

Simplex[®] 35

PROJECTOR MECHANISM

PARTS CATALOGUE

Rev. September 1997



**STRONG
INTERNATIONAL**

a division of Ballantyne of Omaha, Inc.

4350 McKinley Street

Omaha, Nebraska 68112 USA

Tel 402/453-4444 • Fax 402/453-7238

SIMPLEX 35 PROJECTOR MECHANISM PARTS CATALOGUE

Table of Contents

SECTION I

	<u>Page No.</u>
Film Compartment Door Assembly, G-2168	1-0
Curved Film Trap Assembly, G-2613	1-2
Aperture Plates	1-2
Curved Film Gate Assembly, G-4318	1-4
Framing Shaft & Idler Gear Assembly	1-5
Film Gate Carriage & Opening Mechanism	1-6
Fire Shutter & Framing Light	1-8
Heat Shield & Changeover Douser	1-10
Horizontal Main Drive Assembly	1-12
Intermittent Movement Assembly, G-4312	1-13
Vertical Shaft Assembly, G-1801	1-14
Holdback (Lower) Sprocket & Pad Roller Assembly, G-1809	1-15
Main Frame & Lens Barrel Assembly	1-16
Framing Cam & Oil Gauge	1-18
Oil Pump Assembly, G-1822	1-20
Shutter & Framing Assembly, G-1815	1-22
Feed (Upper) Sprocket & Pad Roller Assembly	1-24
Gear Compartment Cover Assembly	1-26
Shutter Guards & Lower Rear Cover	1-27

SECTION II

Drive Kit for Simplex Soundheads (Obsolete Models)	2-1
Drive Kit for (Obsolete) RCA Soundheads	2-1
Lens Adapter Assembly, G-2156	2-2
Picture Changeover Assembly, G-2090 & G-2091 (Essanay)	2-3
Picture Changeover Assembly, G-7927 (Strong)	2-3b
Film Trap Heat Shield, Air/Water Cooled	2-4
Film Gate, Studio Type, (3) Shoes; G-2411	2-5
Film Gate, Studio Type, (2) Shoes; G-2409	2-7
Film Gate, Studio Type, Reversing; G-10013	2-9
Film Gate, Studio Type, Reversing; G-10051	2-11
Film Trap, Straight Type; G-2448	2-13

STRONG INTERNATIONAL
a division of Ballantyne of Omaha, Inc.
Engineering/Sales Dept.
September 18, 1997

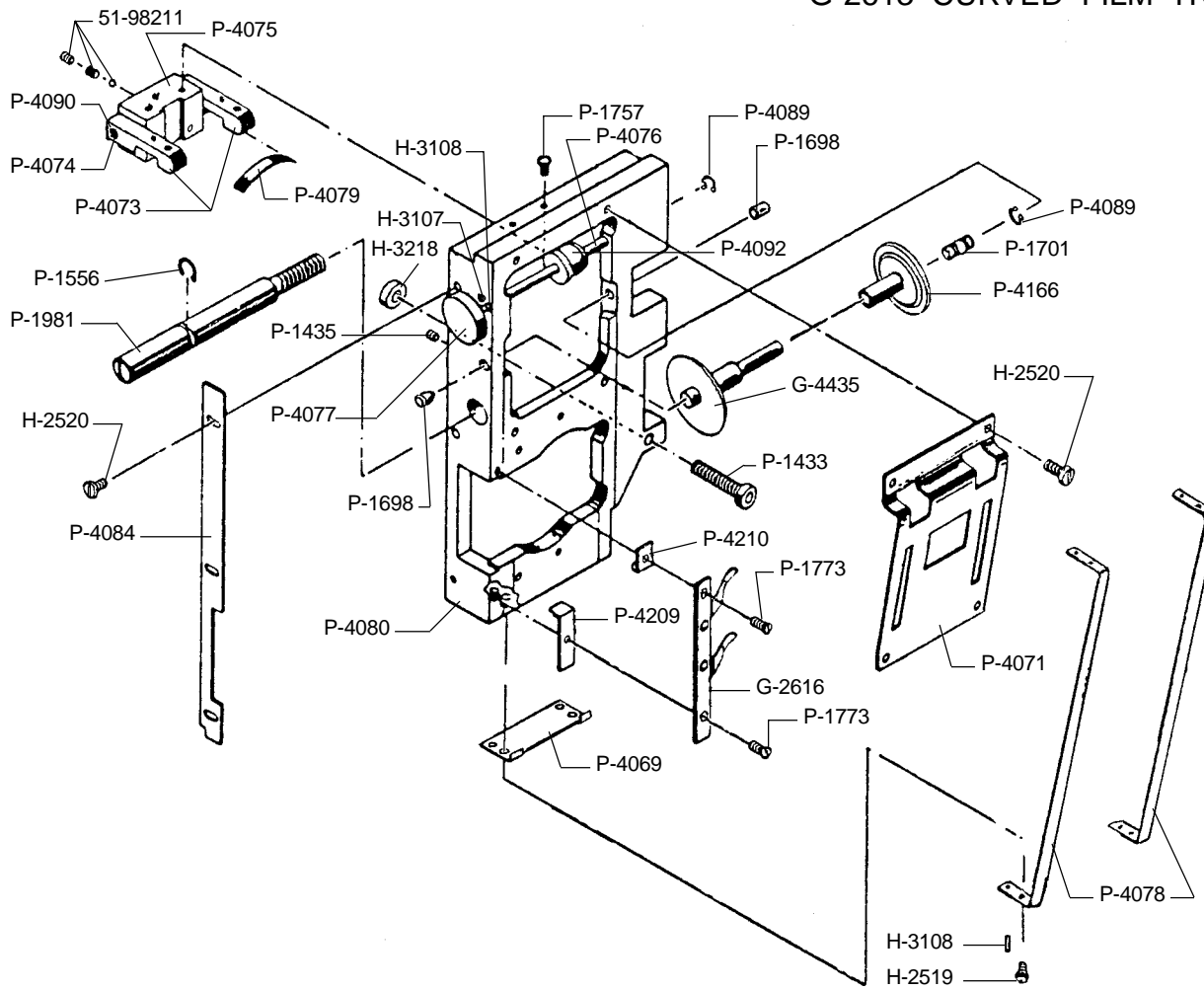
SECTION I

FILM COMPARTMENT DOOR

Parts List

G-1854	Hinge & Pin Assembly (2 req'd.)
G-4391	Hinge Wire & Connector Assembly
H-1512	Hinge Fastening Screw, 10-24 x 5/16" (01566000)
H-2517	Screw, 6-32 x 3/8" (41-51041)
H-3253	Hex Nut, 6-32 (41-35005)
H-3304	Clamp Washer (41-70030)
P-1267	Door Catch
P-1424	Threading Light Cover Fastening Screw (3 req'd.)
P-1714	Glass Retaining Clip (2 req'd.)
P-1715	Door Stay
P-1716	Window Glass Mount, Rubber
P-1719	Threading Light Cover
P-1720	Shoulder Screw, Door Stay
P-1722	Threading Light Switch
P-1723	Threading Light Socket (2 req'd.)
P-1724	Bulb, Threading Light (2 req'd.)
P-1732	Fastening Screw
P-1734	Switch Retaining Nut
P-1736	Door Bumper (2 req'd.)
P-1812	Fastening Screw (2 req'd.)
P-2874	Knob (below Serial No. 14,000)
P-2889	Film Compartment Door Casting
P-4392	Wire Nut (2 req'd.)
P-4443	Window Glass
P-4455	Knob
P-4712	Wire Clamp Screw
P-7088	Cable Clamp (2 req'd.)

G-2613 CURVED FILM TRAP



APERTURE PLATES

are *not* included with G-2613 Film Trap and must be ordered separately.

PART NO.	APERTURE SIZE	FORMAT	RATIO
G-2110	.600 x .800	Flat	1.37:1
G-2302	.412 x .800	Flat	2:1
G-2303	.446 x .800	Flat	1.85:1
G-2304	.471 x .800	Flat	1.75:1
G-2305	.412 x .825	Flat	2:1
G-2306	.446 x .825	Flat	1.85:1
G-2308	.497 x .825	Flat	1.66:1
G-2309	.497 x .800	Flat	1.66:1
G-2412	.715 x .650	Scope*	2:1
G-2414	.650 x .780	Scope**	2:1
G-2436	.712 x .839	Scope**	2.35:1
G-2513	.715 x .715	Scope	2:1
G-2514	.715 x .780	Scope	2.35:1
G-2515	.650 x .650	Scope	2:1
G-2475	Pinhole	(Special Applications)	

* Four Channel Magnetic Soundtrack

** Mag/Optical Soundtrack

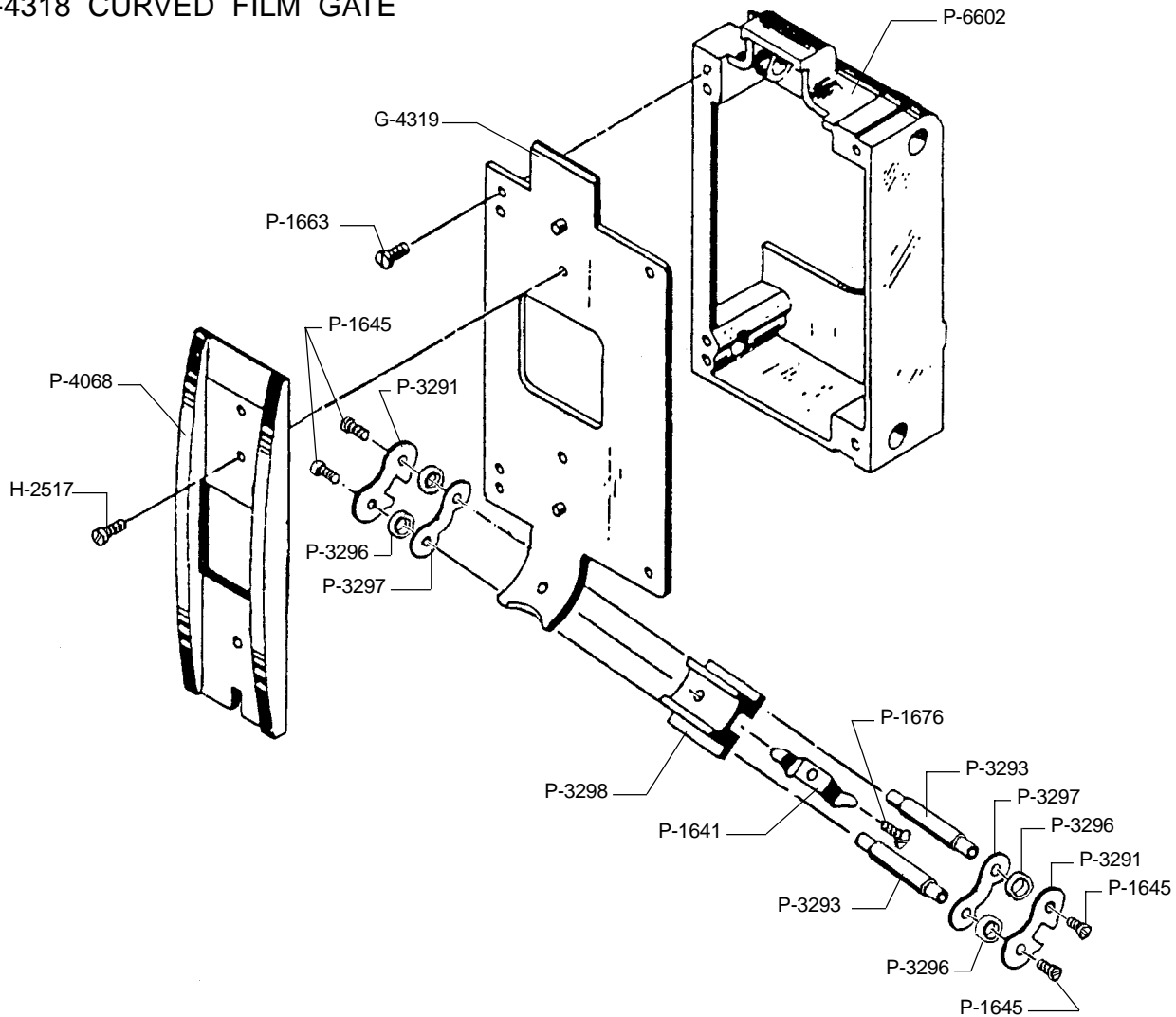
G-2613 CURVED FILM TRAP

Parts List

G-2616	Aperture Plate Tension Spring & Plate
G-4435	Lateral Guide Roller and Shaft Assembly (Fixed Roller)
51-98211	Spring Plunger, Locking
H-2519	Fastening Screw, 2-56 x 3/16" (41-51002)
H-2520	Pan Head Screw, 4-40 x 1/8"
H-3107	Dowel Pin (51-37016)
H-3108	Dowel Pin (51-37015)
H-3218	Hex Nut (41-35012)
P-1433	Gap Adjusting Screw
P-1435	Lateral Guide Roller Pivot Set Screw (2 req'd.)
P-1556	Snap Ring for Captive Screw
P-1698	Lateral Guide Roller Shaft Pivot (2 req'd.)
P-1701	Lateral Guide Roller Compression Spring
P-1757	Pressure Block Fastening Screw (2 req'd.)
P-1773	Fastening Screw, Spring & Plate Assembly
P-1981	Film Trap Mounting Screw, Captive
P-4069	Pressure Strap Support
P-4071	Threading Guide (False Aperture)
P-4073	Pressure Strap Arm (2 req'd.)
P-4074	Pivot Shaft, Pressure Strap Arms
P-4075	Mounting Block, Pressure Strap Arms
P-4076	Camshaft, Strap Tensioner
P-4077	Strap Tensioner Control Knob
P-4078	Pressure Strap (Replace in <i>Matched Pairs</i>)
P-4079	Leaf Spring, Strap Tensioner
P-4080	Film Trap Base Casting
P-4084	Light Shield
P-4089	Snap Ring
P-4090	Snap Ring
P-4092	Pressure Strap Tensioning Cam
P-4166	Lateral Guide Roller, Movable
P-4209	Aperture Plate Guide, Long
P-4210	Aperture Plate Guide, Short

PR1050 Trap: See TU2000E Manual, Parts List
PR1060 & PR2000 Trap: See "Supplemental Parts List" in Instruction Book

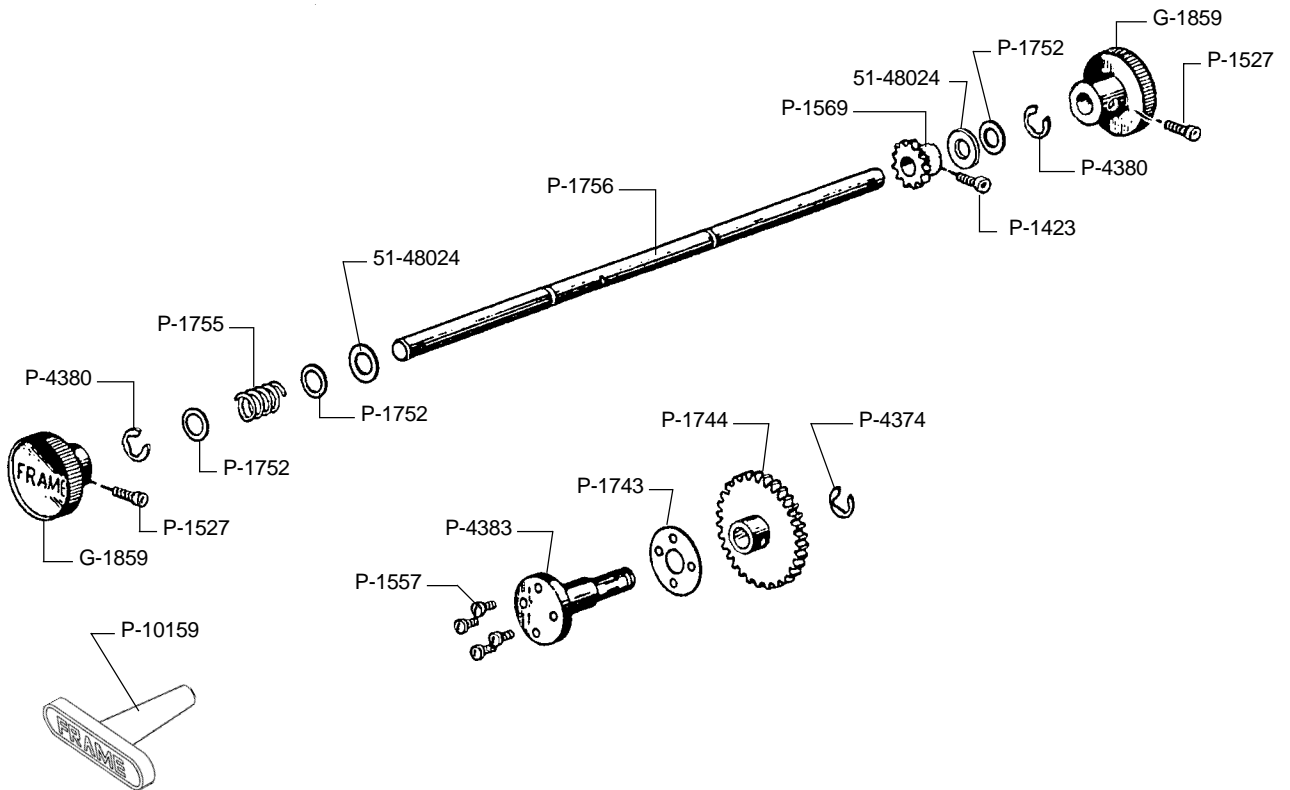
G-4318 CURVED FILM GATE



G-4319	Plate & Pin Assembly, Pressure Pad
G-2350	Intermittent Shoe Assembly (less Block & Spring)
H-2517	Screw, 6-32 x 3/8" (41-51041)
P-1641	Tension Shoe Pressure Spring
P-1645	Fastening Screw, Tension Shoes
P-1663	Fillister Head Mounting Screw, Special (4 req'd.)
P-1676	Fastening Screw, Spring
P-3291	Intermittent Sprocket Shoe, Outer (2 req'd.)
P-3293	Intermittent Shoe Mounting Stud (2 req'd.)
P-3296	Intermittent Shoe Spacer (4 req'd.)
P-3297	Intermittent Sprocket Shoe, Inner (2 req'd.)
P-3298	Spacer Block, Tension Shoes
P-4068	Pressure Pad Runner
P-6602	Film Gate Cover Casting

