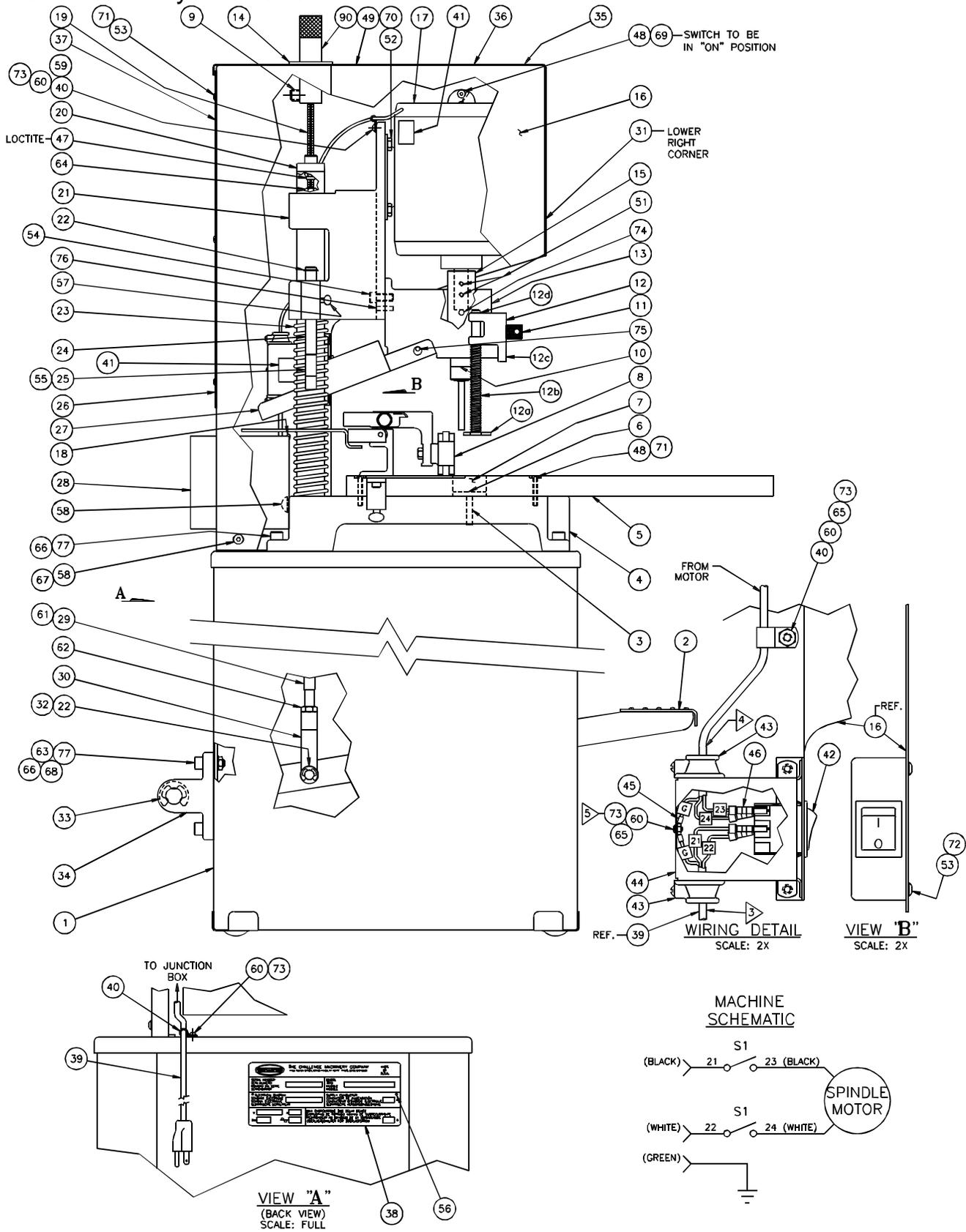


Main Assembly – A-4620-4 REV. G



Main Assembly – A-4620-4 REV. H

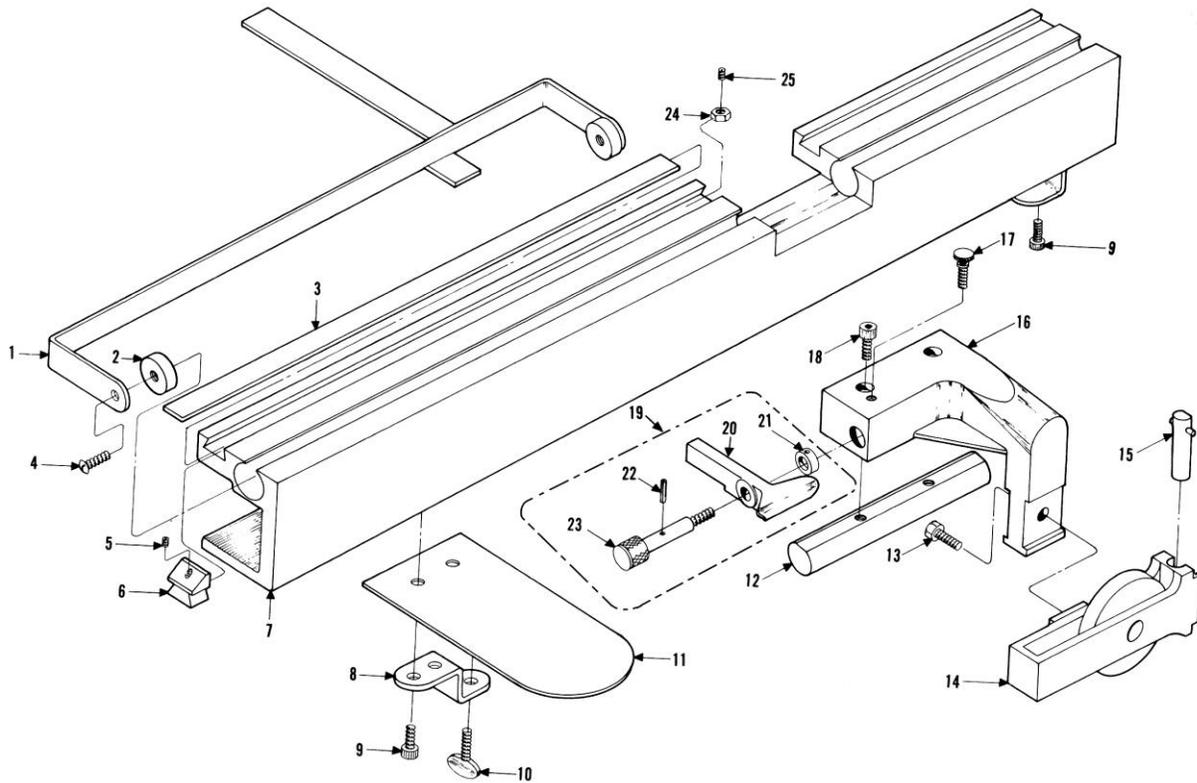
NO.	PART NO.	DESCRIPTION OF ACCESSORIES	QTY
1	5300	STAND ASSEMBLY	1
2	A-4672	TREADLE ASSEMBLY	1
3	A-3975	BLOCK RISER (BELOW 125723, ABOVE 181400)	1
	A-3975-1	BLOCK RISER (S/N: 125723 - 181400)	
4	A-4601-5	BASE ASSEMBLY	1
5	A-4690-3	TABLE ASSEMBLY	1
6	3949	SHIM - CUTTING BLOCK	REF
7	4681	CUTTING BLOCK	1
8	A-6050-1	BACK GAGE ASSEMBLY	1
9	S-2021	SPRING PLUNGER	REF
10	K-85	DRIFT HOLE COVER	REF
11	4632-1	ADJUSTING SCREW	2
12	A-4625	PRESSURE FOOT ASSEMBLY	1
12a	A-4626	PRESSURE FOOT SUB-ASSEMBLY	REF.
12b	4629-1	PRESSURE FOOT SPRING	REF.
12c	4631	PRESSURE FOOT GUIDE	REF.
12d	S-1518-37	RETAINING RING	REF.
13	4606	CHIP CHUTE	1
14	E-1172-21	SNAP-IN BUSHING	1
15	4607-1	SPINDLE	1
16	5301	TOP COVER ASSEMBLY	1
17	E-1600-21	MOTOR - 115 V, 60 HZ	1
	E-1600-24	MOTOR - 230 V, 60 HZ	
	E-1600-23	MOTOR - 115 V, 50 HZ	
	E-1600-22	MOTOR - 230 V, 50 HZ	
18	7032-M	TRIM - 9" LONG	1
19	4618-1	SPINDLE ADJUSTING SCREW	1
20	4638-4	GUIDE ROD BRACKET	1
21	4605-1	MOTOR BRACKET	1
22	S-1193-43	RETAINING RING - 7/16	3
23	4613-2	SPRING	2
24	6068	ROD - TRIP ARM PICKUP	1
25	6073	SPRING CLIP	1
26	5305	BACK COVER	1
27	A-4622	CHIP TUBE ASSEMBLY	1
28	A-4608	CHIP BOX ASSEMBLY	1
29	4671-1	TREADLE ROD	1
30	4669	CLEVIS	1
31	S-1076-2	CHALLENGE LABEL	1
32	S-1482	PIN	1
33	S-1193-75	RETAINING RING - 3/4	2
34	4668	TREADLE BRACKET	2
35	S-1781-3M	LABEL - CAUTION, CRUSH HAZARD	1
36	S-1781-31	LABEL - CAUTION, TWO PERSON	1
37	S-1781-16	LABEL - CAUTION, DISCONNECT POWER...	1
38	41130	SERIAL PLATE	1
39	KK-299-2C	ASM. - POWER CORD	1

