

PARTS LIST AND EXPLODED DIAGRAMS

SUPPLEMENT 30

Produced by
Lionel® Trains, Inc.
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Chesterfield, MI 48051-2493

This supplement is designed to fit with two different publications, the *Lionel Service Manual 1977 to 1986* and *Lionel Parts List and Exploded Diagrams*.

Each page has two numbers. The number for the *Lionel Service Manual* is indicated by parentheses, e.g., (B-63). The number which applies to *Lionel Parts Lists and Exploded Diagrams* is above the parentheses, e.g., S30:1-1

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CORRECTION NOTICE

Due to last minute Engineering revisions, the following parts and part numbers have changed on the B&A Hudson Locomotive and Tender.

601-8042-000 4-6-4 B&A Hudson.

600-2046-062 valve gear pin - page S30:3-2 (A-59-2) has been changed to 600-1862-114 screw.

600-8600-167 washer thick - page S30:3-3 (A-59-3) has been changed to 600-2035-167 thrust washer thin. Six now used 3 on each side.

691-8042-T01 tender complete B&A - page S-30:4-1 (C-50).

600-8141-020 screw (4) speaker mtg. has been changed to 818-5101-032.

Please make these corrections to your drawings.

The Lionel Service Department

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LIONEL SERVICE MANUAL

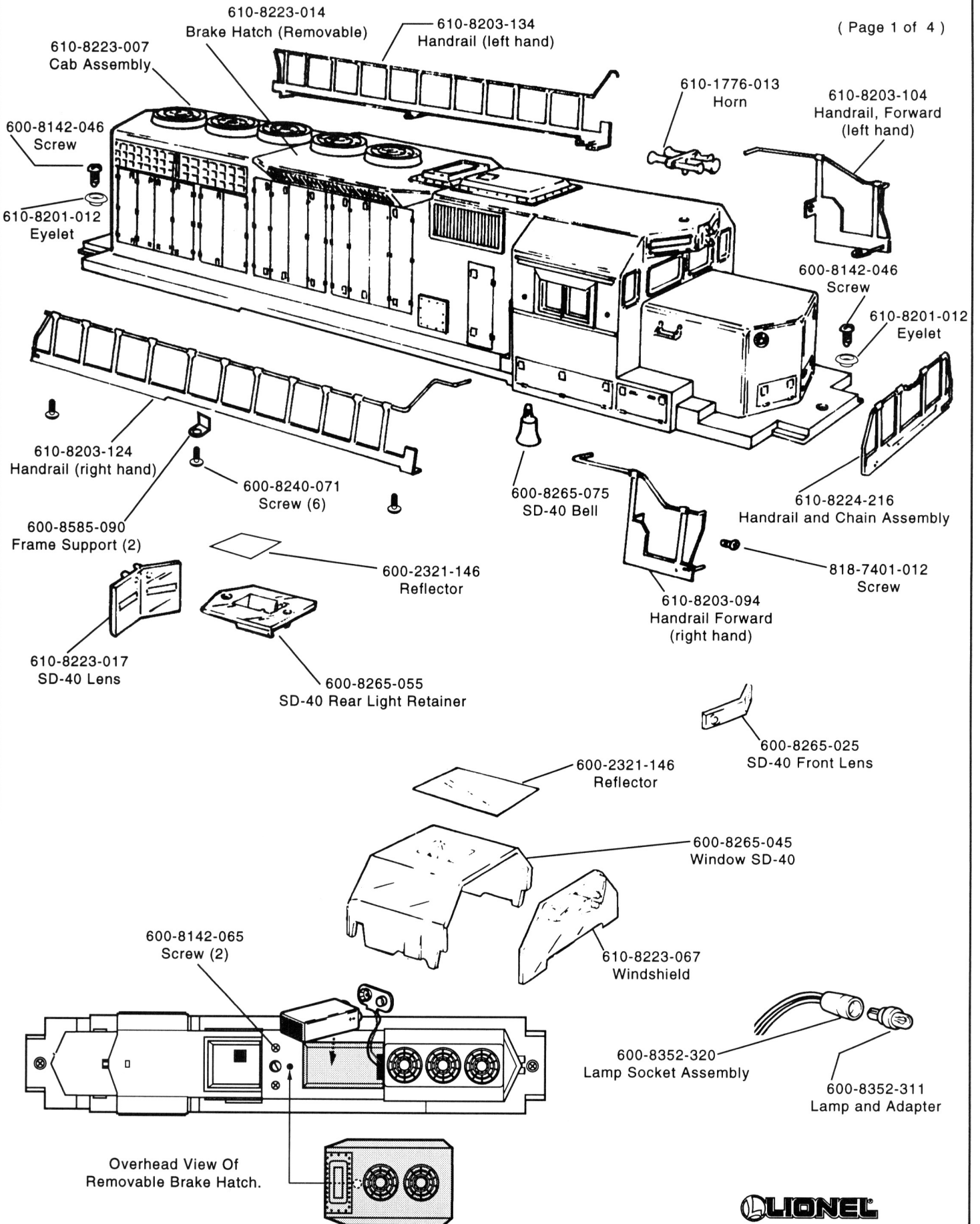
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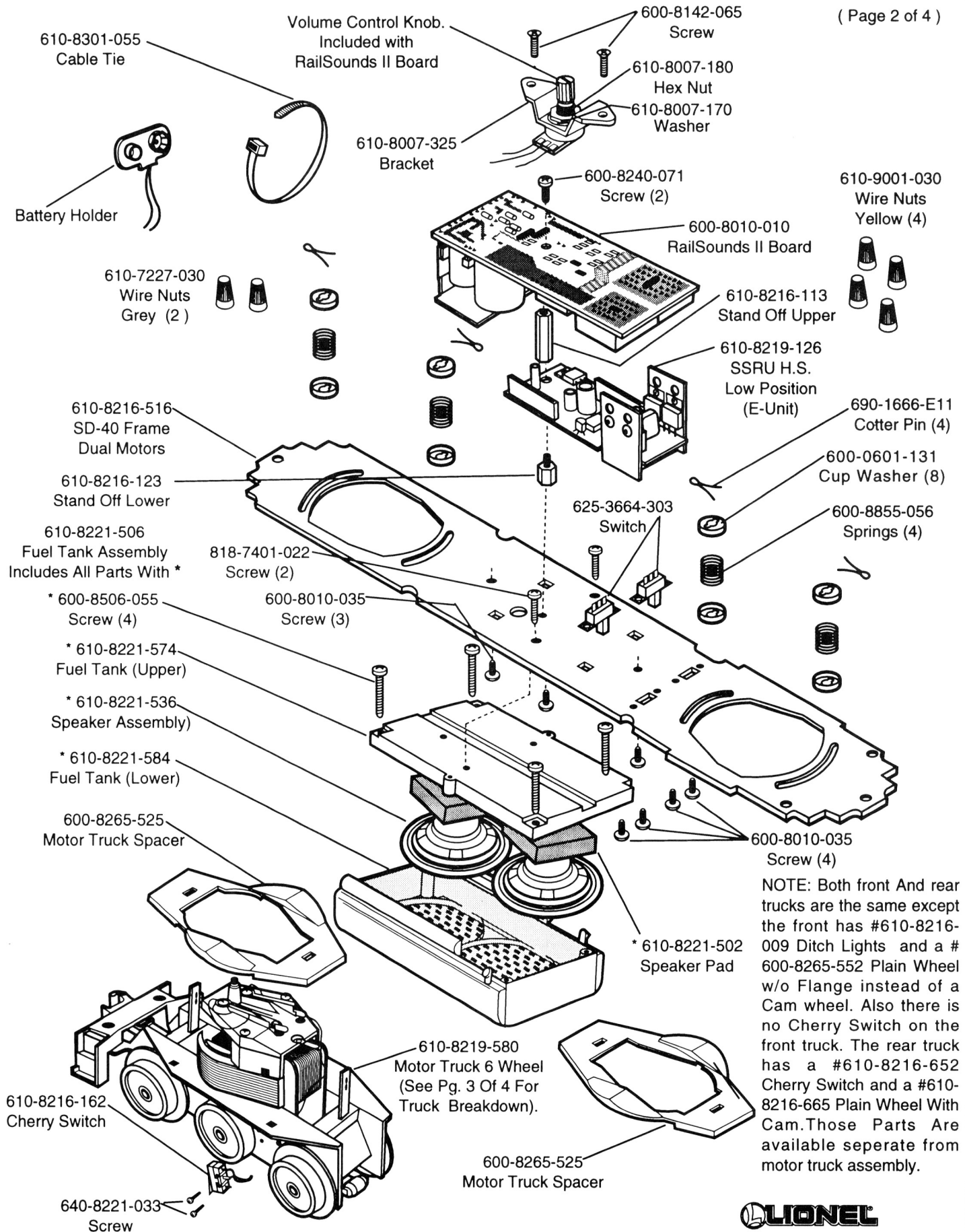
601-8223-000 MILWAUKEE ROAD SD-40 WITH RAILSOUNDS II

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601-8223-000 MILWAUKEE ROAD SD-40 WITH RAILSOUNDS II

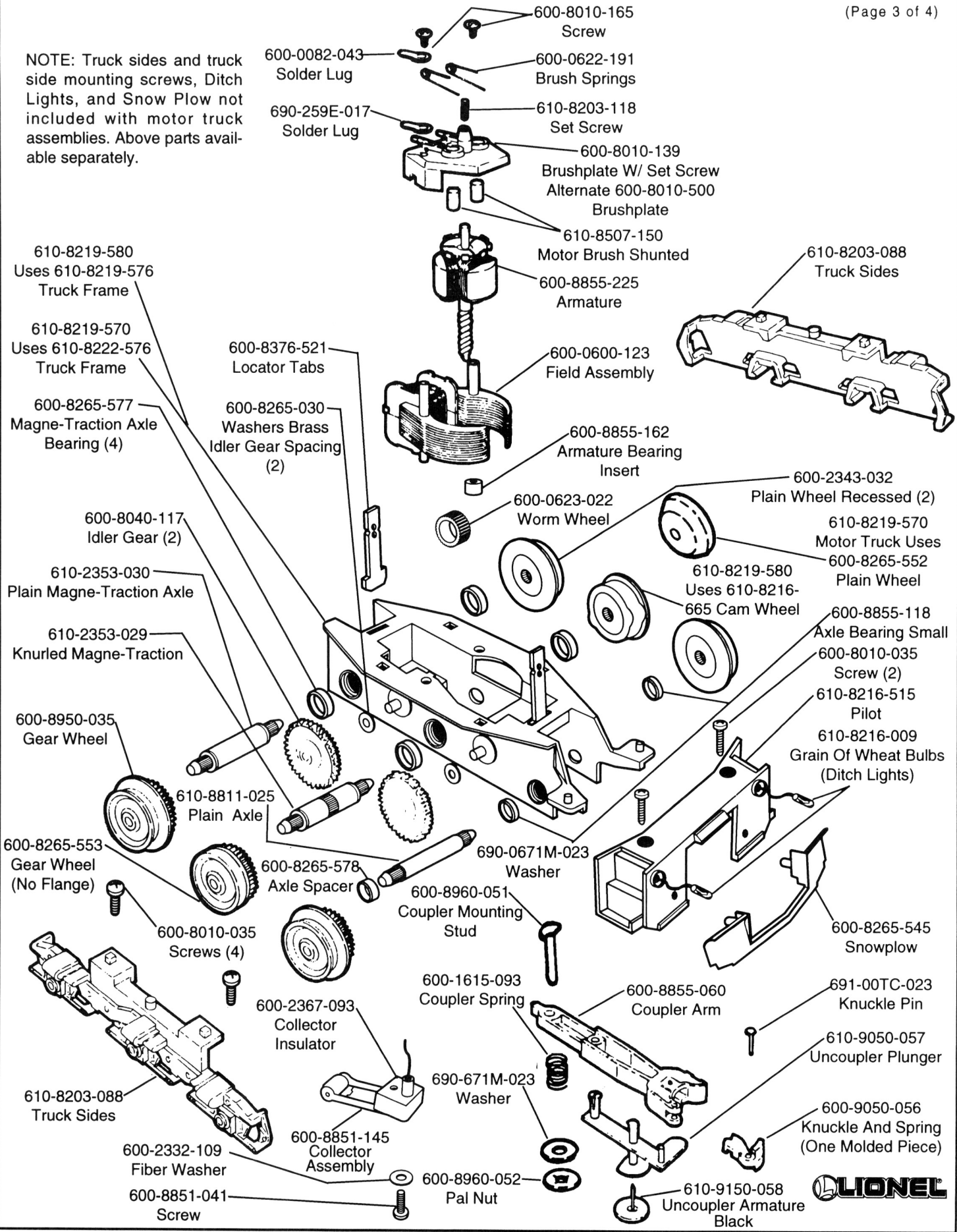
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610-8219-570 MOTOR TRUCK W/O CAM WHEEL OR SWITCH

