



8690FH



8690FSK



8690CK



8690CS



8690TN

8690 Series Ratchet Type Cutters



H.K. Porter®

8690 Series Disassembly and Assembly

The following disassembly and assembly procedures apply to all models except where noted.

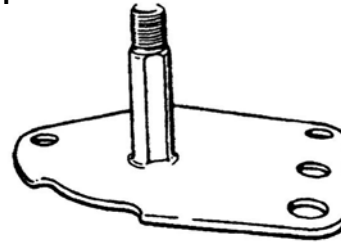
Disassembly:

1. Secure the tool in a vise by the right handle (handle without the ratchet) with the left handle parallel to the floor and the head pointing away from you.
2. **TN model:** Cut the rubber handle grip (P0380M) from the handle. Be careful not to damage the plastic sleeve.
3. **FH, FSK, CK, and CS models:** In the end of the left handle (the ratcheting handle), insert a hook type tool through the access hole in the end of the handle grip, hook the spring, pull the spring slightly towards you, twist 90 degrees and unhook the spring (P8678FS) from the pin. Note: removal of the handle grip is no longer required as a result of the added access hole to the new grip.
- 3a. **TN model:** Unhook the spring extension (P8679TN) from the pin on the ratchet handle using a hook type tool.
4. Loosen nut (T3171) from bolt (P8635FS) using 7/16" wrenches.
5. Remove the bolt and snubber (P8654FS).
6. Remove the tool from the vise.
7. Unhook the two closing springs (P8658FH).
8. Remove the closing spring bolt (P8634FS), nut (T3171) and snubber (P8654FS).
9. Remove the cutterhead from the handles using 9/16" wrenches. *Important: Note the difference in length between the two sets of bolts.*
10. Remove the right handle assembly, with the chain and spring still attached, from the left handle.
11. Remove the nut (P2666K) from the sprocket pivot bolt (P8692FS) using a 9/16" wrench.
12. Remove the sprocket pivot bolt (P8692FS).
13. Remove the two side plates (P8621FS), sprocket (P8624FS), bushing (P8642FS), detent pawl (P8637FS), and spring (P8677FS).
14. Remove the two crank plate bushings (P8646FS).
15. Clean all parts thoroughly with solvent.

Assembly:

1. Assemble the pivot bolt (P8692FS) to one of the side plates (P8621FS). Match the flat on the bolt with the flat in the plate hole. Lay this assembly on the bench with the bolt head down and the notched edge of the plate nearest to you. **See Illustration 1.**

Illustration 1



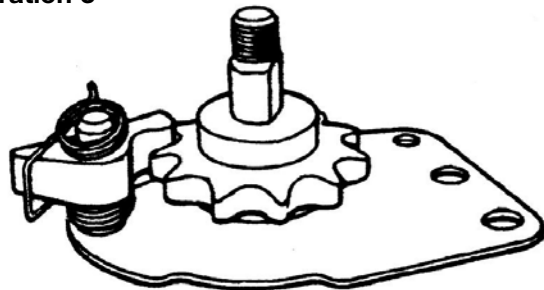
2. Apply a light film of grease to the shank of the pivot bolt.
3. Slide the sprocket (P8624FS) onto the pivot bolt.
4. Apply grease to the detent spacer bushing (P8642FS) and slide into the detent pawl. Place the detent spring (P8677FS) onto the pin making sure the spring ends have not been bent out of shape. The cross arm of the spring goes under the flat side of the narrow shaped point of the detent pawl. **See Illustration 2.**

Illustration 2



5. Assemble one end of the detent spacer bushing (P8642FS) into the hole on the side plate (P8621FS) and engage the rounded end of the pawl with the sprocket (P8624FS). **See Illustration 3.**