NO.	PART NO.	DESCRIPTION OF ACCESSORIES	QTY
40	E-968-3	STRAIN RELIEF	3
41	S-1781-50	LABEL - CAUTION, ELEC. SHOCK	2
42	E-1140-11	ROCKER SWITCH	1
43	S-1350-16	STRAIN RELIEF	2
44	5306	ELEC. BOX ASM.	1
45	E-1214-8	EYELET	1
46	E-1214-49	QUICK CONNECT	4
47	H-5247-5	NUT - 5/16-18 FLEX LOCK	1
48	H-6910-102410	SCREW - #10-24 X 1-1/4 BUT. HD. SOC. CAP	5
49	S-1781-88	LABEL - DRILL DEPTH ADJ.	1
50			
51	H-6938-102406	SCREW - #10-24 X 3/8 SOC. HD. SET	2
52	H-6913-504	SCREW - 5/16-18 X 1/2 HEX HD. CAP PLATED	4
53	H-6910-83204	SCREW - #8-32 X 1/2 BUTON HD. SOC.	8
54	H-6918-506	SCREW - 5/16-18 X 3/4 SOC. HD. CAP	2
55	H-6910-102403	SCREW - #10-24 X 3/8 BUT. HD. SOC	1
56	H-6924-004	SCREW - #0 X 3/16 RD. HD. DRIVE	2
57	H-6955-102406	SCREW - #10-24 X 3/4 THUMB	1
58	H-6910-404	SCREW - 1/4-20 X 1/2 BUT. HD. CAP	6
59	H-6918-608	SCREW - 3/8-16 X 1" SOC. HD. CAP	2
60	H-6910-102404	SCREW - #10-24 X 1/2 BUT. HD. SOC	4
61	H-6428-8	NUT - 1/2 JAM	2
62	H-6428-7	NUT - 7/16-20 HEX JAM	1
63	H-6423-6	NUT - 3/8-16 HEX	4
64	H-6424-5	NUT - 5/16-18 HEX JAM	1
65	H-6423-#10	NUT - #10-24 HEX	2
66	H-7325-12	WASHER - 3/8 LOCK	8
67	H-7324-8	WASHER - 1/4 INT. TOOTH LOCK	4
68	H-7321-6	WASHER - 3/8 PLAIN	4
69	H-5247-1024	NUT - #10-24 FLEX LOCK	1
70	H-7322-5	WASHER - 5/16 PLAIN	4
71	H-7322-#10	WASHER - #10 PLAIN	10
72	H-7324-#8	WASHER - #8 INT. TOOTH LOCK	2
73	H-7324-#10	WASHER - #10 INT. TOOTH LOCK	5
74	H-21S-250-1250	PIN - 1/4 DIA. X 1-1/4 SEL LOCK	1
75	H-21S-187-0500	PIN - 3/16 DIA. X 1/2 SEL LOCK	2
76	H-21S-187-0750	PIN - 3/16 DIA. X 3/4 SEL LOCK	2
77	H-6918-610	SCREW - 3/8-16 X 1-1/4 SOC. HD. CAP	8

