



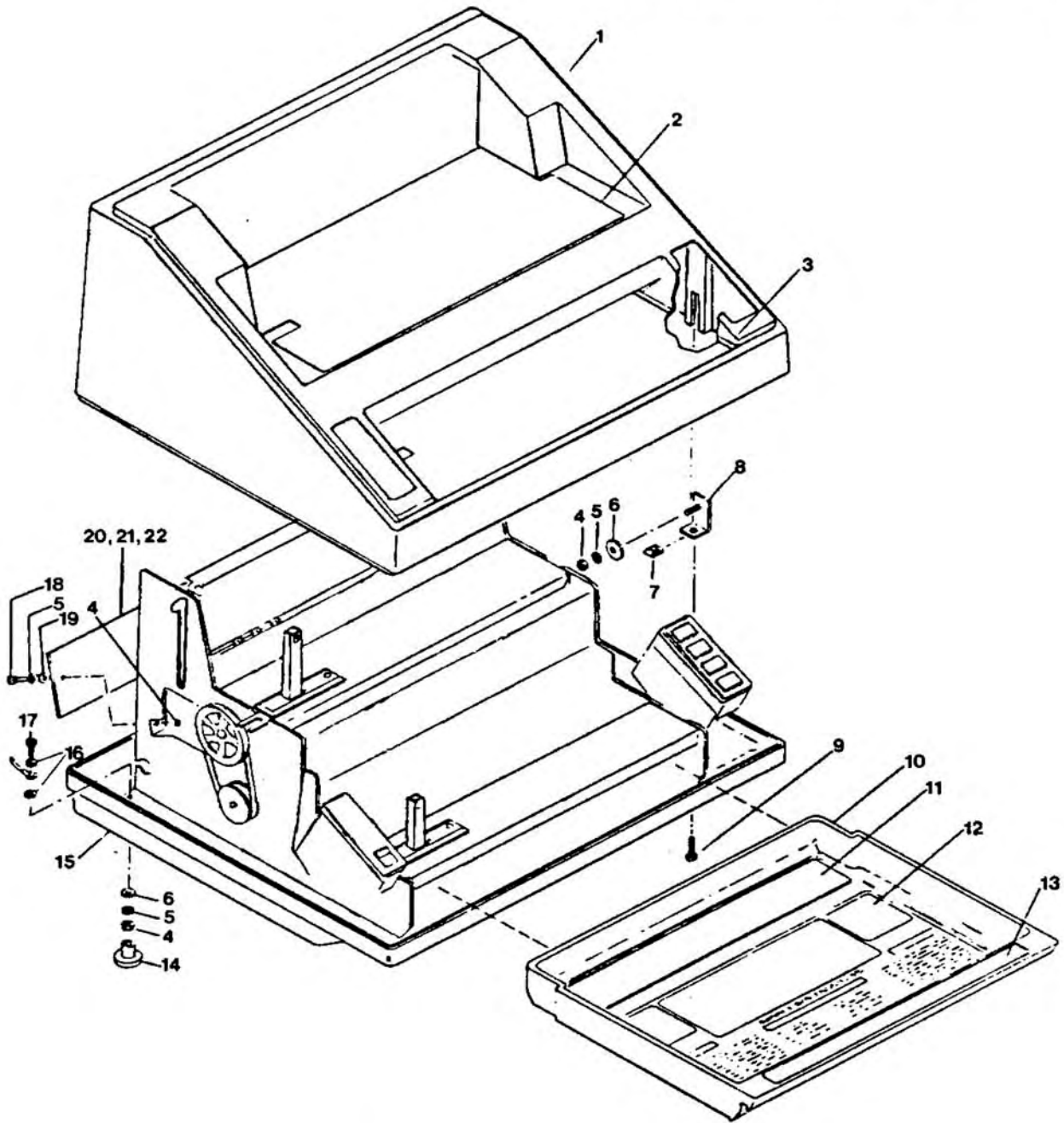
323

Parts List



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FIGURE 1 - HOUSING REMOVAL

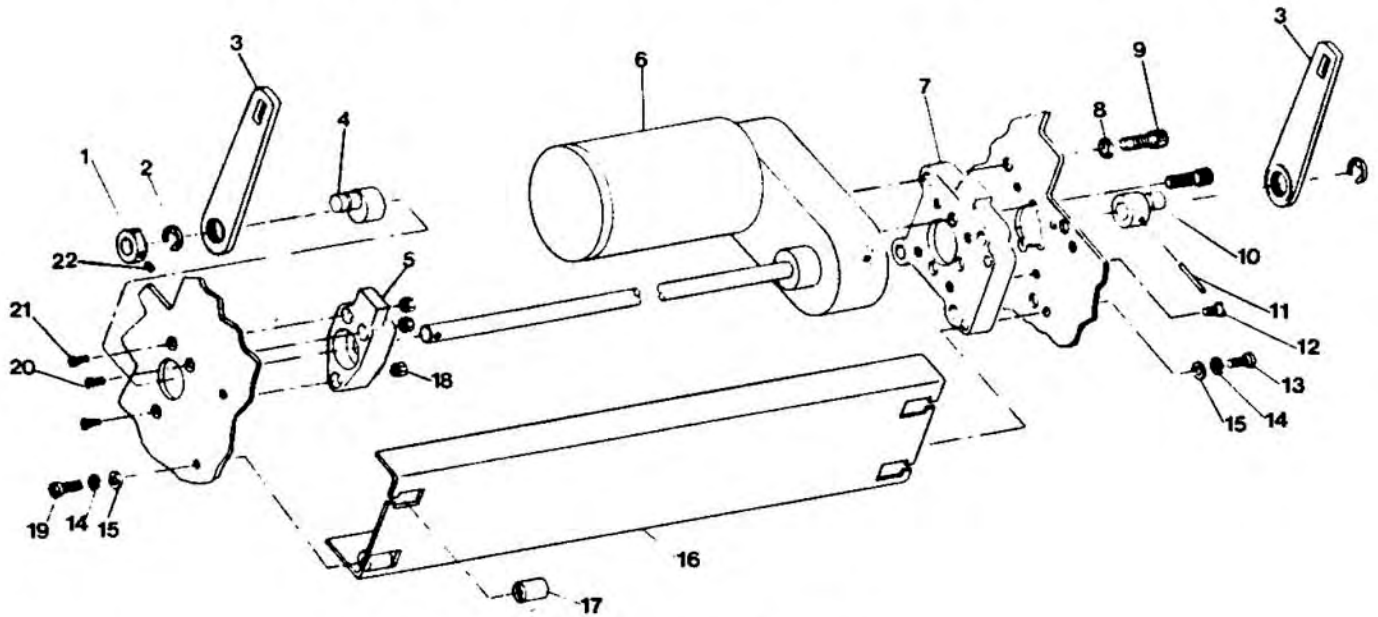


PART NUMBER REFERENCE GUIDE

- | | |
|----------------------------------|----------------------------------|
| 1--9776963--HOUSING | 12--9776901--OP INST. DECAL |
| 2--9778786--BIND PLATEN | 13--9776898--SALES REP DECAL |
| 3--9778792--PUNCH PLATEN | 14--9778089--RUBBER FOOT |
| 4--9778590--#10 HEX NUT | 15--9778221--BASE |
| 5--9779912--#10 LOCKWASHER | 16--9779923--STAR WASHER |
| 6--9779912--#10 FLAT WASHER | 17--9779179--10/24 X 1-1/8 SCREW |
| 7--9778610--#10 TINNEMAN NUT | 18--9779178--10/24 X 1/2 SCREW |
| 8--9776719--HSING MTG BRAC ASSY. | 19--9779899--FLAT WASHER |
| 9--9779206--10/16 X 1 SCREW | 20--9778696--P.C. BOARD |
| 10--9779438--WASTE TRAY | 21--9779247--P.C. BOARD SHIELD |
| 11--9779365--FOAM STRIP | 22--9779362--3/16 SUPPORT |

9778230--HOUSING ASSEMBLY (INCLUDES ITEMS 1-8)

FIGURE 2 - PUNCH DRIVE ASSEMBLY REMOVAL



PART NUMBER REFERENCE GUIDE

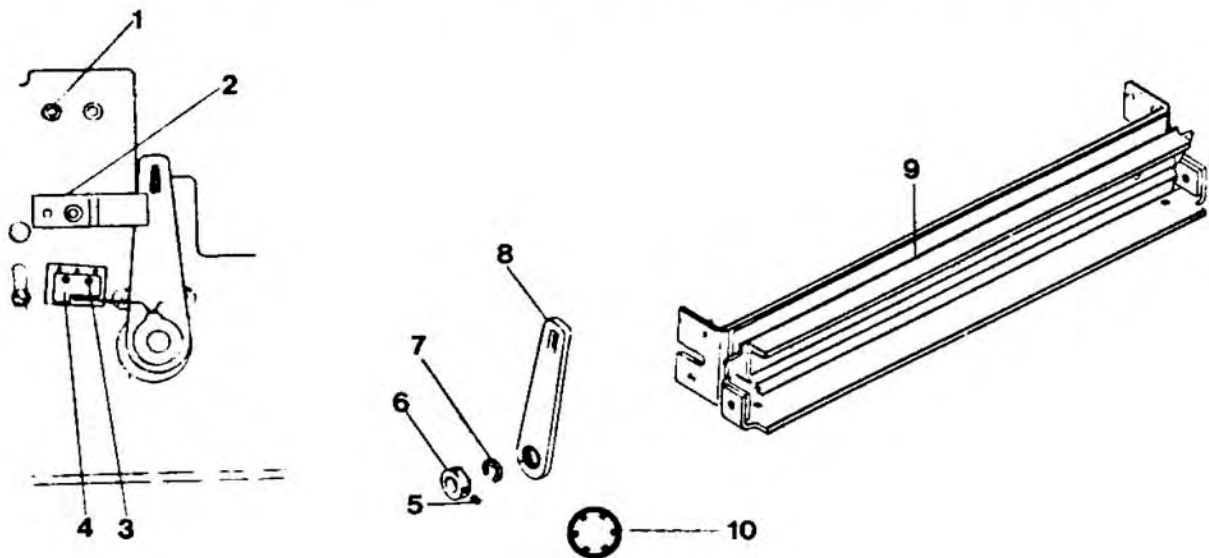
1--9776851--PUNCH CAM	12--9779204--10/24 X 1/2 SCREW
2--9777570--RETAINING RING	13--9779134--8/32 X 1-1/4 SCREW
3--9778461--PUNCH LINK	14--9779911--LOCK WASHER
4--9776842--PUNCH CRANK	15--9779898--FLAT WASHER
5--9776610--PUNCH BEARING	16--9776935--GEARBOX SUPPORT
6--9778567--PUNCH MOTOR ASSEMBLY	17--9776927--SLOTTED NUT
7--9776389--PUNCH MOTOR ADAPTOR	18--9778597--HEX NUT
8--9779929--LOCK WASHER	19--9779132--8/32 X 3/4 SCREW
9--9779205--5/16 X 3/4 SCREW	20--9779187--10/24 X 3/4 SCREW
10--9776842--PUNCH CRANK	21--9779187--10/24 X 3/4 SCREW
11--9778669--ROLL PIN	22--9779192--6/32 X 1/8 SCREW

NOTE: REFERENCE FIGURES 2 (ABOVE) AND FIGURE 3 (NEXT PAGE) FOR REMOVAL.

PUNCH DRIVE ASSEMBLY REMOVAL

1. Disconnect the punch motor connectors, and cut any wire ties necessary to free the punch motor wiring.
2. Remove the two zee brackets (Item 2, Fig. 3), and loosen the Punch Cam Switch (Item 4, Fig. 3) by removing the right screw, and loosening the left screw.
3. Remove the punch cam (Item 1, Fig. 2); remove the E-rings (Item 2, Fig. 2); and remove the punch links (Item 3, Fig. 2).
4. Remove the three allen screws (Item 12, Fig. 2) from the punch motor adaptor.
5. Remove the three phillips screws (Items 20, 21, Fig. 2) by holding the Punch Shaft Bearing (Item 5, Fig. 2), and move the bearing to the right.
6. The punch drive assembly can now be removed by moving the assembly to the left, and lifting it out of the unit.
7. Reassemble in reverse order.

FIGURE 3- PUNCH ASSEMBLY REMOVAL



PART NUMBER REFERENCE GUIDE

1--9779141--1/4-20 X 1 SCREW	5--9779192--SET SCREW
1--9779913--LOCK WASHER	6--9776851--PUNCH CAM
1--9778591--HEX NUT	7--9779072--E-RING
2--9776726--ZEE BRACKET	8--9778461--PUNCH LINK
3--9779168--2/56 X 9/16 SCREW	9--9778709--PUNCH ASSEMBLY
4--9779311--SWITCH	10--9777570--RETAINING RING

PUNCH ASSEMBLY REMOVAL

1. Loosen (do not remove) the bind support by removing the four phillips screws. This will provide easier access for the punch assembly removal.
2. Remove the two zee brackets (Item 2, Fig. 3) on both sides of the unit - 3/16 allen.
3. Loosen the Punch Cam Switch (Item 4, Fig. 3) by removing the right screw (Item 3, Fig. 3), and loosening the left screw.
4. Remove the punch cam (Item 6, Fig. 3) by loosening the 1/16 allen screw (Item 5, Fig. 3).
5. Remove the E-ring (Item 7, Fig. 3) from both eccentric cams.
6. Remove the punch links (Item 8, Fig. 13). Be careful not to damage the punch cam switch (Item 4, Fig. 3).*
7. Remove the remaining two 3/16 allen screws (Item 1, Fig. 3) with hardware, from both sides of the punch assembly.
8. The punch assembly (Item 9, Fig. 3) may now be removed.
9. Reassemble in reverse order, and re-time the punch and bind cam switches.

*NOTE: IF YOUR MACHINE HAS COMPUTER/STANDARD SELECTOR, REMOVE THE HEX NUT AND CLAMP UNDER THE PUNCH HOUSING, AND REMOVE THE CABLE FROM THE LEVER BEFORE STEP 7.

