# JOYSTICK CONTROL

## with SECURITY GUARD™ Snowplow Anti-Theft System

## Operating Instructions
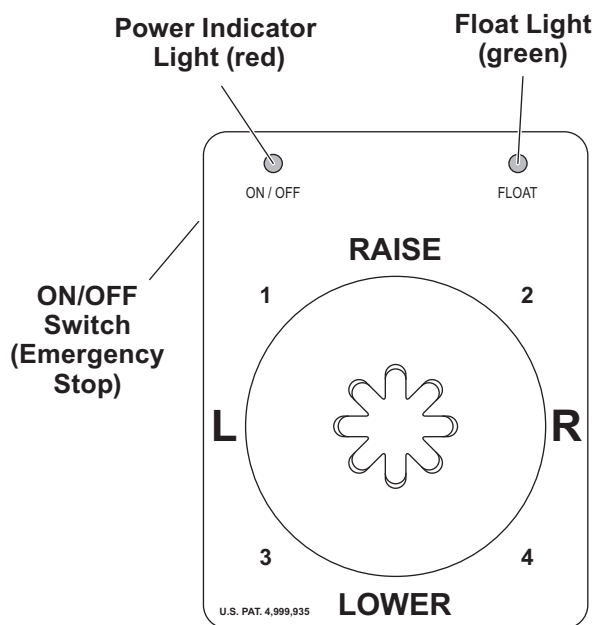
---

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

## CONTROL OVERVIEW

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

All half-ton series snowplow controls come equipped with the SECURITY GUARD system. 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.

```
     Power Indicator              Float Light
      Light (red)                   (green)


    ON / OFF                      FLOAT

                      RAISE

ON/OFF         1                    2
Switch
(Emergency
Stop)       L          ✳           R


               3                    4
 U.S. PAT. 4,999,935
                      LOWER
```

## 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 "ACCESSORY" position.

2. 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 into the desired function.**
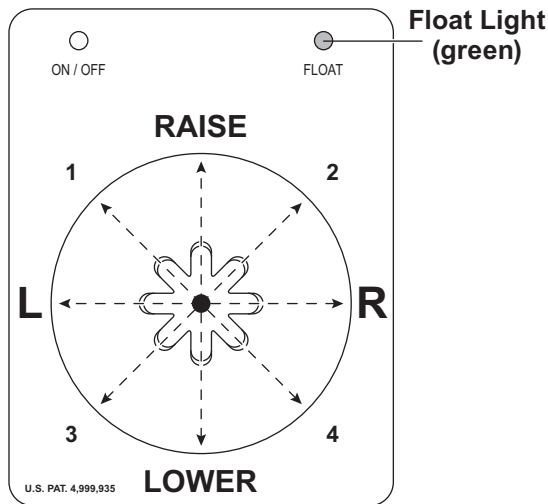
---

## Automatic Shutdown

The control will automatically turn OFF after being idle for 20 minutes. To reactivate the control after a shutdown, move the ON/OFF switch to OFF, then back to ON.

---

## Smooth Stop

The control automatically allows the blade to coast to a stop when the lever returns to center position. This results in smoother operation, reduces the 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 blade movements described in the following tables.

**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 the control lever toward the top of the control body to raise the snowplow and cancel the FLOAT mode. Function times out after 4.8 seconds. |
| **LOWER** | Move the control lever toward the bottom of the control body to lower the snowplow. Release the lever to stop blade at desired height. |
| FLOAT | Move the control lever to the **LOWER** position and hold 3/4 second to activate this mode. The FLOAT indicator light in the upper right corner of the control face will illuminate. The blade will lower to the ground surface and follow the contour of the surface as it dips or raises. Function does not time out; however, control will shut down after 20 minutes of nonuse. Move lever to the **RAISE** position momentarily to cancel FLOAT. Angling left or right will not interrupt (stop) the FLOAT function. |
| **L** (Angle Left) | Move the control lever straight to the left to angle the blade left. Function times out after 9.6 seconds. |
| **R** (Angle Right) | Move the control lever straight to the right to angle the blade right. 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. |

## 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.**

1. Turn the vehicle ignition switch to the "ON" or "ACCESSORY" position. (It is not necessary to start the vehicle.)

2. Verify the control power indicator is OFF. If the power indicator light is red, the control is ON. Slide the ON/OFF switch to "OFF" to turn the control OFF.

3. To activate the SECURITY GUARD mode, move the control lever into the #1 position four consecutive times, and then in the direction of the #4 position 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 moving the control lever into the position of any of the eight following positions: 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 half-ton series 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 switch 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 half-ton series 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.

5. 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 half-ton series 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, move the control lever to the #2 position four consecutive times, and then to the #3 position four consecutive times. This sequence (2, 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.**

# 49700, 96800

## 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 half-ton series 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.

• The SECURITY GUARD system is only fully functional with joystick controls PN 49700 and PN 96800.

• 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.

**Printed in U.S.A.**