

LIONEL SERVICE MANUAL

GP-7 AND GP-9 DIESEL LOCOMOTIVES NOS. 2028, 2328, 2337, 2338, 2339, AND 2348

Locomotives described in this section are modeled on Type GP-7 and GP-9 1,500 horse-power diesel-electric road switching locomotives built by the Electro-Motive Division of the General Motors Corporation.

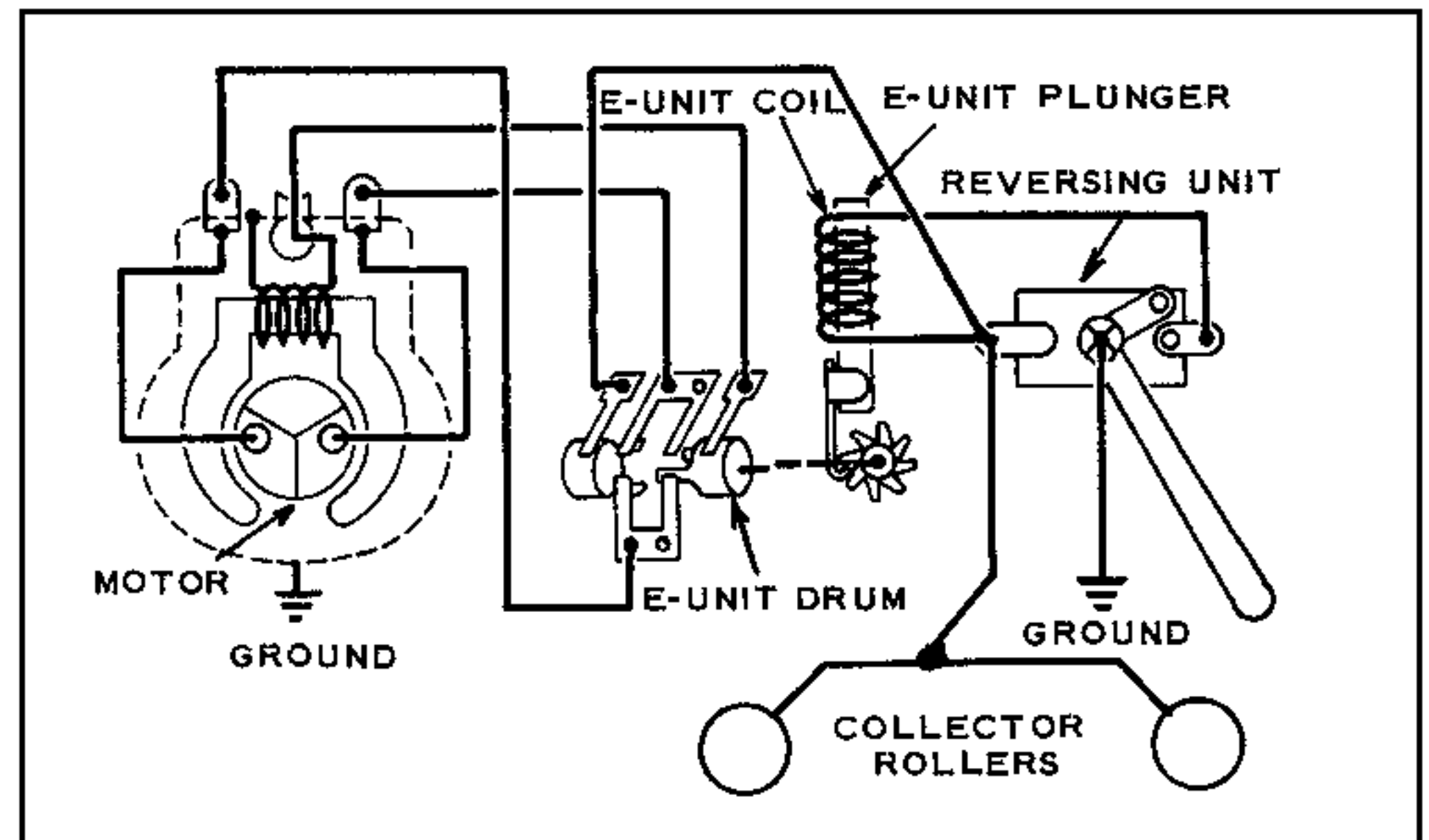
The first three locomotives of this type, Nos. 2028, 2328 and 2338 were first produced in 1955. Of these No. 2328 "Burlington" and No. 2338 "Milwaukee" were standard locomotives equipped with a warning horn and headlights, as illustrated in the wiring diagram below. No. 2028 "Pennsylvania", however, was a stripped-down model, without headlights, warning horn or certain decorative features such as railings around the cab, or the plastic underframe which, in the other locomotives, serves to retain the horn battery. The wiring diagram of this locomotive appears at the right.