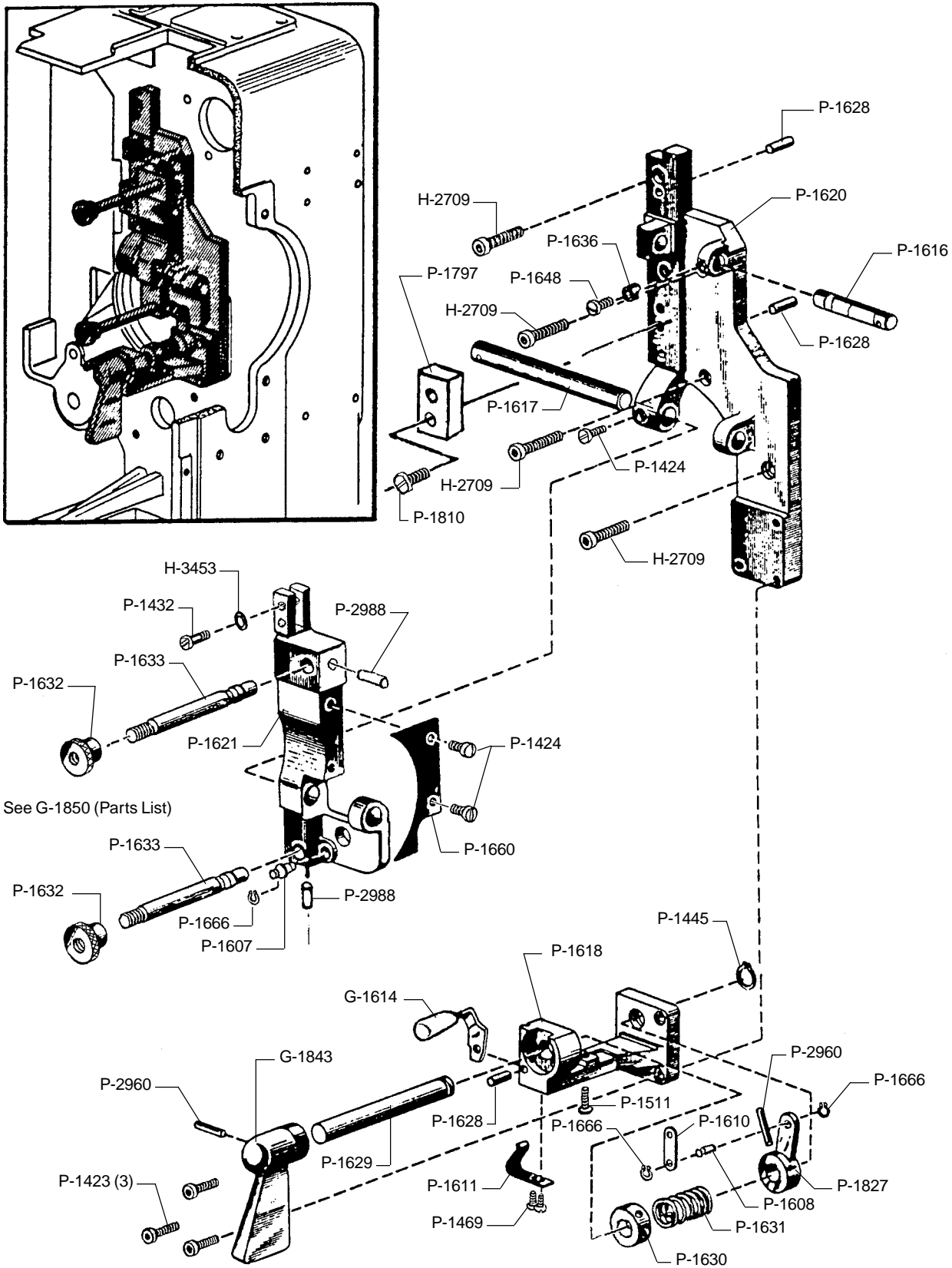
PR1060 & PR2000 Gate: See "Supplemental Parts List" in Instruction Manual

FRAMING SHAFT ASSEMBLY



- | | |
|----------|---|
| G-1859 | Framing Knob (2 req'd.) |
| 51-48024 | O-Ring, Oil Seal |
| P-1423 | Framing Gear Fastening Screw |
| P-1527 | Collar Fastening Screw, Framing Knob |
| P-1557 | Fastening Screw, Idler Gear Shaft |
| P-1569 | Framing Gear |
| P-1743 | Gasket, Idler Gear Shaft |
| P-1744 | Idler Gear |
| P-1752 | Framing Shaft Friction Disc Washer |
| P-1754 | Framing Shaft Gasket |
| P-1755 | Friction Spring |
| P-1756 | Framing Knob Shaft |
| P-4374 | Snap Ring, Idler Gear |
| P-4380 | Snap Ring, Framing Shaft |
| P-4383 | Idler Gear Shaft |
| P-10159 | Framing "T" Handle (after January 1998) |

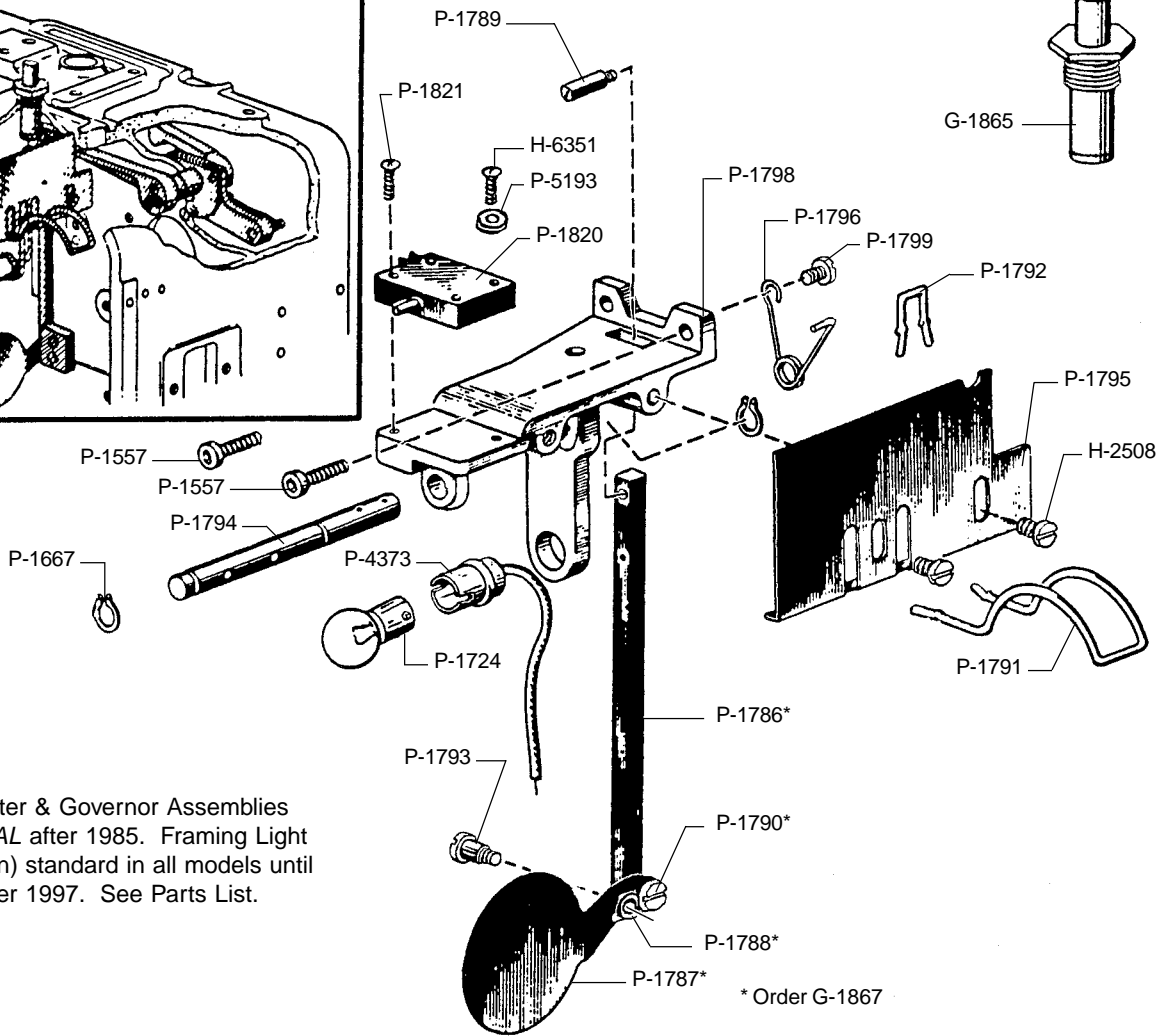
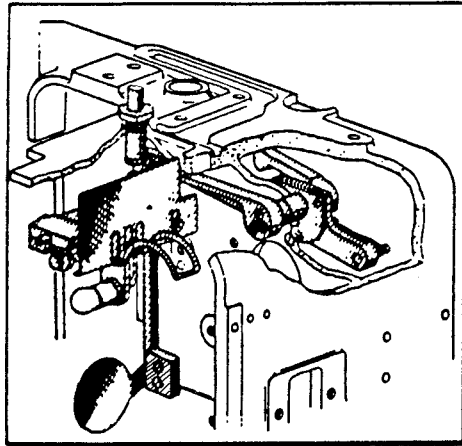
P-10159 Handle may be used to replace G-1859 Knob if desired; P-1527 Screw mounts either component.



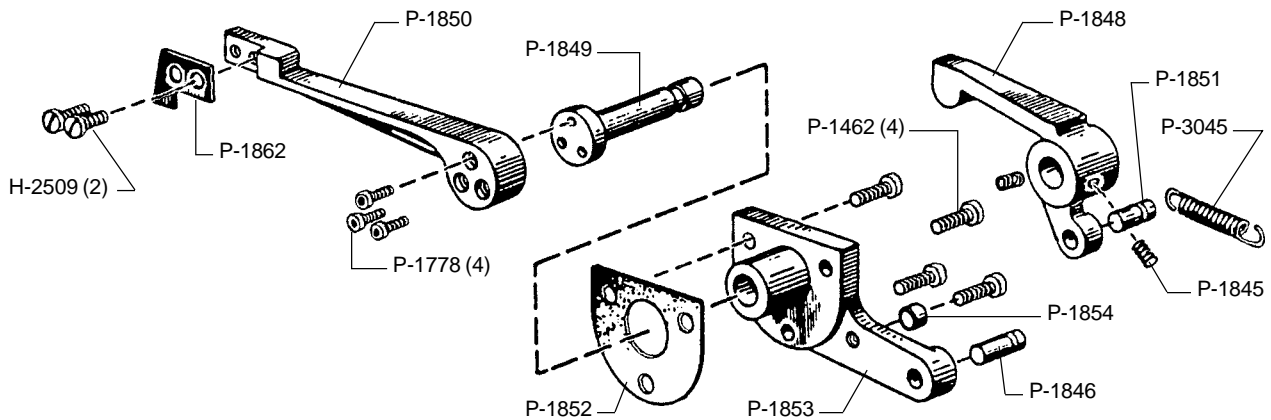
G-1905 GATE CARRIAGE & OPENING MECHANISM

G-1905 FILM GATE CARRIAGE & OPENING MECHANISM
Parts List

G-1614	Gate Release Lever
G-1850	Support Bracket & Studs Assembly Includes: P-1607, P-1621, (2) P-1633, (2) P-2988. Parts P-1621, P-1633 and P-2988 cannot be replaced separately.
G-1863	Operating Lever, Shaft & Collar Includes: G-1843, P-1629, P-1827, and (2) P-2960 which cannot be replaced separately.
H-2709	Support Bracket Fastening Screw (41-51407) Not supplied with G-1905; order separately (4 req'd.).
H-3453	Split Lockwasher, #8
P-1423	Fastening Screw, Lever Mounting Bracket (4 req'd.)
P-1424	Fastening Screw (3 req'd.)
P-1432	Friction Adjusting Screw
P-1445	Snap Ring
P-1469	Fastening Screw, Tension Spring
P-1511	Retaining Screw, Adjusting Collar
P-1607	Collar Link Stud
P-1608	Operating Lever Link Stud
P-1610	Operating Lever Collar Link
P-1611	Release Lever Tension Spring
P-1616	Upper Guide Rod
P-1617	Lower Guide Rod
P-1618	Operating Lever Mounting Bracket
P-1620	Support Bracket
P-1621	Support Bracket (Order G-1850)
P-1628	Pin, Support Bracket (3 req'd.)
P-1629	Lever Shaft (Order G-1863)
P-1630	Spring Tension Adjusting Collar
P-1631	Operating Lever Tension Spring
P-1632	Knurled Nut (2 req'd.)
P-1633	Support Stud (Order G-1850)
P-1636	Upper Guide Rod Clamp
P-1648	Fastening Screw, Upper Guide Rod Clamp
P-1660	Light Shield
P-1666	Snap Ring, Operating Lever Link
P-1797	Block
P-1810	Screw (2 req'd.)
P-1827	Collar Arm (Order G-1863)
P-2960	Collar Pin (Order G-1863)
P-2988	Pin (2 req'd.)



Fire Shutter & Governor Assemblies
OPTIONAL after 1985. Framing Light
 (as shown) standard in all models until
 September 1997. See Parts List.



FIRE SHUTTER & FRAMING LIGHT

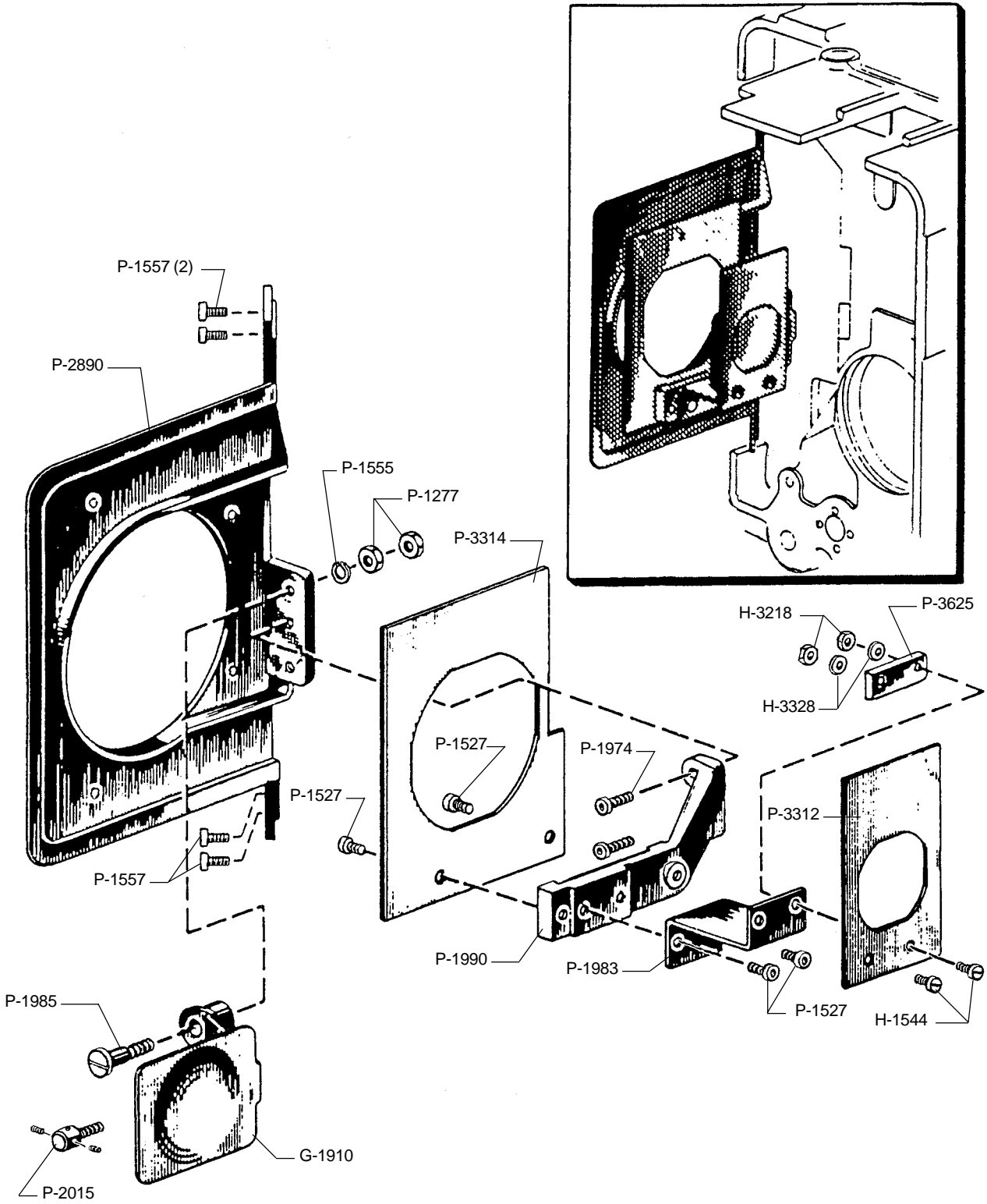
G-1869 FIRE SHUTTER

Parts List

G-1865	Re-Set Button
G-1867	Fire Shutter & Rod Assembly
H-2508	Screw (41-51316) 2 req'd.
H-2509	Screw, 8-32 x 1/4" (00216000)
H-6351	Screw, 2-56 x 1/2" (41-51009)
P-1462	Fastening Screw (4 req'd.)
P-1557	Fastening Screw, Mounting Bracket
P-1667	Snap Ring, Trip Lever Shaft
P-1724*	Bulb, Framing Light, 6-8 Volt
P-1778	Fastening Screw, Operating Arm (3 req'd.)
P-1789	Re-Set Stud
P-1791	Film-Operated Trip Lever
P-1792	Fire Shutter Trip Lever
P-1793	Fire Shutter Pivot Screw
P-1794	Trip Lever Shaft
P-1795	Partition Plate
P-1796	Re-Set Spring
P-1799	Fastening Screw, Re-Set Spring
P-1820	Framing Light Switch, S.P.S.T.
51-61010	Framing Light Switch, Turret Models (not shown)
P-1821	Fastening Screw, Light Switch
P-1845	Set Screw, Governor-Operated Arm
P-1846	Support Bracket Stud
P-1848	Governor-Operated Arm
P-1849	Shaft, Operating Arm
P-1850	Operating Arm
P-1851	Governor-Operated Arm Stud
P-1852	Support Bracket Gasket
P-1853	Support Bracket
P-1854	Adjusting Cam
P-1862	Operating Arm Adjusting Plate
P-3045	Spring, Governor-Operated Arm
P-4373*	Framing Light Socket
P-5193	Washer
P-6574	Mounting Bracket

* Replaced by 52-70075 L.E.D. Framing Light Assembly in September 1997 on Auto Aperture units (PR1060, PR2000) with 52-60099 Trap. 52-70075 powered through 81-64003 Transformer (12 V.DC).