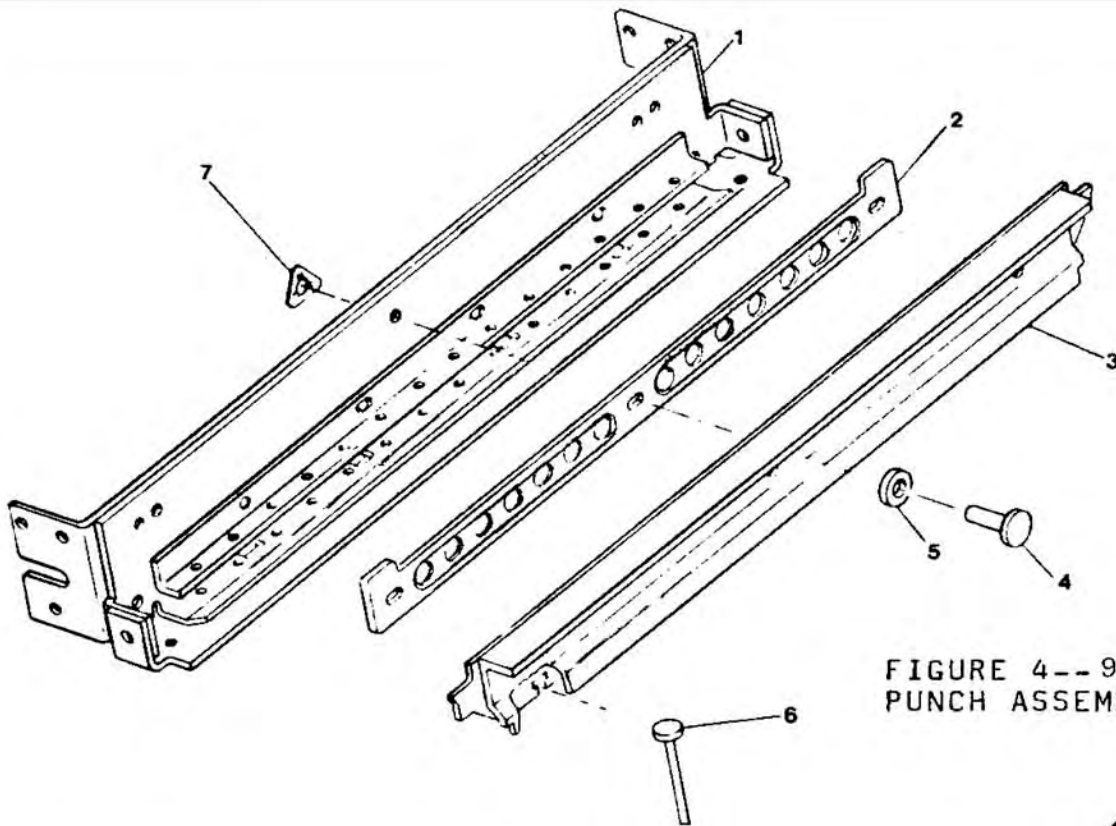


FIGURE 4-- 9778709
PUNCH ASSEMBLY (AFTER S/N 6254)

FIGURE 5--PUNCH ASSEMBLY
9778713 -OBSOLETE (PRIOR S/N 6254)
ORDER COMPONENTS BELOW

PART NUMBER REFERENCE GUIDE

- 1--9778194--PUNCH HOUSING
- 2--9779250--PUNCH SPACER
- 3--9776364--PUNCH ACTUATOR
- 4--9779063--RETAINING PIN
- 5--9779933--WASHER
- 6--9778684--PUNCH PIN
- 7--9779078--RETAINING CLIP

(#'S BELOW PRIOR TO S/N 6254)

- 8--9779069--E-RING
- 9--9779936--WASHER
- 10--9778233--PUNCH HOUSING
- 11--NOT AVAILABLE
- 12--9779371--PUNCH SLIDE
- 13--9779254--NYLON SPACER
- 14--9778466--PUNCH LEVER
- 15--9779279--SLIDE SPRING
- 16--9779897--FLAT WASHER
- 17--9778595--6/32 LOCKNUT
- 18--9776857--CLAMP
- 19--9779186--SCREW
- 20--9776621--BUSHING

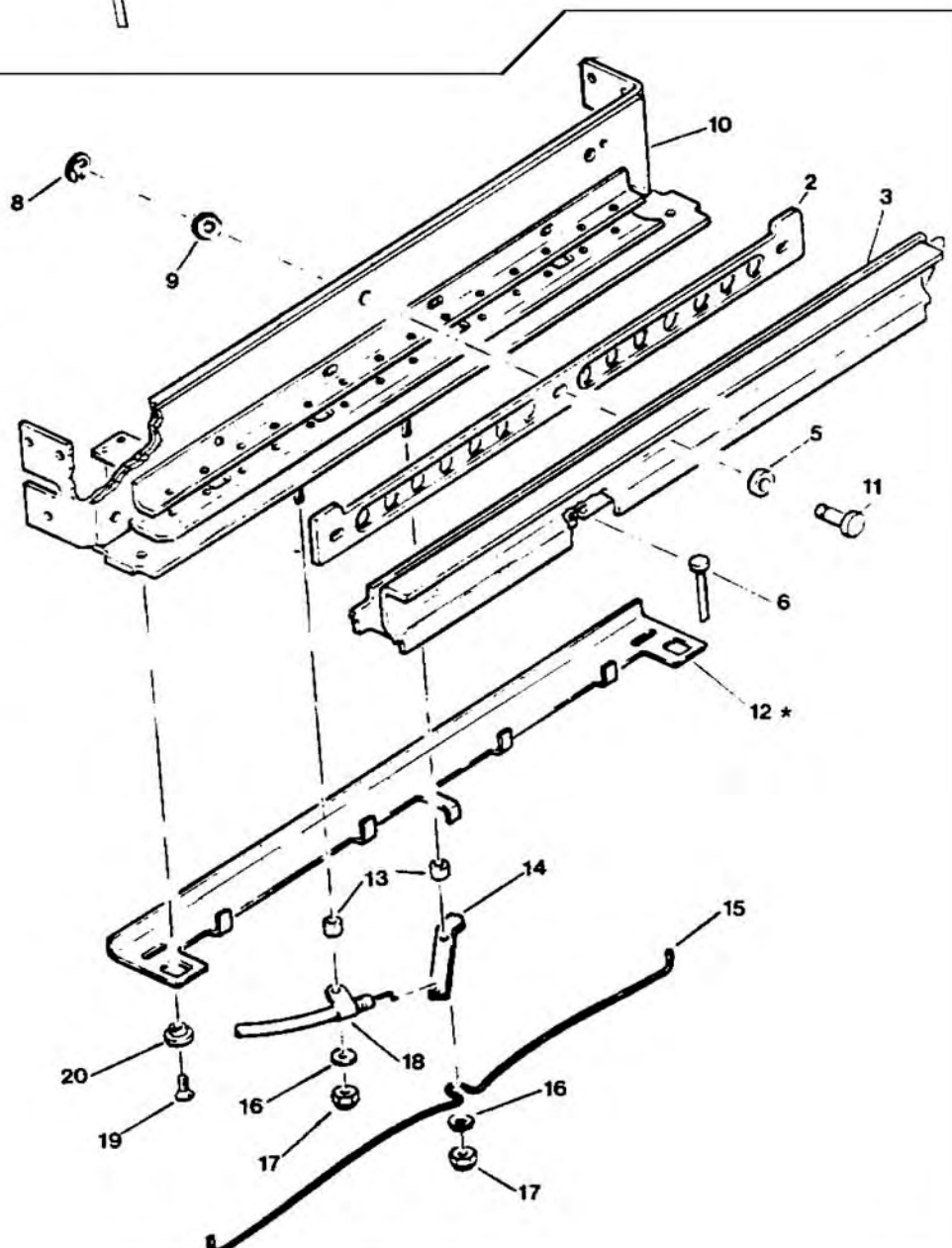
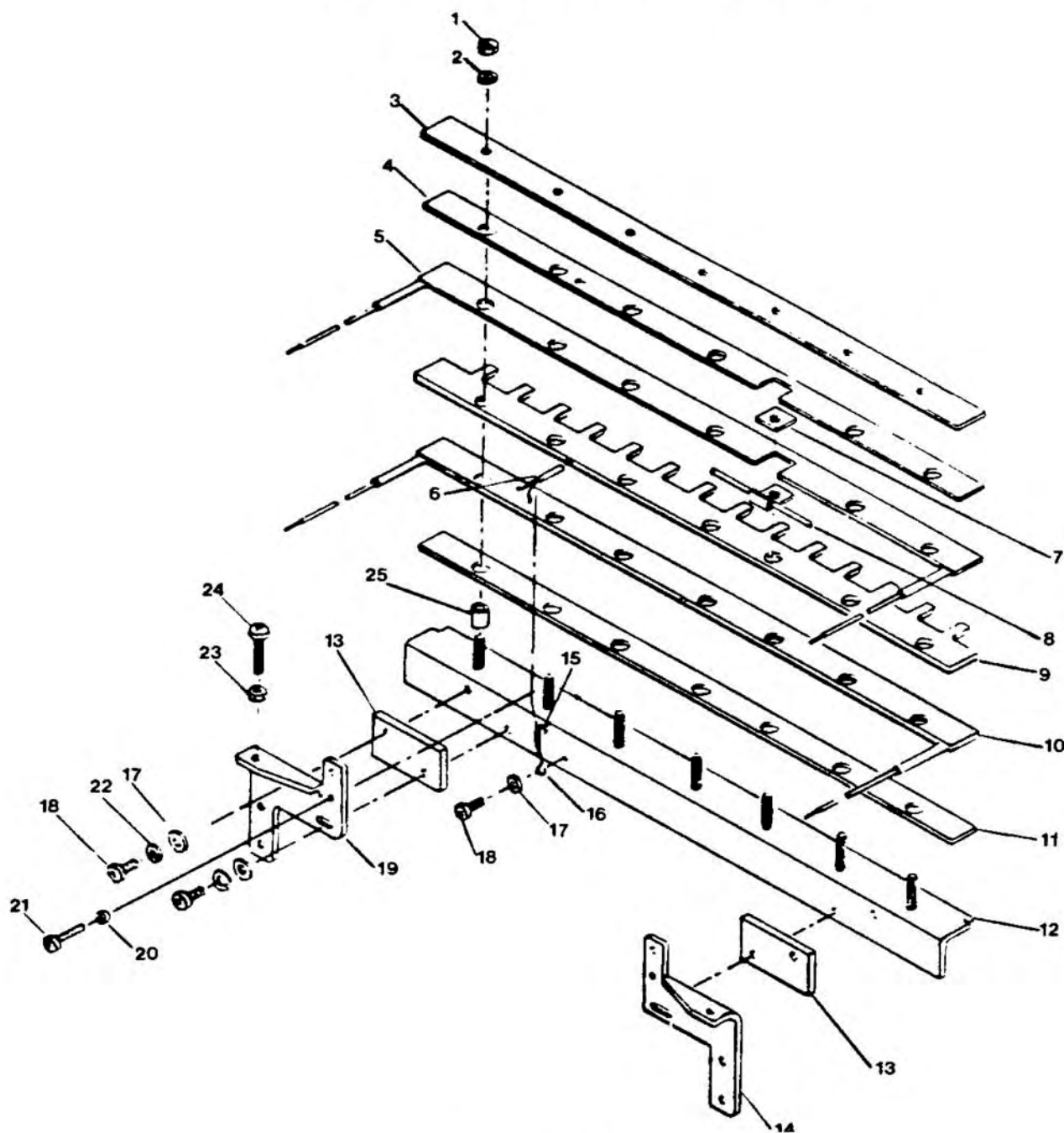


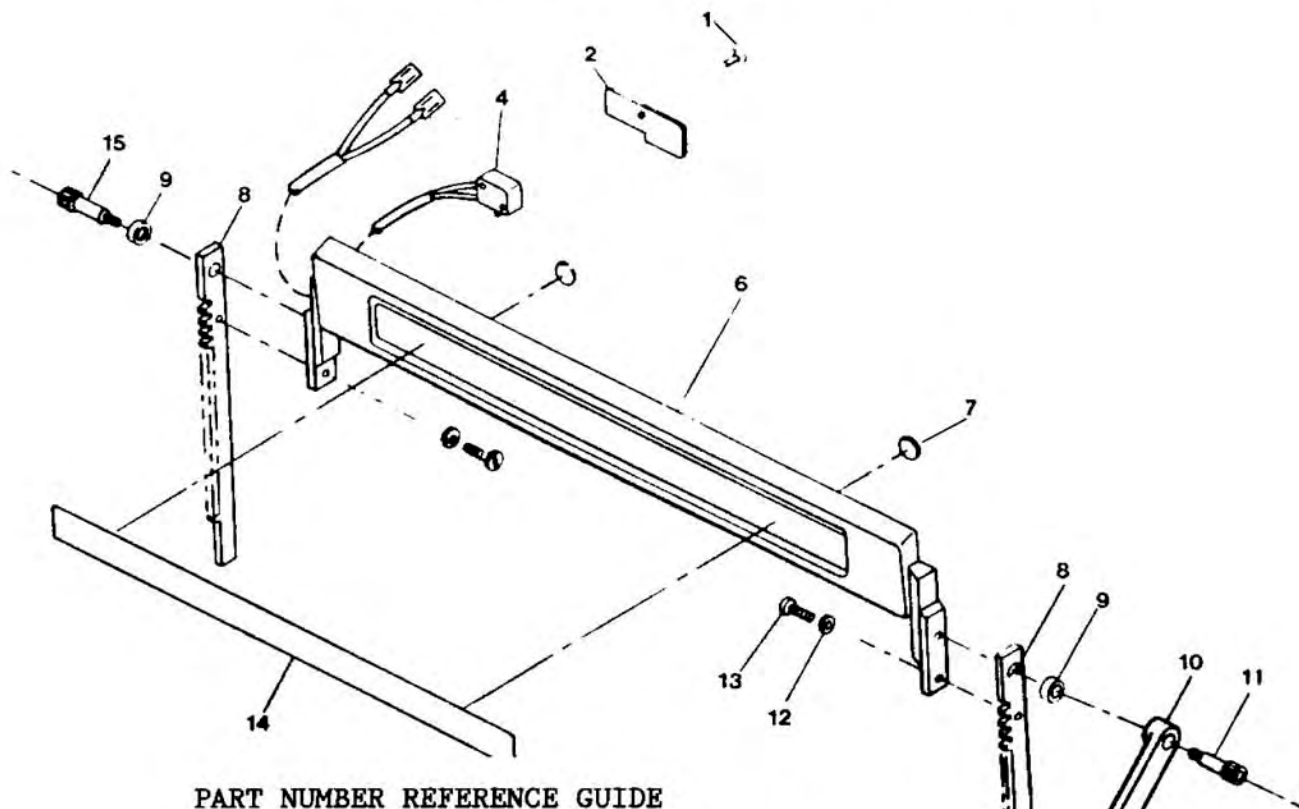
FIGURE 7 - KNIFE ASSEMBLY



PART NUMBER REFERENCE GUIDE

1--9778588--6/32 HEX NUT	14--9776704--LH HTR BRACKET
2--9779910--LOCK WASHER	15--9779410--TEFLON SLEEVE
3--9778754--KNIFE HTR PLATE	16--9779089--RETAINER
4--9778289--INSULATOR	17--9779898--FLAT WASHER
5--9778217--UPPER HEATER	18--9779175--3/32 X 1/2 SCREW
6--9779450--THERMISTOR	19--9776703--RH HTR BRACKET
7--9778289--INSULATOR	20--9778587--4/40 HEX NUT
8--9779394--CUTOFF THERMOSTAT	21--9779170--4/40 X 3/4 SCREW
9--9776713--BLADE	22--9779911--LOCK WASHER
10--9778226--LOWER HEATER	23--9778589--8/32 HEX NUT
11--9778289--INSULATOR	24--9779177--8/32 X 1 SCREW
12--9776705--HEATER SUPPORT	25--9778296--INSULATOR SLEEVE
13--9778294--INSULATOR BRACKET	N/A- 9778313 --KNIFE ASSEMBLY

FIGURE 8 - 9780037 - PRESSEURE BAR ASSY.



