

Setting Ravasi Rotary Limit Switches



Establish Rotation

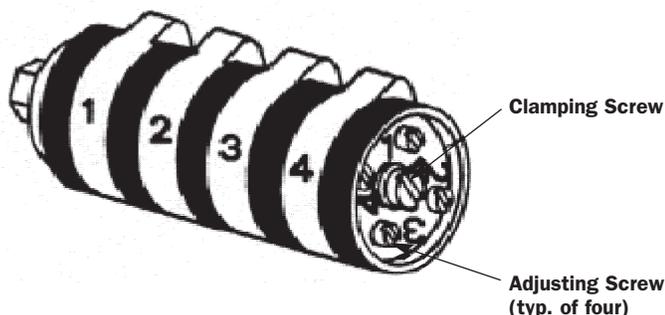
- Remove limit switch cover.
- Drive winch in **UP** direction – note direction of cam stack rotation.
- Mark switch cover or label inside switch to record cam stack rotation.
- Avoid contacting screw terminals on operating switches while winch system is on.

Determine Travel

- Determine where load must stop to avoid damage/misalignment – set overtravel to stop short of this point.
- Determine the range of travel required for the load; set normal limits to stop load at these points.
- For each end of travel, set overtravel limit first, then set end-of-travel limit.
- Make sure that the operator can clearly see the entire load for its entire travel, or that spotters are in place to observe and clearly communicate with the operator.

Adjust Limit

- Drive the winch to the desired end of travel.
- Re-verify cam stack rotation (when the winch travels up, does the cam stack rotate clockwise or counterclockwise). Determine which side of the desired switch the limit cam must strike (i.e. if the cam stack rotates clockwise when the winch travels down, and you are setting a down limit, the cam must actuate the down limit while moving in a clockwise direction).



- Loosen the central cam stack clamping screw (1/2 turn).
- Locate the adjusting screw for the desired limit by referring to the numbers adjacent to the adjusting screws. Note that the lowest switch in the cam stack (down overtravel) is **switch 1**, the next switch (down limit) is **switch 2**, the next switch (up limit) is **switch 3**, and the highest switch in the stack (up overtravel) is **switch 4**.
- Rotate the adjusting screw to adjust the limit cam lobe to a position where the selected limit switch is just actuated (audible click).
- Once the limit cam is at the proper place, tighten the cam stack clamping screw.

Test Limit

- Drive winch away from limit until limit is cleared (use overtravel bypass switch to move winch off overtravel limit).
- Drive winch toward limit until limit stops motion.
- Assess stopping position (measurement vs. target).
- Drive winch off limit (use overtravel bypass switch to move winch off overtravel limit).

Refine Limit Adjustment

- Repeat the **Adjust Limit** procedure, as detailed above.
- Move cam lobe closer to switch to make switch trip sooner (decrease travel distance).
- Move cam lobe further from switch to make switch trip later (increase travel distance).
- **Make sure to tighten cam stack clamping screw after each adjustment!**
- Retest limit adjustment until winch stops at desired position.

Adjust Remaining Limits

- Once overtravel limit is set, set normal limit at same end of travel.
- Check to ensure that there is sufficient distance between normal limit and overtravel limit – if the winch strikes both limits before stopping, increase the distance between the limits by moving the normal limit to stop the load sooner.
- Once all limits are set, check that cam stack clamping screws are tightened, then replace the limit switch cover.