

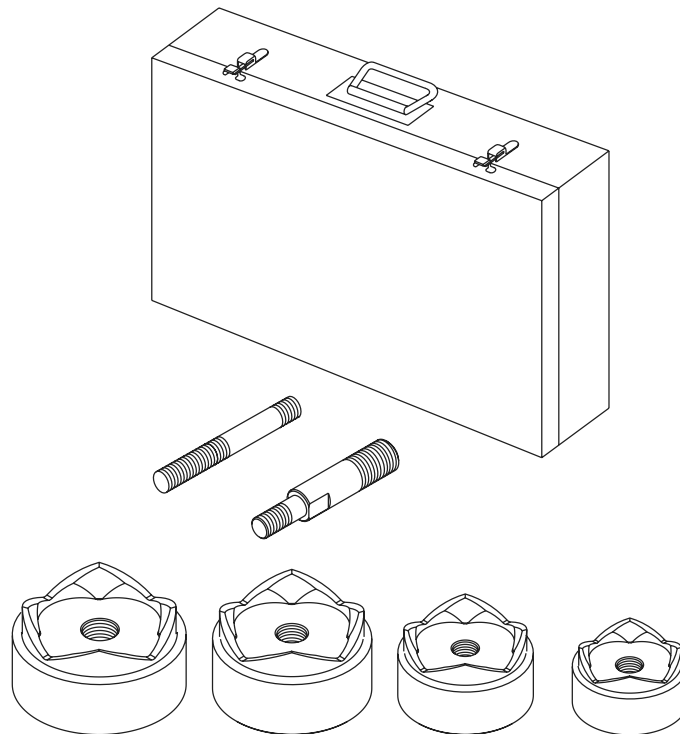


Current Tools

FOR THE PROFESSIONAL ELECTRICIAN

Model 166SS

**2½", 3", 3½" and 4" Punches, Dies and Draw Studs
for Stainless Steel up to 10 Gauge**



Operating, Maintenance, Safety and Parts Manual

3/2019



Read and understand this material before operating or servicing any component of the Knockout Set. Failure to understand how to safely operate and service this unit may result in serious injury or death.

This manual is free of charge. All personnel who operate this Knockout Set should have a copy of this manual and read and understand its contents. To request a copy, call, write to the address below or visit our website.

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SAFETY ALERTS



Safety Alert Symbol

THIS SAFETY SYMBOL is used to call your attention to instructions that concern your personal safety. It means: ATTENTION! BE AWARE! THIS IS AN IMPORTANT SAFETY INSTRUCTION!

Read, understand and follow these safety instructions. Failure to follow these safety instructions may result in injury or death.



DANGER

Immediate hazards which, if not avoided, WILL result in serious personal injury or death.



WARNING

Hazards or unsafe practices which, if not avoided, COULD result in serious personal injury or death.



CAUTION

Hazards or unsafe practices which, if not avoided, COULD result in minor personal injury or property damage.

RETAIN SAFETY INFORMATION



This manual should be read and understood by all personnel who operate or service this Knockout Set. Failure to understand how to safely operate and service this unit could result in injury or death. This unit should only be operated or serviced by qualified personnel.



Because you will be using components from the Current Tools #152/#152PM, #154/154PM, #161SS or 162SS knockout sets, read and understand the information contained in the operating manual for those sets. For a FREE copy of any of these manuals, call, write to the address on the front of this manual, or visit our website at www.currenttools.com.



IMPORTANT SAFETY INFORMATION

Follow ALL safety information provided by the manufacturer.

▲ DANGER

NEVER use the Knockout Set or any of its components near live circuits.

▲ WARNING

ALWAYS thread the punch COMPLETELY onto the draw stud to avoid thread failure. If the punch tightens before it is completely threaded onto the draw stud, disassemble the set-up and determine the cause. Then reassemble the set-up.

▲ WARNING

NEVER operate the hydraulic ram with an electric pump.