PART NUMBER REFERENCE GUIDE

1-- 9779223 --2/56 X 3/16 SCREW

2--9776734--SWITCH COVER

3--NOT USED

4-- 9780193* SWITCH KIT

5--NOT USED

6-- 9780043 PRESSEURE BAR

7--9778772--FELT PAD

8--9779044--RACK

*INCLUDES 1, 2 & 4

4 -- 9780089 -- Pressure bar switch

9--9776620--BUSHING

10-9778460--RETURN LINK

11-9779155--SHOULDER SCREW

12-9779912--LOCK WASHER

13-9779178--10/24 X 1/2 SCREW

14-9778626--PRESSEURE BAR LOGO

15-9779154--SHOULDER SCREW

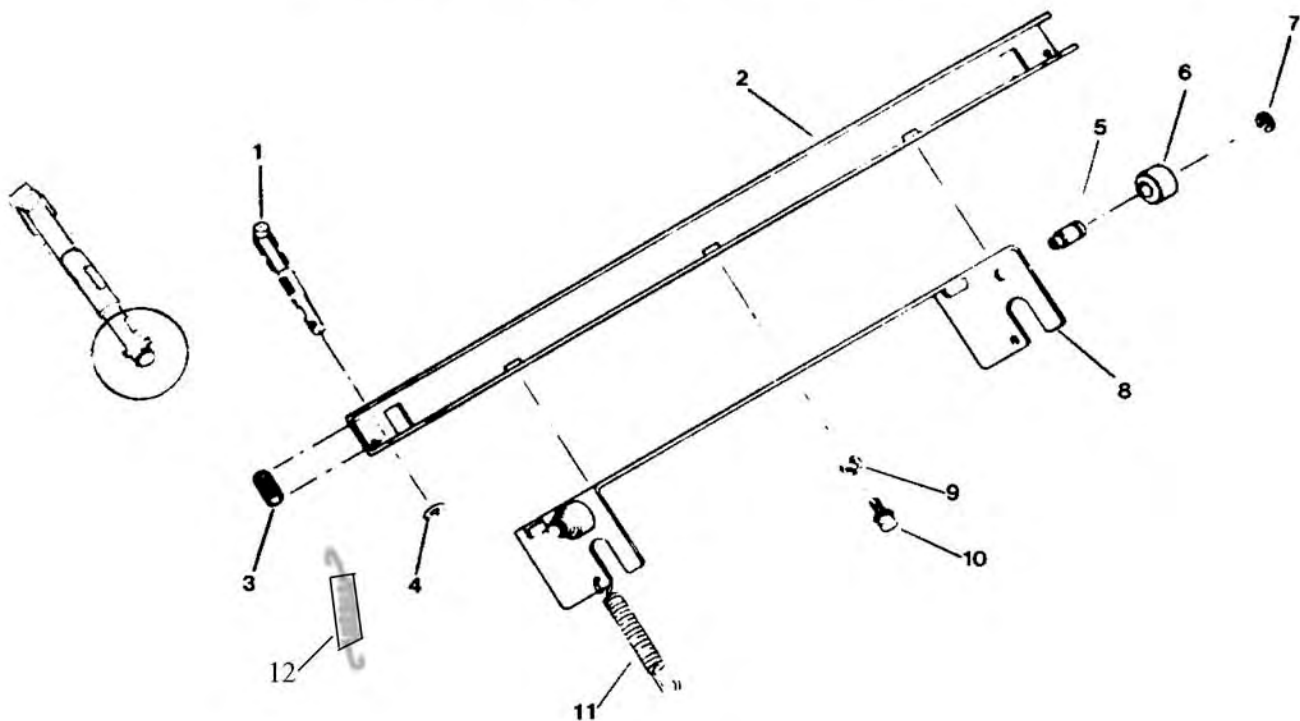
PRESSEURE BAR AND RACKS REMOVAL

REFERENCE FIGURE 8 FOR PARTS DIAGRAM

1. Remove power cord from rear of machine, and place pressure bar in home position.
2. Remove housing (P. 25).
3. Disconnect the two connectors from the pressure bar harness (Item 5) to the main harness.
4. Remove the two 1/8" screws (Items 11 & 15) from each side of the pressure bar. Remove the pressure bar by pulling straight up, being careful not to break the pressure bar harness wires.
5. The racks (Item 8) may be replaced by removing the mounting screws (Item 13).

- 1.NOTE: When replacing the pressure bar and racks, install the first tooth of the racks to the pinion gears simultaneously. Otherwise, the pressure bar will not be parallel with the backstop when in the home position.
- 2.NOTE: If actuator (Item 3) is bent or malformed, it has a tendency to stick. Change or re-form the actuator if this situation occurs.

Figure 9 - Cooling finger / bracket assy.



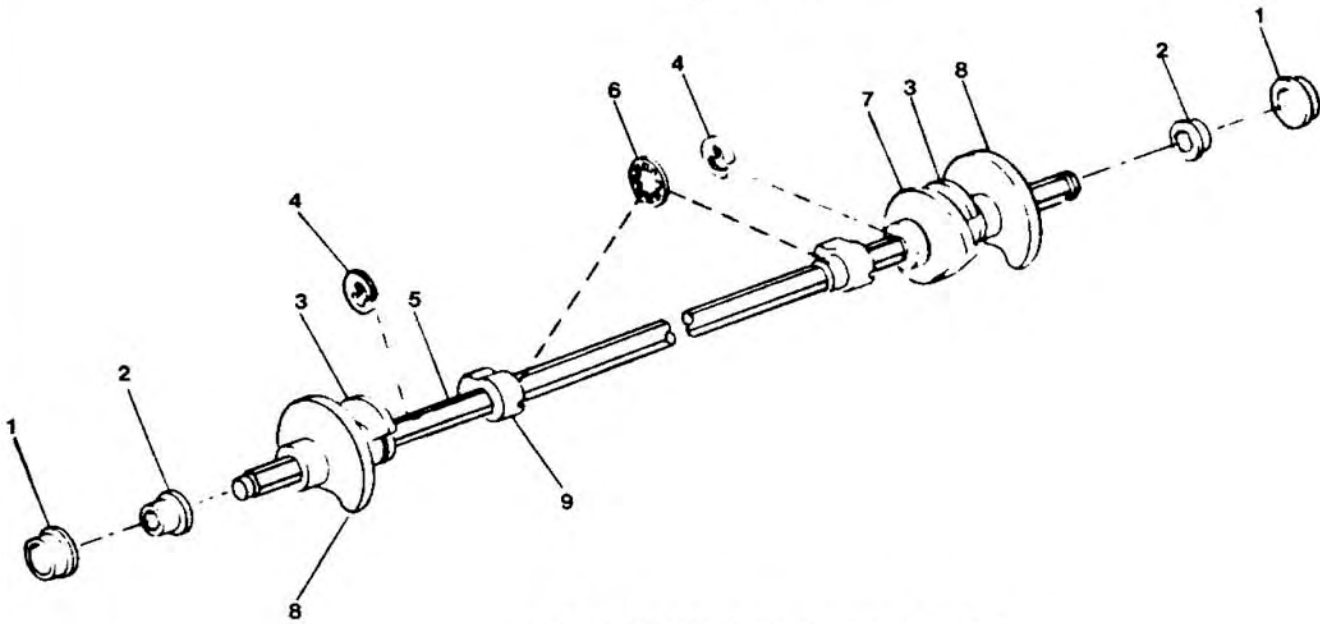
PART NUMBER REFERENCE GUIDE

1--9778687--COOLING FINGER	7--9779077--C-CLIP
2--9776845--CHANNEL	8--9776748--COOLING BRACKET
3--9779272--SPRING	9--9779910--LOCK WASHER
4--9776950--RETAINING RING	10--9779172--6/32 X 3/8 SCREW
5--9779062--RIVET	11--9779278--TENSION SPRING
6--9779084--CAM FOLLOWER	N/A-9776708--COOLING FINGER ASSY. (INCLUDES ITEMS 1-4)
N/A-9776718--COOLING BRACKET ASSY. (INCLUDES ITEMS 5-8)	12 - Cooling channel springs

REPLACING THE COOLING FINGERS

1. Disconnect the plug from the rear of the machine, and remove the housing (Page 25).
2. Remove the screws (Item 1, Fig. 11) holding the bind guide assembly (Item 2, Fig. 11) and lift it up to gain access to the cooling finger assembly.
3. Remove the retaining ring (Item 4, Fig. 9).
4. The finger will pop up, and can now be removed by lifting it out behind the backstop.
5. Reinstall by pushing it into the bridge slot, and reinstall the retaining ring. Reassemble in reverse order.
6. Reinstall old configuration without retaining rings, by pushing into bridge slot and twisting (See Detail).

Figure - 10



PART NUMBER REFERENCE GUIDE

N/A-9776843-CAMSHAFT ASSY.