TOOL KIT PACKAGE			
NO.	PART NO.	DESCRIPTION OF ACCESSORIES	QTY
-	K-4620	TOOL KIT (NOT SHOWN)	1
90	5309	ADJUSTMENT ROD	1

AUTO-TRIP BACKGAGE ASSEMBLY

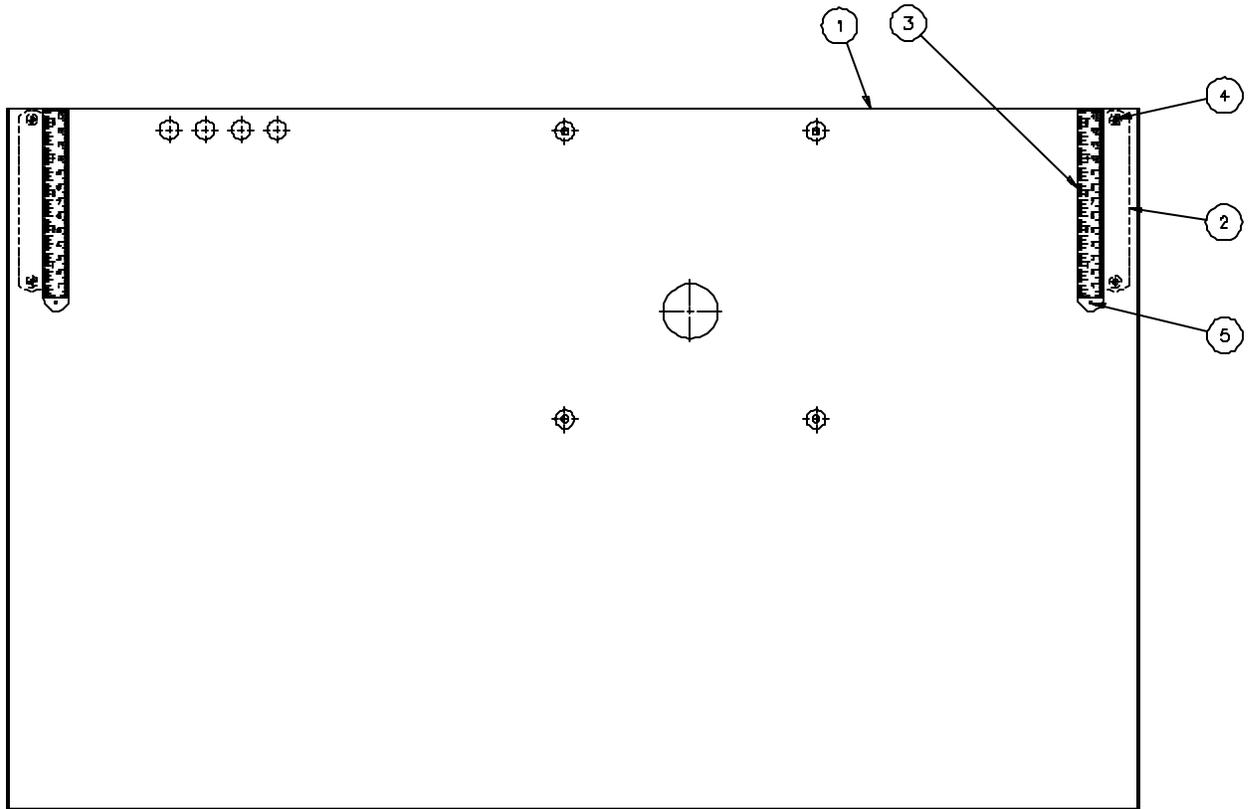
A-6050-1 REV. K



Ref. No.	Part No.	Part Name	Qty
1.	A-6070	Trip Bracket Assembly	1
2.	6069	Trip Bracket Roller	2
3.	4599	Backgage Strip Plate	1
4.	H-6910-102403	#10-24 x 3/8" But. Hd. Soc. Screw	2
5.	H-6938-102404	#10-24 x 1/4" Soc. Set Screw	7
6.	S-1611-1	Side Guide Stop	7
7.	6051-1	Backgage	1
8.	4655	Backgage Clamp	2
9.	H-6918-404	1/4-20 x 1/2 Soc. Hd. Cap Screw	4
10.	H-6955-508	5/16-18 x 1" Thumb Screw	2
11.	4794	Rear Gage Guide Plate	1
12.	6063	Side Guide Slide	1
13.	H-6913-407	1/4-20 x 1/2 Soc. Hd. Cap Screw	1
14.	A-4785	Assembled Side Guide Roller	1
15.	A-4791	Side Guide Face Assembly	1
16.	6055-1	Side Guide Arm	1
17.	6067	#8-32 x 3/8 Brass Finger Screw	1
18.	H-6918-102408	#10-24 x 1" Soc. Hd. Cap Screw	2
19.	A-6060-1	Adj. Screw and Trip Assembly	1
20.	6056-1	Trip Lever Only	1
21.	6057	Collar	1
22.	H-21S-187-0625	1/8" x 5/8" Sel-lock Pin	1
23.	6058	Finger Screw	1
24.	H-6423-#10	#10-24 Hex Nut	1
25.	H-6940-102404	#10-24 x 1/4 Flat Pt. Soc. Set Screw	1

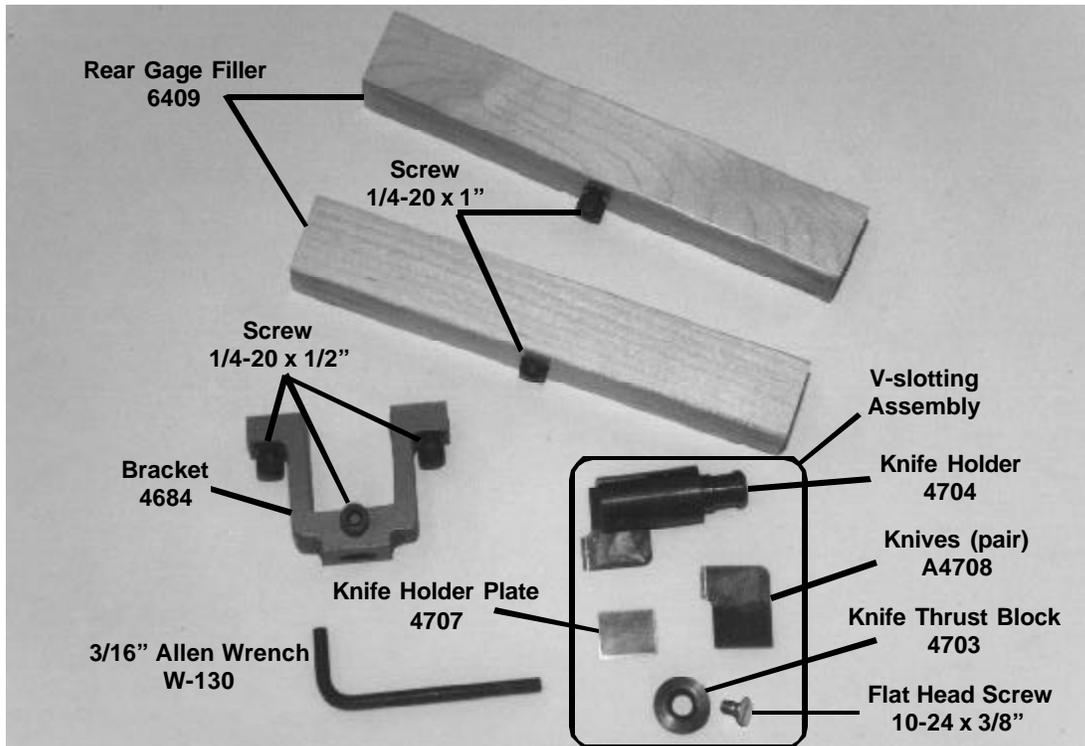
TABLE ASSEMBLY

A-4690-3 REV. E



NO	PART NO	DESCRIPTION OF ACCESSORIES	QTY
1	4691-3	TABLE	1
2	4635	SIDE STRIP	2
3	4636	SCALE	2
4	H-6961-605	#6 X 5/8 LG. FLAT HD. WOOD SCREW	4
5	S-1792	1/2 X 19 WIRE NAILS	4

SLITTING AND SLOTTING ATTACHMENTS A-6410



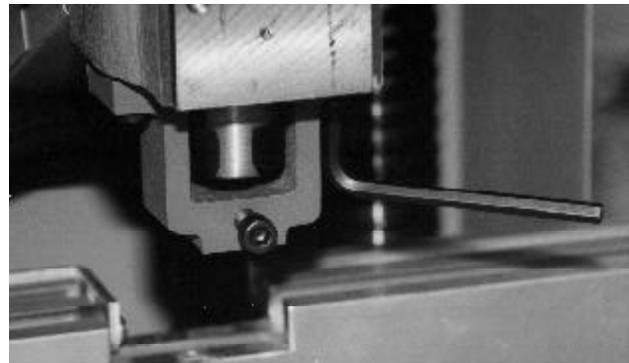
 **WARNING: DISCONNECT POWER** before cleaning, servicing, or lubricating your drill.