HEAT SHIELD & CHANGEOVER DOUSER

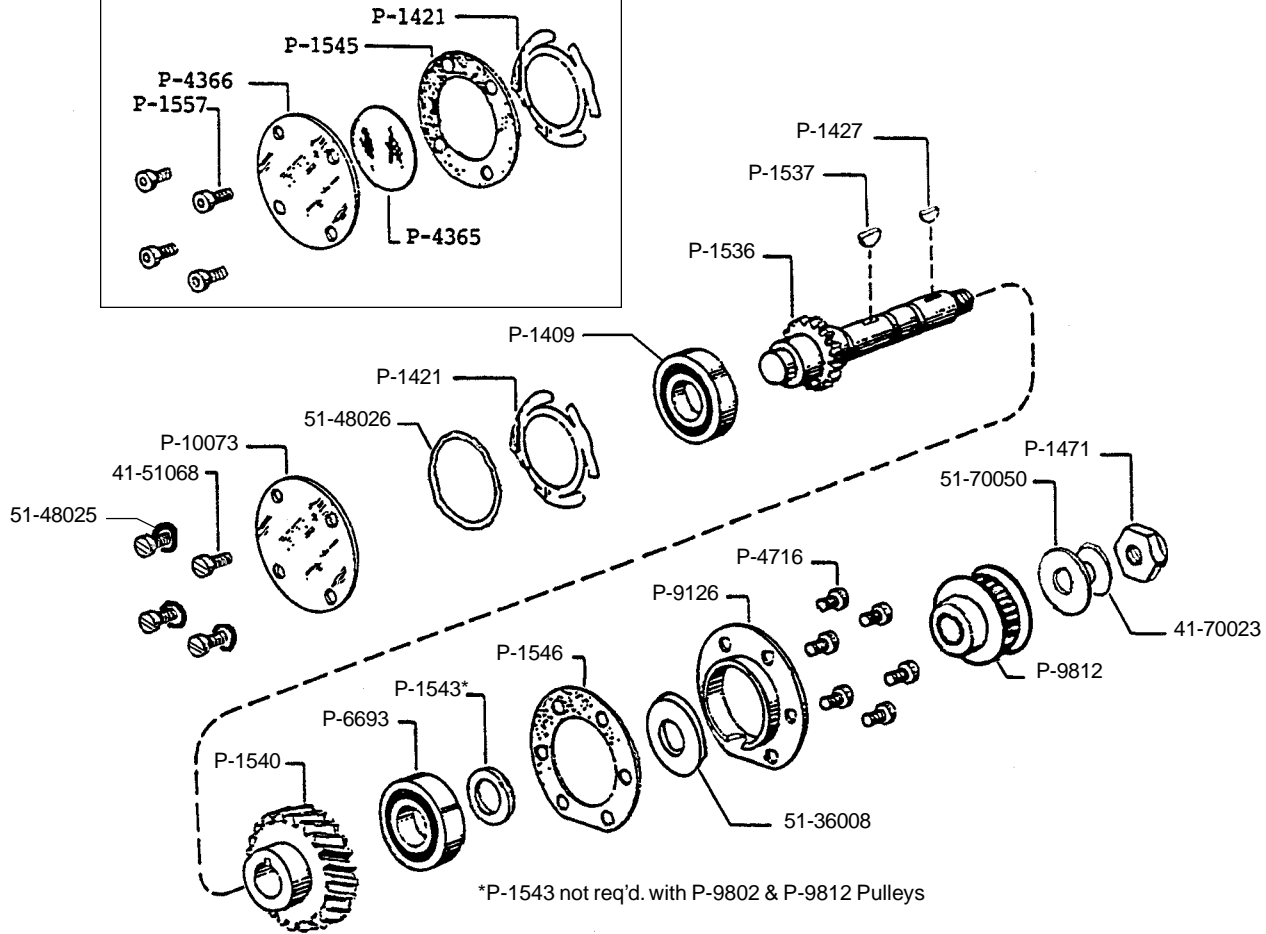


HEAT SHIELD & DOUSER
Parts List

G-1910	Douser Plate, Welded Assembly
H-1544	Screw, 10-32 x 5/8" (41-51302)
H-3218	Hex Nut (41-35012)
H-3328	Washer (41-70003)
P-1277	Hex Nut, Pivot Screw (2 req'd.)
P-1527	Screw, Heat Shield Mounting Bracket (4 req'd.)
P-1555	Lockwasher, Pivot Screw
P-1557	Fastening Screw, Rear Cover (4 req'd.)
P-1974	Fastening Screw, Support Bracket (2 req'd.)
P-1983	Front Heat Shield Mounting Bracket
P-1985	Shoulder Screw, Douser Pivot
P-1990	Heat Shield Support Bracket
P-2015	Pivot Clamp & Set Screws, Douser Cable*
P-2890	Rear Cover Casting
P-3312	Front Heat Shield
P-3314	Rear Heat Shield
P-3625	Douser Stop Plate

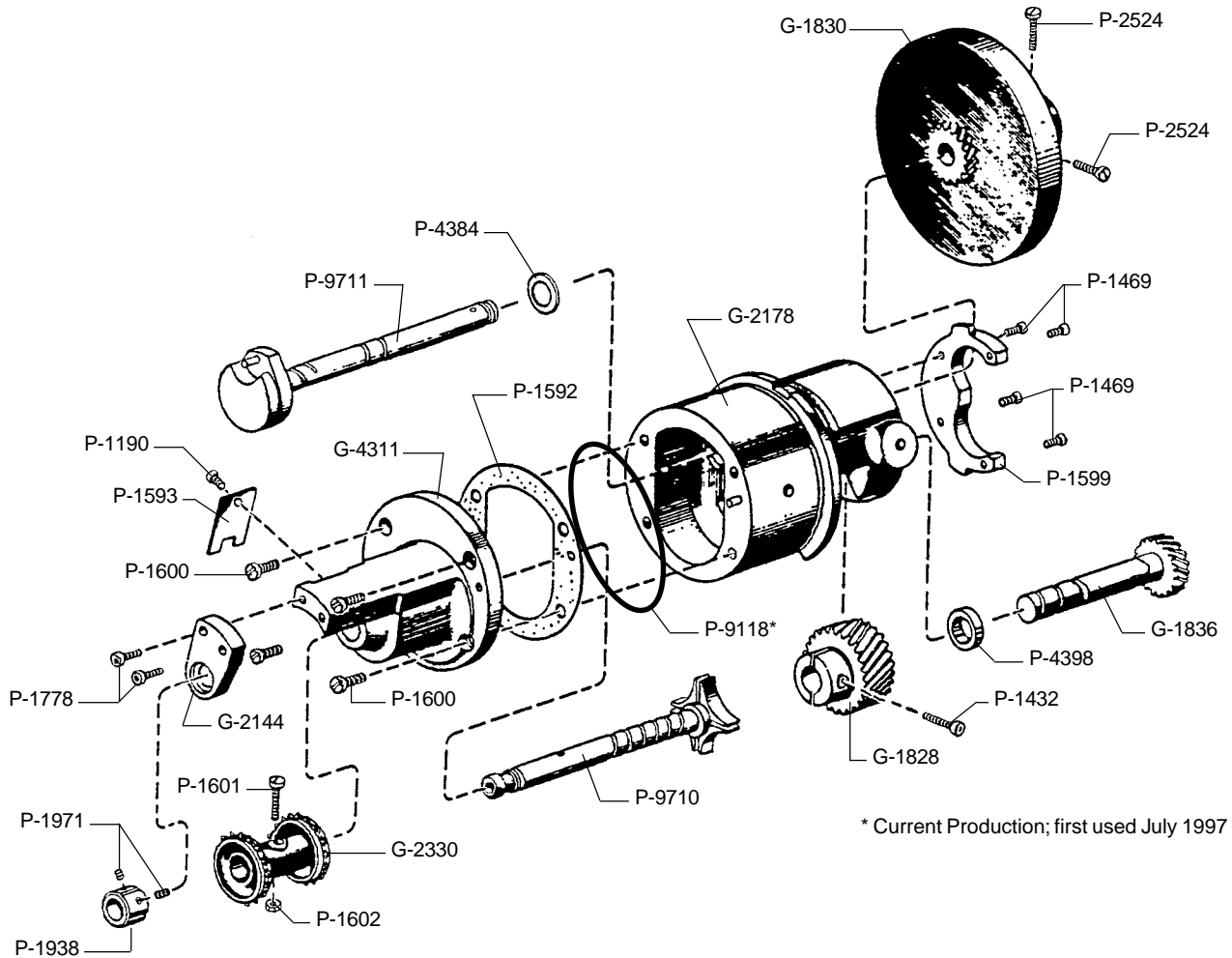
* P-2015 generally supplied with Changeover Device.
See pages 2-3 & 2-3a following.

Before September 1997



HORIZONTAL MAIN DRIVE ASSEMBLY

P-1409	Ball Bearing	P-4716	Retainer Screw (6 req'd.)
P-1421	Spring Washer	P-6693	Ball Bearing
P-1427	Key, Main Drive Pulley	P-9129	Ball Bearing Retainer
P-1471	Hex Nut, NyLock	P-9812	Drive Pulley
P-1536	Main Drive Shaft & Gear	P-10073	Cover Plate
P-1537	Key, Main Drive Gear	41-51068	Screw, Truss Head (4 req'd)
P-1540	Vertical Shaft Drive Gear	41-70023	Steel Washer
P-1543	Thrust Washer (as req'd.)	51-36008	Oil Seal
P-1545	Gasket (before 9-97)	51-48025	O-Ring (4 req'd.)
P-1546	Retainer Gasket	51-48026	O-Ring, Large
P-1557	Screw, Socket Head	51-70050	Teflon Washer
P-4365	Spacer Disc (before 9-97)	NOTE: P-10073 & 51-48026	
P-4366	Cover Plate (before 9-97)	replace P-4366, P-4365, & P-1545	



* Current Production; first used July 1997

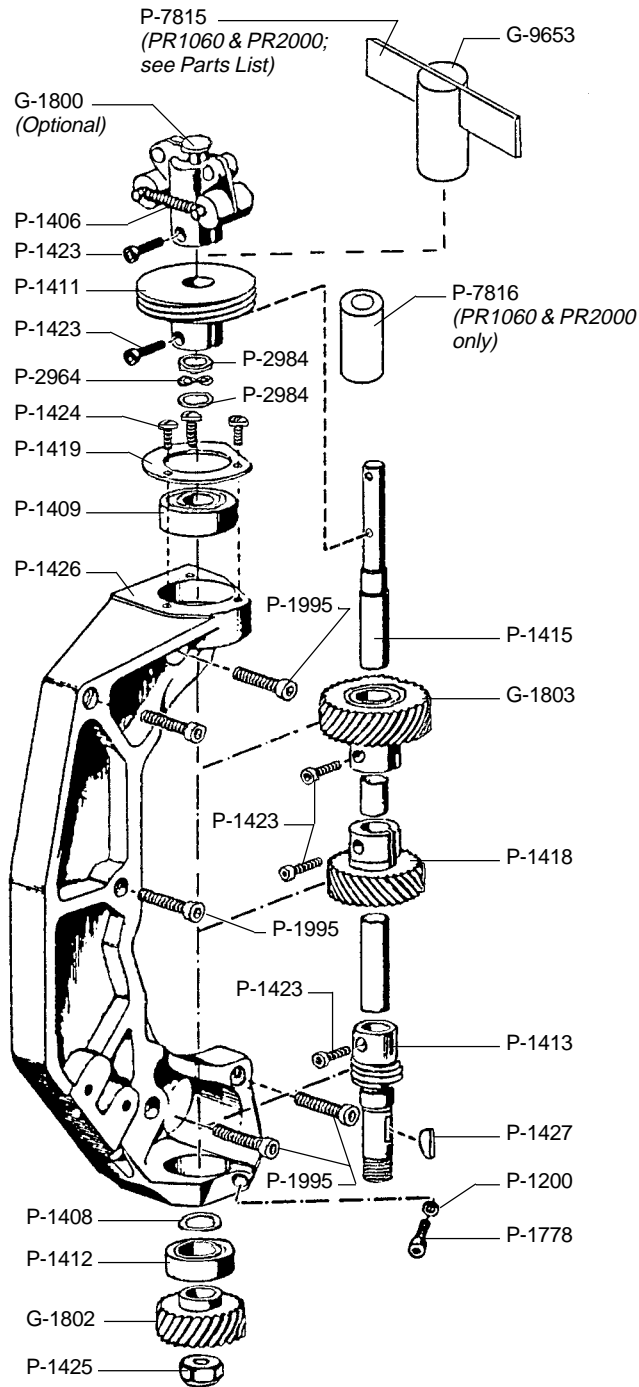
G-4312 INTERMITTENT MOVEMENT ASSEMBLY

- | | | | |
|--------|------------------------------|--------|-----------------------------------|
| G-1828 | Main Drive Gear | P-1599 | Oil Trap |
| G-1830 | Intermittent Flywheel & Gear | P-1600 | Fastening Screw (4 req'd.) |
| G-1836 | Main Drive Shaft & Gear | P-1601 | Sprocket Retaining Screw |
| G-2144 | Outboard Bearing Arm | P-1602 | Hex Nut, NyLock |
| G-2178 | Intermittent Case & Bearings | P-1778 | Mounting Screw, (2 req'd.) |
| G-2330 | Intermittent Sprocket, VKF® | P-1938 | Starwheel Shaft Collar |
| G-4311 | Intermittent Cover | P-1971 | Collar Set Screw (2 req'd.) |
| P-1190 | Stripper Mounting Screw | P-2524 | Flywheel Screw (2 req'd.) |
| P-1432 | Gear Retaining Screw | P-4384 | Camshaft Spacer |
| P-1469 | Oil Trap Screw (4 req'd.) | P-4398 | Drive Gear Spacer |
| P-1592 | Cover Gasket | P-9118 | O-Ring (current production units) |
| P-1593 | Intermittent Film Stripper | P-9710 | Starwheel Shaft |
| | | P-9711 | Camshaft |

ORDER P-9710 & P-9711 IN *MATCHED PAIRS*

Rebuilt Simplex Intermittent Movements are available from the factory under a Repair/Exchange program. Contact an authorized Strong International Dealer.

