

"DATASPEED*" 40 DISPLAY MONITOR

DISASSEMBLY AND REASSEMBLY AND PARTS

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2.06 TP410656 Interface/Amplifier Circuit Card Assembly	8	1.01 ♦This section provides disassembly and reassembly and parts information for the DATASPEED 40 display monitors (40MN101 and 40MN201).♦	
2.07 ♦TP341721 and TP341795 Power Distribution Assemblies.	9♦	1.02 This practice is reissued to add parts identification information and to include design changes. ♦Revision arrows are used to emphasize the more significant changes.♦	
2.08 TP341559 Brightness Control W/Cable Assembly	10	1.03 Fig. 1 and 2 are provided to identify major subassemblies and parts of the display monitor. References to Part 2 are given to aid in disassembly and reassembly procedures.	
2.09 TP341726 Monitor OFF/ON Control Assembly . . .	11	1.04 When removing a subassembly or part from the display monitor, follow the removal procedure and note the sequence of removal to enable proper reassembly. For reassembly, reverse the removal procedure except where different instructions are given.	
2.10 Heatsink Transistors	12	<i>Note:</i> The parts identification provided in Part 3 is for reference only. Disassembly to this level is not recommended as a field practice, rather, it should be restricted to repair locations.	
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1.05 Refer to Maintenance Tools Section 570-005-800 for a complete listing of the various types of hand tools available for maintenance of TELETYPE® equipment. The following is a listing of the tools required to perform the disassembly and reassembly of the DATASPEED 40 display monitor.

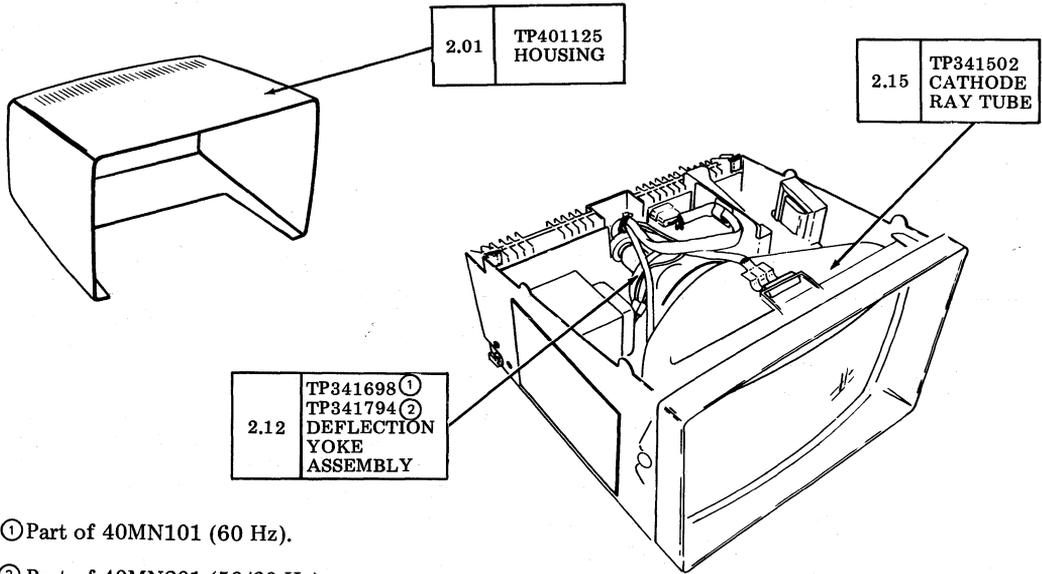
Part Number	Description
TP75765	Spring Hook — pull
TP89954	Nut Driver — 1/4 inch
TP100982	Screwdriver — 6 inch medium
TP108285	Long-Nose Pliers
TP108286	Cutting Pliers
TP129534	Open End Wrench — 1/4 inch
TP182697	Terminal Extractor

1.06 After disassembly and reassembly of a subassembly or component are performed, the associated adjustments shall be checked, and relubrication (if applicable) shall be performed. Adjustments and lubrication for the DATASPEED 40 display monitor are covered in Section 582-213-700.

1.07 For all disassembly or reassembly procedures or when disconnecting or reconnecting any of the electrical components of the display monitor, all power and video signals to the monitor shall be turned off to avoid safety hazards and prevent electrical component damage. A recommended safety practice is to unplug all ac input power cords.

Caution: Wear approved safety glasses when the housing of the monitor is removed, as the display tube is fragile in the neck area and is subject to implosion if broken. Be careful not to strike the glass of the tube with tools or components when working in its vicinity. See Section 010-110-002.

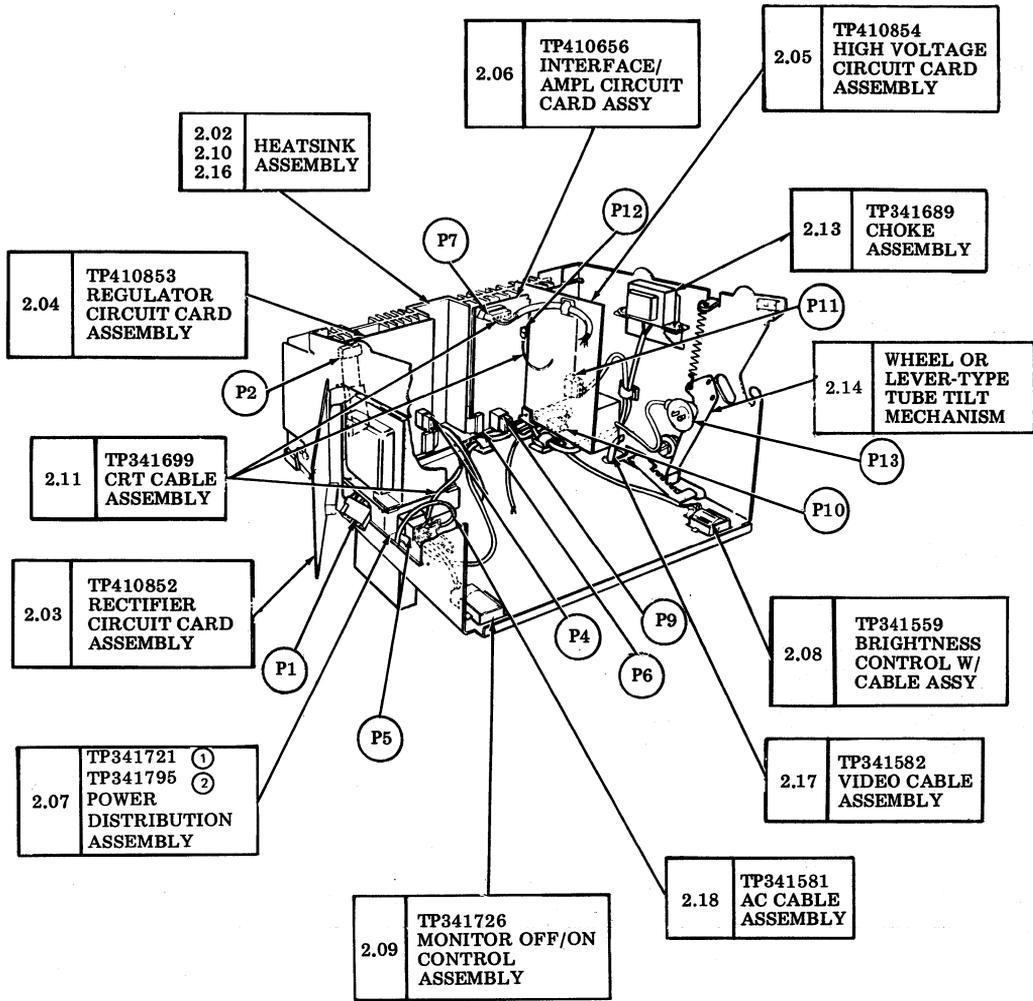
1.08 ♦The parts information (Part 3) for the display monitor is given in pictorial views (Figs. 3 through 12).♦ The part numbers of replaceable components are listed in the index at the end of Part 3. The index lists the pages where each part is found for identification or disassembly/reassembly.



- ① Part of 40MN101 (60 Hz).
- ② Part of 40MN201 (50/60 Hz).

Note: To remove a subassembly or individual part, follow the procedure referenced in the enclosed rectangle.

♦Fig. 1—DATASPEED 40 Display Monitor With Housing Removed♦



- ① Part of 40MN101 (60 Hz).
- ② Part of 40MN201 (50/60 Hz).

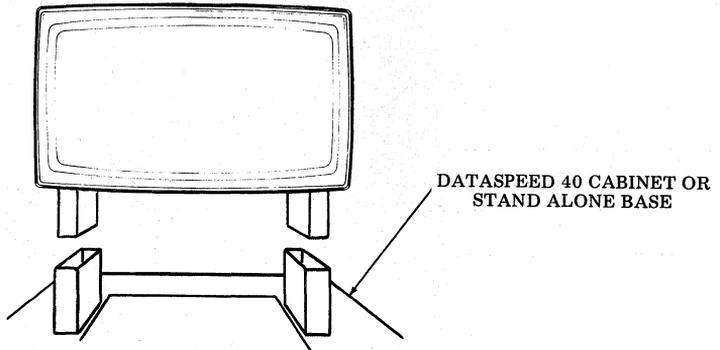
Note: To remove a subassembly or individual part, follow the procedure referenced in the enclosed rectangle.

◆Fig. 2—DATASPEED 40 Display Monitor Component Identification◆

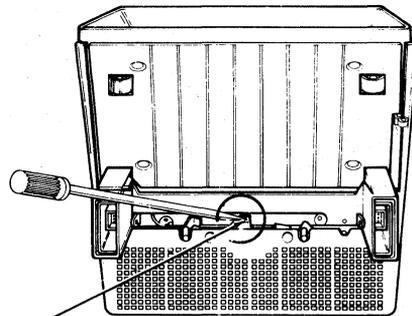
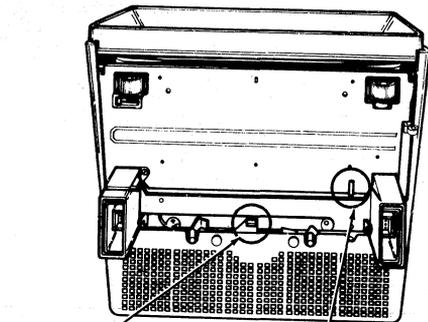
2. DISASSEMBLY AND REASSEMBLY PROCEDURES ♦

The disassembly and reassembly procedures are based upon the following initial conditions unless otherwise specified:

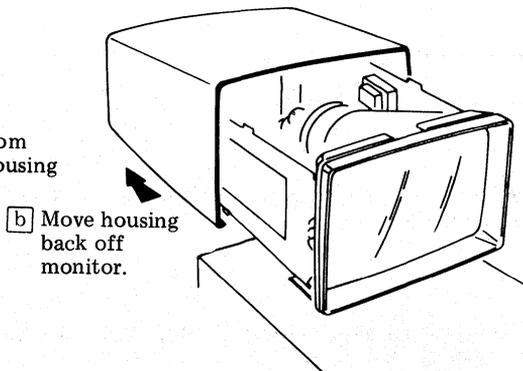
- a The display monitor shall be placed on a suitable holding fixture.
- b Remove the TP401125 housing (2.01).
- c Lower the heatsink (2.02).