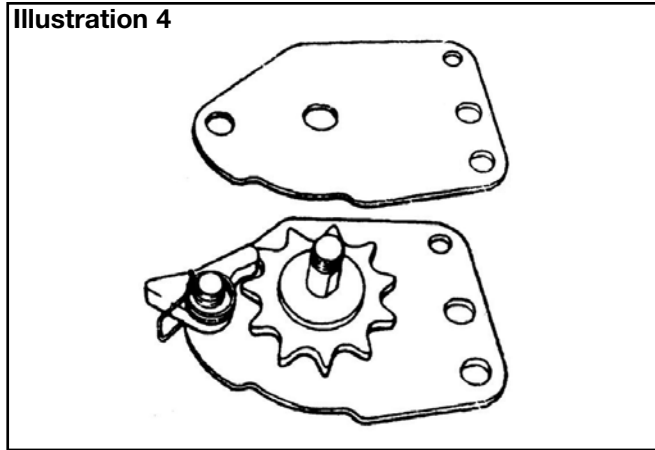
Illustration 3



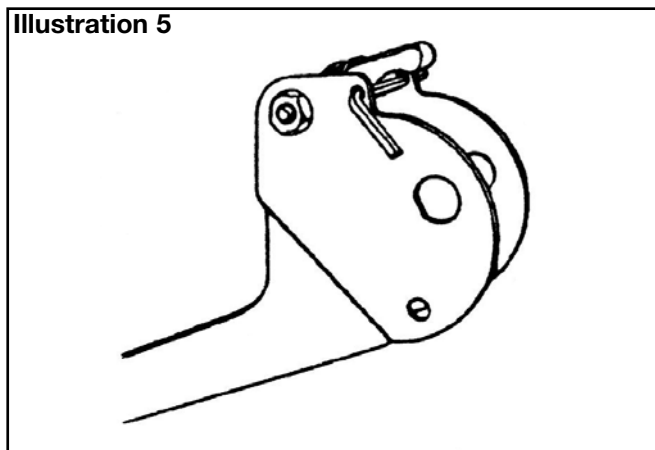
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6. Match up the second side plate (P8621FS) with the first and place it over the detent spacer and pivot bolt. Do not insert the spring ends into the plates at this point. **See Illustration 4.**



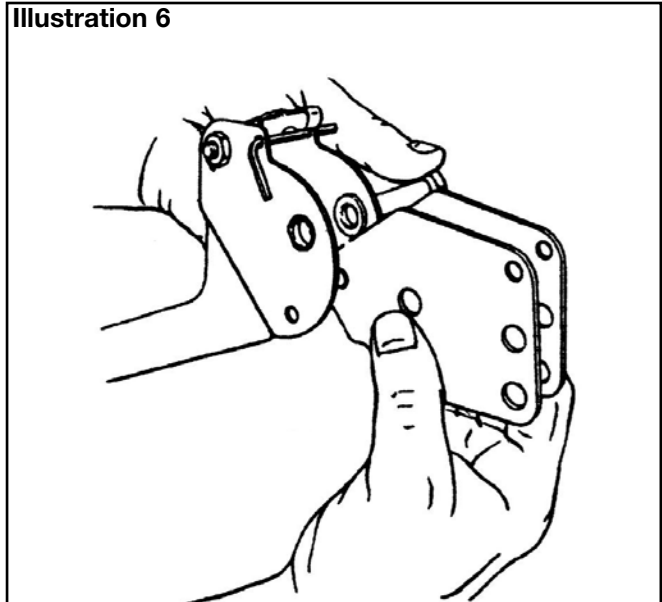
7. Hold the left handle (8606FH or P8606TN) in a vise with the drive pawl facing up and the handle pointing to your left. Pull the drive pawl up, moving counter clockwise, and insert a 1/8" rod or nail through the small holes in the plates near the drive pawl to hold it in a horizontal position. **See Illustration 5.**



8. Place a small amount of grease on each of the two crank plate bushings (P8646FS) at the shoulder and insert them into the pivot bolt hole with the shoulders on the inside. The grease will hold them in position.

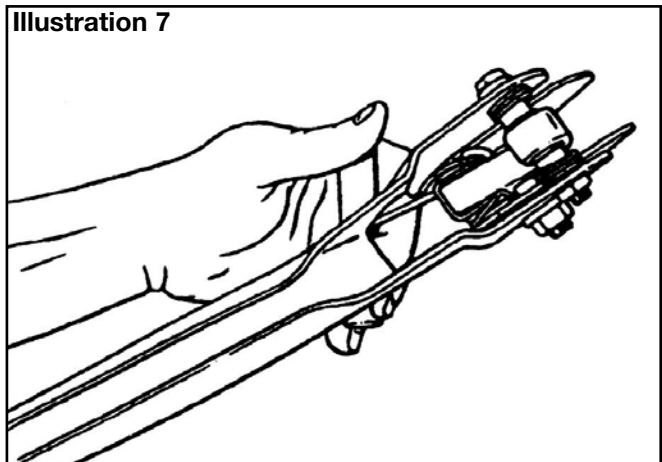
9. Hold the side plate assembly firmly with the notched edges of the plate facing down. While holding tightly between your fingers, remove the pivot bolt.