▲ WARNING

NEVER attempt to exceed the punching capacity of this knockout set. Doing so may cause component failure and possibly serious injury or death.

▲ WARNING

NEVER use this knockout set or any of its components except for its intended purpose.

▲ WARNING

NEVER attempt to punch a hole through more than a single layer of material. Doing so may cause component failure and possibly serious injury or death.

▲ WARNING

Be careful of your footing and balance during the punching process. Make sure to have total control of your balance as the slug breaks free from the hole at the end of the punching process.

▲ CAUTION

NEVER use any component that has worn or damaged threads.

▲ CAUTION

ALWAYS check to ensure all components are properly assembled before punching.

▲ CAUTION

New punches are sharp. Be careful when handling them.

▲ CAUTION

ALWAYS wear safety glasses when punching.



OPERATING INSTRUCTIONS – HYDRAULIC SETS



Because you will be using components from the Current Tools #152/#152PM, #154/154PM or #161SS hydraulic knockout sets, read and understand the information contained in the operating manuals for those sets. For a FREE copy of any of these manuals, call or write to the address on the front of this manual, or visit our website at www.currenttools.com.

1. Match the punch, die and draw stud as required for the size hole to be punched. (See Figure 1A and 1B on page 5).
2. After marking the hole location, drill a hole approximately 1/32" to 1/16" larger than the draw stud being used.

NOTE: Alternate Method – drill a 1/2" hole to accept the 7/16" draw stud (Part #1574) and use the 1/2" stainless steel punch and die to increase the hole size to accept the 3/4" draw stud (Part #1575). Then, if needed, use 1" stainless steel punch and die to increase the hole size to accept the 1 1/8" adapter (Part #1552).

3. When using the 2 1/2" and 3" punch and die, thread the end of the 3/4" draw stud (Part #1575) with the shortest thread length into the ram until snug (Figure 1A on page 5).

When using the 3 1/2" and 4" punch and die, thread the 1 1/8" adapter (Part #1552) over the 3/4" draw stud (Part #1575) until snug. The threaded end of the 1 1/8" adapter should face away from the ram (See Figure 1B on page 5).

4. Slide the die over the draw stud with the open end of the die facing away from the ram.
5. Place the draw stud through the hole you drilled in Step 2. Then thread the punch onto the draw stud with the cutting edge facing toward the material to be punched. Thread the punch onto the draw stud until the punch and die are snug against the material.

WARNING

ALWAYS thread the punch COMPLETELY onto the draw stud to avoid thread failure. If the punch tightens before it is completely threaded onto the draw stud, disassemble the set-up and determine the cause. Then reassemble the set-up.

6. Complete the punching process by activating the hand pump.



DO NOT continue to operate the pump after the ram completes the punch. Doing so will damage the ram and could cause component failure resulting in serious injury or death.



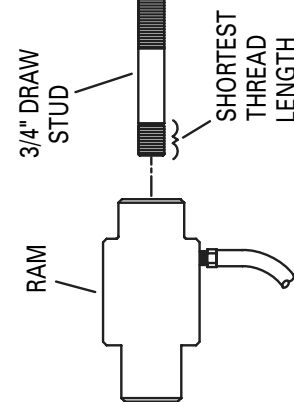
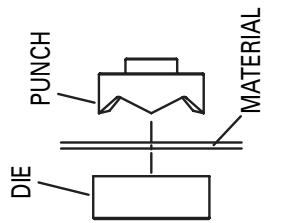
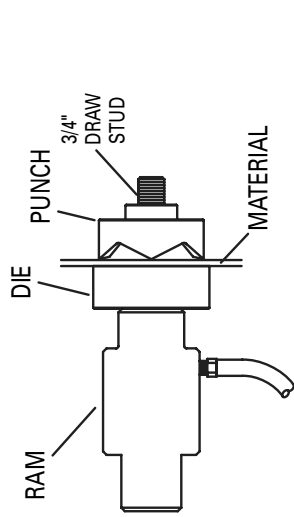
If the ram motion stops before the punching process is completed, DO NOT continue to operate the pump. Release the pump pressure, disassemble the set-up, and determine the cause before continuing.