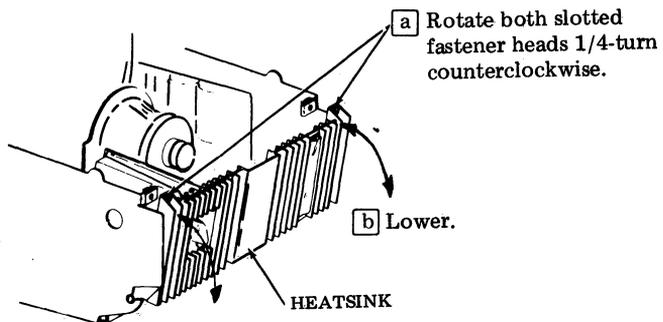
2.01 TP401125 Housing



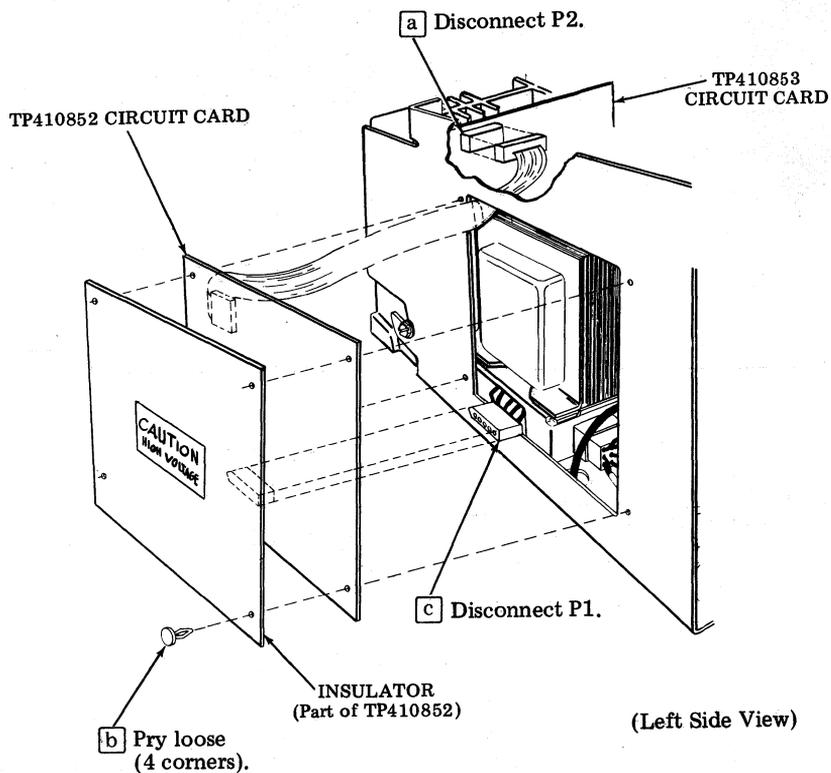
WEAR SAFETY GLASSES



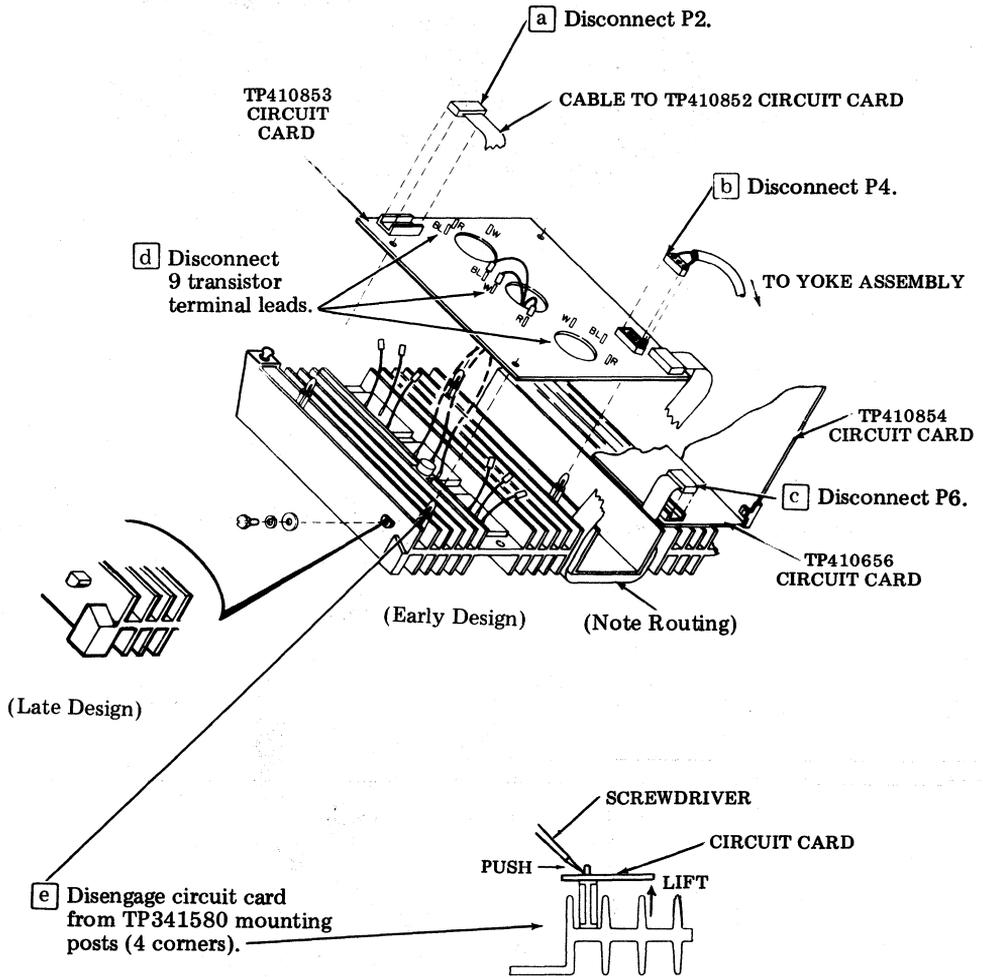
2.02 Heatsink to Lowered Position



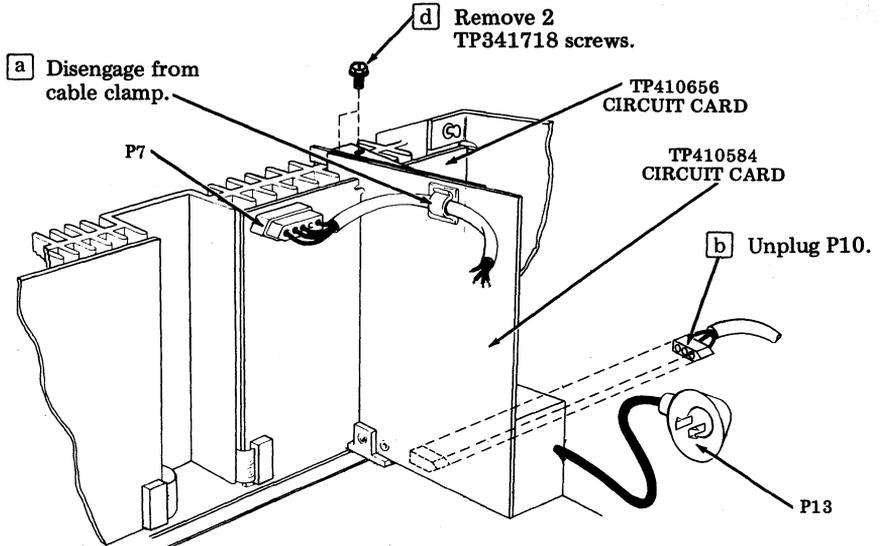
2.03 TP410852 Rectifier Circuit Card Assembly



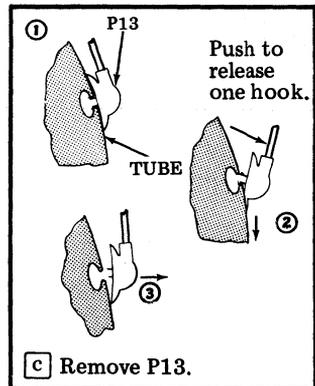
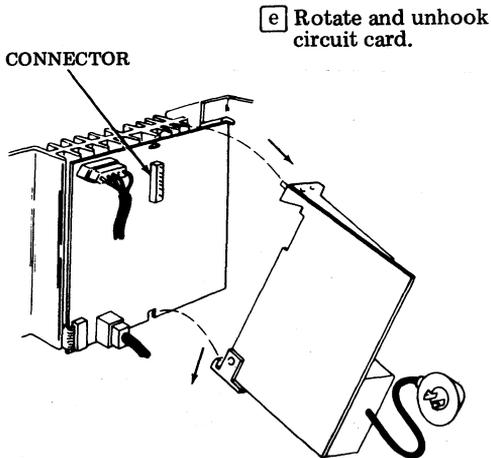
2.04 TP410853 Regulator Circuit Card Assembly



2.05 TP410854 High Voltage Circuit Card Assembly

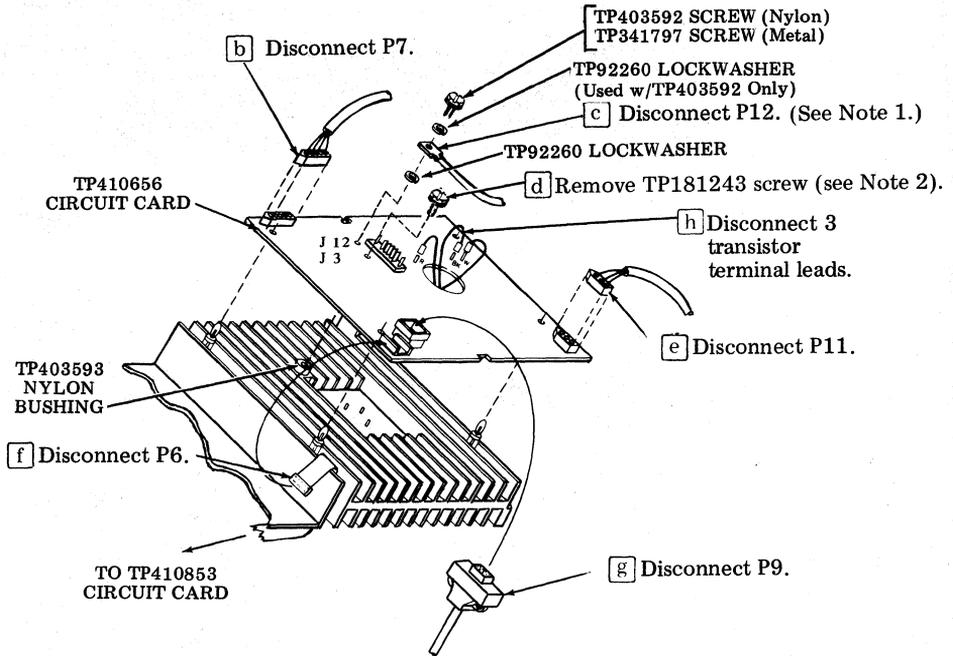


Note: P13 lead should point toward neck of tube when reassembled.

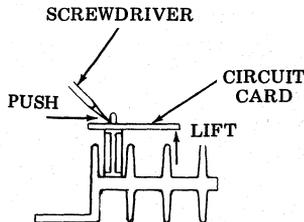


2.06 ♦TP410656 Interface/Amplifier Circuit Card Assembly♦

a Remove TP410854 high voltage circuit card assembly (2.05).



j Disengage circuit card from TP341580 mounting posts (4 corners).

