

28 TWO-SHAFT TRANSMITTER DISTRIBUTOR BASE (LBXB) and MULTIPLE  
TRANSMITTER BASE (LMBX)

PARTS

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PAINT FINISH COLOR CODE CHART		
COLOR	Finish Suffixes	
	Textured Vinyl	Smooth Vinyl
Green Gray Light Gray Olive Gray	GA(45)	HB(68) HF(46)
The double asterisk(**) denotes a painted part. Suffix to be applied following the part number. Number in parentheses indicates Bell System Code.		

Unit Description	Teletype Code	Bell System Code
Transmitter Distributor Base	LMXB204**	28K**
Gearsets	156658	28G
	156728	28H
	156659	28J

NOTE: When ordering parts from this section, prefix each number with letters TP.

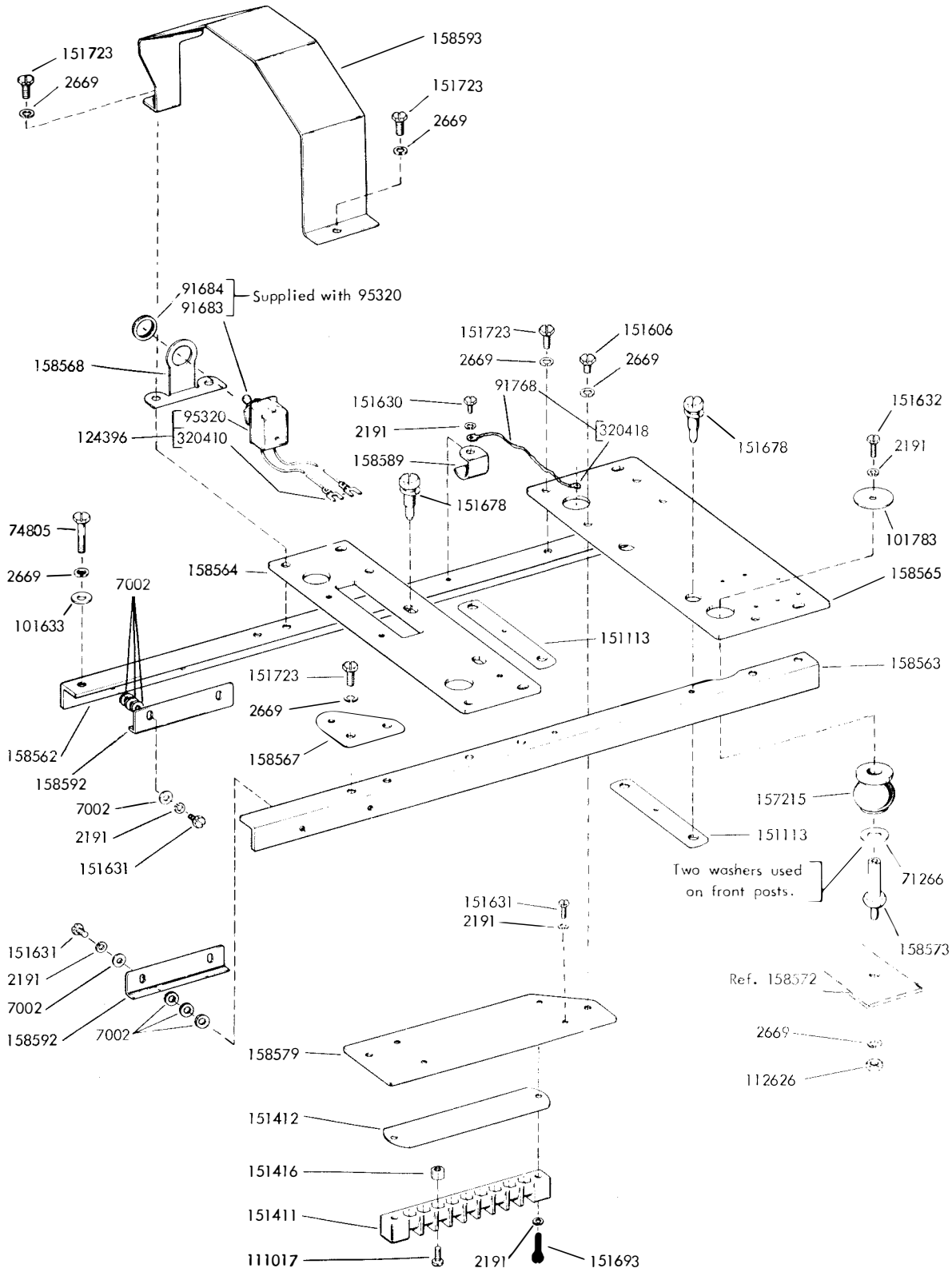


FIGURE 1. MOUNTING BASE COMPONENTS

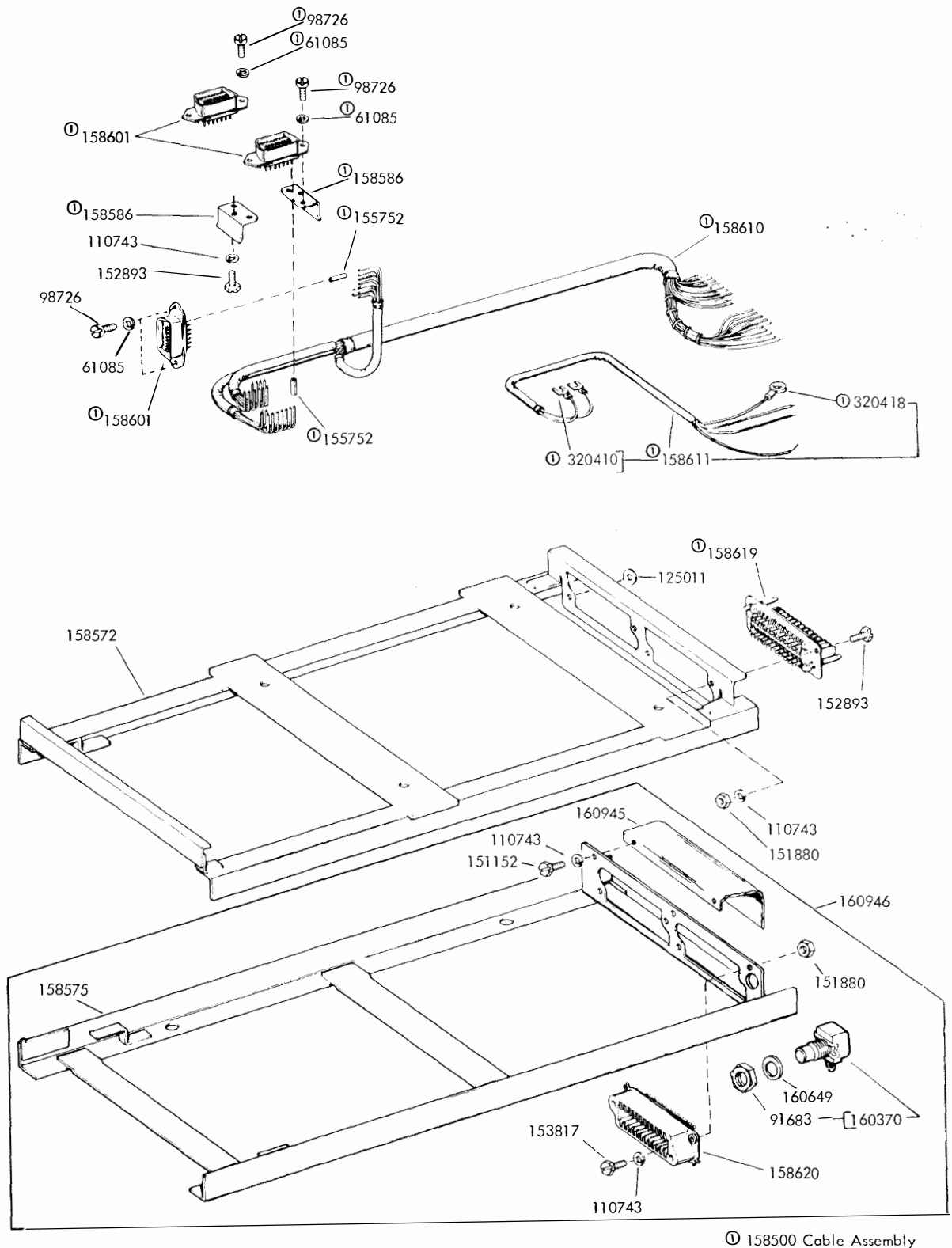


FIGURE 2. BASE, SUB-BASE AND CABLES

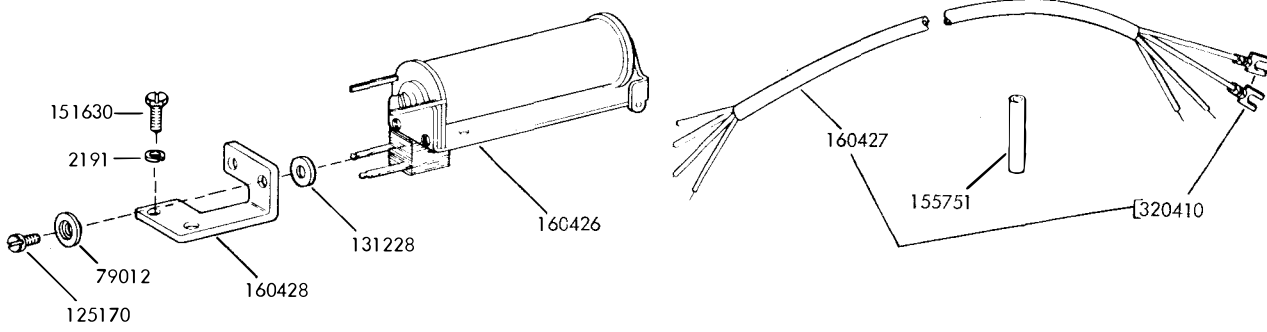
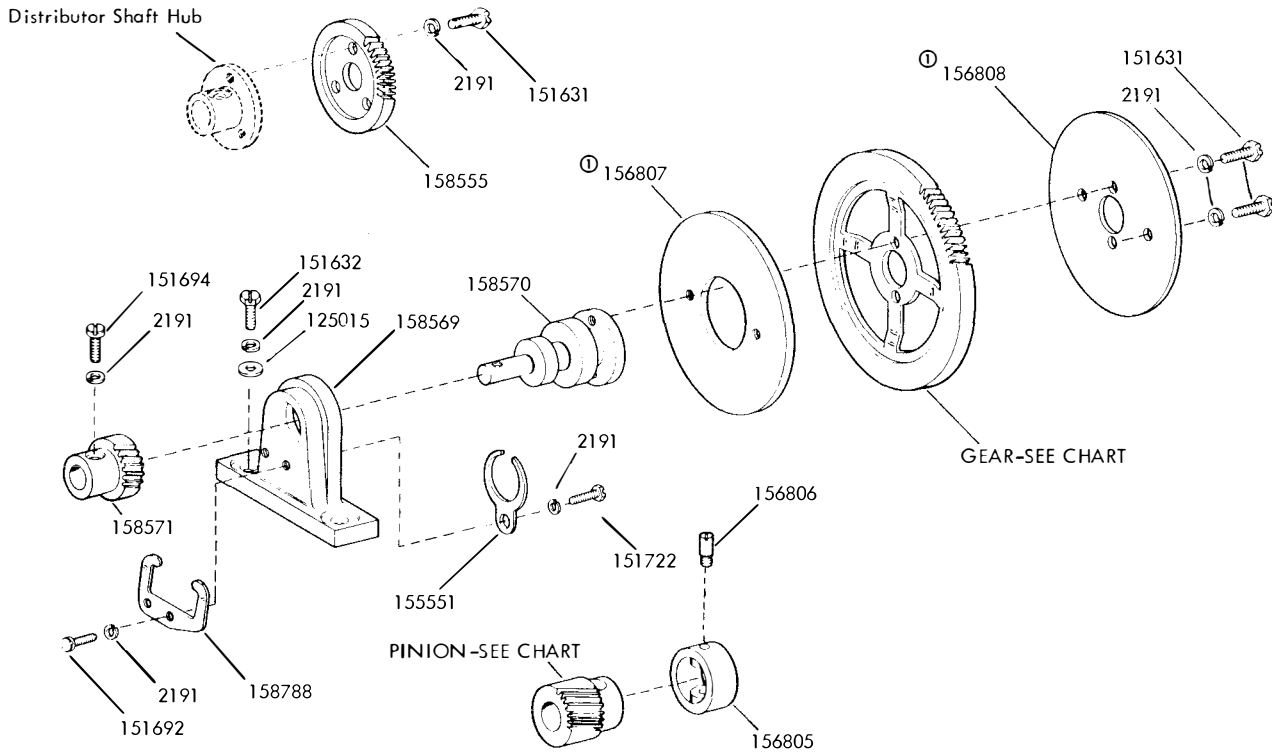


FIGURE 3. MOTOR CONTROL RELAY



GEAR CHART									
SET NO.	158606	161290	156658	156728	156659	161358	161359	194353	194348
UNIT CODE	7.00	7.00	7.42	7.42	7.42   11.0	7.42	7.00	7.50	7.50
OPM	390	635	368	460	600	404	428	364	600
WPM	65	106	60	75	100	67	71	60	100
GEAR	158594	161288	156626	156726	156628	161351	161353	194351	194350
PINION	158595	161287	156627	156725	156629	161352	161354	194352	194349
BAUD	45.5	74.2	45.5	56.88	74.2   110	50.0	50.0	45.5	75.0

