

symbol of leadership



in printing telegraphy

BULLETIN 1154B

PARTS

HIGH SPEED TAPE PUNCH SET

(BRPE)

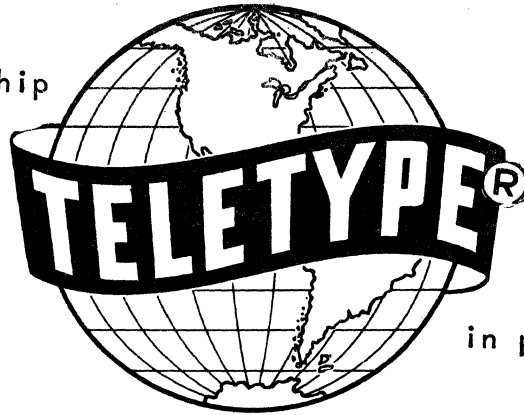
**TELETYPE<sup>®</sup>**

**CORPORATION**

SUBSIDIARY OF *Western Electric Company* INC.

SKOKIE, ILLINOIS, U. S. A.

symbol of leadership



in printing telegraphy

BULLETIN 1154B

PARTS

HIGH SPEED TAPE PUNCH SET

(BRPE)

**TELETYPE**<sup>®</sup>  
**CORPORATION**  
SUBSIDIARY OF *Western Electric Company* INC.  
SKOKIE, ILLINOIS, U. S. A.

## LIST OF EFFECTIVE PAGES

JULY, 1960

(Supersedes May, 1960 Issue)

Page Number	Change In Effect
A to B	Change 5
C to E	Change 3
1-1 to 1-21	Change 3
2-1 to 2-10	Change 3
3-1	Change 3
3-2 to 3-3	Change 5
3-4 to 3-7	Change 3
3-8 to 3-9	Change 5
3-10	Change 4
3-11	Change 3
3-12 to 3-17	Change 5
4-1 to 4-3	Change 3
5-1	Change 3
5-2 to 5-4	Change 5

The above list indicates the effective pages as of the date of issue. Upon receipt of change pages, insert them numerically and discard any superseded pages.

TABLE OF CONTENTS

	Page Number
Variable Feature Chart (Units Covered)	C
Photographs	D,E

SECTION 1 - Tape Punch (BRPE6 and up) and Base (BRPEB6 and up)

High Speed Tape Punch Base . . . . .	1-2
Tape Container . . . . .	1-4
Tape Out Contact Assembly . . . . .	1-6
Rear Plate . . . . .	1-8
Magnet and Toggle Link Mechanism . . . . .	1-10
Punch and Toggle Link Mechanism . . . . .	1-12
Main Shaft . . . . .	1-14
142925 Chad Box Assembly . . . . .	1-16
Front Cover . . . . .	1-18
Motor Cover . . . . .	1-20

SECTION 2 - Tape Punch (BRPE1, 2, 3 and 5) and Base (BRPEB2, 3 and 4)

Base Assembly . . . . .	2-2
Magnet Mounting Plate Assembly . . . . .	2-3
Punch Block Assemblies . . . . .	2-4
Tape Feed and Guide Parts . . . . .	2-5
Main Shaft Assembly . . . . .	2-6
Contact Box Mounting Plate . . . . .	2-7
Window Cover Assembly . . . . .	2-8
136127** Modification Kit to Equip a High Speed Tape Punch with a Motor Cover . . . . .	2-9
139956 Modification Kit to Add a Magnetic Pick-Up . . . . .	2-10

SECTION 3 - Motor Units

LMU3 and LMU15 Synchronous Motor Units . . . . .	3-2
113379 and 135259 Sets of Motor Mounting Drive Parts . . . . .	3-4
113762 Modification Kit to Provide Motor Mounting and Drive Parts . . . . .	3-6
143044 Modification Kit to Provide Motor Mounting and Drive Parts . . . . .	3-8
143062 Modification Kit to Provide Motor Mounting and Drive Parts . . . . .	3-10
LMU6 Series Motor Unit . . . . .	3-12, 3-14, 3-16

SECTION 4 - Miscellaneous Reference

Notes of Explanation . . . . .	4-2
Modification Kits . . . . .	4-3

SECTION 5 - Numerical Index

VARIATIONS IN THE HIGH SPEED TAPE PUNCHES									
TAPE PUNCH (BRPE)		1	2	3	5	6	7	8	9
ASSOCIATED BASE (BRPEB)		4	2	3	2	6	Note 1	7	8
ASSOCIATED COVER		136127	X	X	X	Y			
		BRPEC					X		X
UNIT CODE	FIVE	X		X			X		X
	SIX				X				
	SEVEN		X						
	EIGHT					X		X	
STYLE OF FEED HOLE	IN-LINE	X	X	X		X	X	X	X
	ADVANCED				X				
TAPE PERFORATIONS	FULLY PERFORATED	X	X	X	X	X	X	X	X
	CHADLESS								
WIDTH OF TAPE	11/16"	X		X			X		X
	7/8"		X		X	X		X	
	1"					X		X	
NUMBER OF TIMING CONTACTORS	ONE			X		Note 2	Note 2	Note 2	Note 2
	TWO	X	X		X				
MANUAL TAPE FEED OUT		X	X		X	X	X	X	X
TAPE OUT ALARM				X		X		X	X
MOTOR SWITCH		X	X		X	X		X	X
TUBE CONTROLLED		X	X	X	X			X	
TRANSISTOR CONTROLLED						X	X		X
CABLES	TAPE PUNCH	135084	124347	135683	135186	142886	170757	142938	142800
	BASE	124393	124393	136420	124393	142961		142939	143009

Note 1:

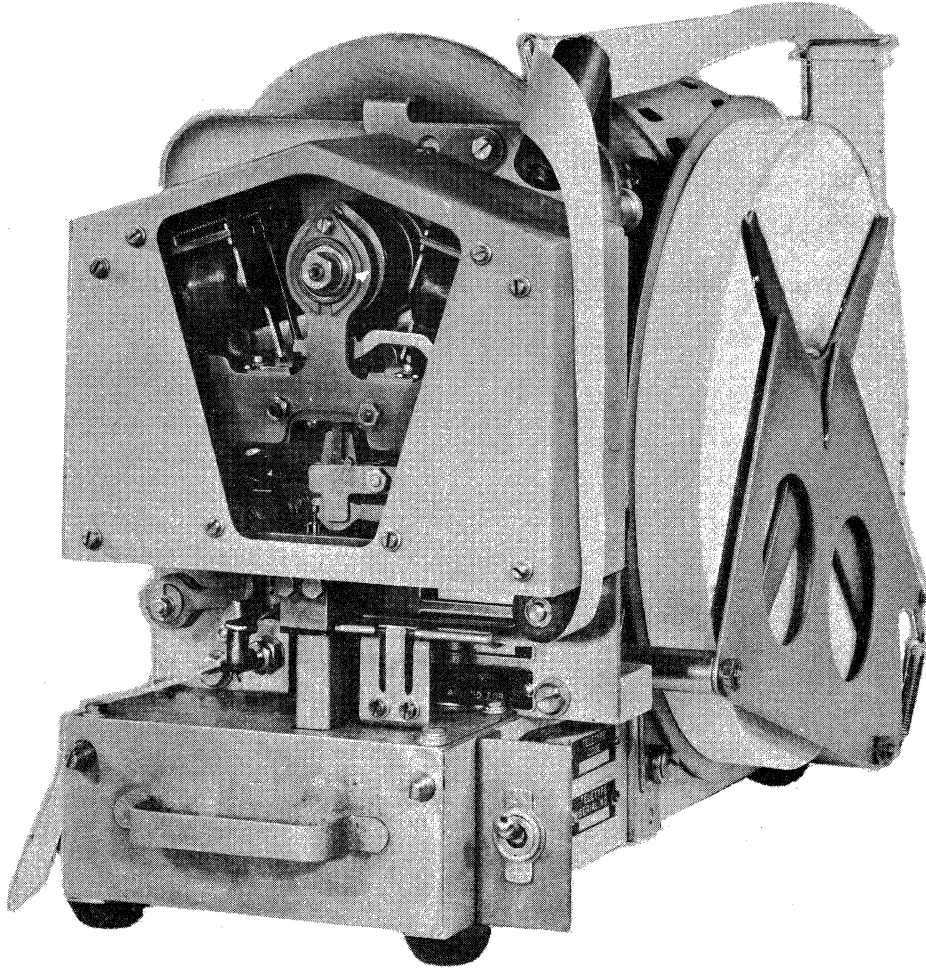
associated base (LRXB), component of the reperforator transmitter set (refer to 1168B).

Note 2:

Magnetic pickup replaced contactors.

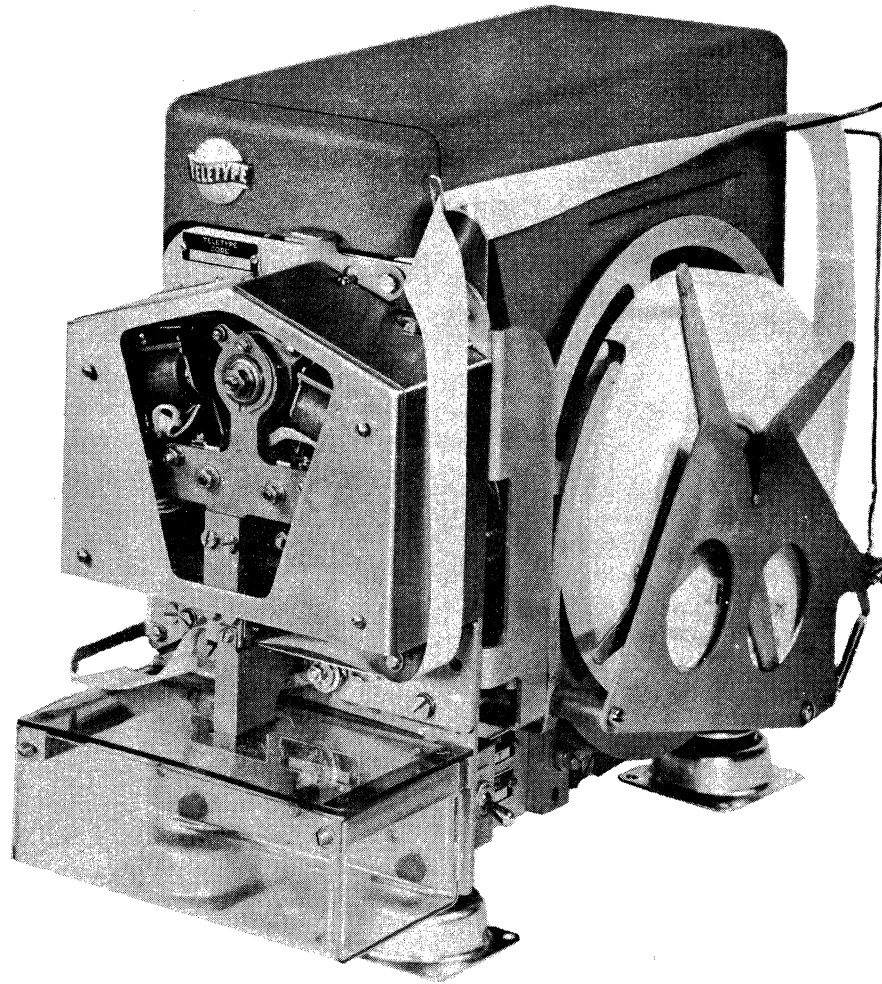
PAINT FINISH COLOR CODE CHART (for parts and assemblies requiring a paint finish)					
SMOOTH FINISHES			WRINKLE FINISHES		
Suffix	Color	Bell System Code	Suffix	Color	Bell System Code
BB	Black Semi-Gloss	34	AA	Black	37
BA	Black High Gloss				
BK	Gray Green		AB	Gray Green	40
			AC	Light Brown	
			AD	Dark Brown	38
BH	Light Gray		AF	Federal Gray	
BU	Light Gray Semi-Gloss				
BV	Federal Gray				
BZ	Charcoal Gray				
BX	Sunland Beige				
Suffix to be applied following the part number.					

1154B



HIGH SPEED TAPE PUNCH (BRPE1 THROUGH BRPE5)

CONSISTS OF A REPERFORATOR UNIT (BRPE), MOTOR UNIT (LMU) AND A BASE (BRPEB)



HIGH SPEED TAPE PUNCH (BRPE6 AND UP)

CONSISTS OF A REPERFORATOR UNIT (BRPE), MOTOR UNIT (LMU), BASE (BRPEB) AND A COVER (BRPEC200)

# **SECTION 1**

**TAPE PUNCH (BRPE6 AND UP)  
AND BASE (BRPEB6 AND UP)**

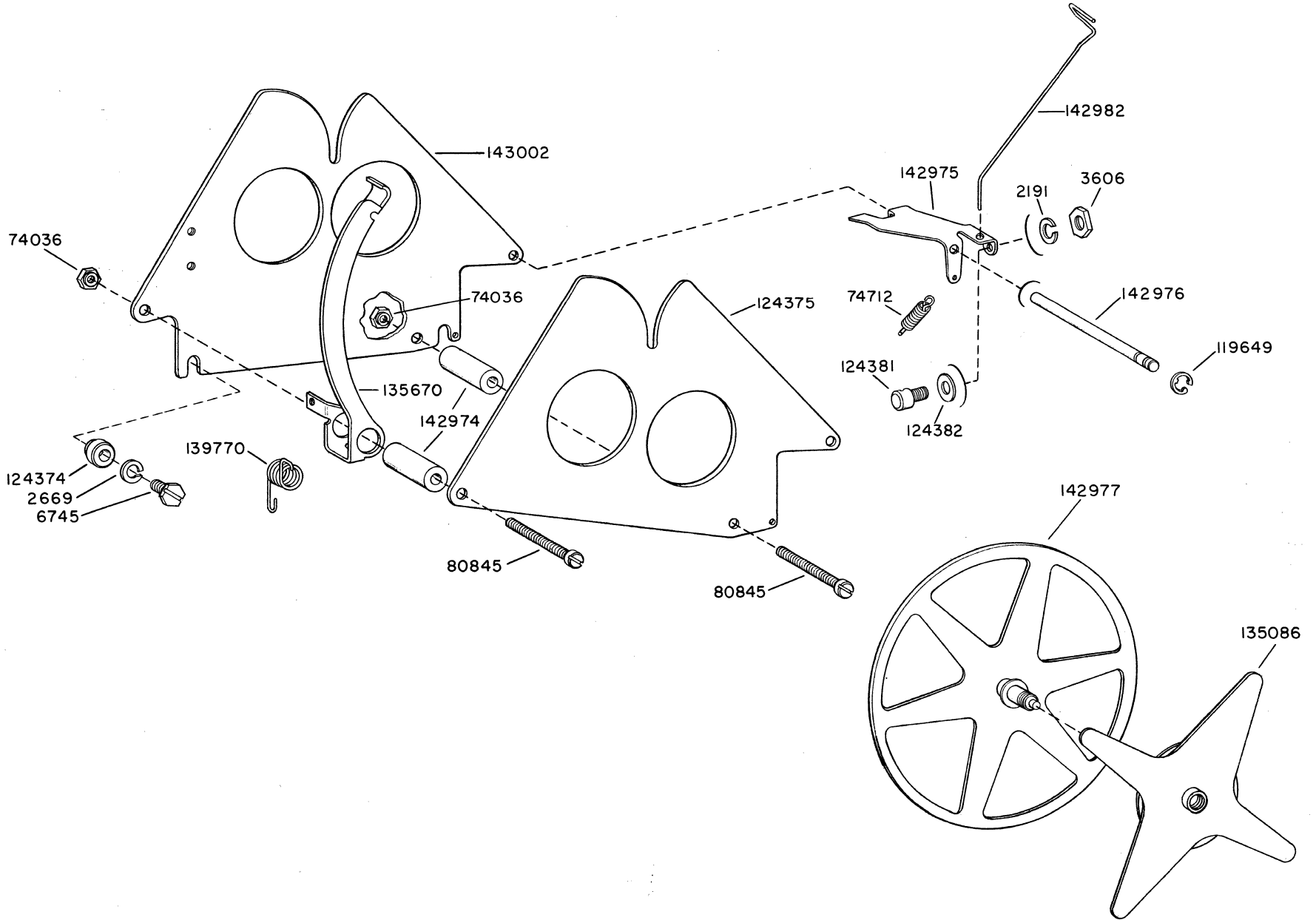




## NUMERICAL INDEX - FIGURE 1-1

Part Number	Description
1036	Nut (6-40 Hex)
2191	Washer, Lock
2449	Washer, Lock
2669	Washer, Lock
7002	Washer, Flat
70072	Washer, Lock
74805	Screw (10-32 x 3/4 Hex)
82474	Terminal
85020	Screw, Shoulder (10-32)
91683	Nut (15/32-32 Hex)
91684	Nut (15/32-32 Ring)
93985	Washer, Lock
98726	Screw (3-48 x 1/4 Fil)
111017	Screw (6-40 x 5/16 Rd)
114466	Connector, Receptacle
114467	Connector, Plug
114589	Mount, Vibration
119337	Plate, Name
124396	Switch Assembly
130361	Nut (1/4-32 Hex)
131098	Terminal
142898	Connector, Plug (24 Pt.)
142899	Connector, Receptacle (24 Pt.)
142915	Bracket, Mounting
142939	Cable Assembly
142950	Bar, Left
142951	Bar, Right
142952	Plate, Mounting
142953	Post
142954	Stud
142955	Bracket, Rear Left
142956	Bracket, Right Rear
142959	Plate
142961	Cable Assembly, Base
142964	Board Assembly, Terminal
142965	Board Assembly, Terminal
142966	Resistor
142970	Post
142971	Strip, Rear
142972	Strip, Front
142985	Cable Assembly, Motor
150966	Insulator
151335	Stud
151346	Screw (6-40 x 3/8 Fil)
151415	Block, Insulating
151626	Terminal
151657	Screw (6-40 x 1/4 Fil)
151723	Screw (10-32 x 3/8 Hex)
151724	Screw (10-32 x 5/8 Hex)
154661	Rectifier
154697	Grommet, Rubber
155752	Sleeve, Insulating
156768	Screw (8-32 x 9/32 Hex)

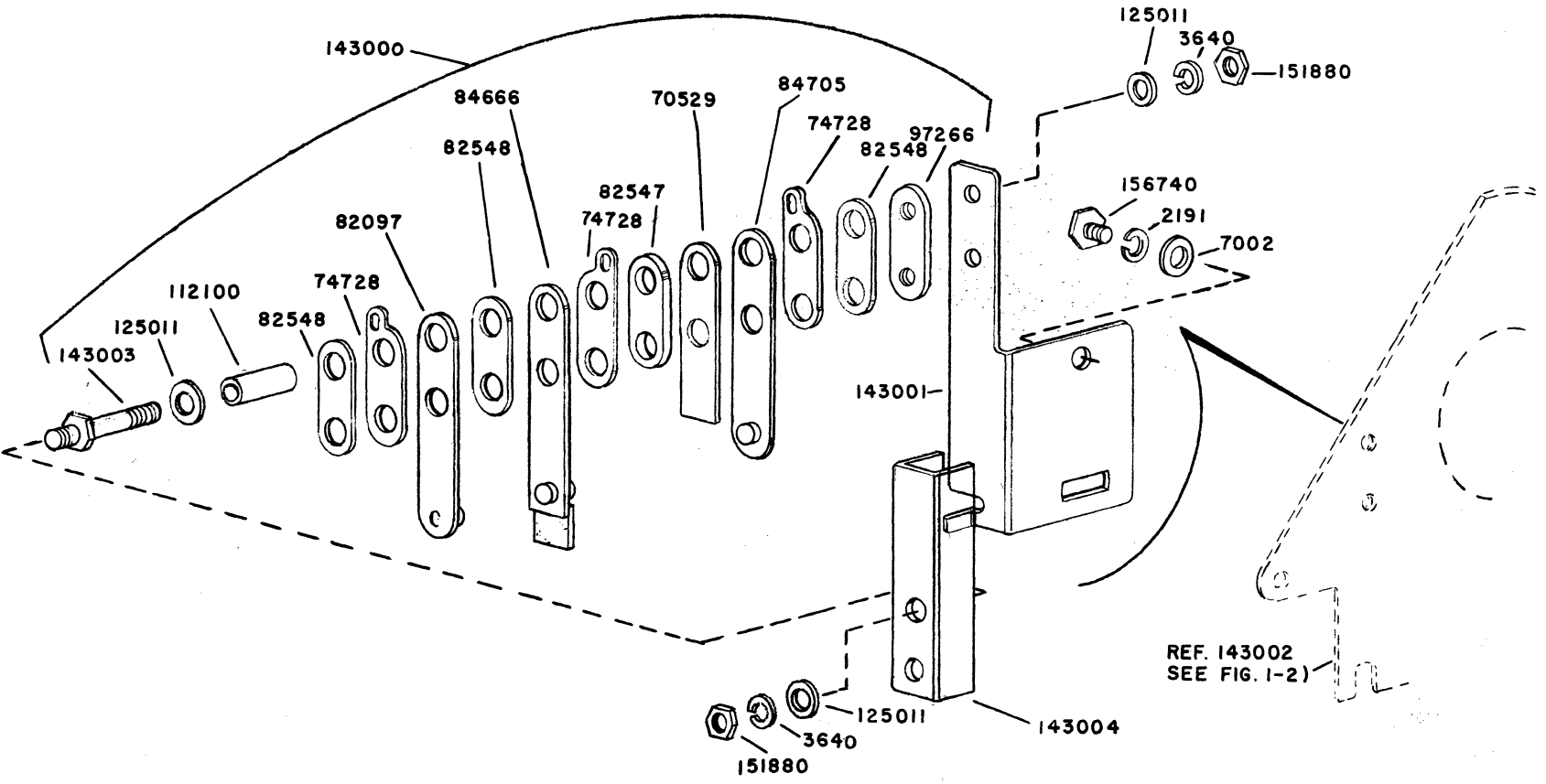
FIGURE I-2 TAPE CONTAINER ASSEMBLY



## NUMERICAL INDEX - FIGURE 1-2

Part Number	Description
2191	Washer, Lock
2669	Washer, Lock
3606	Nut (6-40 Hex)
6745	Screw (10-32 x 1/2 Hex)
74036	Nut (10-32 Hex)
74712	Spring
80845	Screw (10-32 x 1-13/16 Fil)
119649	Ring, Retaining
124374	Bushing
124375	Plate, Front
124381	Stud
124382	Washer, Flat
135086	Retainer, Tape
135670	Lever, Alarm
139770	Spring
142974	Roller
142975	Brake
142976	Shaft
142977	Reel, Tape
142982	Guide, Tape
143002	Plate, Rear