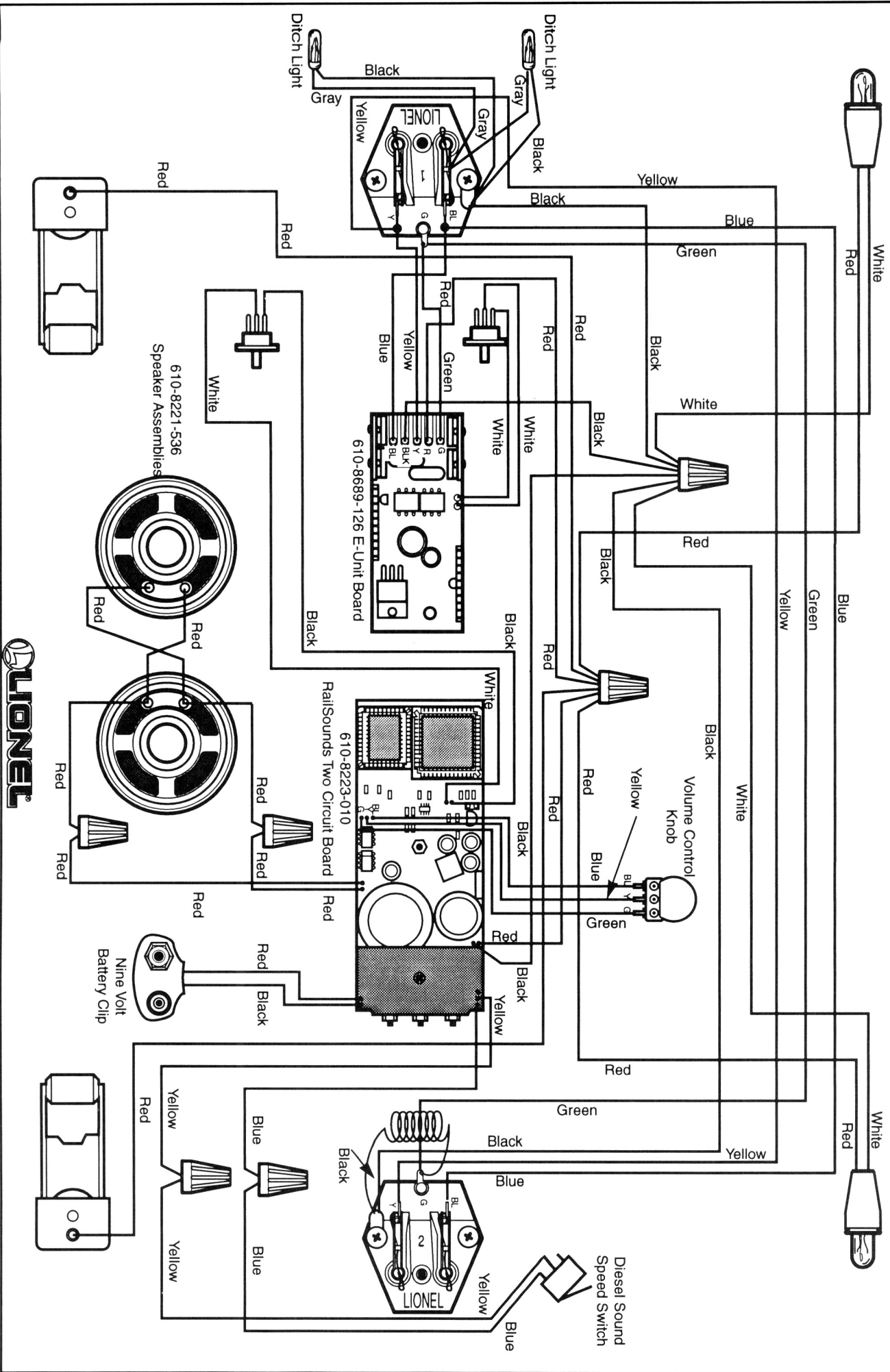
610-8219-580 MOTOR TRUCK W/ CAM WHEEL AND SWITCH

NOTE: Truck sides and truck side mounting screws, Ditch Lights, and Snow Plow not included with motor truck assemblies. Above parts available separately.



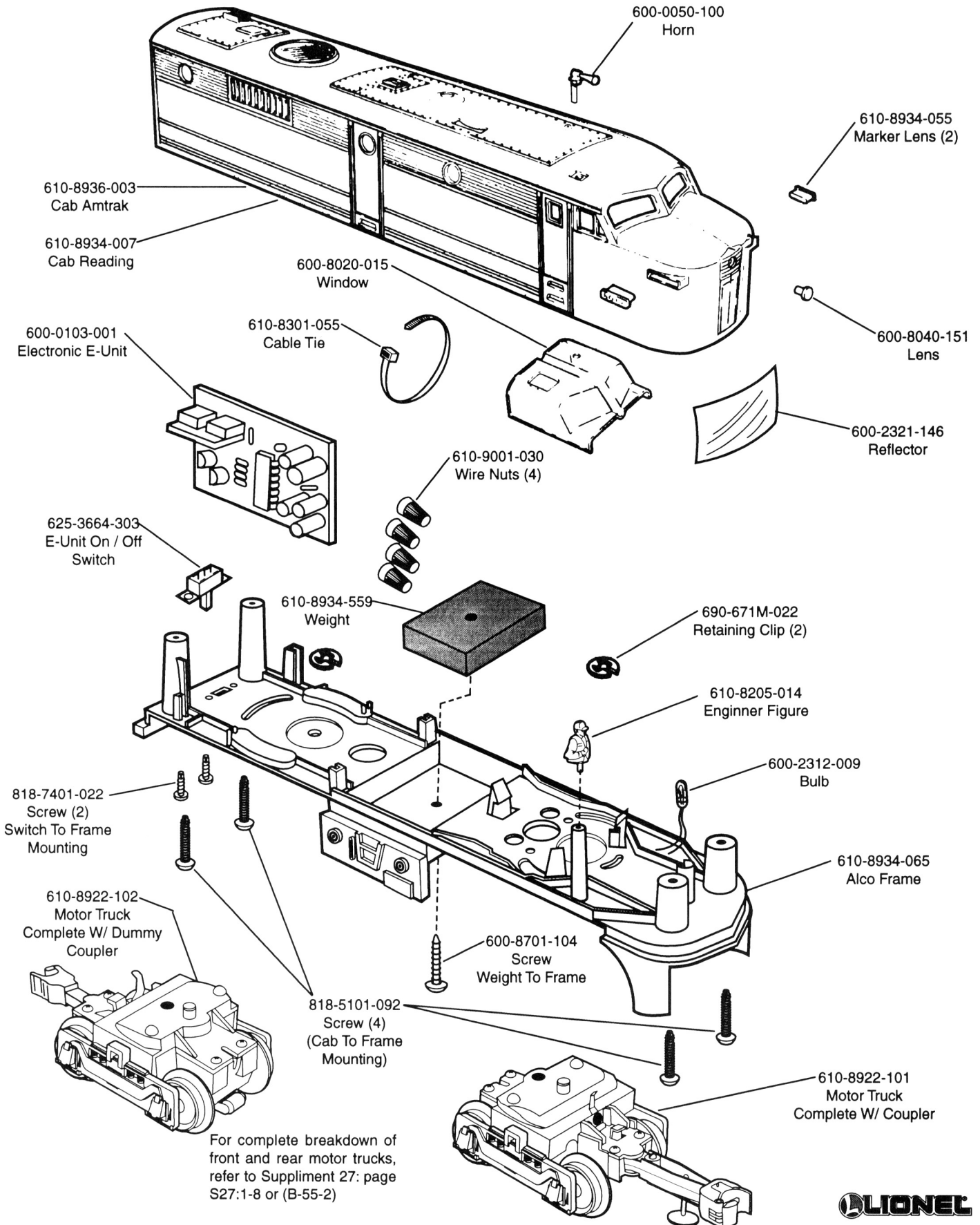
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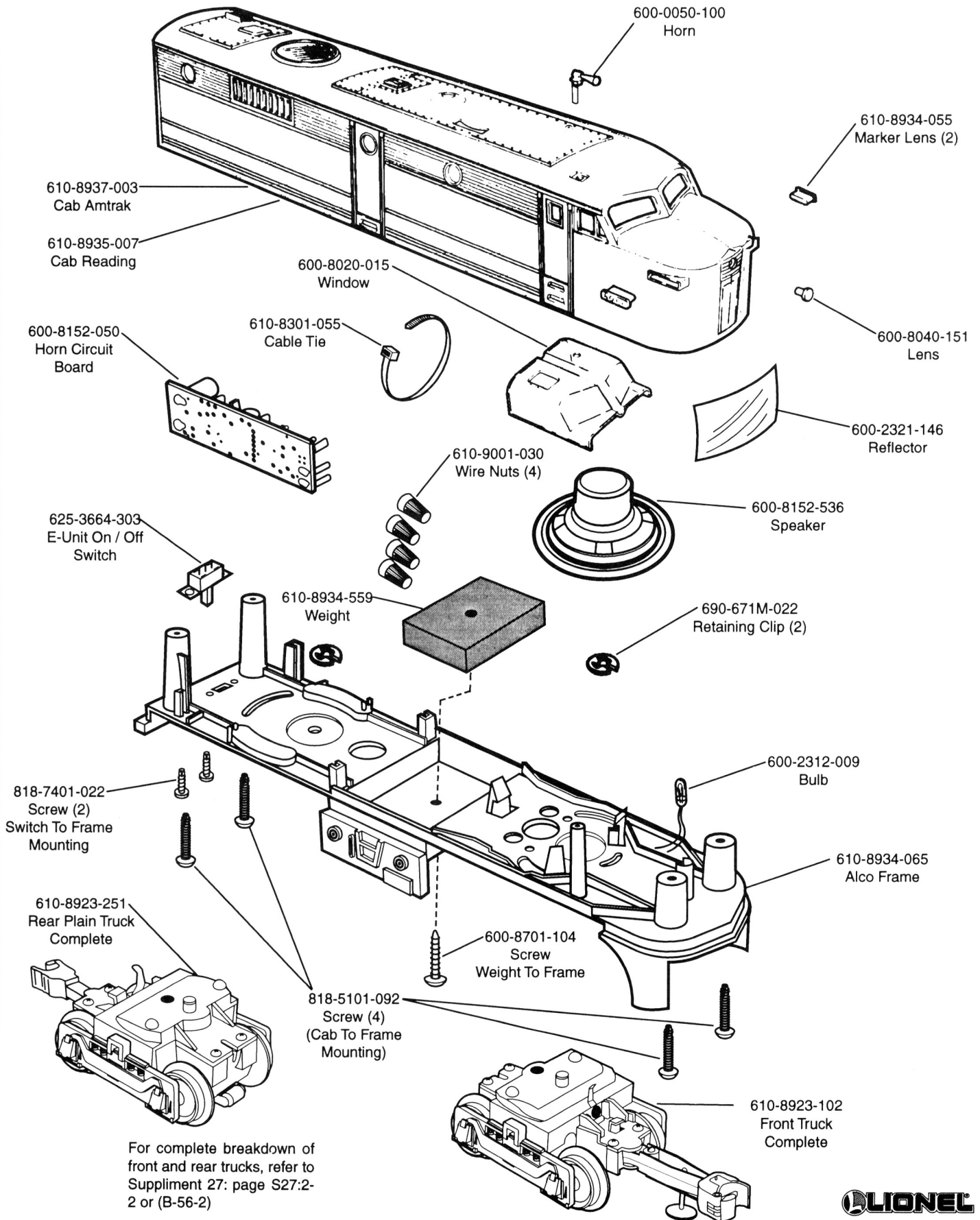
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610-8935-001 ALCO READING DUMMY WITH HORN