No. 2339 "Wabash" was produced in 1957 and is similar to Nos. 2328 and 2338. No. 2337 "Wabash", made in 1958, was identical with it but is equipped with fixed couplers.

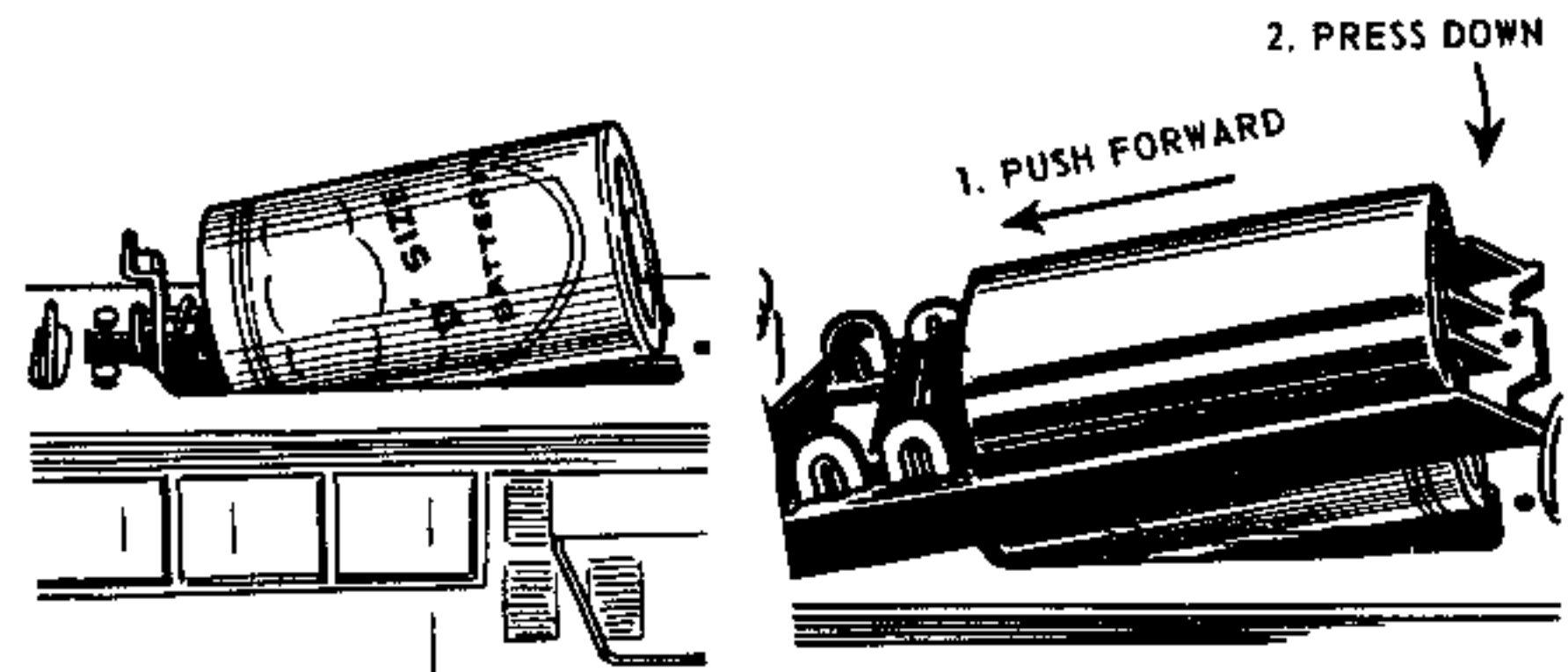
Locomotive No. 2348, patterned on GM's Type GP-9, was also made in 1958 and is identical with the conventional GP-7's except for the body which is equipped with the characteristic GP-9 dynamic brake "blisters" and bears the colors and markings of the "Minneapolis & St. Louis".

