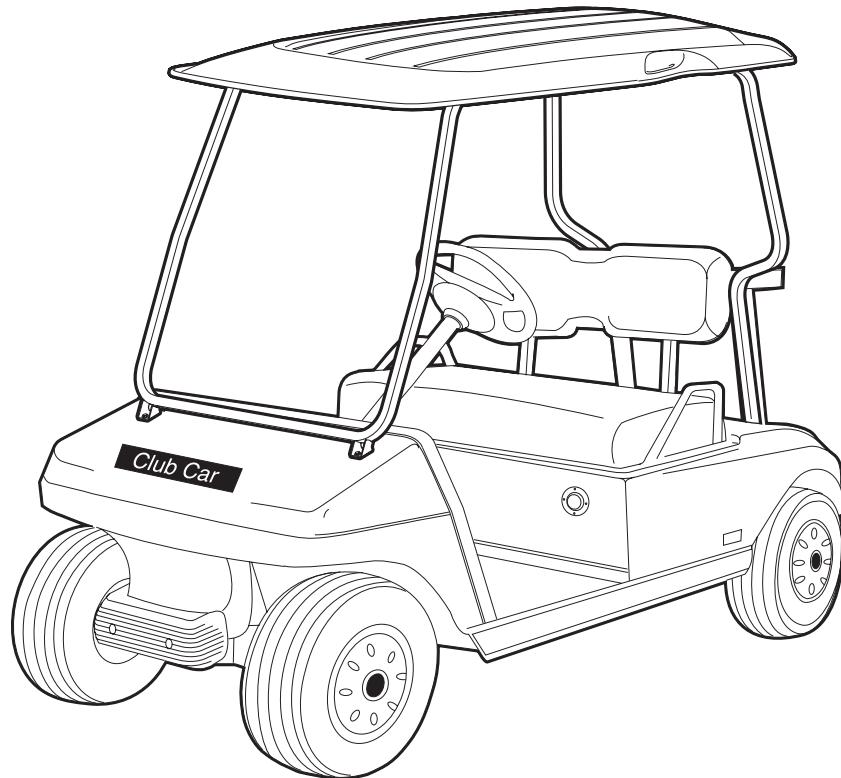


**Club Car**

®

**2008  
DS Golf Cars  
Illustrated Parts List**



**Gasoline and Electric**

Manual Number 103373002  
Edition Code 1007H0209G



# USING THE ILLUSTRATED PARTS LIST

---

## **⚠ WARNING**

- This manual is to be used only for identification and ordering of service parts. Be sure to read and use the maintenance and service manual before attempting any vehicle repairs.

This manual covers all 2008 DS golf cars.

The manual is divided into sections. Note that there are two or three flags on the outside edge of each page. The first flag contains the section number of which that page is a part. The other flag (or flags) contains the letter G or E, signifying that the page pertains to the electric or gasoline vehicles only.

Use the Table of Contents to find the sections and pages that contain the parts and assemblies you seek. The Table of Contents lists section numbers, and under them, the individual page titles and numbers to be found in that section. The index can be used to find specific parts and assemblies.

There is a two-page spread for each individual page title in the Table of Contents. On the left-hand page is an illustration showing the parts in their relative positions; the parts are each tagged with an item number in a balloon. The right-hand page is the parts list page, and gives the page title at the top, then the item numbers (corresponding to the numbers on the illustration), part descriptions, and quantity of parts used.

Note that a part description may be indented. This indentation corresponds to a parts assembly level indicated by the numbers 1, 2, 3, and 4 at the top left corner of the parts description area of the parts list page. A part that is indented to *level 2* is a component of the *level 1* part (assembly) that it is listed under. A *level 3* part is a component of the *level 2* part that it is listed under, and a *level 4* part is a component of the *level 3* part preceding it. In each case, the part quantity given for a level 2, 3, or 4 part is *the quantity used per next higher level assembly of which it is a component*. A part that is not indented is a *level 1* part. This means that the quantity given is the quantity used per the portion of the vehicle illustrated on that particular spread.