V-Slotting

To cut V-slot holes, first drill the round holes. Turn off the power and remove the drill.



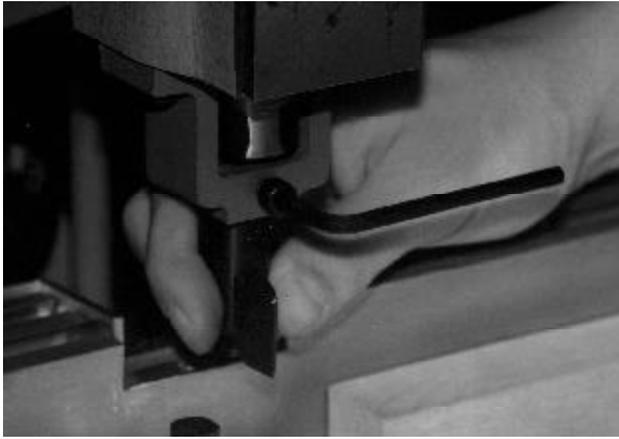
Remove the pressure foot by unscrewing the knurled nuts.



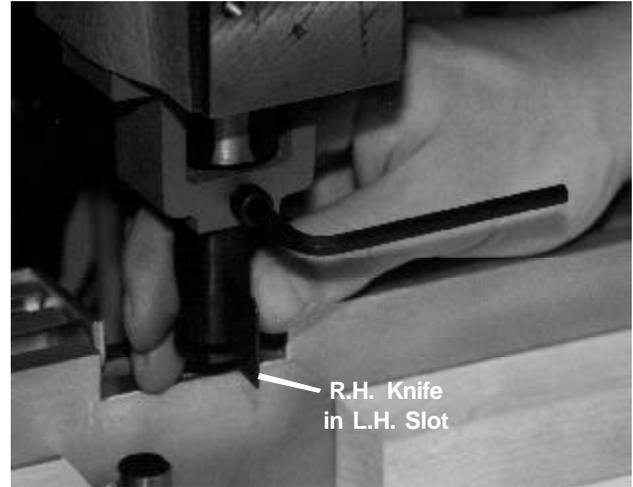
Install the mounting bracket with the holder socket screw facing the operator.



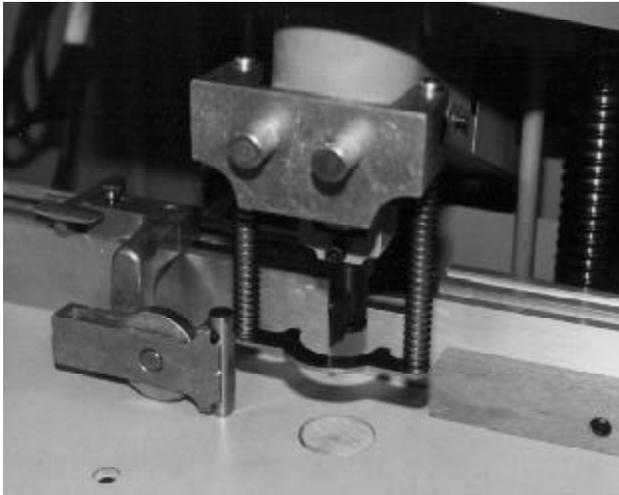
Attach the backgage fillers.



Next, attach the knife assembly. Align the blades to the already drilled holes and tighten the holder socket screw.



the hole and proceed to the next slot position.



Reattach the pressure foot assembly using the two knurled screws.

For best results, lay a sheet of chipboard underneath your work and set the depth-of-cut so it just makes it through the chipboard. The blades should not cut into the wood block when slotting or slitting.

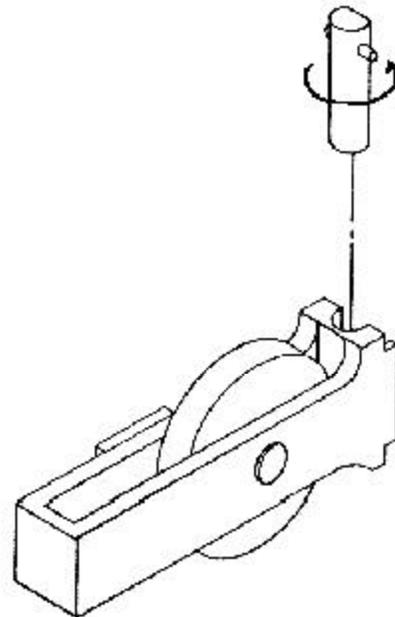
Slitting

For slitting work, remove the knife thrust block, take out the left hand knife and set it aside.

Remove the right hand knife and position it in the left hand knife slot.

Place the knife holder in the right hand knife slot and replace the thrust block and screw. Replace the knife holder in the mounting bracket and turn the holder in the bracket to cut a straight slit. Make your first slit farthest from the side guide*, then slit the other side of

For narrow slots, position the side guide stops for the first cut farthest from the side gage*. Leaving the side gage at the same position, lift the side guide face and turn it around.



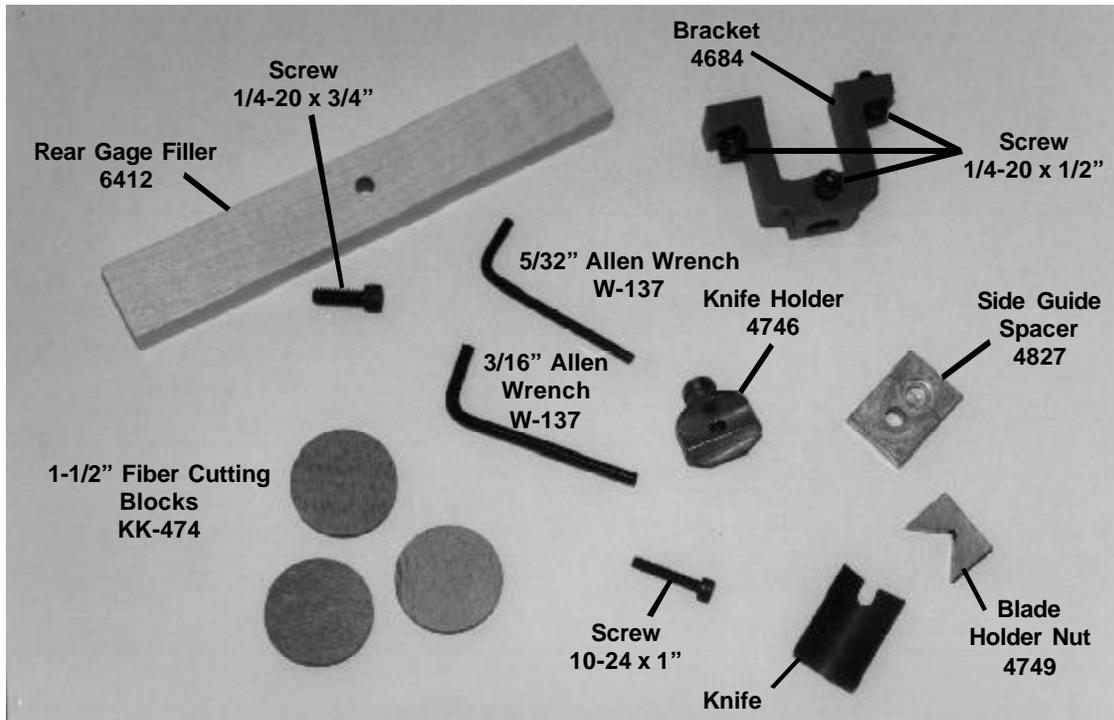
Jog the stock square against the back and side gages and make the second cut. Your slot is now complete.

