TOOL MAINTENANCE

Installation tools should be periodically inspected for damage or wear. Tools should be kept clean so that foreign objects and debris (chips, oils, and dirt) will not clog the tool and prevent the Pawl from fully pivoting inside the Mandrel. Operator misuse can contribute to premature wear and/or damage to the Pawl or Mandrel.

PARTS REPLACEMENT

Replacement Pawls, Pawl Kits (includes 1 Pawl, 2 Pins, and 2 Springs), and replacement Mandrels are available from KATO (see Parts List below).

FOLLOW THE PROCEDURES BELOW TO REPLACE A DAMAGED PAWL OR MANDREL.

- 1. Loosen the Lock Nut.
- 2. Remove the Lock Nut and Adjusting Sleeve from the Mandrel.
- 3. Push out the Pawl Pin (see figure 1). Be careful not to lose the Pin.
- 4. Remove the Pawl from the Mandrel slot.
- 5. Remove the Spring from the Mandrel. Be careful not to lose the Spring.

TO REASSEMBLE:

- 6. Insert the Spring into the Mandrel. (The Spring goes into the hole closest to the Pawl Pin)
- 7. Insert the Pawl into the Mandrel Slot.
- 8. Line up the Pin holes (Pawl & Mandrel) and press in the Pin.
- 9. Check for spring action and free movement of the Pawl in the Mandrel slot.
- 10. Thread the Lock Nut and Adjusting Sleeve back into the Mandrel.

SAFETY

Always wear eye protection when working with KATO tools.



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DADTOILOT

FARTSLIST					
REPLACEMENT PARTS	KATO PART NUMBER				
Pawl	2KIP <mark>X-XX</mark>				
Pawl Kit	2KIP <mark>X-XX</mark> K				
Replacement Mandrel	2KREX-XXM				
Adjusting Sleeve Housing (Nylon Guard not included)	2KRE <mark>X-XX</mark> H				
Nylon Guard	2KREX-XXG				
X-XX Signifies Thread Type & Size Designation. For example, 2KREC-04M					



INSTRUCTIONS FOR USING KATO TANGLESS® COILTHREAD® INSERT TOOLS

THE FOLLOWING INSTRUCTIONS ARE APPLICABLE TO THE KATO TANGLESS ROUND ELECTRIC INSTALLATION TOOL (2KRE Series)



BEFORE YOU BEGIN PLEASE REVIEW:

- Proper hole preparation procedures.
- The KATO Linear Arm (2KLRM-1) to reduce operator fatigue and injury.

IMPORTANT NOTES

- A step by step instructional video can be found in the KATOpedia section of the KATO website <u>www.katofastening.com</u>.
- The Installation Mandrel (see figure 1) is designed to be used with the KATO SB-400C Electric Driver (CT5405) for sizes 2-56 thru 6-32, and M2.5 thru M4; or the KATO SB-650C Electric Driver (CT5406) for sizes 6-32 thru 3/8", and M5 thru M8.
- The KATO 2KRE series tools can also be used with the KATO KFS-20 (CT5420) brushless electric driver. The optional hex kit (2KHEX-1K) is required. The hex kit includes a Hex Sleeve and Pin.

Please note that the Power Transformer SBT-50 is no longer available from the manufacturer; therefore, KATO is no longer offering the Power Transformer, the SB-400C and the SB-650C. KATO recommends using the CT5420 driver with the 2KHE series installation mandrel.

REQUIRED COMPONENTS

The KATO Non-Prewinder Electric Installation System consists of:

- SBT-50 Power Transformer (CT5407)
- SB-400C Electric Diver (CT5405), and/or SB-650C Electric Diver (CT5406)

COMPONENTS LIST

2KRE Series Installation Tool includes the following parts:

- 1 Round Mandrel Assembly (1 threaded Mandrel, 1 Pawl, 1 Spring, 1 Pin)
- 1 Adjusting Sleeve Housing
- 1 Nylon Guard
- 1 Lock Nut

2 Wrenches (select sizes only)

DEPTH ADJUSTMENT AND TOOL ASSEMBLY

- 1. Use two wrenches (provided) to loosen the Lock Nut and Adjusting Sleeve on the Mandrel.
- 2. Thread the Lock Nut and Adjusting Sleeve towards the back of the Mandrel to fully expose the front threads.
- 3. Thread the insert to be installed onto the Mandrel until the Pawl engages the drive notch. Tangless inserts are Bi-Directional, so there is no need to orient the insert.
- 4. Turn the Adjusting Sleeve until the Nylon Guard is approximately 1 thread behind the end of the insert. This will ensure proper installation depth (3/4 1 1/2 threads below the surface for a hole with a countersink; 1/4 1/2 threads below the surface for a hole without a countersink). Note: Inserts may vary ± 0.25 coil. KATO recommends that the installation depth of each lot be tested using a sample tapped hole prior to installing the inserts into the production part.
- 5. Use the two wrenches to lightly tighten the Lock Nut against the Adjusting Sleeve. (Be careful not to move the Adjusting Sleeve when tightening)
- 6. Install the Mandrel into the Standard Chuck and tighten using the provided chuck key.

TORQUE ADJUSTMENT & INSERT INSTALLATION BULK INSERTS:

- 7. Always use the minimum amount of torque that will install the insert. This will minimize the possibility of breaking the Mandrel or Pawl and increase the life of the tool. Start with a very low torque setting on the electric driver. Tighten the Torque Adjustment Knob to increase torque and loosen to decrease torque.
- 8. Hold the electric tool perpendicular to the tapped hole and align the insert. Straight alignment will provide smooth installation and longer tool life.
- 9. Actuate the driver by pressing the Trigger.
- 10. Continue to hold down the Trigger as the Installation Mandrel threads the insert into the tapped hole.
- 11. Once the insert is fully installed, the Electric tool will automatically reverse. Be sure to hold the Trigger down until the Mandrel fully retracts from the installed insert. If you release the Trigger

prematurely the Electric Driver will reset. When the Trigger is depressed again the Driver will run forward. Hold the Trigger until the Mandrel exits the tapped hole.

Note: The insert can be loaded onto the mandrel manually, or you can hold the insert in one hand and tap the Trigger on the Electric Driver with the other hand.

STRIP-FEED INSERTS:

KATO does not recommend using strip-feed inserts with non-prewinder electric tools. The KATO 2KPE Series Electric Tool Front End Assembly is strongly recommended when using strip-feed inserts.

DO NOT APPLY ANY DOWNWARD PRESSURE OR TRY TO FORCE THE INSERT INTO THE HOLE, LET THE WEIGHT OF THE TOOL DO THE WORK. FORCING THE INSERT INTO THE TAPPED HOLE MAY RESULT IN INSTALLATION FAILURE AND CAUSE DAMAGE TO THE TOOL AND/OR WORKPIECE.

MANUAL INSTALLATION:

If desired, a handle (2KREH-UI) can be purchased for manual Tangless installation with the 2KRE Series tools.

INSERT REMOVAL

If necessary KATO Tangless inserts can be easily removed without damaging the workpiece or the insert by using the KATO 2KRT Series Tangless Removal Tool. The KATO removal tool can also be



TIPS & TRICKS

Having difficulty getting the insert started? Try one or more of these helpful tips:

- Tap the Trigger on the Electric Driver in short intervals until the insert begins to enter the tapped hole.
- Dipping the insert in Alcohol or another non-residual solution will provide lubrication and help facilitate installation. USING ALCOHOL ON LOCKING INSERTS WILL CAUSE THE RED DYE TO BLEED.
- Back off the insert approximately one turn so that the notch disengages from the Pawl, and attempt installation from this position.