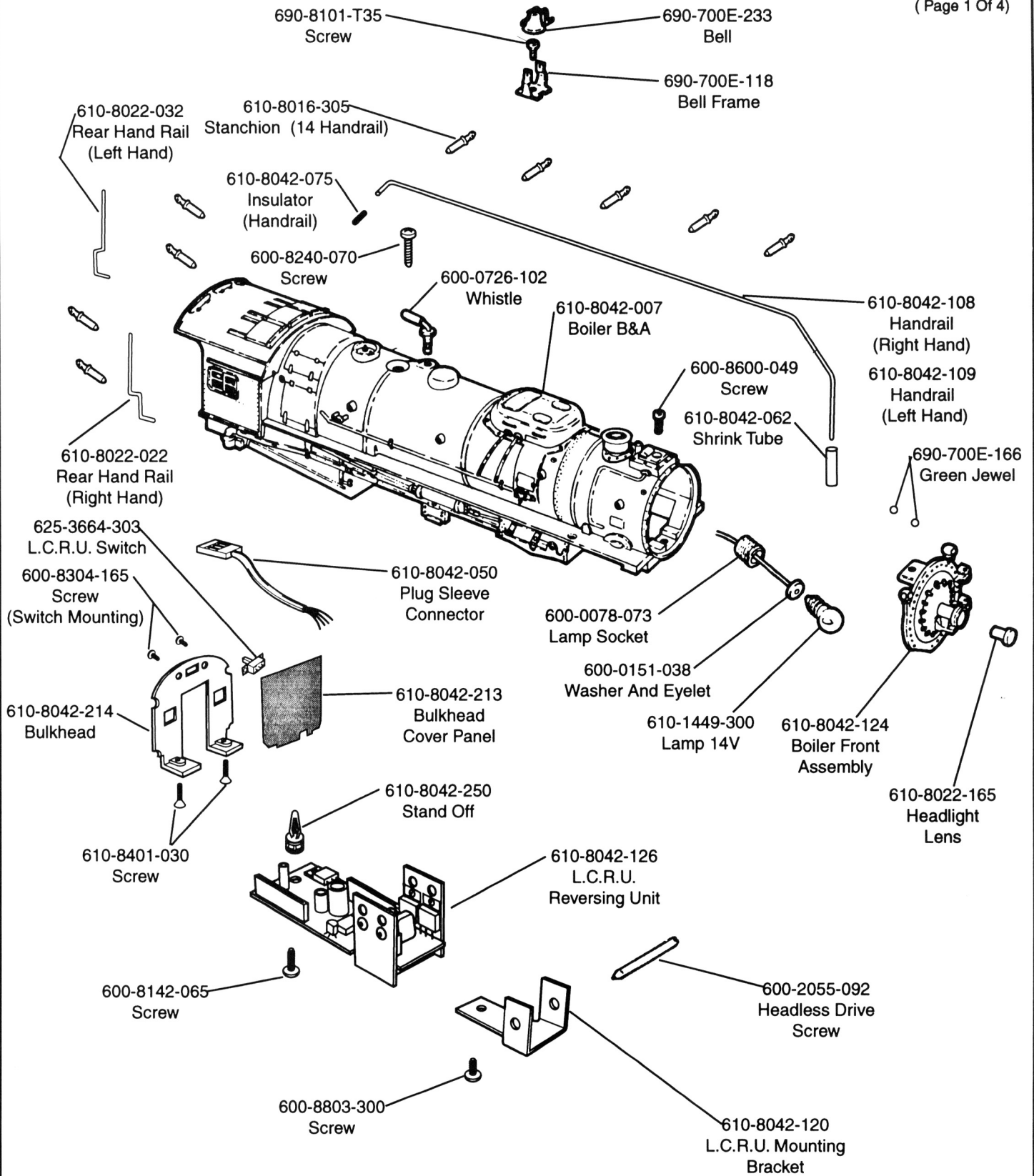
601-8937-000 ALCO AMTRAK DUMMY WITH HORN

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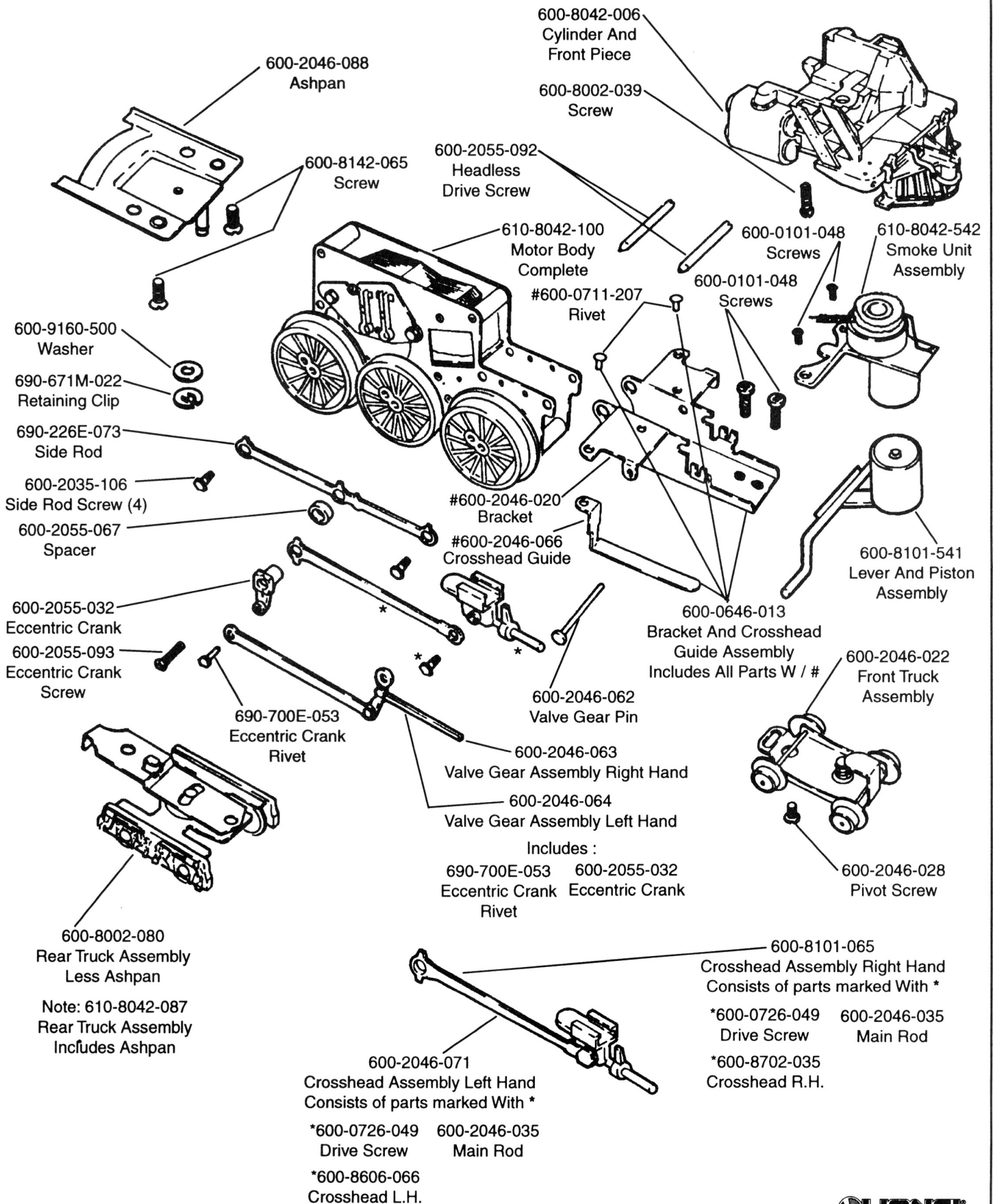


