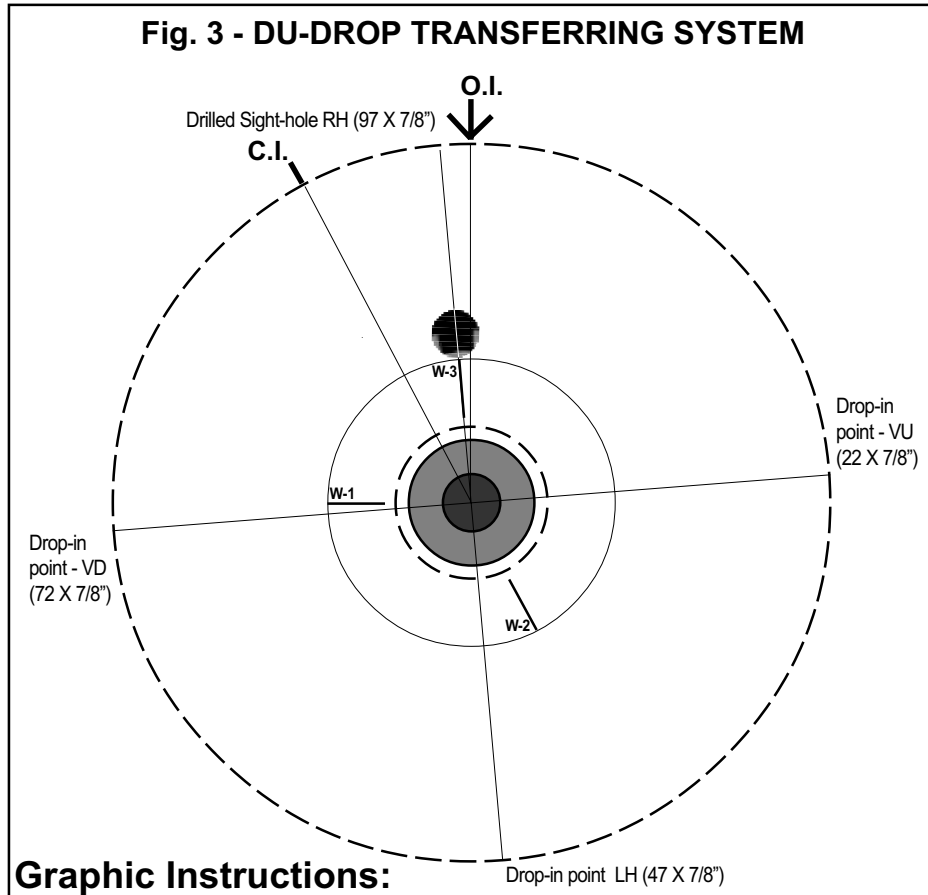


9. If the lock still fails to open, you may have some sort of internal malfunction. Proceed to drill for the next likely drop-in location. When you find the fence, try to get the fence to drop by manipulating it through the hole.

10. To use DU-DROP as an emergency dial (when the combination is known): use the numbered disk and make sure to spline the dial at the known splining or use contacts to determine correct splining. Then dial as usual to the opening index. If you splined via contact points, you may have to adjust the numbers, + or - to compensate for the minor inaccuracy of using contact points as your dial-splining guide.



