



# Sturtevant Richmond

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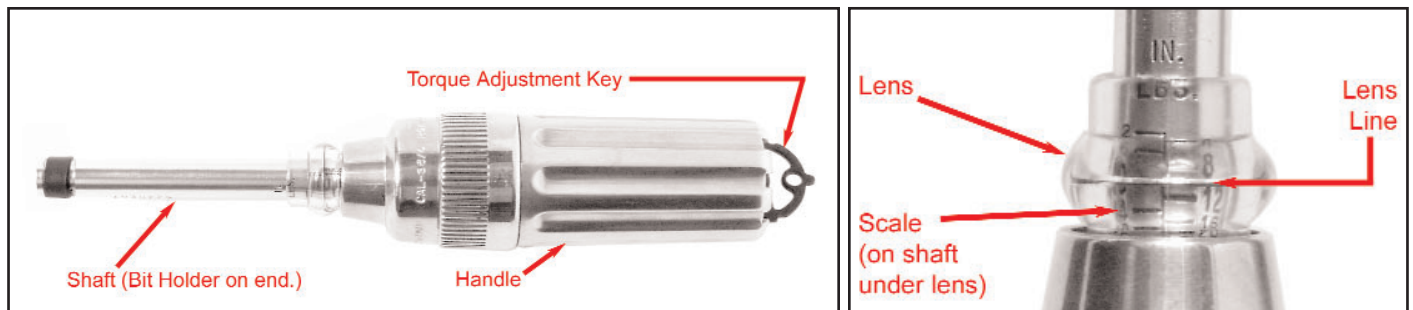
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## OPERATING INSTRUCTIONS

### Adjustable Torque Screwdrivers - Models CAL 36/4 and CAL 40

Sturtevant Richmond adjustable torque screwdrivers are designed & manufactured to provide consistent user-settable torque in high-cycle and maintenance applications. They meet ASME B107.14M and ISO 6789 specifications of  $\pm 6\%$  preset value accuracy from 20% to 100% of capacity, and  $\pm 1.2\%$  of capacity when set below 20% of capacity. These specifications are met in both the clockwise [CW] and counter-clockwise [CCW] directions.

S/R adjustable torque screwdrivers signal the operator that the set torque has been attained by emitting a distinct audible and tactile impulse (click).



### Setting Instructions

1. Remove the black vinyl cap from the rear of the screwdriver.
2. Raise the Torque Adjusting Key from the stored and locked position.
3. Rotate the torque adjusting key to align the lens line with the desired torque.
  - a. Use the markings on the shaft to determine torque scale and setting.
  - b. Rotate the Torque Adjusting Key clockwise (CW) to increase the torque setting.
  - c. Rotate the Torque Adjusting Key counter-clockwise (CCW) to decrease the torque setting.
4. When the desired torque is directly under the Lens Line, fold the Torque Adjusting Key back to the stored and locked position. If desired, use the enclosed screw to affix the Torque Adjusting Key in place.
5. Replace the black vinyl cap on the rear of the screwdriver.

### Operating The Screwdriver

1. Set torque per procedure above.
2. insert bit (or adapter and socket) into Bit Holder on end of Shaft.
3. Engage fastener completely with bit (or socket).
4. Rotate screwdriver steadily until "click" is heard and felt. Further rotation will not tighten fastener further.

### Care and Cleaning

Return screwdriver to its lowest setting when it is to be stored for any period of time. Clean the screwdriver with a soft, damp cloth. Do not immerse the screwdriver in cleaning fluids.

### Use of Extensions and Adapters

Only in-line extensions should be used with your screwdriver. The maximum recommended overall length of any extension is six inches (6").

# Calibration Instructions

## Equipment Required

Torque tester of  $\pm 1\%$  Indicated Value accuracy or greater within the torque range of the screwdriver.  
1/16" Hex Key

## Specification

Accurate to within  $\pm 1\%$  of Indicated Value from 20% to 100% of capacity.  
Accurate to within  $\pm 1.2\%$  of Full Scale below 20% of capacity.  
Test points are 20%, 60%, and 100% of capacity.  
Always begin testing at the 20% capacity level and progress upwards.

## Procedure

1. Set screwdriver to test point.
2. Engage tool to torque tester.
3. Rotate screwdriver to obtain three (3) readings.
4. Evaluate readings.
  - a. If screwdriver is in specification:
    1. And all three test points have been tested, test is complete.
    2. And all three test points have not been tested, adjust to next test point and return to step 2.
  - b. If screwdriver is not in specification:
    1. Return screwdriver to 20% setting.
    2. Test on torque tester.
    3. Disregard markings on shaft and adjust torque until consistent readings of 20% of capacity (8 in.lbs., or 0.8 Nm, or 8 KGF•cm) are obtained on tester.
    4. Use 1/16" hex key to loosen the Lens Set Screw (below Lens on nose of screwdriver).
    5. Rotate Lens until Lens Line is aligned with the shaft marking correlating to the test result.
    6. Re-tighten Set Screw and retest.

## Caution

- >> Always wear safety glasses when using hand tools.
- >> Assure bit or socket fully engages fastener before applying torque.
- >> Never exceed tools' rated capacity.
- >> Use tool only for purpose intended.

## Repair, Support and Certification

Repair parts can be ordered from your local S/R distributor. For the name of a distributor in your area, contact us using the information on the front of this document.

Factory repair, and certification from our ISO/IEC 17025 Accredited calibration laboratory, of S/R product is available. Contact us for details.

If you have any questions pertinent to the use of this product, or other torque-related questions, please contact us at your convenience.