One of the features peculiar to this type of locomotive is the method of inserting the horn battery. Because of its bayonet type of action the battery cover cannot be mounted when the battery is fully in place, but the battery and cover must be mounted at the same time.

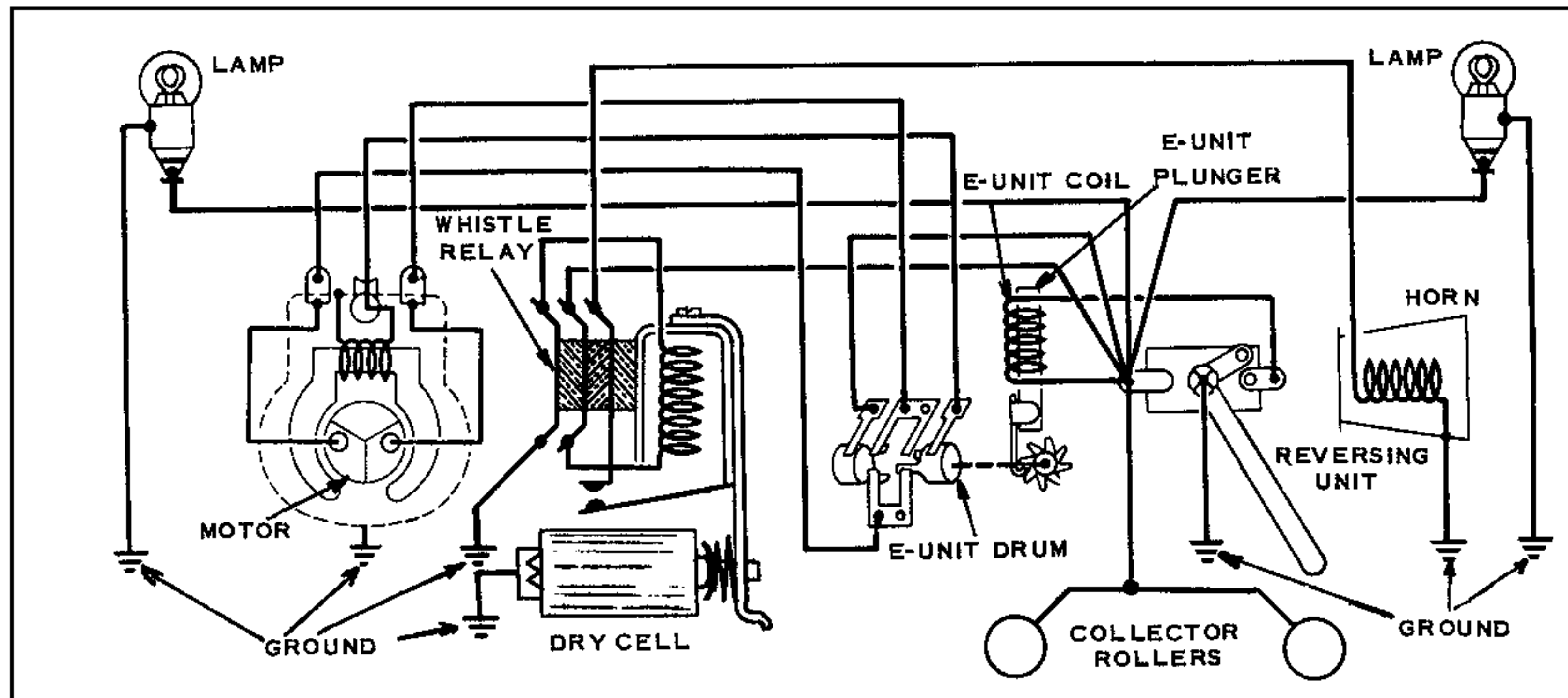
Wiring Diagram of No. 2028 Locomotive



Insert the front of the battery but leave the back resting on the bottom of the locomotive exactly as shown in the first illustration at the left. Then place the cover on the battery, keeping the front of the cover close to the locomotive bottom in order to get it under the wheel. Push the cover forward, keeping the front down. After the hook enters the slot in the cover push the back down. The battery and the cover snap into place at the same time.



