

**RECEIVING INSTRUCTIONS:**

**UNPACKING** – Remove all components from the shipping containers. Shipping damage is NOT covered by the warranty.

**INSPECTION** – Visually inspect all components for shipping damage. If any shipping damage is found, notify the carrier at once.

**SAFETY FIRST**

**IMPORTANT: PRELIMINARY PROCEDURE** – Read all instructions carefully before attempting to use your KNOCKOUT PUNCHES. Most malfunctions in new equipment are the result of improper operation and/or assembly.

- **AVOID DROPPING PARTS**  
Support the knockout assembly when completing a punched hole, since it will then fall free from the box.
- **RESPECT THE CUTTING EDGES**  
Punches and dies cut fingers as well as steel if mishandled.
- **KEEP THREADS CLEAN AND WELL OILED**  
Properly maintained tools are safer to use, and they work better.
- **ENGAGE THREADS FULLY**  
Drive screws must project through punches. Drive nuts must seat against screw heads before starting to punch.

FOR PIPE SIZE	ACTUAL HOLE DIA. (inches)	MODEL NUMBERS				MANUAL DRIVE SET Includes items from columns 1, 2 & 3
		PUNCH	DIE	SCREW		
		1	2	3		
1/2	0.873	KP-500	KD-500	KSB-500	<b>KOB-50</b>	
1/2	0.873	KP-500	KD-500	KSB-500	<b>KOM-50125</b> (includes case)	
3/4	1.086	KP-750	KD-750	KS-752		
1	1.349	KP-1000	KD-1000			
1-1/4	1.696	KP-1250	KD-1250	KS-752	<b>KOM-75125</b> (includes case)	
3/4	1.086	KP-750	KD-750			
1	1.349	KP-1000	KD-1000			
1-1/4	1.696	KP-1250	KD-1250	KS-752	<b>KOM-152</b> (includes case)	
1-1/2	1.937	KP-1500	KD-1500			
2	2.413	KP-2000	KD-2000	KSN-2530	<b>KOM-250</b>	
2-1/2	2.915	KP-2500	KD-2500			
3	3.542	KP-3000	KD-3000	KSN-2530	<b>KOM-300</b>	
3-1/2	4.043	KP-3500	KD-3500	KSN-3540	<b>KOM-350</b>	
4	4.545	KP-4000	KD-4000	KSN-3540	<b>KOM-400</b>	



**1  
PUNCH**



**2  
DIE**



**3  
SCREW**  
for 3/4"-2"



**3  
SCREW**  
for 2-1/2"-4"



## KNOCKOUT PUNCHES MANUAL DRIVE



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**REPAIR AND SERVICE INSTRUCTIONS:** For repair service and parts contact your nearest Gardner Bender Service Center. The Gardner Bender Service Center will provide complete and prompt service on all Gardner Bender products.

# SAFETY FIRST

**GARDNER BENDER CANNOT BE RESPONSIBLE FOR DAMAGE OR INJURY CAUSED BY UNSAFE USE, MAINTENANCE OR APPLICATION OF ITS PRODUCTS.** Please contact Gardner Bender for guidance when you are in doubt as to the proper safety precautions to be taken in designing and setting up your particular application.

See Front Panel for **SAFETY PRECAUTIONS.**

*NOTE: Orders for parts cannot be filled unless both model and serial number with prefix imprinted on nameplate are given.*

### PARTS AND SERVICE

For quality workmanship and genuine Gardner Bender parts, select an authorized Gardner Bender Service Center for your repair needs. Only repairs performed by an Authorized Service Center displaying the official Gardner Bender sign are backed with full factory warranty.

### WARRANTY

Gardner Bender warrants its product against defects in workmanship and materials for 90 days from date of delivery to user. Chain is not warranted. Warranty does not cover ordinary wear and tear, abuse, misuse, overloading, altered products or use of improper fluid.

### WARRANTY RETURN PROCEDURE

When question of warranty claim arises, the user should send the unit to the nearest Gardner Bender Authorized Technical Service Center for inspection, transportation to be prepaid and evidence of purchase date furnished. If the claim comes under the terms of our warranty, the Authorized Technical Service Center will **REPAIR OR REPLACE PARTS AFFECTED** and return prepaid.