## HOW TO ORDER PARTS

Replacement parts and accessories can be obtained from our network of authorized dealers and distributors. You can obtain the name and phone number of your closest authorized Club Car dealer or distributor by visiting our web site at [www.clubcar.com](http://www.clubcar.com) and clicking on the "Distributor Search" link or by calling our toll-free Service Parts and Technical Assistance hotline at (800) 872-2246 or (706) 863-3000, extension 3887.



P. O. Box 204658  
Augusta, Georgia 30917-4658 USA  
Telephone 706-863-3000  
Service Parts Fax 706-855-7413  
[www.clubcar.com](http://www.clubcar.com)

**NOTE:** This illustrated parts list represents the most current information at the time of publication. Club Car, Inc. is continually working to further improve its vehicles and other products. These improvements may affect the parts used to service the vehicle. Any modification and/or significant change in specifications will be forwarded to all Club Car and Carryall distributors/dealers and will, when applicable, appear in future editions of this illustrated parts list.

*Club Car, Inc. reserves the right to change specifications and designs at any time without notice and without the obligation of making changes to units previously sold.*

Copyright © 2007 Club Car, Inc.  
*Club Car* and *ArmorFlex*  
are registered trademarks of Club Car, Inc.  
This manual effective August 6, 2007.

# CONTENTS

---

## SECTION 1 – BODY AND TRIM

---

Front Body .....	1-3
Rear Body Trim .....	1-5
Dash Components .....	1-7
Beverage Holder .....	1-9
Front Seat Bottom and Armrests .....	1-11
Rear Body and Fender – Gasoline Vehicle .....	1-13
Rear Body and Fender – Electric Vehicle .....	1-15
Seat Back and Bag Hoop .....	1-17
Canopy .....	1-19
Rear Access Door .....	1-21
Scuff Guard and Bagwell Protector Kits .....	1-23

## SECTION 2 – WHEELS AND TIRES

---

Wheels and Tires .....	2-3
------------------------	-----

## SECTION 3 – DECALS

---

Decals – Gasoline Vehicle .....	3-3
Decals – Electric Vehicle .....	3-5

## SECTION 4 – BRAKES, PEDAL, AND CABLE ASSEMBLIES

---

Rear Brake Assembly, Self-Adjusting .....	4-3
Brake Pedal Assembly .....	4-5
Brake Cable, Equalizer, and Equalizer Rod .....	4-7
Accelerator Pedal Assembly – Gasoline Vehicle .....	4-9
Accelerator Pedal Assembly – Electric Vehicles .....	4-11
Accelerator Rod .....	4-13

## SECTION 5 – STEERING, FRONT AND REAR SUSPENSION

---

Steering Column .....	5-3
Steering Wheel .....	5-5
Steering Gear Assembly .....	5-7
Front Suspension, Upper .....	5-9
Front Suspension, Lower .....	5-11
Front Spindles and Hubs .....	5-13
Rear Suspension – Gasoline Vehicle .....	5-15
Rear Suspension – Electric Vehicle .....	5-17

# CONTENTS

---

## SECTION 6 – ELECTRICAL SYSTEM – GASOLINE VEHICLE

---

Wiring .....	6-5
Electrical Component Box – Gasoline Vehicle .....	6-7
Electrical Components, Front Body – Gasoline Vehicle .....	6-9
Starter/Generator Assembly Model G425419 – Gasoline Vehicles .....	6-11
Starter/Generator Assembly Model 114-01-4005 – Gasoline Vehicles .....	6-13
FE290 Starter/Generator Mounting .....	6-15
Battery – Gasoline Vehicle .....	6-17

## SECTION 7 – FE290 ENGINE

---

FE290 Engine – Shrouds and Brackets .....	7-3
FE290 Engine – Ignition Components and Flywheel .....	7-5
FE290 Engine – Oil Circulation .....	7-7
FE290 Engine – Cylinder Head .....	7-9
FE290 Engine – Crankcase, Camshaft, and Oil Sensor .....	7-11
FE290 Engine – Crankcase and Crankshaft .....	7-13
FE290 Engine Mounting .....	7-15

## SECTION 8 – FUEL, INTAKE, AND GOVERNOR SYSTEMS

---

Fuel System .....	8-3
Carburetor Assembly – FE290 .....	8-5
Carburetor Installation – FE290 .....	8-7
Governor and Accelerator Cables .....	8-9
Air Box and Intake Hose .....	8-11
Intake System .....	8-13