Ⓛ Early design

FIGURE 4. INTERMEDIATE GEAR MECHANISM AND GEAR SETS

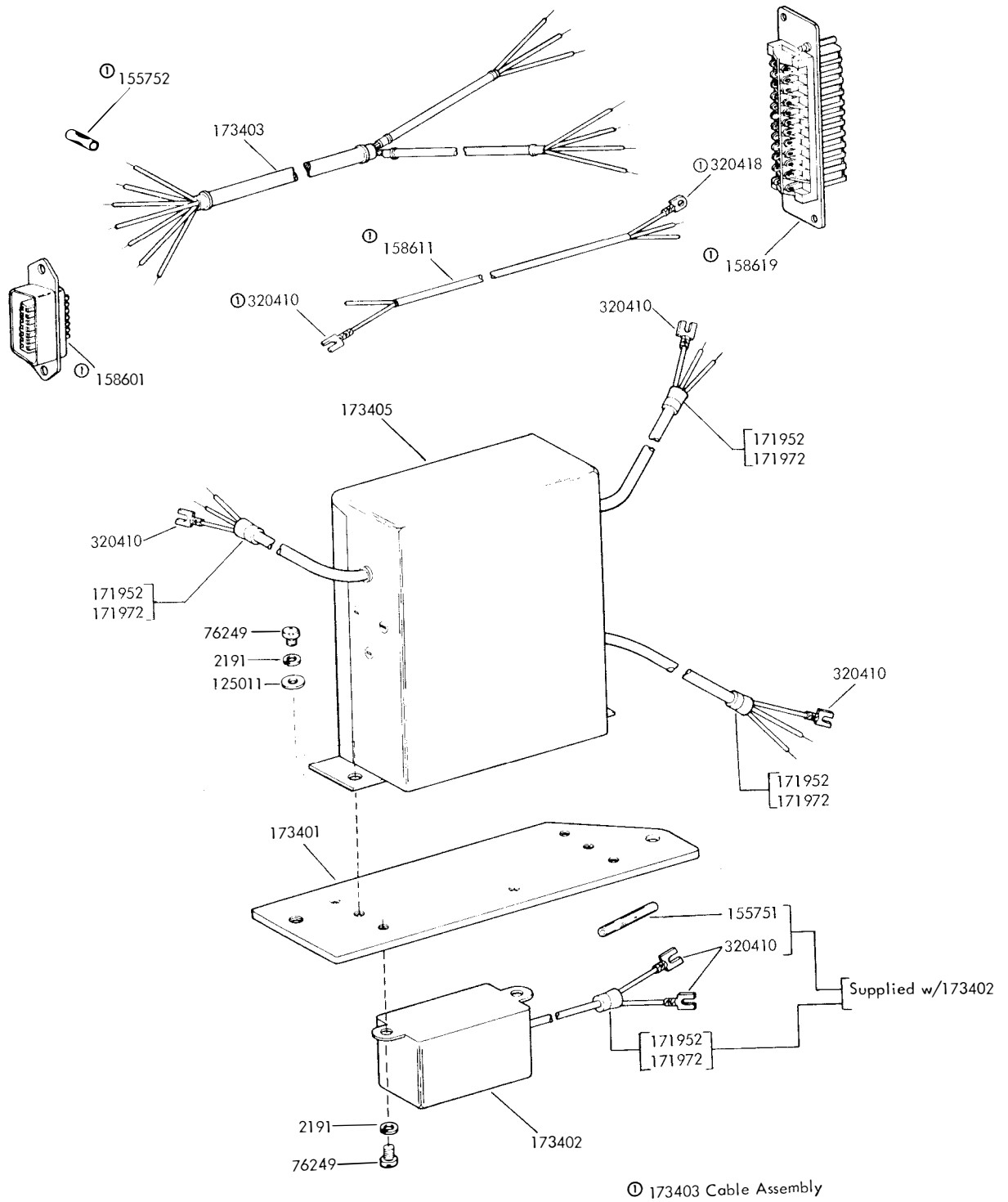


FIGURE 5. SIGNAL LINE FILTER AND CABLE

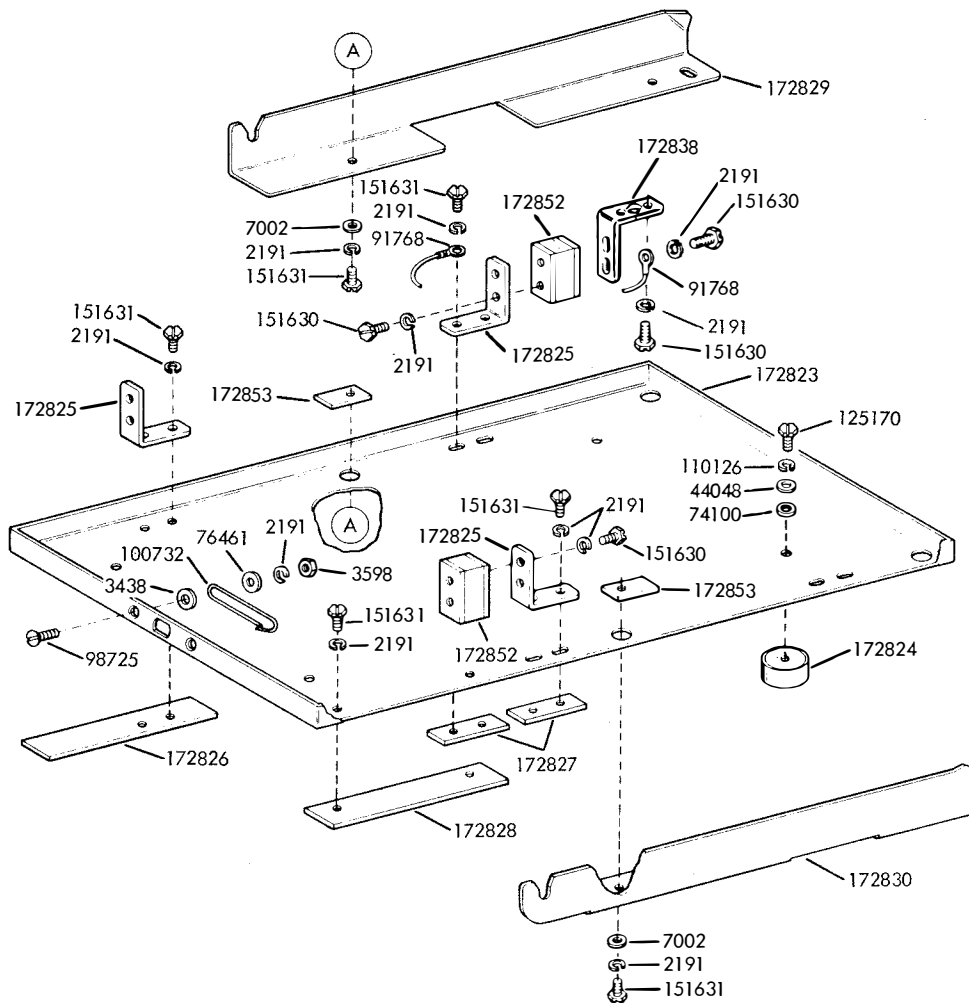
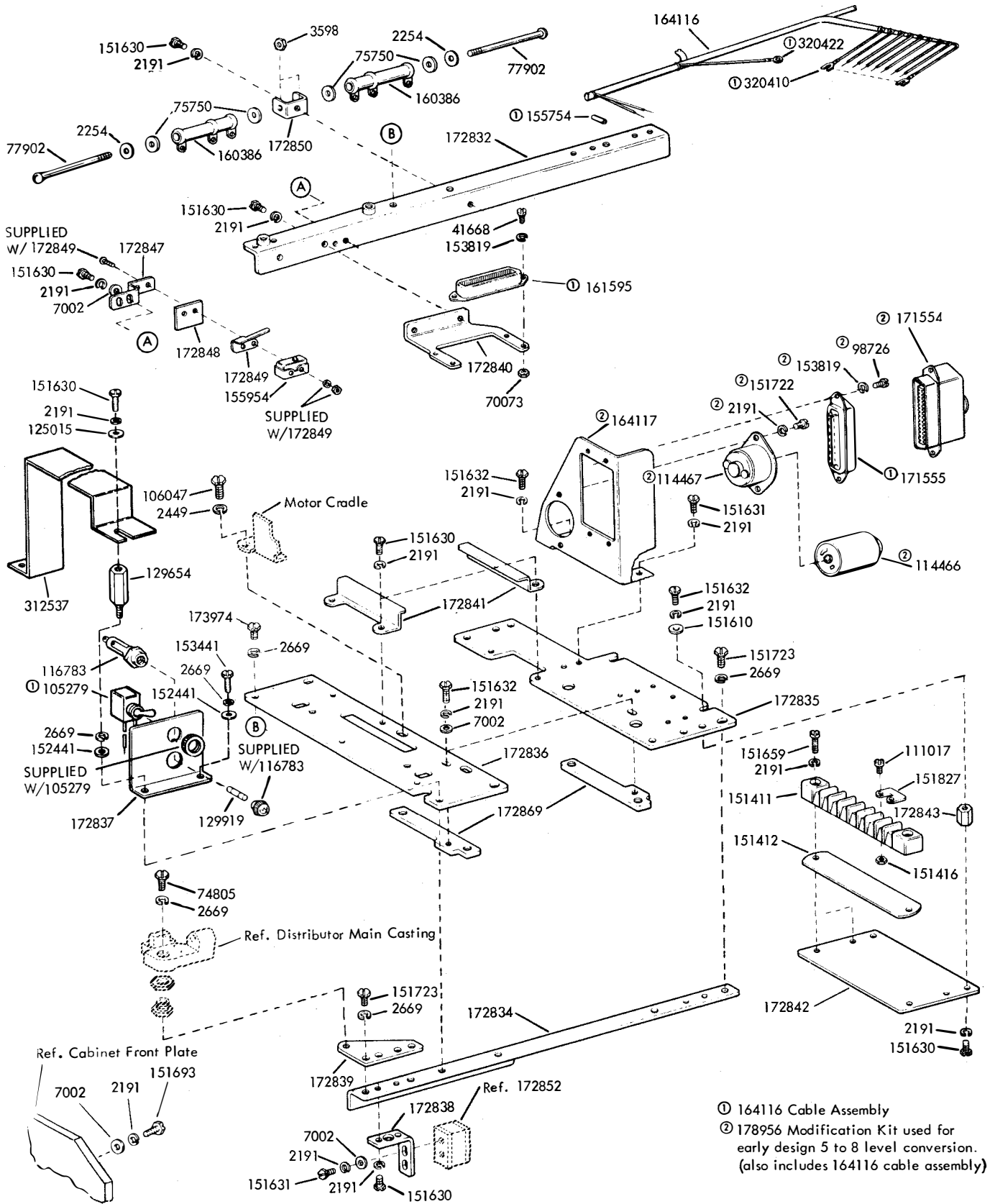
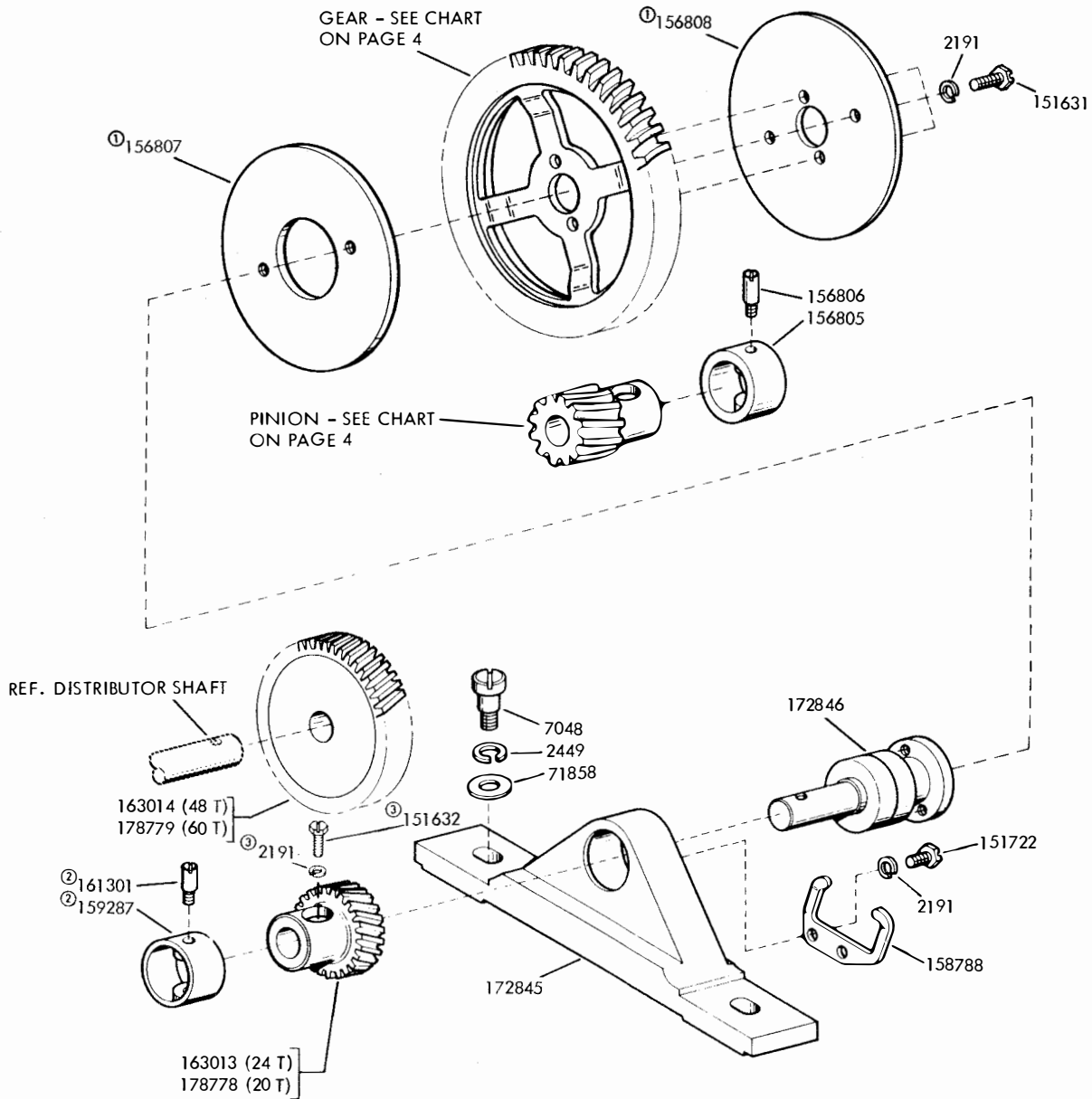


FIGURE 6. LOWER BASE COMPONENTS



- ① 164116 Cable Assembly
- ② 178956 Modification Kit used for early design 5 to 8 level conversion. (also includes 164116 cable assembly)


FIGURE 7. UPPER BASE COMPONENTS



- ① Early Design used with fiber gears only.
- ② Used with 163013 Pinion
- ③ Used with 178778 Pinion

FIGURE 8. INTERMEDIATE GEAR HOUSING



	
<b>CABLE CLAMP</b>	
Part Number	I.D.
121242	1/8"
121248	1/2"
121250	3/4"