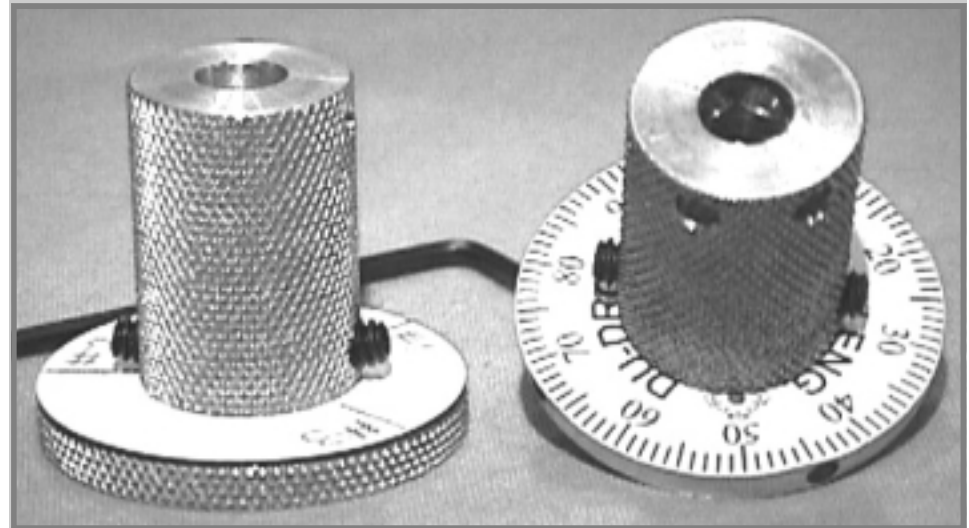
If you like the **DU-DROP TOOL**, please be sure to try our other "COOL TOOLS!"

- **DU-DAD** (help for broken-off spindles & dials)
- **DU-DRILL** (non-invasive drilling depth limiter)
- **DU-GRAB** (high security ERL cable-grabber)
- **EZI-Grip** (simple lock spindle knob)
- **WHEELMAPS** (aids for scoping change key holes)
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DU-DROP TOOL User Manual



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Introduction

The DU-DROP TOOL was designed to be used as an emergency dial in cases where the original dial has been removed for drilling, damaged, or mis-spined for any reason. DU-DROP's "special purpose" is to simplify the task of "transferring to the drop-in location." It does this by reducing transferring to it's basic geometric elements, rather than relying on more complicated tools or math.

The tool comes with a small (doesn't obscure the sight-hole) numbered dial disk, as well as a disk which can be marked, taking advantage of the tool's unique ability to make "quick work" of transferring. If you can tell the difference between a circle and a square and you can draw a straight line, you will be able to transfer successfully, **without math**, and with none of the difficulty you might have previously encountered.

The **DU-DROP** tool has also been designed to be used in conjunction with the **DU-DAD** tool (sold separately) so that you can easily attach it, even if the spindle has been broken off below the surface of the door (up to 3/4" below) thereby rendering it inaccessible to your fingers or more traditional emergency dials.

Preliminary Steps:

Before you remove the dial & ring, take a minute to record both contact points to within 1/4th of a number, and also to draw some fine, straight lines, from spindle-center to just beyond the outer edge of the dial ring, to mark the locations of the following:

- The opening index
- The change index
- The possible drop-in locations for that lock (including your sight-hole).

Step-By-Step Instructions:

- Drill a sight-hole 7/8" out from spindle center at your best guess for the drop-in location or any clear location around the edge of the wheel that you choose. Drill through the door and any barrier you might encounter. Stop at the lock case. Switch to a sharp HSS bit or use the DU-DRILL to carefully penetrate the lock case. Stop and clean the hole of any debris just before completely penetrating the lock case.
- Make sure that the dial and all wheels rotate smoothly and independently, both ways. If you can see the fence in your sight-hole, you can now use DU-DROP to align the gates under the fence. If you can't see the fence anywhere go to step 3.
- Assemble the DU-DROP TOOL (see Fig. 1). Screw the locking ring on to the threaded shaft of the grip-knob with either the numbered disk or the marking disk (depending on the task at hand) between them, making sure that the dial-printed or the marking surface is facing you when you attach the assembled tool to the spindle.