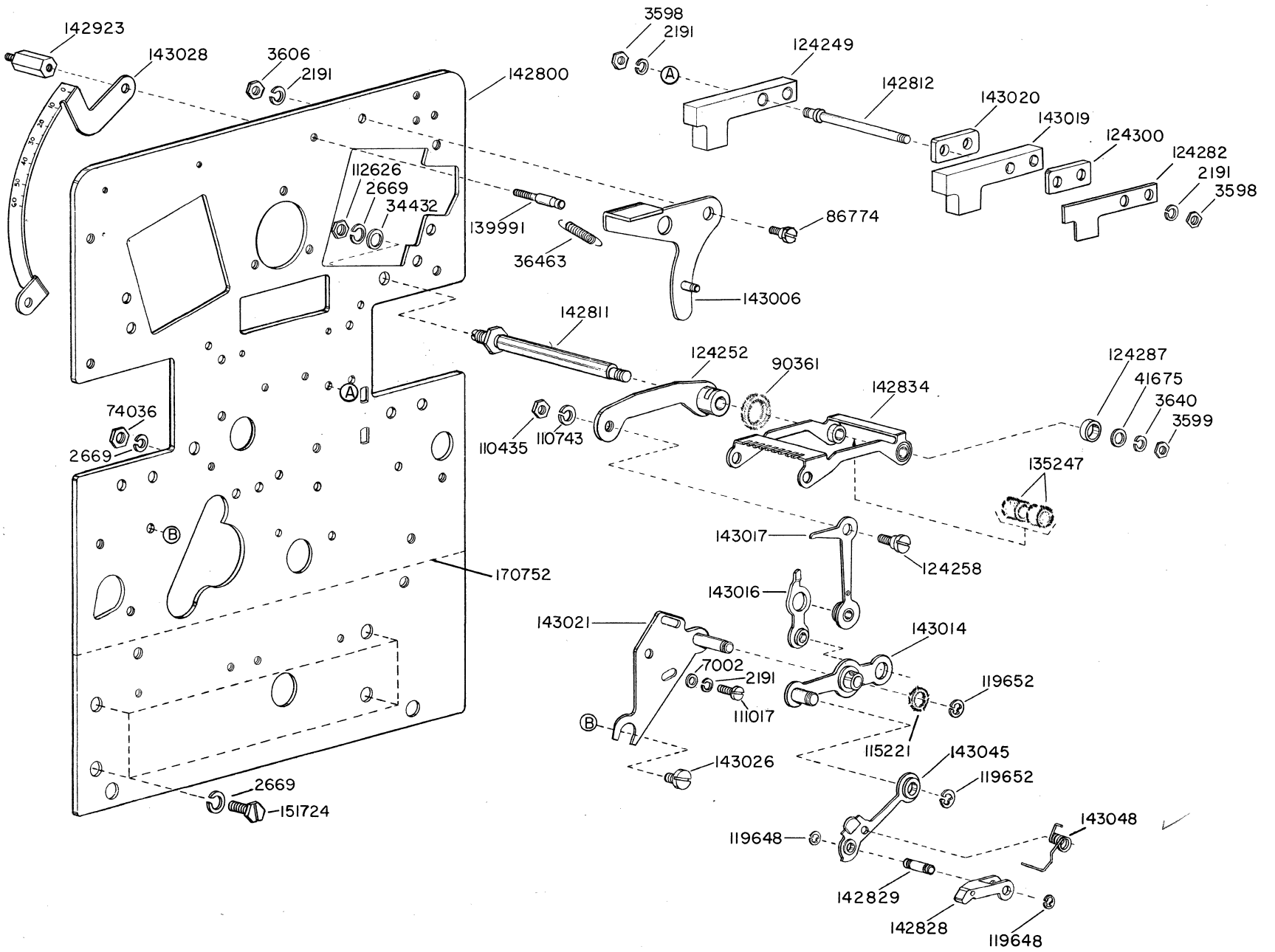
FIGURE 1-3 TAPE OUT CONTACT ASSEMBLY



## NUMERICAL INDEX - FIGURE 1-3

Part Number	
2191	Washer, Lock
3640	Washer, Lock
7002	Washer, Flat
70529	Stiffener
74728	Terminal
82097	Spring, Contact
82547	Insulator
82548	Insulator
84666	Spring, Contact
84705	Spring, Contact
97266	Plate, Clamp
112100	Bushing, Insulating
125011	Washer, Flat
143000	Contact Assembly, Tape Out
143001	Bracket
143003	Stud
143004	Cover, Insulating
151880	Nut (4-40 Hex)
156740	Screw (6-40 x 7/32 Hex)

FIGURE 1-4 REAR PLATE

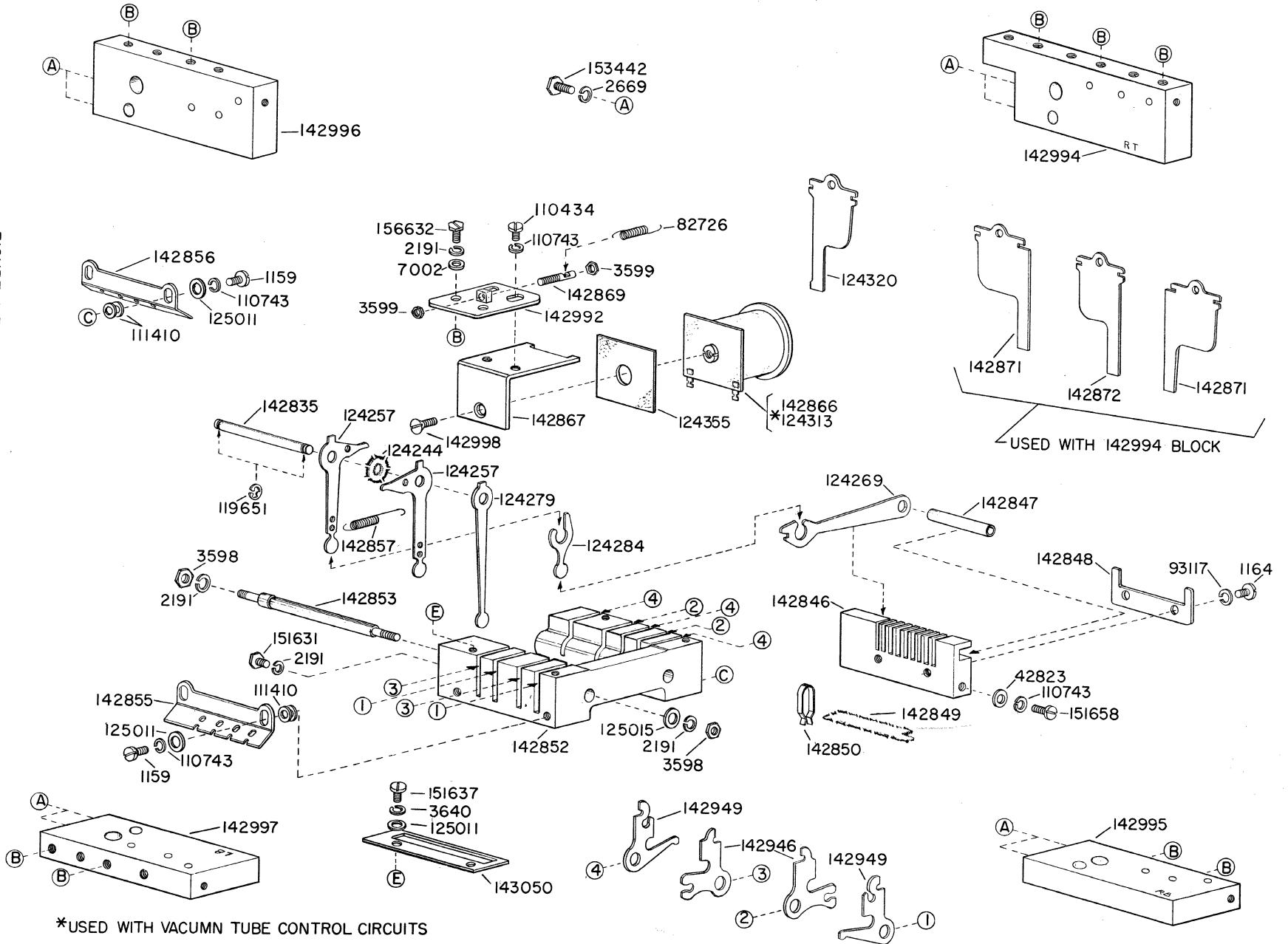


## NUMERICAL INDEX - FIGURE 1-4

Part Number	Description
2191	Washer, Lock
2669	Washer, Lock
3598	Nut (6-40 Hex)
3599	Nut (4-40 Hex)
3606	Nut (6-40 Hex)
3640	Washer, Lock
7002	Washer, Flat
34432	Washer, Flat
41675	Flat
36463	Spring
86774	Screw, Shoulder (6-40)
90361	Washer, Felt
110435	Nut (4-40 Hex)
110743	Washer, Lock
111017	Screw (6-40 x 5/16 Rd)
112626	Nut (10-32 Hex)
115221	Washer, Felt
119648	Ring, Retaining
119652	Ring, Retaining
124249	Spacer
124258	Screw, Shoulder (4-40)
124282	Spacer
124287	Spacer
124300	Spacer
125252	Spring
135247	Oiler, Felt
139991	Post, Spring
142800	Plate, Rear
142811	Stud, Eccentric
142812	Stud, Toggle Arm Spacer
142828	Pawl, Feed
142829	Pin
142834	Bail, Toggle Arm
142923	Post
143006	Lever W/Post
143014	Link W/Hub and Stud
143016	Arm W/Pin, Toggle
143017	Arm, Toggle
143019	Spacer
143020	Spacer
143021	Plate W/Post & Stud
143026	Eccentric
143028	Scale
143045	Link W/Bushings
143048	Spring
151724	Screw (10-32 x 5/8 Hex)
170752	Plate, Rear



FIGURE 1-5 MAGNET AND TOGGLE LINK MECHANISM

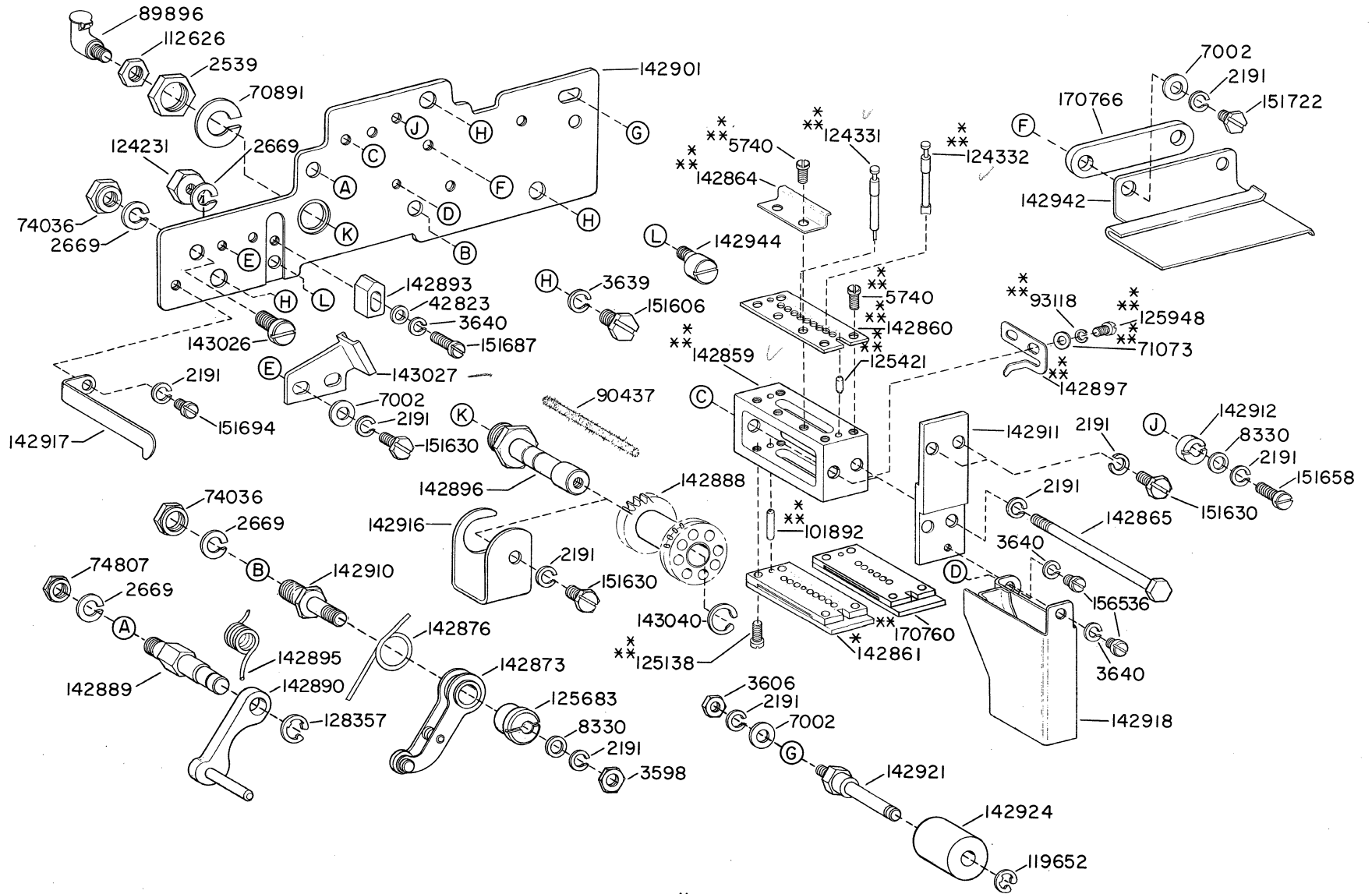


\*USED WITH VACUMN TUBE CONTROL CIRCUITS

## NUMERICAL INDEX - FIGURE 1-5

Page Number	Description
1159	Screw (4-40 x 3/8 Fil)
1164	Screw (2-56 x 3/16 Fil)
2191	Washer, Lock
2669	Washer, Lock
3598	Nut (6-40 Hex)
3599	Nut (4-40 Hex)
3640	Washer, Lock
7002	Washer, Flat
42823	Washer, Flat
82726	Spring
93117	Washer, Lock
110434	Screw (4-40 x 3/16 Fil)
110435	Nut (4-40 Hex)
110743	Washer, Lock
111410	Washer, Flat
119651	Ring, Retaining
124244	Washer, Felt
124257	Arm, Toggle
124269	Link
124279	Link, Feed Punch
124284	Arm, Toggle
124313	Magnet Assembly (25 MA at 120 V.DC)
124320	Armature
124355	Insulator
125011	Washer, Flat
125015	Washer, Flat
142835	Shaft, Toggle Arm
142846	Bracket, Link Pivot
142847	Shaft, Link
142848	Clamp, Link Pivot Bracket
142849	Wick, Felt
142850	Clamp
142852	Bracket, Arm Stop
142853	Stud, Arm Stop Bracket
142855	Bracket, Spring (Left)
142856	Bracket, Spring (Right)
142857	Spring
142866	Magnet Assembly (1A at 28 V.DC)
142867	Yoke
142869	Screw, Adjusting (4-40)
142871	Armature
142872	Armature
142946	Pawl
142949	Pawl
142992	Plate W/Post
142994	Bar, Magnet Mounting (RT)
142995	Bar, Magnet Mounting (RB)
142996	Bar, Magnet Mounting (LT)
142997	Bar, Magnet Mounting (LB)
142998	Screw, Special (6-40)
143050	Plate, Stop
151631	Screw (6-40 x 5/16 Hex)
151637	Screw (4-40 x 1/4 Fil)
151658	Screw (6-40 x 5/16 Fil)
153442	Screw (10-32 x 1/2 Hex)
156632	Screw (6-40 x 13/32 Hex)