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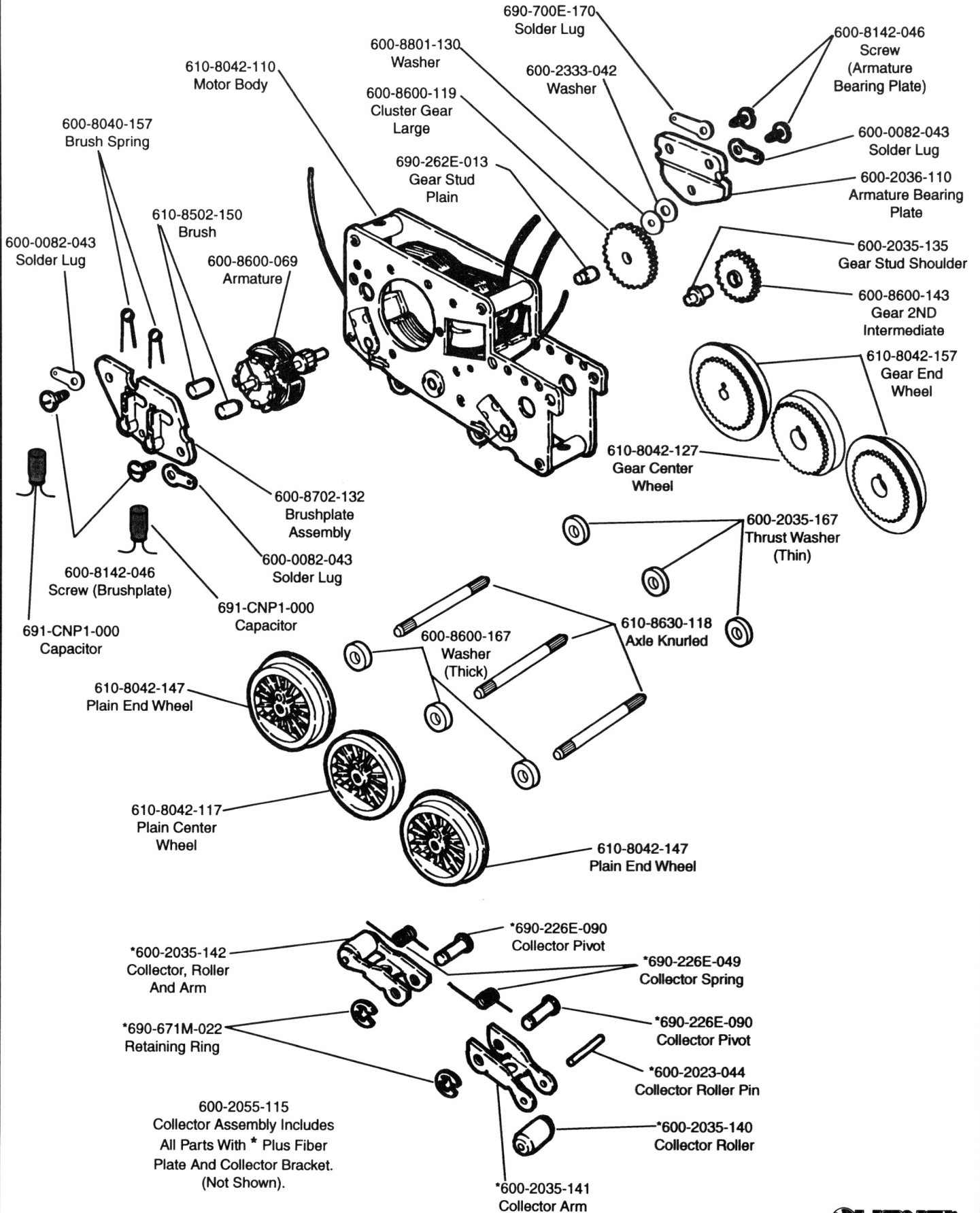


601-8042-000 4-6-4 B&A HUDSON

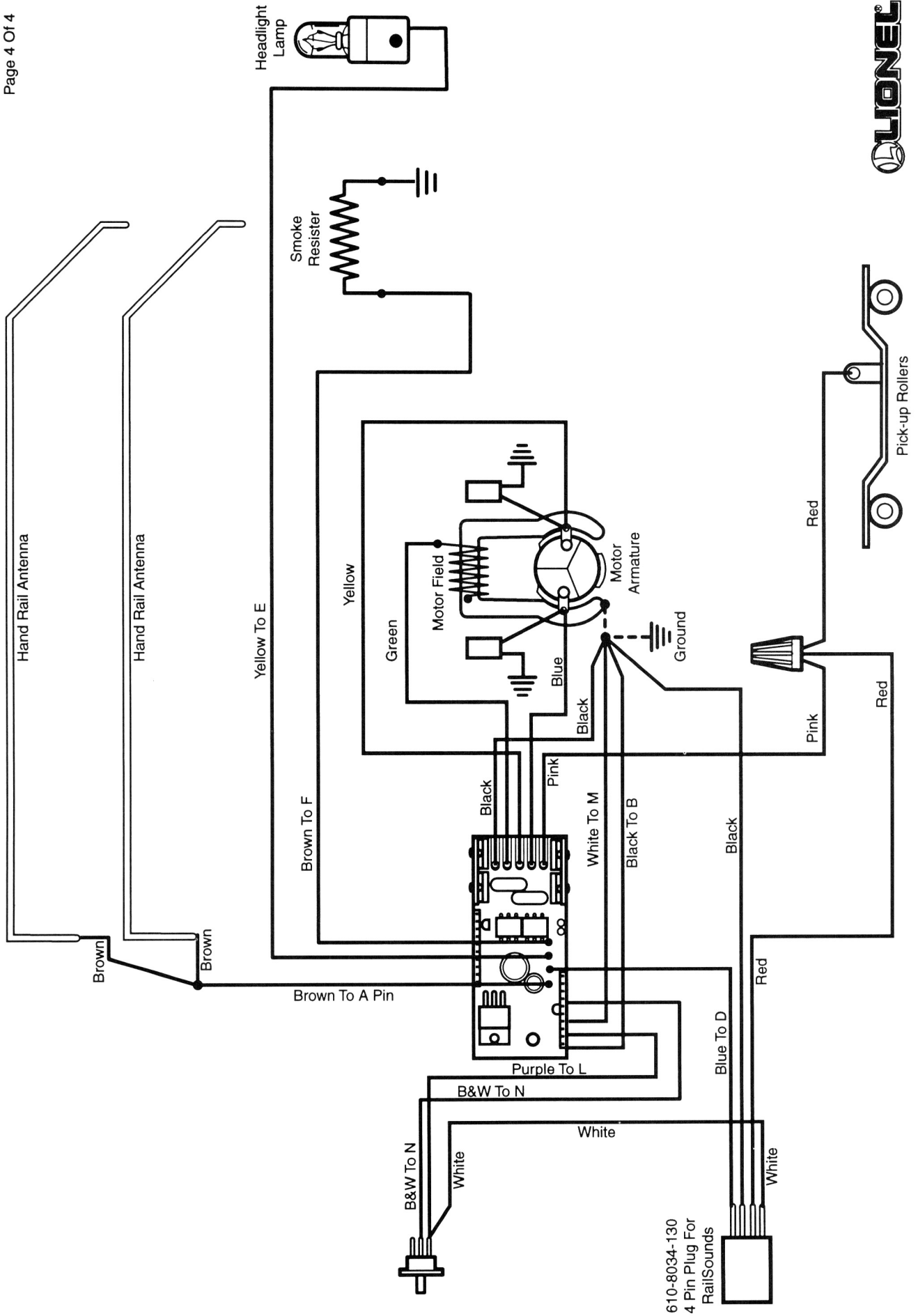


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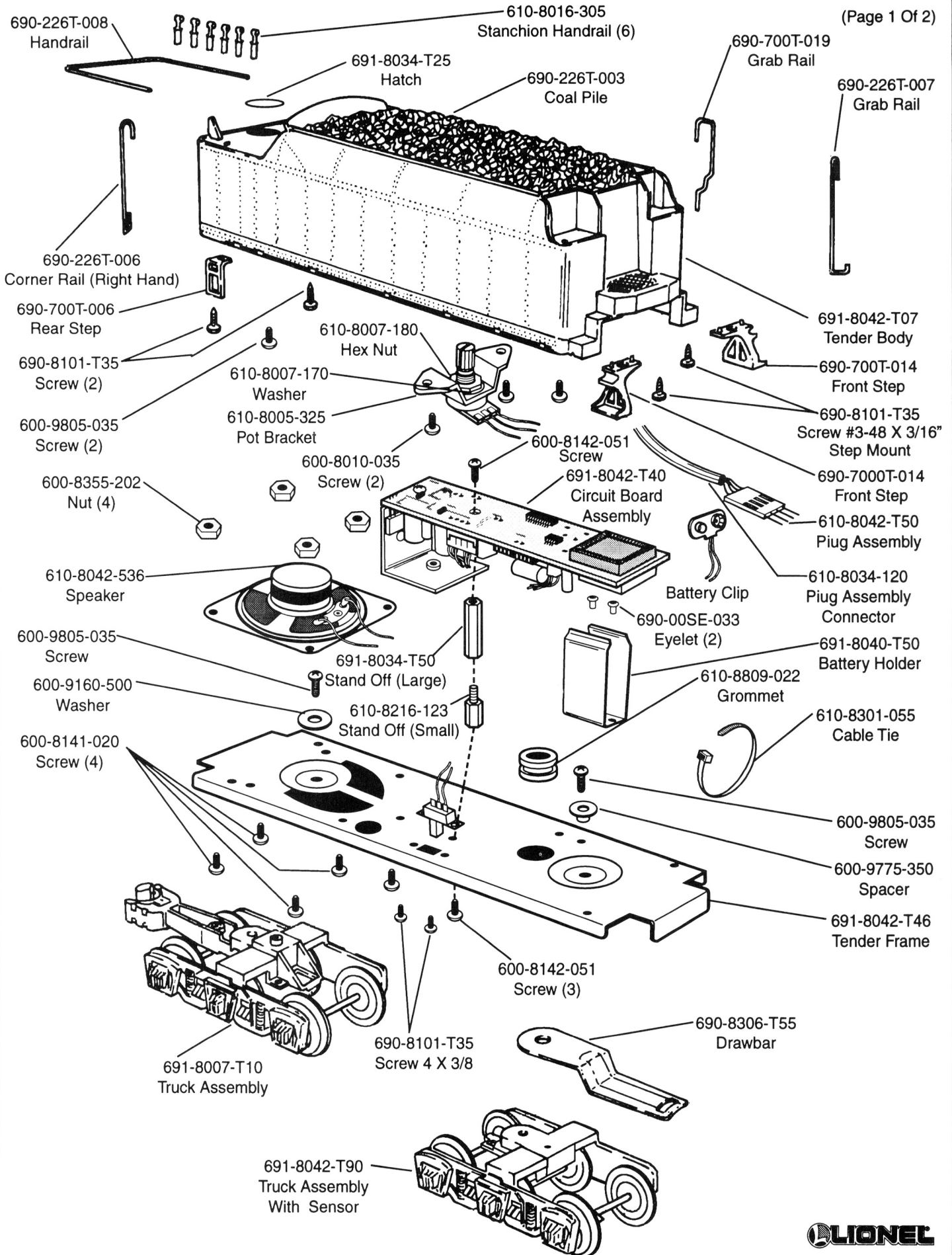