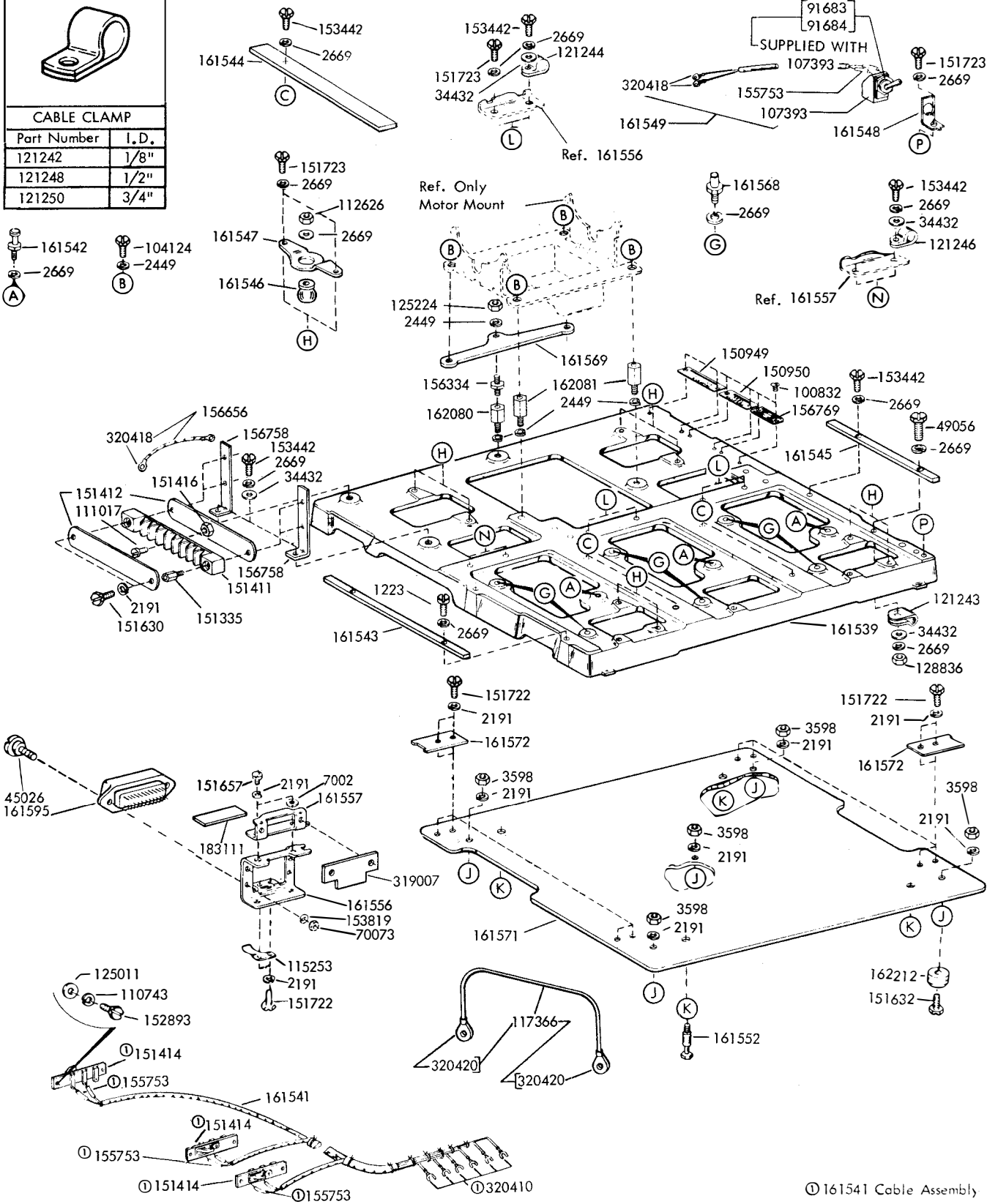
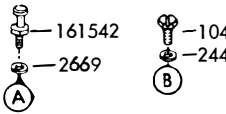