ALWAYS support the weight of the ram while punching. An unsupported ram could fall, causing injury.

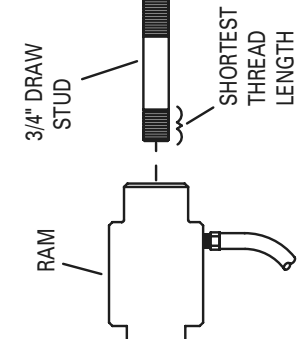
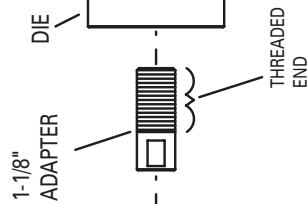
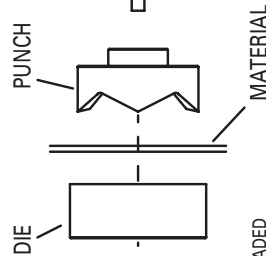
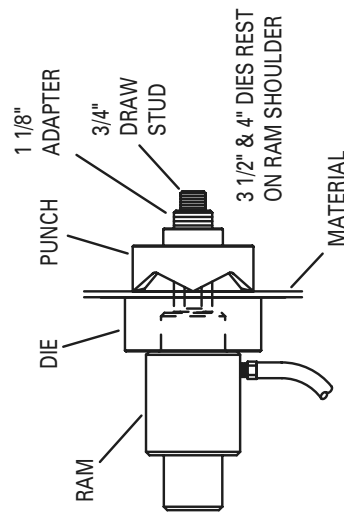


SETUPS - HYDRAULIC SETS



2-1/2" AND 3" PUNCH & DIE

1A



3-1/2" AND 4" PUNCH & DIE

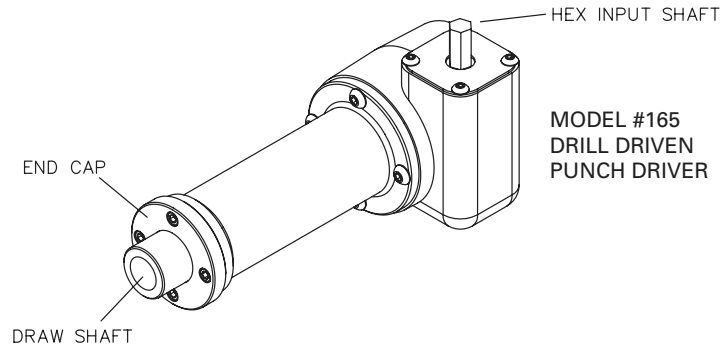
1B



OPERATING INSTRUCTIONS – DRILL DRIVEN SETS



Because you will be using components from the Current Tools #162PM, #164PM or #162SS knockout sets, read and understand the information contained in the operating manuals for those sets. For a FREE copy of any of these manuals, call or write to the address on the front of this manual, or visit our website at www.currenttools.com



1. Match the punch, die and draw stud as required for the size hole to be punched. (See Figure 2A and 2B on page 8).
2. After marking the hole location, drill a hole approximately 1/32" to 1/16" larger than the draw stud being used.

NOTE: Alternate Method – drill a 1/2" hole to accept the 7/16" draw stud (Part #1574) and use the 1/2" stainless steel punch and die to increase the hole size to accept the 3/4" draw stud (Part #1575). Then, if needed, use 1" stainless steel punch and die to increase the hole size to accept the 1 1/8" adapter draw stud (Part #1580).