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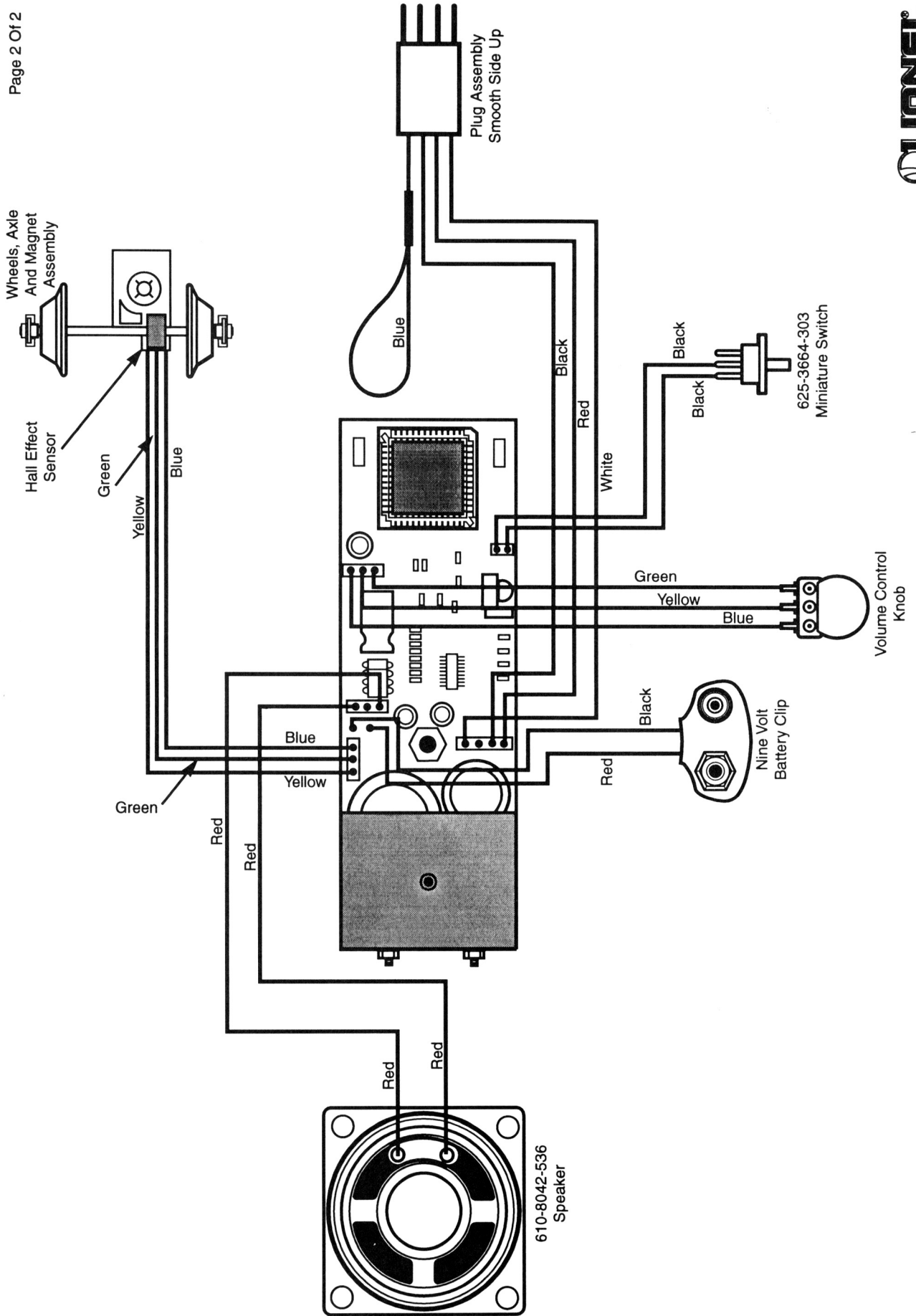


691-8042-T01 TENDER COMPLETE B&A

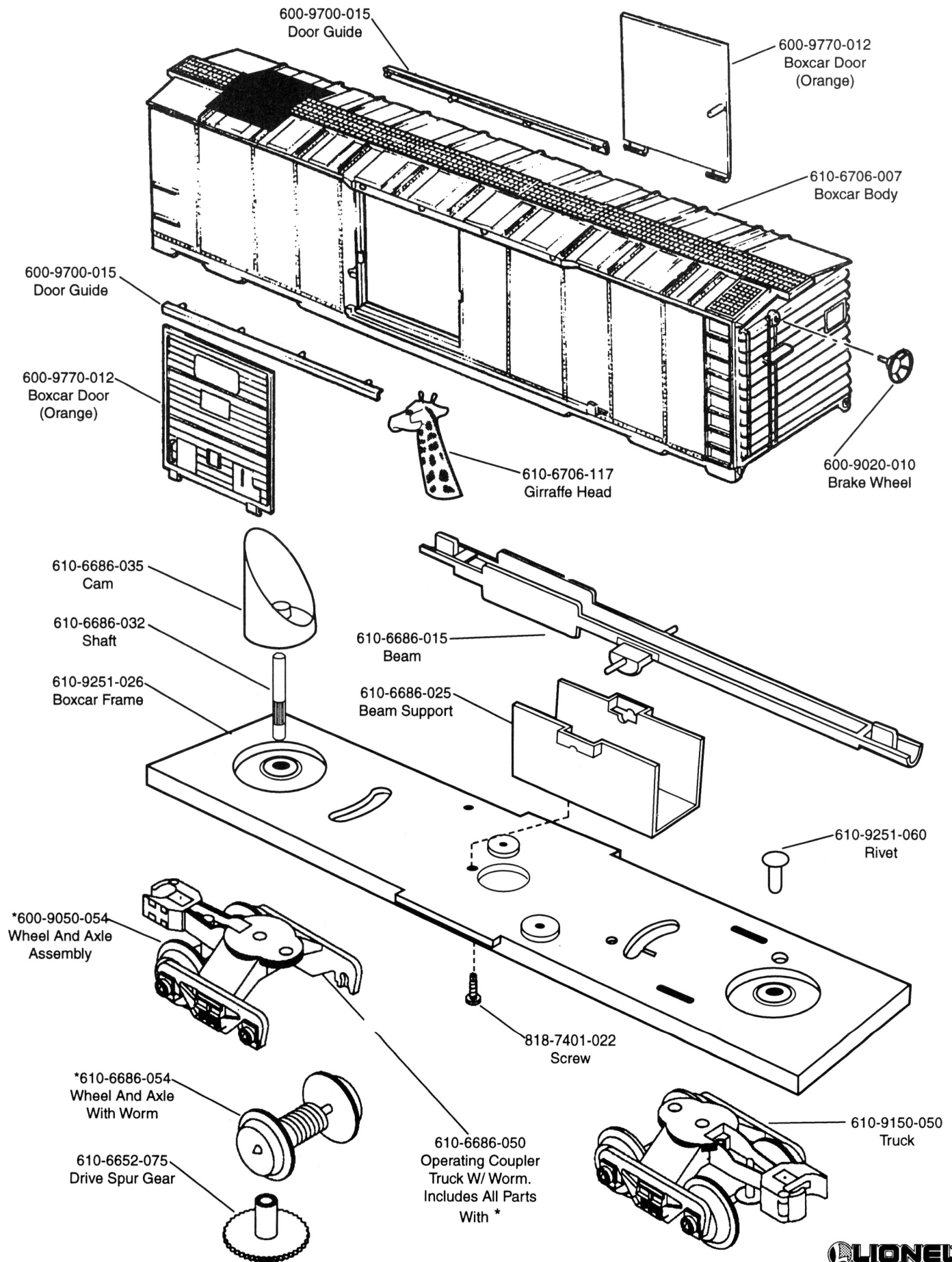
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691-8042-T01 B&A TENDER WIRING SCHEMATIC