G-1801 VERTICAL SHAFT ASSEMBLY

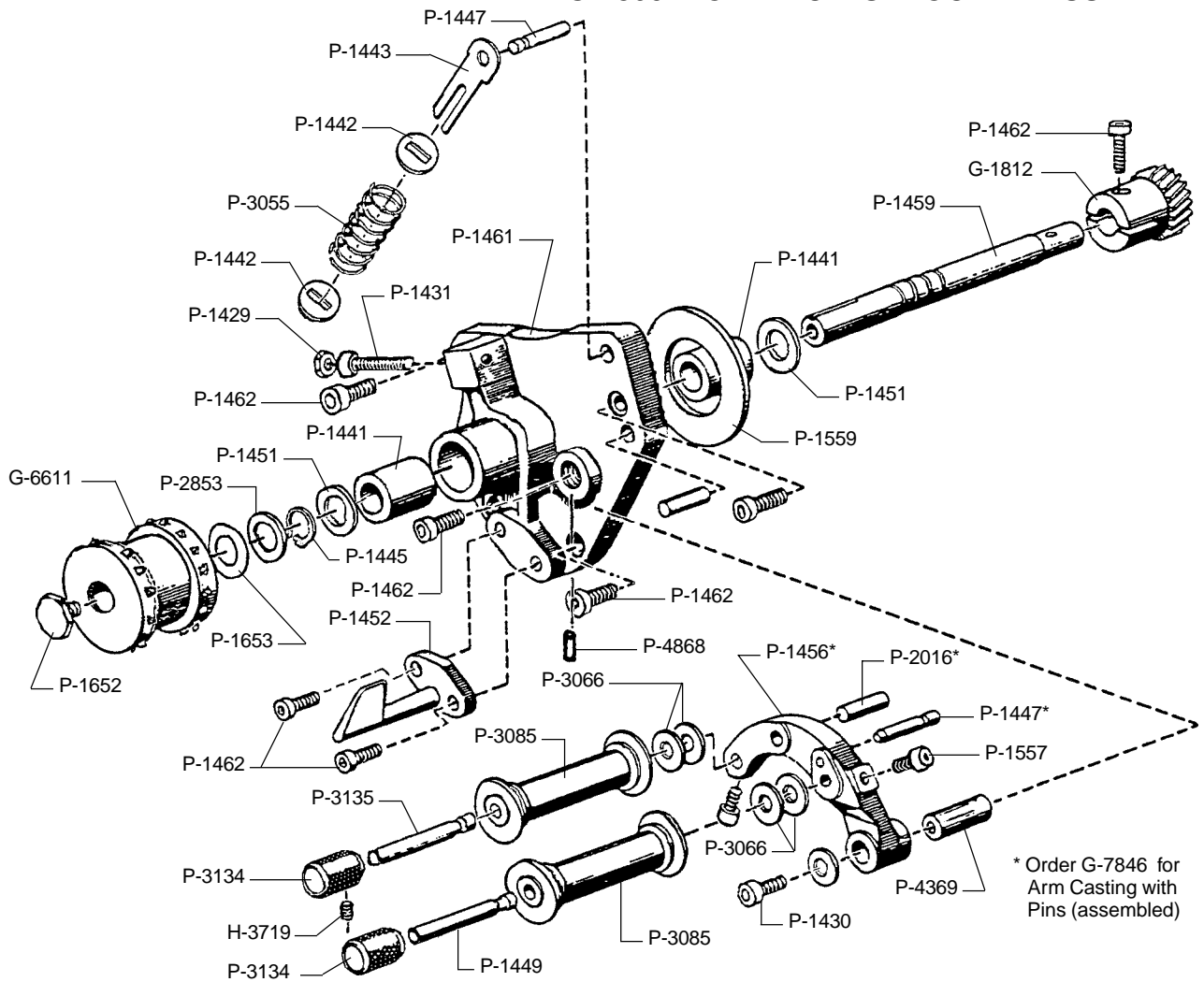


- G-1800 Governor Assembly (*Optional*)
incl. (2) P-1406 Springs
- NOTE: Governor & Fire Shutter Option
not available on PR1060 & PR2000.
- G-1802 Main Drive Gear
- G-1803 Shutter Drive Gear
- G-9653 Oil Slinger Assembly (used in
place of *Optional* Governor)
Oil Slinger Blade P-7815 (for
PR1060 and PR2000) mounts to
P-1411 Gear.

- P-1200 Lockwasher, Clamping Screw
- P-1406 Expansion Spring (2 req'd.)
- P-1408 Bearing Washer
- P-1409 Upper Ball Bearing
- P-1411 Feed Sprocket Drive Gear
PR1060 Oil Slinger: P-7815
- P-1412 Lower Ball Bearing
- P-1413 Holdback Sprocket Drive Gear
- P-1415 Vertical Shaft
- P-1418 Intermittent Drive Gear
- P-1423 Fastening Screw (5 req'd.)
- P-1424 Fastening Screw (3 req'd.)
- P-1425 Nut, Main Drive Gear
- P-1426 Bracket Casting
- P-1427 Key, Main Drive Gear
- P-1778 Clamping Screw
- P-1995 Mounting Screw (5 req'd.)*
- P-2964 Loading Spring
- P-2984 Thrust Washer (2 req'd.)
- P-7815 Oil Slinger, PR1060, PR2000
(NOT ILLUSTRATED; Mounts
to P-1411 Drive Gear)
- P-7816 Gear Spacer, PR1060 and
PR2000 ONLY

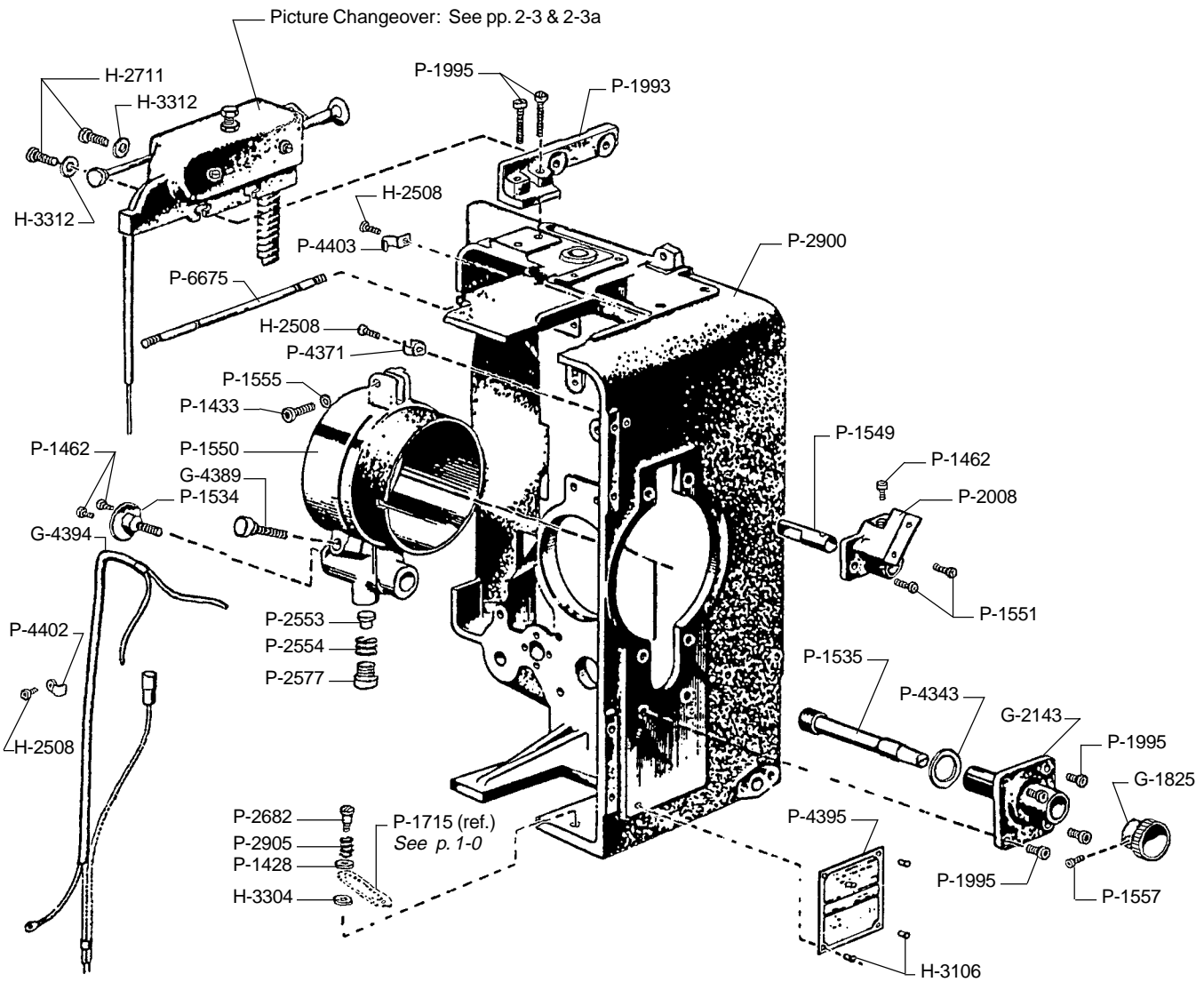
* Not Supplied with G-1801

G-1809 HOLDBACK SPROCKET ASSEMBLY



G-1812	Driven Gear	P-1461	Bracket Casting
G-6611	Sprocket & Key, Type VKF®	P-1462	Fastening Screw (7 req'd.)
H-3719	Set Screw, 8-32 x 1/4"	P-1557	Set Screw (2 req'd.)
P-1429	Adjustment Lock Nut	P-1559	Gasket, Mounting Bracket
P-1430	Arm Mounting Screw	P-1652	Sprocket Retaining Screw
P-1431	Pad Roller Arm Adjusting Screw	P-1653	Spring Washer
P-1441	Sleeve Bearing (2 req'd.)	P-2016	Pad Roller Arm Stop Pin
P-1442	Spring Retainer (2 req'd.)	P-2853	Bearing Washer
P-1443	Spring Guide	P-3055	Coil Spring
P-1445	Washer Retaining Ring	P-3066	Spacer Washer (4 req'd.)
P-1447	Spring Guide Pin (2 req'd.)	P-3085	Pad Roller
P-1449	Straight Shaft	P-3134	Knob (2 req'd.)
P-1451	Bearing Washer (2 req'd.)	P-3135	Eccentric Shaft
P-1452	Film Stripper, Cast	P-4369	Pivot Stud
P-1456	Pad Roller Arm (Order G-7846)	P-4868	Pin
P-1457	Travel Limit Pin	P-4986	Arm Washer

MAIN FRAME & LENS BARREL



PR1050 Lens Barrels & Focusing Components: See TU2000E Manual, Parts List
 PR1060 & PR2000 Lens Barrels & Focusing Components: See Supplemental Parts List in Instruction Book

MAIN FRAME & LENS BARREL

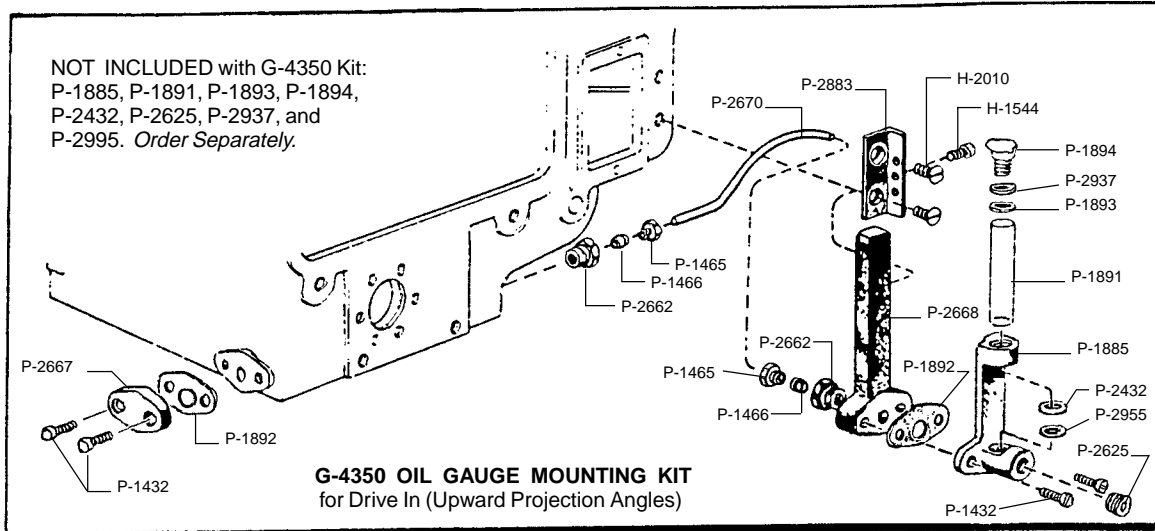
Parts List

G-1825	Lens Focusing Knob
G-2143	Lens Holder Guide Bracket & Sleeve Casting
G-4389	Lens Holder Clamping Screw
G-4394	Cable Form Assembly
H-2508	Screw, 6-32 x 1/4" (41-51316)
H-2711	Socket Head Screw, 1/4-20 (41-51295)
H-3106	Drive Screw, #2 x 1/8" (41-51330)
H-3304	Clamp Washer (41-70030)
H-3312	Flatwasher, 1/4" (41-70023)
P-1428	Washer, Door Stay
P-1433	Adjusting Screw, Lens Holder Guide Clearance
P-1462	Fastening Screw (3 req'd.)
P-1534	Focusing Screw, Flanged
P-1535	Shaft, Focusing Knob
P-1549	Upper Lens Holder Guide
P-1550	Lens Barrel Casting
P-1551	Fastening Screw (2 req'd.)
P-1555	Lockwasher
P-1557	Knob Fastening Screw
P-1993	Changeover Mounting Bracket
P-1995	Fastening Screw (6 req'd.)
P-2008	Mounting Bracket, Upper Lens Holder Guide
P-2553	Lens Holder Adjustment Clamp
P-2554	Compression Spring, Clamping Screw
P-2577	Clamping Screw, Lens Holder Adjustment
P-2682	Shoulder Screw, Door Stay
P-2900	Main Frame Casting; PR1014, PR1020, PR1030
P-2905	Compression Spring, Door Stay
P-4343	Focus Sleeve Washer (2 req'd.)
P-4371	Connector Clip
P-4395	Nameplate
P-4402	Wire Clamp
P-4403	Cable Clamp
P-6675	Shutter Guard Fastening Stud