1--9776611--BEARING

2--9779236--JOURNAL

3--9776840--CUTTER CAM

4--9779072--E-RING

5--9779236--CAMSHAFT

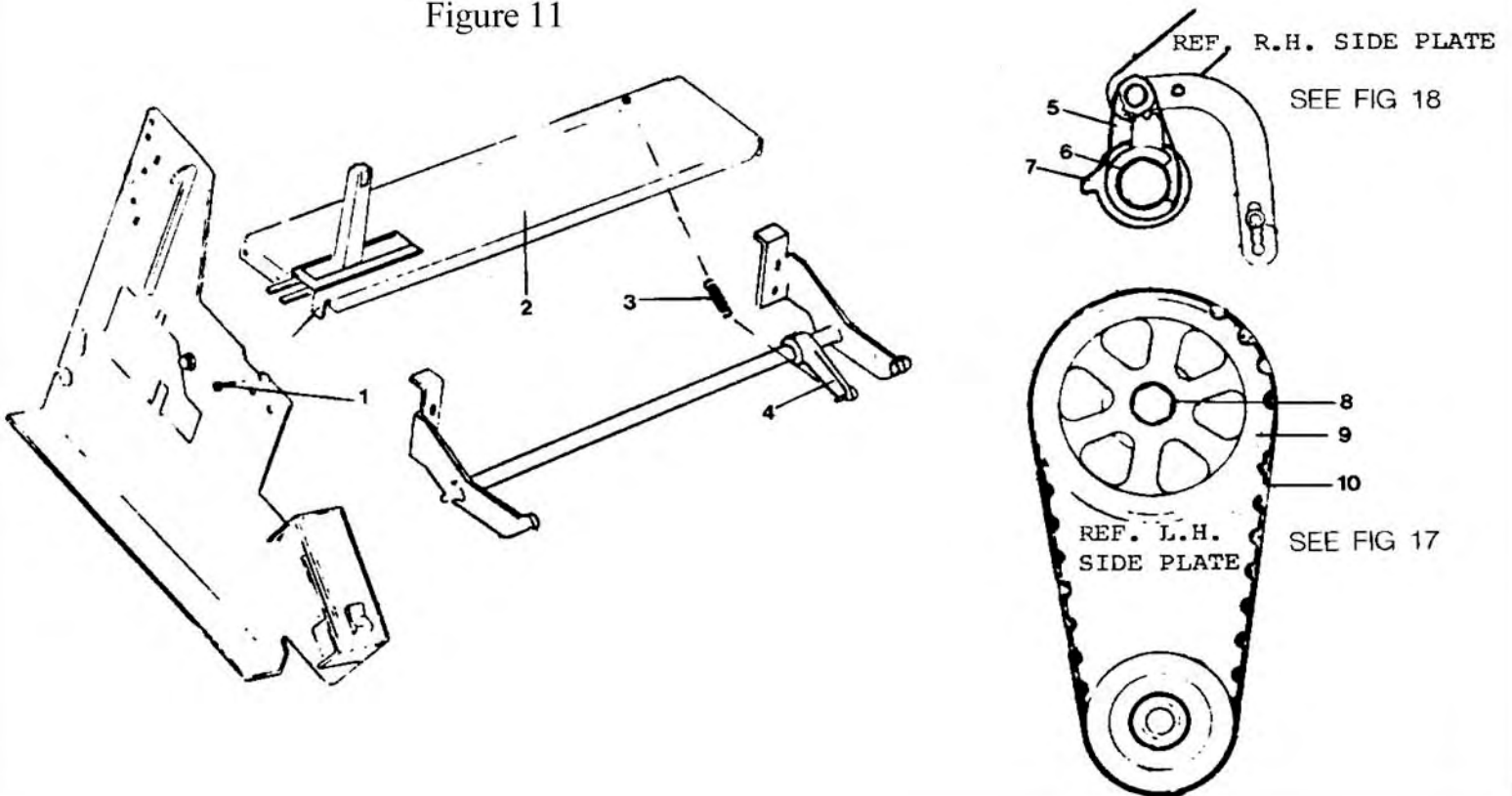
6--9776937--RETAINING CLIP

7--9776841--EXTRUDER CAM

8--9776959--PRESSURE CAM

9--9776928--COOLING CAM

Figure 11



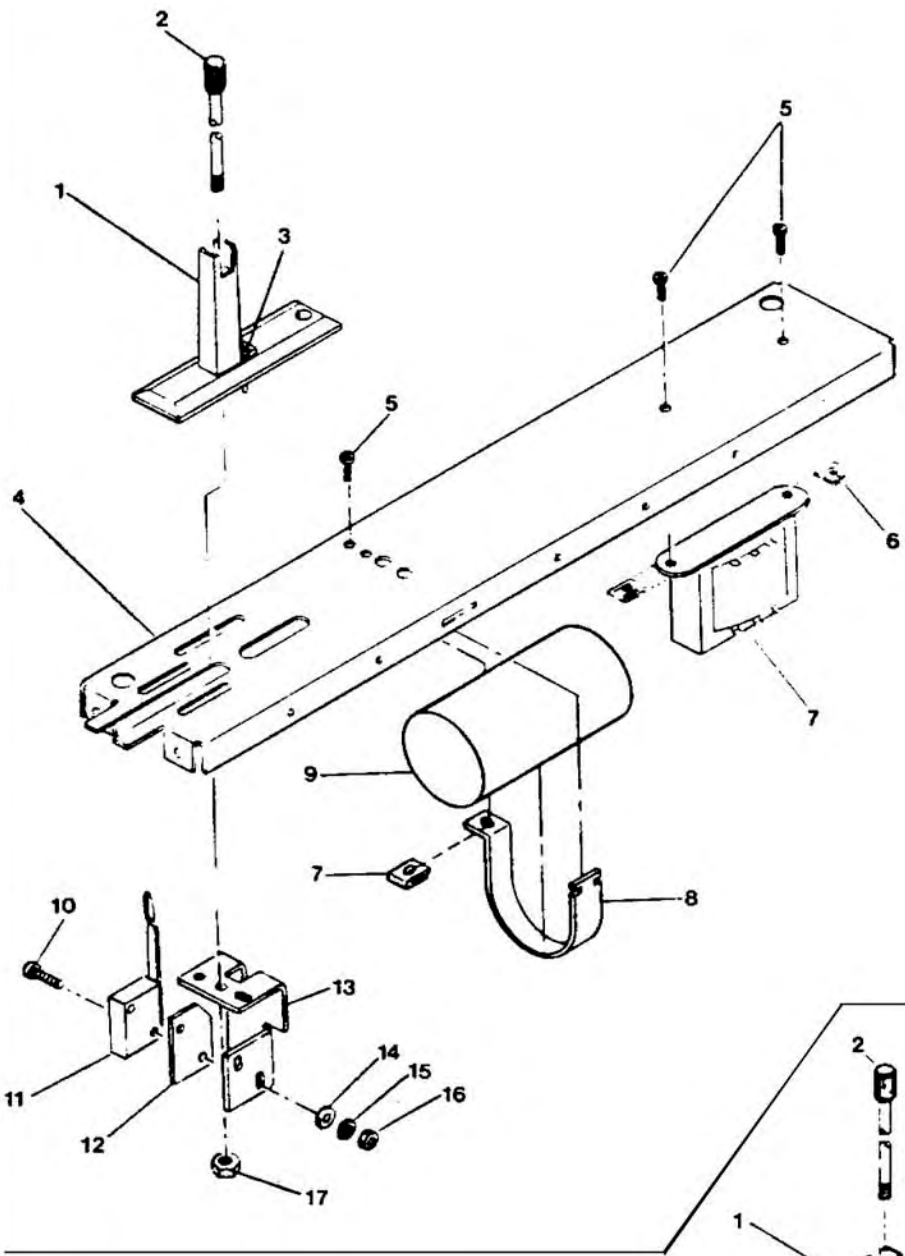


FIGURE 12
PART NUMBER REFERENCE GUIDE

- 1--9778150--PUNCH EDGE GUIDE
- 2--9778318--PUNCH GUIDE KNOB
- 3--9776897--DECAL
- 4--9779299--GUIDE SUPPORT
- 5--9779172--6/32 X 3/8 SCREW
- 6--9778611--6/32 NUT
- 7--9779405--TRANSFORMER
- 8--9776761--BRACKET
- 9--9776778--30MFD CAPACITOR
- 10--9779170--4/40 X 3/4 SCREW
- 11--9779325--SWITCH
- 12--9778285--INSULATOR
- 13--9776724--SW MTG BRACKET
- 14--9779896--FLAT WASHER
- 15--9779909--LOCK WASHER
- 16--9778587--4/40 NUT
- 17--9778592--10/32 LOCK NUT
- N/A-9778143-PUNCH GUIDE ASSY

FIGURE 13
PART NUMBER REFERENCE GUIDE

- 1--9778145--BIND EDGE GUIDE
- 2--9778317--KNOB
- 3--9779309--INTERLOCK SWITCH
- 4--9779363--GUIDE SUPPORT
- 5--9778756--RETAINER PLATE
- 6--9778592--10/32 LOCK NUT
- N/A-9778140-BIND GUIDE ASSY

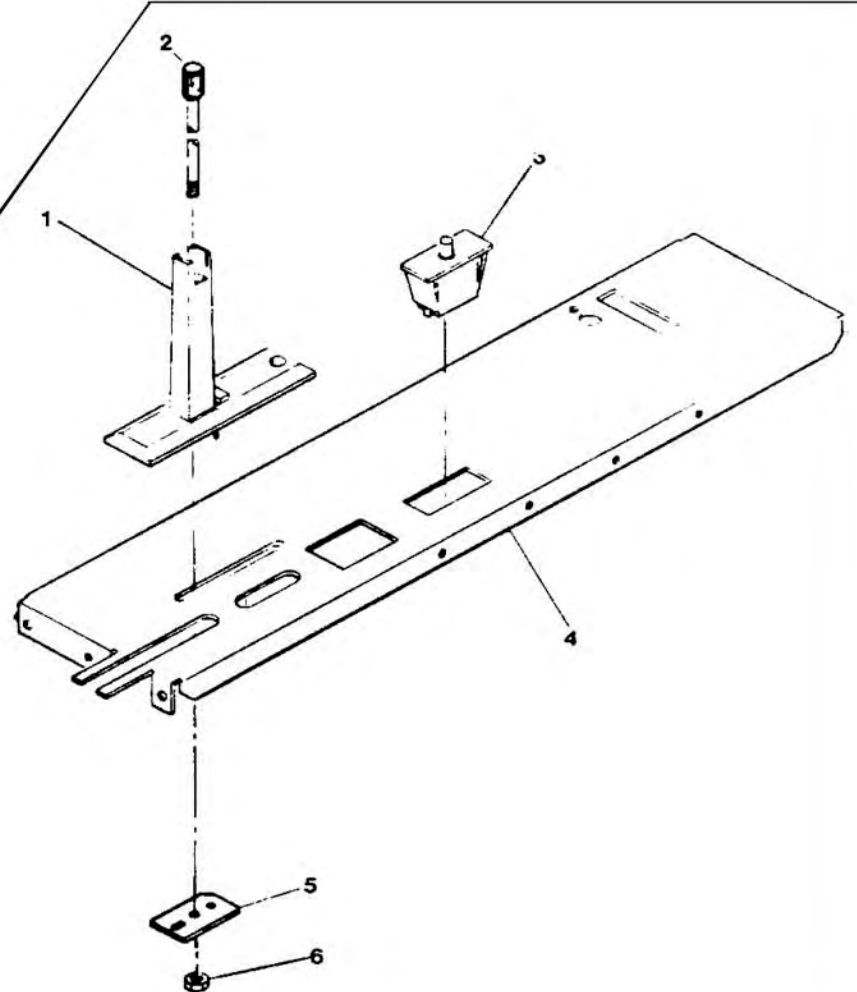


FIGURE -14

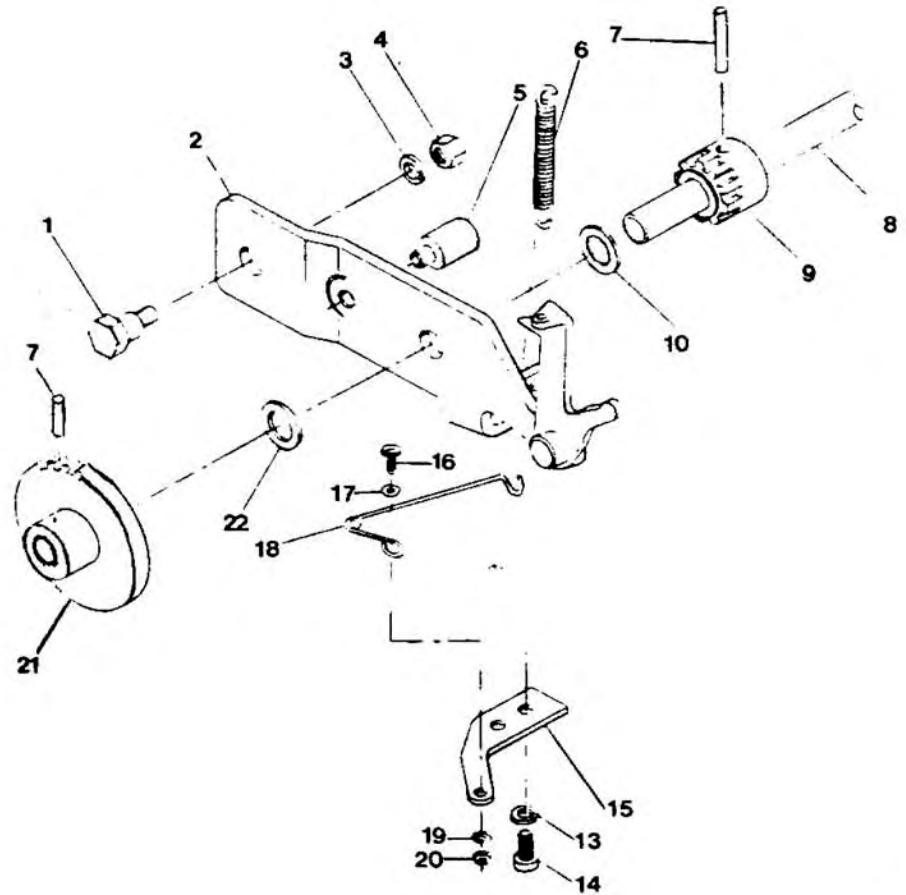
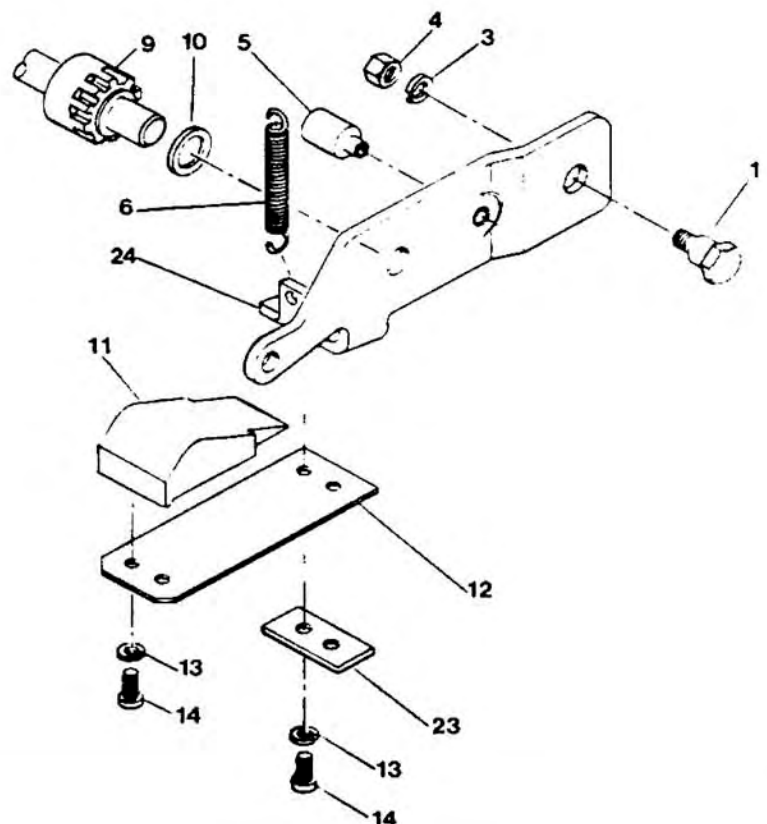


FIGURE 15



PART NUMBER REFERENCE GUIDE

- N/A-9778775--LH PIVOT SPRING ASSY.
- N/A-9778776--RH PIVOT SPRING ASSY.
- N/A-9779241--TIMING SHAFT ASSY.
- 1--9779337--SHOULDER SCREW
- 2--N/A--LH PIVOT PLATE
- 3--9779913--LOCK WASHER
- 4--9778591--1/4-20 NUT
- 5--N/A--GUIDE RIVET
- 6--9779274--SPRING
- 7--9778665--ROLL PIN
- 8--9779240--TIMING SHAFT
- 9--9778765--PINION GEAR
- 10-9779256--SPACER
- 11-NOT USED
- 12-NOT USED
- 13-9779910--LOCK WASHER
- 14-9779219--6/32 X 3/8 SCREW
- 15-9779087--RETAINER PLATE
- 16-9779118--4/40 X 3/8 SCREW
- 17-9779896--FLAT WASHER
- 18-9779280--PAWL SPRING
- 19-9779909--LOCK WASHER
- 20-9778587--4/40 NUT
- 21-9779085--RATCHET
- 22-9779255--SPACER
- 23-9779088--RETAINER PLATE
- 24-N/A--RH PIVOT PLATE

POWER SWITCH PANELS

(SEE PAGE 40 FOR PART NUMBER REFERENCE GUIDE)