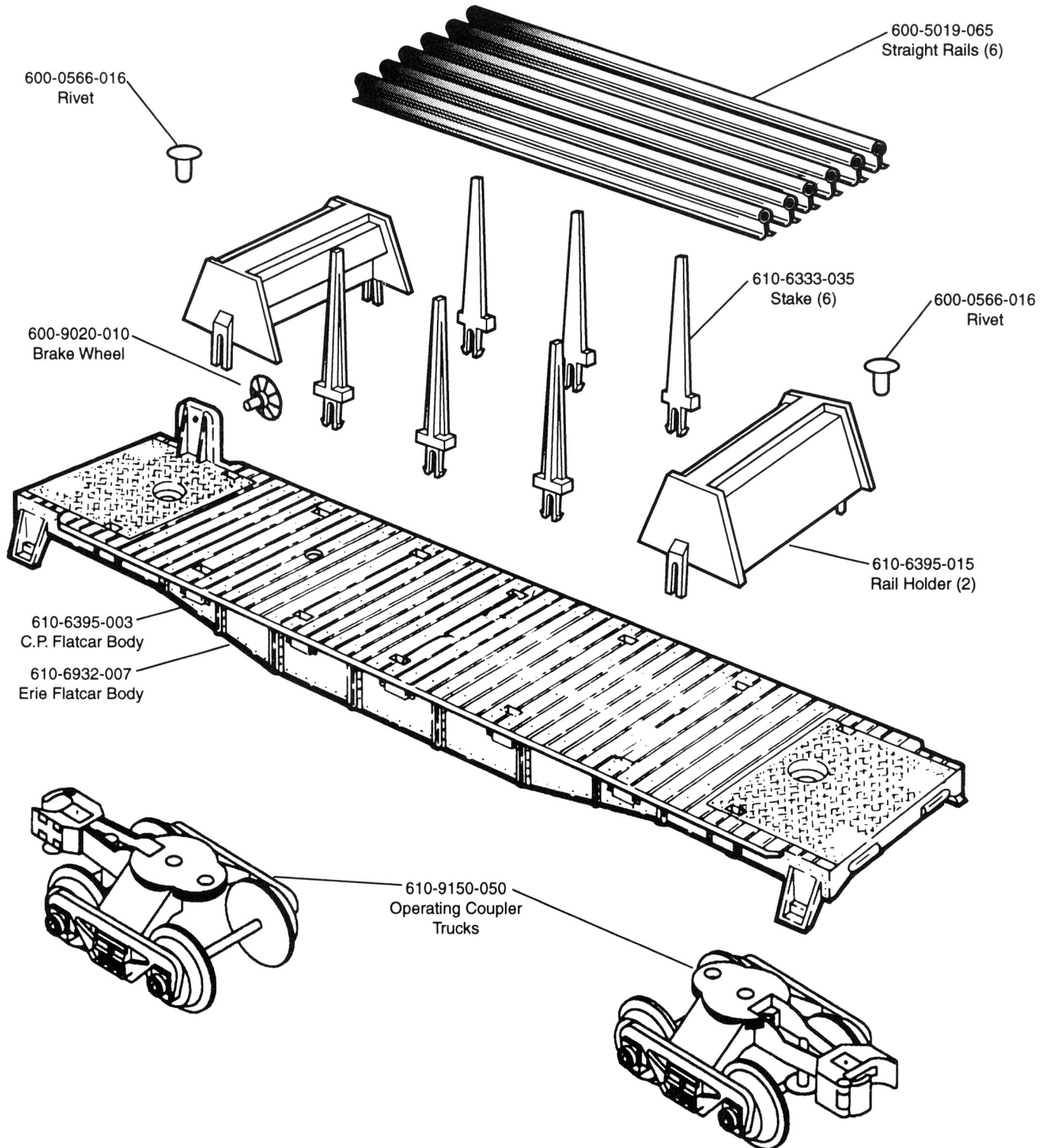


601-6706-000 GIRAFFE BOX CAR

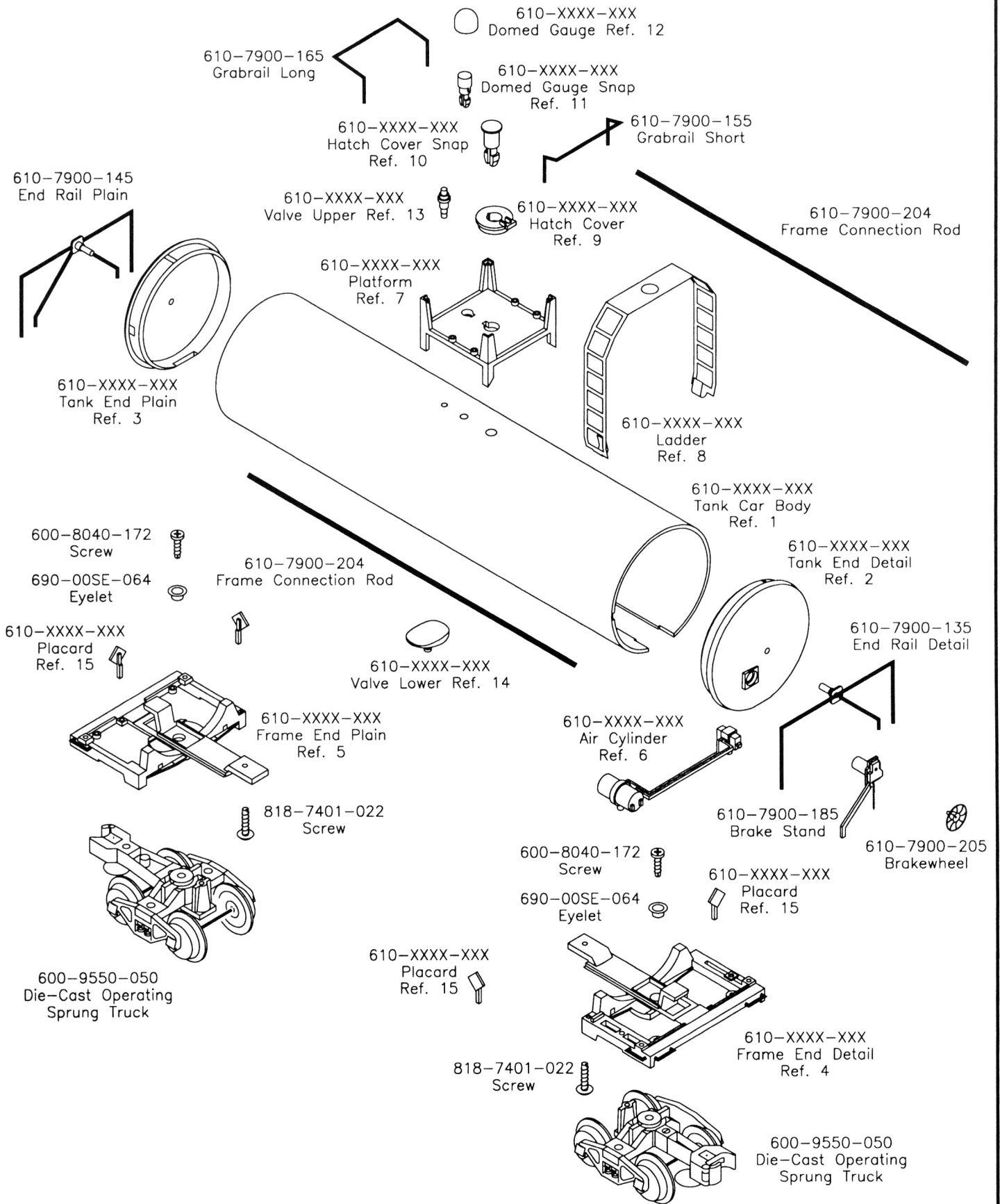


LIONEL

601-6395-000 C.P. RAIL CAR 601-6932-000 ERIE RAIL CAR



STANDARD "O" UNIBODY TANK CARS



601-7902-000 NEW JERSEY ZINC STD 'O' UNIBODY TANK CAR

PART NUMBER										DESCRIPTION	QTY	REF #		
6	1	0	-	7	9	0	0	-	1	9	4	Ladder	1	8
6	1	0	-	7	9	0	2	-	0	0	7	Tank Car Body N.J.Z.	1	1
6	1	0	-	7	9	0	2	-	0	1	7	Tank End Detail	1	2
6	1	0	-	7	9	0	2	-	0	2	7	Tank End Plain	1	3
6	1	0	-	7	9	0	2	-	0	3	4	Frame End Detail	1	4
6	1	0	-	7	9	0	2	-	0	4	4	Frame End Plain	1	5
6	1	0	-	7	9	0	2	-	0	5	5	Valve Lower	1	14
6	1	0	-	7	9	0	2	-	0	6	4	Platform	1	7
6	1	0	-	7	9	0	2	-	0	7	5	Hatch Cover	1	9
6	1	0	-	7	9	0	2	-	0	8	5	Hatch Cover Snap	1	10
6	1	0	-	7	9	0	2	-	0	9	5	Domed Gauge	1	12
6	1	0	-	7	9	0	2	-	1	0	5	Domed Gauge Snap	1	11
6	1	0	-	7	9	0	2	-	1	1	5	Valve Upper	1	13
6	1	0	-	7	9	0	2	-	1	2	4	Air Cylinder	1	6
6	1	0	-	7	9	0	2	-	1	7	7	Placard	4	15

COMMON COMPONENTS

6	0	0	-	8	0	4	0	-	1	7	2	Screw Truck Mtg.	2	
6	0	0	-	9	5	5	0	-	0	5	0	Die Cast Operating Trucks	2	
6	1	0	-	7	9	0	0	-	1	3	5	End Rail Detail	1	
6	1	0	-	7	9	0	0	-	1	4	5	End Rail Plain	1	
6	1	0	-	7	9	0	0	-	1	5	5	Grabrail Short	1	
6	1	0	-	7	9	0	0	-	1	6	5	Grabrail Long	1	
6	1	0	-	7	9	0	0	-	1	8	5	Brake Stand	1	
6	1	0	-	7	9	0	0	-	2	0	4	Frame Connection Rod	2	
6	1	0	-	7	9	0	0	-	2	0	5	Brake Wheel	1	
6	9	0	-	0	0	S	E	-	0	6	4	Eyelet Truck Mtg.	2	
8	1	8	-	7	4	0	1	-	0	2	2	Screw Frame Ends Mtg.	2	

601-7903-000 CONOCO STD 'O' UNIBODY TANK CAR

PART NUMBER										DESCRIPTION	QTY	REF #		
6	1	0	-	7	9	0	0	-	1	9	4	Ladder	1	8
6	1	0	-	7	9	0	2	-	0	5	5	Valve Lower	1	14
6	1	0	-	7	9	0	2	-	0	6	4	Platform	1	7
6	1	0	-	7	9	0	2	-	0	7	5	Hatch Cover	1	9
6	1	0	-	7	9	0	2	-	0	8	5	Hatch Cover Snap	1	10
6	1	0	-	7	9	0	2	-	0	9	5	Domed Gauge	1	12
6	1	0	-	7	9	0	2	-	1	0	5	Domed Gauge Snap	1	11
6	1	0	-	7	9	0	2	-	1	1	5	Valve Upper	1	13
6	1	0	-	7	9	0	3	-	0	0	7	Tank Car Body Conoco	1	1
6	1	0	-	7	9	0	3	-	0	1	7	Tank End Detail	1	2
6	1	0	-	7	9	0	3	-	0	2	7	Tank End Plain	1	3
6	1	0	-	7	9	0	3	-	0	3	4	Frame End Detail	1	4
6	1	0	-	7	9	0	3	-	0	4	4	Frame End Plain	1	5
6	1	0	-	7	9	0	3	-	1	2	4	Air Cylinder	1	6
6	1	0	-	7	9	0	3	-	1	7	7	Placard	4	15

COMMON COMPONENTS

6	0	0	-	8	0	4	0	-	1	7	2	Screw Truck Mtg.	2	
6	0	0	-	9	5	5	0	-	0	5	0	Die Cast Operating Trucks	2	
6	1	0	-	7	9	0	0	-	1	3	5	End Rail Detail	1	
6	1	0	-	7	9	0	0	-	1	4	5	End Rail Plain	1	
6	1	0	-	7	9	0	0	-	1	5	5	Grabrail Short	1	
6	1	0	-	7	9	0	0	-	1	6	5	Grabrail Long	1	
6	1	0	-	7	9	0	0	-	1	8	5	Brake Stand	1	
6	1	0	-	7	9	0	0	-	2	0	4	Frame Connection Rod	2	
6	1	0	-	7	9	0	0	-	2	0	5	Brake Wheel	1	
6	9	0	-	0	0	S	E	-	0	6	4	Eyelet Truck Mtg.	2	
8	1	8	-	7	4	0	1	-	0	2	2	Screw Frame Ends Mtg.	2	

601-7904-000 TEXACO STD 'O' UNIBODY TANK CAR

PART NUMBER										DESCRIPTION	QTY	REF #		
6	1	0	-	7	9	0	0	-	0	3	5	Frame End Detail	1	4
6	1	0	-	7	9	0	0	-	0	4	5	Frame End Plain	1	5
6	1	0	-	7	9	0	0	-	0	5	5	Valve Lower	1	14
6	1	0	-	7	9	0	0	-	0	6	5	Platform	1	7
6	1	0	-	7	9	0	0	-	0	7	5	Hatch Cover	1	9
6	1	0	-	7	9	0	0	-	0	8	5	Hatch Cover Snap	1	10
6	1	0	-	7	9	0	0	-	0	9	5	Domed Gauge	1	12
6	1	0	-	7	9	0	0	-	1	0	5	Domed Gauge Snap	1	11
6	1	0	-	7	9	0	0	-	1	1	5	Valve Upper	1	13
6	1	0	-	7	9	0	0	-	1	9	4	Ladder	1	8
6	1	0	-	7	9	0	4	-	0	0	7	Tank Car Body Texaco	1	1
6	1	0	-	7	9	0	4	-	0	1	7	Tank End Detail	1	2
6	1	0	-	7	9	0	4	-	0	2	7	Tank End Plain	1	3
6	1	0	-	7	9	0	4	-	1	7	7	Placard	4	15