## SECTION 9 – EXHAUST SYSTEM

---

Exhaust System – FE290 Engine .....	9-3
-------------------------------------	-----

## SECTION 10 – TORQUE CONVERTER

---

Drive Clutch .....	10-3
Drive Belt – FE290 .....	10-5
Driven Clutch .....	10-7

## SECTION 11 – TRANSAKLE – GASOLINE VEHICLE

---

Transaxle – Gasoline Vehicles, Gear Cases and Brackets .....	11-3
Transaxle – Gasoline Vehicles, Transmission and Gear Reduction .....	11-5

# CONTENTS

---

Transaxle – Gasoline Vehicles, Differential and Axles .....	11-7
Forward/Reverse Shifter Assembly – Gasoline Vehicles .....	11-9
Forward/Reverse Shifter Cable – Gasoline Vehicles .....	11-11

## SECTION 12 – GRAZIANO TRANSAXLE – GASOLINE VEHICLE

---

Graziano Transaxle – Gasoline Vehicles .....	12-3
Graziano Transaxle – Gasoline Vehicles .....	12-5
Graziano Transaxle – Gasoline Vehicles .....	12-7

## SECTION 13 – ELECTRICAL SYSTEM – ELECTRIC VEHICLE

---

Wiring .....	13-5
Instrument Panel Components .....	13-7
Motor Controller Output Regulator (MCOR) .....	13-9
Battery Charger Receptacle .....	13-11
Batteries, Electric Vehicle .....	13-13
OBC, Controller, and Solenoid – Electric Vehicle .....	13-15
Forward/Reverse Switch, Tow/Run Switch .....	13-17

## SECTION 14 – ELECTRIC MOTOR

---

Motor (Model 5BC59JBS6390) – Electric Vehicle .....	14-3
Motor (Model EJ4-4001) – Electric Vehicle .....	14-5
Motor (Model EJ8-4001A) – Electric Vehicle .....	14-7

## SECTION 15 – TRANSAXLE – ELECTRIC VEHICLES

---

Transaxle – Electric Vehicles .....	15-3
-------------------------------------	------

## SECTION 16 – BATTERY CHARGER

---

PowerDrive 3 Battery Charger, Domestic .....	16-3
PowerDrive 2 Battery Charger (Model 22110), Domestic .....	16-5
PowerDrive Battery Charger (Model 17930), Domestic .....	16-7
PowerDrive Battery Charger (Model 18780), Export .....	16-9
PowerDrive Battery Charger (Model 20310), European .....	16-11

## SECTION 17 – MAINTENANCE AND SERVICE TOOLS

---

Maintenance and Service Tools .....	17-3
Maintenance and Service Tools, Continued .....	17-5
Maintenance and Service Tools, Continued .....	17-7

# **CONTENTS**

---

Maintenance and Service Tools, Continued .....	17-9
Maintenance and Service Tools, Continued .....	17-11