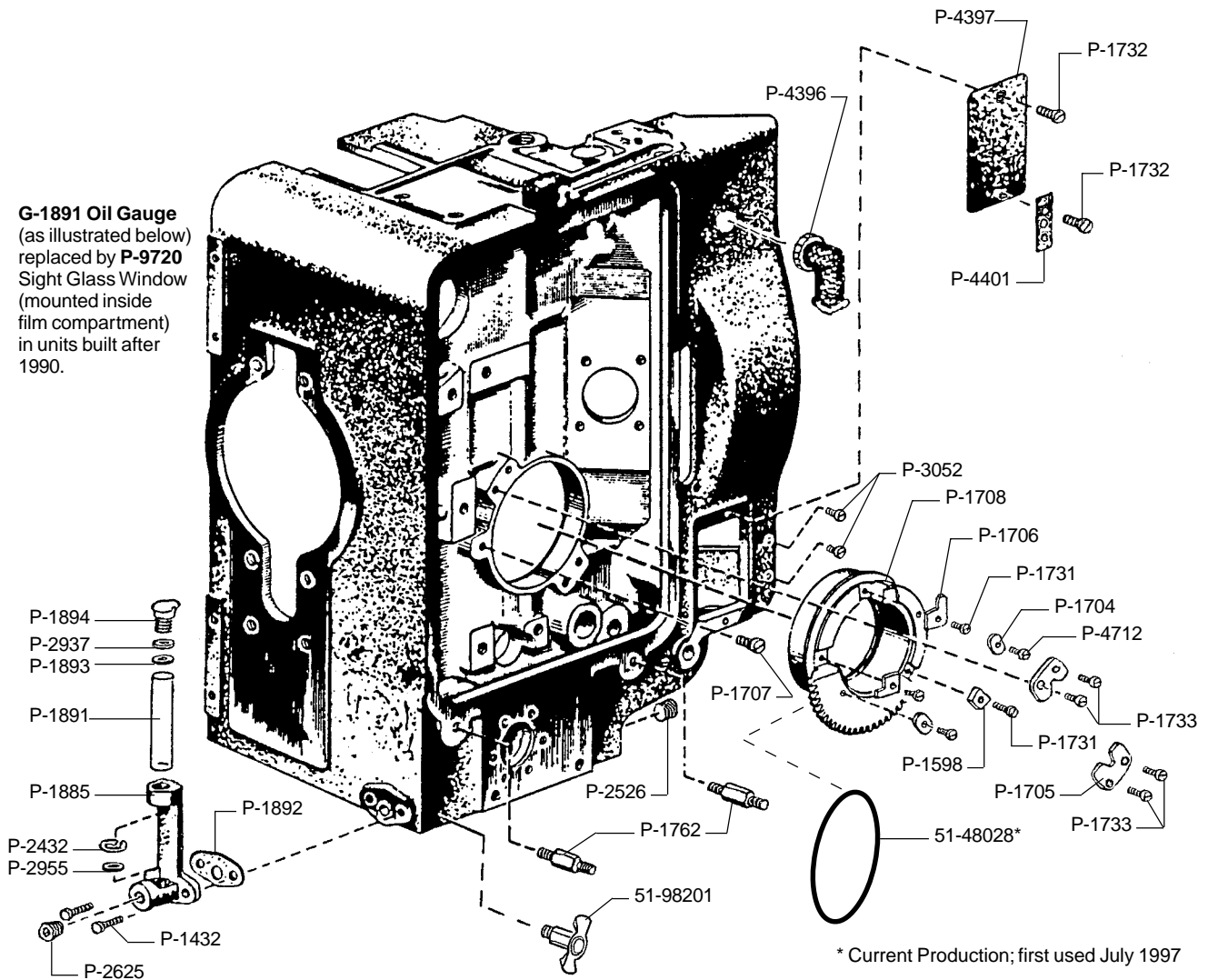
NOT SHOWN

P-7813	Main Frame Casting; PR1060, PR2000
P-9738	Main Frame Casting, PR1050

FRAMING CAM & OIL GAUGE



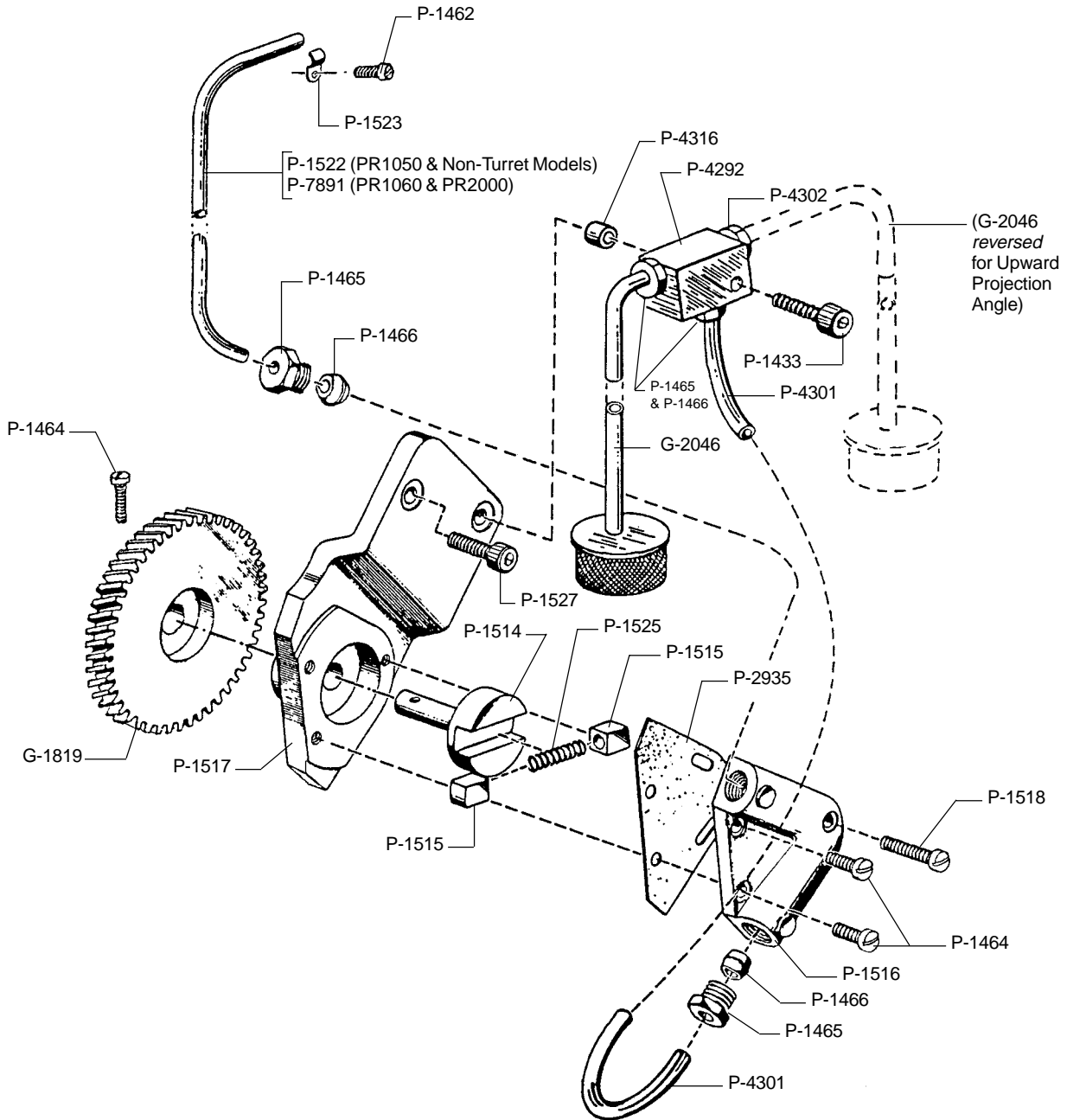
G-1891 Oil Gauge
 (as illustrated below)
 replaced by **P-9720**
 Sight Glass Window
 (mounted inside
 film compartment)
 in units built after
 1990.



FRAMING CAM & OIL GAUGE
Parts List

G-1891	Oil Gauge Assembly, Front Mounted (as shown) (Replaced by P-9720 Sight Glass in 1990)
H-1544	Screw, 10-32 x 5/8" Fillister Head (41-51302)
H-2010	Screw, 10-32 x 3/8" Flat Head (41-51303)
P-1432	Fastening Screw (2 req'd.)
P-1465	Compression Nut (2 req'd.)
P-1466	Compression Bushing (2 req'd.)
P-1598	Intermittent Locating Key
P-1704	Intermittent Retaining Clip (2 req'd.)
P-1705	Framing Cam Retainer Spring
P-1706	Framing Cam Stop Plate
P-1707	Intermittent Stop Screw
P-1708	Framing Cam
P-1731	Fastening Screw (3 req'd.)
P-1732	Fastening Screw (2 req'd.)
P-1733	Fastening Screw (4 req'd.)
P-1762	Gear Compartment Cover Mounting Stud (3 req'd.)
P-1885	Oil Gauge Bracket
P-1891	Glass Tube
P-1892	Oil Hole Cover Gasket
P-1893	Upper Gasket, Glass Tube
P-1894	Oil Cup
P-2432	Oil Level Ring
P-2625	Oil Drain Plug (2 req'd.)
P-2662	Adapter (Drive-In)
P-2667	Oil Hole Cover (Drive-In)
P-2668	Mounting Plate (Drive-In)
P-2670	Oil Tube (Drive-In)
P-2883	Mounting Bracket (Drive-In)
P-2937	Washer, Glass Tube
P-2955	Lower Gasket, Glass Tube
P-3052	Fastening Screw (2 req'd.)
P-4396	Cable Connector, 90°
P-4397	Cover Plate
P-4401	Guide Plate, Water Lines (req'd. on units with Water Cooled Trap <i>only</i>)
P-4712	Fastening Screw (2 req'd.)
P-9720	Oil Sight Glass (not shown) (Mounts in Film Compartment)
51-48028	Framing Cam O-Ring, 3½" Diameter
51-98201	Petcock, Oil Drain

G-1822 OIL PUMP ASSEMBLY



G-1822 OIL PUMP ASSEMBLY
Parts List

G-1819	Driven Gear, Oil Pump
G-2046*	Intake Filter & Oil Tube Assembly
P-1462*	Fastening Screw
P-1433*	Junction Mounting Screw
P-1464	Fastening Screw, Short (3 req'd.)
P-1465	Compression Nut (4 req'd.)
P-1466	Compression Bushing (4 req'd.)
P-1514	Oil Pump Drive Shaft & Rotor
P-1515	Oil Pump Impeller (2 req'd.)
P-1516	Housing Cover Casting
P-1517	Pump Housing, Cast
P-1518	Fastening Screw, Long
P-1522*	Oil Tube; PR1014, PR1020, PR1030, & PR1050
P-1523*	Oil Tube Clamp
P-1525	Compression Spring, Impellers
P-1527*	Pump Mounting Screw
P-2935	Cover Gasket
P-4292*	Three-Way Junction
P-4301*	Connecting Oil Tube
P-4302*	Closure Plug
P-4316	Mounting Spacer, Junction Screw
P-7891*	Oil Tube, PR1060 & PR2000

* Not Supplied with G-1822

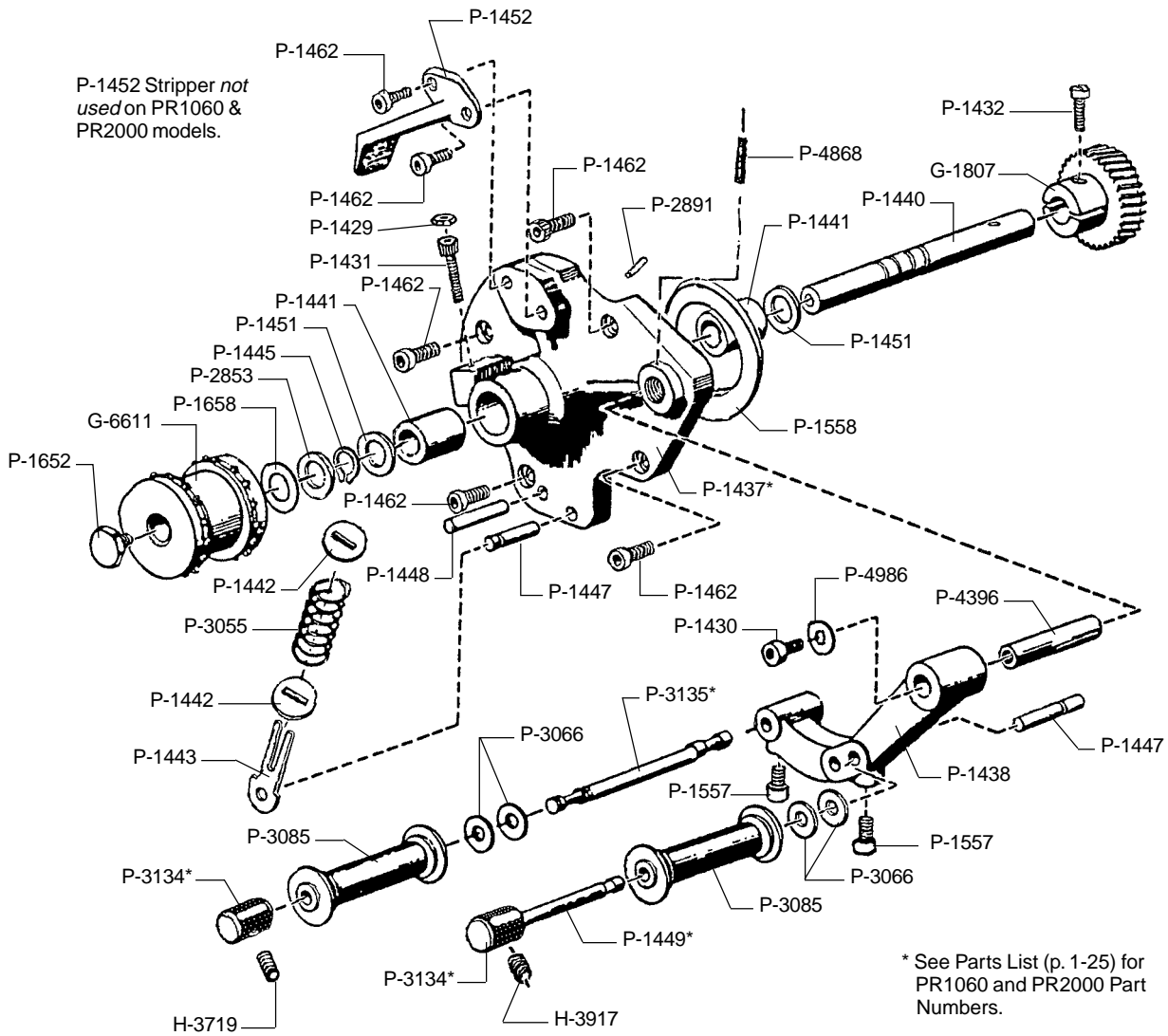
G-1815 SHUTTER & FRAMING ASSEMBLY

Parts List

H-2504	Fastening Screw, Adjusting Knob; 8-32 x 3/8" (41-51066)	P-1494	Shutter Shaft Spacer
P-1200	Lockwasher, Clamping Screw	P-1495	Pin, Driving Flange*
P-1432	Clamping Screw (2 req'd.)	P-1496	Pin, Adjusting Lever
P-1464	Fastening Screw (7 req'd.)	P-1497	Spline Clamping Nut (2 req'd.)
P-1465	Compression Nut	P-1499	Guide Rod, Spine Support Brkt.
P-1466	Compression Bushing	P-1500	Shutter Adjusting Knob
P-1467	Roll Pin, Framing Rod	P-1501	Compression Spring, Guide Rod
P-1469	Retainer Plate (2 req'd.)	P-1502	Pivot Screw, Adjusting Lever
P-1470	Spring Retaining Washer	P-1504	Bearing Retainer Plate, Outer
P-1472	Bracket Casting, Shutter Adjusting Shaft	P-1505	Shutter Shaft*
P-1473	Pin, Shutter Adj. Gear	P-1506	Snap Ring, Washer Retaining
P-1474	Shutter Adjusting Gear	P-1511	Guide Rod Retaining Screw
P-1475	Shutter Adjusting Shaft	P-1527	Fastening Screw (6 req'd.)
P-1476	Compression Spring, Adj. Shaft	P-1557	Slide Rod Fastening Screw
P-1477	Retainer Plate, Stop Nut	P-1560	Bracket Gasket
P-1478	Stop Nut, Adjusting Shaft	P-1779	Clamping Screw, Bearing
P-1479	Framing Rod	P-1826	Oil Collector Casting
P-1480	Framing Rod Roller	P-2013	Retaining Ring, Rear Bearing
P-1481	Shaft Ball Bearing, Rear	P-2849	Intermittent Oil Feed Tube
P-1482	Shaft Ball Bearing, Front	P-2907	Spring Retaining Collar
P-1483	Spline Ball Bearing	P-2909	Compression Spring
P-1484	Shutter Shaft Mounting Bracket, Cast	P-2964	Loading Spring, Shutter Shaft
P-1485	Bearing Retaining Plate	P-2968	Spring Retaining Washer
P-1486	Framing Rod Screw Gear	P-2969	Retaining Ring, Front Bearing
P-1487	Adjusting Lever	P-3672	Oil Seal, Shaft Bracket
P-1488	Slide Rod, Adjusting Spline Support Bracket	P-4320	Shutter Casting (as shown)
P-1489	Shutter Shaft Driven Gear		Three-Bladed Shutter: P-2885
P-1490	Adjusting Spline Support	P-4364	Flanged Spline*
P-1491	Rod Compression Spring	P-4381	Collar Retaining Ring
P-1492	Framing Rod Guide Screw	P-4390	O-Ring (2 req'd.)
		4391	Washer Retaining Ring (as req'd.)

* Order G-4364 Spline & Shaft Assembly

UPPER FEED SPROCKET ASSEMBLY



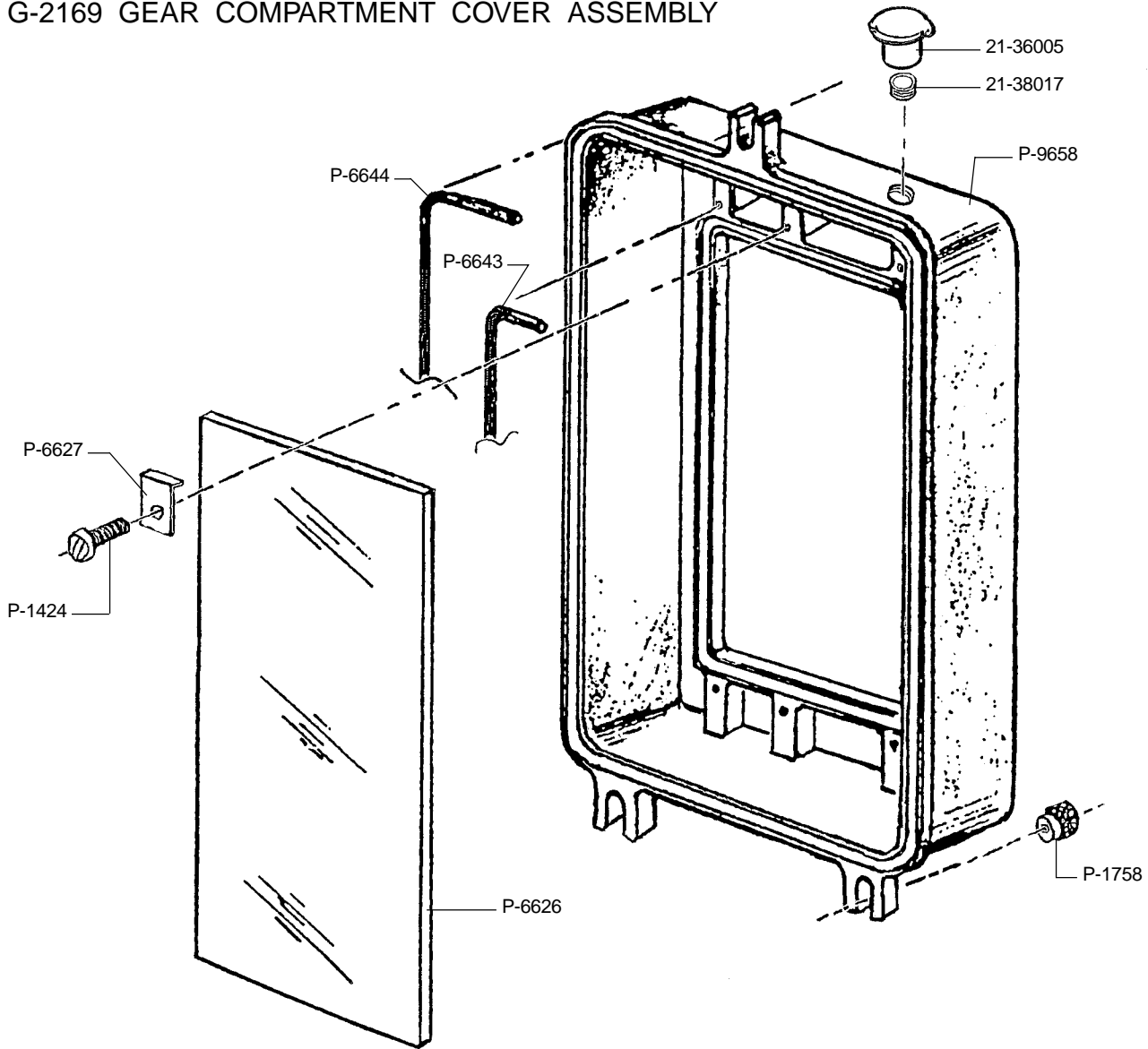
UPPER FEED SPROCKET ASSEMBLY

Parts List

G-1804	Upper Pad Roller Assembly, Complete; PR1014 & PR1050
52-60308	Upper Pad Roller Assembly, Complete; PR1060 & PR2000
G-1807	Feed Sprocket Driven Gear
G-6611	Sprocket & Key, Type VKF®
H-3719	Set Screw, 8-32 x 1/4" (41-51170)
P-1429	Lock Nut, Pad Roller Arm Adjustment
P-1430	Fastening Screw, Pad Roller Arm
P-1431	Pad Roller Arm Adjusting Screw
P-1432	Gear Fastening Screw
P-1437	Bracket Casting, PR1014 & PR1050 Bracket Casting, PR1060 & PR2000: P-7811
P-1438	Pad Roller Arm
P-1440	Sprocket Shaft
P-1441	Sleeve Bearing (2 req'd.)
P-1442	Spring Retainer, Pad Roller Arm (2 req'd.)
P-1443	Spring Guide
P-1445	Bearing Washer Retaining Ring
P-1447	Pin, Spring Guide
P-1448	Limit Pin, Arm Travel
P-1449	Straight Shaft, PR1014 & PR1050 Straight Shaft, PR1060 & PR2000: P-7851
P-1451	Bearing Washer (2 req'd.)
P-1452	Film Stripper (not used on PR1060 & PR2000)
P-1462	Mounting Screw (6 req'd.)
P-1557	Set Screw, Pad Roller Stud
P-1558	Gasket, Mounting Bracket*
P-1652	Sprocket Retaining Screw
P-1653	Spring Washer
P-2853	Bearing Washer
P-2891	Bearing Wick
P-3055	Compression Spring, Pad Roller Arm
P-3066	Spacer Washer (4 req'd.)
P-3085	Pad Roller (2 req'd.)
P-3134	Knob, Pad Roller Shaft (PR1014 & PR1050) Knob, Pad Roller Shaft (PR1060 & PR2000): P-7849
P-3135	Eccentric Shaft, PR1014 & PR1050 Eccentric Shaft, PR1060 & PR2000: P-7850
P-4369	Pivot Stud, Pad Roller Arm
P-4868	Pin
P-4986	Pad Roller Arm Washer

