

Limit Switch Function – Setting and Adjustments

Adjustment

For adjustment, it is best to refer to the security equipment manufacturer's alignment procedure for each limit switch. Security applications for limit switches can be slightly different for various equipment manufacturers. Limit switches for gates and drop arms typically will be adjusted so that the motion of the gate trips the switch just before the full open or closed position. This alignment must be adjusted correctly or the equipment could try to drive past its mechanical limits. Other switches are adjusted to activate when a device is fully opened or closed.

Regardless of the type of switch, when the lever or arm or "conductive" material triggers, the switch should activate. Switch functionality can be determined by monitoring an indication on a PLC, logic board, or by measuring for voltage switching with a Volt-Ohm meter. Physical adjustment can be made by changing the position of the limit switch itself or by adjusting the activation levers, arms, or ramps. Some switches have multiple means to allow adjustment.

In performing limit switch adjustments, remember the following key factors:

- Always take all appropriate safety precautions.
- Ensure the limit switch is operating by testing or observing.
- Ensure understanding of how this limit switch works in the associated equipment and how it can be adjusted to achieve the designed resulting functionality.
- Use the instructions from the equipment manufacturer's manuals to properly set the limit switch's activation points.
- Visually watch to see if the activation is correct, if this can be done safely.