## **SECTION i – INDEX**

---

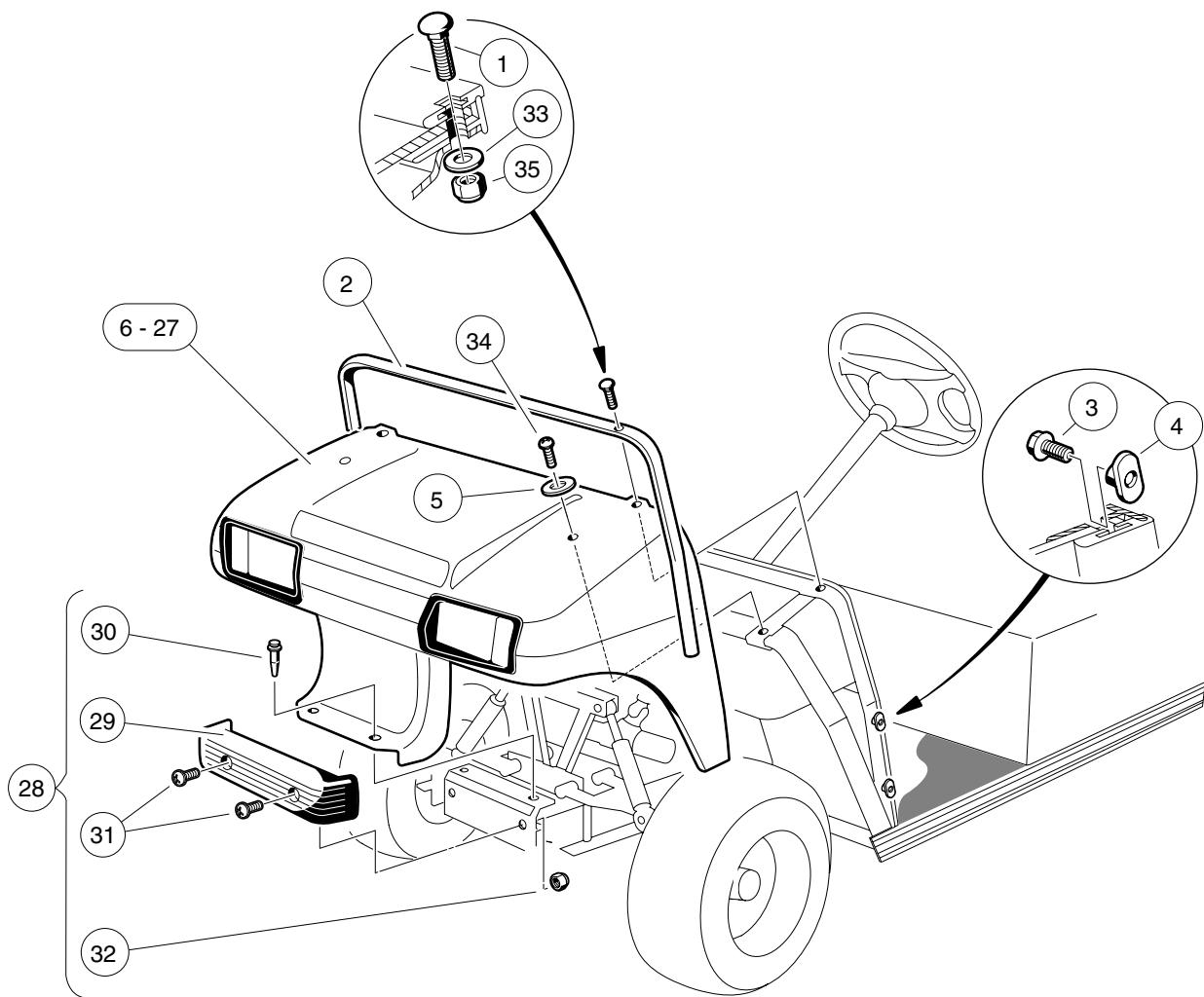
# BODY AND TRIM

---

1

G

E

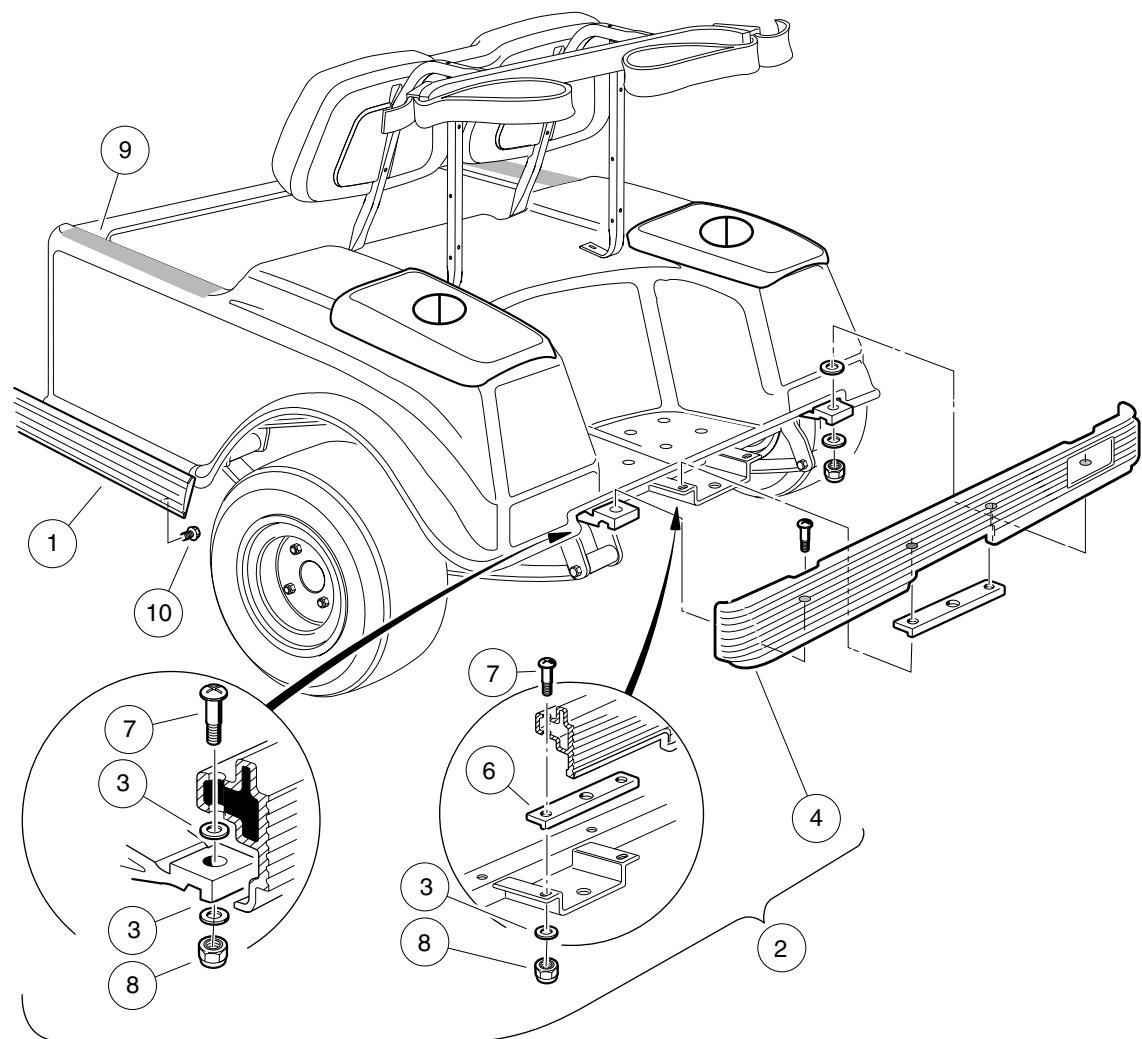
**1****G****E**

000249-002

# FRONT BODY

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	
1	1010435	Bolt, Carriage, 5/16-18 X 1.00 .....	2
2	1011014	Trim, Cowl .....	1
3	1011017	Screw, #8-32 X 0.375 .....	6
4	1011394	T-Nut Package (Set of 4) .....	1
5	1015075	Washer, 5/16 Flat Type A .....	2
6	101692501	Cowl, TPO, Beige .....	1
7	101692502	Cowl, TPO, White .....	1
8	101692504	Cowl, Tpo -gray .....	1
9	101692506	Cowl, TPO, Red .....	1
10	101692509	Cowl, TPO, Pacific Blue (Royal Blue) .....	1
11	101692510	Cowl, TPO, Dark Green .....	1
12	101692511	Cowl, TPO, Black .....	1
13	101692512	Cowl, TPO, Classic Blue (Navy) .....	1
14	101692513	Cowl, TPO, Burgundy .....	1
15	101692514	Cowl, TPO, Dark Gray .....	1
16	101692515	Cowl, TPO, Safety Yellow .....	1
17	101693901	Cowl with Headlight Opening, TPO, Beige .....	1
18	101693902	Cowl with Headlight Opening, TPO, White .....	1
