numbers one through four on the faceplate of the control, as shown above. The isolation module for the snowplow must also be equipped with SECURITY GUARD system programming. POWER HITCH 2 hydraulic units with serial numbers beginning with 09061610 and later have the SECURITY GUARD system programming. SECURITY GUARD system enabled modules can also be identified by the dash three (-3) after the model number on the module itself.

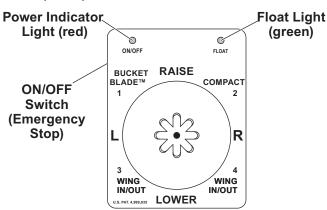
# Before Activating the SECURITY GUARD™ System:

Install the control as stated in the Joystick Control Kit Installation Instructions, and check all plow functions as described below.

#### OPERATING THE JOYSTICK CONTROL

- 1. Turn the vehicle ignition switch to the "ON" or the "ACCESSORY" position.
- Move the slide switch on the side of the control to the "ON" position. The power indicator light glows red, indicating the control is ON. The indicator light glows red whenever the control and the vehicle ignition switch are both ON and the electrical connections to the snowplow are completed.

The ON/OFF switch operates as an emergency stop if required.



# **Function Time-Outs**

All control functions, except LOWER/Float, time out (stop) automatically after a period of time. This is to limit the amount of electrical energy required from the vehicle.

NOTE: If control function times out before desired blade movement is complete, release the lever to the center position, then move back toward the desired function.

#### **Automatic Shutdown**

The control will automatically turn OFF after being idle for 20 minutes. To reactivate the control after a shutdown, press the ON/OFF button.

# **Smooth Stop**

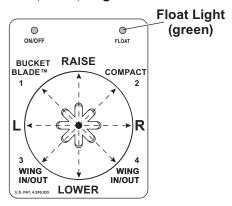
The control automatically allows the blade to coast to a stop when the lever is released. This results in smoother operation, reduces shock to the hydraulic system and increases hose and valve life.

#### **Control Lever Movement**

From the center position, the control lever can be moved in one of eight (8) directions to control various movements of the snowplow blade. To change from one movement of the blade to another, the control lever must be moved back to the center position before selecting the desired function. Whenever the lever is released, it should spring back into the center position to stop any blade movement.

# **Control Functions**

# Raise, Lower, Float, Angle



Moving the control lever in straight lines up and down or from side to side on the control body will result in the following blade movements:

NOTE: If control function times out before desired blade movement is complete, release the lever to the center position, then move back into the desired function.

Function	Description of Operation
RAISE	Move control lever toward top of control body to raise snowplow and cancel FLOAT mode. Function times out after 4.8 seconds.
LOWER	Move the control lever toward bottom of control body to lower the snowplow. Release the lever to stop blade at desired height.
FLOAT	Move the control lever to <b>LOWER</b> position and hold for 3/4 second to activate this mode. The FLOAT indicator light in upper right corner of control face will illuminate. The blade will lower to the ground surface and follow the contour of surface as it dips or raises. Function does not time out; however, control will shut down after 20 minutes of nonuse.  Move lever to <b>RAISE</b> position momentarily to cancel FLOAT. Angling left or right will interrupt (stop) FLOAT function, but FLOAT will resume when angling is complete.
L (Angle Left)	Move the control lever straight to the left to move the blade to the angle left position to cast snow to the driver's left side. Function times out after 9.6 seconds.
R (Angle Right)	Move the control lever straight to the right to move the blade to the angle right position to cast snow to the driver's right side. Function times out after 9.6 seconds.
1 & 4	Used to access the SECURITY GUARD™ system activation mode.
2 & 3	Used to clear the entered SECURITY GUARD system code.

# **BUCKET BLADE™/COMPACT Blade Position**

Moving the control lever from center position toward the word BUCKET BLADE or COMPACT on the face of the control body will cause both wings to move at the same time into the following blade positions:

Function	Description of Operation
BUCKET BLADE™	Move the control lever toward the words BUCKET BLADE on the control face
	to extend both wings forward into the
	BUCKET BLADE position. Function times out
	after 7.25 seconds.
COMPACT	Move the control lever toward the word
	COMPACT on the control face to draw both
	wings into the fully retracted position. Function
	times out after 5.5 seconds.

# **Wing Positions**

Moving the control lever from center position toward the word WING on either side of the face of the control body will cause either wing to move independently of the other as described below.