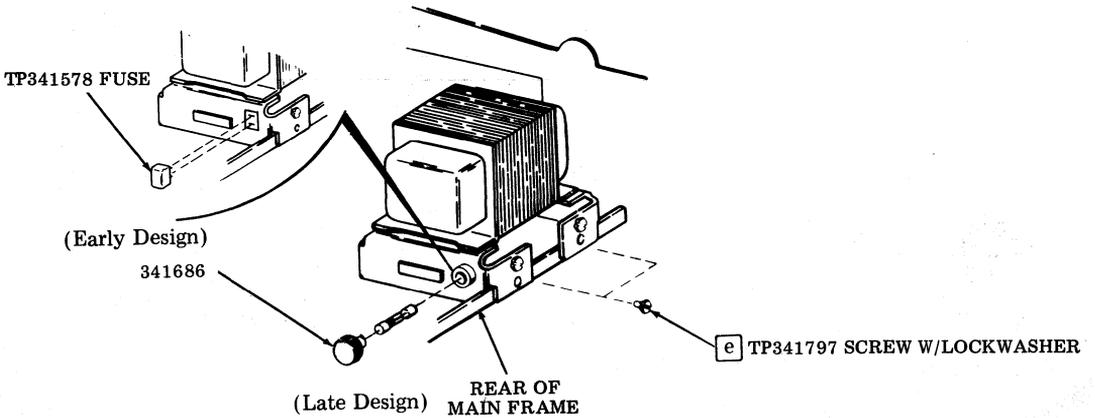
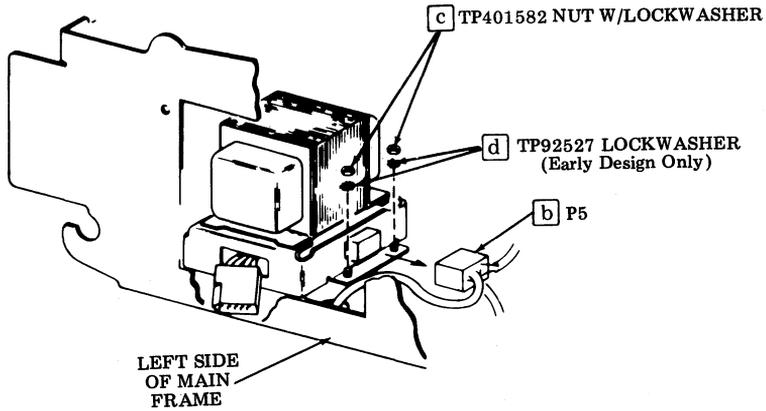


Note 1: Several methods have been used to fasten P12 to the TP410656 circuit card. Issue 4G and higher of TP410656 requires use of TP341797 screw (metal) which does not enter the heatsink but isolates frame and circuit ground. Display monitors with serial numbers below 10,000 were originally shipped with a metal screw frame grounding P12 and TP410656 circuit ground; and the TP403594 modification kit enables conversion of these units for compatibility with power supply units serial numbers 10,000 and above. (Ref TCN 2097 and TCN 2220)

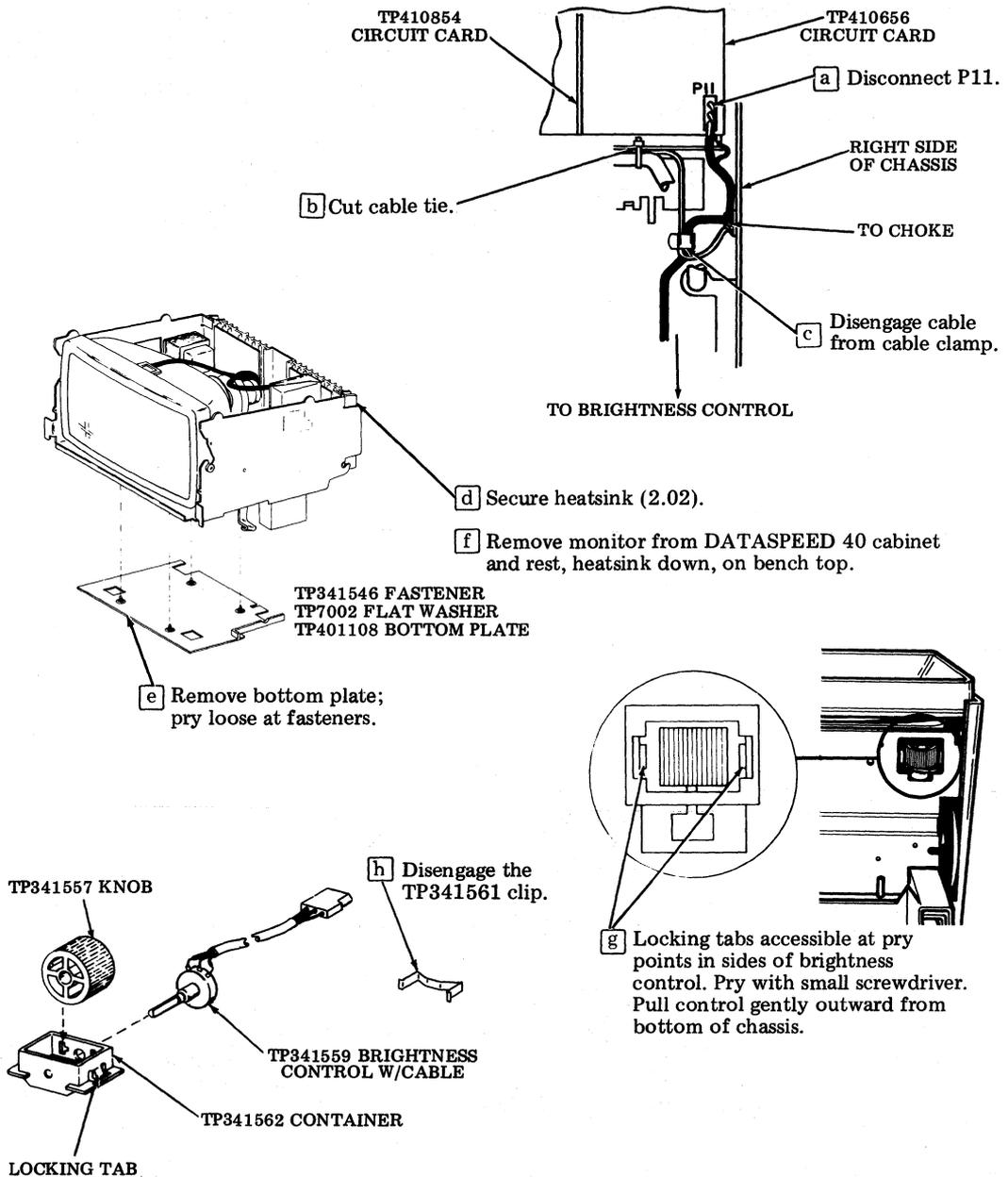
Note 2: Hole J3 was added to accommodate connection to heatsink via added TP181243 screw, at Issue 4P of the TP410656 circuit card.

2.07 ♦TP341721 Power Distribution Assembly (used on 40MN101 60 Hz)
TP341795 Power Distribution Assembly (used on 40MN201 50/60 Hz)♦

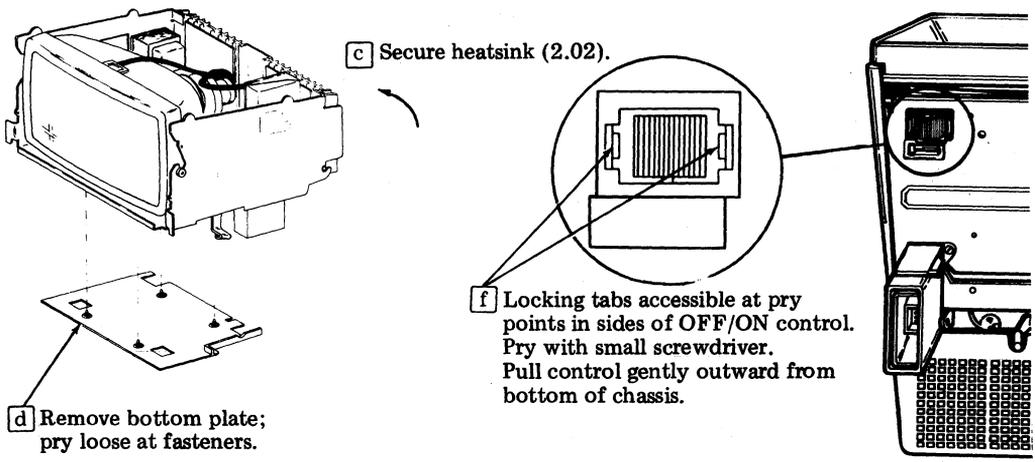
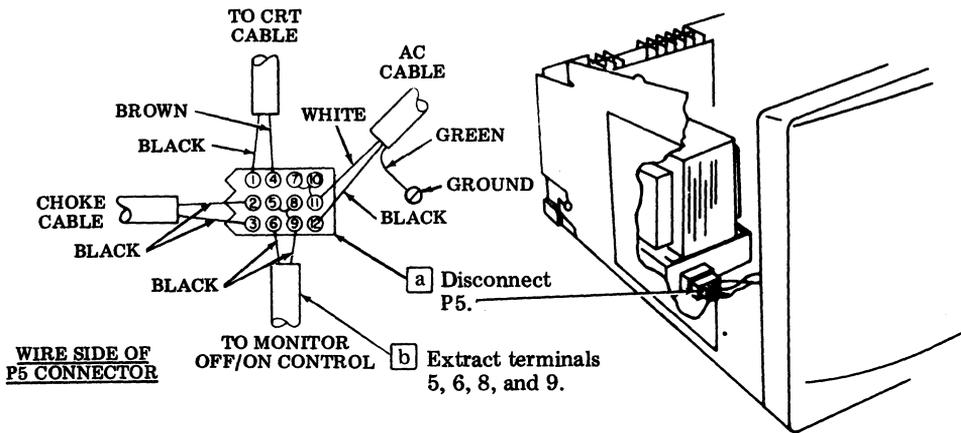
- a Remove TP410852 rectifier circuit card assembly (2.03).



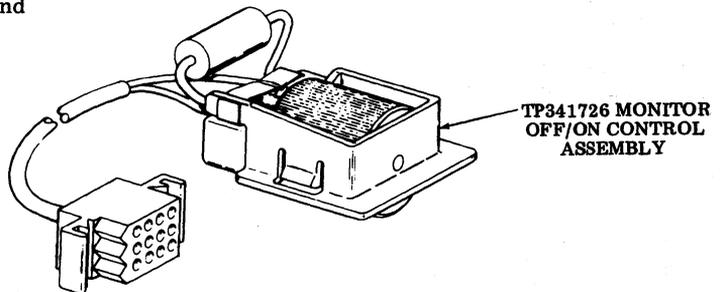
2.08 TP341559 Brightness Control W/Cable Assembly



2.09 TP341726 Monitor OFF/ON Control Assembly

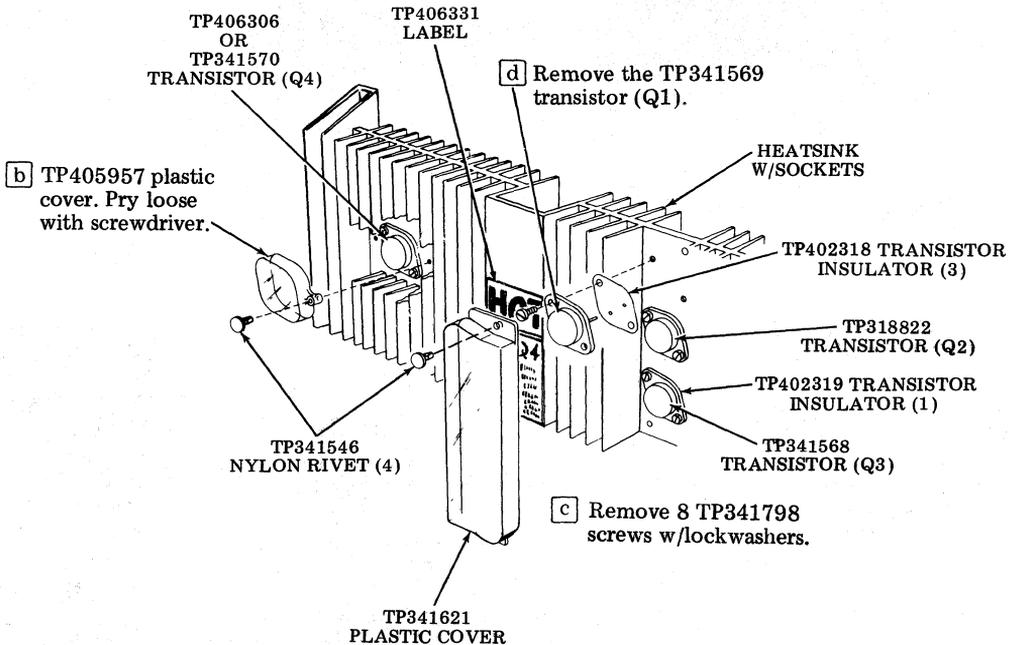


e Remove monitor from DATASPEED 40 cabinet and rest, heatsink down, on bench top.