FIGURE I-6 PUNCH AND FEED MECHANISM



\* PART OF 142858  
 \*\* PART OF 170751

## NUMERICAL INDEX FIGURE 1-6

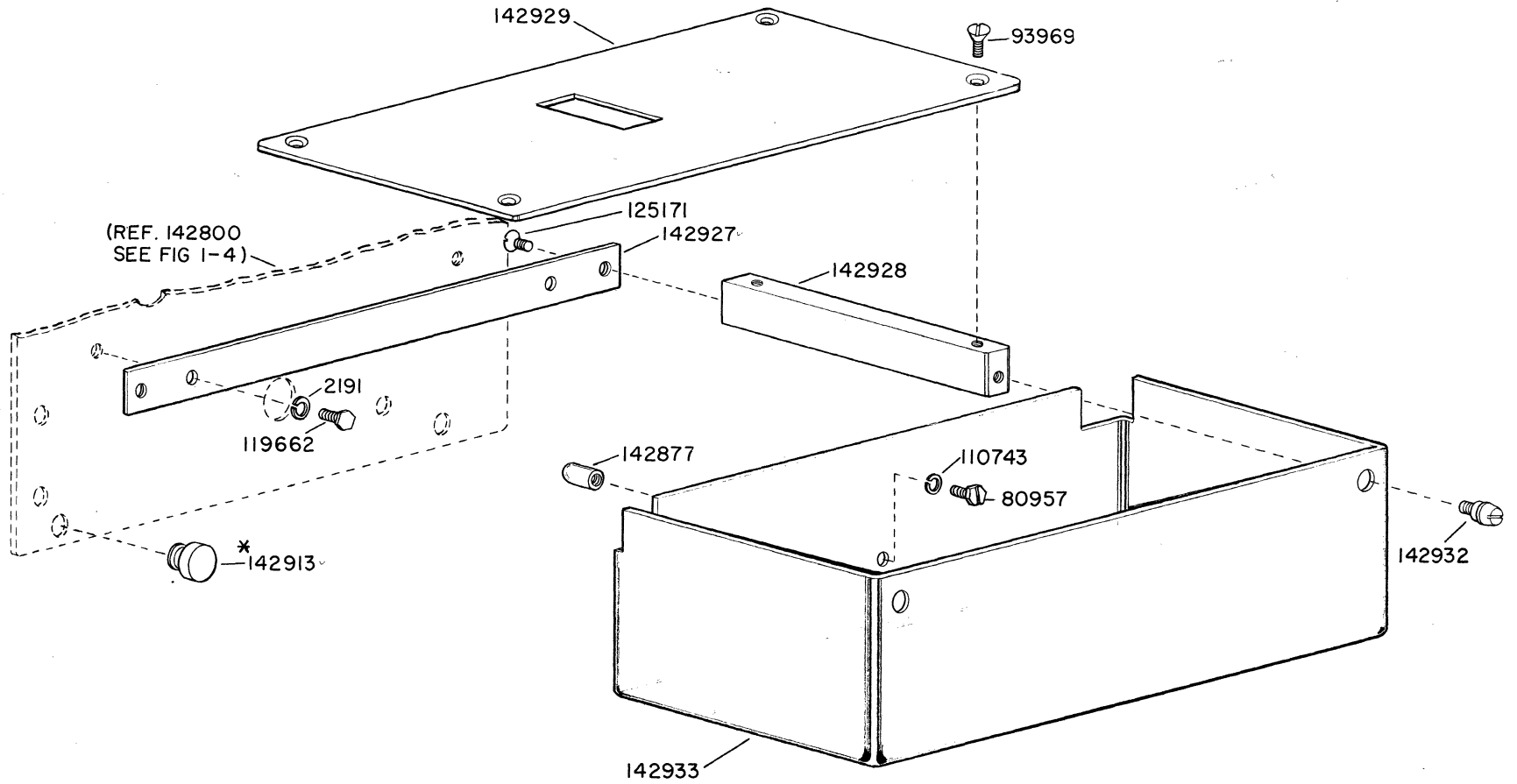
Part Number	Description	Part Number	Description
2191	Washer, Lock	143040	Ring, Retaining
2539	Nut (3/8 - 32 Hex)	151606	Screw (10-32 x 1/4 Hex)
2669	Washer, Lock	151630	Screw (6-40 x 1/4 Hex)
3598	Nut (6-40 Hex)	151658	Screw (6-40 x 5/16 Fil)
3606	Nut (6-40 Hex)	151687	Screw (4-40 x 7/16 Fil)
3639	Washer, Lock	151694	Screw (6-40 x 11/32 Fil)
3640	Washer, Lock	151722	Screw (6-40 x 3/16 Hex)
5740	Screw (2-56 x 1/4 Fil)	156536	Screw (4-40 x 1/8 Fil)
7002	Washer, Flat	170760	Plates, Guide & Die Set
8330	Washer, Flat	170766	Spacer
42823	Washer, Flat		
70891	Washer, Lock		
71073	Washer, Flat		
74036	Nut (10-32 Hex)		
74807	Nut (10-32 Hex)		
89896	Oiler		
90437	Wick, Oil		
93118	Washer, Lock		
101892	Dowel		
112626	Nut (10-32 Hex)		
119652	Ring, Retaining		
124231	Nut (10-32 Hex)		
124331	Punch, Feed		
124332	Punch, Code		
125138	Screw (2-56 x 3/8 Fil)		
125421	Dowel		
125683	Bushing, Eccentric		
125948	Screw (2-56 x 1/8 Fil)		
128357	Ring, Retaining		
142858	Block Assembly, Punch		
142859	Block, Punch		
142860	Plate, Guide		
142861	Plates, Guide & Die Set		
142864	Backstop		
142865	Screw (6-40 x 2-1/32 Hex)		
142873	Arm, Detent		
142876	Spring		
142888	Wheel, Feed		
142889	Post, Tape Lid		
142890	Lid, W/Arm Tape		
142893	Block, Pawl		
142895	Spring		
142896	Shaft, Feed Wheel		
142897	Spring		
142901	Plate		
142910	Stud Detent Support		
142911	Plate, Connecting		
142912	Bushing, Eccentric		
142916	Guide, Tape		
142917	Cutter, Tape		
142918	Chut, Chad		
142921	Stud		
142924	Roller		
142942	Bracket, Tape Guide		
143026	Eccentric		
143027	Guide		



## NUMERICAL INDEX - FIGURE 1-7

Page Number	Description
2191	Washer, Lock
2539	Nut, (3/8-32 Hex)
2669	Washer, Lock
3599	Nut (4-40 Hex)
3640	Washer, Lock
7002	Washer, Flat
42823	Washer, Flat
73175	Washer, Lock
74036	Nut (10-32 Hex)
76983	Screw (4-40 x 1-1/4 Fil)
101633	Washer, Flat
104807	Washer, Flat
110743	Washer, Lock
124289	Bearing, Ball
124301	Spacer
139958	Disk
139962	Flywheel W/Block
139997	Washer, Spring
142801	Housing, Bearing
142803	Screw (10-32 x 3/16 Set)
142805	Spacer
142806	Shield, Feed Bearing
142807	Bearing
142808	Link, Feed Bearing
142809	Clamp
142810	Shield, Feed Bearing
142833	Arm, Bearing
142838	Spacer
142839	Bearing
142840	Clamp, Bearing
142841	Counterweight
142842	Key
142844	Spacer, Bearing Arm
142845	Clip, Bearing
142880	Plate, Front
142882	Clamp, Bearing
142887	Retainer
151073	Screw (4-40 x 5/32 Fil)
151630	Screw (6-40 x 1/4 Hex)
151633	Bearing Ball
151637	Screw (4-40 x 1/4 Fil)
151660	Screw (6-40 x 7/8 Fil)
151880	Nut (4-40 Hex)
152426	Nut, Self Locking
171692	Shaft

FIGURE 1-8 142925 CHAD BOX ASSEMBLY



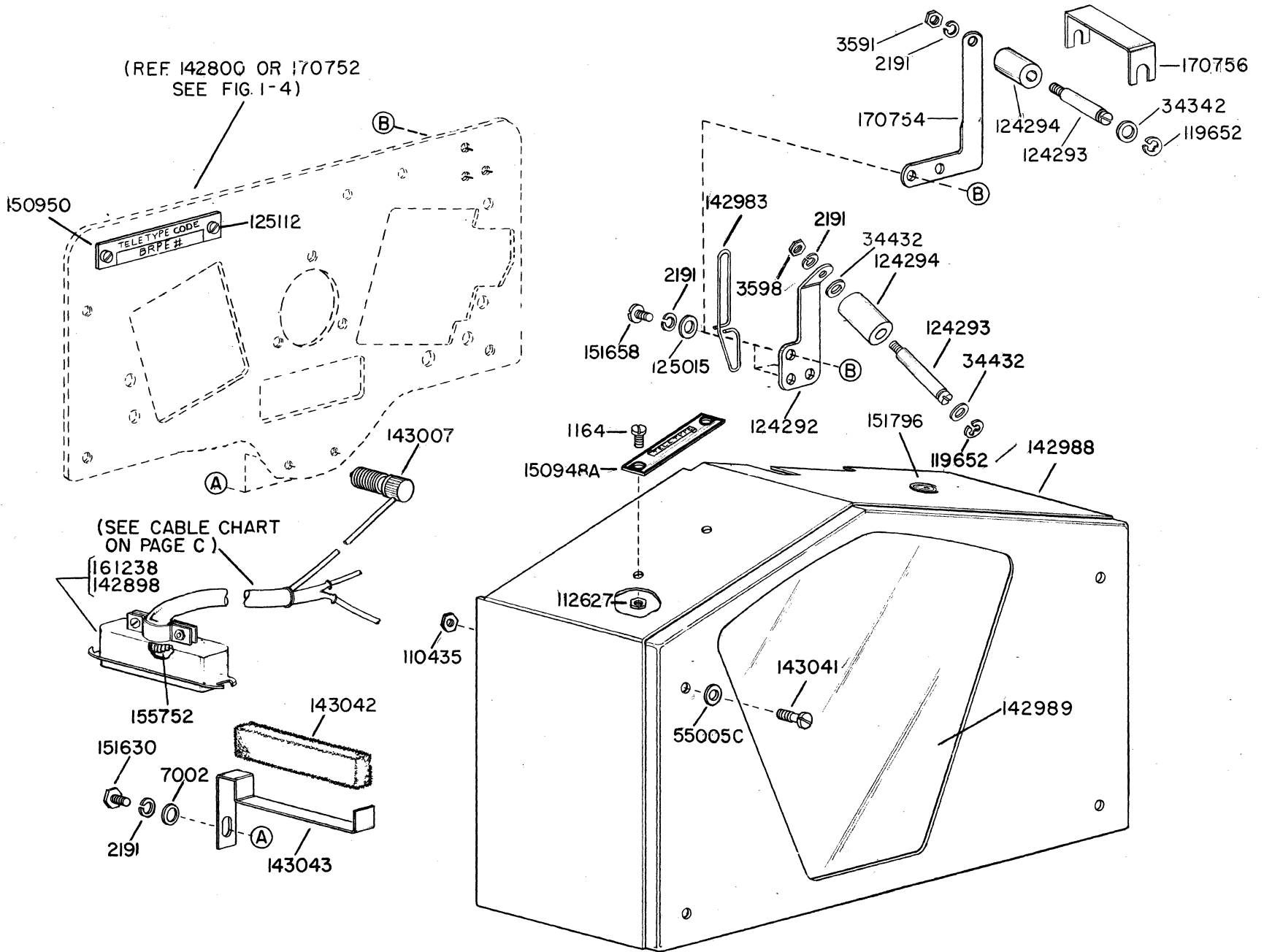
\* NOT PART OF 142925

## NUMERICAL INDEX - FIGURE 1-8

Part Number	Description
2191	Washer, Lock
80957	Screw (4-40 x 1/4 Hex)
93969	Screw (4-40 x 3/16 Flat)
110743	Washer, Lock
119662	Screw (6-40 x 5/32 Hex)
125171	Screw (10-32 x 1/2 Flat)
142877	Post
142913	Bumper, Rubber
142927	Bar
142928	Bar
142929	Cover, Chad
142932	Stud
142933	Box, Chad



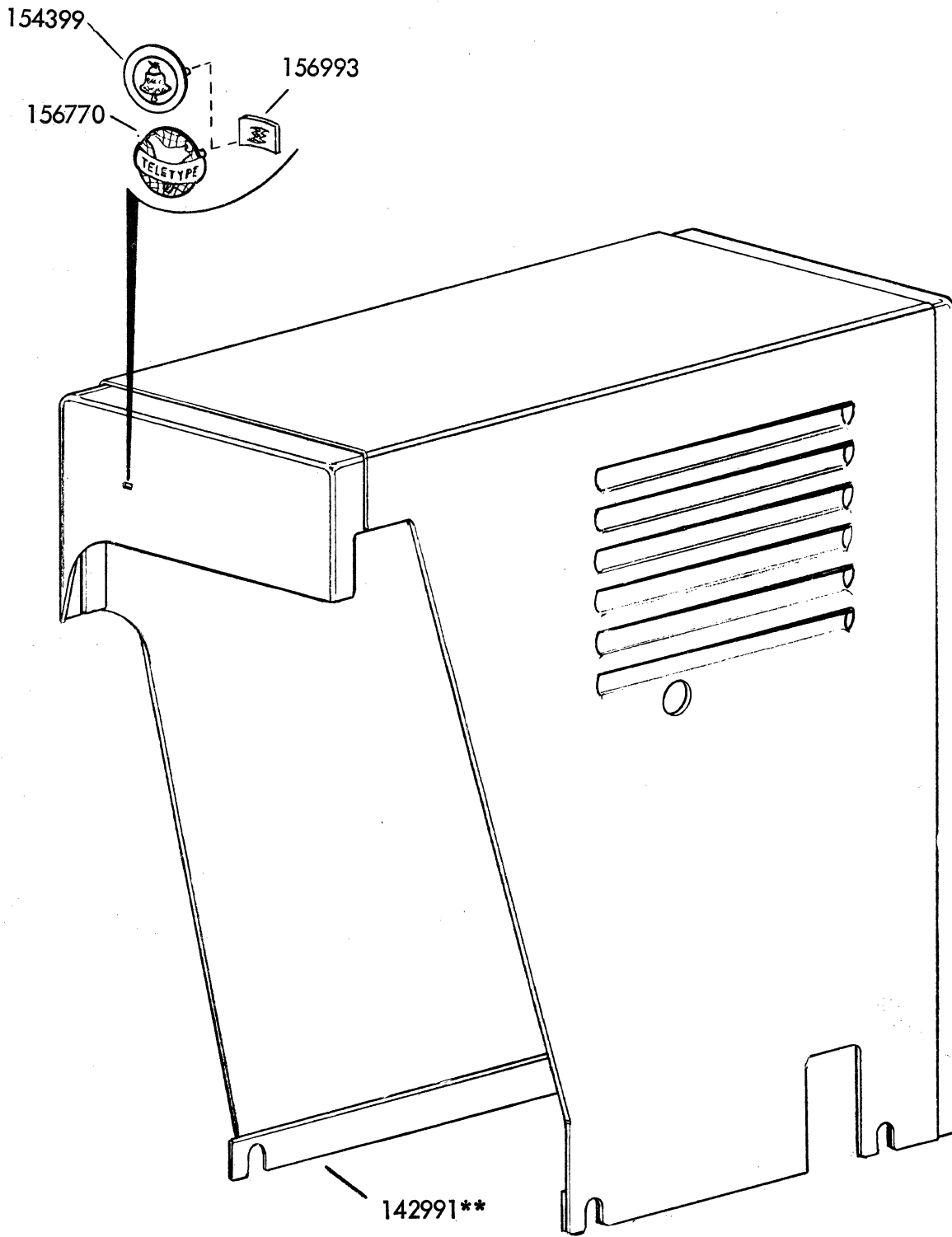
FIGURE 1-9 FRONT COVER



NUMERICAL INDEX - FIGURE 1-9

Part Number	Description
1164	Screw (2-56 x 3/16 Fil)
3598	Nut (6-40 Hex)
7002	Washer, Flat
34432	Washer, Flat
55005C	Washer, Flat
110435	Nut (6-40 Hex)
112627	Nut (2-56 Hex)
119652	Ring, Retaining
124292	Bracket
124293	Stud
124294	Roller
125015	Washer, Flat
125112	Screw (2-56 x 1/8 Fil)
142889	Post, Tape Lid
142983	Guide, Tape
142988	Cover W/Window
142989	Window
143007	Pick-up, Magnetic
143041	Screw, Special (4-40)
143042	Oiler, Felt
143043	Bracket
150948A	Plate, Identification
150950	Plate, Identification
151630	Screw (6-40 x 1/4 Hex)
151658	Screw (6-40 x 5/16 Fil)
151796	Plate, Identification
155752	Sleeve, Insulating
161238	Connector, Receptacle (36 Pt.)
170754	Bracket, Tape Guide Mtg.
170756	Bracket, Tape Guide

*Bunch feed pin* 124331  
*Bunch code pin* 124332  
*Guide Plate* 142860  
~~*Stud*~~  
~~*Stud*~~ *detent support* 142910  
*Magnet assembly, 28* 142866  
*Belt* 135097  
~~*Pie Block & Channel* 143056-1~~  
  
*Backstop* 142864  
*Plates, guide* } 142861  
*and die set* }  
  
*Bunch block assembly*  
*8 unit code with in* 143056-1  
*line feed hole*



\*\* SEE COLOR CODE CHART ON PAGE C

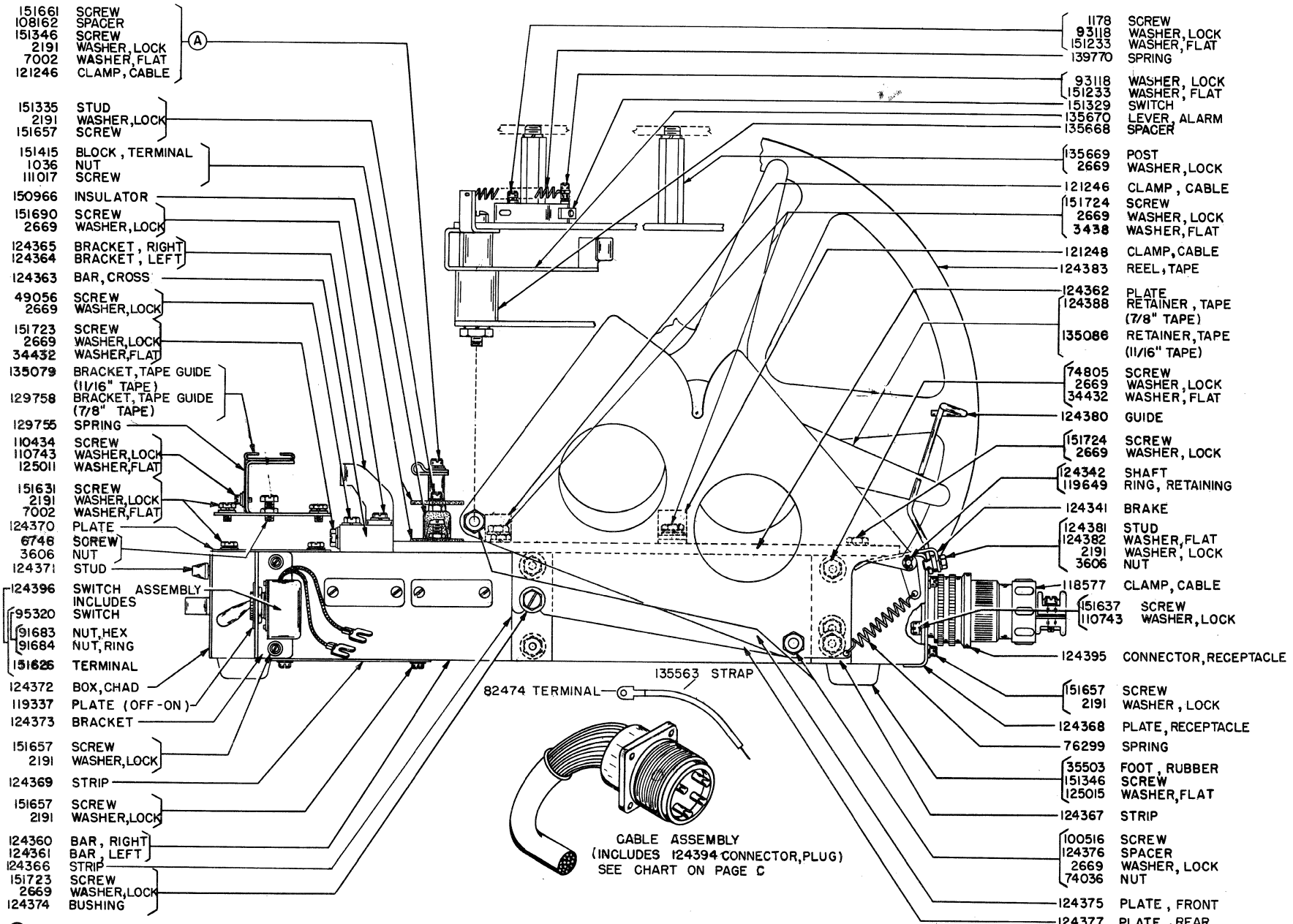
FIGURE 1-10. MOTOR COVER (BRPEC)

## NUMERICAL INDEX - FIGURE 1-10

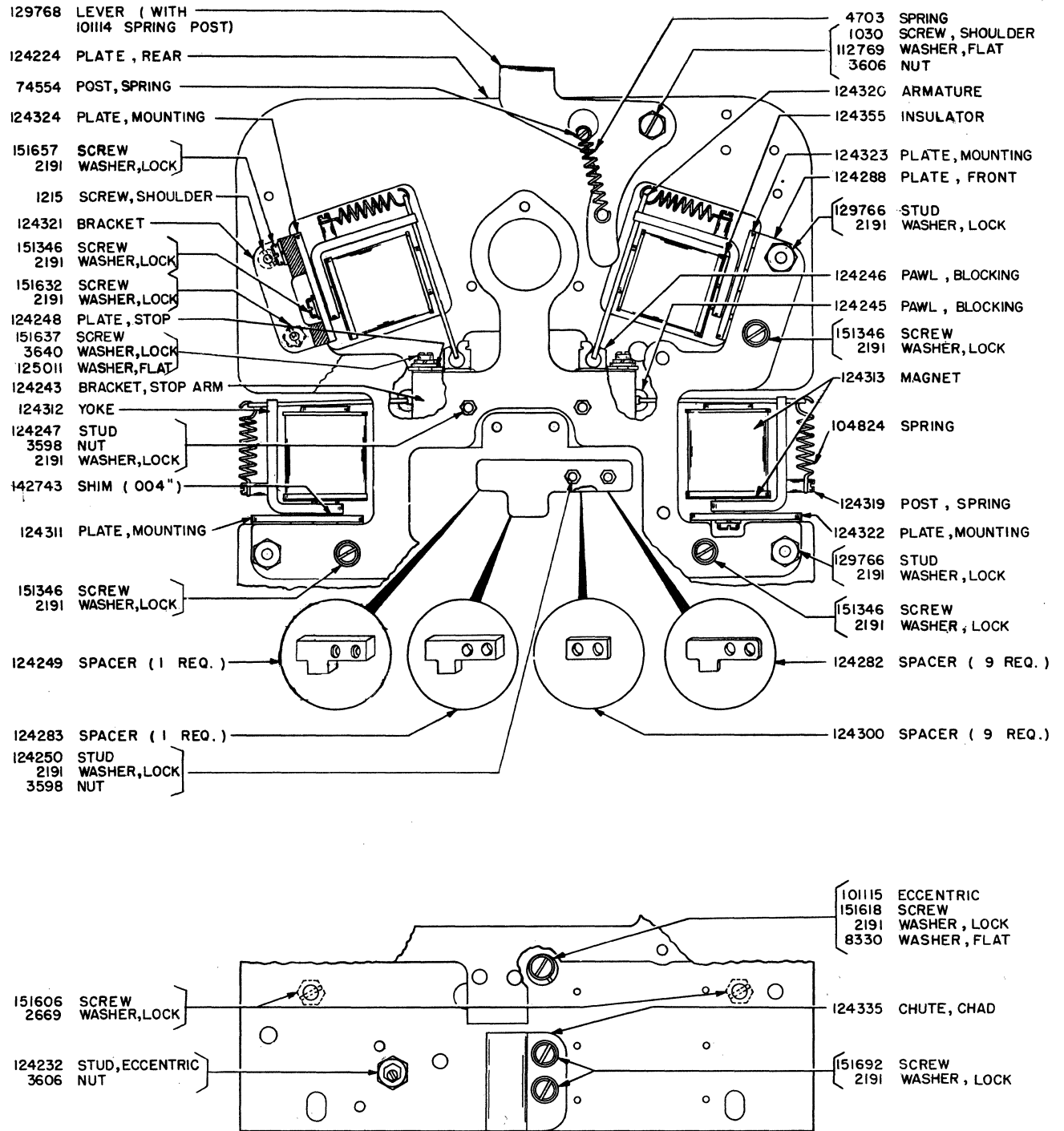
Part Number	Description
142991**	Cover
154399	Plate, Identification (Bell)
156770	Plate, Identification (Teletype)
156993	Nut, Speed