FIGURE 9. BASE - MULTIPLE MOUNTED UNIT

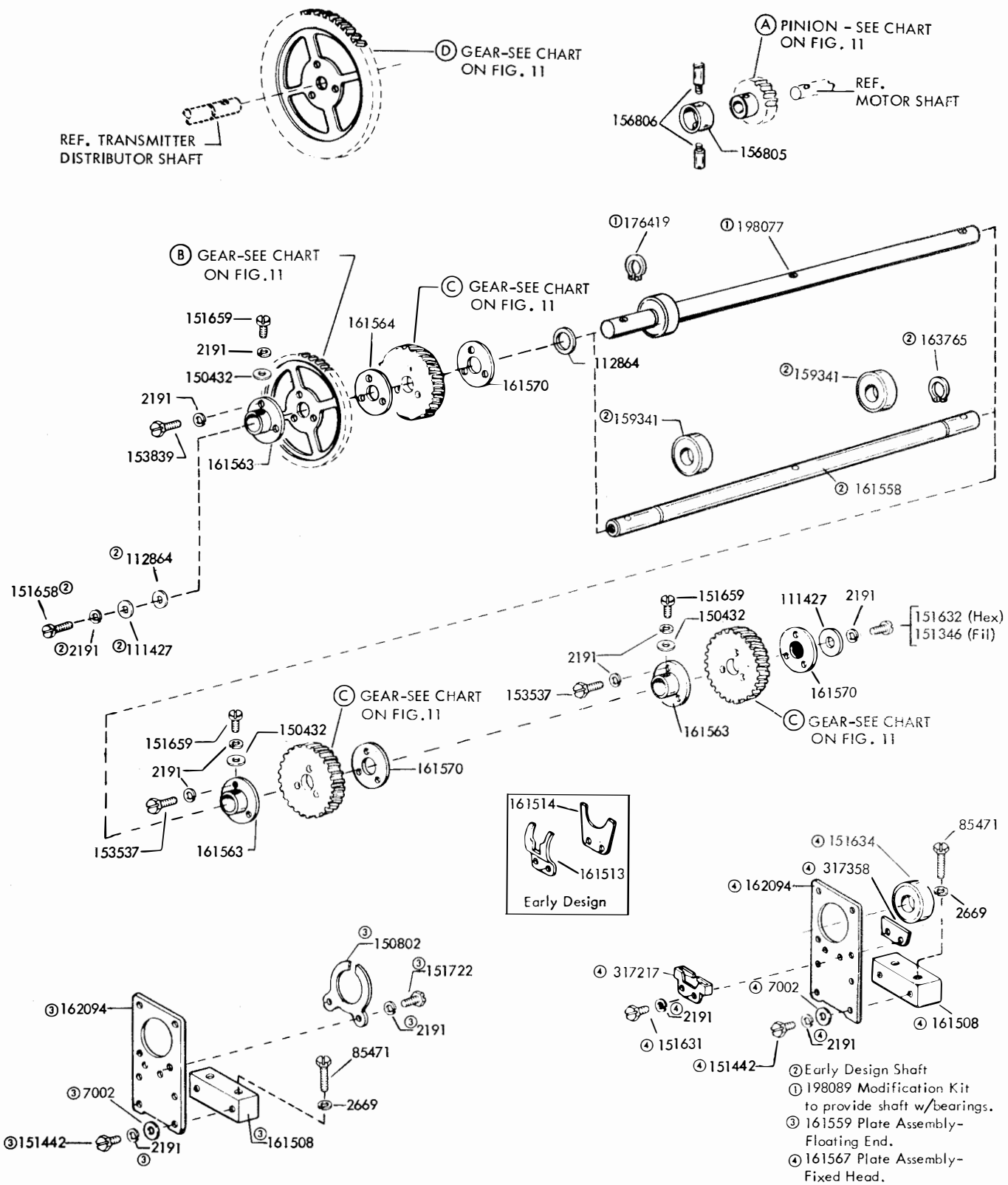


FIGURE 10. DRIVING SHAFT MECHANISM - MULTIPLE MOUNTED UNIT

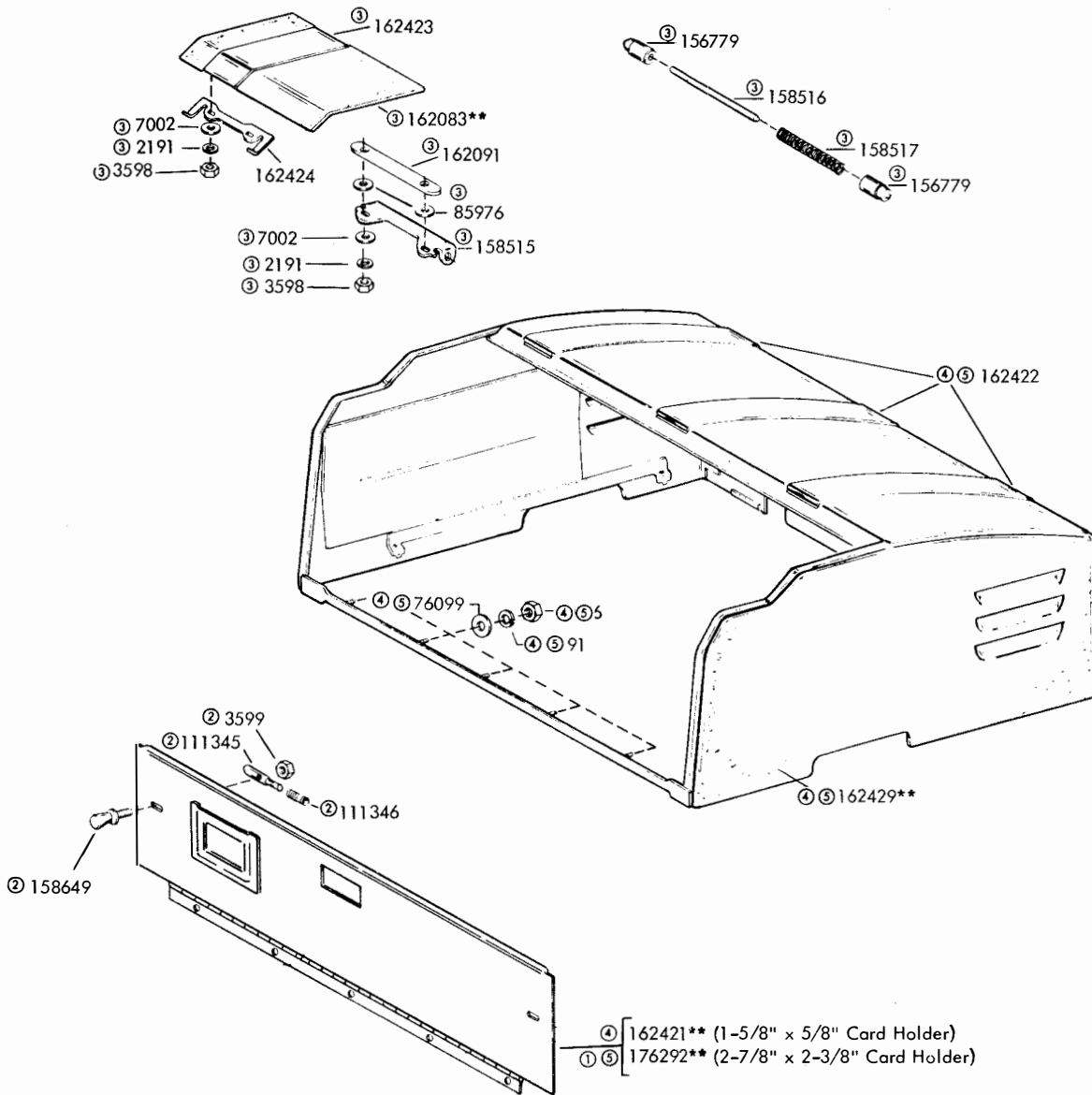
NON-VARIABLE SPEED GEAR ARRANGEMENTS - FOR 60 CYCLE MOTORS							
Unit Code	7.00			7.42			
Baud OPM - WPM	45.5 390 - 65	50.0 428 - 71	75.0 643 - 107	45.5 368 - 60	56.88 460 - 75	74.2 600 - 100	50.0 404 - 67
Motor Gear Set:	173592:	179212:	173589:	162035:	162038:	162041:	176155
(A) Pinion	173594-39T	179213-40T	173591-45T	162036-27T	162039-24T	162042-30T	176157 - 33T
(B) Gear	173593-180T	179214-168T	173590-126T	162037-132T	162040-94T	162043-90T	176156 - 147T
Associated Gears:							
(C) Cross - Shaft Gear	162033-48T	162033-48T	162033-48T	162033-48T	162033-48T	162033-48T	162033 - 48T
(D) TD Gear	162034-96T	162034-96T	162034-96T	162034-96T	162034-96T	162034-96T	162034 - 96T

VARIABLE SPEED GEAR ARRANGEMENTS - FOR 60 CYCLE MOTORS						
Unit Code	7.00			7.42		
Baud OPM - WPM	45.5 390 - 65	74.2 636 - 106		45.5 368 - 60	56.88 460 - 75	50.0 404 - 67
Motor Gear Set:	172776:	172776:		172776:	172776:	172776:
(A) Pinion	172778-26T	172778-26T		172778-26T	172778-26T	172778-26T
(B) Gear	172777-104T	172777-104T		172777-104T	172777-104T	172777-104T
Gear Set:	178369:	178366:		172767:	172770:	174487:
(C) Cross - Shaft Gear	179060-52T	178367-36T		172768-36T	172771-48T	174488-44T
(D) TD Gear	179061-120T	178368-116T		172769-88T	172772-94T	174489-98T

VARIABLE SPEED GEAR ARRANGEMENTS - FOR 60 CYCLE MOTORS					
Unit Code		7.42-7.50	7.50		
Baud OPM - WPM		74.2 - 75.0 600 - 100	45.5 364 - 65	50.0 400 - 66	
Motor Gear Set:		172776:	172776:	172776:	
(A) Pinion		172778-26T	172778-26T	172778-26T	
(B) Gear		172777-104T	172777-104T	172777-104T	
Gear Sets:		172773:	178821:	178824:	
(C) Cross - Shaft Gear		172774-52T	178819-40T	178822-40T	
(D) TD Gear		172775-78T	178820-99T	178823-90T	

VARIABLE SPEED GEAR ARRANGEMENTS - FOR 50 CYCLE MOTORS						
Unit Code	7.42				7.50	
Baud OPM WPM	45.5 368 - 60	50.0 404 - 67	56.88 460 - 75	74.2 600 - 100	75.0 600 - 100	
Motor Gear Set:	172776:	172776:	172776:	172776:	172776:	
(A) Pinion	172778-26T	172778-26T	172778-26T	172778-26T	172778-26T	
(B) Gear	172777-104T	172777-104T	172777-104T	172777-104T	172777-104T	
Gear Sets:	308224:	308227:	308230:	308233:	310605:	
(C) Cross - Shaft Gear	308222 - 52T	308225 - 62T	308228 - 65T	308231 - 72T	310606 -64T	
(D) TD Gear	308223 - 106T	308226 - 115T	308229 - 106T	308232 - 90T	310607 -80T	