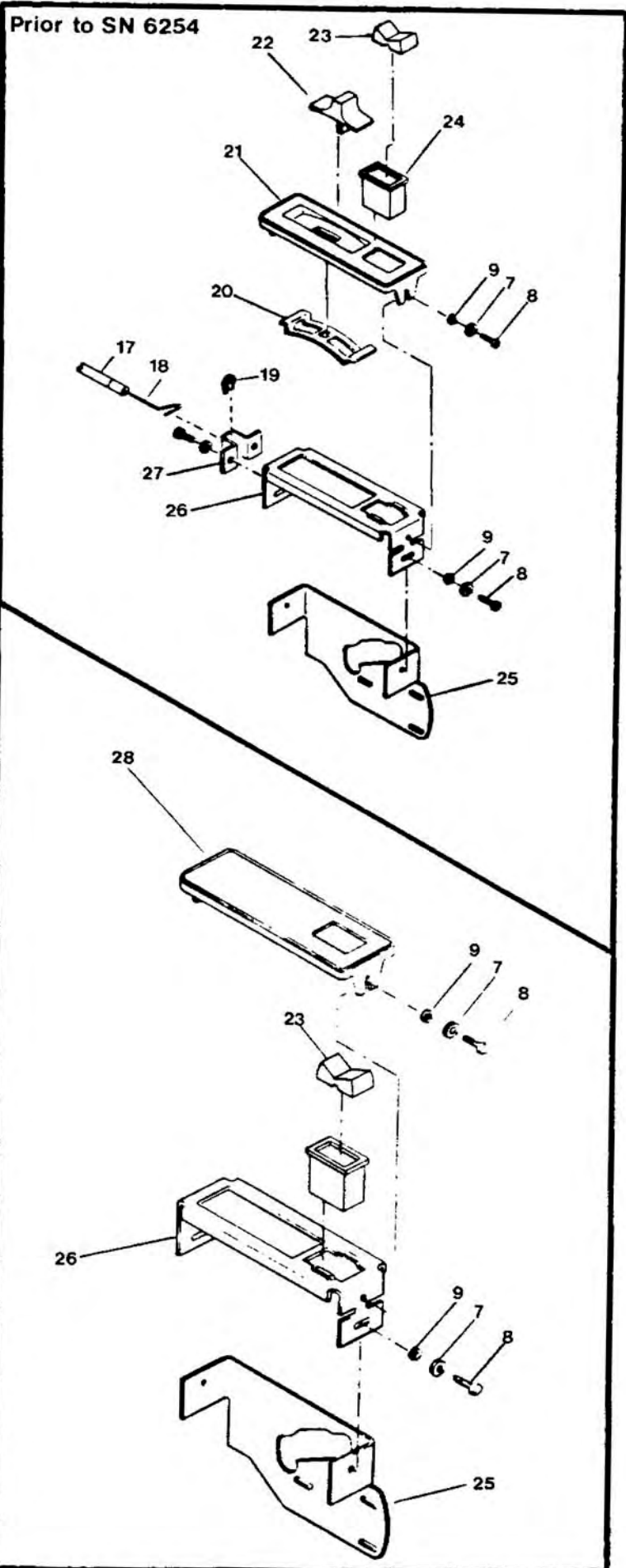
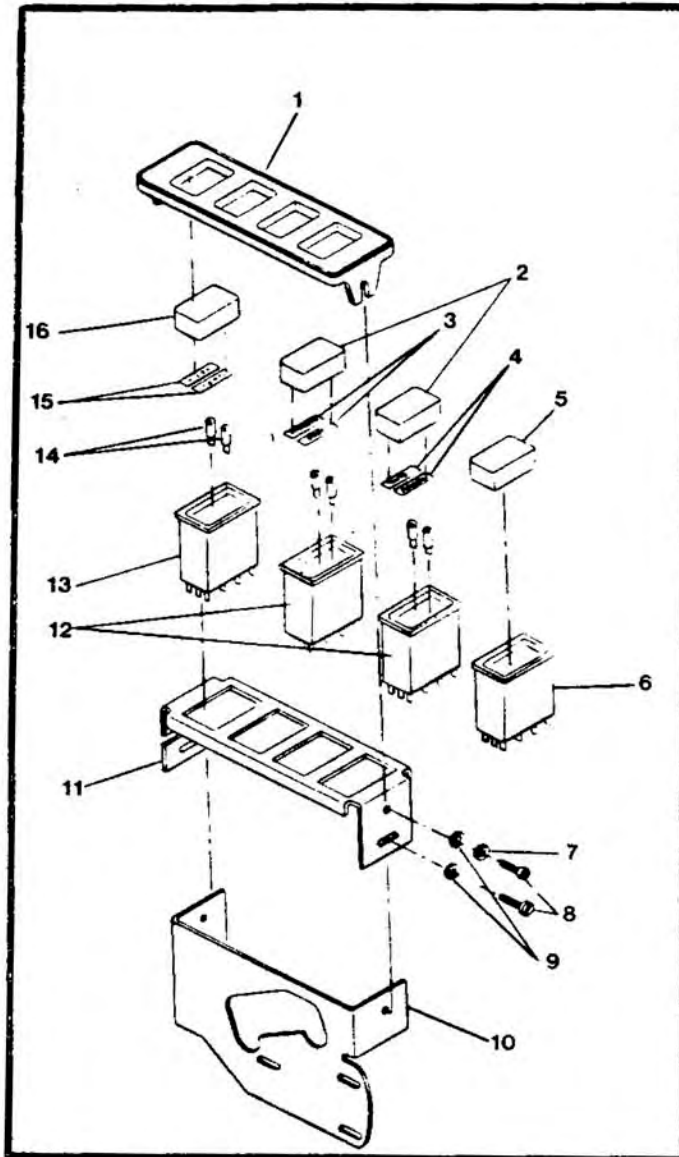
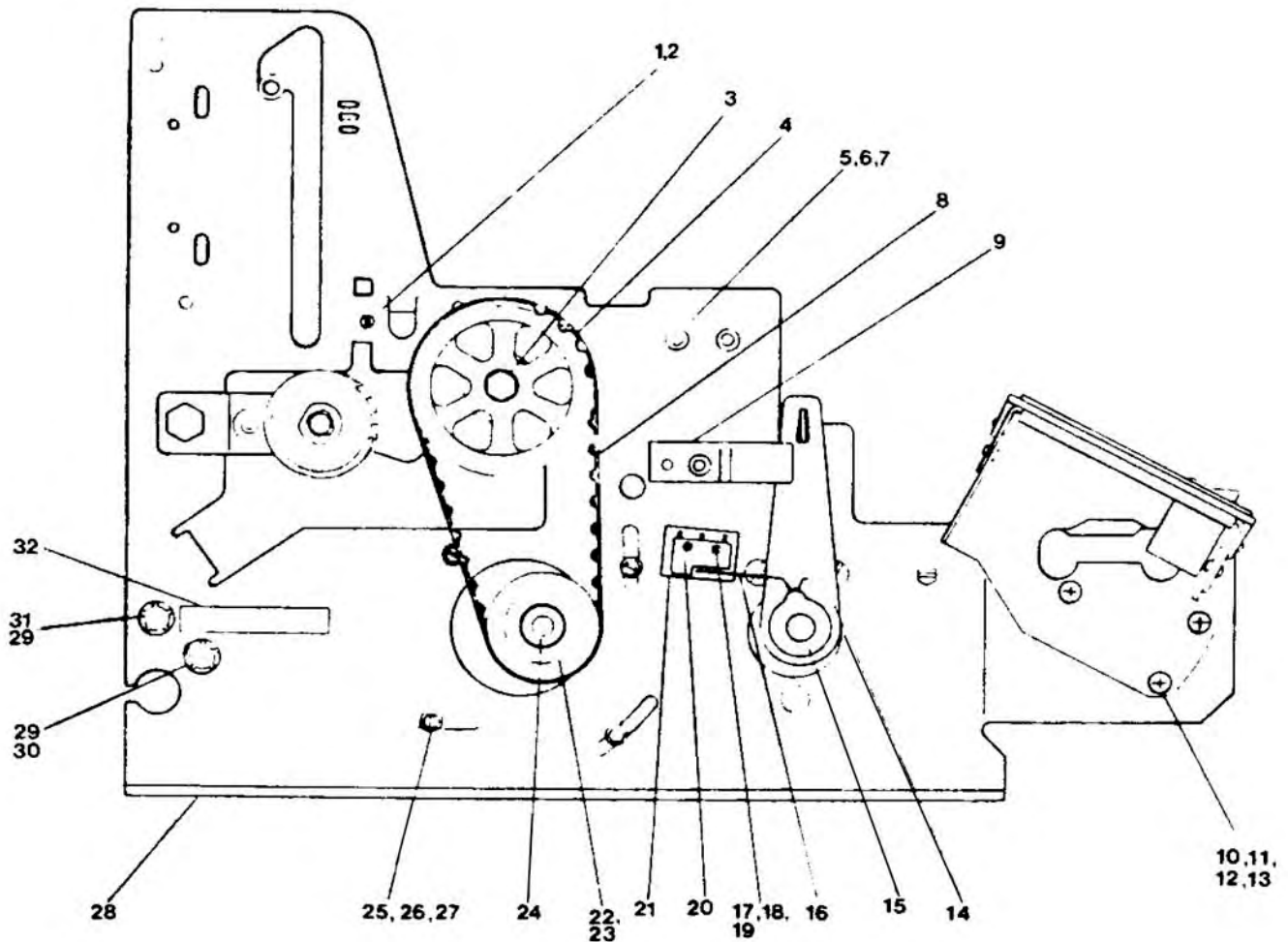


FIGURE 16

PART NUMBER REFERENCE GUIDE
(SEE PAGE 39)

1--9778777--SWITCH CONTROL PANEL
2--9776850--MODE SELECT CAP
3--9778464--FAST/STD LENS
4--9778465--AUTO/MANUAL LENS
5--9776848--MANUAL PUNCH CAP
6--9779322--MANUAL PUNCH SWITCH
7--9779910--LOCK WASHER
8--9779219--6/32 X 3/8 SCREW
9--9779897--FLAT WASHER
10-9776709--ADJUSTABLE SUPPORT
11-9776712--BRACKET
12-9779321--MODE SWITCH
13-9778419--INDICATOR SWITCH
14-9778420--LAMP
15-9778463--READY/WAIT LENS
16-9778462--INDICATOR SWITCH CAP
17-9779275--HOUSING CABLE
18-9776769--PUNCH SELECT CABLE
19-9779074--GRIP RING
20-9779273--COMPUTER DETENT SPRING
21-9778783--POWER SWITCH PANEL
22-9779359--SLIDE SELECTOR
23-9776849--ON/OFF CAP
24-9779320--ON/OFF SWITCH
25-9776710--ADJUSTABLE SUPPORT
26-9776711--SWITCH MTG BRACKET
27-9776858--BRACKET
28-9776940--POWER SWITCH PANEL

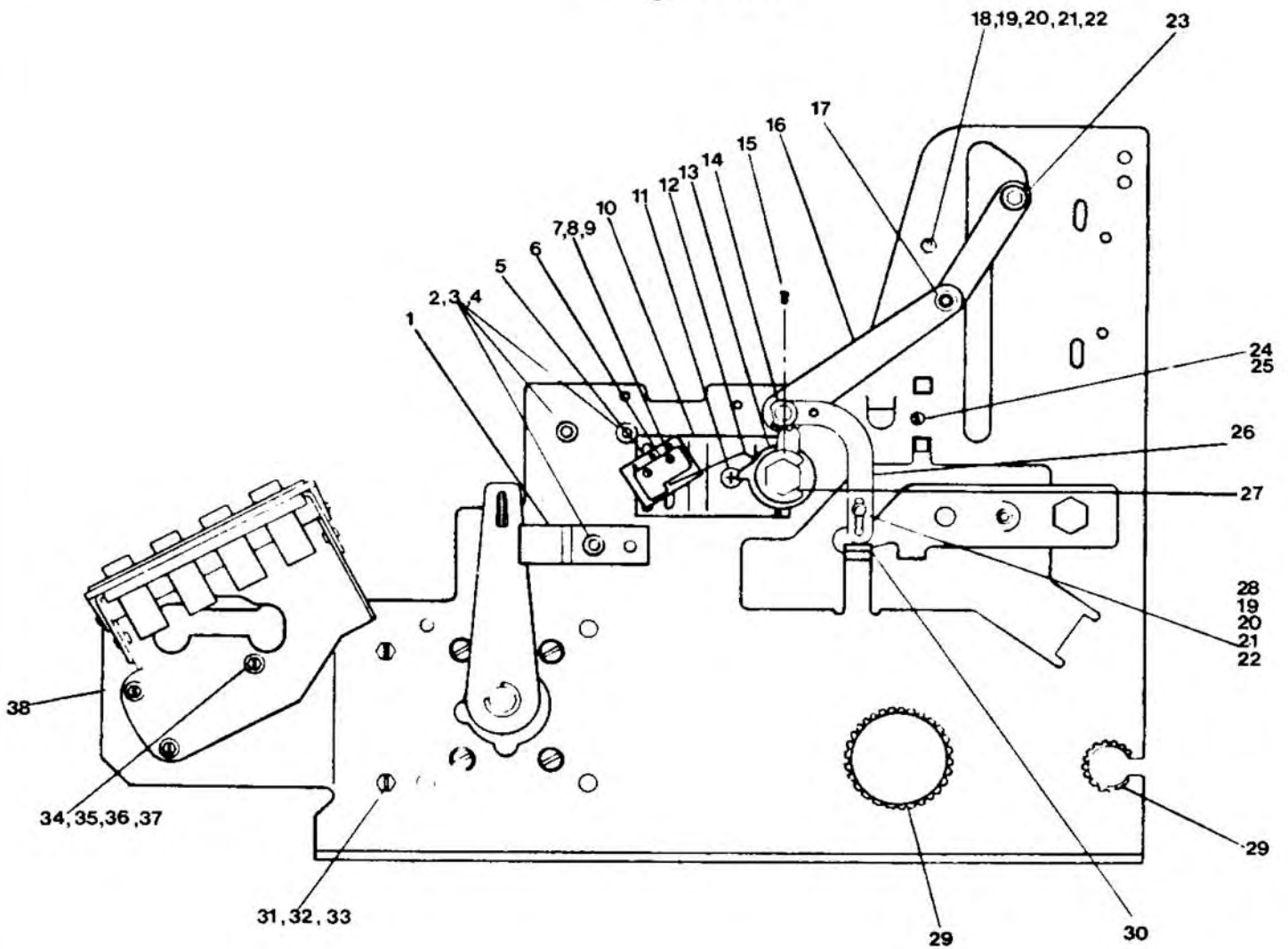
Figure 17



PART NUMBER REFERENCE GUIDE

1--9779222--8/32 X 1/2 SCREW	17--9779168--2/56 X 9/16 SCREW
2--9779911--LOCK WASHER	18--9779920--LOCK WASHER
3--9779072--E-RING	19--9778618--NUT PLATE
4--9778705--PULLEY	20--9779311--SWITCH Punch
5--9779141--1/4-20 X 7/8 SCREW	21--9778287--INSULATOR
6--9779913--LOCK WASHER	22--9778704--MOTOR PULLEY
7--9778591--1/4-20 NUT	23--9778665--ROLL PIN
8--9776613--TIMING BELT	24--9778565--BIND MOTOR
9--9776726--ZEE BRACKET	25--9779131--8/32 X 5/8 SCREW
10--9779173--6/32 X 1/2 SCREW	26--9779898--FLAT WASHER
11--9779910--LOCK WASHER	27--9779911--LOCK WASHER
12--9779897--FLAT WASHER	28--N/A--L.H. SIDE PLATE
13--9778588--6/32 NUT	29--9778084--FUSEHOLDER
14--9778461--PUNCH LINK	30--9778078--1/2 AMP FUSE
15--9776851--PUNCH CAM	31--9778083--10 AMP FUSE
16--9776353--ACTUATOR	32--9776896--FUSE WARNING DECAL

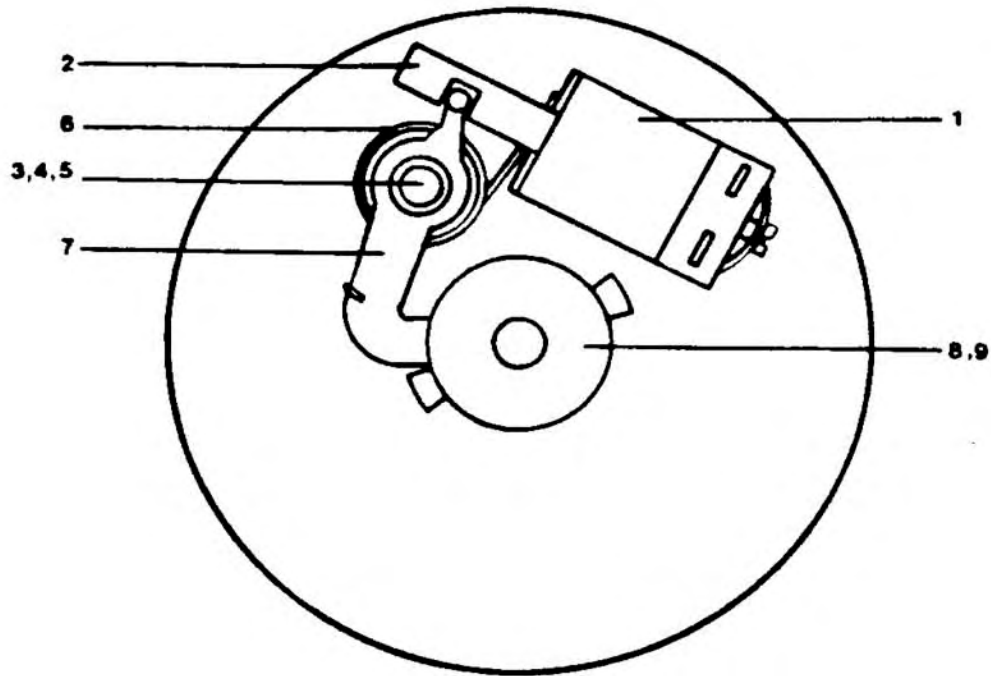
Figure 18



PART NUMBER REFERENCE GUIDE

1--9776958--BRACKET	20--9779896--FLAT WASHER
2--9779141--1/4-20 X 7/8 SCREW	21--9779909--LOCK WASHER
3--9779913--LOCK WASHER	22--9778587--4/40 NUT
4--9778591--1/4-20 NUT	23--9778460--P. BAR RETURN LINK
5--9778287--INSULATOR	24--9779912--LOCK WASHER
6--9779311--SWITCH	25--9779222--8/32 X 1/2 SCREW
7--9779168--4/40 X 9/16 SCREW	26--9776394--DRIVE ARM
8--9779920--LOCK WASHER	27--9778467--CONNECTING LINK
9--9778618--NUT PLATE	28--9779170--4/40 X 3/4 SCREW
10--9776958--BRACKET	29--9778118--GROMSTRIP
11--9779219--6/32 X 3/8 SCREW	30--9778796--RUBBER PAD
12--9776354--ACTUATOR	31--9779175--8/32 X 1/2 SCREW
13--9778116--DRIVE GEAR	32--9779911--LOCK WASHER
14--9779069--E-RING	33--9779911--FLAT WASHER
15--9779194--6/32 X 1/4 SCREW	34--9779173--6/32 X 1/2 SCREW
16--9776380--P. BAR RETURN ARM	35--9779910--LOCK WASHER
17--9778609--SPEED NUT	36--9779897--LOCK WASHER
18--9779169--4/40 X 1/2 SCREW	37--9778588--6/32 NUT
19--9779090--DRIVE ARM ROLLER	38--N/A--R.H. SIDE PLATE