## **SECTION 2**

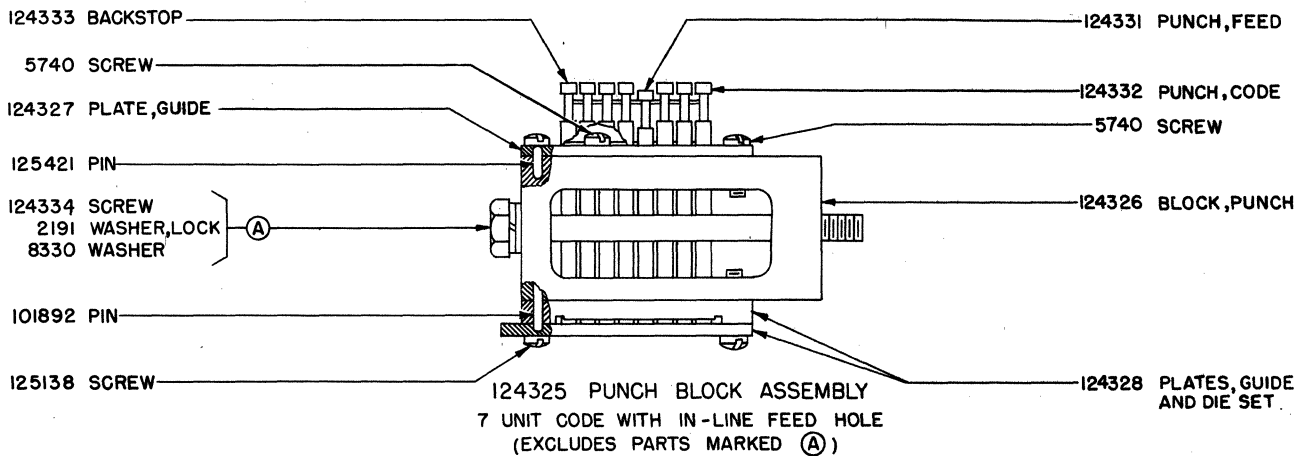
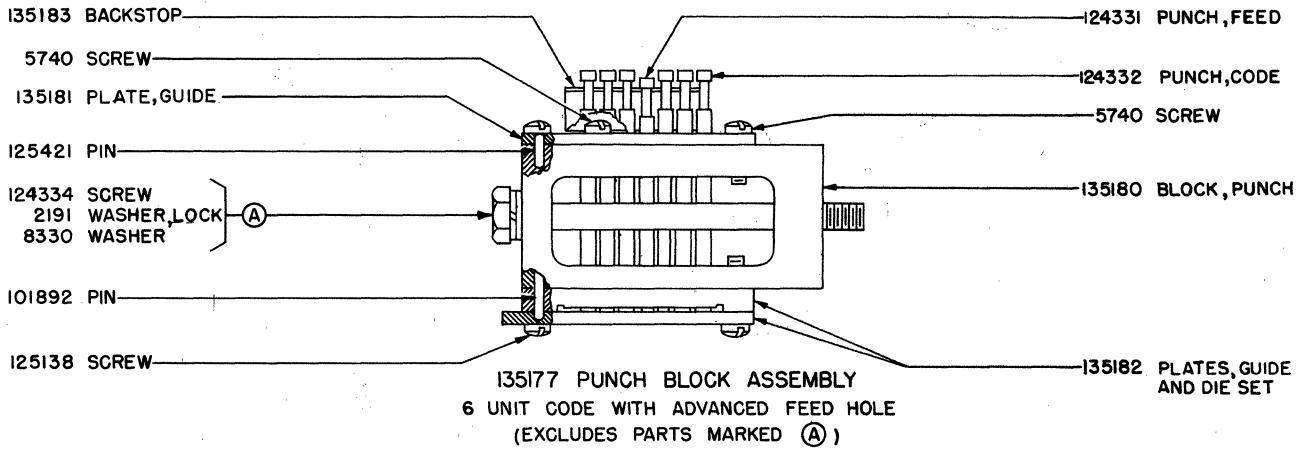
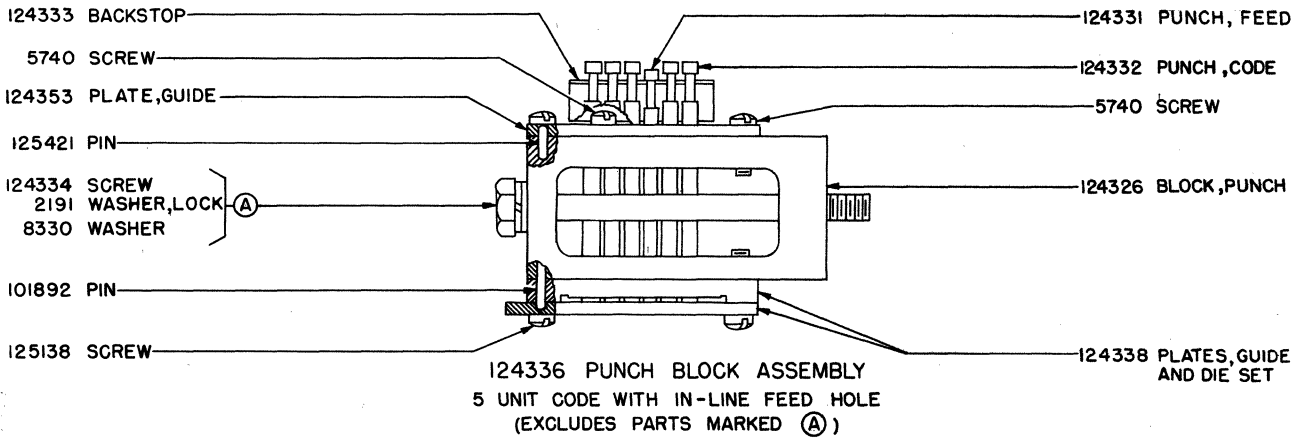
**TAPE PUNCHES (BRPEI, 2, 3 AND 5)**



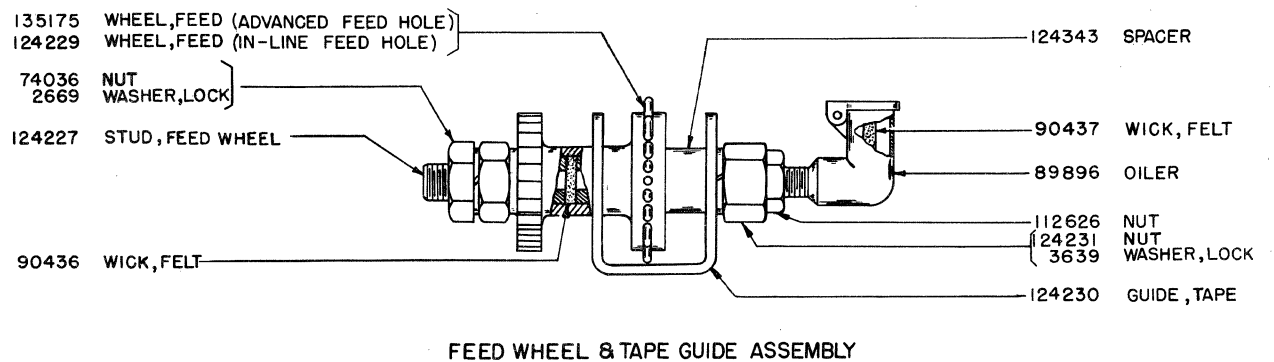
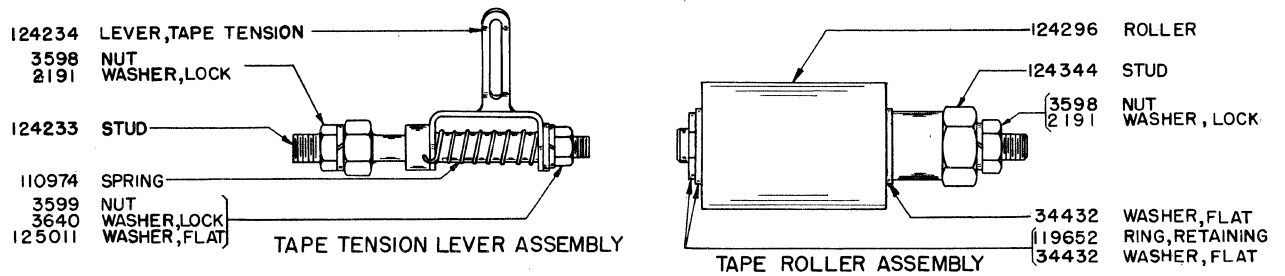
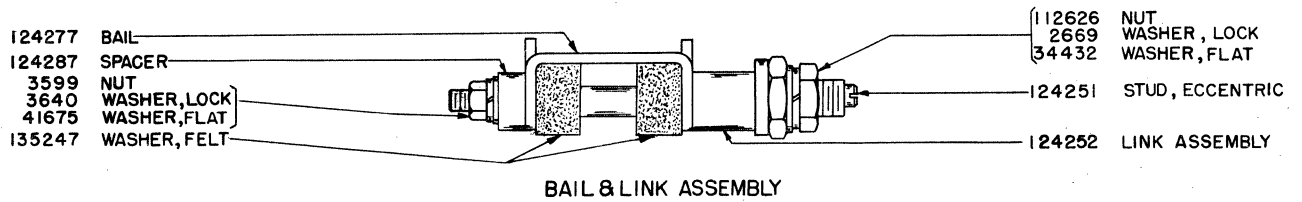
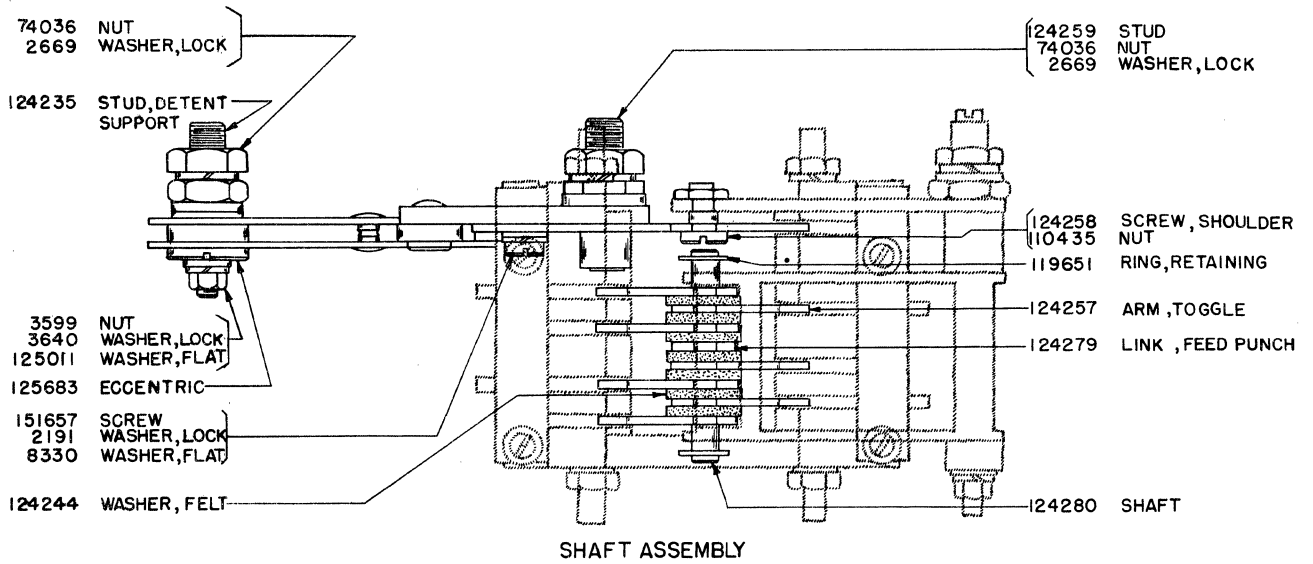
BASE ASSEMBLY