19	101693904	Cowl with Headlight Opening, TPO, Gray .....	1
20	101693906	Cowl with Headlight Opening, TPO, Red .....	1
21	101693908	Cowl with Headlight Opening, TPO, Pacific Blue (Royal Blue) .....	1
22	101693909	Cowl with Headlight Opening, TPO, Dark Green .....	1
23	101693910	Cowl with Headlight Opening, TPO, Black .....	1
24	101693911	Cowl with Headlight Opening, TPO, Classic Blue (Navy) .....	1
25	101693912	Cowl with Headlight Opening, TPO, Burgundy .....	1
26	101693913	Cowl with Headlight Opening, TPO, Dark Gray .....	1
27	101693914	Cowl with Headlight Opening, TPO, Safety Yellow .....	1
28	1017080	Kit, Front Bumper (includes items 29 through 32) .....	1
29	1016868	Front Bumper .....	1
30	1016967	Blind Rivet, Push Type .....	2
31	7251	Screw, 5/16-18 x 1.0 Truss-Head .....	2
32	7473	Locknut, 5/16-18 Nylon Insert .....	2
33	1241	Washer, 5/16 Type A Flat .....	2
34	7251	Screw, 5/16-18 x 1.0 Truss-Head .....	2
35	7473	Locknut, 5/16-18 Nylon Insert .....	2