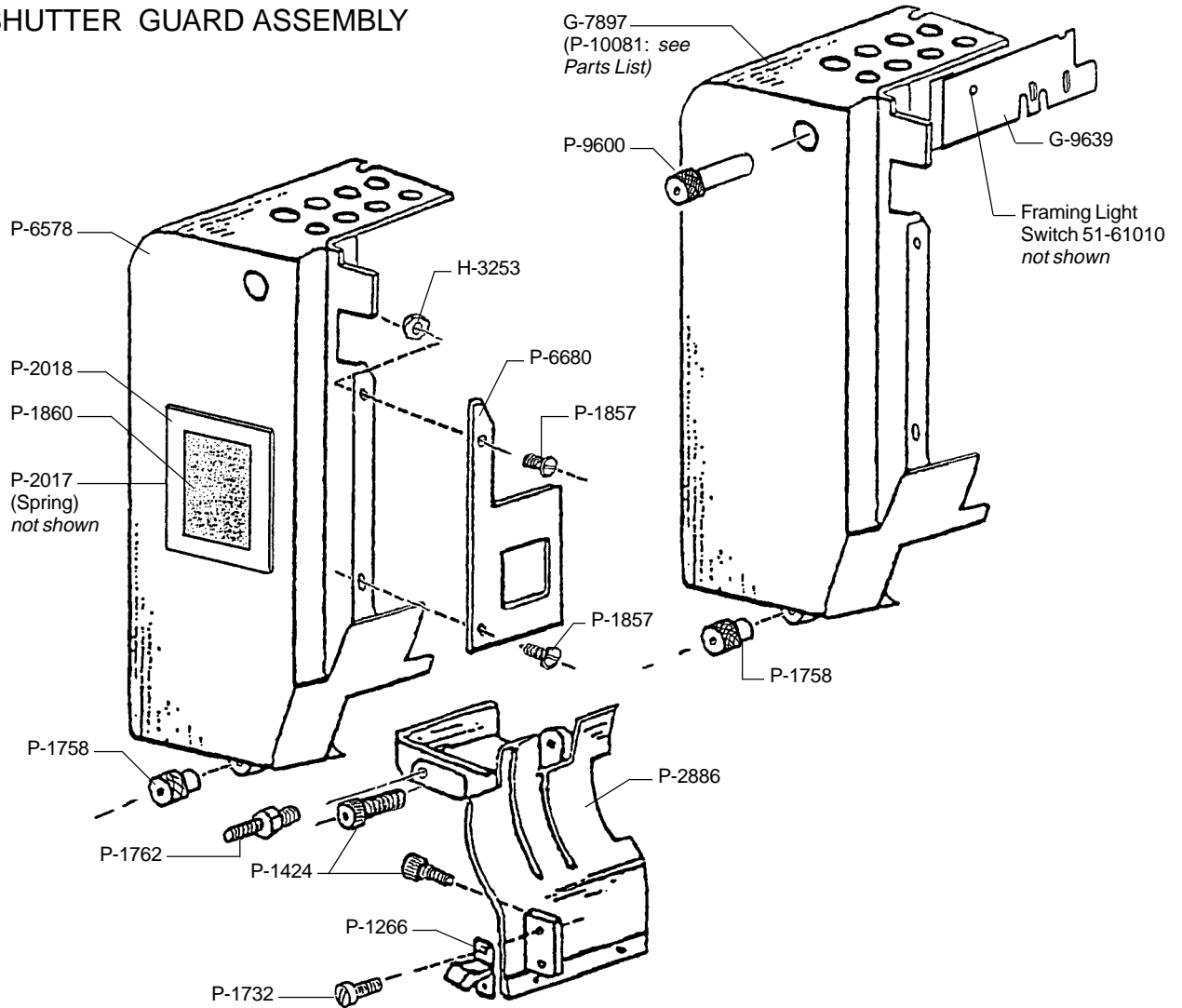
* Not included with G-1804 or 52-60308; *order separately*

G-2169 GEAR COMPARTMENT COVER ASSEMBLY



- | | |
|----------|--|
| P-1424 | Mounting Screw, Window Clip (8 req'd.) |
| P-1758 | Knurled Nut (2 req'd.) |
| | Use P-9600 (Long Shoulder) at Top Position |
| P-6626 | Window Glass |
| P-6627 | Window Mounting Clip (8 req'd.) |
| P-6643 | Window Gasket |
| P-6644 | Cover Gasket |
| P-9658 | Gear Compartment Cover Casting |
| 21-36005 | Oil Fill Cup |
| 21-38017 | Close Nipple, Brass |
| 21-38016 | Brass Elbow, 90° (Older Models; not shown) |

SHUTTER GUARD ASSEMBLY



- G-4232 Shutter Guard & Sight Box Assembly, PR1014
(P-6578 with P-1860, P-2017, P-2018, P-6680 & Hdwe.)
- G-5781 Lower Rear Cover Assembly (P-2886 & Hdwe.)
- G-7897 Shutter Guard for Auto Aperture with Incandescent Framing Light;
PR1050, PR1060
- P-10081 Shutter Guard for Auto Aperture with L.E.D. Framing Light;
PR1060, PR2000

- | | | | |
|--------|------------------------------|----------|----------------------------------|
| G-9639 | Light Shield; PR1050, PR1060 | P-1860 | Tinted Glass, Sight Box |
| H-3253 | Hex Nut, 6-32 (41-35005) | P-2017 | Spring, Sight Box Glass |
| P-1226 | Door Strike | P-2018 | Sight Box Window Frame |
| P-1424 | Fastening Screw (3 req'd.) | P-2886 | Lower Rear Cover Casting |
| P-1732 | Fastening Screw (2 req'd.) | P-6578 | Shutter Guard |
| P-1758 | Thumb Nut | P-6680 | Heat Shield |
| P-1762 | Mounting Stud, Lower | P-9600 | Thumb Nut, Long Shoulder |
| P-1857 | Fastening Screw (2 req'd.) | 51-61010 | Pushbutton Switch, Framing Light |

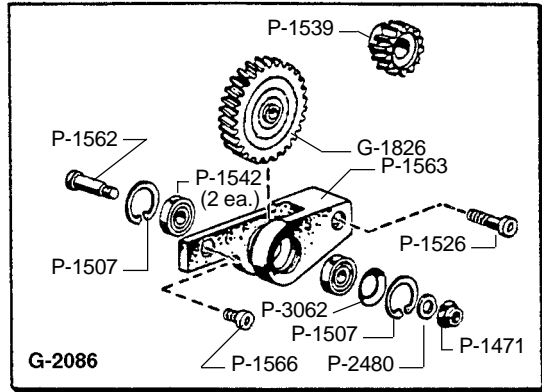
SECTION II

Options & Accessories

G-2086 DRIVE KIT

(Simplex Soundhead SH-1000, SH-1020, SH-1050)

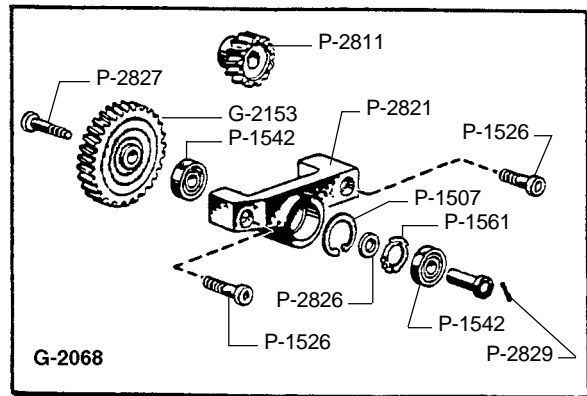
- G-1826 Idler Gear
- G-1827 Idler Gear & Bracket Assembly
(Includes: G-1826, P-1474, P-1507,
P-1542, P-1562, P-1563, P-2480
and P-3062)
- P-1471 Hex Nut, NyLock
- P-1507 Retaining Ring (2 req'd.)
- P-1526 Mounting Screw, Long
- P-1539 Projector Drive Gear
- P-1542 Ball Bearing (2 req'd.)
- P-1562 Idler Gear Shaft
- P-1563 Idler Gear Bracket
- P-1566 Mounting Screw, Short
- P-2480 Bearing Spacer
- P-3062 Loading Spring



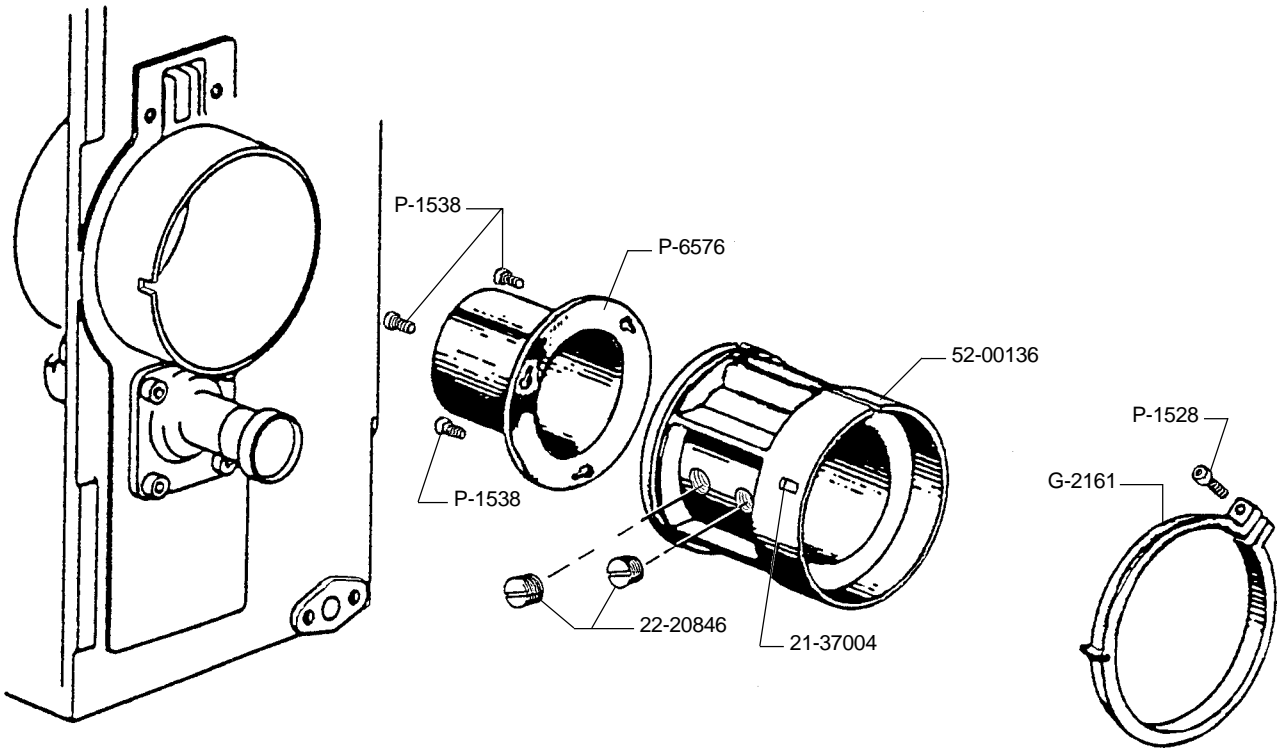
G-2068 DRIVE KIT

(RCA Soundheads MI-1040 to MI-1077, MI-9030 to MI-9070)

- G-2153 Idler Gear
- P-1507 Retaining Ring
- P-1526 Mounting Screw (2 req'd.)
- P-1542 Ball Bearing (2 req'd.)
- P-1561 Loading Spring
- P-2811 Projector Drive Gear
- P-2821 Idler Gear Bracket
- P-2826 Bearing Spacer
- P-2827 Shaft Fastening Screw
- P-2828 Idler Gear Shaft
- P-2829 Retaining Pin, Shaft Screw



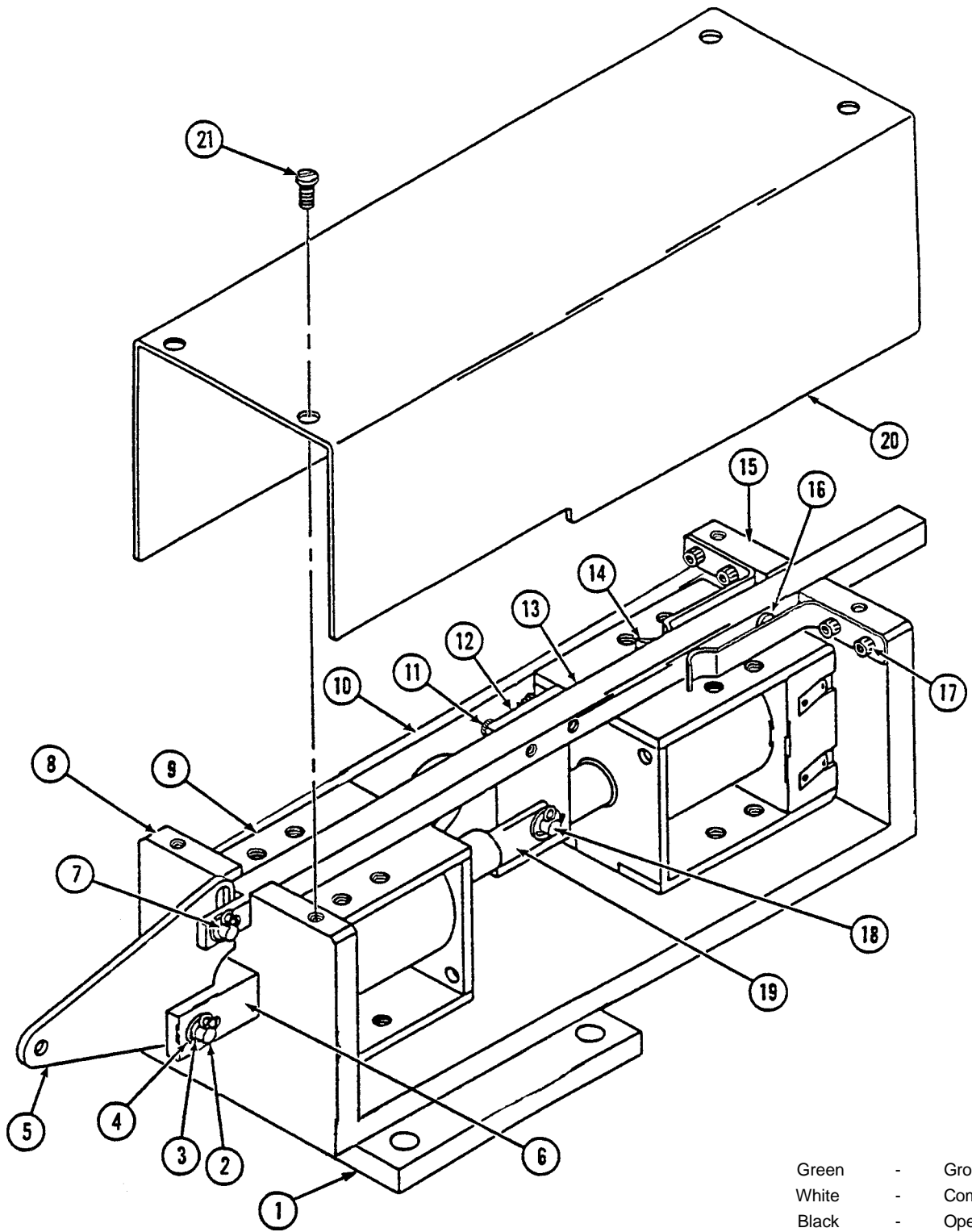
G-2156 LENS REDUCER ASSEMBLY



- | | |
|----------|--|
| G-2161 | Lens Stop Ring (Incl. P-1528)* |
| P-1528 | Clamping Screw, Stop Ring |
| P-1538 | Fastening Screw (3 req'd.) |
| P-6576 | Light Shield |
| 21-37004 | Roll Pin |
| 22-20846 | Lens Clamping Set Screw, Nylon |
| 52-00136 | Casting, Lens Reducer; 2.78" (72mm) I.D. |

* Not Included with G-2156; *order separately*

G-9727 PICTURE CHANGEOVER DEVICE



- | | | |
|-------|---|--------|
| Green | - | Ground |
| White | - | Common |
| Black | - | Open |
| Red | - | Close |