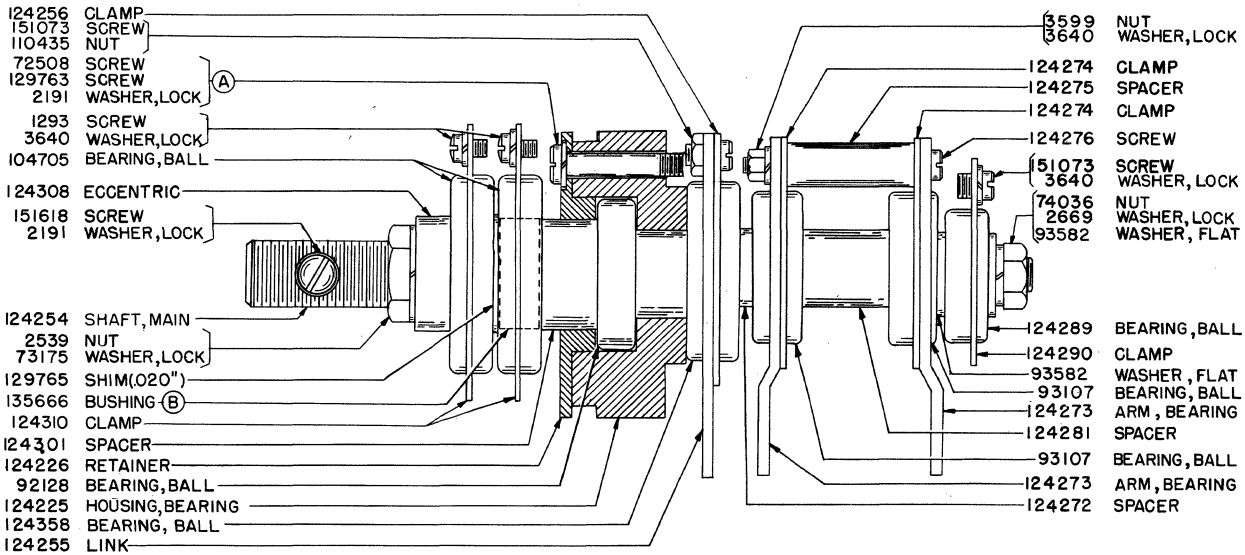


MAGNET MOUNTING PLATE ASSEMBLY

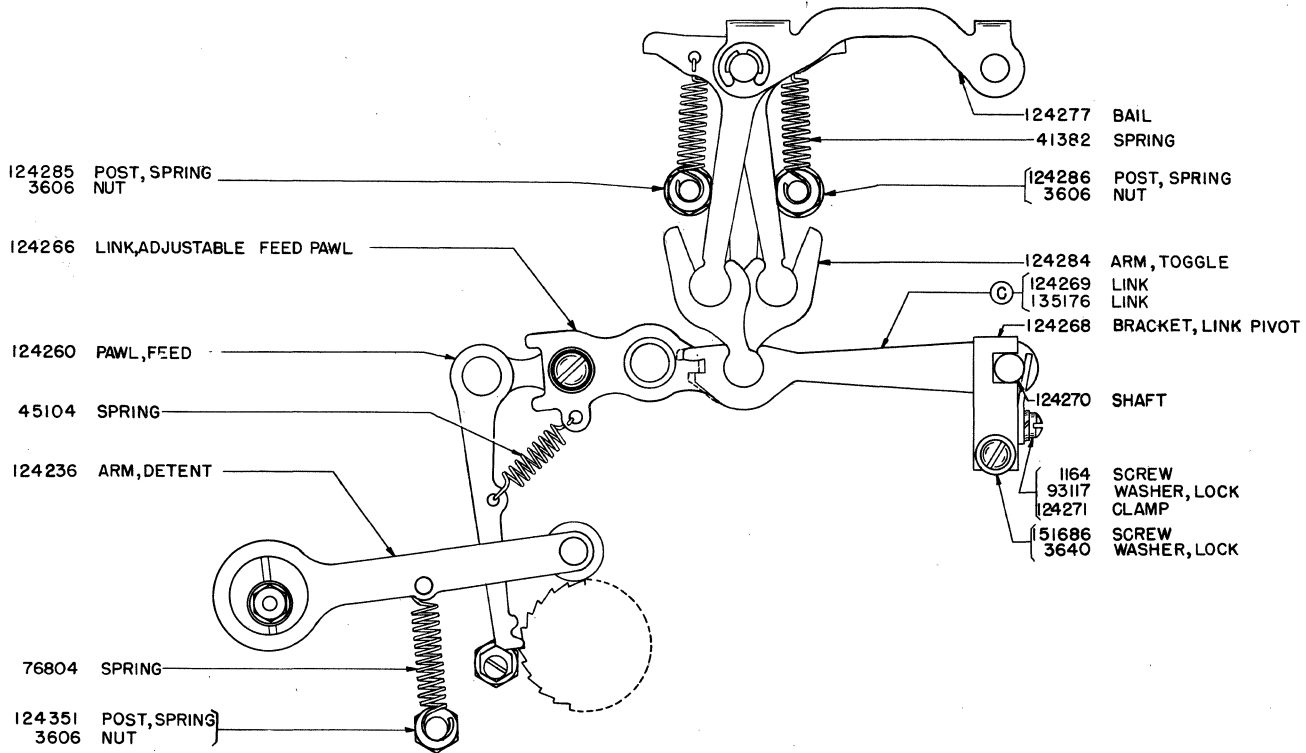






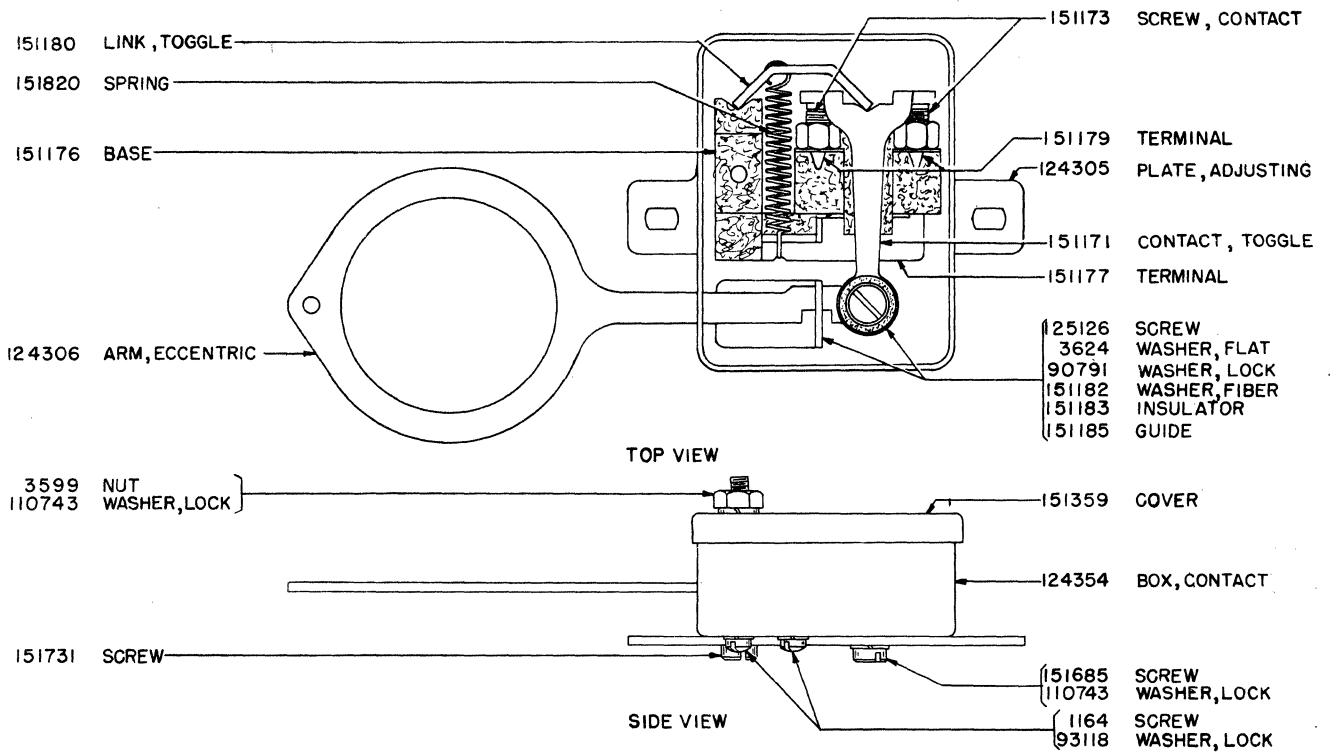


MAIN SHAFT ASSEMBLY

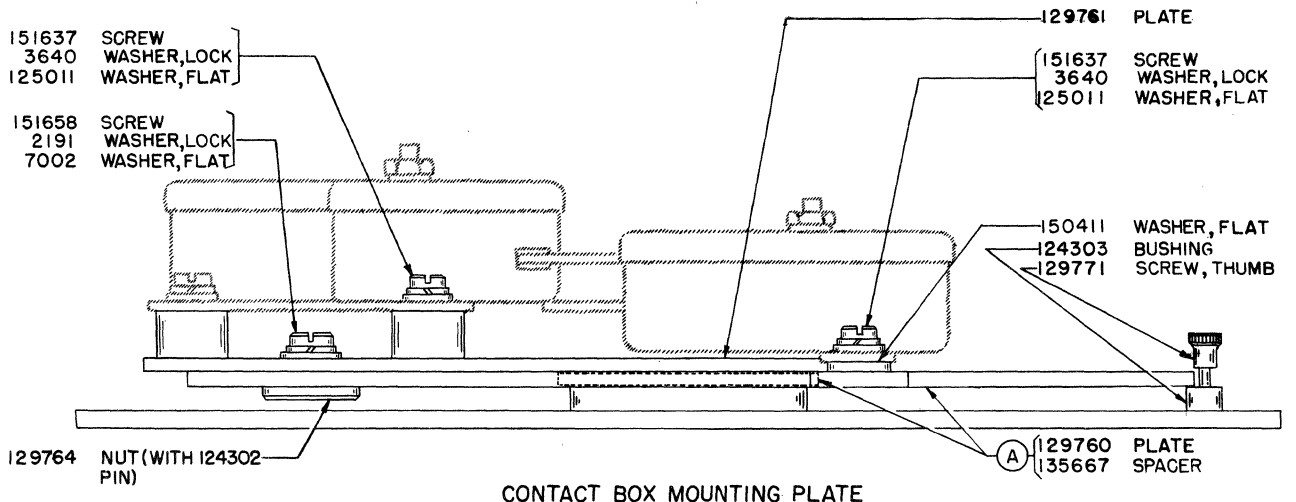
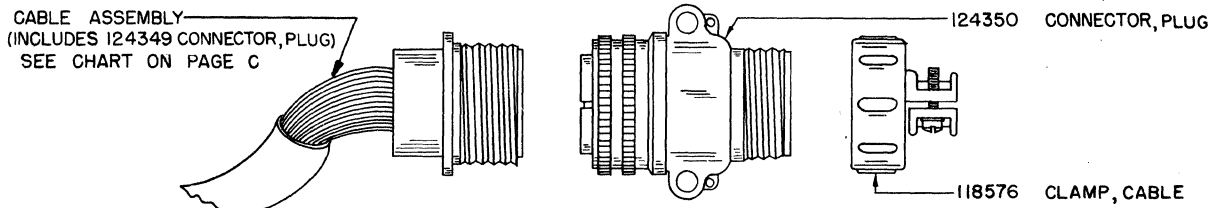


TAPE FEED-OUT MECHANISM

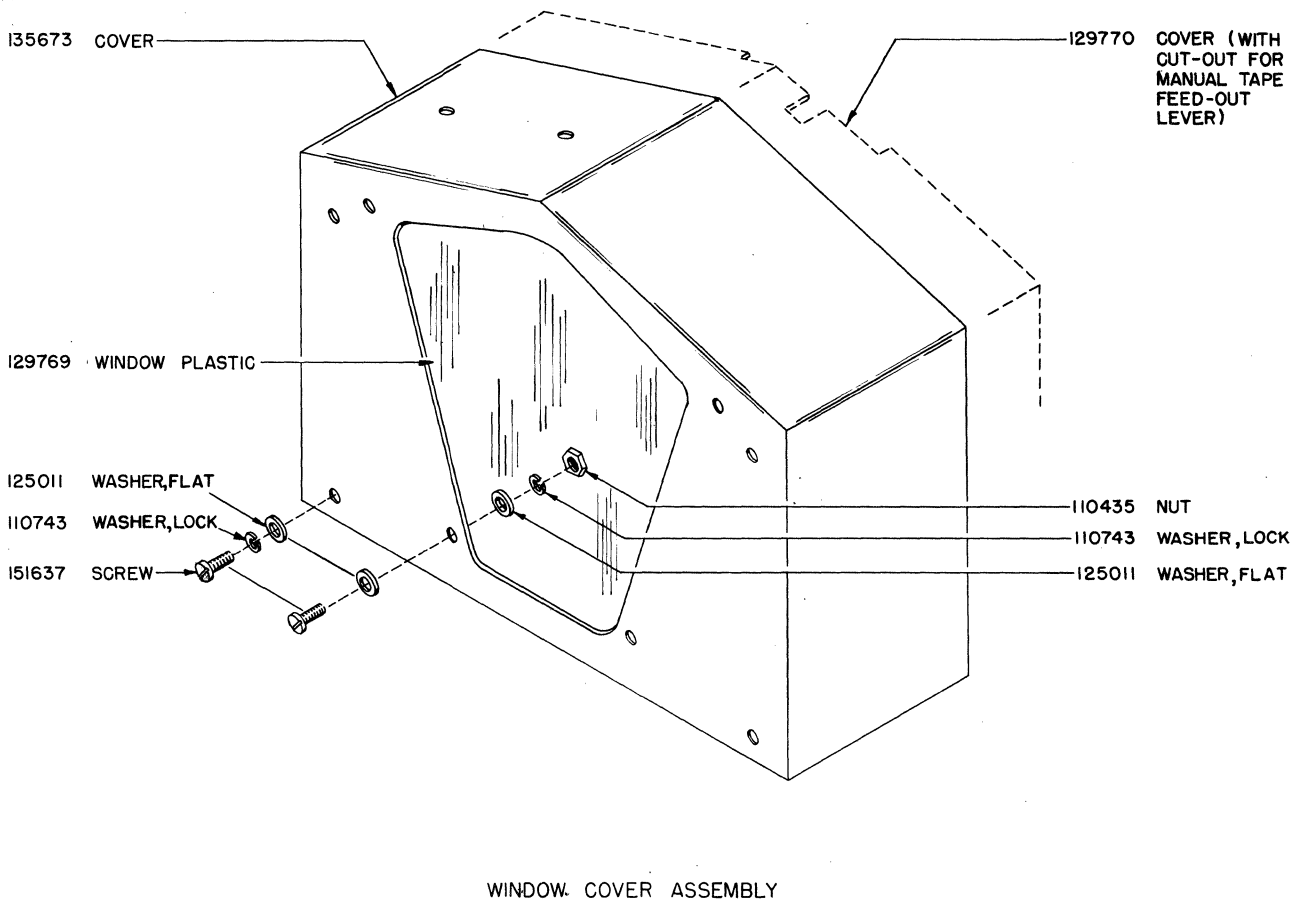
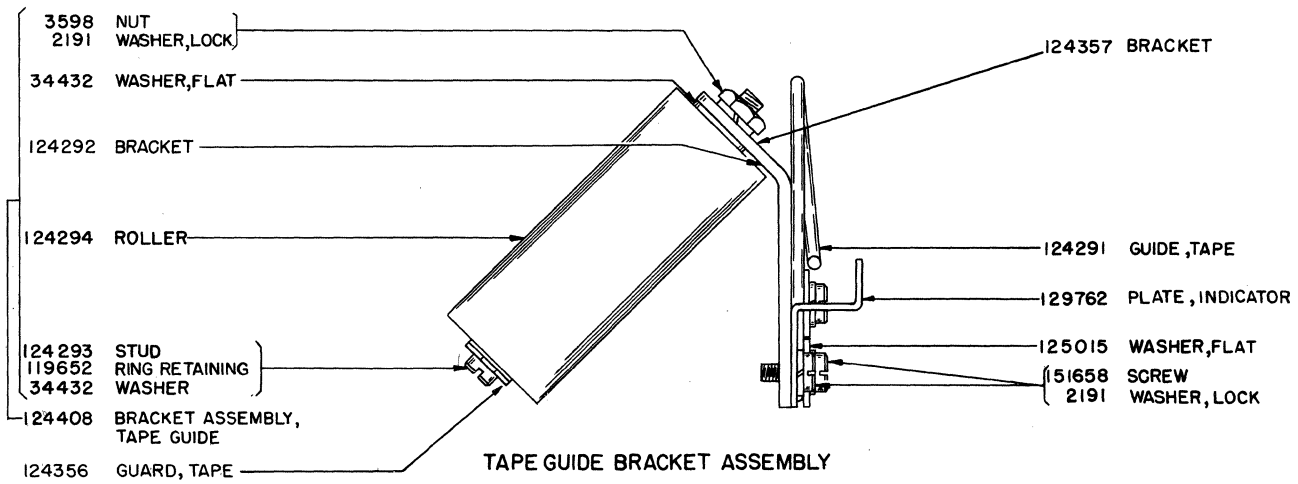
(A), (B) AND (C) SEE PAGE 4-2 FOR EXPLANATION

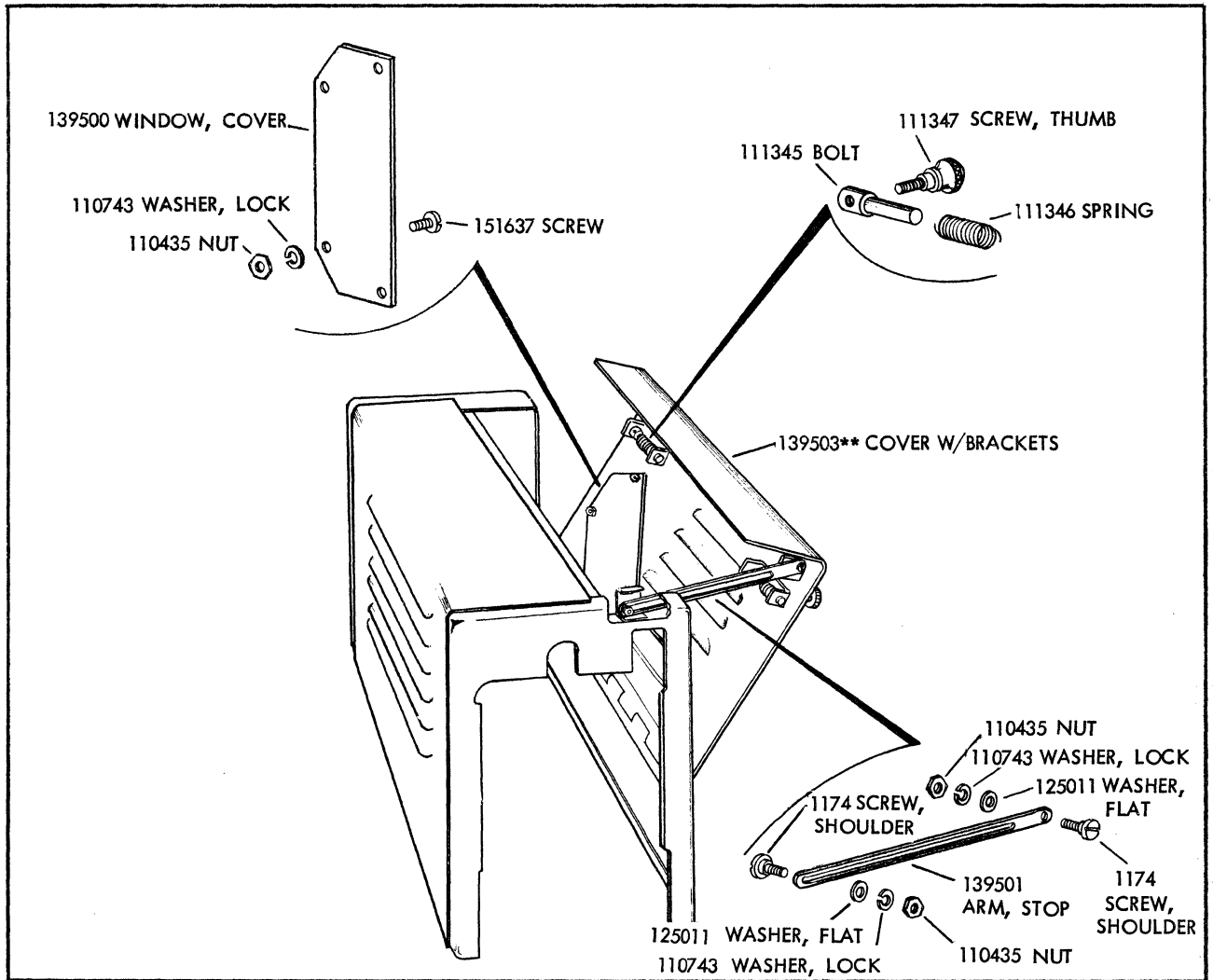


124304 TIMING CONTACT BOX ASSEMBLY

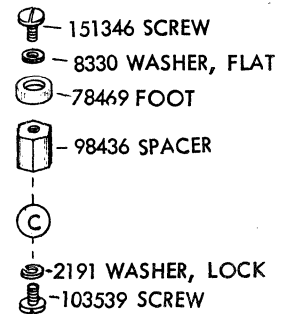
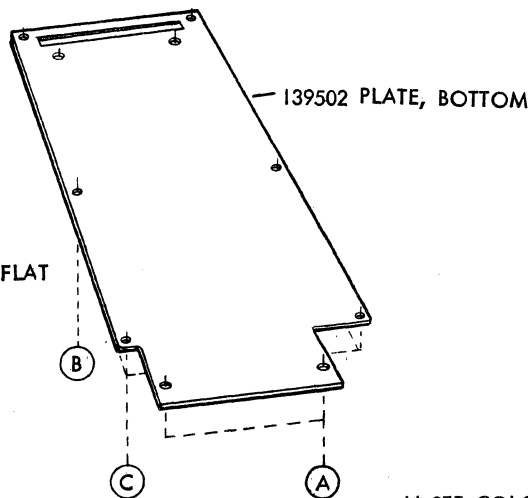
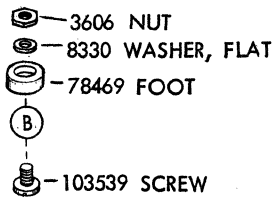
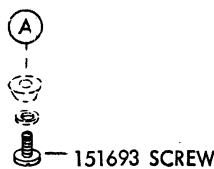