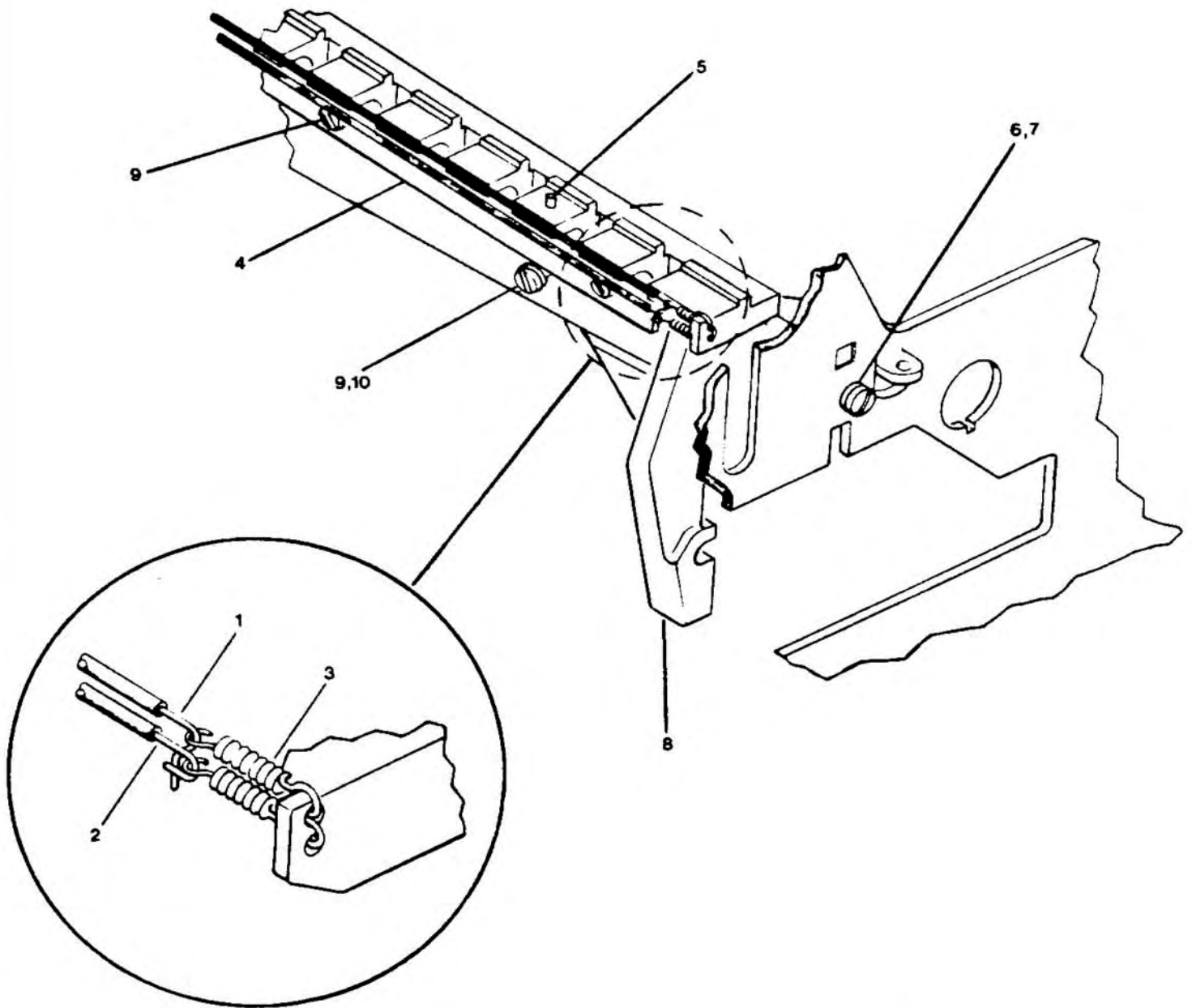
Figure 19



PART NUMBER REFERENCE GUIDE

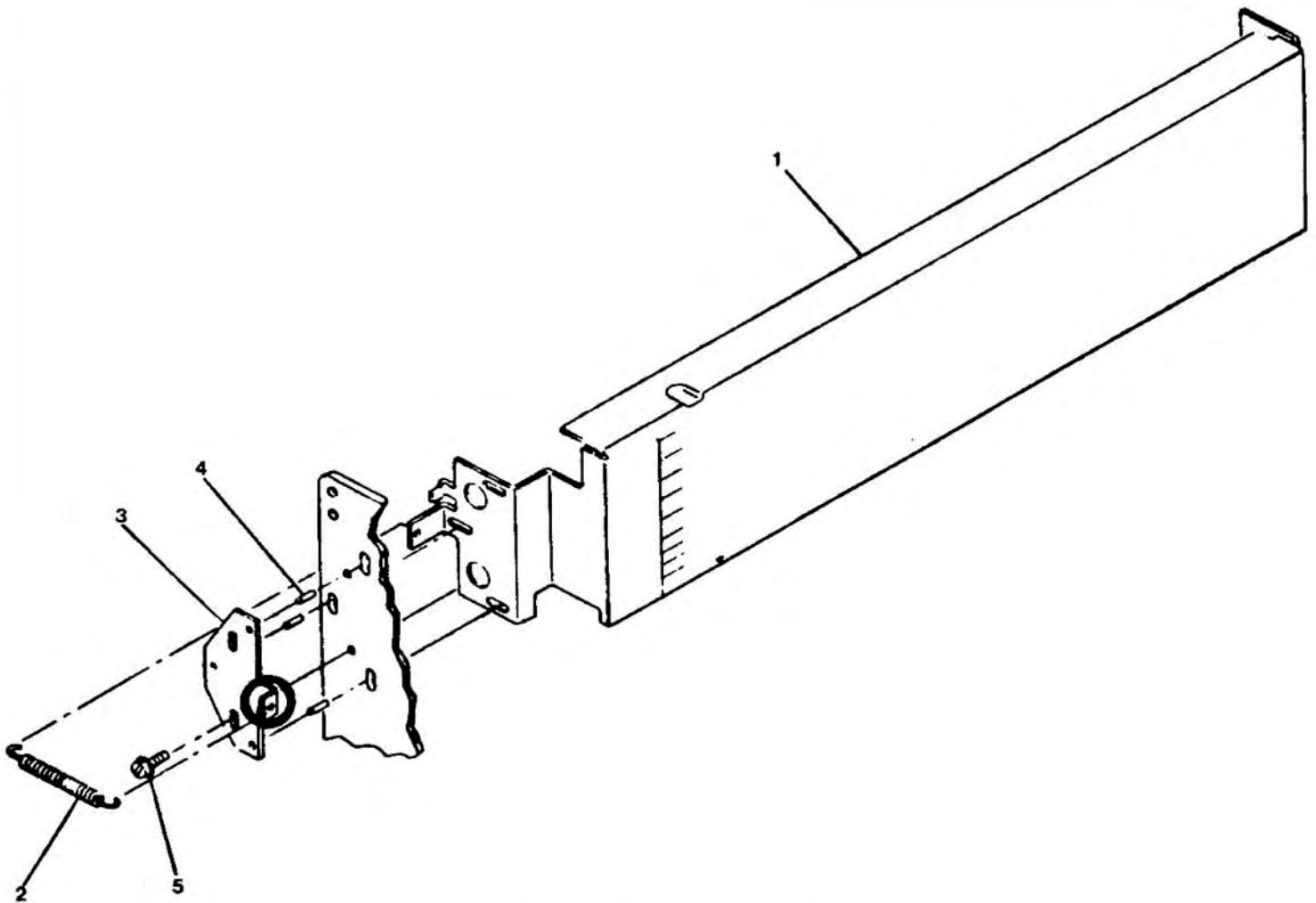
- 1--9776316--115 SOLENOID KIT
- 2--9776320--PLUNGER
- 3--9776313--6/32 X 1/4 SCREW
- 4--9776312--LOCK WASHER
- 5--9776311--FLAT WASHER
- 6--9776309--SPRING
- 7--9776310--LEVER ARM
- 8--9776308--HUB
- 9--9776314--SET SCREW

Figure 20



PART NUMBER REFERENCE GUIDE

- 1--9779958--UPPER WIPER
- 2--9779957--LOWER WIPER
- 3--9779276--EXTENSION SPRING
- 4--9776731--STRIPPER BRACKET
- 5--9778689--LOCATING PIN
- 6--9779178--10/24 X 1/2 SCREW
- 7--9779912--LOCK WASHER
- 8--9776700--BRIDGE
- 9--9779222--8/32 X 3/8 SCREW
- 10--9779898--FLAT WASHER



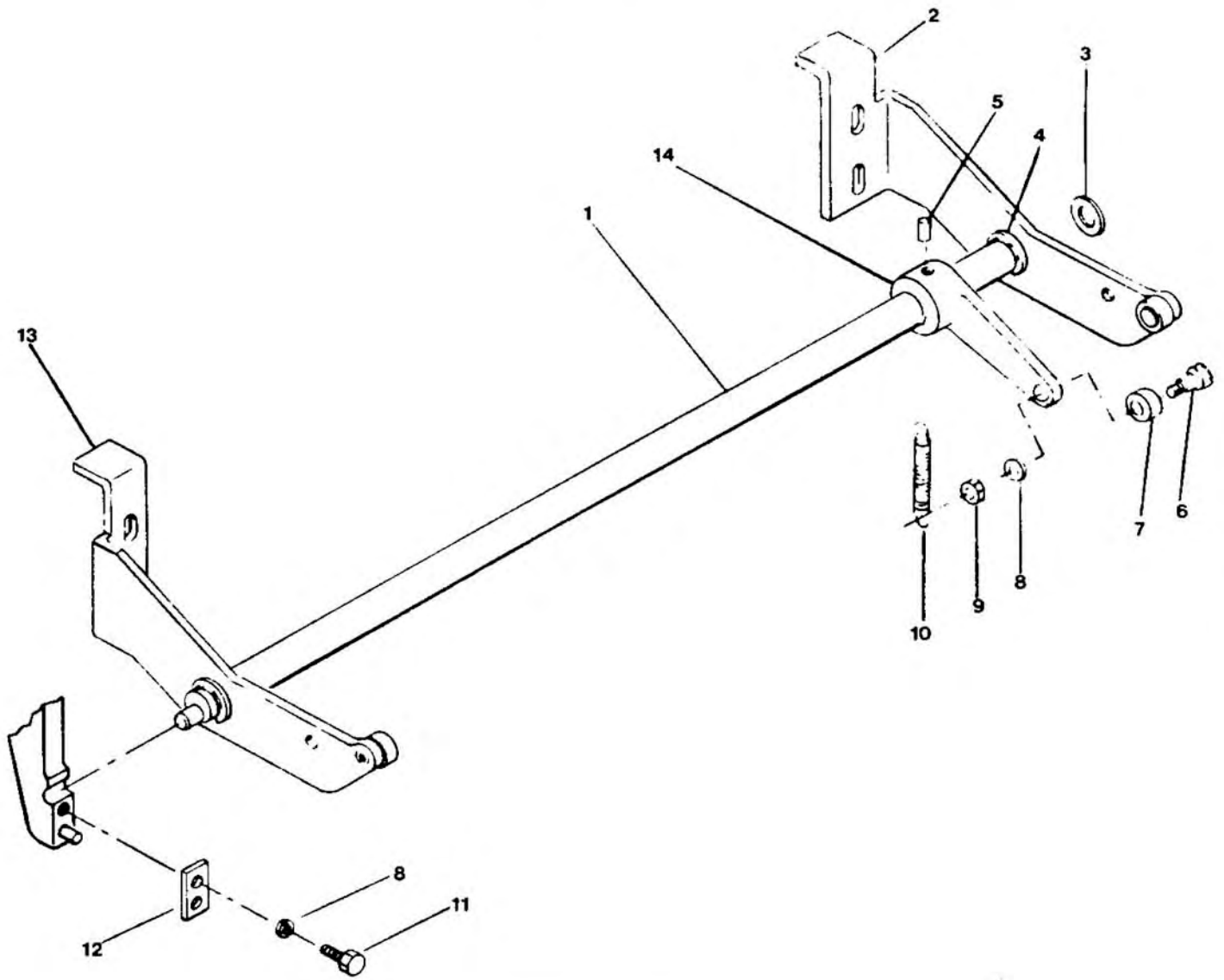
PART NUMBER REFERENCE GUIDE

1--9776727--BACKSTOP
2--9779261--SPRING
3--9778753--ADJ. PLATE
4--9778671--GROOVE PIN
5--9779219--6/32 X 3/8 SCREW
'S 1-5 PRIOR TO S/N 7318

N/A-9776932-BACKSTOP
(AFTER S/N 7318)

NOTE: If a customer does not use computer strips, then the floating backstop should be made stationary. Remove the adjustable plates (Item 3). Using a vise grip, or pliers, break off the spring tabs (note circle) in order to mount the plates on the inside of the backstop ears. (note that you have to turn the plates around in order for the holes to line up).