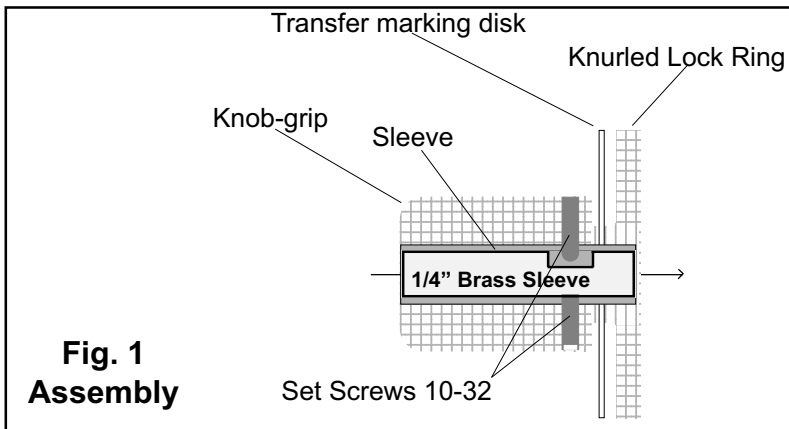
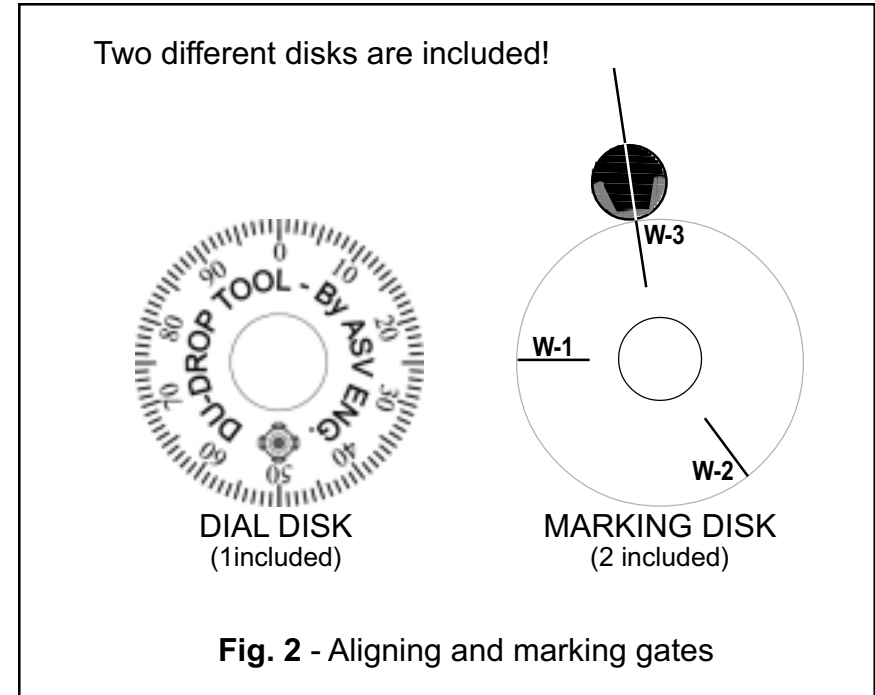


Fig. 1
Assembly

- Attach the DU-DROP Tool to the spindle using either or both of the set-screws provided. If possible, try to align one of the set-screws with the spline. Use the brass sleeve to adapt the tool for use with a 1/4" spindle.
- In the standard dialing sequence for the lock you are working on, i.e. 4-L, 3-R, 2-L, etc. dial and align the gates of each combination wheel with your sight-hole line. Starting with the one that's closest to you, on a rear-drive lock. Record each gate location on the marking disk by drawing a straight, radial line at the place that your disk aligns with your sight hole line toward spindle center, as illustrated in Fig. 2.



- When all gates are properly and accurately aligned and all marks and wheel numbers have been recorded on the disk, verify your accuracy by dialing to the sight-hole, once again, to check that all gates are still aligned in the center of your hole.
- If you have been able to determine the correct handing of the lock, by landmarks as viewed with a borescope through your sight-hole, you may now proceed to dial to your mark for the correct drop-in point, using the marks on the disk, just as if they were numbers, then make your final turn to the right until the dial stops indicating full lock-bolt retraction.
- If you are still unable to determine the handing, no problem! Dial to the remaining three drop-in points. If the lock doesn't open, try oscillation in the contact area, or you may have to dial a number or two on either side of your drop-in marks to compensate for poor alignment of your marks.