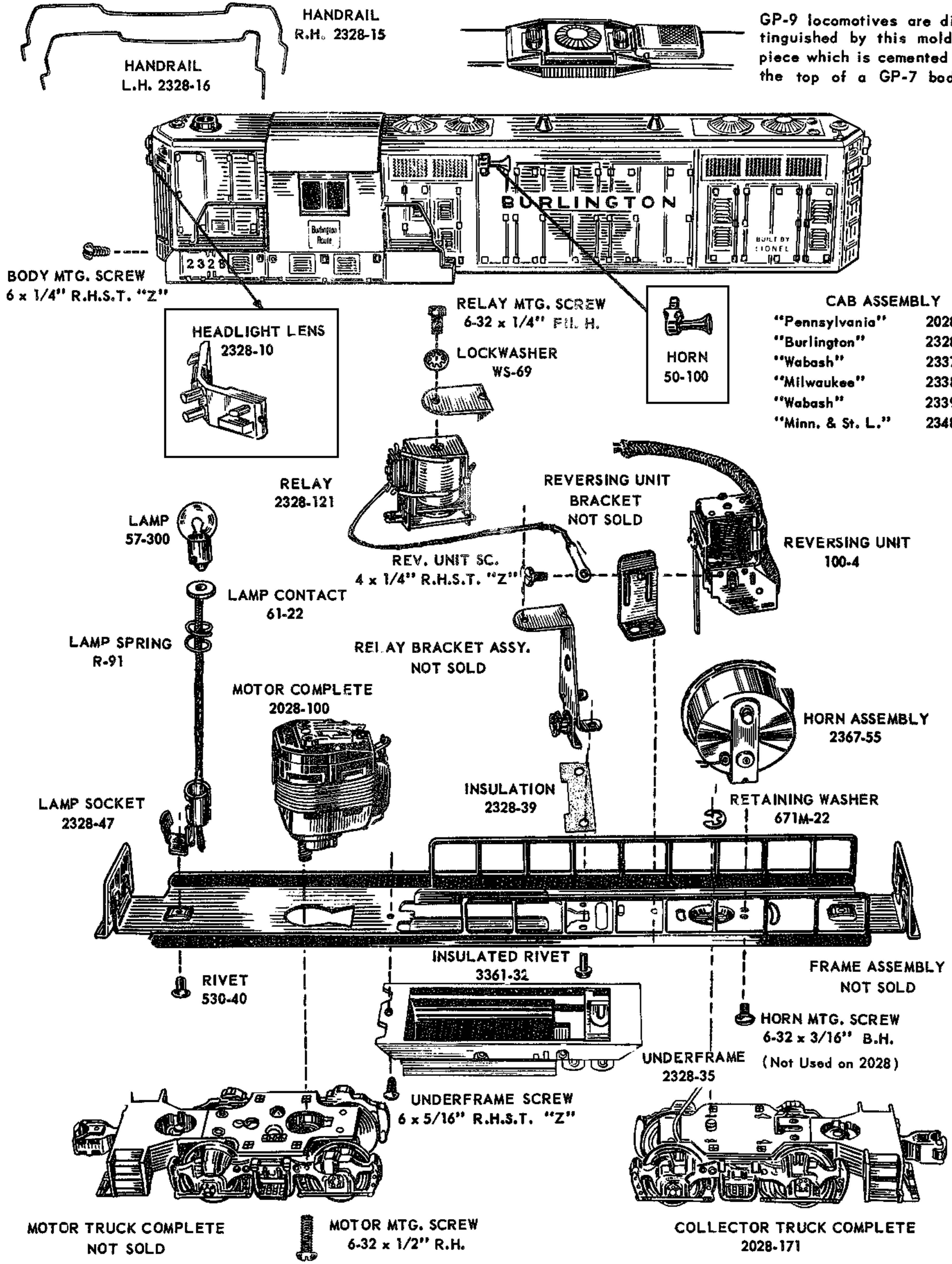
Wiring Diagram of GP-7 and GP-9 Diesel Locomotives



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OTTP-95

GP-9 locomotives are distinguished by this molded piece which is cemented to the top of a GP-7 body.