(A) SEE PAGE 4-2 FOR EXPLANATION



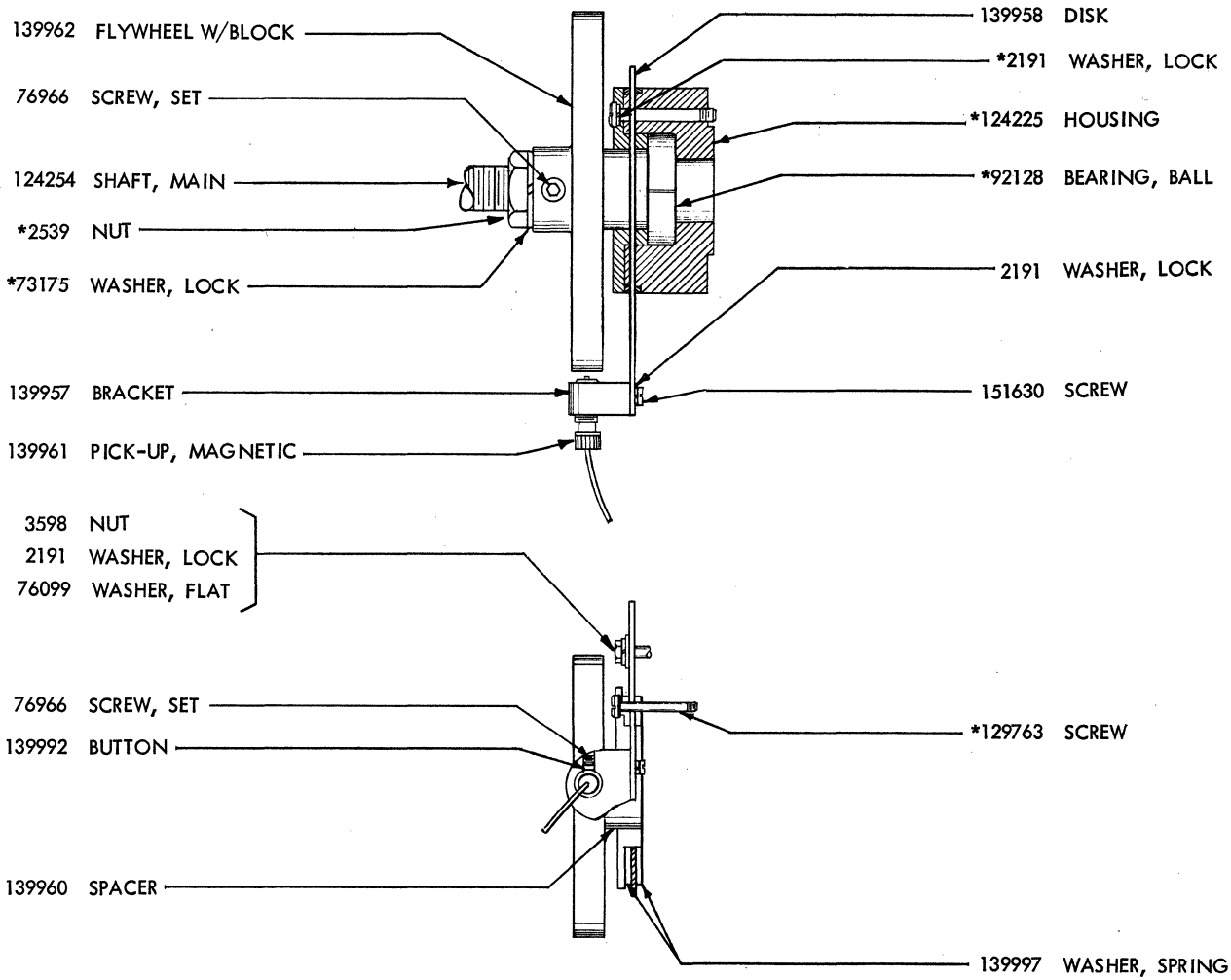


139563\*\* COVER ASSEMBLY

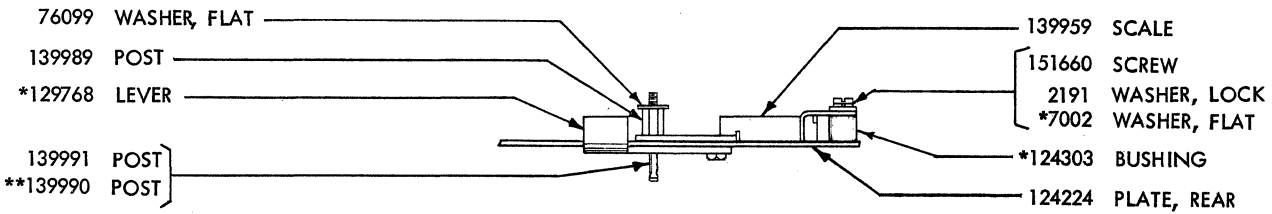


\*\* SEE COLOR CODE CHART ON PAGE C

136127\*\* MODIFICATION KIT TO EQUIP A HIGH SPEED TAPE PUNCH WITH A MOTOR COVER



MAIN SHAFT PARTS



REAR PLATE PARTS

\*NOT PART OF 139956 MODIFICATION KIT

\*\*FOR UNITS NOT HAVING MANUAL TAPE FEED OUT

139956 MODIFICATION KIT TO ADD A MAGNETIC PICK-UP

1154B

## **SECTION 3**

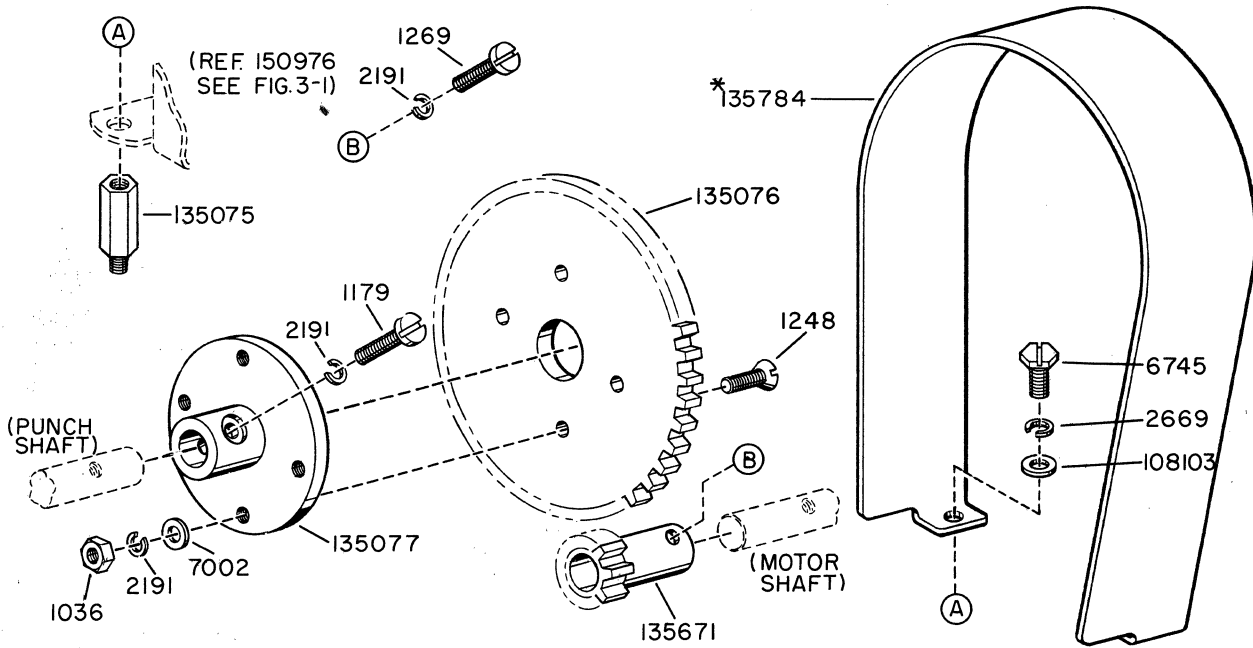
**MOTOR UNIT**





## NUMERICAL INDEX - FIGURE 3-1

Part Number	Description
2191	Washer, Lock
2263	Nut (8-32 Hex)
3640	Washer, Lock
7002	Washer, Flat
71999	Spring, Motor Thrust
87334	Washer, Insulating
96264R	Strap, Terminal (5")
122201	Bearing, Ball
122211	Washer, Pull
122220	Oiler, Ball
122229	Bolt, Clamping
122245	Capacitor (43-48 MFD)
122249	Switch, Thermostatic
122251	Stator, Motor
122252	Shield Assembly, End
123769	Fan, Motor
125011	Washer, Flat
128874	Rotor, Motor
150040	Screw (6-40 x 5/8 Fil)
150976	Bracket, Motor Mounting
151346	Screw (6-40 x 3/8 Fil)
151620	Strap, Motor Mounting
151621	Screw (6-32 x 3/4 Rd)
151622	Nut (6-32 Sq)
151626	Terminal
151637	Screw (4-40 x 1/4 Fil)
151686	Screw (4-40 x 3/8 Fil)
151692	Screw (6-40 x 3/16 Fil)
151795	Motor, Synchronous - 1/12 H.P. 115/1/60 Cycle, AC General Electric Model 5SC19LG10 - with fan
151920	Plate, Mounting
151922	Clamp
151923	Relay
151924	Plate, Insulating
151925	Clamp
151926	Nut (4-40 Spl)
151927	Cable, Motor Unit
152297	Washer, Bearing
153030	Mount, Vibration
153049	Washer, Fiber
170764	Motor, Synchronous - 1/12 H.P. 115/1/60 Cycle, AC General Electric Model 5SC19LG10 - without fan



\* SEE EXPLANATION ON PAGE 4-2

FIGURE 3-2. 113779 AND 135080 SET OF MOTOR MOUNTING AND DRIVE PARTS  
(600 O.P.M. - GEAR DRIVE)

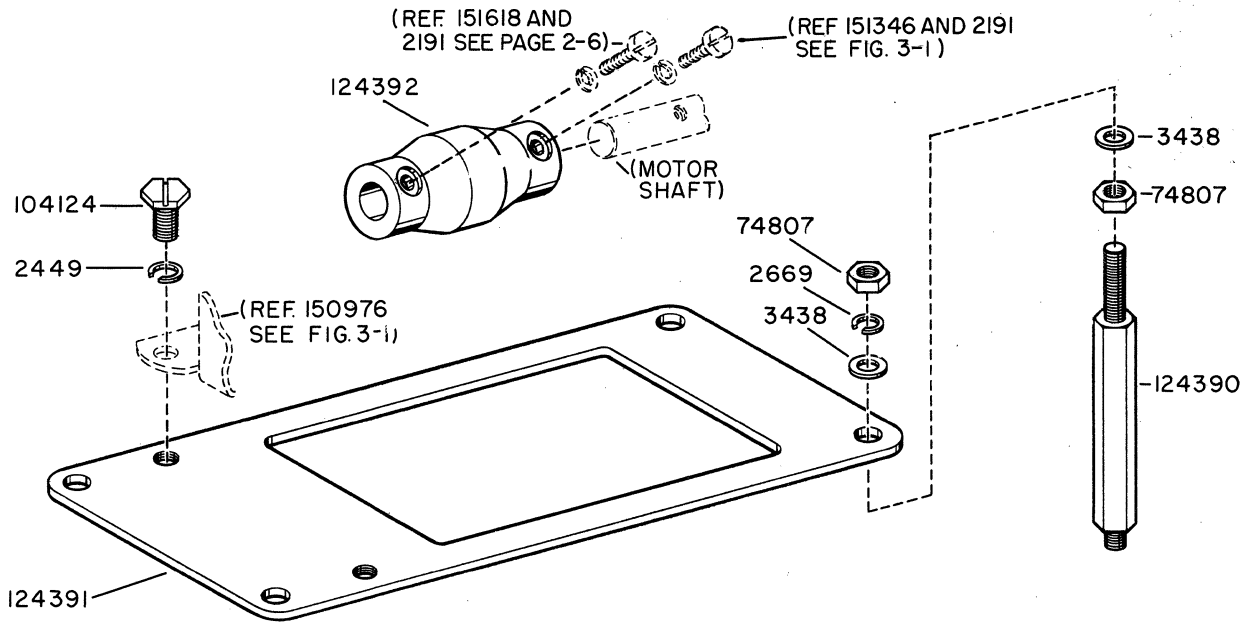


FIGURE 3-3. 135259 SET OF MOTOR MOUNTING AND DRIVE PARTS  
(3600 O.P.M. - DIRECT DRIVE)

## NUMERICAL INDEX FIGURES 3-2, 3-3

Part Number	Description
1036	Nut (6-40 Hex)
1179	Screw (6-40 x 5/8 Fil)
1248	Screw (6-40 x 1/2 Flat)
1269	Screw (6-40 x 1/2 Fil)
2191	Washer, Lock
2449	Washer, Lock
2669	Washer, Lock
3438	Washer, Flat
6745	Screw (10-32 x 1/2 Hex)
7002	Washer, Flat
74807	Nut (10-32 Hex)
104124	Screw (1/4-32 x 11/32 Hex)
108103	Washer, Flat
124390	Stud
124391	Plate, Motor Mounting
124392	Coupling, Flexible
135075	Post
135076	Gear (84T)
135077	Hub, Gear
135671	Gear (14T)
135784	Guard, Gear

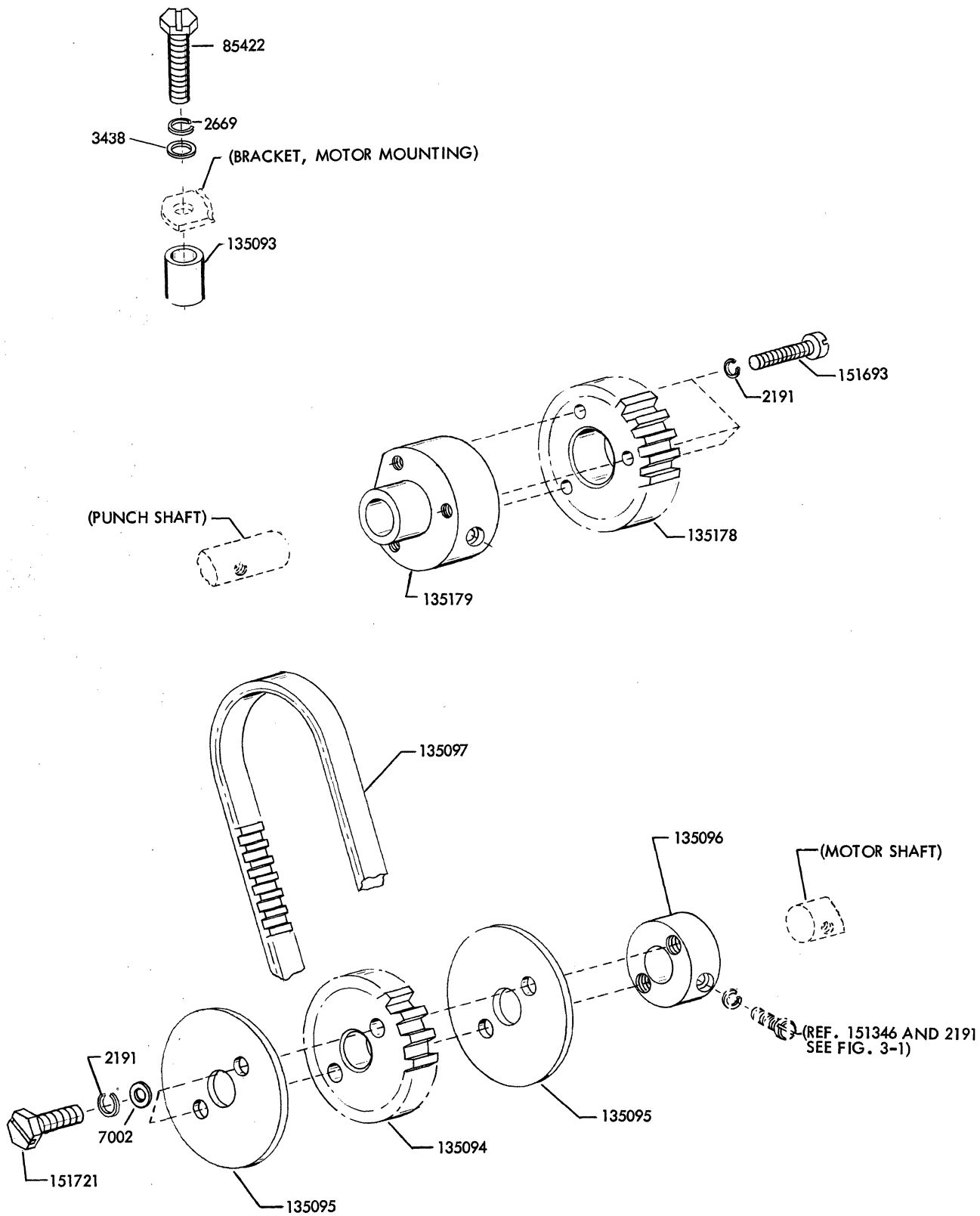
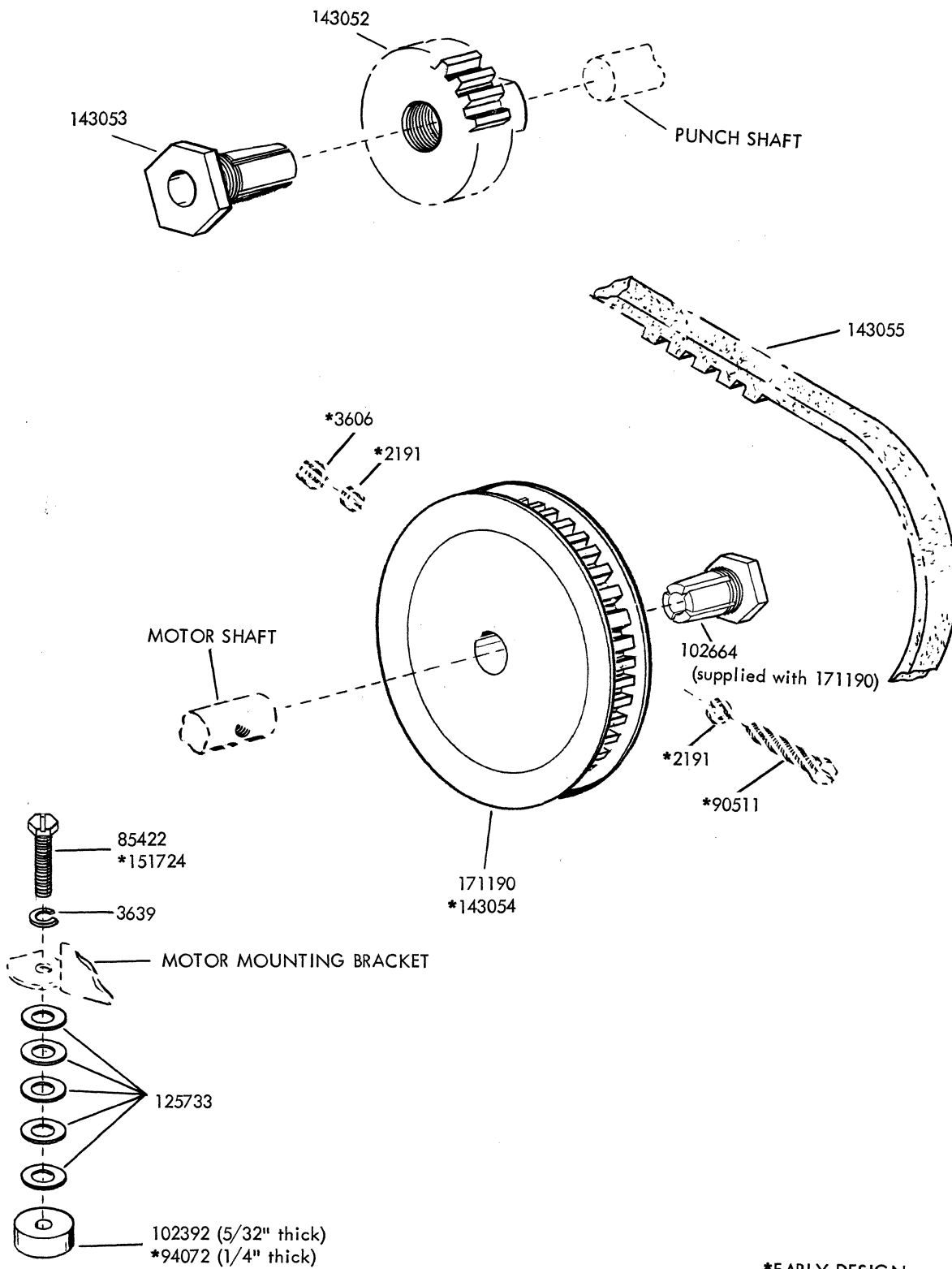


FIGURE 3-4. 113762 MODIFICATION KIT TO PROVIDE MOTOR MOUNTING AND DRIVE PARTS  
(3800.O.P.M BELT DRIVE)

## NUMERICAL INDEX - FIGURE 3-4

<del>Page</del> Number	Description
2191	Washer, Lock
2669	Washer, Lock
3438	Washer, Flat
85422	Screw (10-32 x 15/16 Hex)
135093	Spacer
135094	Sprocket
135095	Retainer, Belt
135096	Hub
135097	Belt
135178	Sprocket
135179	Hub
151693	Screw (6-40 x 9/16 Fil)
151721	Screw (6-40 x 3/4 Hex)



\*EARLY DESIGN

SPECIFICATION 5944S

FIGURE 3-5. 143044 MODIFICATION KIT TO PROVIDE MOTOR MOUNTING AND DRIVE PARTS  
(110 characters-per-second)

## NUMERICAL INDEX - FIGURE 3-5

Part Number	Description
2191	Washer, Lock
3606	Nut (6-40 Hex)
3639	Washer, Lock
85422	Screw (10-32 x 15/16 Hex)
90511	Screw (6-40 x 13/16 Hex)
94072	Spacer
102392	Spacer
102664	Hub
125733	Washer, Flat
143052	Sprocket (24 Grooves)
143053	Hub
143054	Sprocket (44 Grooves)
143055	Belt (13" Pitch Length)
151724	Screw (10-32 x 5/8 Hex.)
171190	Sprocket (44 Grooves)

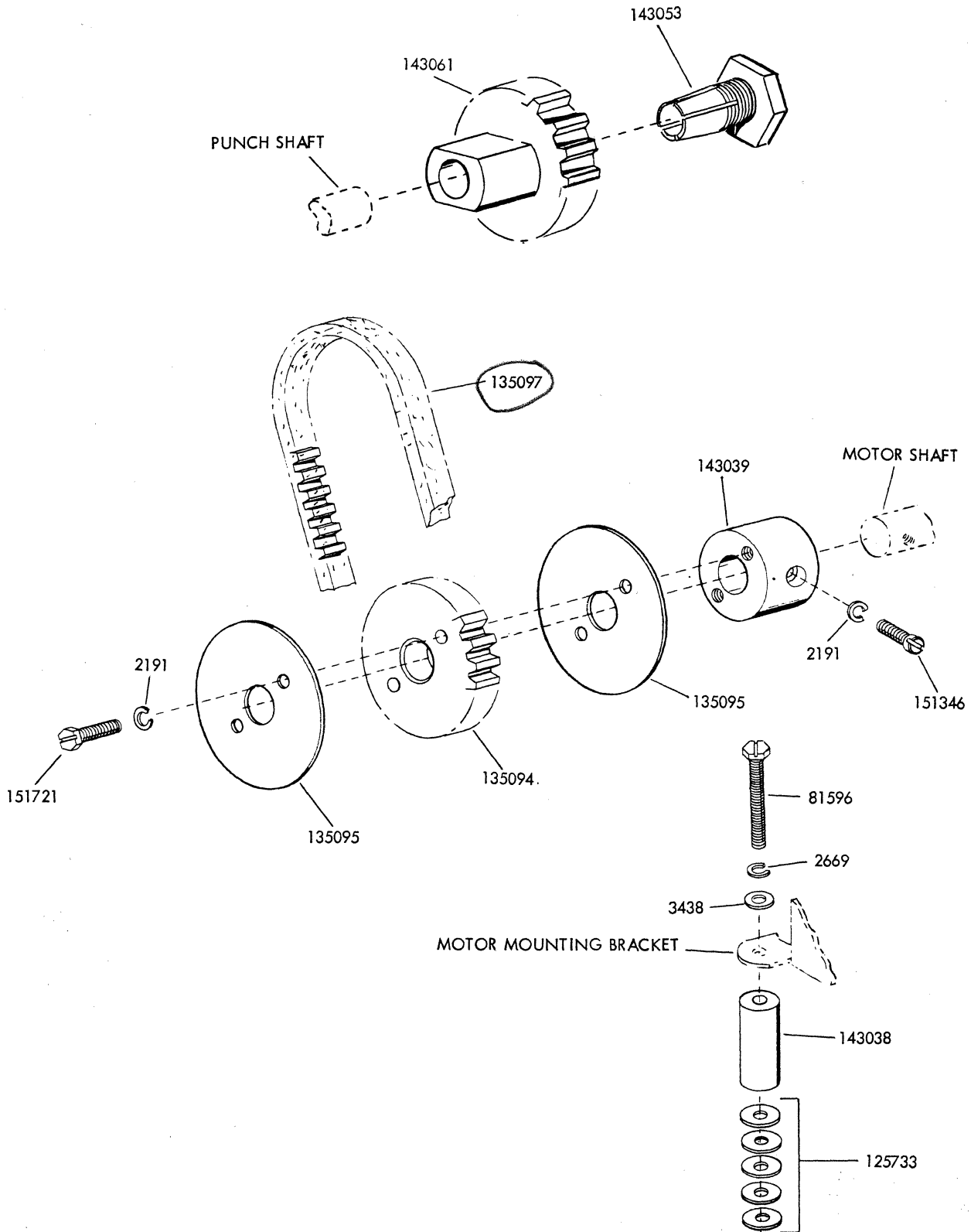


FIGURE 3-6 . 143062 MODIFICATION KIT TO PROVIDE MOTOR MOUNTING AND DRIVE PARTS  
(3800 O.P.M. BELT DRIVE)