FIGURE 11. GEAR CHART - MULTIPLE MOUNTED UNIT



- \*\*Refer to page 1 for finish suffix
- ① 176294\*\* Modification Kit to provide Card Holder
  - ② Part of 162421\*\* and 176292\*\*
  - ③ 162425\*\* Plate Assembly
  - ④ 161553\*\* Cover Assembly
  - ⑤ 178183\*\* Cover assembly

FIGURE 12. COVER - MULTIPLE MOUNTED UNIT

## NUMERICAL INDEX

Part Number	Description and Page Number	Part Number	Description and Page Number	Part Number	Description and Page Number
1223	Screw, 10-32 x 1/2 Fil 9	110743	Lockwasher 3,9	151632	Screw, 6-40 x 3/8 Hex 2,4,7,8,9,10
2191	Lockwasher 2,4,5,6,7,8,9,10,12	111017	Screw, 6-40 x 5/16 Fil 2,7,9	151634	Bearing, Ball 10
2254	Washer, Flat 7	111345	Bolt 12	151639	Washer, Flat 10
2449	Lockwasher 7,8,9	111346	Spring, Compression 12	151657	Screw, 6-40 x 1/4 Fil 9
2669	Lockwasher 2,7,9,10	111427	Washer, Flat 10	151658	Screw, 6-40 x 5/16 Fil 10
3438	Washer, Flat 6	112626	Nut, 10-32 Hex 2,9	151659	Screw, 6-40 x 1/2 Fil 7,10
3598	Nut, 6-40 Hex 6,7,9,12	112864	Spacer, .173" Thk 10	151678	Screw, 1/4-32 Pilot 2
3599	Nut, 4-40 Hex 12	114466	Connector, 3 Pt Receptacle 7	151692	Screw, 6-40 x 3/16 Fil 4
3606	Nut, 6-40 Hex 12	114467	Connector, 3 Pt Plug 7	151693	Screw, 6-40 x 9/16 Fil 2,7
7002	Washer, Flat 2,6,7,9,10,12	115253	Spring, Flat 9	151694	Screw, 6-40 x 11/32 Fil 4
7048	Screw, 10-32 Shoulder 8	116783	Holder, Fuse 7	151722	Screw, 6-40 x 3/16 Hex 4,7,8,9,10
34432	Washer, Flat 9	117366	Jumper, 8-1/2" Green 9	151723	Screw, 10-32 x 3/8 Hex 2,7,9
41668	Screw, 3-48 Shoulder 7	121242	Clamp, 1/8 ID Cable 9	151827	Strap, Terminal 7
44048	Washer, Flat 6	121243	Clamp, 3/16 ID Cable 9	151880	Nut, 4-40 Hex 3
45026	Screw, 3-48 Shoulder 9	121244	Clamp, 1/4 ID Cable 9	152441	Washer, Flat 7
49056	Screw, 10-32 x 7/8 Hex 9	121246	Clamp, 3/8 ID Cable 9	152893	Screw, 4-40 x 1/4 Hex 3,9
61085	Lockwasher 3	121248	Clamp, 1/2 ID Cable 9	153441	Screw, 10-32 x 7/16 Hex 7
70073	Nut, 3-48 Hex 7,9	121248	Clamp, 1/2 ID Cable 9	153442	Screw, 10-32 x 1/2 Hex 9
71266	Washer, Flat 2	121250	Clamp, 3/4 ID Cable 9	153537	Screw, 6-40 x 9/32 Hex 10
71858	Washer, Flat 8	124396	Switch Assembly 2	153817	Screw, 4-40 x 3/8 Hex 3
74100	Washer, Leather 6	125011	Washer, Flat 3,5,9	153819	Lockwasher 7,9
74805	Screw, 10-32 x 3/4 Hex 2,7	125015	Washer, Flat 4,7	153839	Screw, 6-40 x 5/8 Hex 10
75750	Washer, Insulating 7	125170	Screw, 8-32 x 5/16 Fil 4,6	155551	Clamp, Bearing 4
76099	Washer, Flat 12	125224	Nut, 1/4-32 Hex 9	155751	Sleeve, ID 1" Lg Insulating 4,5
76249	Screw, 6-40 x 1/8 Fil 5	128836	Nut, 10-32 Hex 9	155752	Sleeve, 5/64 x ID x 1/2" Lg Insulating 3,5
76461	Washer, Flat 6	129654	Post 7	155753	Sleeve, 1/8 ID x 1/2" Lg Insulating 9
77902	Screw, 6-40 x 2-3/8 RD 7	129919	Fuse, SL-BL 4 AMP 7	155754	Sleeve, 1/16 ID x 1/2" Lg Insulating 7
79012	Insulator 4	131228	Washer, Insulating 4	155954	Switch, Sensitive 7
85471	Screw, 10-32 x 1 Hex 10	150432	Washer, Flat 10	156334	Stud 9
85976	Washer, Flat 12	150802	Clamp 10	156626	Gear, 88T 4
91683	Nut, 15/32-32 Hex 2,3,9	150949	Plate, Identification 9	156627	Pinion, 18T 4
91684	Nut, 15/32-32 Ring 2,9	150950	Plate, Code 9	156628	Gear, 72T 4
91768	Jumper, 3-1/2" Black 2,6	151113	Strip, Mounting 2	156629	Pinion, 24T 4
95320	Switch, SP-ST Toggle 2	151152	Screw, 4-40 x 3/16 Hex 3	156656	Jumper, 2-3/4" Black 9
98725	Screw, 6-40 x 3/8 Flat 6	151335	Stud 9	156658	Gear Set, 60 WPM 4
98726	Screw, 3-48 x 1/4 Fil 3,7	151346	Screw, 6-40 x 3/8 Fil 10	156659	Gearset, 100 WPM 4
100732	Spring, Clip 6	151411	Block, Terminal 2,7,9	156725	Pinion, 24T 4
100832	Screw, No.0 x 3/16 Drive 9	151412	Insulator, Terminal Block 2,7,9	156726	Gear, 94T 4
101633	Washer, Flat 2	151414	Switch, Sensitive 9	156728	Gearset, 75 WPM 4
101783	Washer, Flat 2	151416	Nut, 6-40 Hex 2,7,9	156740	Screw, 6-40 x 7/32 Hex 9
104124	Screw, 1/4-32 x 11/32 Hex 9	151442	Screw, 6-40 x 1/2 Hex 10	156758	Bracket 9
105279	Switch SP-DT Toggle 7	151606	Screw, 10-32 x 1/4 Hex 2		
106047	Screw, 1/4-32 x 1/2 Hex 7	151610	Washer, Flat 7		
107393	Switch, SP-ST Toggle 9	151630	Screw, 6-40 x 1/4 Hex 2,4,6,7,9		
110126	Lockwasher 6	151631	Screw, 6-40 x 5/16 Hex 2,4,6,7,8,10		