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OTTP-95

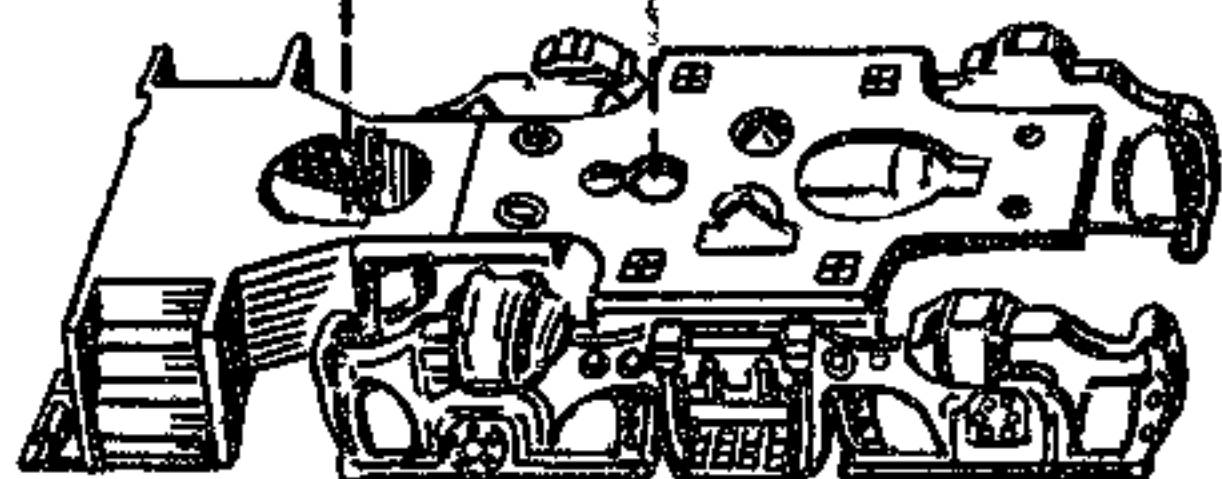
COUPLER CENTERING
PLUNGER
2321-164



TOP PLATE SCREW
4-40 X 1/4 R.H.