Remember to return the side guide face to the standard position before making the next slot.

*Always make the first cut farthest from the side gage. This prevents draw on the paper that would give irregular cuts.

NOTE: Maximum slitting and slotting capacity is 1/2" (13 mm). Be sure to check the stroke adjustment to prevent the knives from cutting too deep into the cutting block.

LIGHT DUTY CORNERING ATTACHMENT A-6411

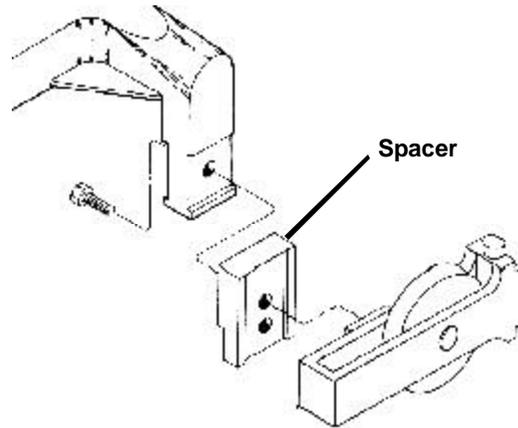


Knives available:

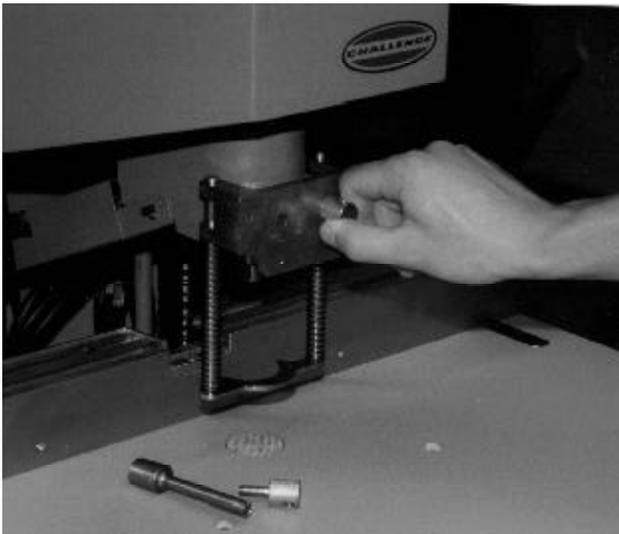
Straight Diagonal 4741	1/8" (3 mm) 4742	1/4" (6 mm) 4743	7/16" (11 mm) 4744 (supplied)

WARNING: DISCONNECT POWER before cleaning, servicing, or lubricating your drill.

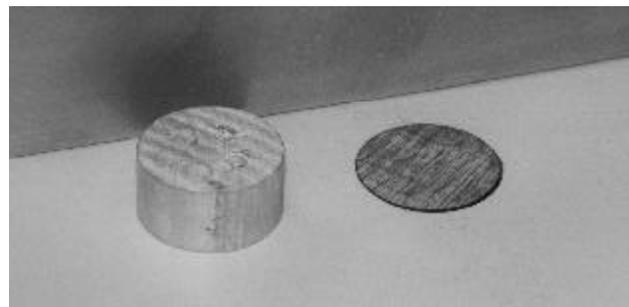
To install the cornering attachment, make sure the power is locked out and then remove the hollow drill.



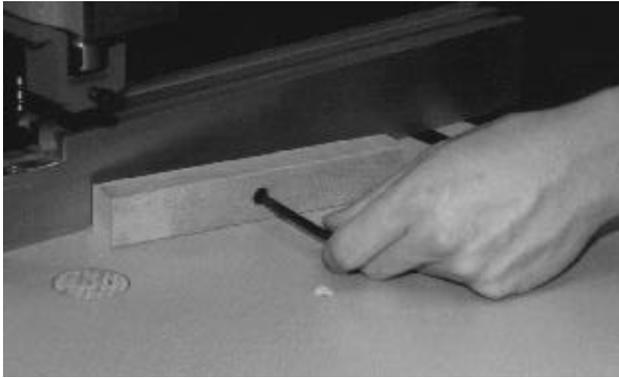
Now install the side gage spacer (JF only). The spacer may be left in place for normal drilling, but must be removed for drilling narrow strips.



Next, remove the pressure foot by unscrewing the two knurled nuts.

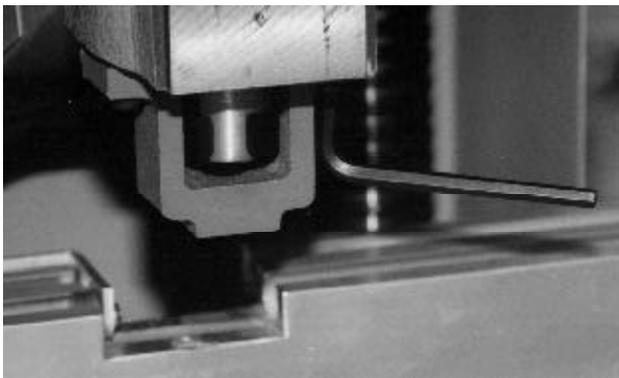


Replace the wooded drill block with the three fiber blocks.

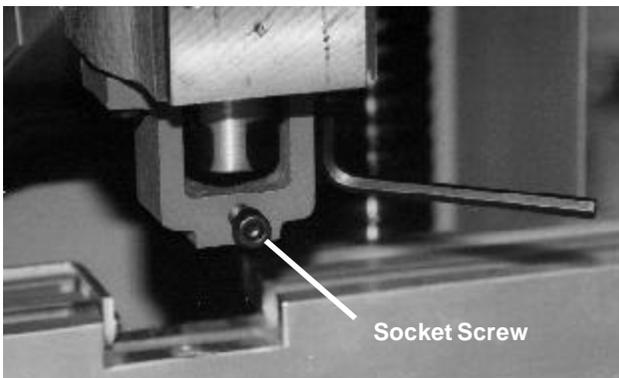


Install the rear gage filler block on the right side of the backage.