3. Chuck the 3/8" nut driver (Part #163-14) into the cordless drill and slide onto the hex input shaft. Operate the punch driver until the draw shaft is flush with the end cap.
4. When using the 2 1/2" and 3" punch and die, thread the end of the 3/4" draw stud (Part #1575) with the shortest thread length into the draw shaft until snug (Figure 2A on page 8).

When using the 3 1/2" and 4" punch and die, thread the 1 1/8" adapter draw stud (Part #1580) into the draw shaft until snug. (See Figure 2B on page 8).

5. Slide the die over the draw stud with the open end of the die facing away from the ram.
6. Place the draw stud through the hole you drilled in Step 2. Then thread the punch onto the draw stud with the cutting edge facing toward the material to be punched. Thread the punch onto the draw stud until the punch and die are snug against the material.

WARNING

ALWAYS thread the punch COMPLETELY onto the draw stud to avoid thread failure. If the punch tightens before it is completely threaded onto the draw stud, disassemble the set-up and determine the cause. Then reassemble the set-up.



7. Complete the punching process by attaching the 1/2" cordless drill with nut driver (minimum 18 volts recommended) to the hex input shaft of the punch driver.
 - Operate the drill in FORWARD to complete the punch.
 - After the punch is completed, run the drill in REVERSE until the draw shaft is at least flush with the end cap.
 - After unloading slug, return the draw shaft until it is flush with the end cap.

NOTE: Whether to operate your drill in low or high gear will be determined by hole size, thickness and type of material to be punched, battery strength and voltage of your drill.

WARNING

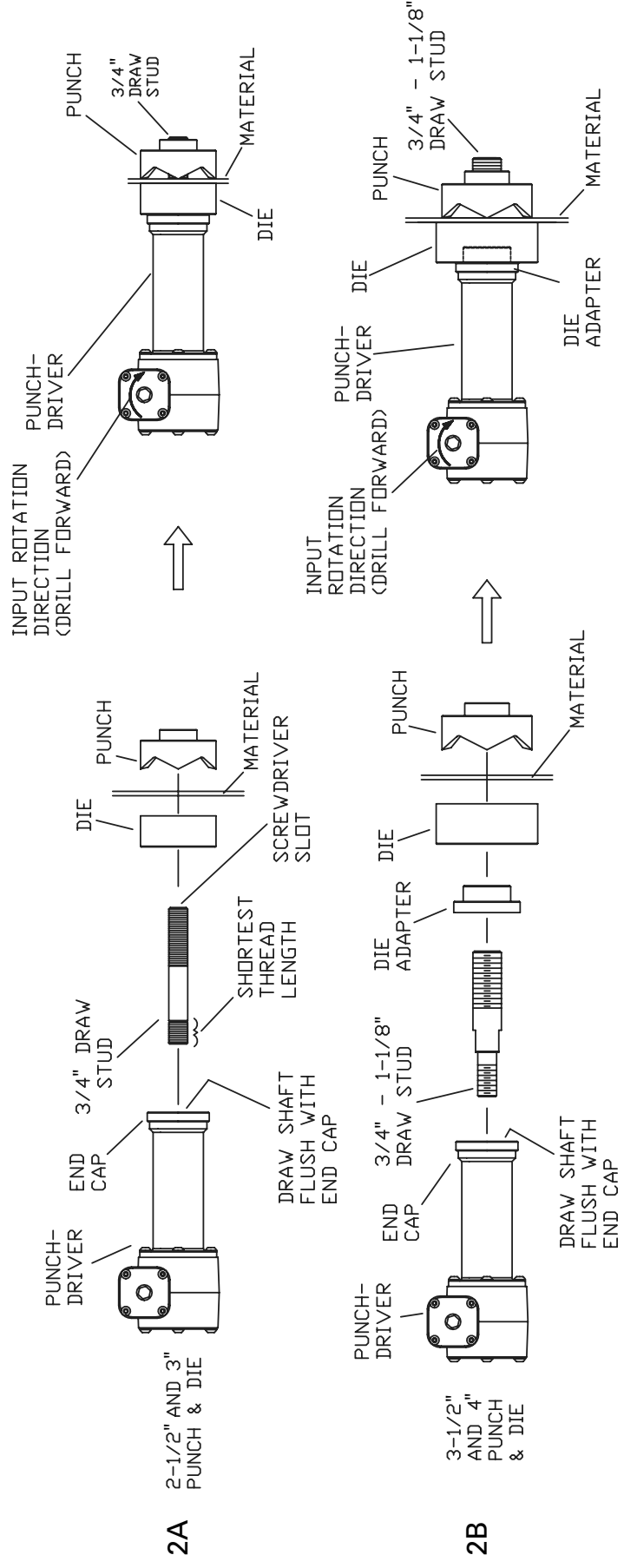
- DO NOT continue to operate punch driver after the punch is complete. Doing so could damage the punch driver and cause component failure resulting in serious injury or death.
- If the punch driver motion stops before the punching process is completed, DO NOT continue to operate the punch driver. Reverse the drill, disassemble the set-up and determine the cause before continuing.
- ALWAYS support the punch driver as the punch is completed. An unsupported punch driver could fall, causing injury.