GROUND SPRING
2367-52



TOP PLATE ASSEMBLY
2028-85



COUPLER HEAD ASSEMBLY
2321-86



COUPLER ARMATURE
2321-168



THRUST WASHER
671M-23



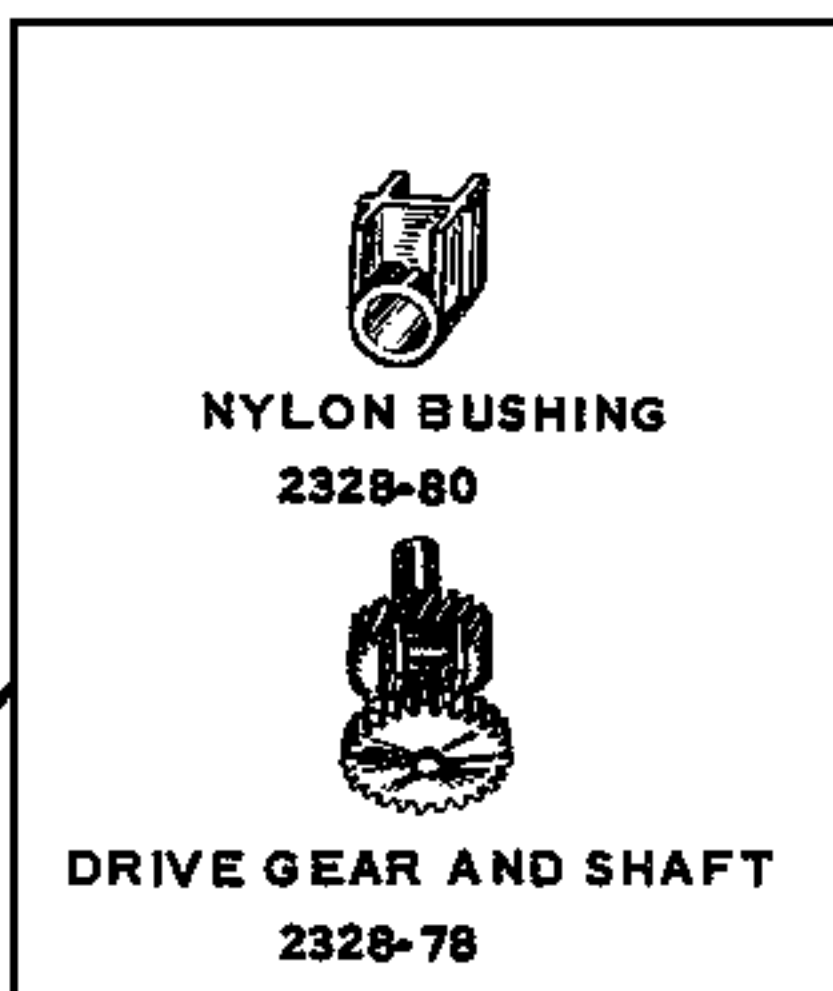
CENTERING SPRING
1615-93



THRUST WASHER
671M-23

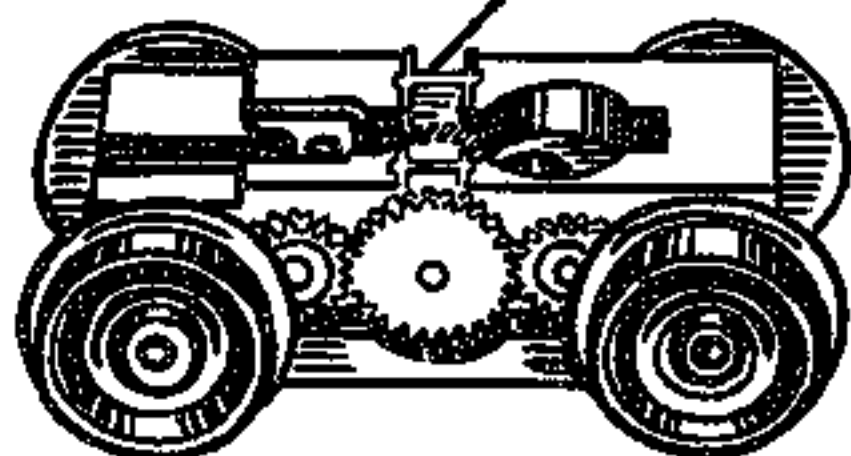


RETAINING WASHER
671M-22



NYLON BUSHING
2328-80

DRIVE GEAR AND SHAFT
2328-78



BASIC POWER TRUCK
2328-187



MOTOR MTG. SCREW
6-32 X 1/2 R.H.

BRUSHPLATE SCREW
4-40 X 3/16 R.H.



BRUSHPLATE
2321-113



BRUSH SPRING
622-191

BRUSH
622-121

ARMATURE
2028-109



THRUST BEARING
681-121

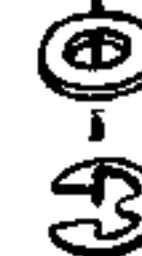
THRUST WASHER
671M-22

ARMATURE BUSHING
2321-103

THRUST BEARING
681-121

THRUST WASHER
671M-23

RETAINING WASHER
671M-22



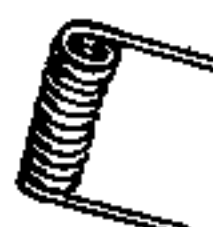
COLLECTOR ASSEMBLY
2328-173

COLLECTOR INSULATION
2328-170

COLLECTOR ARM RIVET
2367-99



COLLECTOR SPRING
2321-135



INSULATING WASHER
2332-109

COLLECTOR SCREW
#6 X 5/16" R.H.S.T. "Z"

ROLLER PIN
2328-96



COLLECTOR ROLLER
2367-192



SUB 2328-95

The collector assembly is a component of the
Collector Truck No. 2028-171.

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GP-7 & GP-9 - DIESEL LOCOMOTIVES