Install the cornering attachment bracket as follows:

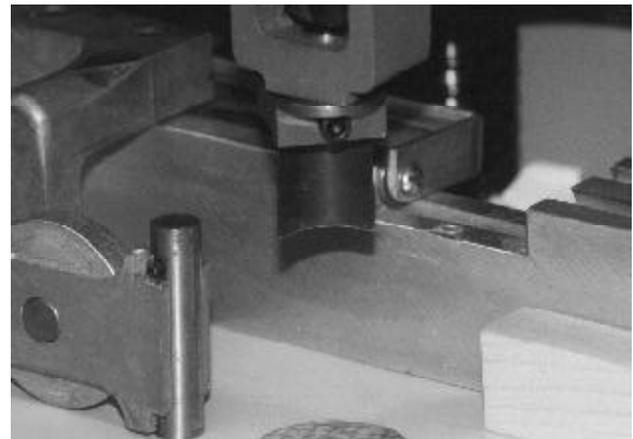
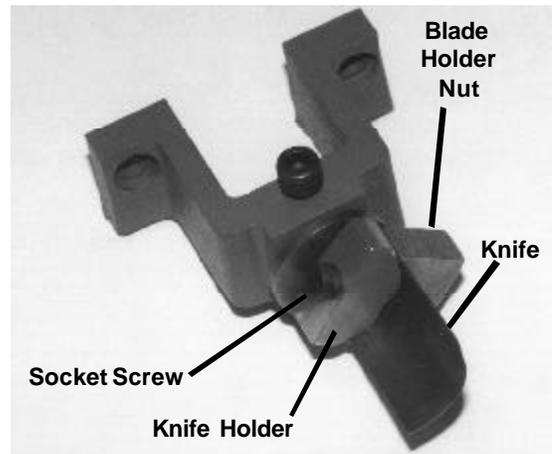


When using the cornering knives, the knife holder socket screw should face the rear of the machine; this puts the bracket mounting holes in the rear position and centers the knife on the cutting block.

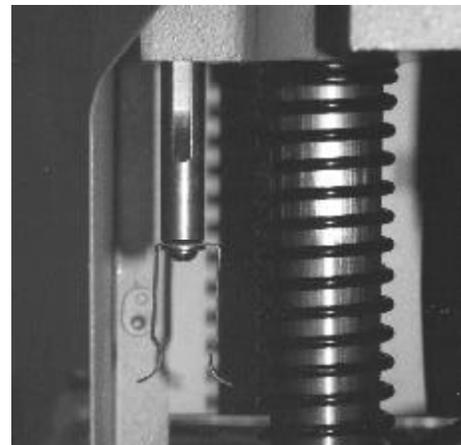


When using the straight diagonal knife, the bracket is reversed, with the holder socket screw facing the operator. The holder mounting screws are then in the forward position.

Install the knife holder assembly in the bracket and tighten the knife holder socket screw. The knife holder comes assembled with the knife installed. Double check to make sure the knife blade is held firmly by tightening the socket screw.



Adjustments to the paper are made by positioning the side and back gages. The knife is squared to the paper by loosening the knife holder socket screw and rotating the knife holder assembly so that the knife edges match up to the sides of the paper.

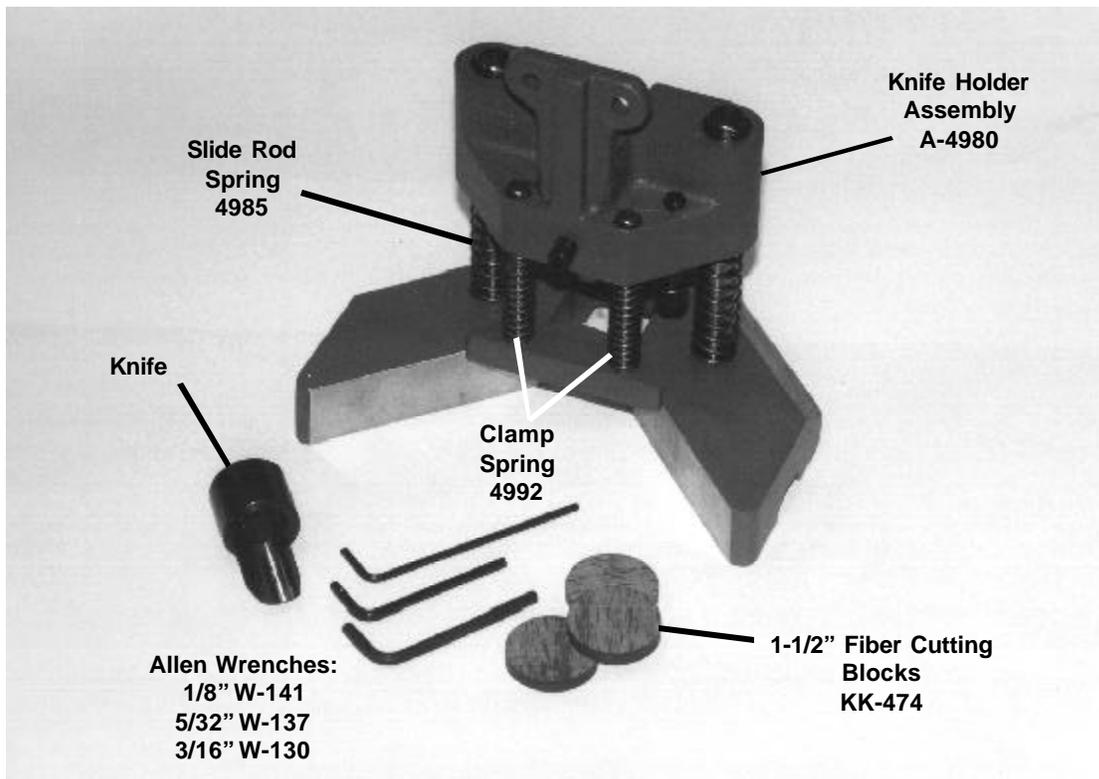


Raise the auto trip mechanism and lock it out of the way with the thumb screw.

Your Challenge paper drill is now ready to corner.

NOTE: Maximum cutting capacity is 1/2" (13 mm). Be sure to check the stroke adjustment to prevent the knife from cutting too deep into the cutting block.

CORNER-MATIC HEAVY DUTY CORNERING ATTACHMENT A-4980



Knives available:

1/8" (3 mm) 4981-2	1/4" (6 mm) 4981-4	3/8" (9.5 mm) 4981-6	7/16" (11 mm) 4981-7
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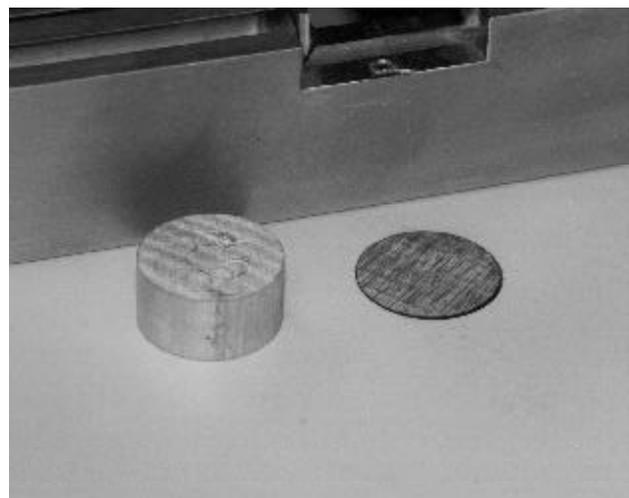


WARNING: DISCONNECT POWER before cleaning, servicing, or lubricating your drill.