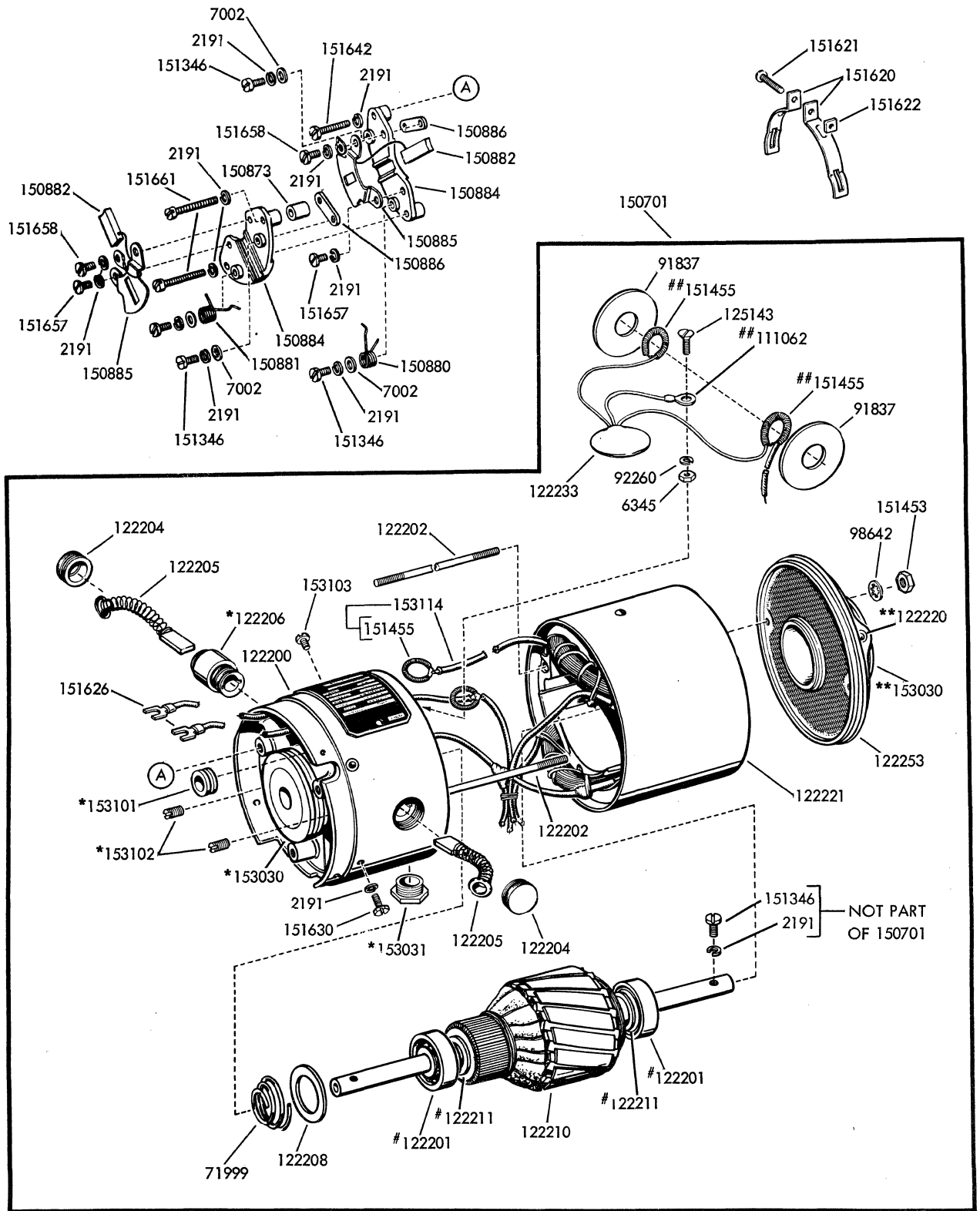


## NUMERICAL INDEX - FIGURE 3-6

Part Number	Description
2191	Washer, Lock
2669	Washer, Lock
3438	Washer, Flat
81596	Screw (10-32 x 1-3/8 Hex)
125733	Washer, Flat
151346	Screw (6-40 x .375 Fil)
151721	Screw (6-40 x 3/4 Hex)
135094	Sprocket
135095	Retainer, Belt
135097	Belt
143038	Spacer
143039	Hub
143053	Hub
143061	Sprocket, Driven

## NUMERICAL INDEX - FIGURE 3-7

Part Number	Description
2191	Washer, Lock
6345	Nut (6-32 Hex)
7002	Washer, Flat
71999	Spring, Motor Thrust
91837	Washer, Fiber
92260	Washer, Lock
98642	Washer, Lock
111062	Terminal
122200	Shield Assembly, End
122201	Bearing, Ball
122202	Bolt, Clamping (10-32)
122204	Cap, Brush
122205	Brush w/Spring
122206	Holder, Brush
122208	Washer, Flat
122210	Armature
122211	Washer, Pull
122220	Oiler, Ball
122221	Stator
122233	Capacitor Assembly
122253	Shield Assembly, End
125143	Screw (6-32 x 5/16 Flat)
150701	Motor, Series
150873	Collar, Spacing
150880	Spring, Governor Brush
150881	Spring, Governor Brush
150882	Brush
150884	Mounting, Brush
150885	Plate, Brush
150886	Plate, Clamp
151346	Screw (6-40 x 3/8 Fil )
151453	Nut (10-32 Hex)
151455	Spring, Helical Clip
151620	Strap, Motor Mounting
151621	Screw (6-32 x 3/4 Rd)
151622	Nut (6-32 Sq)
151626	Terminal
151630	Screw (6-40 x 1/4 Hex)
151642	Screw (6-40 x 3/4 Fil )
151657	Screw (6-40 x 1/4 Fil )
151658	Screw (6-40 x 5/16 Fil )
151661	Screw (6-40 x 1 Fil )
153030	Mount, Vibration
153031	Bushing, Lead
153101	Grommet
153102	Screw, Set (8-32)
153103	Screw, Self Tapping
153114	Wire Assembly



\*PART OF 122200    #PART OF 122210  
 \*\*PART OF 122253    ##PART OF 122233

FIGURE 3-7. SERIES MOTOR FOR LMU6 MOTOR UNIT



## NUMERICAL INDEX - FIGURE 3-8

Part Number	Description
2191	Washer, Lock
6320	Screw, Contact
6345	Nut (6-32 Hex)
7002	Washer, Flat
98712	Screw (4-40 x 7/32 Flat)
110743	Washer, Lock
125011	Washer, Flat
150849	Washer, Insulating
150850	Plate, Insulating
150856	Arm, Movable Contact
150857	Clamp, Contact Arm
150858	Bracket, Contact
150859	Bracket, Contact Arm Mounting
150865	Screw, Clamping (4-40)
150866	Clamp, Adjusting Screw Locking
150868	Bushing, Insulating
150869	Spring, Governor
150872	Stud, Cover Mounting
150877	Bracket, Governor Spring Guide
150879	Cover, Governor
150997	Fan, Governor
151152	Screw (4-40 x 3/16 Hex)
151637	Screw (4-40 x 1/4 Fil)
151659	Screw (6-40 x 1/2 Fil)
151661	Screw (6-40 x 1 Fil)
152495	Bushing
154375	Backstop

1154B

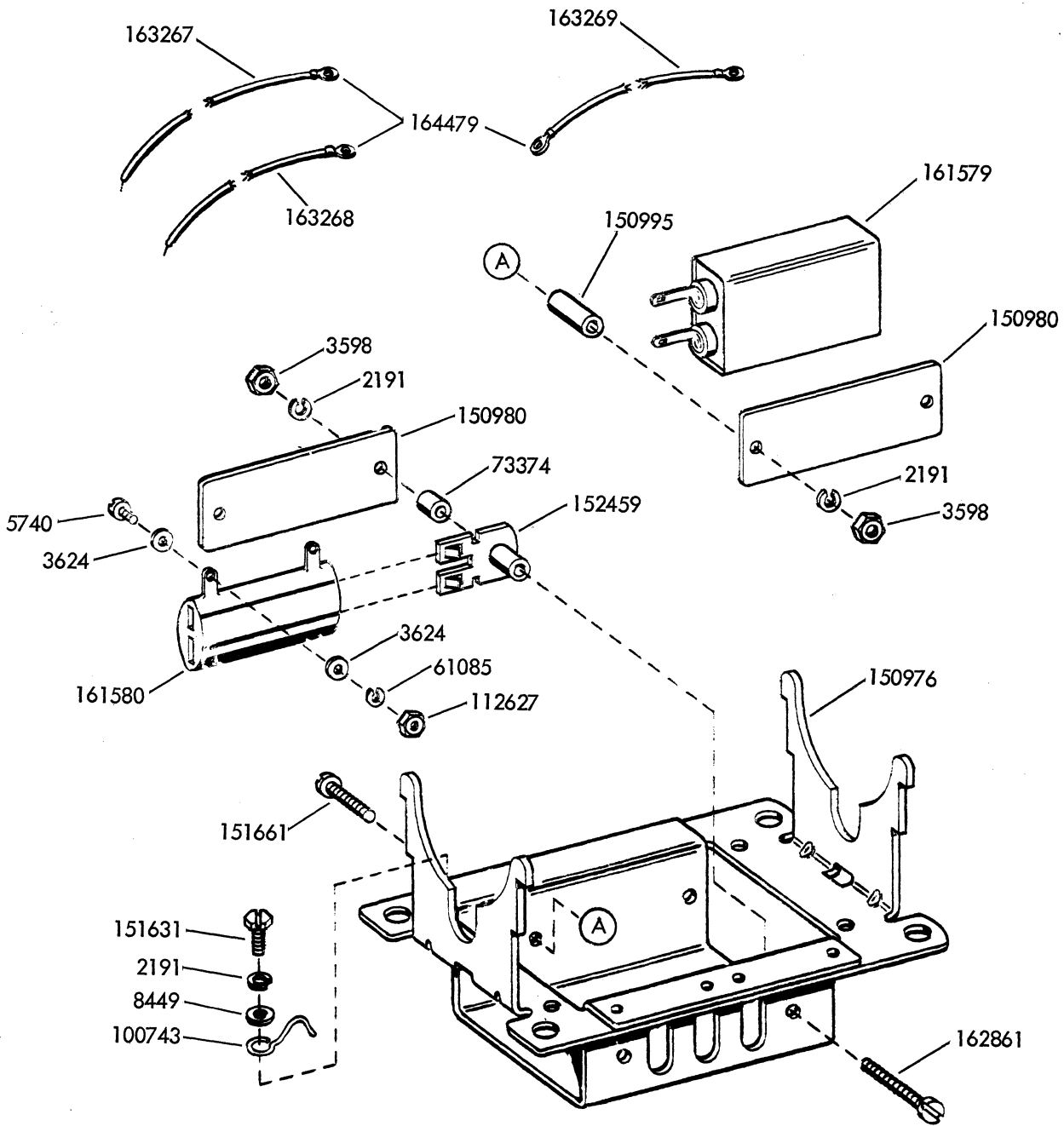


FIGURE 3-9. MOUNTING PARTS FOR LMU6 MOTOR UNIT

## NUMERICAL INDEX - FIGURE 3-9

Part Number	Description
2191	Washer, Lock
3598	Nut (6-40 Hex)
3624	Washer, Flat
5740	Screw (2-56 x 1/4 Fil )
8449	Collar
61085	Washer, Lock
73374	Spacer
91837	Washer, Fiber
100743	Clamp, Cable
112627	Nut (2-56 Hex)
150976	Bracket, Motor Mounting
150980	Plate, Clamping
150995	Bushing, Insulating
151631	Screw (6-40 x 5/16 Hex)
151661	Screw (6-40 x 1 Fil )
152459	Bracket, Resistor Mounting
161579	Capacitor (1/2 MF)
161580	Resistor (500 ohm)
162861	Screw (6-40 x 1-7/16 Fil )
163267	Wire w/Terminal (2-3/4" lg)
163268	Wire w/Terminal (6-1/2" lg)
163269	Wire w/Terminals (2" lg)
164479	Terminal

# **SECTION 4**

## **MISCELLANEOUS REFERENCE**



## NOTES OF EXPLANATION

## PAGE 2-2

- (A) The 151661 screw (1" long) replaces the 151346 screw (3/8" long) when the 108162 spacer is used.

## PAGE 2-6

- (A) The 72508 screws (6-40 x 3/4" Hex) replaces the 129763 screws (6-40 x 11/16" Fil) on units with only 1 timing contactor.
- (B) The 135666 bushing replaces the bearing and clamp on units with only 1 timing contactor.
- (C) The 124269 link is used with all code punches and the in-line feed punch. The 135176 link is used with the advanced feed punch.

## PAGE 2-7

- (A) The 135667 spacer replaces the 129760 plate on units with only 1 timing contactor.

## PAGE 3-4

- (A) The 135784 gear guard is not included with the 135080 modification kit. The 135079 tape guide bracket shown on Page 2-2 is part of the 135080 modification kit.

## MODIFICATION KITS

(The parts involved are shown on the pages indicated below)

136010 and 136011 Modification Kits to provide tape-out alarm.

Part Number	Description	Quantity	Page Number
1178	Screw (2-56 x 7/16 Fil)	2	2-2
93118	Washer, Lock	2	2-2
139770	Spring	1	2-2
*124377	Plate, Left Side	1	2-2
151329	Switch	1	2-2
151233	Washer, Flat	2	2-2
135668	Spacer	1	2-2
135670	Lever	1	2-2

\* Peculiar to 136010 (order if plate on unit has no switch mounting holes). (Specification 5808S)

136016 Modification Kit to adapt a 6 or 7 unit BRPE for two tape perforation.

136017 Modification Kit to adapt a 5 unit BRPE for two tape perforation.

Part Number	Description	Quantity	Page Number
2191	Washer, Lock	4	
3598	Nut (6-40 Hex)	1	
3606	Nut (6-40 Hex)	1	
76299	Spring	1	2-2
119649	Ring, Retaining	2	2-2
119652	Ring, Retaining	1	2-8
124291	Guide	1	2-8
124293	Stud	1	2-8
124294	Roller	1	2-8
124341	Brake	1	2-2
124342	Shaft	1	2-2
124356	Guard	1	2-8
124357	Bracket	1	2-8
124375	Plate	2	2-2
124376	Spacer	2	2-2
124380	Guide	1	2-2
124381	Stud	1	2-2
124382	Washer, Flat	1	2-2
124383	Reel Assembly	1	2-2
*124388	Retainer Assembly	1	2-2
125015	Washer, Flat	2	
**135086	Retainer Assembly	1	2-2
136466	Spacer	2	
136467	Screw (10-32 x 3-1/4 Fil)	2	
151630	Screw (6-40 x 1/4 Hex)	2	
151631	Screw (6-40 x 5/16 Hex)	2	

\* Peculiar to 136016. (Specification 5818S)

\*\* Peculiar to 136017. (Specification 5818S)

# **SECTION 5**

## **NUMERICAL INDEX**

## NUMERICAL INDEX

Part Number	Description and Page Number	Part Number	Description and Page Number	Part Number	Description and Page Number
1030	Screw, Shoulder (6-40) 2-2, 2-3	76966	Screw, Set (10-32) 2-10	112769	Washer, Flat 2-3
1036	Nut (6-40 Hex) 1-2, 2-2, 3-4	76804	Spring 2-6	114466	Connector 1-2
1159	Screw (4-40 x 3/8 Fil) 1-10	76983	Screw (4-40 x 1-1/4 Fil) 1-14	114467	Connector 1-2
1164	Screw (2-56 x 3/16 Fil) 1-10, 1-18, 2-6	78469	Foot 2-9	114589	Mount, Vibration 1-2
1174	Screw, Shoulder (4-40) 2-9	80845	Screw (10-32 x 1-13/16 Fil) 1-4	115221	Washer, Felt 1-8
1178	Screw (2-56 x 7/16 Fil) 2-2	80957	Screw (4-40 x 1-1/4 Hex) 1-16	118576	Clamp, Cable 2-7
1179	Screw (6-40 x 5/8 Fil) 3-4	81596	Screw (10-32 x 1-3/8 Hex) 3-6, 3-10	118577	Clamp, Cable 2-2
1215	Screw, Shoulder (6-40) 2-3	82097	Spring, Contact 1-6	119337	Plate, Name 1-2, 2-2
1248	Screw (6-40 x 5/8 Fil) 3-4	82474	Terminal 2-2	119648	Ring, Retaining 1-8
1269	Screw (6-40 x 1/2 Fil) 3-4	82547	Insulator 1-6	119649	Ring, Retaining 1-4, 2-2
1293	Screw (4-40 x 1/8 Fil) 2-6	82548	Insulator 1-6	119651	Ring, Retaining 1-10, 2-5
2191	Washer, Lock 1-2, 1-4, 1-6, 1-8, 1-10, 1-12, 1-14, 1-16, 1-18, 2-2, 2-3, 2-4, 2-5, 2-6, 2-7, 2-8, 2-9, 2-10, 3-2, 3-4, 3-6, 3-8, 3, 10, 3-12, 3-14, 3-16	82726	Spring 1-10	119652	Ring, Retaining 1-8, 1-12, 1-18, 2-5, 2-8
2263	Nut (8-32 Hex) 3-2	82747	Terminal 1-2	119662	Screw (6-40 x 5/32 Hex) 1-16
2449	Washer, Lock 1-2, 3-4	84666	Spring, Contact 1-6	121244	Clamp, Cable 1-2
2539	Nut (3/8-32) Hex) 1-12, 1-14, 2-6, 2-10	84705	Spring, Contact 1-6	121246	Clamp, Cable 2-2
2669	Washer, Lock 1-2, 1-4, 1-8, 1-10 1-12, 1-14, 2-2, 2-5, 2-6, 3-4, 3-6, 3-10	85020	Screw, Shoulder (10-32) 1-2	121248	Clamp, Cable 2-2
3438	Washer, Flat 2-2, 3-4, 3-6, 3-10	85422	Screw (10-32 x 5/16 Hex) 3-6, 3-8	122200	Shield Assembly 3-12
3624	Washer, Flat 3-16	86774	Screw, Shoulder (6-40) 1-8	122201	Bearing, Ball 3-2, 3-12
3598	Nut (6-40 Hex) 1-8, 1-10, 1-12, 1-18, 2-3, 2-5, 2-8, 2-10, 3-16	87334	Washer, Insulating 3-2	122202	Bolt, Clamping (10-32) 3-12
3599	Nut (6-40 Hex) 1-8, 1-10, 1-14, 2-5, 2-6, 2-7	89896	Oiler 1-12, 2-5	122204	Cap, Brush 3-12
3606	Nut (6-40 Hex) 1-4, 1-8, 2-2, 2-3, 2-6, 2-9, 3-8	90361	Washer, Felt 1-8	122205	Brush w/Spring 3-12
3624	Washer, Flat 2-7	90436	Wick, Felt 2-5	122206	Holder, Brush 3-12
3639	Washer, Lock 1-12, 2-5, 3-8	90437	Wick, Oil 1-12, 2-5	122208	Washer, Flat 3-12
3640	Washer, Lock 1-6, 1-8, 1-10, 1-12, 1-14, 2-3, 2-5, 2-6, 2-7, 3-2	90511	Screw (6-40 x 13/16 Hex) 3-8	122210	Armature 3-12
4703	Spring 2-3	90791	Washer, Lock 2-7	122211	Washer, Pull 3-2, 3-12
5740	Screw (2-56 x 1/4 Fil) 1-12, 2-4, 3-16	91683	Nut (15/32-32 Hex) 1-2, 2-2	122220	Oiler, Ball 3-2, 3-12
6320	Screw, Contact 3-14	91684	Nut (15/32-32 Ring) 1-2, 2-2	122221	Stator 3-12
6345	Nut (6-32 Hex) 3-12, 3-14	91837	Washer, Fiber 3-12, 3-16	122233	Capacitor Assembly 3-12
6745	Screw (10-32 x 1/2 Hex) 1-4, 3-4	92128	Bearing, Ball 2-6, 2-10	122245	Capacitor 3-2
6746	(6-40 x 5/16 Hex) 2-2	92260	Washer, Lock 3-12	122249	Switch 3-2
7002	Washer, Flat 1-2, 1-4, 1-8, 1-10, 1-12, 1-14, 1-18, 2-2, 2-7, 2-10, 3-2, 3-4, 3-12, 3-14	93107	Bearing, Ball 2-6	122251	Stator 3-2
8330	Washer, Flat 1-12, 2-3, 2-4, 2-5, 2-9	93117	Washer, Lock 1-10, 2-6	122252	Shield Assembly 3-2
8449	Collar 3-16	93118	Washer, Lock 1-12, 2-2	122253	Shield Assembly 3-12
34432	Washer, Flat 1-8, 1-18, 2-2, 2-5, 2-8	93582	Washer, Flat 2-6	123769	Fan 3-2
35503	Foot, Rubber 2-2	93969	Screw (4-40 x 3/16 Flat) 1-16	124224	Plate 2-3, 2-10
36463	Spring 1-8	93985	Washer, Lock 1-2	124225	Housing 2-6, 2-10
41382	Spring 2-6	94072	Spacer 3-8	124226	Retainer 2-6
41675	Washer, Flat 1-8, 2-5	95320	Switch 1-2, 2-2	124227	Stud 2-5
42823	Washer, Flat 1-10, 1-12, 1-14	96264R	Strap 3-2	124229	Wheel 2-5
45104	Spring 2-6	97266	Plate, Clamp 1-6	124230	Guide 2-5
49056	Screw (10-32 x 7/8 Hex) 2-2	98436	Spacer 2-9	124231	Nut (10-32 Hex) 1-2, 2-5
55005C	Washer, Flat 1-18	98642	Washer, Lock 3-12	124232	Stud 2-3
61085	Washer, Lock 3-16	98712	Screw (4-40 x 7/32 Flat) 3-14	124233	Stud 2-5
70072	Washer, Flat 1-2	98726	Screw (3-48 x 1/4 Fil) 1-2	124234	Lever 2-5
70891	Washer, Lock 1-12	100516	Screw (10-32 x 1-1/4 Hex) 2-2	124235	Support
71073	Washer, Flat 1-12	100743	Clamp, Cable 3-16	124236	Arm 2-6
71999	Spring 3-2, 3-12	101115	Eccentric 2-3	124243	Bracket 2-3
72508	Screw (6-40 x 1/4 Hex) 2-6	101633	Washer, Flat 1-14	124244	Washer, Felt 1-10, 2-5
73175	Washer, Lock 1-14, 2-6, 2-10	101862	Spacer 2-2	124245	Pawl 2-3
73374	Spacer 3-16	101892	Dowel 1-12, 2-4	124246	Pawl 2-3
74036	Nut (10-32 Hex) 1-4, 1-8, 1-12, 1-14, 2-2, 2-5, 2-6	102392	Spacer 3-8	124247	Stud 2-3
74554	Post 2-3	102664	Hub 3-8	124248	Plate 2-3
74712	Spring 1-4	103539	Screw (6-40 x 3/8 Fil) 2-9	124249	Spacer 1-8, 2-3
74728	Terminal 1-6	104124	Screw (1/4-32 x 11/32 Hex) 3-4	124250	Stud 2-3
74805	Screw (10-32 x 3/4 Hex) 1-2, 2-2	104705	Bearing, Ball 2-6	124251	Stud 2-5
74807	Nut (10-32 Hex) 1-12, 3-4	104807	Washer, Flat	124252	Link 1-8, 2-5
76099	Spring, Flat 2-10	104824	Spring 2-3	124254	Shaft 2-6, 2-10
76299	Spring 2-2	108103	Washer, Flat 3-4	124255	Link 2-6
		110434	Screw (4-40 x 3/16 Fil) 1-10, 2-2, 2-5	124256	Clamp 2-6
		110435	Nut (4-40 Hex) 1-8, 1-10, 1-18, 2-6, 2-8, 2-9	124257	Arm 1-10, 2-5
		110743	Washer, Lock 1-8, 1-10, 1-14, 1-16, 2-2, 2-7, 2-8, 2-9, 3-14	124258	Screw, Shoulder (4-40) 1-8, 2-5
		110974	Spring 2-5	124259	Stud 2-5
		111017	Screw (6-40 x 5/16 Rd) 1-2, 1-8, 2-2	124260	Pawl 2-6
		111062	Terminal 3-12	124266	Link 2-6
		111345	Bolt 2-9	124268	Bracket 2-6
		111346	Spring 2-9	124269	Link 1-10, 2-6
		111347	Screw, Thumb 2-9	124270	Shaft 2-6
		111410	Washer, Flat 1-10	124271	Clamp 2-6
		112100	Bushing 1-6	124272	Spacer 2-6
		112626	Nut (10-32 Hex) 1-8, 1-12, 2-5	124273	Arm 2-6
		112627	Nut (2-56 Hex) 1-18, 3-16	124274	Clamp 2-6
				124275	Spacer 2-6
				124276	Screw (4-40 x 1-3/64 Fil) 2-6
				124277	Bail 2-5, 2-6
				124279	Link 1-10, 2-5