CAUTION

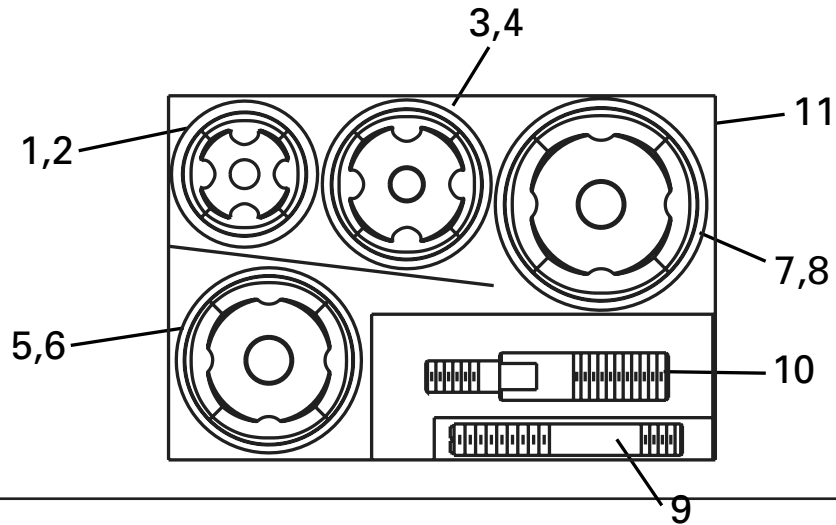
ALWAYS be aware of pinch points while operating the punch driver. Keep hands away from punch and die during punching operation.



SETUPS - DRILL DRIVEN SETS



COMPONENTS – KNOCKOUT SET – 166SS



PARTS LIST – 166SS

<u>ITEM#</u>	<u>CATALOG#</u>	<u>QTY</u>	<u>DESCRIPTION</u>
1.....	1583.....	1.....	2½" SS Punch
2.....	1584.....	1.....	2½" SS Die
3.....	1585.....	1.....	3" SS Punch
4.....	1586.....	1.....	3" SS Die
5.....	1587.....	1.....	3½" SS Punch
6.....	1588.....	1.....	3½" SS Die
7.....	1589.....	1.....	4" SS Punch
8.....	1590.....	1.....	4" SS Die
9.....	1575.....	1.....	¾" X 5½" SS Draw Stud
10.....	1580.....	1.....	1⅜" Adapter Draw Stud
11.....	1504.....	1.....	Metal Case

KNOCKOUT PUNCHES – ACTUAL HOLE SIZE

<u>Catalog Number</u>	<u>Punch and Conduit Size</u>	<u>Actual Hole Punched Diameter</u>
1583	2½"	2.910"
1585	3"	3.545"
1587	3½"	4.048"
1589	4"	4.550"