



X-10 Lock Installation

Using the Spindle Alignment Tool

DoD Lock Program

NAVFAC Engineering and Expeditionary Warfare Center

1100 23rd Avenue, Port Hueneme, CA 93043

(800) 290-7607 or (805) 982-1212

<https://www.navfac.navy.mil/go/locks>

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The X-10 Spindle alignment tool helps prevent the certified X-10 installer from cutting the X-10 spindle too short during the installation. If the spindle is cut too short, it will eventually cause the dial, hub, and spindle assembly to disengage from the drive cam and the lock will not function properly. To purchase this tool, call Lockmasters, Inc. at 800-654-0637 and ask for part number LKMX10SMT. If you have questions regarding this procedure call the DoD Lock Program Technical Support Hotline at 800-290-7607.

Step 1: Position the spindle so the square end tip enters the dial ring. Seat the spindle fully into the drive cam (see figures 1 and 2).



Figure 1



Figure 2

Step 2: Hold the spindle in place and thread the spindle alignment tool into the back of the spindle (through the back of the lock) until tight (see figure 3). Note that if the spindle is not seated properly into the drive cam, the spindle alignment tool will not thread into the spindle. When seated properly, you will not be able to remove the spindle.



Figure 3

Step 3: Place the hub on the spindle so it is flush with the dial ring cover. Tighten the hub onto the spindle using an Allen wrench (see figure 4). Then, using a hacksaw, cut off the excess spindle evenly with the end of the hub (see figure 5).



Figure 4



Figure 5

Step 4: While holding the dial hub firmly against the dial ring, remove the Spindle Alignment Tool and replace with the spindle screw that comes with the installation kit (Figure 6).



Figure 6

Step 5: Loosen the setscrews on the dial hub and remove the dial hub to apply lubricant to the bearing surfaces. Make a bend in the dial hub locating gauge (shim) at its midpoint. Place dial hub back onto spindle, then place shim between the dial hub and the bushing in the dial ring cover and tighten the hub onto the spindle, then remove the shim (Figures 7 and 8).



Figure 7



Figure 8

Step 6: Before putting the dial onto the lock case, dial the combination (using the hub) several times to confirm the X-10 lock is working properly (Figure 9). Without the dial attached to the hub, it ensures less trouble disassembling the lock should there be a problem with the installation.



Figure 9

Step 7: Cover the retaining ring with equal amounts of lubricant, and center the ring so that it is positioned equally around the dial hub.

Step 8: Ensure the dial's 5-sided flat spring is fully recessed in the dial and spring gap is aligned with the internal key and the dial. Snap the dial onto the lock case making sure the dial cannot be pulled off.

Step 9: Dial the combination a few times to confirm the X-10 lock is working properly (figure 10).



Figure 10

NOTE: The Spindle Alignment Tool can also be used to check any other X-10 locks that you have installed. Just remove the spindle screw and install the Spindle Alignment Tool into the installed lock. If it tightens, your spindle is properly seated. Just remove the tool and reinstall your spindle screw. If the Spindle Alignment Tool does not thread and tighten, the spindle is not properly seated and a lockout is eminent unless the condition is corrected. Contact a technician to correct this situation immediately or call the DoD Lock Program at 800-290-7607 for help.