10. Carefully insert the plate assembly into the left handle between the bushings (P8646FS). Align the pivot bolt holes and slide the pivot bolt into position from the far side of the handle. **See Illustration 6.**



11. Assemble spacer (P8644FS) and nut (P2666K) to the pivot bolt and tighten up snug. *Note: This assembly must pivot freely.*

12. With a small hook tool, reach up from the bottom of the assembly, between the plates, and hook the ends of the detent spring into their respective holes. **See Illustration 7.** Make sure the spring loops are not caught between the pin and side plate.



13. Remove the 1/8" pin from under the pawl and engage the drive pawl with the sprocket (P8624FS).

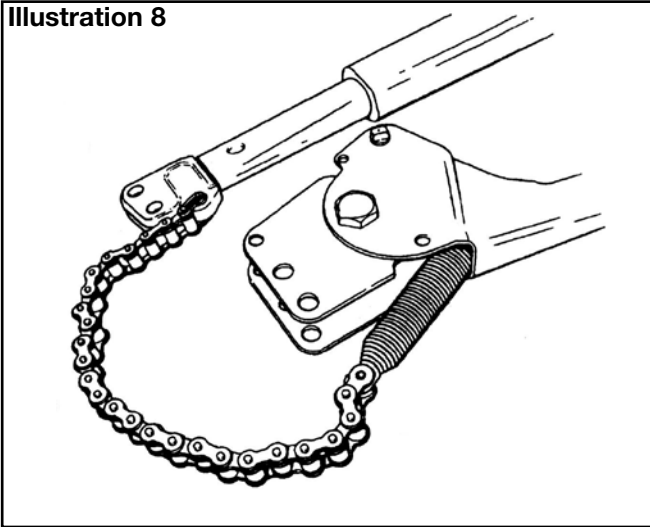
14. Remove the handle from the vise.

15. Hook the longer loop on the chain spring (P8678FS) onto the free end of the chain (P8653FS). Lay the left and right handles on the bench with the drive pawl on the left handle and the chain on the right handle facing each other. Feed the spring on the chain over the sprocket and into the left handle. **See Illustration 8.**

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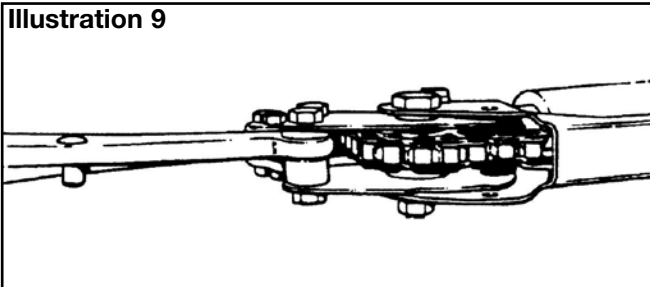
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Illustration 8



16. With the handles remaining in this position, assemble the cutting head to the left handle. The thicker washer (P8645FS) goes on the bottom between the handle and the jaw. The thinner washer (P8644FS) goes on top. **See Illustration 9.** Use the longer bolt (P8628FS) and nut (P2666K) and tighten securely.

Illustration 9



17. Assemble the other side of the head to the right handle using bolts (P0135SK) and nut (P2666K). Tighten securely.

18. Hook the open end of the closing spring (P8658FH) into the holes in the handle (8606FH or P8606TN). Make sure the closed loops are against the side plates (P8621FS).