2.10 ♦Heatsink Transistors ♦

a Secure heatsink in upright position.

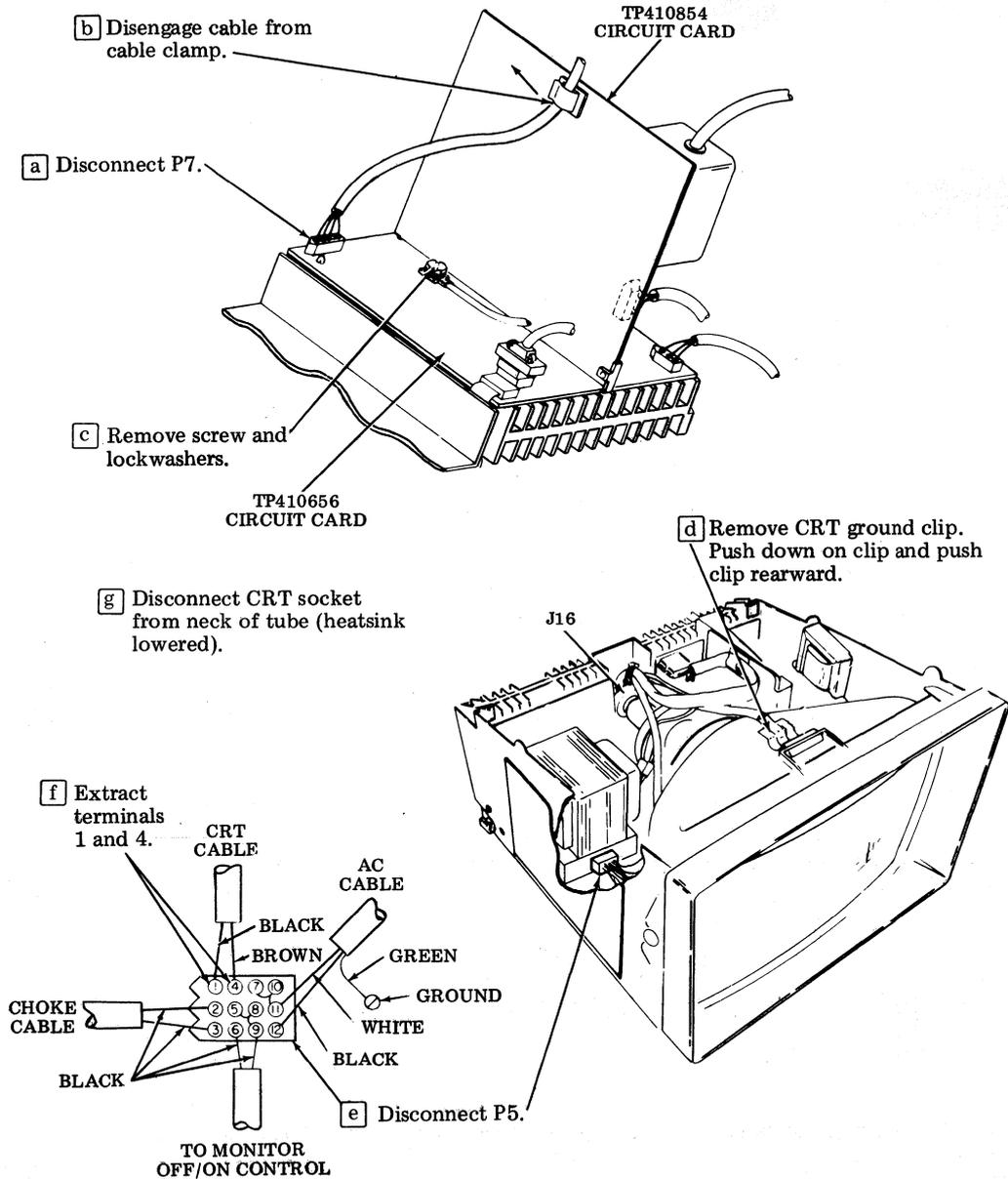


Note 1: The TP402319 mica insulator requires a coating of thermal joint compound applied to rear side of transistor and on heatsink surface.

Note 2: The TP402318 fiberglass reinforced silicone rubber insulator does not require thermal joint compound.

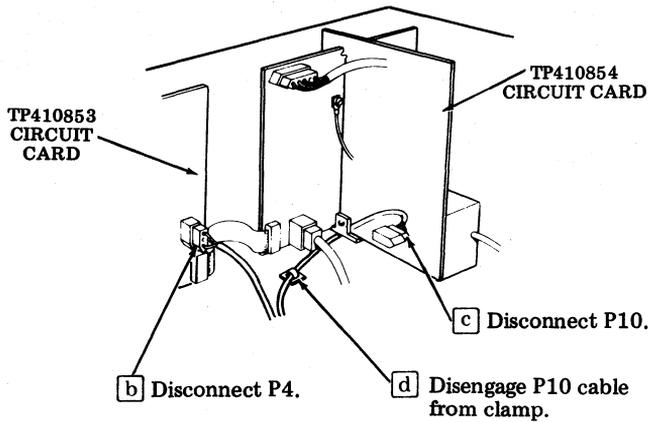
Note 3: Transistor Q4 part number TP406306 can only be used with TP410656 Issue 5A or later, incorporating R39 part number TP406292 horizontal centering control. Transistor Q4 part number TP341570 can be used with any issue TP410656 circuit card.

2.11 TP341699 CRT Cable Assembly

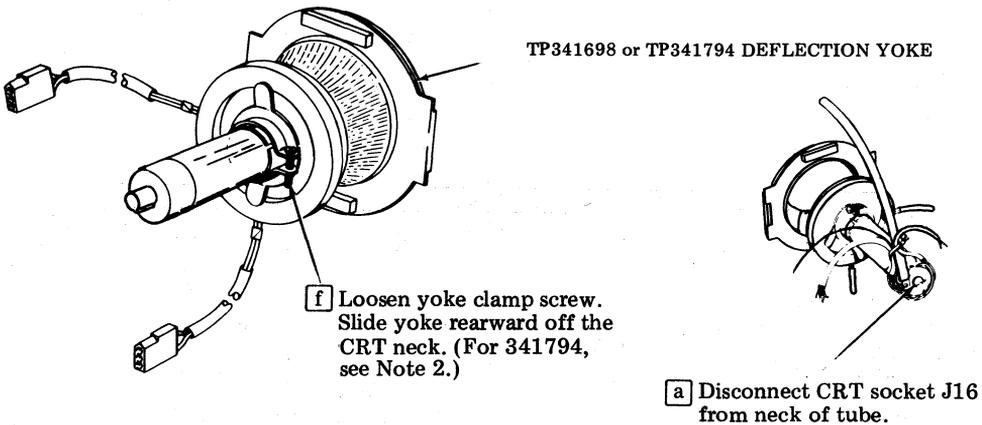


WIRE SIDE OF
CONNECTOR P5

2.12 ♦TP341698 Deflection Yoke Assembly (part of 40MN101 60 Hz)
 TP341794 Deflection Yoke Assembly (part of 40MN201 50/60 Hz)♦



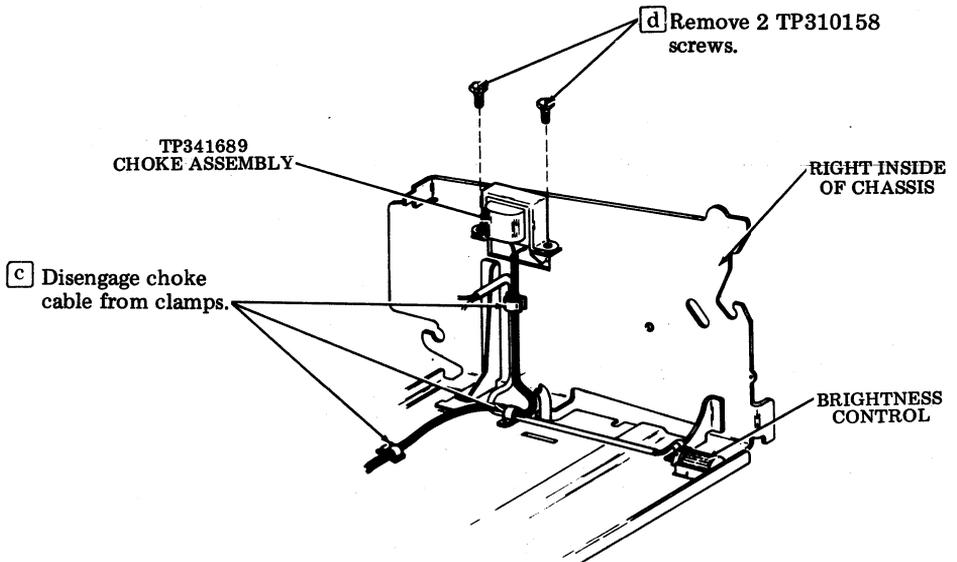
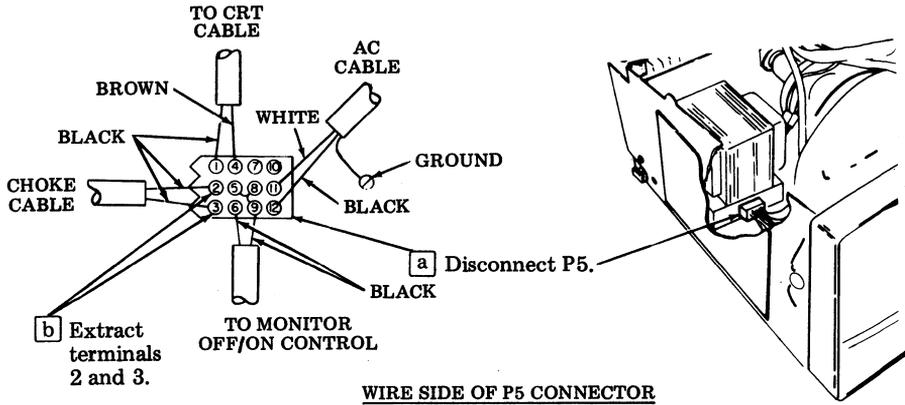
e Raise neck of CRT to highest angle by rotating tube tilt control.



Note 1: In reassembly, make certain that proper connectors are remated. Do not overtighten yoke clamp screw.

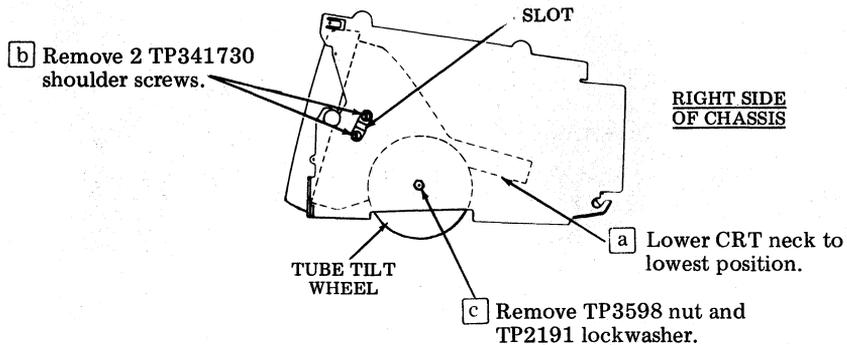
Note 2: To gain access to TP341794 yoke's clamp screw, slide TP341754 end cap off rear of tube. To slide TP341794 yoke off tube, the TP341753 shield must also be removed. Reference on page 26.