**1**  
**G**  
**E**

**1****G****E**

000451-001

## REAR BODY TRIM

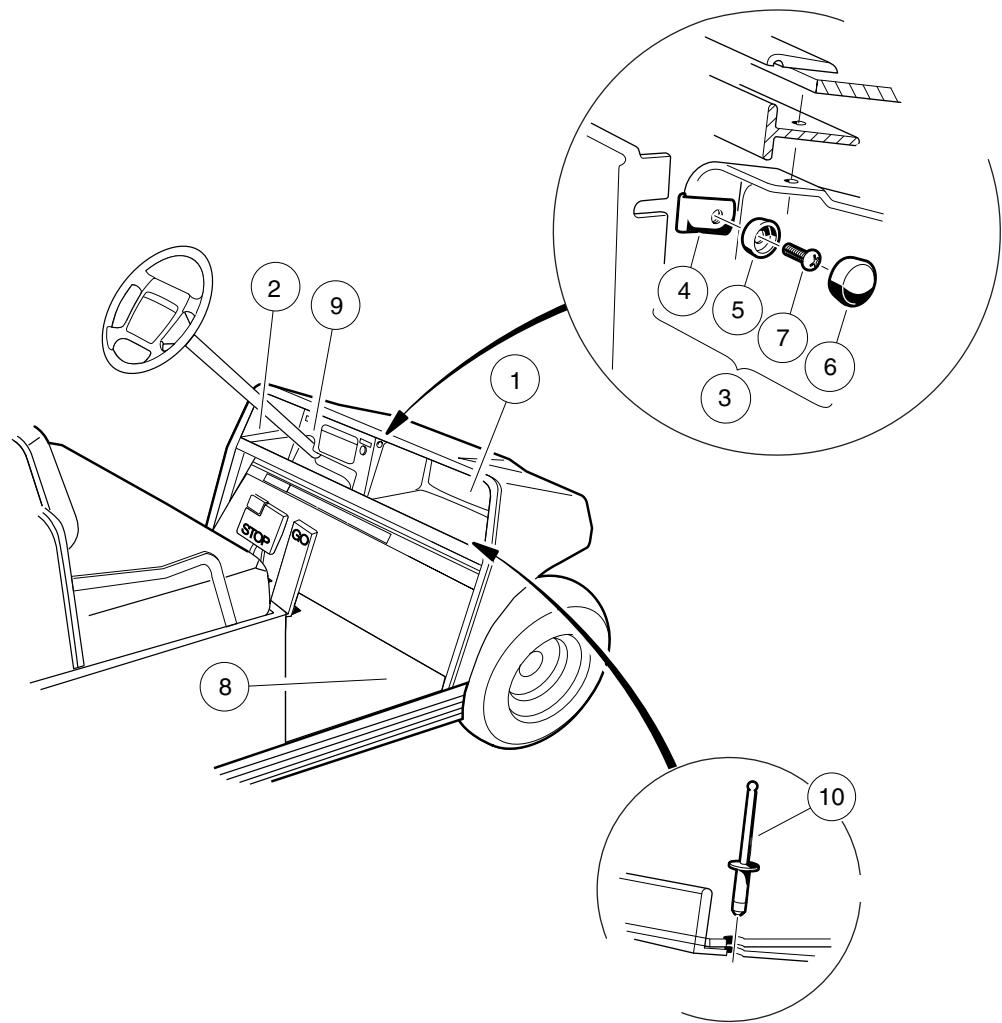
ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	1
1	1013983	Bumper, Side Trim .....	2
2	1017079	Kit, Rear Bumper (includes items 3 through 8) .....	1
3	1011697	Washer, 5/16 Flat .....	6
4	1016379	Bumper, Rear .....	1
5	1016874	Plate, Bumper Mounting, Short .....	2
6	1016875	Plate, Bumper Mounting, Long .....	1
7	1016876	Bolt, 3/8 Shoulder .....	4
8	7473	Locknut, 5/16-18 Nylon Insert .....	4
9	102221201	Wear Pad .....	2
10	102310701	Screw, #8-18 x 0.375, Hex-Head Washer .....	8