## NUMERICAL INDEX (Continued)

Part Number	Description and Page Number	Part Number	Description and Page Number	Part Number	Description and Page Number
156769	Plate, Teletype Identification 9	161288	Gear, 68T 4	162081	Stud 9
156779	Plunger 12	161290	Gearset, 106 WPM 4	162083**	Cover 12
156805	Retainer 4,8,10	161301	Post 8	16209i	Plate, Spacing 12
156806	Post 4,8,10	161351	Gear, 49T 4	162094	Plate, Bearing Mounting 10
156807	Disc 4,8	161352	Pinion, 11T 4	162212	Bumper 9
156808	Disc 4,8	161353	Gear, 63T 4	162421**	Panel, Cover 12
157215	Mount, Vibration 2	161354	Pinion, 15T 4	162422	Strip, Cover 12
158500	Cable Assembly 3	161358	Gearset, 67 WPM 4	162423	Strip, Cover 12
158515	Bracket 12	161359	Gearset, 71 WPM 4	162424	Plate, Spring 12
158516	Rod 12	161508	Bar, Mounting Plate 10	162425**	Plate Assembly 12
158517	Spring, Compression 12	161513	Clamp 10	162429**	Cover 12
158555	Gear, 40T 4	161514	Plate 10	163013	Pinion, 24T 8
158562	Rail, Left 2	161539	Base 9	163014	Gear, 48T 8
158563	Rail, Right 2	161541	Cable Assembly 9	163765	Ring, Retaining 10
158564	Plate, Center Mounting 2	161542	Post 9	164116	Cable Assembly 7
158565	Plate, Rear Mounting 2	161543	Bar 9	164117	Bracket 7
158567	Plate 2	161544	Bar 9	171554	Connector, 50 Pt Plug 7
158568	Bracket 2	161545	Bar 9	171555	Connector, 16 Pt Plug 7
158569	Housing, Bearing 4	161546	Mount, Vibration 9	171952	Connector, Green Shielding 5
158570	Shaft w/Bearing 4	161547	Plate, Vibration Mounting 9	171972	Connector, Green Insulated 5
158571	Gear, 20T 4	161548	Bracket, Switch 9	172767	Gearset, 60 WPM 11
158573	Stud 2	161549	Cable Assembly 9	172768	Gear, 36T 11
158575	Base 3	161552	Screw, 10-32 SPL 9	172769	Gear, 88T 11
158579	Plate, Terminal 2	161553**	Cover 12	172770	Gearset, 75 WPM 11
158586	Basket 3	161556	Bracket, Connector 9	172771	Gear, 48T 11
158589	Clamp, Cable 2	161557	Bracket, Switch 9	172772	Gear, 94T 11
158592	Bracket, Guide 2	161558	Shaft 10	172773	Gearset, 75 WPM 11
158593	Guard, Gear 2	161559	Plate Assembly 10	172774	Gear, 52T 11
158594	Gear, 60T 4	161563	Hub 10	172775	Gear, 7T 11
158595	Pinion, 13T 4	161564	Spacer, .172" Thk 10	172776	Gearset, 65-75-100 WPM 11
158601	Connector, 14Pt Plug 3,5	161566	Plate Assembly 10	172777	Gear, 104T 11
158606	Gearset, 65WPM 4	161567	Plate Assembly 10	172778	Pinion, 26T 11
158610	Cable 3	161568	Stud, Locating 9	172823	Base 6
158611	Cable w/Terminals 3,5	161569	Plate 9	172824	Foot, Rubber 6
158619	Connector, 24 Pt Plug 3,5	161570	Plate, 6-40 Nut 10	172825	Bracket 6
158620	Connector, 24 Pt Receptacle 3	161571	Plate, Oil 9	172826	Plate 6
158649	Screw, 4-40 Thumb 12	161572	Plate, Locating 9	172827	Plate, Nut 6
158788	Clamp, Bearing 4,8	161595	Connector, 36 Pt Receptacle 7,9	172828	Plate 6
159287	Retainer, Pinion 8	162033	Gear, 48T 11	172829	Bracket, Left 6
159341	Bearing, Ball 10	162034	Gear, 96T 11	172830	Bracket, Right 6
160370	Switch, NC Pushbutton 3	162035	Gearset, 60 WPM 11	172832	Rail, Left 7
160386	Resistor, 1,000 OHM 7	162036	Pinion, 27T 11	172834	Rail, Right 7
160426	Relay 4	162037	Gear, 132T 11	172835	Plate, Rear 7
160427	Cable w/Terminals 4	162038	Gearset, 75 WPM 11	172836	Plate, Front 7
160428	Bracket 4	162039	Pinion, 24T 11	172837	Bracket, Switch 7
160649	Washer, Flat 3	162040	Gear, 96T 11	172838	Bracket 6,7
160945	Guard 3	162041	Gearset, 100 WPM 11	172839	Plate, Adapter 7
160946	Base Assembly, Sub 3	162042	Pinion, 30T 11		
161287	Pinion, 24T 4	162043	Gear, 90T 11		
		162080	Stud 9		

\*\*Refer to page 1 for finish suffix

## NUMERICAL INDEX (Continued)

Part Number	Description and Page Number	Part Number	Description and Page Number	Part Number	Description and Page Number
172840	Bracket, Connector 7	176156	Gear, 147T 11	194352	Pinion, 17T 4
172841	Bracket 7	176157	Pinion, 33T 11	194353	Gearset, 60 WPM 4
172842	Plate 7	176292**	Panel, Cover 12	198077	Shaft w/Bearing 10
172843	Post 7	176294**	Modification Kit 12	198089	Modification Kit 10
172845	Bracket, Bearing 8	176419	Ring, Retaining 10	308222	Gear, 52T 11
172846	Shaft w/Bearings 8	178183**	Cover Assembly Base 12	308223	Gear, 106T 11
172847	Bracket, Switch 7	178366	Gearset, 106 WPM 11	308224	Gearset, 60 WPM 11
172848	Insulator, .031" Thk 7	178367	Gear, 82T 11	308225	Gear, 62T 11
172849	Switch, Actuator 7	178368	Gear, 116T 11	308226	Gear, 115T 11
172850	Bracket 7	178369	Gearset, 65 WPM 11	308227	Gearset, 67 WPM 11
172852	Isolator, Rubber 6,7	178778	Pinion, 20T 8	308228	Gear, 65T 11
172853	Plate, Nut 6	178779	Gear, 60T 8	308229	Gear, 106T 11
172869	Plate, Nut 7	178819	Gear, 40T 11	308230	Gearset, 75 WPM 11
173401	Plate, Terminal 5	178820	Gear, 99T 11	308231	Gear, 72T 11
173402	Filter 5	178821	Gearset 11	308232	Gear, 90T 11
173403	Cable Assembly 5	178822	Gear, 40T 11	308233	Gearset, 100 WPM 11
173405	Filter, R.F. 5	178823	Gear, 90T 11	310605	Gearset, 100 WPM 11
173589	Gearset, 107 WPM 11	178824	Gearset 11	310606	Gear, 64T 11
173590	Gear, 126T 11	178956	Modification Kit 7	310607	Gear, 80T 11
173591	Pinion, 45T 11	179060	Gear, 52T 11	312537	Guard, Gear 7
173592	Gearset, 65 WPM 11	179061	Gear, 120T 11	317217	Clamp 10
173593	Gear, 180T 11	179212	Gearset, 71 WPM 11	317358	Plate 10
173594	Pinion, 39T 11	179213	Pinion, 40T 11	319007	Insulator 9
173974	Screw, 10-32 x 5/16 Hex 7	179214	Gear, 168T 11	320410	Terminal, Spade Type 2,3,4,5,7,9
174487	Gearset, 67 WPM 11	183111	Label 9	320418	Terminal, Ring Type 2,3,5,9
174488	Gear, 44T 11	194348	Gearset, 100 WPM 4	320420	Terminal, Ring Type 9
174489	Gear, 98T 11	194349	Pinion, 52T 4	320422	Terminal, Ring Type 7
176155	Gearset, 67 WPM 11	194350	Gear, 104T 4		
		194351	Gear, 104T 4		

\*\*Refer to page 1 for finish suffix