2.13 TP341689 Choke Assembly



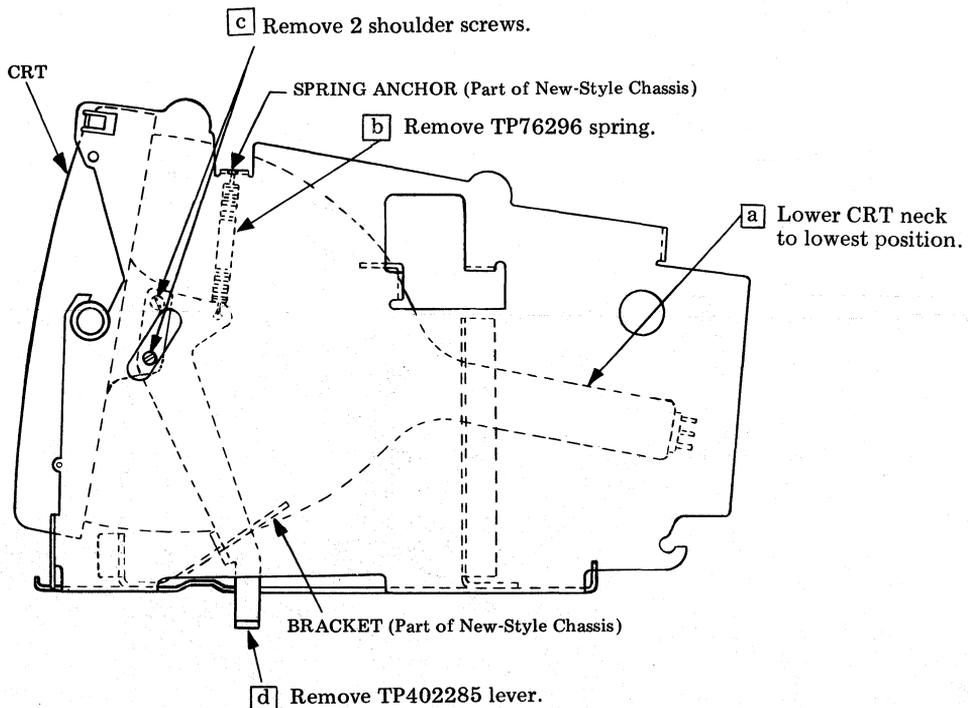
2.14 Tube Tilt Mechanism

Wheel-Type



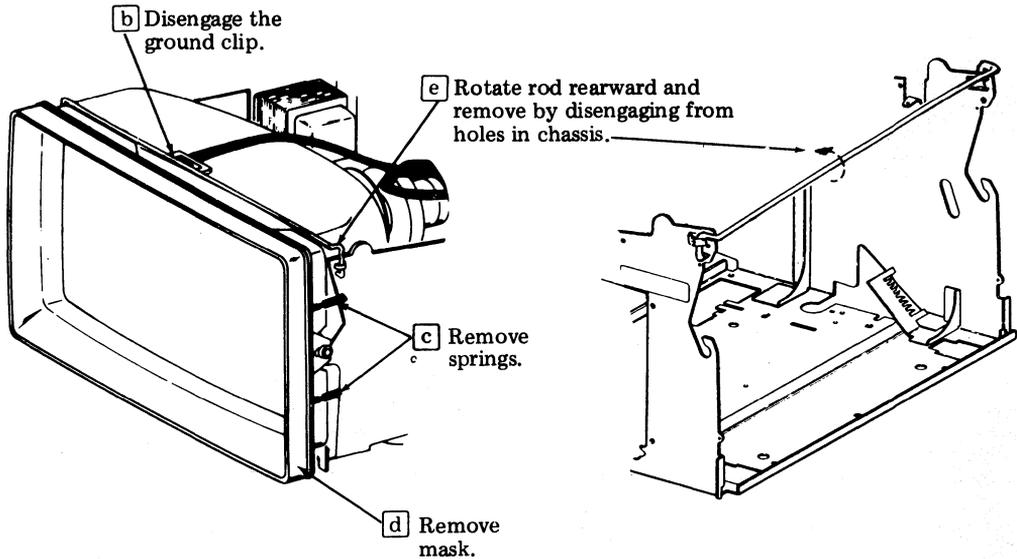
Note: If it becomes necessary to replace any of the wheel-type tube tilt mechanism components, install TP402286 modification kit which converts to lever-type.

Lever-Type

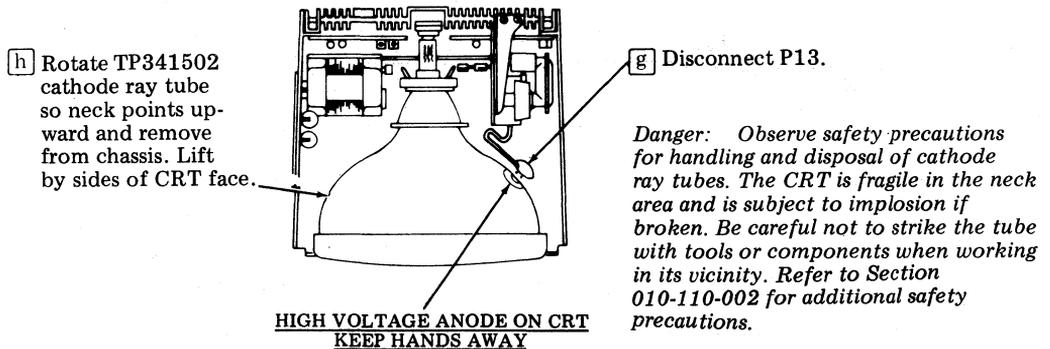


2.15 ♦TP341502 Cathode Ray Tube (CRT)♦

- a** Remove TP341698 deflection yoke assembly (2.12).



- f** Remove the tube tilt mechanism (2.14).

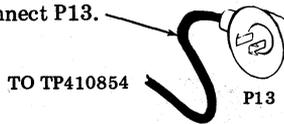


Note: Use mask as a base to cradle the CRT (face down) on flat surface.

2.16 Heatsink Assembly

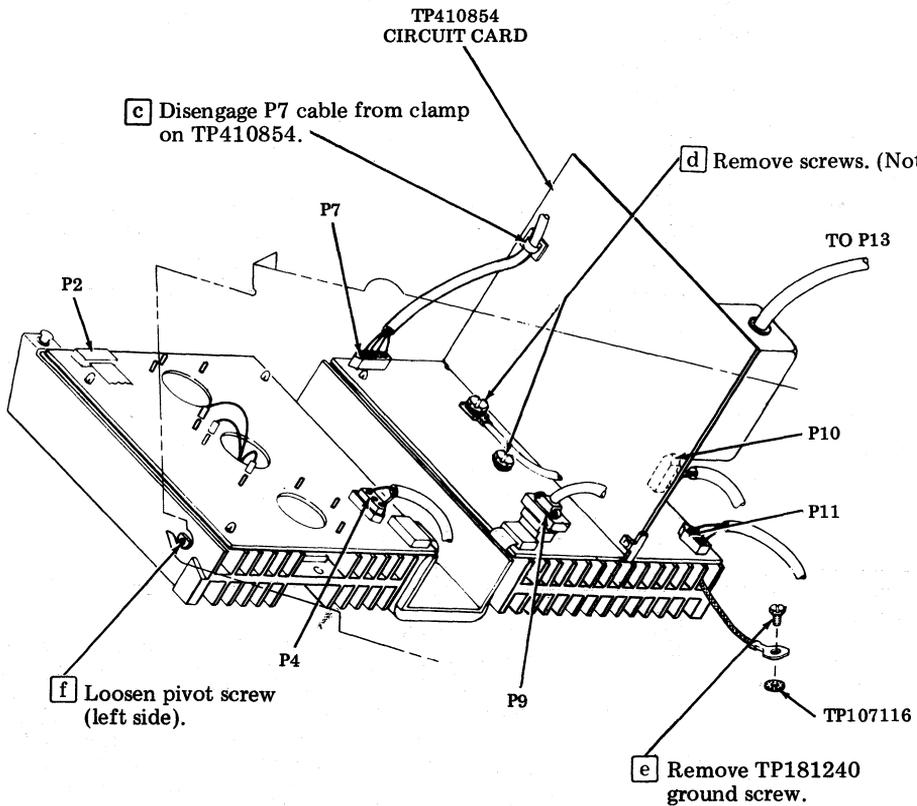
a Disconnect P2, P4, P7, P9, P10, and P11.

b Disconnect P13.



c Disengage P7 cable from clamp on TP410854.

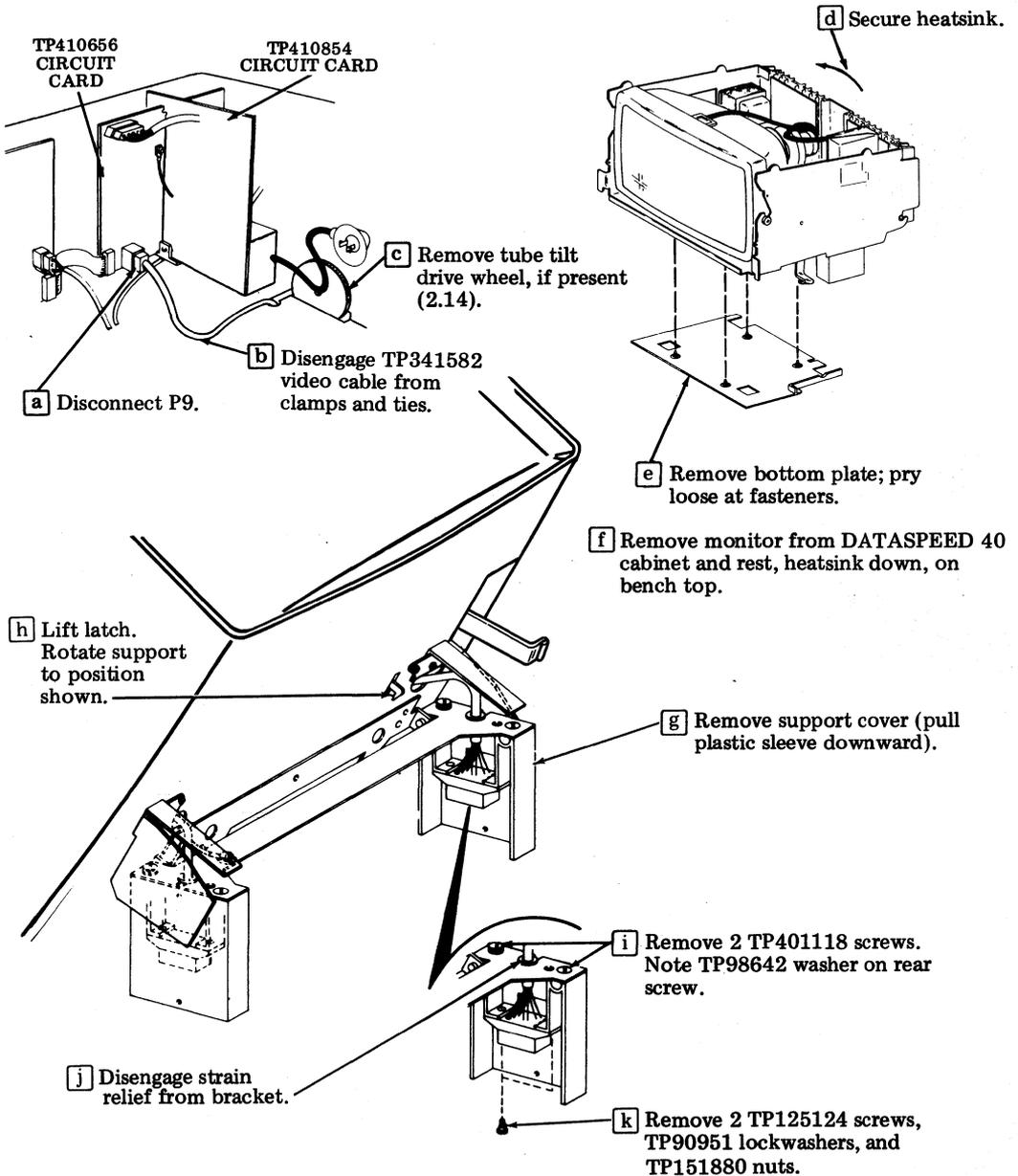
d Remove screws. (Note)