To install the cornering attachment, make sure the power is locked out and then remove the hollow drill.

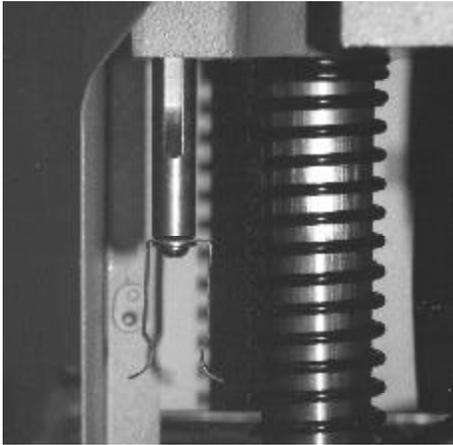


Next, remove the pressure foot by unscrewing the two knurled nuts.

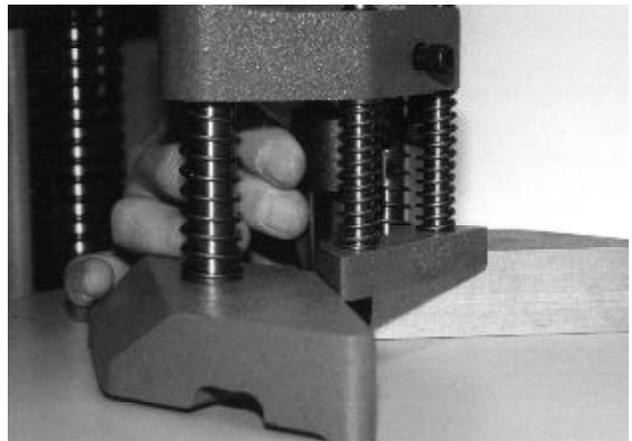
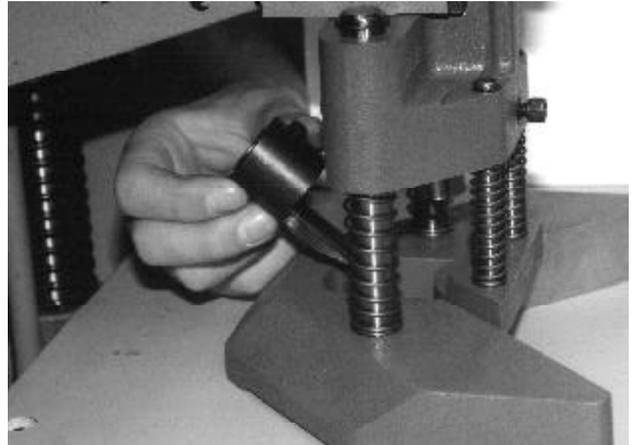


Replace the wooded drill block with the three fiber blocks.

Move the backgage to the rear of the table and position



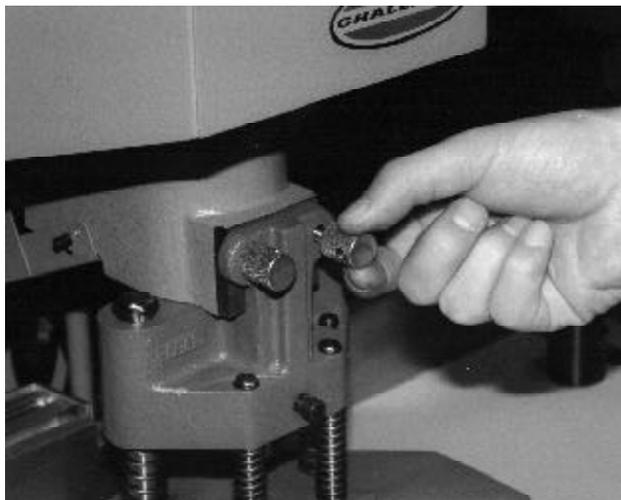
the side gage to the far left of the table. You may also want to lock the auto trip mechanism out of the way.



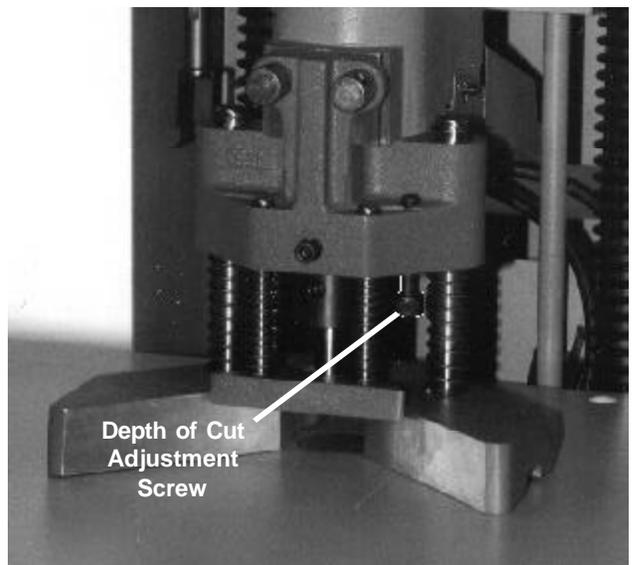
Install the knife blade from the rear of the attachment, slide it up into position, and tighten the socket screw to hold it in place.



Align the knife holder to the holes for the pressure foot, press down on the holder and slide it into place.

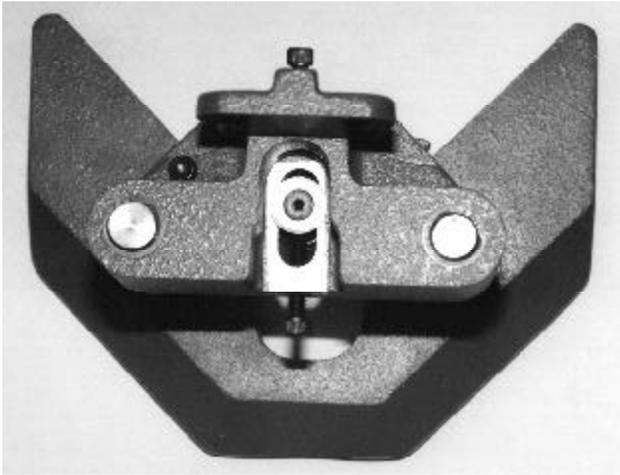


Attach the holder to the machine with the knurled nuts that held the pressure foot in position.



The depth of cut may be adjusted with the knurled screw on the right side of the attachment. The knife blade should just make it through the stock and not cut into the fiber block.