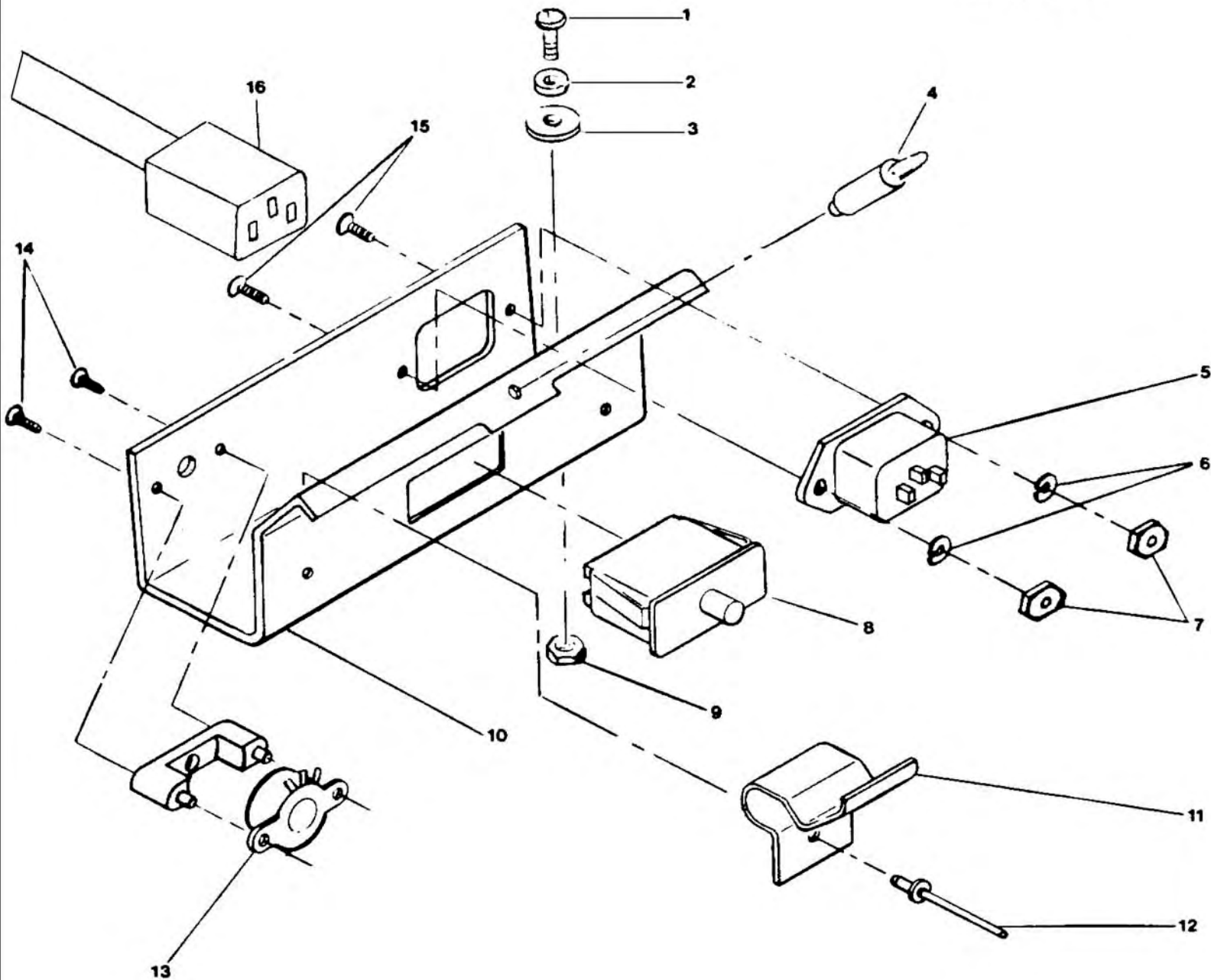
Figure 22



PART NUMBER REFERENCE GUIDE

- 1--9779235--ECCENTRIC SHAFT
- 2--9778363--RH CUTTER ARM ASSY.
- 3--9778766--TEFLON WASHER
- 4--9779072--E-RING
- 5--9778666--ROLL PIN
- 6--9779084--ROLLER
- 7--9778589--8/32 HEX NUT
- 8--9779911--LOCK WASHER
- 9--9779346--SHOULDER SCREW
- 10--9779260--EXTENSION SPRING
- 11--9779222--8/32 X 3/8 SCREW
- 12--9778751--RETAINING PLATE
- 13--9776384--LH CUTTER ARM ASSY.
- 14--9776376--EXTRUDER ARM

Figure 23



PART NUMBER REFERENCE GUIDE

1--9779136--10/24 X 5/8 SCREW
 2--9779912--LOCK WASHER
 3--9779899--FLAT WASHER
 4--9779370--PCB SPACER
 5--9779047--RECEPTACLE
 6--9779909--LOCK WASHER
 7--9778587--4/40 NUT
 8--9779327--INTERLOCK SWITCH

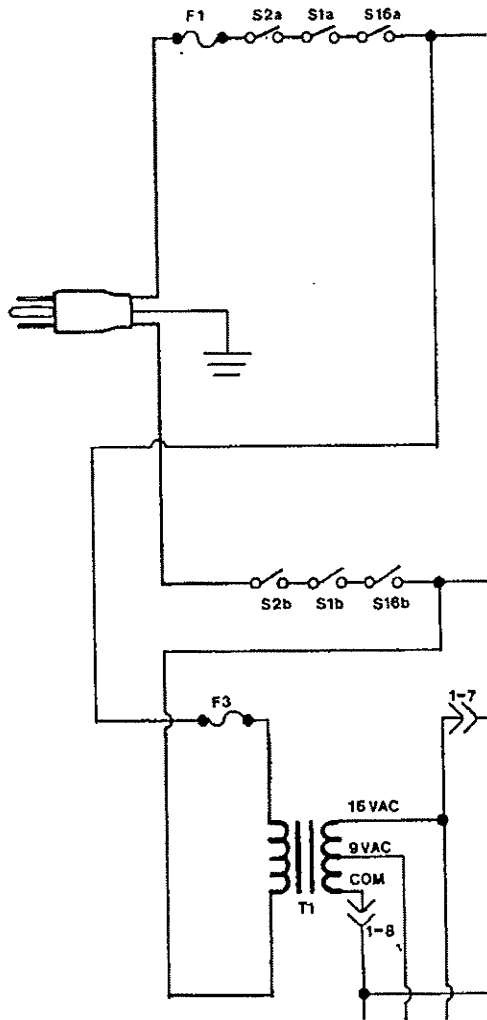
9--9778590--10/24 NUT
 10--9776733--INTERLOCK BRACKET
 11--9779277--SPRING LATCH
 12--N/A--RIVET
 13--9776904--POTENTIOMETER
 14--9779209--4/24 X 1/4 SCREW
 15--9779185--4/40 X 5/8 SCREW
 16--9779940--POWER CORD

SECTION-3

ELECTRICAL OPERATIONS

POWER-UP

Power is applied to the Model 323 electrical system using the main power switch (SW-2). When SW-2 is closed, power is applied to the electrical system through two interlock switches -- the top cover interlock switch (SW-1) and the debris tray switch (SW-16).

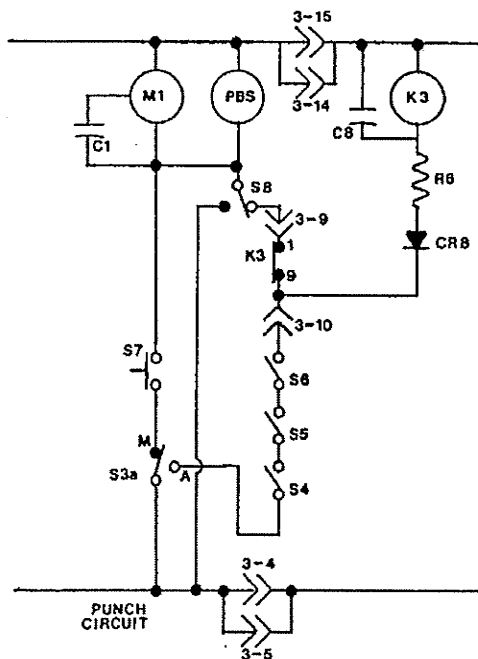


PUNCH ELECTRICAL CIRCUITMANUAL

When the machine is placed in the MANUAL punch mode, SW-3 contacts apply the AC neutral line to SW-7. The punch motor and punch brake solenoid (PBS) are energized when SW-7 is momentarily depressed by the operator. As the punch motor begins to rotate, the punch cam de-actuates SW-8 to supply an alternate neutral line to the motor and solenoid. After the punch has cycled, the punch cam actuates SW-8, turning off the punch motor and PBS.

AUTO

When the machine is placed in the AUTO punch mode, SW-3 contacts apply the A.C. neutral line to SW-4. The punch motor, PBS, and relay K-3 are energized when SW-4 is actuated by the paper stack. As in the MANUAL mode, the punch cam de-actuates SW-8 to supply an alternate neutral line to the motor and solenoid. K-3 energizing, opens contacts 1-9. This prevents the punch from cycling again, when SW-8 is closed by the punch cam. After the punch has cycled, the punch cam actuates SW-8, turning off the punch motor and PBS. Removing the paper stack opens SW-4, causing K-3 to de-energize after a slight delay.



Note: The punch motor utilized in the Model 323 has internal thermo cut-off. If the punch motor is used continuously for a long period of time, the motor will overheat and shut itself off. If this occurs, discontinue punching operations for approximately 20 minutes, allowing the motor to cool.

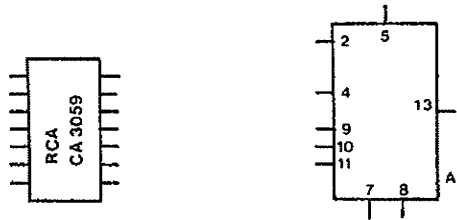
HEATER CIRCUIT OPERATION

Thermistor



The Thermistor (RT1) is mounted into the knife and is used because of its ability to change in resistance as the temperature changes. RT1 is a bead-type thermistor, with a negative temperature coefficient (its resistance decreases as the surrounding temperature increases). RT1 is used to sense the knife temperature and control an input voltage to the comparator I.C. (A1). *CONNECTED TO PIN 6+7 ON P.C. BOARD*

I.C. (A1)



The comparator I.C. (A1) compares an input voltage at Pin-13 to its internal reference voltage of 3.5 volts. When the input voltage is at 3.5 volts or above, the voltage at Pin-4 is approximately 4 volts. The output voltage is used to gate the Triac (Q2).

Triac (Q2)

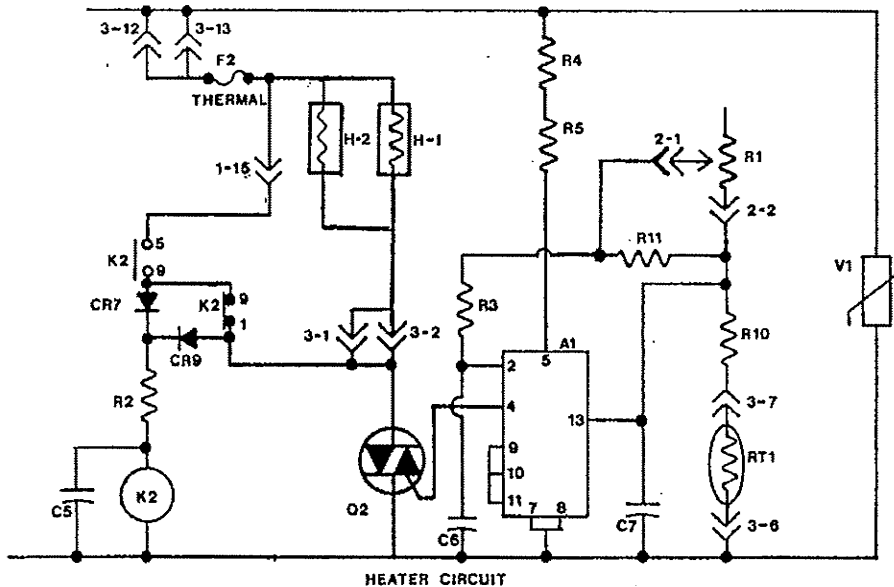


The Triac (Q2) is used as a switching device to control current through the heaters. It switches on the heaters when a gate voltage is applied from the comparator I.C.

HEATER CIRCUIT OPERATION

When the knife is cold, the resistance of RT1 is high. The high resistance pushes the voltage above 3.5 volts at Pin-13 of A-1, allowing A-1 to gate the triac, turning on the heaters. As the temperature of the knife increases to 190°C (375°F), the resistance of the thermistor decreases, causing the voltage at Pin-13 to drop below 3.5 volts, shutting off the gate voltage to the triac. When the triac turns off, current is allowed to flow to K-2, energizing it. K-2 energizing places the machine in READY, allowing the operator to start binding.

K-2 is held energized through contacts 9-5, keeping the machine held in the READY mode while the knife temperature is constantly regulated by A-1 gating the triac.



READY AND OVERHEAT CONTROL CIRCUIT

During the initial warm-up period, bind operations are disabled, and the WAIT lamp is on. These functions are controlled by Relay K-2 contacts.

When Q2 is initially on during warm-up, the voltage at J3-1 is close to 0 volts, keeping K-2 off. When Q2 is turned off by A1, the voltage at 3-1 rises to approximately 110 volts, turning K-2 on. K-2 contacts 9-5 close, setting up a self-holding circuit.

The Thermal Fuse (F2) is used as a protection device in case the knife overheats. The fuse is wired in series with Relay K-2 and is used to remove power if the temperature rises above its rated value (192°C). If this occurs, the binding operations become disabled, and the WAIT lamp is illuminated.