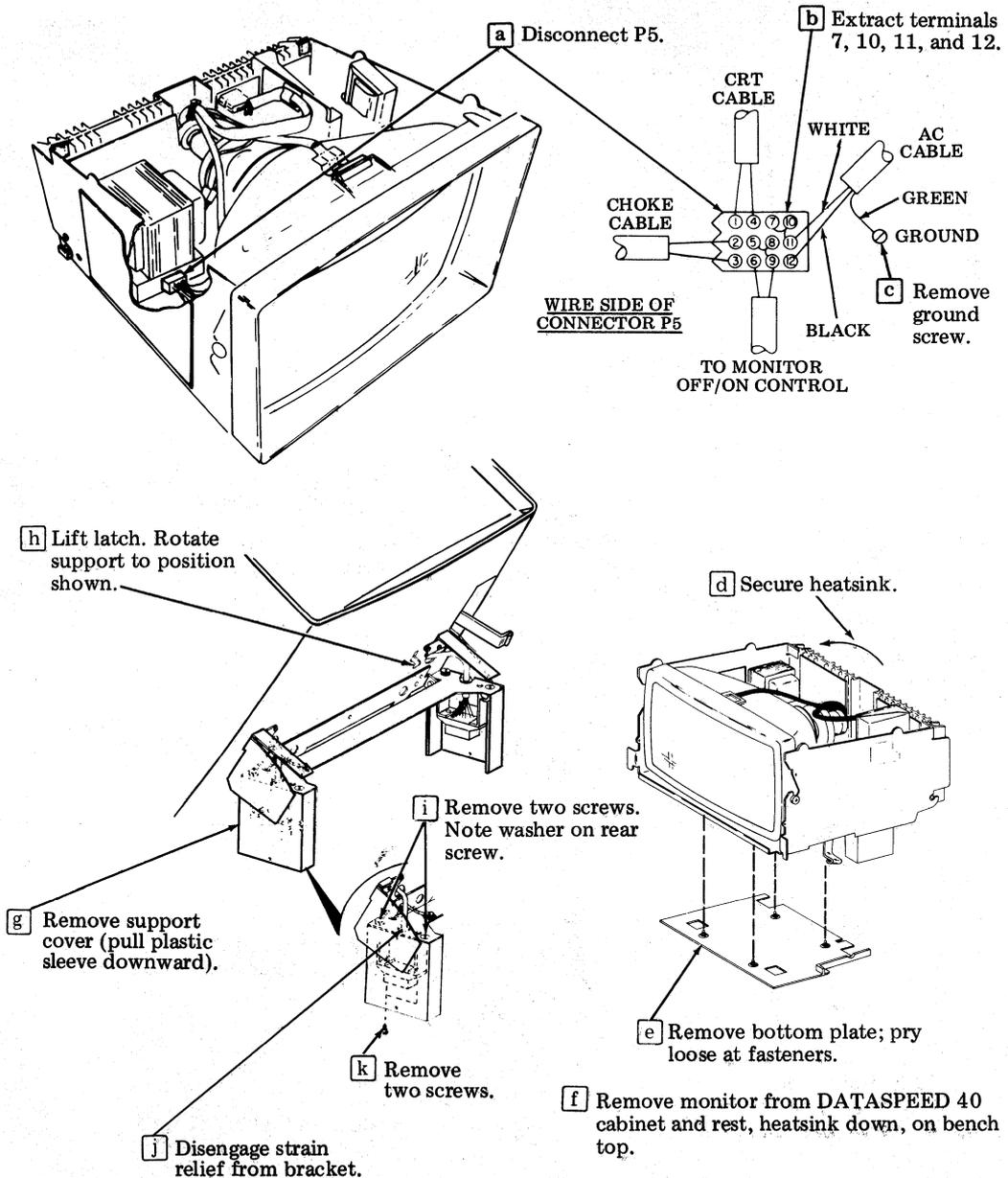
g Pull heatsink upward and rearward to disengage pivot points.

Note: A hole labeled J3 and TP181243 screw are added to Issue 4P and higher on the TP410656 circuit card. The TP181243 screw fastens through J3 into mating hole in heatsink.

2.17 ♦ TP341582 Video Cable Assembly and Right Support Bracket ♦

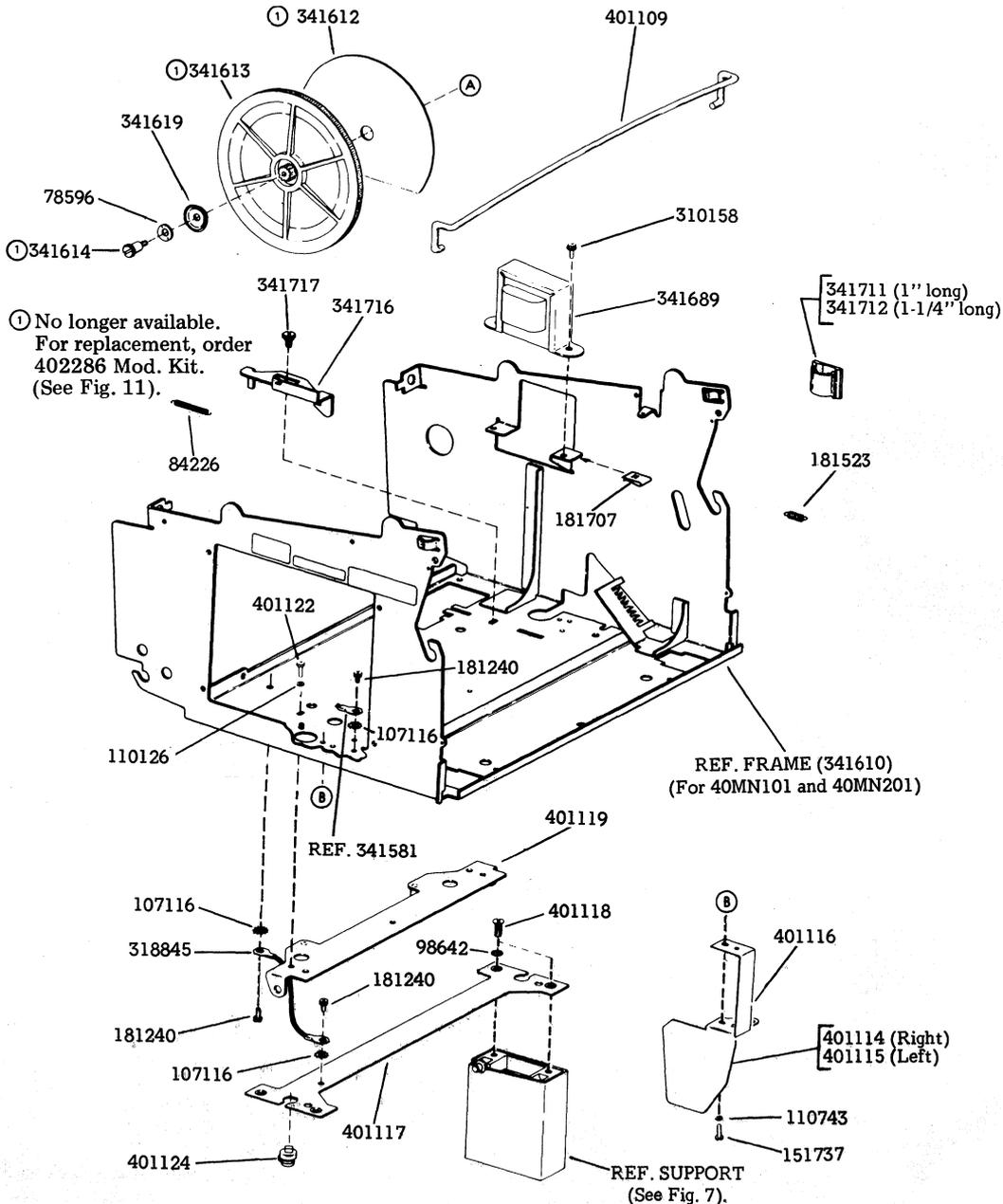


2.18 TP341581 AC Cable Assembly and Left Support Bracket



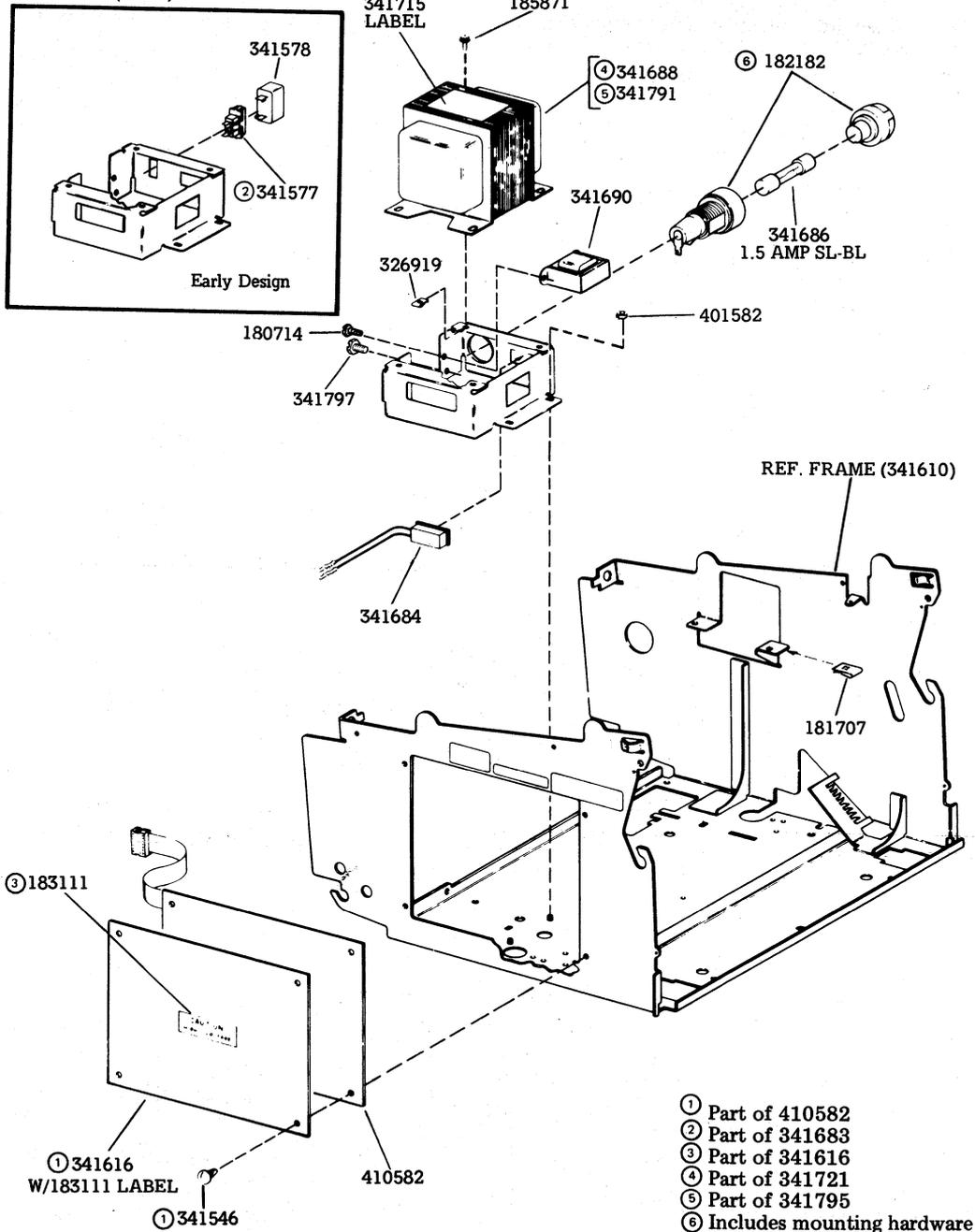
3. PARTS

Note: When ordering replaceable components, unless otherwise specified, prefix each part number with the letters "TP" (ie, TP410055).