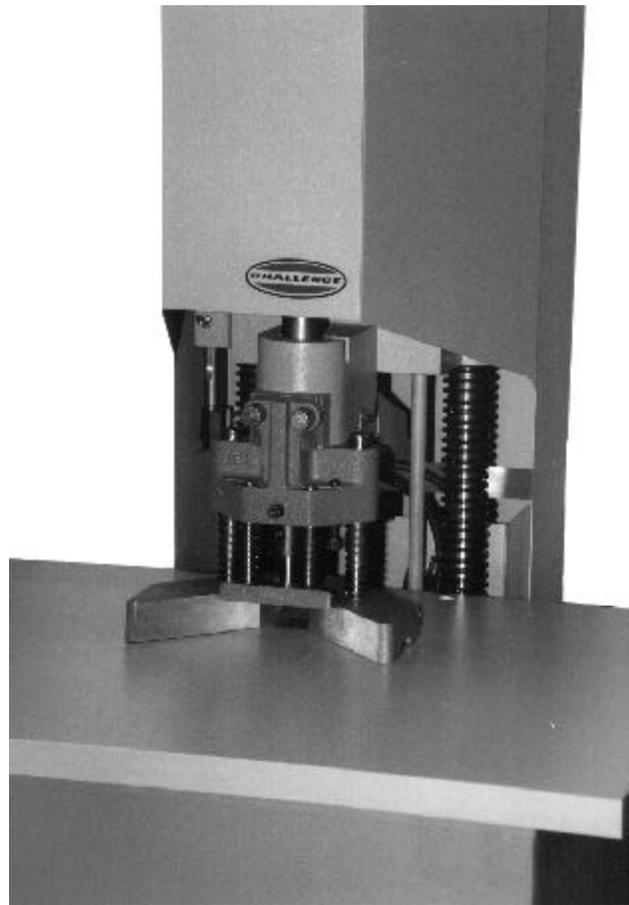
The blade can be squared to the paper by loosening the socket screw in the knife itself and rotating the blade until the edges of the knife match the edges of the paper.



The blade can also be adjusted into or out of the paper, depending on which blade you are using, by loosening the socket screw on the front and tightening the socket screw in the rear of the attachment to bring the knife forward, or by loosening the rear socket screw and tightening the front socket screw you can move the knife farther back.

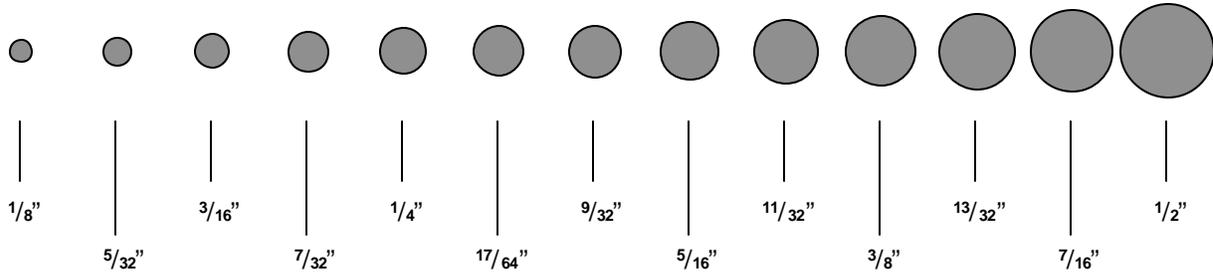
Your Challenge paper drill is now ready to corner.

NOTE: Maximum cutting capacity is 1" (25 mm). Be sure to check the stroke adjustment to prevent the knife from cutting too deep into the cutting block.



ACCESSORIES FOR CHALLENGE PAPER DRILLING MACHINES

Genuine Challenge Hollow Drills In 13 Standard Sizes For Every Drilling Need



All drills carried in stock by local Challenge dealers (¹⁷/₃₂" & ⁹/₁₆" available by special order).

HOLLOW DRILLS

Diameter x Drill Capacity	Cat. No.
¹ / ₈ " x ⁵ / ₈ " (3.2 x 16 mm)	CD-2-3
⁵ / ₃₂ " x ¹ / ₈ " (4 x 29 mm)	CD-52
³ / ₁₆ " x ¹⁵ / ₈ " (4.8 x 41 mm)	CD-3
⁷ / ₃₂ " x 2" (5.6 x 51 mm)	CD-72
¹ / ₄ " x 2" (6.3 x 51 mm)	CD-4
¹⁷ / ₆₄ " x 2" (6.7 x 51 mm)	CD-174
⁹ / ₃₂ " x 2" (7.1 x 51 mm)	CD-92
⁵ / ₁₆ " x 2" (7.9 x 51 mm)	CD-5
¹¹ / ₃₂ " x 2" (8.7 x 51 mm)	CD-112
³ / ₈ " x 2" (9.5 x 51 mm)	CD-6
¹³ / ₃₂ " x 2" (10.3 x 51 mm)	CD-132
⁷ / ₁₆ " x 2" (11.1 x 51 mm)	CD-7
¹ / ₂ " x 2" (12.7 x 51 mm)	CD-8
Special order drills	
¹⁷ / ₃₂ " x 2" (13.5 x 51 mm)	CD-172
⁹ / ₁₆ " x 2" (14.3 x 51 mm)	CD-9

TEFLON COATED HOLLOW DRILLS

Diameter x Drill Capacity	Cat. No.
¹ / ₈ " x ⁵ / ₈ " (3.2 x 16 mm)	TCD-2-3
⁵ / ₃₂ " x ¹ / ₈ " (4 x 29 mm)	TCD-52
³ / ₁₆ " x ¹⁵ / ₈ " (4.8 x 41 mm)	TCD-3
⁷ / ₃₂ " x 2" (5.6 x 51 mm)	TCD-72
¹ / ₄ " x 2" (6.3 x 51 mm)	TCD-4
¹⁷ / ₆₄ " x 2" (6.7 x 51 mm)	TCD-174
⁹ / ₃₂ " x 2" (7.1 x 51 mm)	TCD-92
⁵ / ₁₆ " x 2" (7.9 x 51 mm)	TCD-5
¹¹ / ₃₂ " x 2" (8.7 x 51 mm)	TCD-112
³ / ₈ " x 2" (9.5 x 51 mm)	TCD-6
¹³ / ₃₂ " x 2" (10.3 x 51 mm)	TCD-132
⁷ / ₁₆ " x 2" (11.1 x 51 mm)	TCD-7
¹ / ₂ " x 2" (12.7 x 51 mm)	TCD-8

Challenge Drill-Ease Lubricant Stick

Cat. No. 4688

This lubricating stick provides a dry stainless lubricant which has many uses throughout the printing plant. It is specially recommended for use on hollow drills for easier drilling, particularly when drilling clay coated stock. It eliminates binding and excessive heating of the drill. Will not discolor the stock.

CARE MUST ALWAYS BE TAKEN WHEN USING STICK AND HANDLING DRILLS.

Challenge Drilling Blocks

Cat. No. A-4682

These Challenge ¹/₂" (38 mm) wood drilling blocks are for round hole drilling operations. Sold in packages of 12.



Challenge Fiber Blocks

Cat. No. KK-474

These tough, ¹/₂" (38 mm) fiber cutting blocks are recommended for all cornering and slitting operations. Sold in packages of 12.