G-9727 PICTURE CHANGEOVER

Parts List

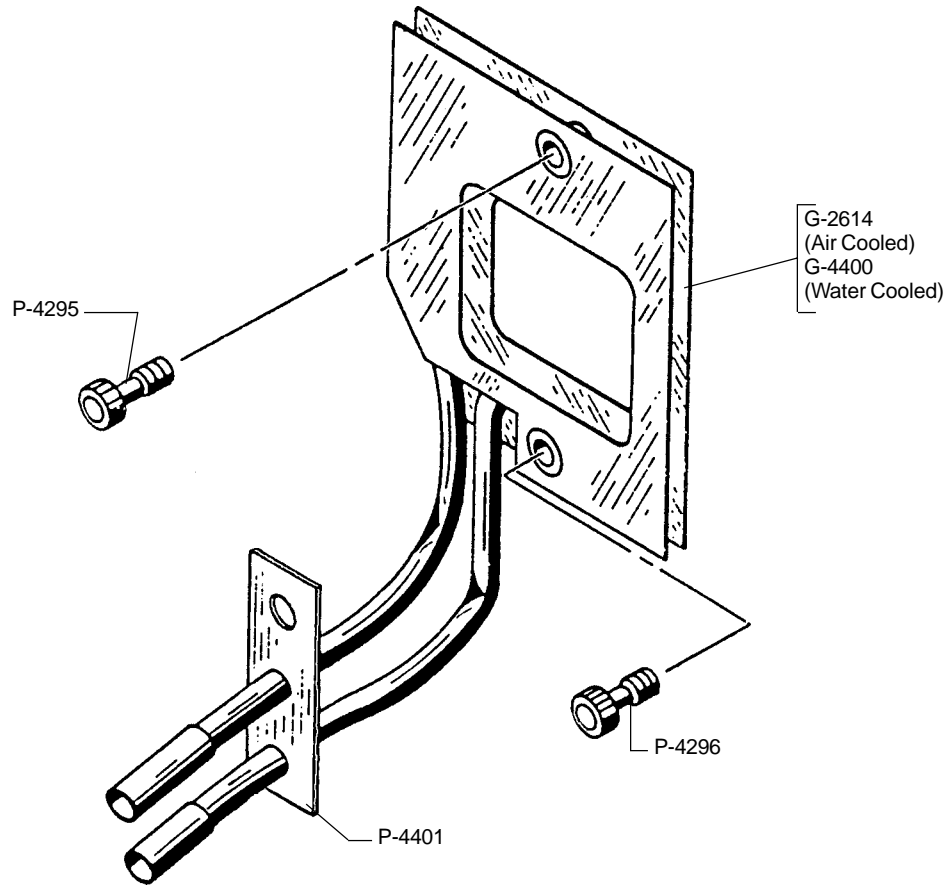
<u>Item</u>	<u>Part No.</u>	<u>Description</u>
1	P-7926	Base Plate
2	P-7966	Clevis Pin, 1/8" Dia.
3	01704000	Cotter Pin, 1/16" Dia.
4	41-40033	Flatwasher, #4
5	P-7892	Bell Crank
6	P-7923	Pivot, Bell Crank
7	P-7966	Clevis Pin, 1/8" Dia.
8	P-7919	Bracket, Changeover Body
9	51-55005	Solenoid, 115 V.AC Coil (with 52-60325)
-	51-55006	Solenoid, 230 V.AC Coil (with 52-60326)
10	P-7919	Bracket, Changeover Body
11	41-51325	Screw, 6-32 x 3/8" Socket Head
12	P-7925	Connector
13	P-7922	Push Rod
14	P-7920	Spring
15	P-7919	Bracket, Changeover Body
16	SC-0096	Screw, 4-40 x 1/8" Pan Head
17	41-51016	Screw, 4-40 x 1/4" Pan Head
18	P-7966	Clevis Pin, 1/8" Dia.
19	51-55005	Solenoid, 115 V.AC Coil (with 52-60235)
--	51-55006	Solenoid, 230 V.AC Coil (with 52-60236)
20	P-7924	Cover
21	41-51028	Screw, 6-32 x 1/4" Pan Head
	52-60235	Picture Changeover Assembly, Complete (115 V.AC)
	52-60236	Picture Changeover Assembly, Complete (230 V.AC)

NOT SHOWN

P-7968	Linkage, Douser Plate
4951-0371	Nylon Cable Clamp
41-13008	Cable Connector, 90°
51-71007	Cable, (4) Conductor, Type SO (6 feet required)

Douser Plate G-1910 (See p. 1-10) *not included* with G-9727 Changeover and must be ordered separately.

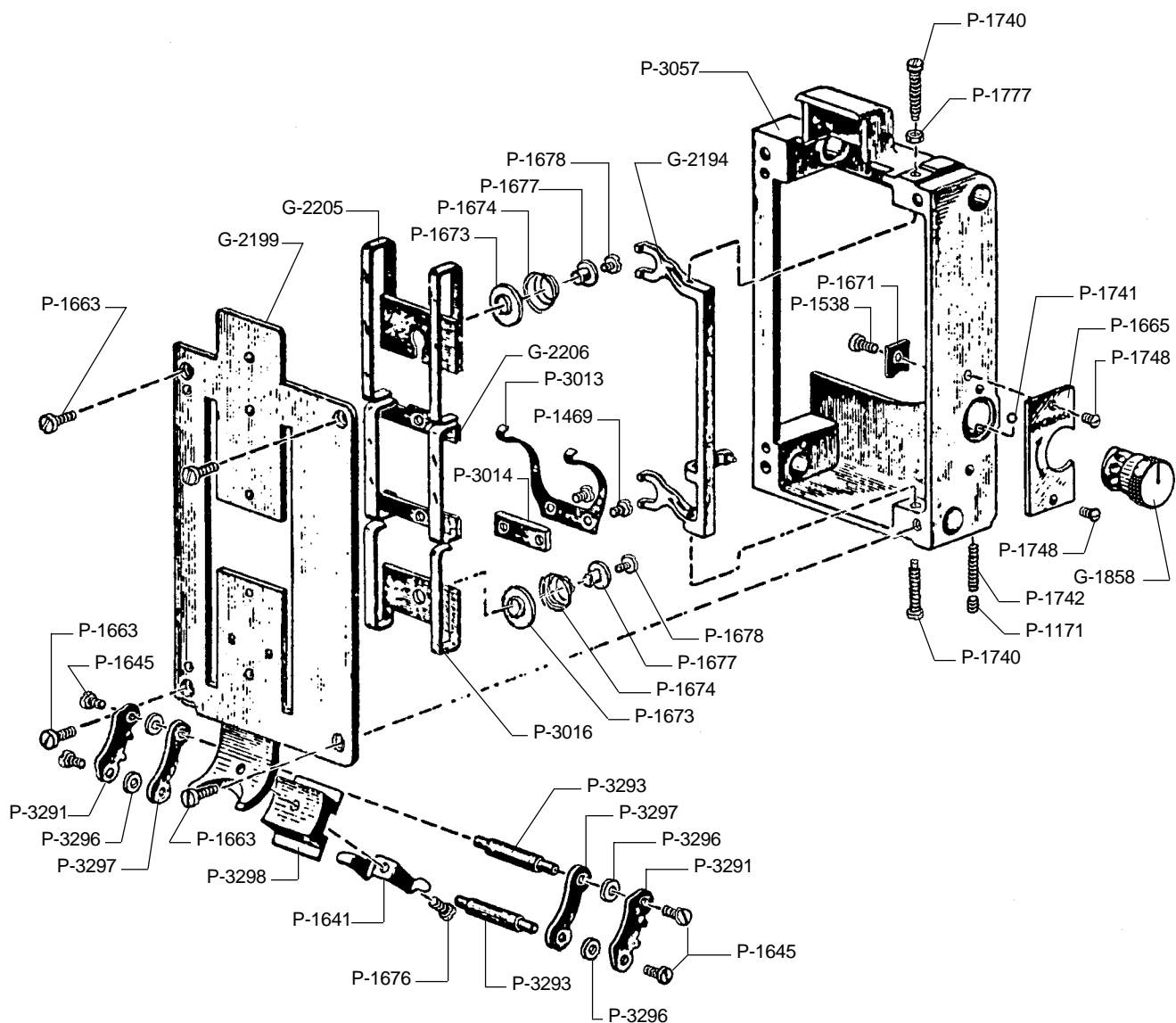
FILM TRAP HEAT SHIELD



G-2614 Heat Shield, Air Cooled
G-4400 Heat Shield, Water Cooled

P-4295 Heat Shield Mounting Screw, Upper
P-4296 Heat Shield Mounting Screw, Lower
P-4401 Guide Plate, Water Lines
(See p. 1-18 for Location)

G-2411 FILM GATE



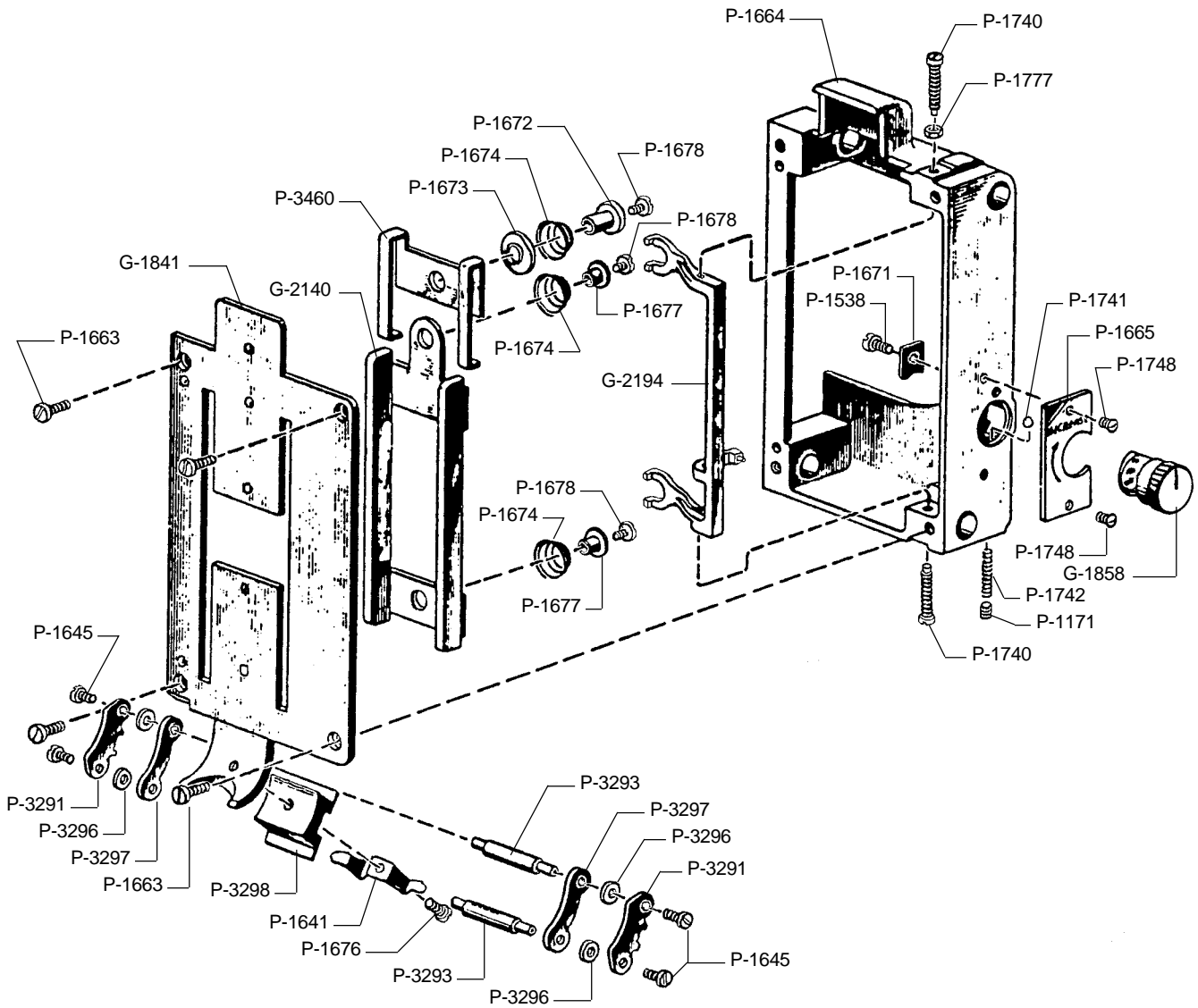
Studio Type, (3) Pads

G-2411 STUDIO GATE

Parts List

G-1858	Pressure Adjusting Knob & Pin
G-2194	Pressure Adjusting Yoke Casting with Pin
G-2199	Pressure Pad Plate & Pins Assembly
G-2205	Upper Pressure Pad Assembly
G-2206	Center Pressure Pad Assembly
P-1171	Detent Pressure Adjusting Screw
P-1469	Tension Spring Fastening Screw (2 req'd.)
P-1538	Retainer Plate Fastening Screw
P-1641	Tension Shoe Pressure Spring
P-1645	Fastening Screw, Tension Shoe Stud (4 req'd.)
P-1663	Plate Fastening Screw (2 req'd.)
P-1665	Dial Plate, Pressure Adjusting Knob
P-1671	Retainer Plate, Detent Adjusting Knob
P-1673	Spring Retaining Washer (2 req'd.)
P-1674	Pressure Pad Spring (2 req'd.)
P-1676	Fastening Screw, Tension Shoe Spring
P-1677	Spring Retaining Bushing (2 req'd.)
P-1678	Spring Retaining Screw (2 req'd.)
P-1740	Yoke Pivot Screw (2 req'd.)
P-1741	Detent Ball, Pressure Adjusting Knob
P-1742	Detent Spring, Pressure Adjusting Knob
P-1748	Dial Plate Fastening Screw (2 req'd.)
P-1777	Lock Nut, Yoke Pivot Screw
P-3013	Tension Spring, Center Pressure Pad
P-3014	Tension Spring Spacer
P-3016	Lower Pressure Pad
P-3057	Gate Cover Casting
P-3291	Outer Intermittent Sprocket Tension Shoe (2 req'd.)
P-3293	Tension Shoe Stud (2 req'd.)
P-3296	Tension Shoe Spacer (4 req'd.)
P-3297	Inner Intermittent Sprocket Tension Shoe (2 req'd.)
P-3298	Tension Shoe Spacer Block

G-2409 FILM GATE



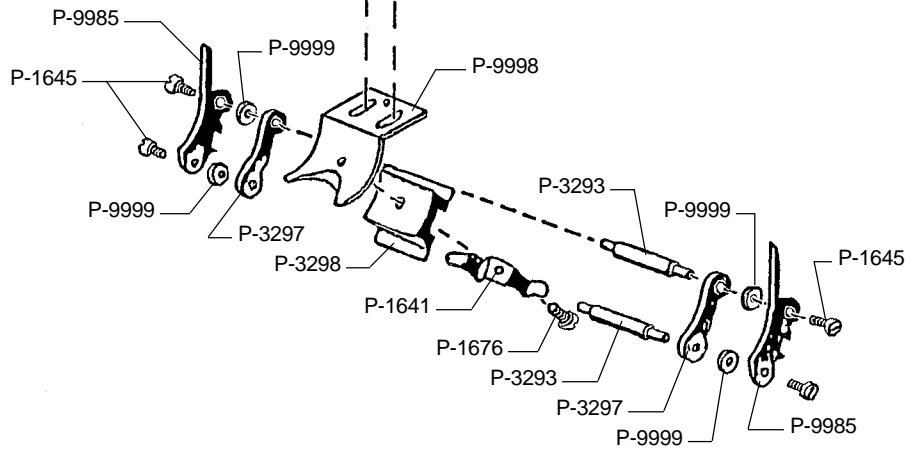
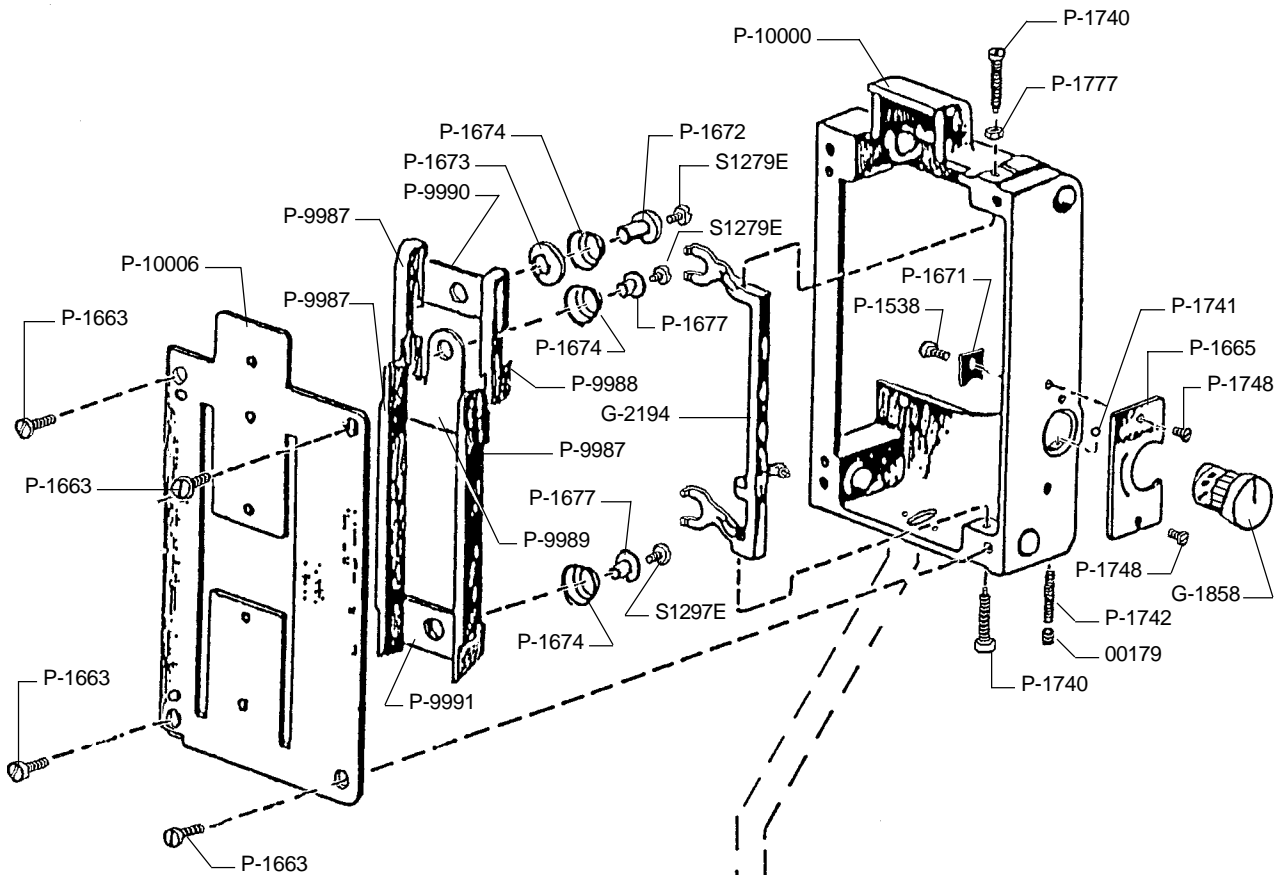
Studio Type, (2) Pad