◆ Fig. 3—Frame Assembly ◆

3. PARTS (Cont)



◆ Fig. 4—341721, 341795 Power Distribution and 410582 Circuit Card Assemblies ◆

3. PARTS (Cont)

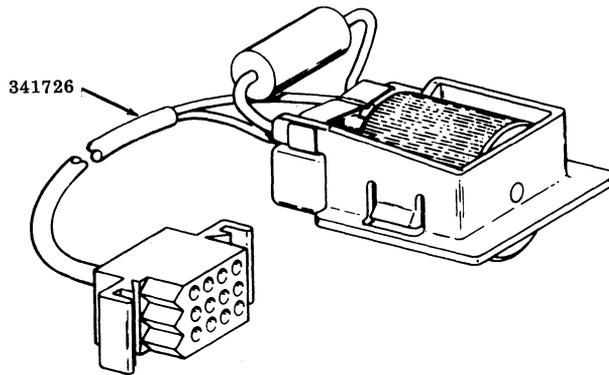
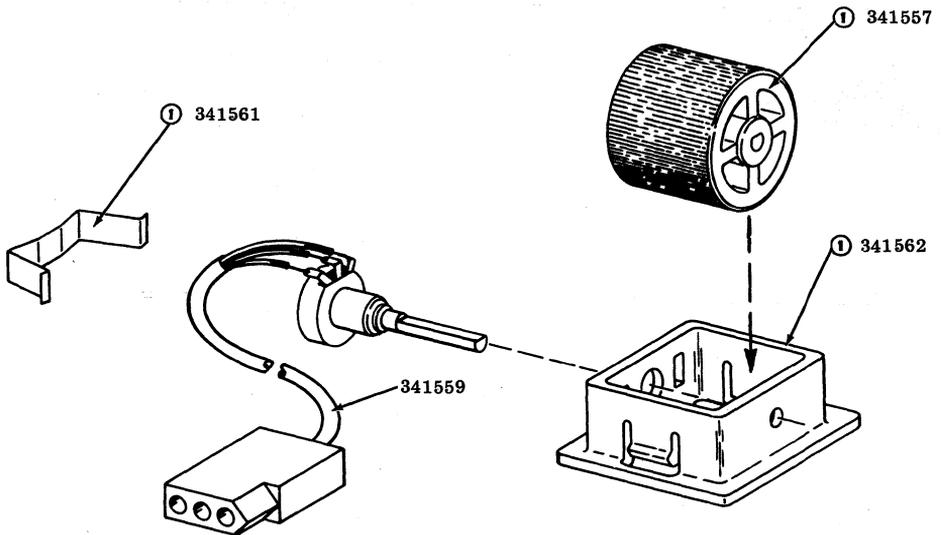


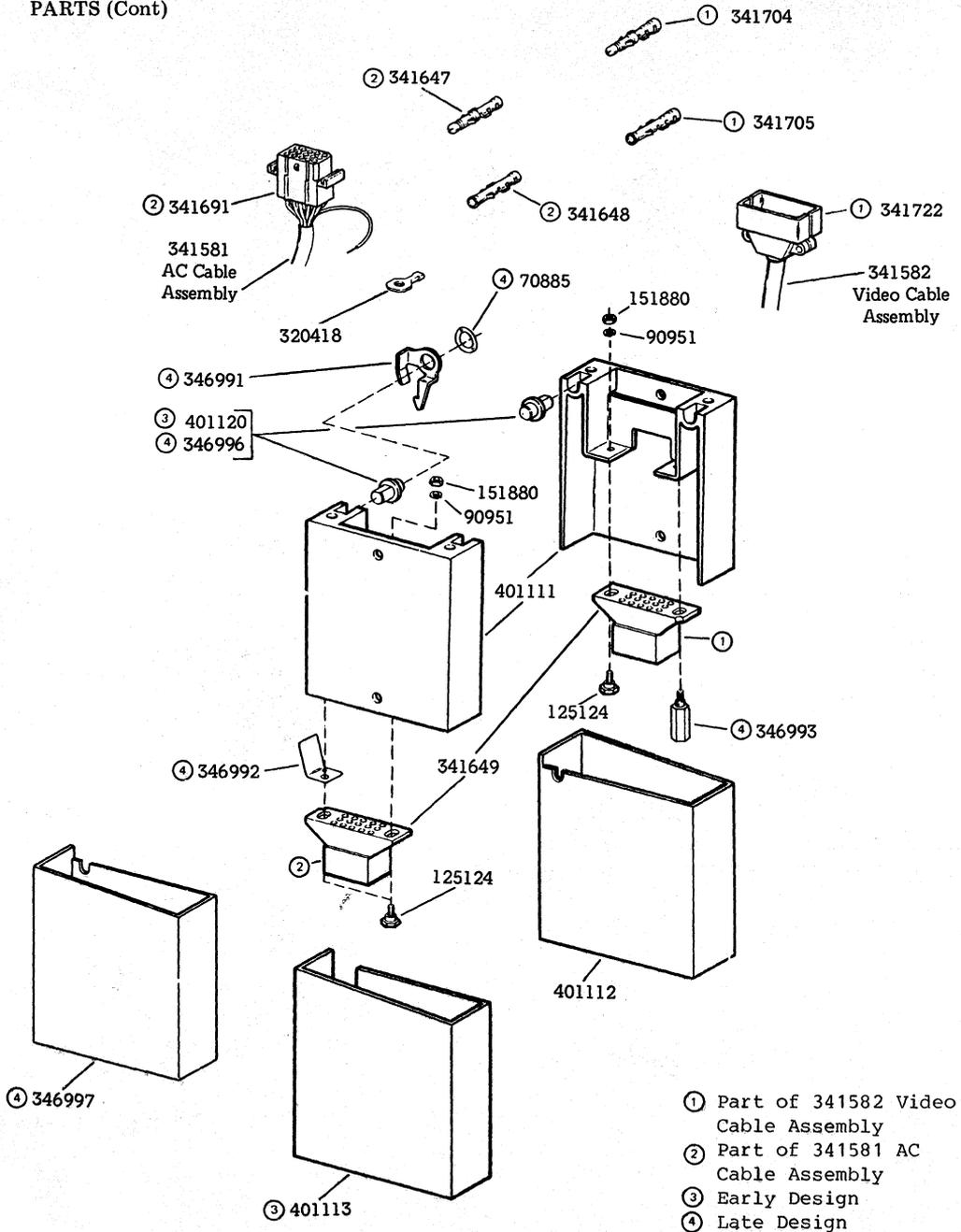
Fig. 5—341726 Monitor Control Switch (On-Off) Assembly



① Not part of 341559

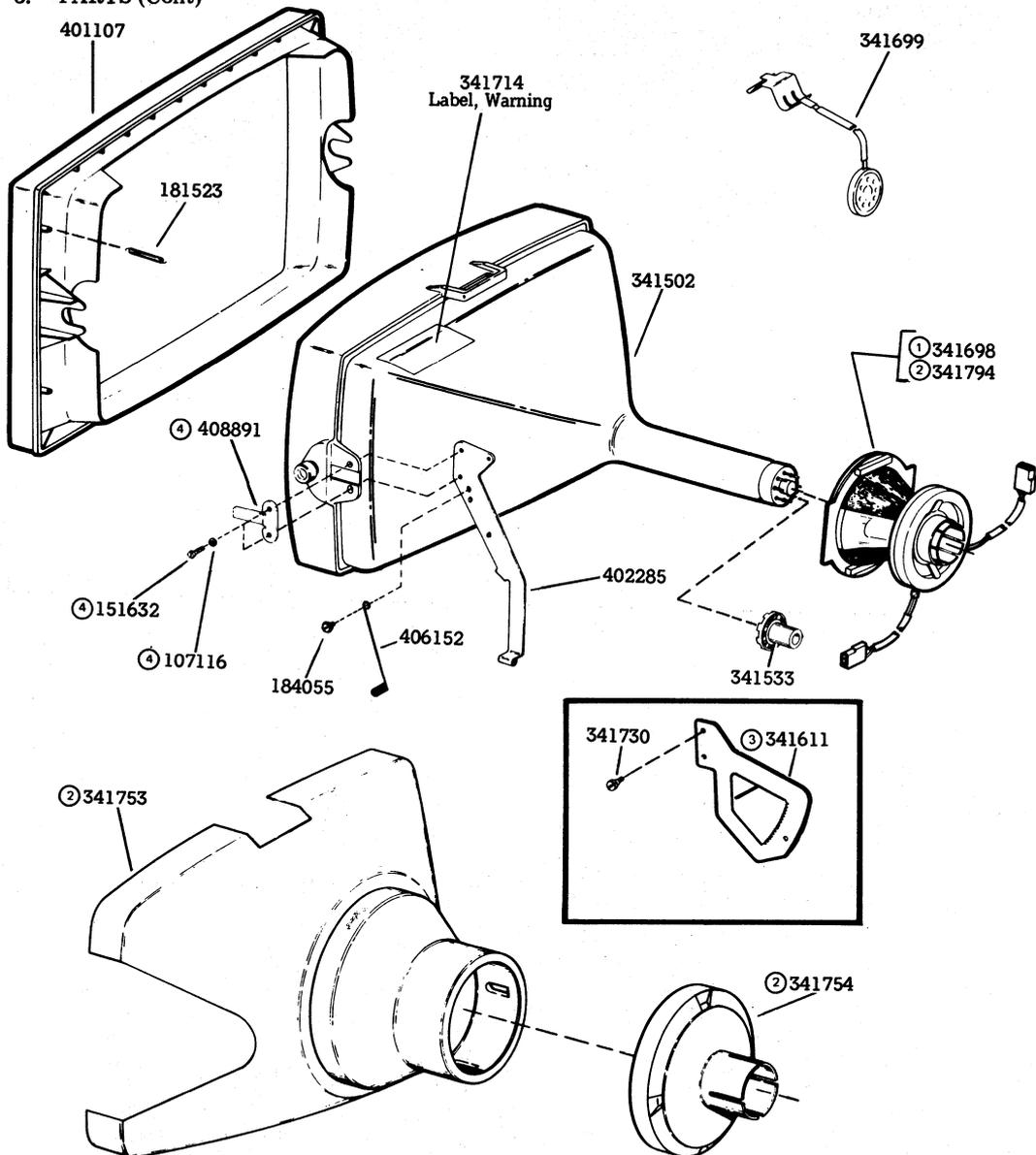
Fig. 6—341559 Brightness Control Switch Assembly

3. PARTS (Cont)



◆ Fig. 7—Left and Right Supports ◆

3. PARTS (Cont)



- ① Part of 40MN101 (60 Hz)
- ② Part of 40MN201 (50/60 Hz)
- ③ No longer available. For replacement, order 402286 Mod Kit.
- ④ Part of Modification 408892 to Repair 40-Type Display Monitor CRT With Broken Tilt Lever Mounting Tab. Ref 50909S.