## NUMERICAL INDEX (Continued)

Part Number	Description and Page Number	Part Number	Description and Page Number	Part Number	Description and Page Number
124280	Shaft 2-5	124380	Guide 2-2	139958	Disk 1-14, 2-10
124281	Spacer 2-6	124381	Stud 2-2	139959	Scale 2-10
124282	Spacer 1-8, 2-3	124382	Washer, Flat 1-4, 2-2	139960	Spacer 2-10
124283	Spacer 2-3	124383	Reel 2-2	139961	Pickup, Magnetic 2-10
124284	Arm 1-10, 2-6	124388	Retainer 2-2	139962	Flywheel w/Block 1-14, 2-10
124285	Post 2-6	124390	Stud 3-4	139989	Post 2-10
124286	Post 2-6	124391	Plate 3-4	139990	Post 2-10
124287	Spacer 1-8, 2-5	124392	Coupling 3-4	139991	Post 1-8, 2-10
124288	Post 2-3	124395	Connector 2-2	139992	Button 1-14, 2-10
124289	Bearing, Ball 1-14, 2-6	124396	Switch Assembly 1-2, 2-2	139997	Washer, Spring 1-14, 2-10
124290	Clamp 2-6	124408	Bracket Assembly 2-8	142743	Shim (.004") 2-3
124291	Stud 1-12, 2-8	125011	Washer, Flat 1-6, 1-10, 2-2, 2-3, 2-5, 2-7, 2-8, 2-9, 3-2, 3-14	142800	Plate 1-8
124292	Bracket 1-18, 2-8			142801	Housing 1-14
124293	Stud 1-18, 2-8	125015	Washer, Flat 1-10, 1-18, 2-2, 2-8	142802	Shaft 1-14
124294	Roller 1-12, 1-18, 2-8	125112	Screw (2-56 x 1/8 Fil) 1-18	142803	Screw, Set (10-32) 1-14
124296	Roller 2-5	125126	Screw (2-56 x 9/32 Fil) 2-7	142806	Shield 1-14
124300	Spacer 1-8, 2-3	125138	Screw (2-56 x 3/8 Fil) 1-12, 2-4	142807	Bearing 1-14
124301	Spacer 1-14, 2-6	125143	Screw (6-32 x 5/16 Flat) 3-12	142808	Shield 1-14
124302	Pin 2-7	125171	Screw (10-32 x 1/2 Flat) 1-16	142809	Clamp 1-14
124303	Bushing 2-7, 2-10	125218	Nut (1/4-32 Hex) 1-2	142810	Shield 1-14
124305	Plate 2-7	125421	Dowel 1-12, 2-4	142811	Stud 1-8
124306	Arm 2-6	125683	Bushing 1-12, 2-5	142812	Stud 1-8
124308	Eccentric 2-6	125733	Washer, Flat 3-8, 3-10	142828	Pawl 1-8
124310	Clamp 2-6	125948	Screw (2-56 x 1/8 Fil) 1-12	142829	Pin 1-8
124311	Plate 2-3	128357	Ring, Retaining 1-12	142833	Arm 1-14
124312	Yoke 2-3	128874	Rotor 3-2	142834	Bail 1-8
124313	Magnet Assembly 1-10, 2-3	129755	Spring 2-2	142835	Shaft 1-10
124318	Washer, Insulating 2-3	129758	Bracket 2-2	142838	Spacer 1-14
124319	Post 2-3	129760	Plate 2-7	142839	Bearing 1-14
124320	Armature 1-10, 2-3	129761	Plate 2-7	142840	Clamp 1-14
124321	Bracket 2-3	129762	Plate 2-8	142841	Counterweight 1-14
124322	Plate 2-3	129763	Screw (6-40 x 11/16 Fil) 2-6, 2-10	142842	Key 1-14
124323	Plate 2-3	129764	Nut, Special 2-7	142844	Spacer 1-14
124324	Plate 2-3	129765	Shim (.020") 2-6	142845	Clip 1-14
124325	Block Assembly 2-4	129766	Stud 2-3	142846	Bracket 1-10
124326	Block 2-4	129768	Lever 2-3, 2-10	142847	Shaft 1-10
124327	Plate 2-4	129769	Window 2-8	142848	Clamp 1-10
124328	Plates 2-4	129770	Cover 2-8	142849	Wick, Felt 1-10
124331	Punch 1-12, 2-4	129771	Screw, Thumb 2-7	142850	Clamp 1-10
124332	Punch 1-12, 2-4	131098	Terminal 1-2	142852	Bracket 1-10
124333	Backstop 2-4	135075	Post 3-4	142853	Stud 1-10
124334	Screw (6-40 x 1-27/32 Hex) 2-4	135076	Gear (84T) 3-4	142855	Bracket 1-10
124335	Chute 2-3	135077	Hub 3-4	142856	Bracket 1-10
124336	Block Assembly 2-4	135079	Bracket 2-2	142857	Spring 1-10
124338	Plates 2-4	135086	Retainer, Tape 1-4, 2-2	142858	Block Assembly 1-12
124341	Brake 2-2	135094	Sprocket 3-6, 3-10	142859	Block 1-12
124342	Shaft 2-2	135095	Retainer 3-6, 3-10	142860	Plate 1-12
124343	Spacer 2-5	135096	Hub 3-6	142861	Plate 1-12
124344	Stud 2-4	135097	Belt 3-6, 3-10	142864	Stop 1-12
124349	Connector 2-7	135175	Wheel 2-5	142865	Screw (6-40 x 2-1/32 Hex) 1-12
124350	Connector 2-7	135176	Link 2-6	142866	Magnet Assembly 1-10
124351	Post 2-6	135177	Block Assembly 2-4	142867	Yoke 1-10
124353	Plate 2-4	135178	Sprocket 3-6	142869	Screw, Adjusting (4-40) 1-10
124354	Box 2-7	135179	Hub 3-6	142871	Armature 1-10
124355	Insulator 1-10, 2-3	135180	Block 2-4	142872	Armature 1-10
124356	Guard, Tape 2-8	135181	Plate 2-4	142873	Arm, Detent 1-12
124357	Bracket 2-8	135182	Plates 2-4	142876	Spring 1-12
124358	Bearing, Ball 2-6	135183	Backstop 2-4	142877	Post 1-16
124360	Bar 2-2	135247	Oiler, Felt 1-8, 2-5	142880	Plate, Front 1-14
124361	Bar 2-2	135563	Strap 2-2	142882	Clamp 1-14
124362	Plate 2-2	135568	Spacer 2	142887	Retainer 1-14
124363	Bar 2-2	135666	Bushing 2-6	142888	Wheel 1-12
124364	Bracket 2-2	135667	Spacer 2-7	142889	Post 1-12, 1-18
124365	Bracket 2-2	135669	Post 2-2	142890	Lid 1-12
124366	Strip 2-2	135670	Lever 1-4, 2-2	142893	Block 1-12
124367	Strip 2-2	135671	Gear (14T) 3-4	142895	Spring 1-12
124368	Plate 2-2	135673	Cover 2-8	142896	Shaft 1-12
124369	Strip 2-2	135784	Guard 3-4	142897	Spring 1-12
124370	Plate 2-2	136127**	Modification Kit 2-9	142898	Connector 1-2, 1-18
124371	Stud 2-2	139500	Window 2-9	142899	Connector 1-2
124372	Box 2-2	139501	Arm 2-9	142901	Plate 1-12
124373	Bracket 2-2	139502	Plate 2-9	142910	Stud 1-12
124374	Bushing 2-2	139503**	Cover w/Brackets 2-9	142911	Plate 1-12
124375	Plate, Front 2-2, 1-4	139563**	Cover Assembly 2-9	142912	Bushing 1-12
124376	Spacer 2-2	139770	Spring 1-4, 2-2	142913	Bumper, Rubber 1-16
124377	Plate 2-2	139957	Bracket 1-14, 2-10	142915	Bracket, Mounting 1-2

## NUMERICAL INDEX (Continued)

Part Number	Description and Page Number	Part Number	Description and Page Number	Part Number	Description and Page Number
142916	Guide 1-12	143050	Plate 1-10	151642	Screw (6-40 x 3/4 Fil) 3-12
142917	Cutter 1-12	143052	Sprocket 3-8	151657	(6-40 x 1/4 Fil) 1-2, 2-2, 2-3, 2-5
142918	Chute 1-12	143053	Hub 3-8, 3-10	151658	Screw (6-40 x 5/16 Fil) 1-10, 1-12
142921	Stud 1-12	143054	Sprocket 3-8		1-18, 2-7, 2-8, 3-12
143923	Post 1-8	143055	Belt 3-8	151659	Screw (6-40 x 1/2 Fil) 3-14
142924	Roller 1-12	143061	Sprocket, Driven	151660	Screw (6-40 x 7/8 Fil) 1-14, 2-10
142927	Bar 1-16	150040	Screw (6-40 x 5/8" Fil.) 3-2	151661	Screw (6-40 x 1 Fil) 2-2, 3-12, 3-14, 3-16
142928	Bar 1-16	150411	Washer, Flat 2-7		
142929	Cover 1-16	150701	Motor 3-12	151685	Screw (4-40 x 5/16 Fil) 2-7
142932	Stud 1-16	150845	Governor Assembly 3-14	151686	Screw (4-40 x 3/8 Fil) 2-6, 3-2
142933	Box 1-16	150849	Washer, Insulating 3-14	151687	Screw (4-40 x 7/16 Fil) 1-12
142939	Cable Assembly 1-2	150850	Plate, Insulating 3-14	151690	Screw (10-32 x 5/16 Fil) 2-2
142942	Bracket, Tape Guide 1-12	150856	Arm 3-14	151692	Screw (6-40 x 3/16 Fil) 2-3, 3-2
142946	Pawl 1-10	150857	Clamp 3-14	151693	Screw (6-40 x 9/16 Fil) 2-9, 3-6
142949	Pawl 1-10	150858	Bracket 3-14	151694	Screw (6-40 x 11/32 Fil) 1-12
142950	Bar, Left 1-2	150859	Bracket 3-14	151721	Screw (6-40 x 3/4 Hex) 3-6, 3-10
142951	Bar, Right 1-2	150865	Screw, Clamping (4-40) 3-14	151722	Screw (6-40 x 3/16 Hex) 1-12
142952	Plate, Mounting 1-2	150866	Clamp 3-14	151723	Screw (10-32 x 3/8 Hex) 1-2, 2-2
142953	Post 1-2	150868	Bushing, Insulating 3-14	151724	Screw (10-32 x 5/8 Hex) 1-2, 1-8, 2-2, 3-8
142954	Stud 1-2	150869	Spring 3-14		
142955	Bracket, Left Rear 1-2	150872	Stud 3-14	151731	Screw (4-40 x 7/8 Fil) 2-7
142956	Bracket, Right Rear 1-2	150873	Collar 3-12	151795	Motor 3-2
142959	Plate 1-2	150877	Bracket 3-14	151820	Spring 2-7
142961	Cable Assembly, Base 1-2	150879	Cover 3-14	151880	Nut (4-40 Hex) 1-6, 1-14
142964	Board, Terminal 1-2	150880	Spring, Brush 3-12	151920	Plate 3-2
142965	Board, Terminal 1-2	150881	Spring, Brush 3-12	151922	Clamp 3-2
142966	Resistor 1-2	150882	Brush 3-12	151923	Relay 3-2
142970	Post 1-2	150884	Mounting, Brush 3-12	151924	Plate 3-2
142971	Strip, Rear 1-2	150885	Plate, Clamp 3-12	151925	Clamp 3-2
142972	Strip, Front 1-2	150948A	Plate, Identification 1-18	151926	Nut (4-40 Spl) 3-2
142974	Roller 1-4	150950	Plate, Identification 1-18	151927	Cable 3-2
142975	Brake 1-4	150966	Insulator 1-2, 2-2	151927	Washer, Bearing 3-2
142976	Shaft 1-4	150976	Bracket 3-2, 3-16	152426	Nut, Self Locking 1-14
142977	Reel, Tape 1-4	150980	Plate, Clamping 3-16	152459	Bracket 3-16
142982	Guide, Tape 1-4	150995	Bushing, Insulating 3-16	152495	Bushing 3-14
142893	Guide 1-18	150997	Fan 3-14	153030	Mount 3-2, 3-12
142985	Cable Assembly, Motor 1-2	151073	Screw (4-40 x 5/32 Fil) 1-14, 2-6	153031	Bushing 3-12
142988	Cover w/Window 1-18	151152	Screw (4-40 x 3/16 Hex) 3-14	153049	Washer, Fiber 3-2
142989	Window 1-18	151171	Contact 2-7	153101	Grommet 3-12
142991**	Cover 1-20	151173	Screw, Contact 2-7	153102	Screw, Set (8-32) 3-12
142992	Plate w/Post 1-10	151176	Base 2-7	153103	Screw, Self Tapping 3-12
142994	Bar 1-10	151177	Terminal 2-7	153114	Wire Assembly 3-12
142995	Bar 1-10	151179	Terminal 2-7	153442	Screw (10-32 x 1/2 Hex) 1-2, 1-10
142996	Bar 1-10	151180	Link 2-7	154375	Backstop 3-14
142997	Bar 1-10	151182	Washer, Fiber 2-7	154399	Plate, Identification 1-20
142998	Screw (6-40 x 3/8 Flat) 1-10	151183	Insulator 2-7	154661	Rectifier 1-2
143000	Contact Assembly 1-6	151185	Guide 2-7	154697	Grommet, Rubber 1-2
143001	Bracket 1-6	151233	Washer, Flat 2-2	155752	Sleeve, Insulating 1-2, 1-18
143002	Plate 1-4	151329	Switch 2-2	156536	Screw (4-40 x 1/8 Fil) 1-12
143003	Stud 1-6	151335	Stud 2-2	156632	Screw (6-40 x 13/32 Hex) 1-10
143004	Cover, Insulating 1-6	151346	Screw (6-40 x 3/8 Fil) 1-2, 2-2, 2-3, 2-9, 3-2, 3-10	156740	Screw (6-40 x 7/32 Hex) 1-6
143006	Lever w/Post 1-8	151355	Stud (6-40) 1-2	156768	Screw (8-32 x 9/32 Hex) 1-2
143007	Pickup, Magnetic 1-18	151359	Cover 2-7	156770	Plate, Identification 1-20
143014	Link w/Hub and Stud 1-8	151415	Block, Terminal 1-2, 2-2	156993	Nut, Speed 1-20
143016	Arm, Toggle 1-8	151453	Nut (10-32 Hex) 3-12	161238	Connector 1-8
143017	Arm 1-8	151455	Spring 3-12	161579	Capacitor 3-16
143019	Spacer 1-8	151606	Screw (10-32 x 1/4 Hex) 1-12, 2-3	161580	Resistor 3-16
143020	Spacer 1-8	151618	Screw (6-40 x 7/16 Fil) 2-3, 2-6	162861	Screw (6-40 x 1-7/16 Fil) 3-16
143021	Plate w/Post and Stud 1-8	151620	Strap 3-2, 3-12	163267	Wire w/Terminal 3-16
143026	Eccentric 1-8, 1-12	151621	Screw (6-40 x 3/4 Rd) 3-2, 3-12	163268	Wire w/Terminal 3-16
143027	Guide 1-12	151622	Nut (6-32 Sq) 3-2, 3-12	163269	Wire w/Terminals 3-16
143028	Scale 1-8	151626	Terminal 1-2, 2-2, 3-2, 3-12	164479	Terminal 3-16
143038	Spacer 3-10	151630	Screw (6-40 x 1/4 Hex) 1-2, 1-12, 1-14, 1-18, 2-10, 3-12	170752	Plate, Rear 1-8
143039	Hub 3-10			170754	Bracket 1-18
143040	Ring, Retaining 1-12	151631	Screw (6-40 x 5/16 Hex) 1-10, 2-2, 3-16	170756	Bracket 1-8
143041	Screw, Special (4-40) 1-18			170760	Plates 1-12
143042	Oiler, Felt 1-18			170764	Motor 3-2
143043	Bracket 1-18	151632	Screw (6-40 x 1/4 Hex) 2-3	170766	Spacer 1-12
143045	Link w/Bushings 1-8	151633	Bearing, Ball 1-14	171190	Sprocket 3-8
143048	Spring 1-8	151637	Screw (4-40 x 1/4 Fil) 1-10, 1-14, 2-2, 2-3, 2-7, 2-8, 2-9, 3-2, 3-14	171692	Shaft