NO. 2028 - 2328 - 2337 - 2338 - 2339 - 2348 - 2349

<u>Part Number</u>	<u>Location</u>	<u>Unit Price</u>	<u>Min. Qnan.</u>	<u>Description</u>
22-65	J-64	.02	25	Pilot Rivet
50-100	J-80	.10	6	Ornamental Horn
57-300	LC	.20	12	Lamp
61-22	A-61	.05	25	Lamp Contact
100-4	I-31	3.50		Reversing Unit
480-8	P-62	.15	4	Coupler Knuckle
480-16	P-62	.02	50	Knuckle Spring
530-40	I-40	.02	25	Rivet (Rev. Unit Bracket)
622-28	B-71	.05	12	Pinion Gear Shaft
622-52	B-72	.10	6	Bracket (Reversing Unit)
622-121	B-77	pr .60	6 pr	Brush
622-191	B-74	pr .10	6 pr	Brush Spring
623-20	B-97	.10	6	Axle Bearing (Motor Truck)
625-182	M-51	.25		Coupler Head
671-253	C-57	.10	6	Collector Truck Axle
671M-22	C-75	.05	12	Retaining Washer (Motor & Coupler)
671M-23	C-75	.02	25	Thrust Washer (Motor & Coupler)
681-121	F-94	.25		Thrust Bearing (Motor)
1615-93	J-37	.02	25	Coupler Centering Spring
2023-117	M-31	.25		Pinion Gear
2028-4	E-26	4.00		Cab Assem. (Pennsylvania)
2028-21	D-46	2.00		Frame
2028-70	J-24	9.00		Motor Truck Complete (Magnetized)
2028-71	Sub. 2328-88			Truck Side
2028-85	F-31	2.00		Top Plate & Pilot Assem. (Motor Truck)
2028-100	F-24	6.50		Motor Complete
2028-109	A-41	3.50		Armature
2028-165	F-22	1.00		Collector Truck Top Plate & Pilot Assem.
2028-171	J-34	6.50		Collector Truck Complete
2321-86	O-61	.50		Coupler Head Assem.
2321-113	O-24	1.50		Brushplate
2321-135	O-61	.05	12	Collector Spring
2321-162	O-61	.05	12	Coupler Centering Spring
2321-164	O-71	.15	12	Coupler Cen tering Plunger
2321-168	O-61	.25		Coupler Armature
2328-2	F-31	5.00		Cab Assem. (Burlington)
2328-10	K-77	.10	6	Headlight Lens
2328-15	K-97	.05	12	Handrail RH
2328-16	K-97	.05	12	Handrail LH
2328-21	D-46	2.00		Frame
2328-35	D-36	.40		Under-Frame (Battery Cover)

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Part Number	Location	Unit Price	Min. Quan.	Description
2328-37	K-57	.25		Relay Bracket Assem.
2328-39	K-97	.02	12	Insulation - Relay
2328-47	K-97	.25		Lamp Socket Bracket
2328-65	F-11	.60		Pilot
2328-75	K-97	1.00		Gear Wheel & Axle (Magnetized)
2328-78	K-57	1.00		Gear & Shaft (Motor Truck)
2328-80	K-77	.15	4	Nylon Bushing
2328-88	K-57	.60		Truck Side
2328-92	K-77	.40		Collector Arm & Roller Assem.
2328-95	F-81	.15	12	Collector Roller
2328-96	F-81	.05	12	Roller Pin
2328-121	K-87	3.00		Relay
2328-159	K-77	.15	4	Axle Bearing (Collector Truck)
2328-170	K-77	.05	12	Collector Insulation
2328-173	K-77	1.50		Collector Assem.
2328-177	M-75	.25		Lamp Socket & Bracket
2328-187	Q-27	6.00		Basic Power Truck
2332-109	F-61	.02	25	Fibre Washer
2333-32	B-43	.30		Collector Truck Wheel
2337-2	M-22	6.00		Cab Assem. (Wabash)
2338-2	E-36	6.00		Cab Assem. (Milwaukee)
2338-21	D-56	2.50		Frame
2339-2	G-67	6.00		Cab Assem. (Wabash)
2343-33	L-17	.30		Truck Plain Wheel
2348-5	F-46	6.00		Cab Assem. (Minn. & St. Louis)
2349-2		6.00		Cab Assem. (Great Northern)
2349-9		2.50		Frame Assem.
2367-52	O-66	.15	4	Ground Spring
2367-55	O-42	2.50		Horn Assem.
2367-99	Sub. 2367-198			Collector Arm Rivet
2367-198	O-66	.02	25	Collector Arm Rivet
3361-32	L-61	.10		Insulated Rivet Relay
R-91	N-55	.05	12	Lamp Socket Spring
TC-23	P-61	.02	25	Knuckle Rivet
WS-69	G-62	.02	25	#4 Lockwasher (Relay)
4-40 x 1/4"		.02	25	RH Motor Top Plate Screw
4-40 x 3/16"		.02	25	RH Brushplate Screw
6 x 1/4"		.02	25	RHST "Z" Reversing Unit Screw
6 x 5/16"		.02	25	RHST "Z" Underframe Screw
6-32 x 1/4"		.02	25	Fil. H. Relay Mtg. Screw
6-32 x 1/4"		.02	25	Rec. RHST "Z" Body Mtg. Screw
6-32 x 1/2"		.02	25	RH Motor Mtg. Screw
6-32 x 3/16"		.02	25	RH Collector Screw
6-32 x 3/16"		.02	25	BH Horn Mtg. Screw