G-2409 FILM GATE

Parts List

G-1841	Pressure Pad Plate & Pins Assembly
G-1858	Pressure Adjusting Knob & Pin
G-2140	Lower Pressure Pad Assembly
G-2194	Pressure Adjusting Yoke Casting with Pin
P-1171	Detent Pressure Adjusting Screw
P-1538	Retainer Plate Fastening Screw
P-1641	Tension Shoe Pressure Spring
P-1645	Fastening Screw, Tension Shoe Stud (4 req'd.)
P-1663	Plate Fastening Screw (2 req'd.)
P-1664	Gate Cover Casting
P-1665	Dial Plate, Pressure Adjusting Knob
P-1671	Retainer Plate, Detent Adjusting Knob
P-1672	Spring Retaining Bushing
P-1673	Spring Retaining Washer (2 req'd.)
P-1674	Pressure Pad Spring (2 req'd.)
P-1676	Fastening Screw, Tension Shoe Spring
P-1677	Spring Retaining Bushing (2 req'd.)
P-1678	Spring Retaining Screw (2 req'd.)
P-1740	Yoke Pivot Screw (2 req'd.)
P-1741	Detent Ball, Pressure Adjusting Knob
P-1742	Detent Spring, Pressure Adjusting Knob
P-1748	Dial Plate Fastening Screw (2 req'd.)
P-1777	Lock Nut, Yoke Pivot Screw
P-3291	Outer Intermittent Sprocket Tension Shoe (2 req'd.)
P-3293	Tension Shoe Stud (2 req'd.)
P-3296	Tension Shoe Spacer (4 req'd.)
P-3297	Inner Intermittent Sprocket Tension Shoe (2 req'd.)
P-3298	Tension Shoe Spacer Block
P-3460	Upper Pressure Pad

P-10013 FILM GATE



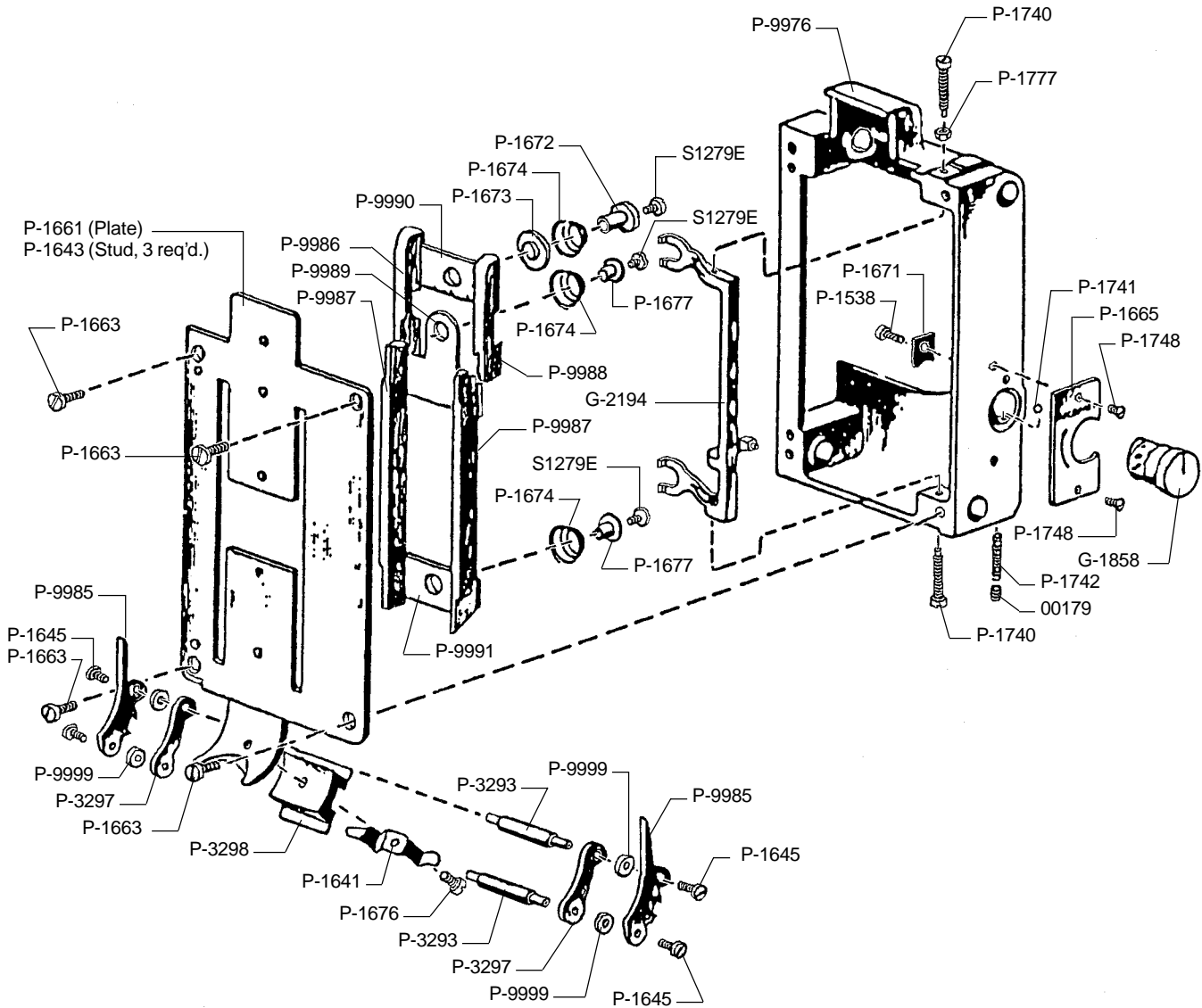
Studio Type, Forward/Reverse

G-10013 STUDIO GATE

Parts List

G-1858	Pressure Adjusting Knob and Pin
G-2194	Pressure Adjusting Yoke Casting with Pin
00179	Set Screw, 6-32 x 3/32"
P-1538	Retainer Plate Fastening Screw
P-1641	Tension Shoe Pressure Screw
P-1645	Tension Shoe Stud Fastening Screw (4 req'd.)
P-1663	Plate Fastening Screw (4 req'd.)
P-1665	Adjusting Knob Dial Plate
P-1671	Detent Adjusting Knob Retainer Plate
P-1672	Upper Pressure Pad Spring Retaining Bushing
P-1673	Pressure Pad Spring Retaining Washer (3 req'd.)
P-1674	Pressure Pad Spring
P-1676	Tension Shoe Spring Fastening Screw
P-1677	Lower Pressure Pad Spring Retaining Bushing
P-1740	Pressure Adjusting Yoke Pivot Screw, Dog Point (2 req'd.)
P-1741	Pressure Adjusting Knob Detent Ball
P-1742	Pressure Adjusting Knob Detent Spring
P-1748	Plate Mounting Screw (2 req'd.)
P-1777	Pivot Screw Lock Nut
P-3293	Tension Shoe Stud (2 req'd.)
P-3297	Inner Tension Shoe (2 req'd.)
P-3298	Tension Shoe Spacer Block
P-9985	Intermittent Tension Shoe (2 req'd.)
P-9986	Upper Tension Shoe, Left
P-9987	Lower Tension Shoe (2 req'd.)
P-9988	Upper Tension Shoe, Right
P-9989	Tension Shoe Spacer Plate
P-9990	Upper Tension Shoe Spacer Plate
P-9991	Lower Tension Shoe Spacer Plate
41-51160	Tension Shoe Mounting Screw, 3-56 x 1/4" Soc. Head (8 req'd.)
P-9998	Mounting Bracket, Intermittent Shoe Assembly
41-51012	Bracket Mounting Screw, 4-40 x 1/4" Button Head
P-9999	Intermittent Shoe Spacer (4 req'd.)
P-10000	Gate Casting
P-10007	Threaded Inserts (for P-9998 Mounting)
P-10006	Pressure Pad Plate
S1279E	Spring Retaining Screw (3 req'd.)

G-10051 FILM GATE



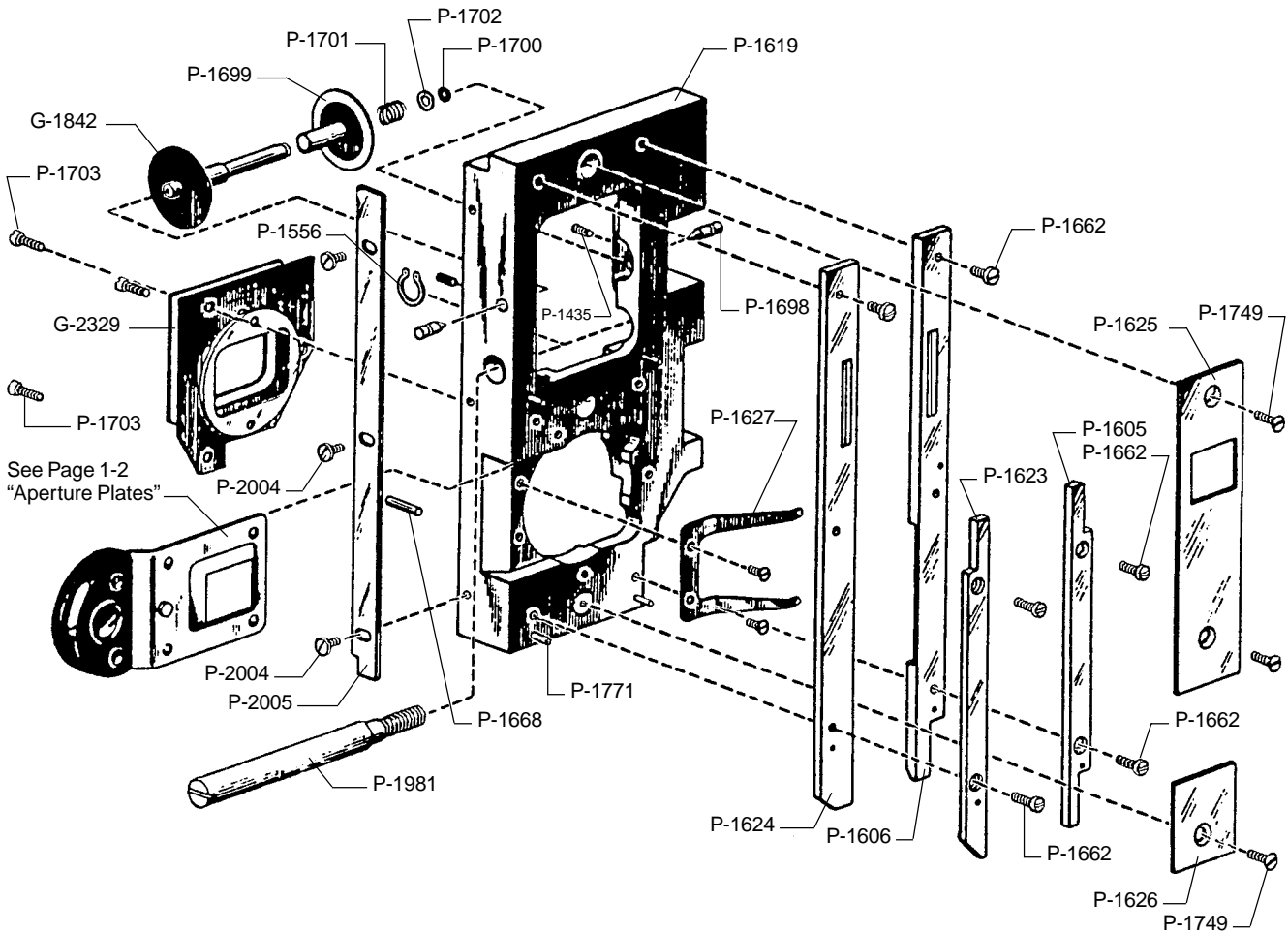
Studio Type, Forward/Reverse

G-10051 STUDIO GATE

Parts List

G-1858	Pressure Adjusting Knob and Pin
G-2194	Pressure Adjusting Yoke Casting with Pin
00179	Set Screw, 6-32 x 3/32"
P-1538	Retainer Plate Fastening Screw
P-1641	Tension Shoe Pressure Screw
P-1643	Stud, Pressure Pad Plate (3 req'd.)
P-1645	Tension Shoe Stud Fastening Screw (4 req'd.)
P-1661	Pressure Pad Plate
P-1663	Plate Fastening Screw (4 req'd.)
P-1665	Adjusting Knob Dial Plate
P-1671	Detent Adjusting Knob Retainer Plate
P-1672	Upper Pressure Pad Spring Retaining Bushing
P-1673	Pressure Pad Spring Retaining Washer (3 req'd.)
P-1674	Pressure Pad Spring
P-1676	Tension Shoe Spring Fastening Screw
P-1677	Lower Pressure Pad Spring Retaining Bushing
P-1740	Pressure Adjusting Yoke Pivot Screw, Dog Point (2 req'd.)
P-1741	Pressure Adjusting Knob Detent Ball
P-1742	Pressure Adjusting Knob Detent Spring
P-1748	Plate Mounting Screw (2 req'd.)
P-1777	Pivot Screw Lock Nut
P-3293	Tension Shoe Stud (2 req'd.)
P-3297	Inner Tension Shoe (2 req'd.)
P-3298	Tension Shoe Spacer Block
P-9976	Gate Cover Casting
P-9985	Intermittent Tension Shoe (2 req'd.)
P-9986	Upper Tension Shoe, Left
P-9987	Lower Tension Shoe (2 req'd.)
P-9988	Upper Tension Shoe, Right
P-9989	Tension Shoe Spacer Plate
P-9990	Upper Tension Shoe Spacer Plate
P-9991	Lower Tension Shoe Spacer Plate
41-51160	Tension Shoe Mounting Screw, 3-56 x 1/4" Soc. Head (8 req'd.)
P-9999	Intermittent Shoe Spacer (4 req'd.)
S1279E	Spring Retaining Screw (3 req'd.)

G-2448 FILM TRAP



- | | | | |
|--------|------------------------------------|--------|-------------------------------|
| G-1842 | Lateral Guide Roller & Shaft | P-1668 | Fire Shutter Stop Pin |
| G-2329 | Heat Shield | P-1698 | Guide Roller Pivot (2 req'd.) |
| P-1435 | Set Screw, Roller Pivot (2 req'd.) | P-1699 | Movable Lateral Guide Roller |
| P-1556 | Snap Ring, Captive Screw | P-1700 | Washer Retaining Ring |
| P-1605 | Right Studio Guide (Inboard) | P-1701 | Compression Spring |
| P-1606 | Inboard Trap Shoe | P-1702 | Guide Roller Washer |
| P-1619 | Film Trap Casting | P-1703 | Fastening Screw (3 req'd.) |
| P-1623 | Left Studio Guide (Outboard) | P-1749 | Fastening Screw (3 req'd.) |
| P-1624 | Outboard Trap Shoe | P-1771 | Dowel Pin (4 req'd.) |
| P-1625 | Threading Aperture | P-1773 | Fastening Screw (2 req'd.) |
| P-1626 | Lower Threading Guide | P-1981 | Trap Mounting Screw, Captive |
| P-1627 | Aperture Plate Tension Spring | P-2004 | Fastening Screw (3 req'd.) |
| P-1662 | Fastening Screw (6 req'd.) | P-2005 | Light Shield |

PARTS LIST ADDENDUM

SIMPLEX PROJECTORS AND SOUNDHEADS manufactured prior to January 1990 employed .200" Pitch ("square-tooth") timing belts and their corresponding pulleys in the drive train. Drive components for current production (5mm, "round-tooth") are detailed in this book, and in the current 5 Star manual. Strong International will continue to stock replacement parts for the older drive train; please refer to the following chart when ordering parts for older Simplex equipment.

SERIAL NUMBERS *higher* than the following use 5mm drive components:

PR1014, 1020, 1030	#1616
PR1050	#11105
 35/70 (Projector)	 #629
5 Star Soundhead (35mm)	#7715S
5 Star Soundhead (35/70mm)	#640S

	<u>Old 35/70</u>	<u>.200" Pitch</u>	<u>5mm Pitch*</u>
MOTOR PULLEY	52-00072 (P-7611)	51-43004 (P-5742)	51-43010 (P-7611)
MOTOR BELT	51-05005 (P-7615)	51-05001 (P-7021)	51-05014 (P-9835)
90 Tooth	n/a	52-20467 (P-7371)	52-20268 (P-9837)
66 Tooth	52-20266 (P-7614)	52-20469 (P-7019)	52-20266 (P-7614)
PROJ. BELT	51-05005 (P-7615)	51-05001 (P-7021)	51-05014 (P-9835)
PROJ. PULLEY	52-00179 (P-9812)	51-43017 (P-9802)	51-43018 (P-9812)
IDLER PULLEY	51-43016 (P-7610)	51-43007 (P-7230)	52-40111 (P-10024)
IDLER ASS'Y.	52-60013 (G-7629)	52-60120 (G-7052)	52-60364 (P-10024)

* Current Production