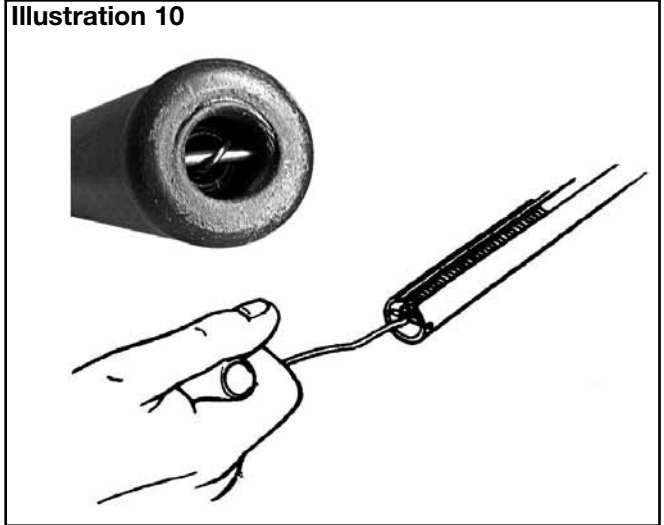
19. Insert bolt (P8634FS) through the closed loop on one of the springs (P8658FH) and insert through the 1/4" hole in the side plate (P8621FS). At the same time assemble the snubber (P8654FS) and slide the bolt through the snubber.

20. Assemble the other spring (P8658FH) onto the bolt and secure with nut.

21. Tighten the nut approximately one thread beyond the end of the bolt.

22. **FH, FSK, CK, and CS models:** Using a hook type tool, insert the tool through the access hole in the end of the handle grip. Secure the spring (P8678FS) and pull it towards the opening, rotating slightly to allow the spring to clear the pin. Hook the chain spring over the pin. See Illustration 10.

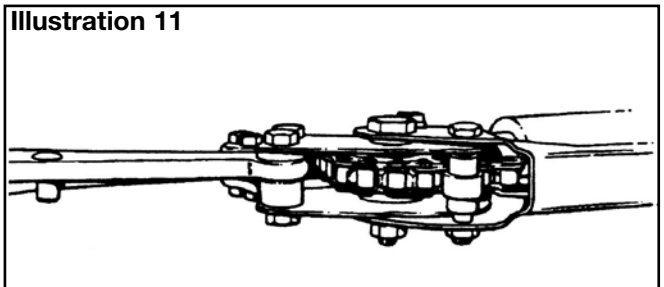
Illustration 10



22a. **TN model:** Hook the chain spring (P8678FS) and pull the spring to near bottom of the handle and attach the spring extension (P8679TN) to the chain at one end and the handle pin at the other end.

23. Assemble snubber (P8654FS) and bolt (P8635FS) to the handle. Assemble nut (T3171) and tighten so as not to bind the assembly. **See Illustration 11.**

Illustration 11



24. **FH, FSK, CK and CS models:** Check operation of the tool by opening and closing.

24a. **TN model:** Check operation of the tool by opening and closing. If operation is satisfactory, assemble a new grip (P0380M) onto handle.