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TL\_004 0110 ZX312

**DESCRIPTION** – Gardner Bender four-point knockout punches and dies are designed to punch clean, round holes through mild steel or other soft metals up to 10-gauge, or .135 inches in thickness. Sizes are available to specifically permit fast and easy installation of electrical conduit and pipe of nominal sizes 1/2" through 4", in all commonly available increments. Punches and dies are interchangeable, in any combination, with most older brands of knockouts likely to be found in residual inventory.

### OPERATING INSTRUCTIONS

1. Lay out the pilot hole location with centerline axes. (See Figure 1)

#### For 1/2" Punch and Die Sets

2. At intersection of axes, drill a 7/16" diameter pilot hole for the 1/2" knockout drive screw.

*NOTE: Clearance is required around the drive screw used with the 1/2" punch and die to prevent the slug from binding on the threads during the punching operation.*

3. Thread the drive nut onto the 1/2" knockout manual drive screw so the threads are fully engaged, and assemble the 1/2" die against the drive nut bearing. Insert the drive screw through the pilot hole, and thread the 1/2" punch onto the screw until the points contact the back side of the box. (See Figure 2) Align the four index lines on the outer surface of the die with the hole center line axes, and begin to punch the hole.

4. While punching, hold the drive screw with one wrench and turn the drive nut with another. (See Figure 3)

*CAUTION! Failure to utilize the drive nut as instructed may shorten the life of the drive hardware.*

5. As the last portion of the slug is cut free, the entire punch and die assembly becomes loose in the hole and will fall free from the box (be alert—catch it!). If the slug seems to stick in the hole, give the drive nut another turn until the slug freely disengages.

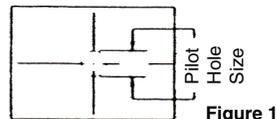


Figure 1

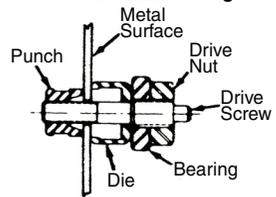


Figure 2

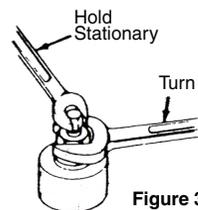


Figure 3

6. Unthread the punch from the drive screw assembly and drop the slug out of the die. (Note how the slug falls free from the die without the need for tapping or prying.)

#### For 3/4" and Larger Punch and Die Sets

7. To make larger holes, utilize the hole made with the 1/2" knockout as a starter hole for inserting the 3/4" diameter drive screws. The 3-1/2" and 4" knockouts require a 1-5/16" minimum diameter pilot hole (use the 1" knockout) for inserting the 1-1/8" diameter drive screw\*.

8. Assemble the larger punches and dies to the appropriate drive screws in the same manner as with the 1/2" knockout. (See Figure 2)

*CAUTION! When about the use the 2-1/2" through 4" knockouts, always be sure the drive nut is fully threaded onto the drive screw before assembling the punch, or excessive wear on the drive threads will result.*

9. Align the index lines on the die with the center line axes of the hole, and proceed to punch the hole in the same manner as with the 1/2" knockout.

*CAUTION! Always hold the drive screw stationary and turn the drive nut (See Figure 3), except for the 3/4" through 2" sizes which have no drive nut.*

10. Be alert to catch the knockout assembly as the slug is cut free, especially when using the larger knockouts which are heavy. Unthread the punch and drop the slug out of the die upon completion of the operation.

### COMMON SENSE TIPS FOR LONG AND SATISFACTORY SERVICE

1. Protect the drive screw threads and bearings from impact and abuse. Keep them clean, lubricate them frequently, and store them carefully in the pouches provided or other protective cases.
2. To avoid excessive wear and tear on the threads, position the pilot hole accurately enough so that the drive screw does not rest against the edge of the guide hole when punching.
3. Position the punch so that all points contact the metal uniformly when starting to punch.
4. Always hold the screw stationary and punch by turning the drive nut (except for 3/4" through 2" sizes which do not use a drive nut). (See Figure 3)
5. Fully engage all threads before starting to punch. Failure to do so can result in thread damage.

\*Gardner Bender hydraulic sets are highly recommended for those big jobs requiring many holes, or where fast and easy knockout operation is desired.