COMMON COMPONENTS

6	0	0	-	8	0	4	0	-	1	7	2	Screw Truck Mtg.	2	
6	0	0	-	9	5	5	0	-	0	5	0	Die Cast Operating Trucks	2	
6	1	0	-	7	9	0	0	-	1	3	5	End Rail Detail	1	
6	1	0	-	7	9	0	0	-	1	4	5	End Rail Plain	1	
6	1	0	-	7	9	0	0	-	1	5	5	Grabrail Short	1	
6	1	0	-	7	9	0	0	-	1	6	5	Grabrail Long	1	
6	1	0	-	7	9	0	0	-	1	8	5	Brake Stand	1	
6	1	0	-	7	9	0	0	-	2	0	4	Frame Connection Rod	2	
6	1	0	-	7	9	0	0	-	2	0	5	Brake Wheel	1	
6	9	0	-	0	0	S	E	-	0	6	4	Eyelet Truck Mtg.	2	
8	1	8	-	7	4	0	1	-	0	2	2	Screw	2	

601-7905-000 ARCHER DANIELS STD 'O' UNIBODY TANK CAR

PART NUMBER										DESCRIPTION	QTY	REF #		
6	1	0	-	7	9	0	0	-	0	1	4	Tank End Detail	1	2
6	1	0	-	7	9	0	0	-	0	2	4	Tank End Plain	1	3
6	1	0	-	7	9	0	0	-	0	3	4	Frame End Detail	1	4
6	1	0	-	7	9	0	0	-	0	4	4	Frame End Plain	1	5
6	1	0	-	7	9	0	0	-	0	5	5	Valve Lower	1	14
6	1	0	-	7	9	0	0	-	0	6	4	Platform	1	7
6	1	0	-	7	9	0	0	-	0	7	5	Hatch Cover	1	9
6	1	0	-	7	9	0	0	-	0	8	5	Hatch Cover Snap	1	10
6	1	0	-	7	9	0	0	-	0	9	5	Domed Gauge	1	12
6	1	0	-	7	9	0	0	-	1	0	5	Domed Gauge Snap	1	11
6	1	0	-	7	9	0	0	-	1	1	5	Valve Upper	1	13
6	1	0	-	7	9	0	0	-	1	2	5	Air Cylinder	1	6
6	1	0	-	7	9	0	0	-	1	7	5	Placard	4	15
6	1	0	-	7	9	0	4	-	1	0	4	Ladder	1	8
6	1	0	-	7	9	0	5	-	0	0	7	Tank Car Body Archer Daniels	1	1

COMMON COMPONENTS

6	0	0	-	8	0	4	0	-	1	7	2	Screw Truck Mtg.	2	
6	0	0	-	9	5	5	0	-	0	5	0	Die Cast Operating Trucks	2	
6	1	0	-	7	9	0	0	-	1	3	5	End Rail Detail	1	
6	1	0	-	7	9	0	0	-	1	4	5	End Rail Plain	1	
6	1	0	-	7	9	0	0	-	1	5	5	Grabrail Short	1	
6	1	0	-	7	9	0	0	-	1	6	5	Grabrail Long	1	
6	1	0	-	7	9	0	0	-	1	8	5	Brake Stand	1	
6	1	0	-	7	9	0	0	-	2	0	4	Frame Connection Rod	2	
6	1	0	-	7	9	0	0	-	2	0	5	Brake Wheel	1	
6	9	0	-	0	0	S	E	-	0	6	4	Eyelet Truck Mtg.	2	
8	1	8	-	7	4	0	1	-	0	2	2	Screw	2	

601-7906-000 SCM STD 'O' UNIBODY TANK CAR

PART NUMBER										DESCRIPTION	QTY	REF #		
6	1	0	-	7	9	0	0	-	0	3	5	Frame End Detail	1	4
6	1	0	-	7	9	0	0	-	0	4	5	Frame End Plain	1	5
6	1	0	-	7	9	0	6	-	0	5	5	Valve Lower	1	14
6	1	0	-	7	9	0	0	-	0	6	5	Platform	1	7
6	1	0	-	7	9	0	0	-	0	7	5	Hatch Cover	1	9
6	1	0	-	7	9	0	0	-	0	8	5	Hatch Cover Snap	1	10
6	1	0	-	7	9	0	0	-	0	9	5	Domed Gauge	1	12
6	1	0	-	7	9	0	0	-	1	0	5	Domed Gauge Snap	1	11
6	1	0	-	7	9	0	0	-	1	1	5	Valve Upper	1	13
6	1	0	-	7	9	0	0	-	1	2	5	Air Cylinder	1	6
6	1	0	-	7	9	0	0	-	1	9	4	Ladder	1	8
6	1	0	-	7	9	0	6	-	0	0	7	SCM Tank Car Body	1	1
6	1	0	-	7	9	0	6	-	0	1	4	Tank End Detail	1	2
6	1	0	-	7	9	0	6	-	0	2	4	Tank End Plain	1	3
6	1	0	-	7	9	0	6	-	1	7	7	Placard	4	15

COMMON COMPONENTS

6	0	0	-	8	0	4	0	-	1	7	2	Screw Truck Mtg.	2	
6	0	0	-	9	5	5	0	-	0	5	0	Die Cast Operating Trucks	2	
6	1	0	-	7	9	0	0	-	1	3	5	End Rail Detail	1	
6	1	0	-	7	9	0	0	-	1	4	5	End Rail Plain	1	
6	1	0	-	7	9	0	0	-	1	5	5	Grabrail Short	1	
6	1	0	-	7	9	0	0	-	1	6	5	Grabrail Long	1	
6	1	0	-	7	9	0	0	-	1	8	5	Brake Stand	1	
6	1	0	-	7	9	0	0	-	2	0	4	Frame Connection Rod	2	
6	1	0	-	7	9	0	0	-	2	0	5	Brake Wheel	1	
6	9	0	-	0	0	S	E	-	0	6	4	Eyelet Truck Mtg.	2	
8	1	8	-	7	4	0	1	-	0	2	2	Screw	2	

601-7908-000 MARATHON STD 'O' UNIBODY TANK CAR

PART NUMBER										DESCRIPTION	QTY	REF #		
6	1	0	-	7	9	0	0	-	0	3	5	Frame End Detail	1	4
6	1	0	-	7	9	0	0	-	0	4	5	Frame End Plain	1	5
6	1	0	-	7	9	0	0	-	0	5	5	Valve Lower	1	14
6	1	0	-	7	9	0	0	-	0	6	5	Platform	1	7
6	1	0	-	7	9	0	0	-	0	7	5	Hatch Cover	1	9
6	1	0	-	7	9	0	0	-	0	8	5	Hatch Cover Snap	1	10
6	1	0	-	7	9	0	0	-	0	9	5	Domed Gauge	1	12
6	1	0	-	7	9	0	0	-	1	0	5	Domed Gauge Snap	1	11
6	1	0	-	7	9	0	0	-	1	1	5	Valve Upper	1	13
6	1	0	-	7	9	0	0	-	1	2	5	Air Cylinder	1	6
6	1	0	-	7	9	0	4	-	0	1	4	Tank End Detail	1	2
6	1	0	-	7	9	0	4	-	0	2	4	Tank End Plain	1	3
6	1	0	-	7	9	0	4	-	1	7	7	Placard	4	15
6	1	0	-	7	9	0	8	-	0	0	7	Marathon Tank Car Body	1	1
6	1	0	-	7	9	0	8	-	1	9	4	Ladder	1	8

COMMON COMPONENTS

6	0	0	-	8	0	4	0	-	1	7	2	Screw Truck Mtg.	2	
6	0	0	-	9	5	5	0	-	0	5	0	Die Cast Operating Trucks	2	
6	1	0	-	7	9	0	0	-	1	3	5	End Rail Detail	1	
6	1	0	-	7	9	0	0	-	1	4	5	End Rail Plain	1	
6	1	0	-	7	9	0	0	-	1	5	5	Grabrail Short	1	
6	1	0	-	7	9	0	0	-	1	6	5	Grabrail Long	1	
6	1	0	-	7	9	0	0	-	1	8	5	Brake Stand	1	
6	1	0	-	7	9	0	0	-	2	0	4	Frame Connection Rod	2	
6	1	0	-	7	9	0	0	-	2	0	5	Brake Wheel	1	
6	9	0	-	0	0	S	E	-	0	6	4	Eyelet Truck Mtg.	2	
8	1	8	-	7	4	0	1	-	0	2	2	Screw	2	

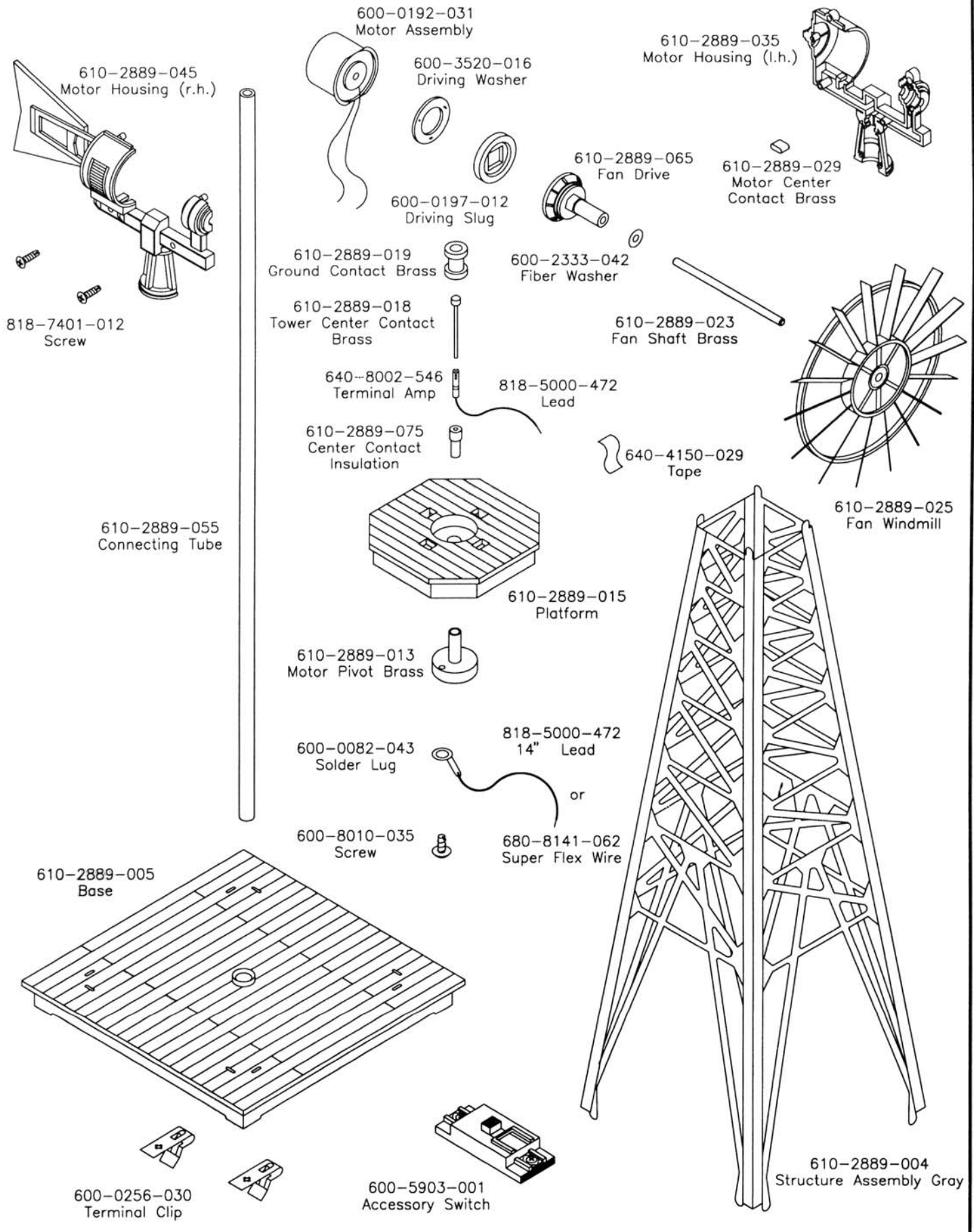
601-7909-000 HOOKER CHEMICALS STD 'O' UNIBODY TANK CAR