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Illustration "A": 8690 Series Ratchet Type Cutters Handle Assembly							
Ref	Qty	Model Number					Description
		8690CK	8690CS	8690FH	8690FSK	8690TN	
		Overall Length					
		28" (711 mm)	29.75" (756 mm)	29.25" (743 mm)	27.5" (699 mm)	36" 914 mm)	
		Part Number					
1	1	P8681FHR	P8681FHR	P8681FHR	P8681FHR	Illustration "G"	Handle Grip Available with 8605F (18)
2	1	P8680CKR	P8680CKR	P8680CKR	P8680CKR	Illustration "G"	Handle Grip Available with 8606FH (19)
3	4	P2666K	P2666K	P2666K	P2666K	P2666K	Nut (8690CK: Qty. = 2)
4	2	-----	P0135SK	P0135SK	P0135CK	P0135SK	Bolt (Hex Head)
5	1	P8719CS	P8719CS	P8719CS	P8719CS	P8719CS	Bushing
6	2	P8628FS	P8628FS	P8628FS	P8628FS	P8628FS	Bolt (Hex Head)
7	1	P8634FS	P8634FS	P8634FS	P8634FS	P8634FS	Bolt
8	1	P8635FS	P8635FS	P8635FS	P8635FS	P8635FS	Bolt
9	2	-----	P8644FS	P8644FS	P8644FS	P8644FS	Spacer
10	2	-----	P8645FS	P8645FS	P8645FS	P8645FS	Spacer
12	1	P8652FS	P8652FS	P8652FS	P8652FS	P8652FS	Chain Link
13	1	P8653FS	P8653FS	P8653FS	P8653FS	P8653TN	Chain
14	2	P8654FS	P8654FS	P8654FS	P8654FS	P8654FS	Snubber
15	2	P8658FH	P8658FH	P8658FH	P8658FH	P8658FH	Spring
16	1	P8678FS	P8678FS	P8678FS	P8678FS	P8678FS	Spring
17	2	T3171	T3171	T3171	T3171	T3171	Nut
18	1	Illustration "B"	8605F	8605F	8605F	Illustration "G"	Handle, Right and Grip (Includes 18 & 1)
--	--	P8661FH	P8661FH	P8661FH	P8661FH	P8661TN	Handle Assembly (Includes 18 - 33)
19	1	8606FH	8606FH	8606FH	8606FH	Illustration "G"	Handle, Left and Grip (Includes 19 & 2)
20	2	P8621FS	P8621FS	P8621FS	P8621FS	P8621FS	Side Plate
21	1	P8624FS	P8624FS	P8624FS	P8624FS	P8624FS	Sprocket
22	1	P8636FS	P8636FS	P8636FS	P8636FS	P8636FS	Pawl
23	1	P8637FS	P8637FS	P8637FS	P8637FS	P8637FS	Pawl
24	1	P8641FH	P8641FH	P8641FH	P8641FH	P8641FH	Pin
25	1	P8642FS	P8642FS	P8642FS	P8642FS	P8642FS	Bushing
26	1	P8644FS	P8644FS	P8644FS	P8644FS	P8644FS	Spacer
27	2	P8646FS	P8646FS	P8646FS	P8646FS	P8646FS	Bushing
28	1	P8674FS	P8674FS	P8674FS	P8674FS	P8674FS	Spring
29	1	P8677FS	P8677FS	P8677FS	P8677FS	P8677FS	Spring
30	2	P8683FH	P8683FH	P8683FH	P8683FH	P8683FH	Retainer
31	1	P8685FH	P8685FH	P8685FH	P8685FH	P8685FH	Pin
32	1	P8692FS	P8692FS	P8692FS	P8692FS	P8692FS	Bolt
33	1	T3171	T3171	T3171	T3171	T3171	Nut
34	1	P2666K	P2666K	P2666K	P2666K	P2666K	Nut
--	--	Illustration "B"	Illustration "C"	Illustration "D"	Illustration "E"	Illustration "F"	Cutter Head Assembly

H.K. Porter® 8690 series Cutterheads

“B” 8613CK Cutterhead

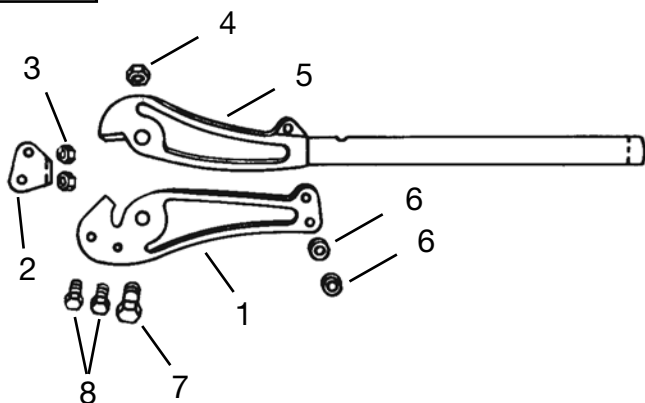


Illustration “B”: 8613CK Cutterhead

Ref	Qty	Part No.	Description
1	1	P8620CKR	Available with 8613CK only
2	1	P8611CKR	Blade
3	2	P2666K	Nut
4	1	P6466	Pivot Bolt Nut
5	1	8610CKR	Blade and Handle Assembly
6	2	P8643CK	Spacer
7	1	P8692CK	Pivot Bolt
8	2	P0135CK	Bolt

“C” 8613CS Cutterhead

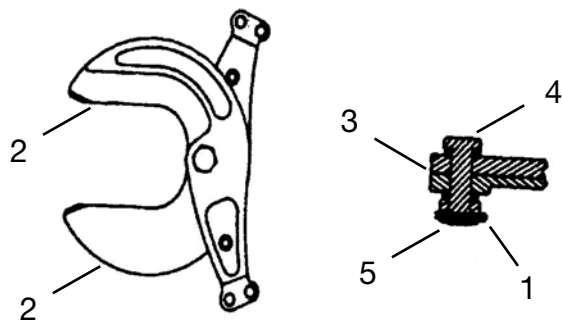


Illustration “C”: 8613CS Cutterhead

Ref	Qty	Part No.	Description
1	1	P1747CN	Cotter Pin
2	2	P8610CS	Blade
3	2	P8779CS	Spring Washer
4	1	P8992CN	Pivot Bolt
5	1	P8993CN	Pivot Bolt Nut