Function	Description of Operation
L WING	Move the control lever toward the left side of LOWER on the control face to move the left wing. The first time the lever is moved into the slot after the control is turned ON or another function is used, the wing will extend.
IN/OUT	Repeated use of lever in the same slot, without using another function, results in movement in the opposite direction from the previous movement. Function times out after 4.5 seconds.
R WING IN/OUT	Move the control lever toward the right side of LOWER on the control face to move the right wing. The first time the lever is moved into the slot after the control is turned ON or another function is used, the wing will extend.  Repeated use of lever in the same slot, without using another function, results in
	movement in the opposite direction from the previous movement. Function times out after 4.5 seconds.

# The SECURITY GUARD™ System

# Activation & Establishing a 4-Digit Security Code

NOTE: The snowplow must be attached to the vehicle, and all the electrical connections must be connected prior to activating the security code function.

- Turn the vehicle ignition switch to the "ON" or "ACCESSORY" position. (It is not necessary to start the vehicle.)
- Verify the control power indicator is OFF. If the power indicator light is red, the control is ON. Press the ON/OFF button to turn the hand-held control OFF.
- 3. To activate the SECURITY GUARD mode, press the control #1 button four consecutive times, and then press the #4 button four consecutive times (sequence: 1, 1, 1, 1, 4, 4, 4, 4). The green FLOAT light will flash quickly and the red POWER light will turn ON indicating the system is ready to accept your 4-digit security code.

Enter your 4-digit security code by pressing any of the eight following buttons in any sequence: UP, DOWN, LEFT, RIGHT, 1, 2, 3 or 4.

Once you have entered your 4-digit security code, the FLOAT light will stop flashing and the POWER light will turn OFF. This indicates that your 4-digit security code is entered and stored in the SECURITY GUARD system.

4. Once a 4-digit security code is established and the plow/vehicle electrical connection are lost/disconnected, the SECURITY GUARD system will recognize any control that has been programmed with the same 4-digit security code. Any control not programmed with the correct 4-digit security code will require the user to enter the established security code before activating the snowplow (see the Manual Unlock procedure).

NOTE: If the control POWER button is turned ON prior to completing the programming procedure, your 4-digit security code will be cancelled.

#### **Manual Unlock**

If the SECURITY GUARD system is activated and you are using a control with a different 4-digit code than the established security code, you will be required to manually enter the 4-digit security code before operating a locked snowplow.

- 1. Turn the vehicle ignition to the "ON" or "ACCESSORY" position.
- 2. Turn the control to the "ON" position.
- 3. The POWER light will flash rapidly, indicating that the snowplow is locked.
- 4. Enter the 4-digit security code.
- After entering the correct security code, the POWER light will change from flashing rapidly to a solid light to indicate the snowplow has been successfully unlocked.

NOTE: If the plow/vehicle electrical connection is lost or disconnected, the SECURITY GUARD system will reset, requiring any control that is not programmed with the established 4-digit security code to manually re-enter the security code to activate the snowplow.

#### Clearing an Established 4-Digit Security Code

- 1. Turn the vehicle ignition switch to the "ON" or "ACCESSORY" position.
- 2. If the snowplow is locked (the control POWER light will be flashing at a fast rate), unlock the snowplow by following the Manual Unlock procedure.
- 3. Turn the control to the "OFF" position. Verify that the power indicator is OFF.
- 4. With the control OFF, press the #2 button four consecutive times, and then press the #3 button four consecutive times. This sequence (2, 2, 2, 3, 3, 3, 3) will clear the 4-digit security code from the SECURITY GUARD system. The FLOAT light will flash to indicate that the 4-digit security code was cleared.

NOTE: To enter a new 4-digit security code see Activation & Establishing a 4-Digit Security Code.

# **Light Flash Indicators**

POWER - Red	Function
Off	Control is OFF
Solid On	Control is ON and active
Slow Flash	No communication
Fast Flash	Plow is locked – enter 4-digit security code to unlock

FLOAT - Green	Function
Solid On	Float function is active
Fast Flash	Security code activation in
	progress

# **Additional Notes**

- The SECURITY GUARD™ system requires any control (other than the one with the assigned 4-digit security code) to enter the security code before the snowplow can be activated. Once the security code is established, the SECURITY GUARD system recognizes that a control with the same security code is attached, and does not require a manual unlock to activate the snowplow. The system will recognize the control as "safe" and will automatically unlock.
- In the event that a snowplow is locked and cannot be manually unlocked or reset, contact your Authorized Distributor.
- REMINDER: Record your security code for future reference.

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