9778701

MOLEX PLUG 15 PIN

977 8750

MOLEX PLUG 2 PIN

MODEL 300/323 DESCRIPTION AND LOCATION

<u>ABBREVIATION</u>	<u>DESCRIPTION</u>	<u>LOCATION</u>
F1	10A Fuse/Fuseholder	Fig. 26, Item No. 29/31
F3	4A Fuse/Fuseholder	Fig. 26, Item No. 29/30
S2a/S2b	Power Switch	Fig. 25, Item No. 24
S1a/S1b	Interlock Switch	Fig. 32, Item No. 8
S16a/S16b	Interlock Switch	Fig. 23, Item No. 3
M1	Punch Motor	Fig. 12, Item No. 6
C1	Punch Motor Starting Capacitor	Fig. 22, Item No. 9
PBS	Punch Motor Brake Solenoid	Fig. 28, Item No. 1
SW3a	Punch Mode	Fig. 25, Item No. 12
SW7	Punch Switch	Fig. 25, Item No. 6
SW8	Punch Cam Switch	Fig. 26, Item No. 20
SW4	Punch Edge Guide Switch	Fig. 22, Item No. 11
K3	Punch Relay	P.C. Board Mark K3
C8	Capacitor	P.C. Board Mark C8
R6	Resistor	P.C. Board Mark R6
CR8	Diode	P.C. Board Mark CR8
F2	Thermal Cut-off	Fig. 17, Item No. 8
H1/H2	Heater	Fig. 17, Item No. 5 & 10
K2	Relay	P.C. Board Mark K2
CR7	Diode	P.C. Board Mark CR7
R2	Resistor	P.C. Board Mark R2
C5	Capacitor	P.C. Board Mark C5
CR9	Diode	P.C. Board Mark CR9
Q2	Triac	P.C. Board Mark Q2
R4	Resistor	P.C. Board Mark R4
A1	I.C. CA 3059	P.C. Board Mark A1
R3	Resistor	P.C. Board Mark R3
C6	Capacitor	P.C. Board Mark C6
R11	Resistor	P.C. Board Mark R11
R10	Resistor	P.C. Board Mark R10
RT1	Thermistor	Fig. 17, Item No. 6
C7	Capacitor	P.C. Board Mark C7

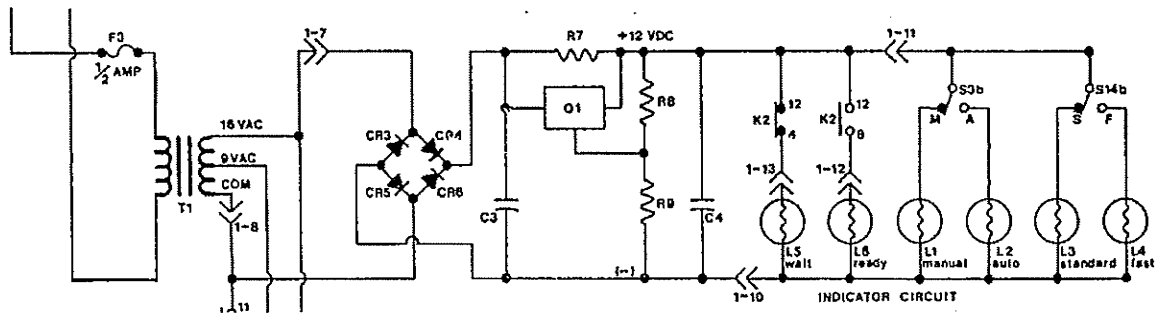
MODEL 300/323 DESCRIPTION AND LOCATION (Cont'd.)

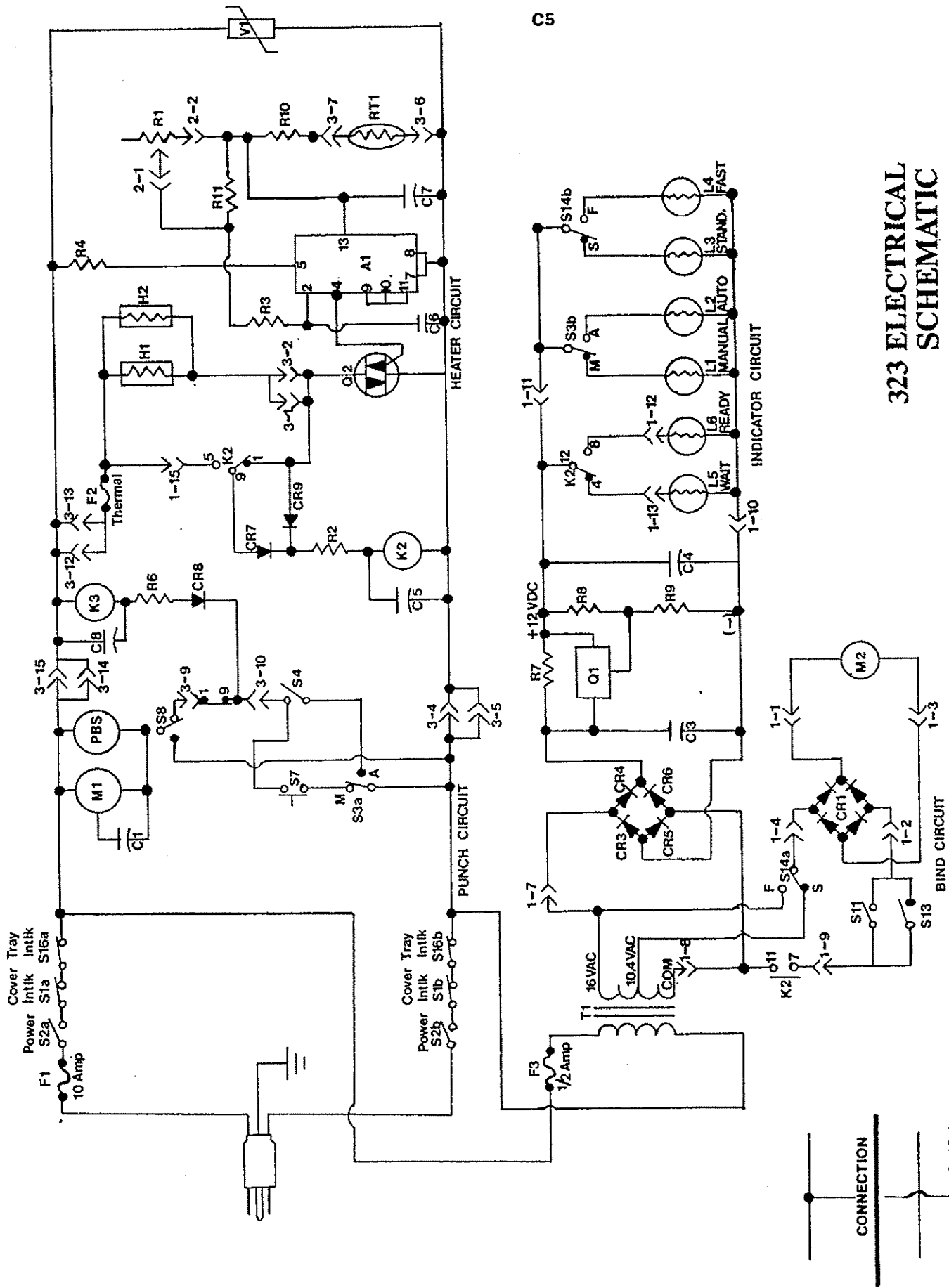
<u>ABBREVIATION</u>	<u>DESCRIPTION</u>	<u>LOCATION</u>
R1	Potentiometer	Fig. 28 , Item No. 13
V1	Transient Suppressor	P.C. Board Mark V1
T1	Transformer	Fig. 20 , Item No. 7
K2	Relay	P.C. Board Mark K2
CR3/4/5/6	Diode	P.C. Board Mark CR3/4/5/6
S11	Pressure Bar Switch	Fig. 18 , Item No. 4
S13	Bind Cam Switch	Fig. 27, Item No. 6
S14a/S14b	Bind Speed Switch	Fig. 25, Item No. 12
CR1	Rectifier	P.C. Board Mark CR1
M2	D.C. Bind Motor	Fig. 26 . Item No. 24
C3	Capacitor	P.C. Board Mark C3
Q1	Voltage Regulator	P.C. Board Mark Q1
R7	Resistor	P.C. Board Mark R7
R8	Resistor	P.C. Board Mark R8
R9	Resistor	P.C. Board Mark R9
C4	Capacitor	P.C. Board Mark C4
S3b	Punch Mode Switch	Fig. 25, Item No. 12

INDICATOR CIRCUIT

The indicator lamps are driven by a +12 volt D.C. regulator (Q1). A voltage of 16 volts A.C. is rectified by CR3 - CR6 to pulsating D.C. voltage. C3 is used to filter the voltage at the input of Q1.

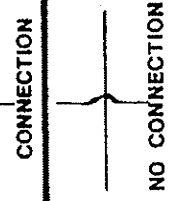
Q1 is a 7812 voltage regulator which regulates the input voltage to +12 VDC output, providing operating voltage to the indicator circuits.

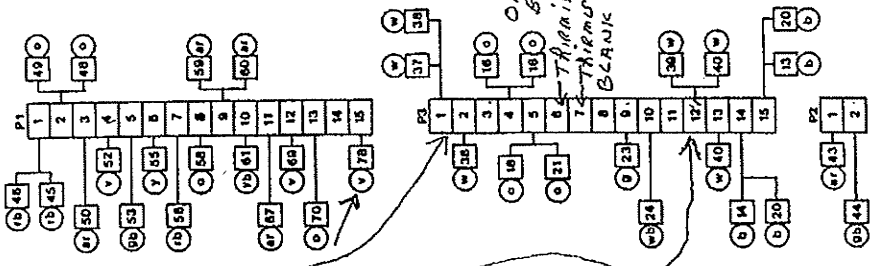
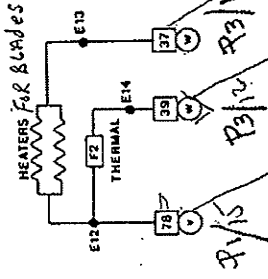




323 ELECTRICAL SCHEMATIC 120VAC

C5



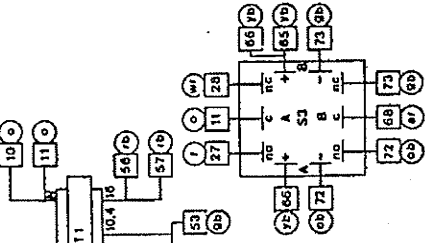
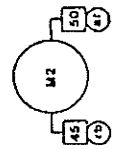
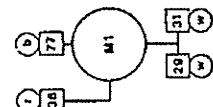
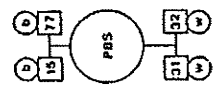
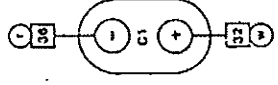
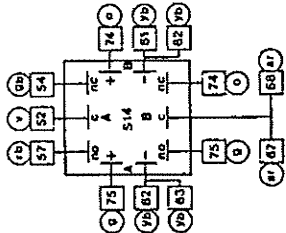
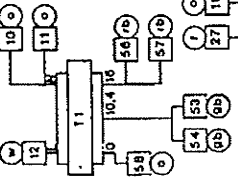
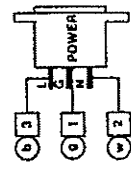
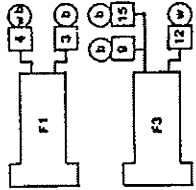
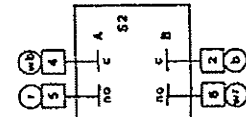
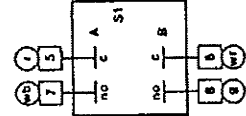
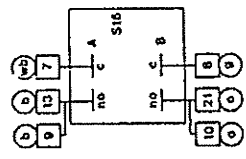
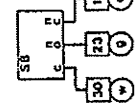
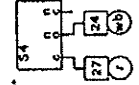
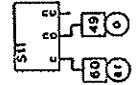
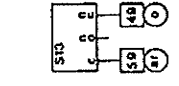


POINT TO POINT WIRING DIAGRAM

COLOR CODES

Brown	n
Black	b
Red	r
Orange	o
Yellow	y
Green	g
Blue	l
Violet	v
Gray	p
White	w

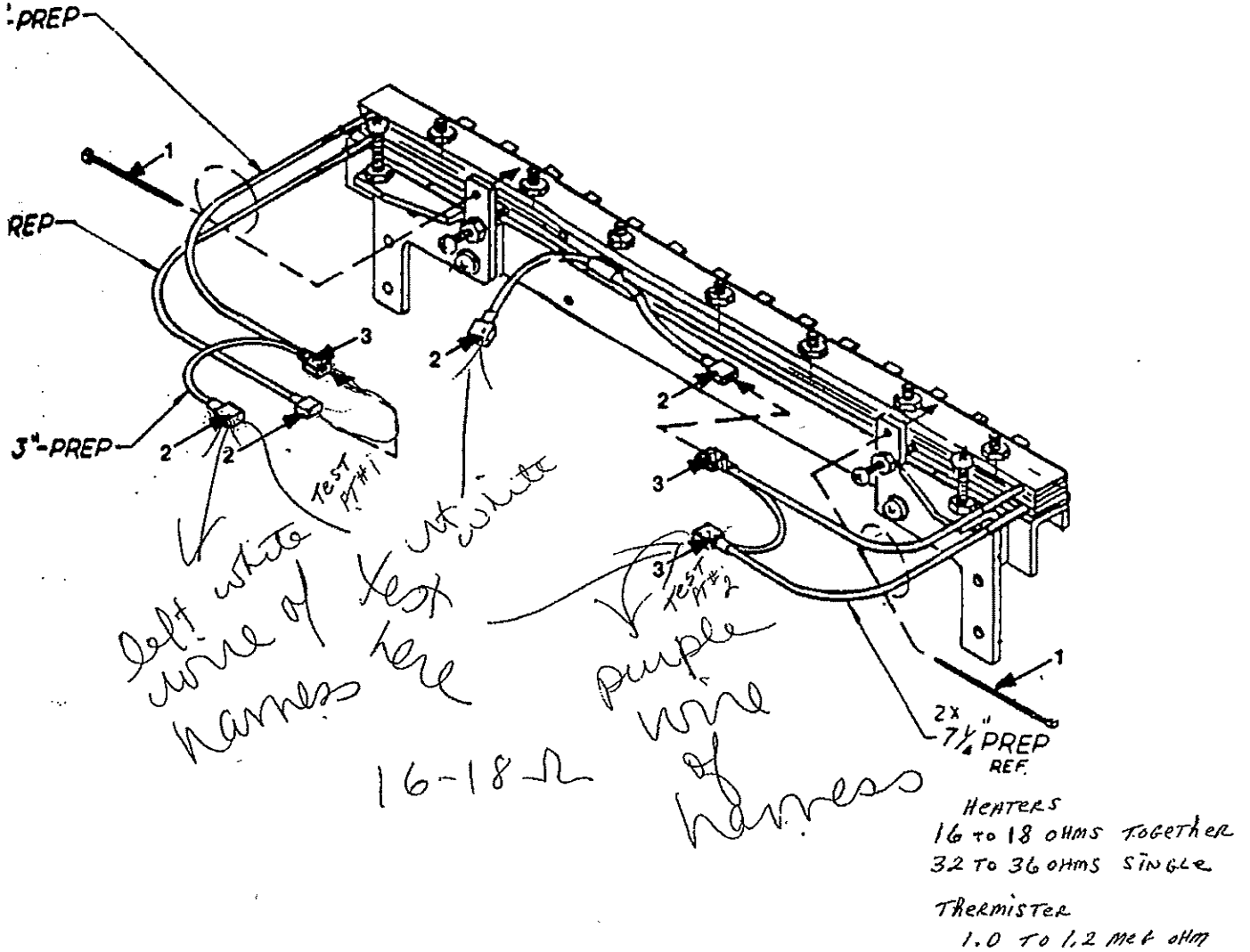
○ wire number
 ○ wire color



ON PC BOARD
THIRISTERS
BLANK

115 VOLT KNIFE WIRING

7-34B



KNIFE WIRING PART NUMBER GUIDE

ITEM #	OLD PART NUMBER	NEW PART NUMBER	DESCRIPTION	QTY PER
1	4504000	9779396	Cable Tie	2
2	4502525-01	9779385	Insulated Terminal	4
3	59350007	9780158	Insulated Terminal	3