“D” 8613FH Cutterhead

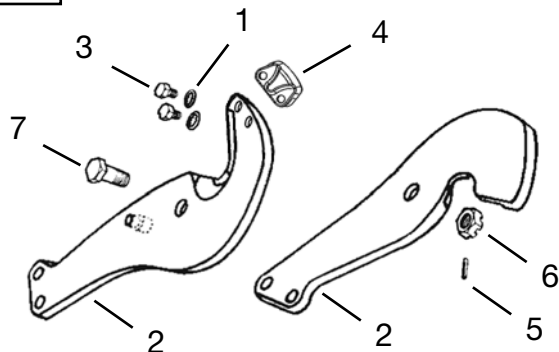


Illustration “D”: 8613FH Cutterhead

Ref	Qty	Part No.	Description
1	2	P0052GCW	Lockwasher
2	2	P8611FH	Blade
3	2	P8627FH	Bolt
4	1	P8650FH	Keeper Assembly
5	1	P1487WM	Dowel Pin
6	1	P2693G	Pivot Bolt Nut
7	1	P8666FH	Pivot Bolt

“E” 8613FSK Cutterhead

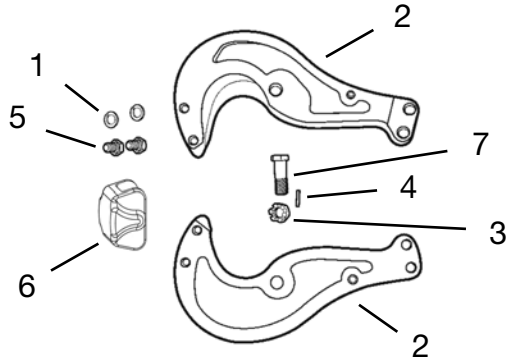


Illustration “E”: 8613FSK Cutterhead

Ref	Qty	Part No.	Description
1	2	P0052GCW	Lockwasher
2	2	P8610FSK	Blade
3	1	P0193TQ	Pivot Bolt Nut
4	1	P0194TQ	Cotter Pin
5	2	P8627FH	Bolt
6	1	P8650FSK	Keeper Assembly
7	1	P8666FSK	Pivot Bolt

“F” 8613TN Cutterhead

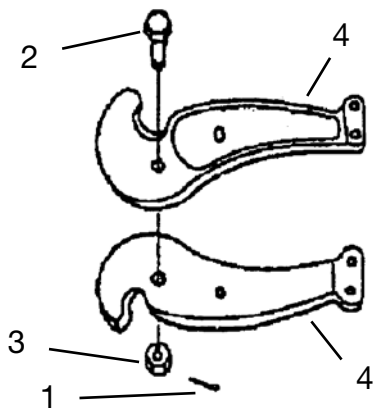


Illustration “F”: 8613TN Cutterhead

Ref	Qty	Part No.	Description
1	1	P1747CN	Cotter Pin
2	1	P7192Q	Pivot Bolt
3	1	P8993CN	Pivot Bolt Nut
4	2	P8610TN	Blade

“G” Model 8690TN Handle

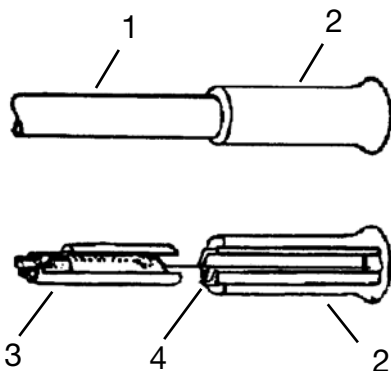


Illustration “G”: Model 8690TN Handle

Ref	Qty	Part No.	Description
1	1	P8605TN	Handle (Right)
2	2	P0380M	Grip
3	1	P8606TN	Handle (Left)
4	1	P8679TN	Spring Extension
5	1	P8682TN	Black Sleeve (not shown)

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