◆ Fig. 9—CRT, Mask, Yoke, and CRT Cable Assembly ◆

3. PARTS (Cont)

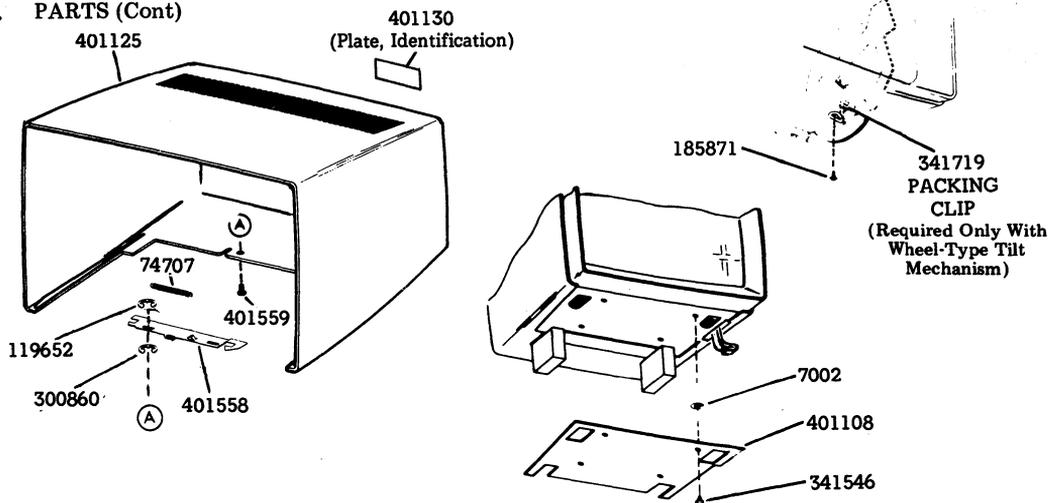
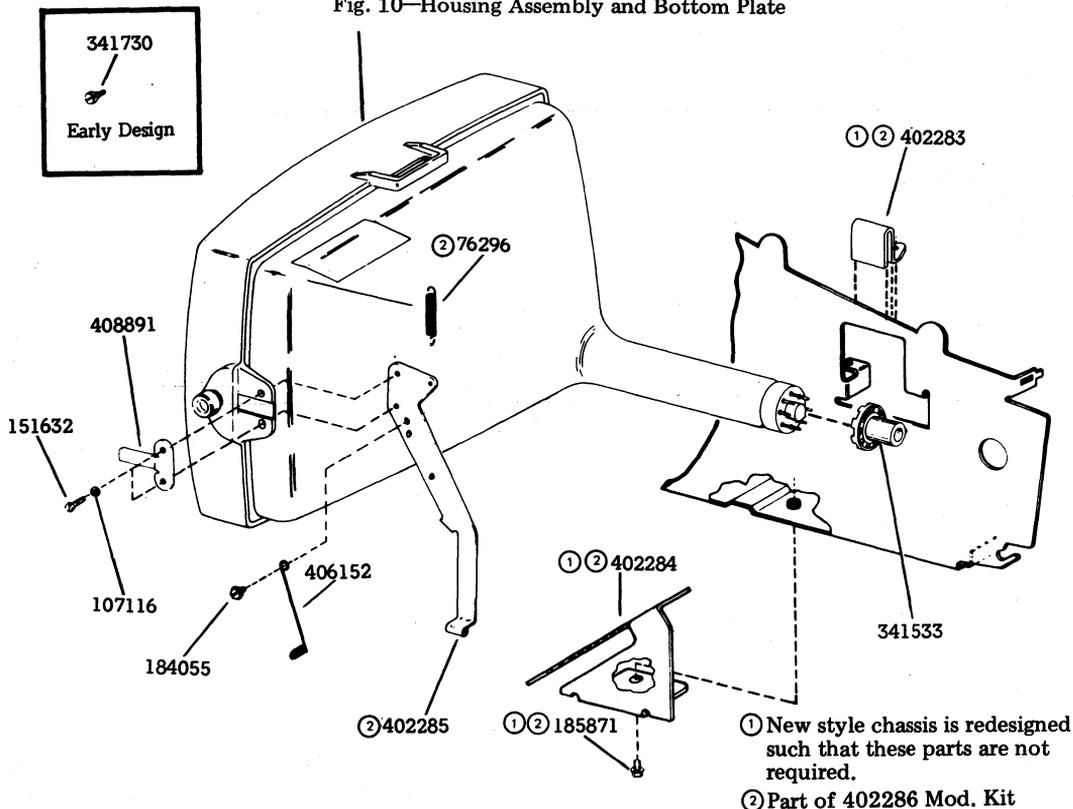
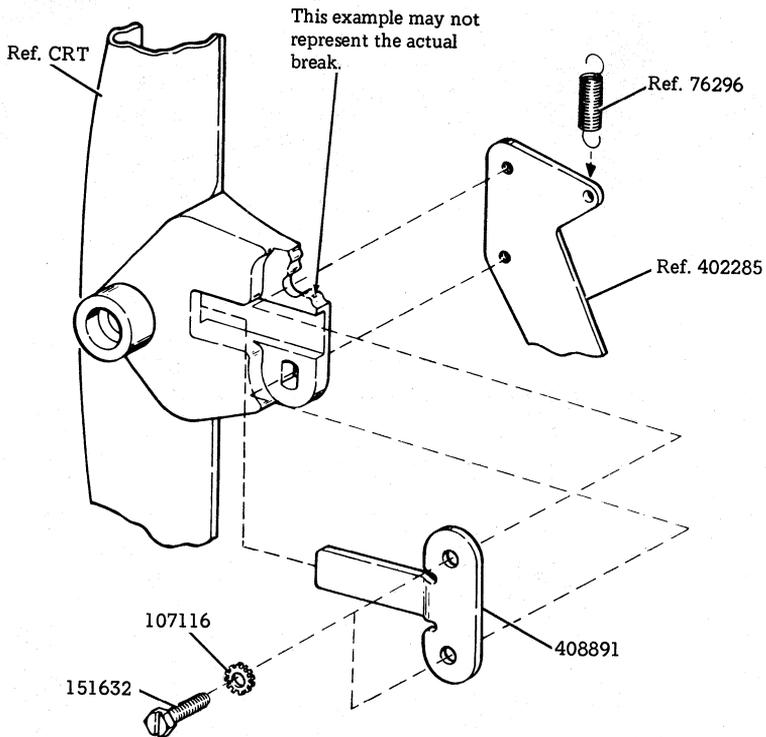


Fig. 10—Housing Assembly and Bottom Plate



◆ Fig. 11—402286 Modification Kit to Replace Wheel-Type Tube Tilt Mechanism With Lever-Type ◆

3. PARTS (Cont)



◆Fig. 12—408892 Modification Kit to Repair 40-Type Display Monitor CRT With Broken Tilt Lever Mounting Tab ◆

3. PARTS (Cont)

3.01 The following index is a list of the component parts of the monitor. The page number references give location in both Part 2, Disassembly and Reassembly Procedures and Part 3, Parts. Maintenance Tools used for the monitor are also included in the parts index.

Note: When ordering replaceable components, unless otherwise specified, prefix each part number with the letters "TP" (ie, TP341580).

◆ NUMERICAL INDEX ◆					
Part Number	Description and Page Number	Part Number	Description and Page Number	Part Number	Description and Page Number
2191	Lockwasher 16	183111	Label 22	341611	Rack, Tube Tilt 26
3598	Nut, 6-40 Hex 16	184055	Screw w/Lockwasher, 6-40 x 3/16 Hex 26, 27	341612	Washer, Felt 21
6987	Washer, Flat 25			341613	Wheel w/Gear 21
7002	Washer, Flat 10, 27	185871	Screw w/Lockwasher, 8/32 x 3/8 Hex 22, 27	341614	Shaft 21
70885	Washer, Spring 24			341616	Insulator 22
74707	Spring 27	198670	Screw w/Lockwasher, 6-40 x 5/16 Hex 25	341619	Washer, Retainer 21
75765	Hook, Spring 2			341621	Cover, Plastic 12, 25
76296	Spring 16, 27, 28	300860	Ring, Retaining 27	341630	Socket, Assembly 25
78596	Washer, Friction 21	310158	Screw, 6-32 x 7/32 Hex 15, 21	341647	Terminal 24
84226	Spring 21			341648	Terminal 24
89954	Nut Driver 2	318822	Transistor 12, 25	341649	Connector, 15 Pt Plug 24
90951	Lockwasher 19, 24	318845	Jumper 21, 25		
92260	Lockwasher 8, 25	320418	Terminal, Ring Type 24	341651	Stud 25
92527	Lockwasher 9			341655	Knob, Core Adjusting 25
98642	Washer 19, 21	326919	Nut, Speed 22	341682	Label 25
100982	Screwdriver 6 inch medium 2	327954	Retainer, Split Ring 25	341683	Socket Assembly, Fuse 22
107116	Lockwasher 18, 21, 25, 26, 27, 28	327955	Nut, Speed 25	341684	Lamp Assembly, Neon 22
108285	Pliers, Long Nose 2	336810	Plate, Identification 21		
108286	Pliers, Cutting 2	341502	Tube 2, 17, 26	341686	Fuse, 1.5A SL-BL 9, 22
110126	Lockwasher 21	341515	Heatsink 25	341688	Transformer 22
110743	Lockwasher 21	341526	Socket Assembly 25	341689	Choke 3, 15, 21
119652	Ring, Retainer 27	341527	Socket Assembly 25	341690	Choke 22
125124	Screw, 4-40 Shoulder 19, 24	341533	29mm Base (CRT) 26, 27	341691	Connector 24
129534	Wrench, Open End 1/4 inch 2	341546	Fastener, Drive 10, 12, 22, 25, 27	341698	Yoke Assembly 2, 14, 17, 26
151632	Screw, 6-40 x 3/8 Hex 26, 27, 28	341557	Wheel 10, 23	341699	Cable Assembly 3, 13, 26
151737	Screw, 4-40 x 11/64 Hex 21	341559	Cable Assembly 3, 10, 23	341704	Terminal 24
151880	Nut, 4-40 Hex 19, 24	341561	Retainer, Spring 10, 23	341705	Terminal 24
180714	Screw, #6 Self-Tapping 22	341562	Container 23	341711	Cable, Clamp 21
181240	Screw w/Lockwasher, 6-40 x 3/16 Hex 18, 21, 25	341568	Transistor 12, 25	341712	Cable, Clamp 21
181243	Screw w/Lockwasher, 6-40 x 3/8 Hex 8, 18	341569	Transistor 12, 25	341714	Label, Warning 26
181523	Spring 21, 26	341570	Transistor 12, 25	341715	Label 22
181707	Nut, Speed 21, 22	341577	Socket, Fuse 22	341716	Latch 21
182182	Holder, Fuse 22	341578	Fuse 22	341717	Screw, 8-32 Shoulder 21
182697	Terminal Eradicator 2	341579	Fastener 25		
		341580	Support, Circuit Board 6, 8, 25	341718	Screw w/Lockwasher, 6-40 x 5/16 Hex 7, 25
		341581	Cable Assembly 3, 20, 21, 24	341719	Clip, Packing 27
		341582	Cable Assembly 3, 10, 19, 24	341721	Distribution Assembly, Power 3, 9, 22
		341610	Frame 21, 22	341722	Connector 24
				341725	Cover, Transistor 12

SECTION 582-213-701

3. PARTS (Cont)

NUMERICAL INDEX (Cont)

Part Number	Description and Page Number	Part Number	Description and Page Number	Part Number	Description and Page Number
341726	Switch Assembly 3, 11,23	401107	Mask 26	402285	Lever 16,26,27,28
341730	Screw, 6-40 Shoulder 16,26,27	401108	Plate, Bottom 10,27	402286	Modification Kit 16,21,26,27
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341754	Cap, End 14,26	401111	Support 24	402319	Insulator 12,25
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