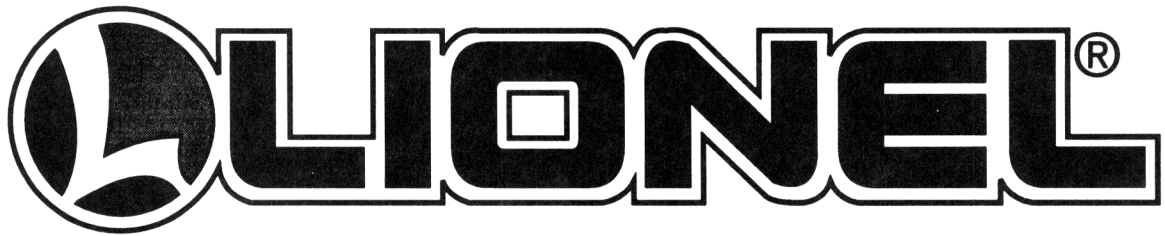
PART NUMBER										DESCRIPTION	QTY	REF #		
6	1	0	-	7	9	0	0	-	0	3	5	Frame End Detail	1	4
6	1	0	-	7	9	0	0	-	0	4	5	Frame End Plain	1	5
6	1	0	-	7	9	0	0	-	0	5	5	Valve Lower	1	14
6	1	0	-	7	9	0	0	-	0	6	5	Platform	1	7
6	1	0	-	7	9	0	0	-	0	7	5	Hatch Cover	1	9
6	1	0	-	7	9	0	0	-	0	8	5	Hatch Cover Snap	1	10
6	1	0	-	7	9	0	0	-	0	9	5	Domed Gauge Black	1	12
6	1	0	-	7	9	0	0	-	1	0	5	Domed Gauge Snap	1	11
6	1	0	-	7	9	0	0	-	1	1	5	Valve Upper	1	13
6	1	0	-	7	9	0	0	-	1	2	5	Air Cylinder	1	6
6	1	0	-	7	9	0	6	-	1	7	7	Placard	1	15
6	1	0	-	7	9	0	8	-	1	9	4	Ladder	1	8
6	1	0	-	7	9	0	9	-	0	0	7	TC Body Hooker Chemical	1	1
6	1	0	-	7	9	0	9	-	0	1	7	Tank End Detail	1	2
6	1	0	-	7	9	0	9	-	0	2	7	Tank End Plain	1	3

COMMON COMPONENTS

6	0	0	-	8	0	4	0	-	1	7	2	Screw Truck Mtg.	2	
6	0	0	-	9	5	5	0	-	0	5	0	Die Cast Operating Trucks	2	
6	1	0	-	7	9	0	0	-	1	3	5	End Rail Detail	1	
6	1	0	-	7	9	0	0	-	1	4	5	End Rail Plain	1	
6	1	0	-	7	9	0	0	-	1	5	5	Grabrail Short	1	
6	1	0	-	7	9	0	0	-	1	6	5	Grabrail Long	1	
6	1	0	-	7	9	0	0	-	1	8	5	Brake Stand	1	
6	1	0	-	7	9	0	0	-	2	0	4	Frame Connection Rod	2	
6	1	0	-	7	9	0	0	-	2	0	5	Brake Wheel	1	
6	9	0	-	0	0	S	E	-	0	6	4	Eyelet Truck Mtg.	2	
8	1	8	-	7	4	0	1	-	0	2	2	Screw Frame Ends Mtg.	2	

601-2889-000 WINDMILL





No. 602-3010-000 "O" Gauge Switch (Left Hand)

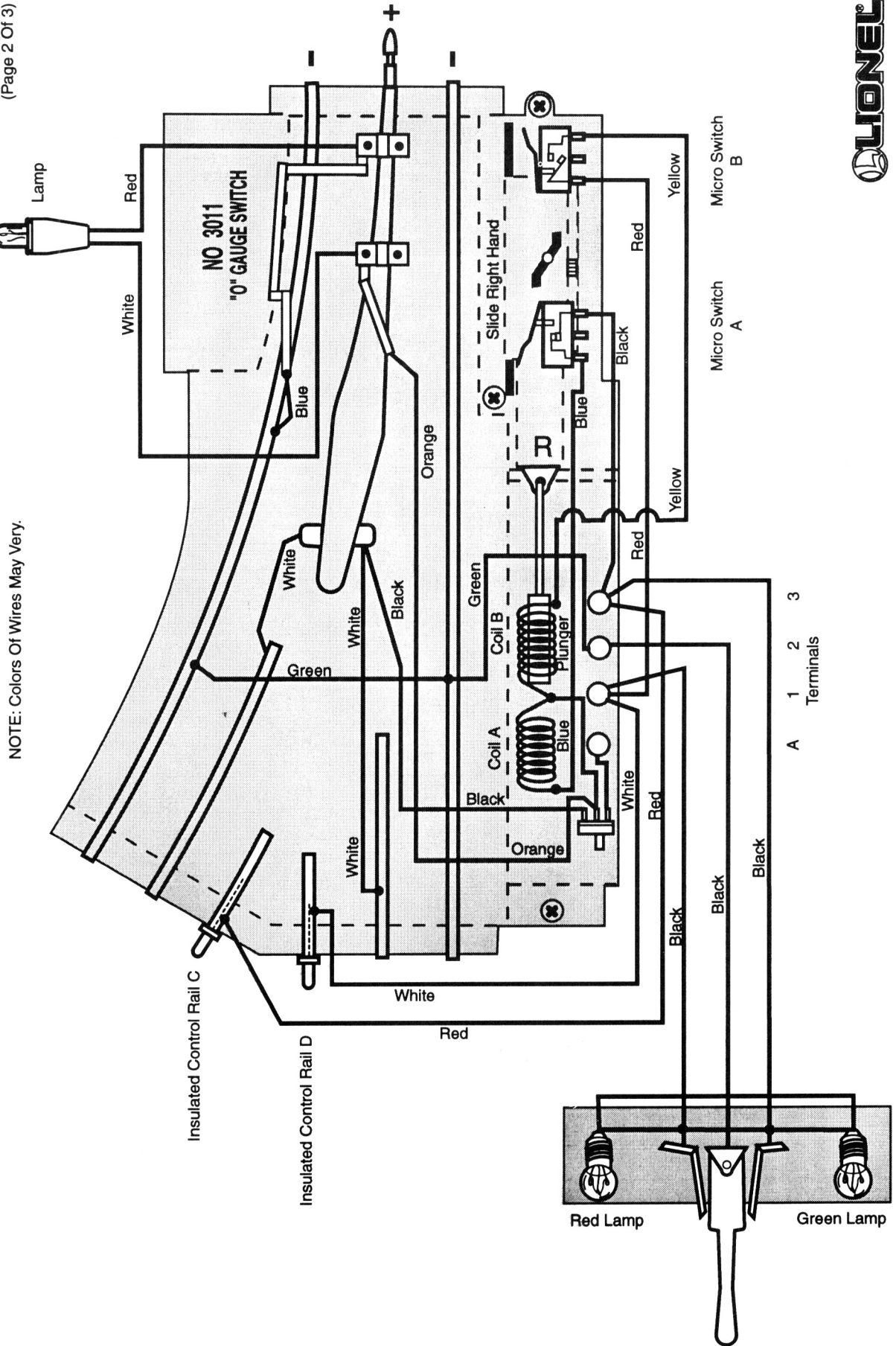
No. 602-3011-000 "O" Gauge Switch (Right Hand)

Wiring diagram and description of operation.

(Page 1 Of 3)

602-3010-000 "O" GAUGE SWITCH LEFT HAND 602-3011-000 "O" GAUGE SWITCH RIGHT HAND WIRING DIAGRAM

(Page 2 Of 3)



NOTE: Colors Of Wires May Vary.



LIONEL SERVICE MANUAL

No. 602-3010-000 "O" Gauge Switch Left Hand

No. 602-3011-000 "O" Gauge Switch Right Hand

Wiring Diagram & Description Of Operation

These switches operate in the same basic manor as their earlier counterparts. Recommended operating voltage is between 9 to 12 volts, maximum 14 volts. Do not exceed 14 volts or damage may occur. The operation is as follows:

Power for the switch motor is supplied either from the regular variable track voltage or may be supplied with fixed voltage directly from the transformer. For fixed voltage, set the track auxiliary switch to the aux. position. In the view shown, it is set for track operation. The phantom view shows the switch with the swivel rail set for the train to proceed through the straight section of the switch. In this position the slide is all the way back closing micro switch A and opening micro switch B. With micro switch A closed, the current flows from the center rail through coil A then through micro switch A to terminal No. 3 then to controller green lamp and back to ground through the center cable wire terminal No. 2 to outside rail.

The coil A is in series with the green controller lamp. The resistance of the controller lamp limits the current so that the coil cannot move the plunger. When the lamp is shorted by moving the controller lever toward the green lamp contact providing a direct ground to coil A, full voltage is then supplied to coil A which then moves the plunger into coil A moving the swivel rail to the curved position and the slide all the way forward opening micro switch A and closing micro switch B. The current now flows through coil B through micro switch B to terminal No. 1 to controller red lamp and back to ground.

In addition to using the controller, the switches have a non-derailing feature. Two insulated rails which are connected to the coils by terminals 1 and 3. Control rail C which is connected to terminal 3 then through micro switch A when it is closed to coil A. Control rail D which is connected to terminal No. 1 then through micro switch B when it is closed to coil B.

It works as follows:

With the swivel rail set for the train to proceed along the straight portion of the switch, a train entering from the curved portion would derail. However, with the non-derailing feature, when the wheels make contact with the control rail C, the wheels and axles ground the rail to the opposite ground rail and provide a positive ground for coil A energizing the coil. The same operation occurs when the swivel rail is set in the curved position. When a train enters from the straight portion, its wheels make contact with control rail D which provides a positive ground for coil B.