Note: Item 5 not used in this application.

**1**

**G**

**E**

**1****G****E**

000252-001

## DASH COMPONENTS

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	
1	1013343	Dash Component, Passenger-Side, Black .....	1
2	1013344	Dash Component, Driver-Side .....	1
3	1014645	Snap Washer Kit, Black (includes items 4 through 7) .....	2
4	1011019	Nut, Speed .....	1
5	N/A	Washer, #10 Pan-Head Screw .....	1
6	1013494	Cover, Screw Head .....	1
7	1620	Screw, #10-16 X 0.75 Pan-Head Tap .....	1
8	101503202	Floormat .....	1
9	101660404	Dash Panel, Black Center .....	1
10	7973	Rivet, 3/16 X .400 Blind .....	5

1

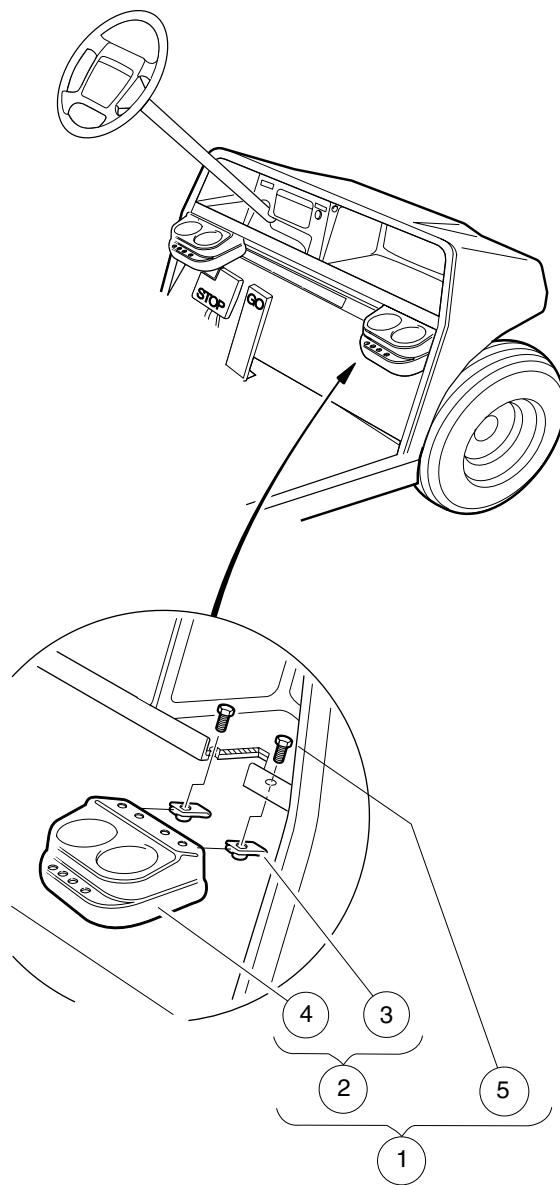
G

E

**1**

**G**

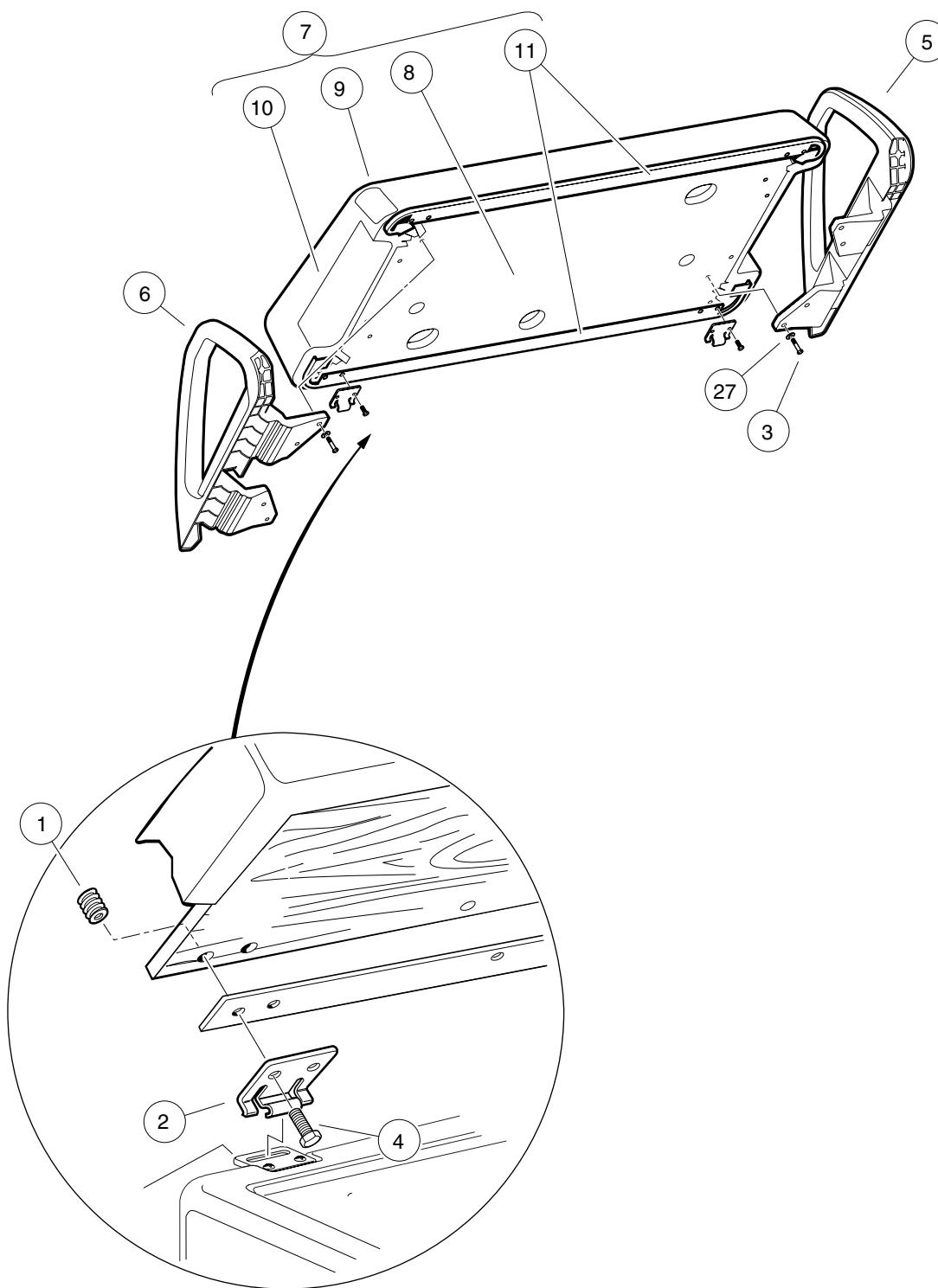
**E**



000253-002

# BEVERAGE HOLDER

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	1
1	101708301	Drink Holder Kit (includes items 2 through 5) .....	2
2	N/A	Holder, Dual Cup (includes items 3 and 4) .....	1
3	1016952	U-Nut, 1/4-20 .....	2
4	N/A	Cup Holder, Dual .....	1
5	7847	Screw, 1/4-20 X 0.75 Hex-Head Cap .....	2

**1****G****E**

000364-003

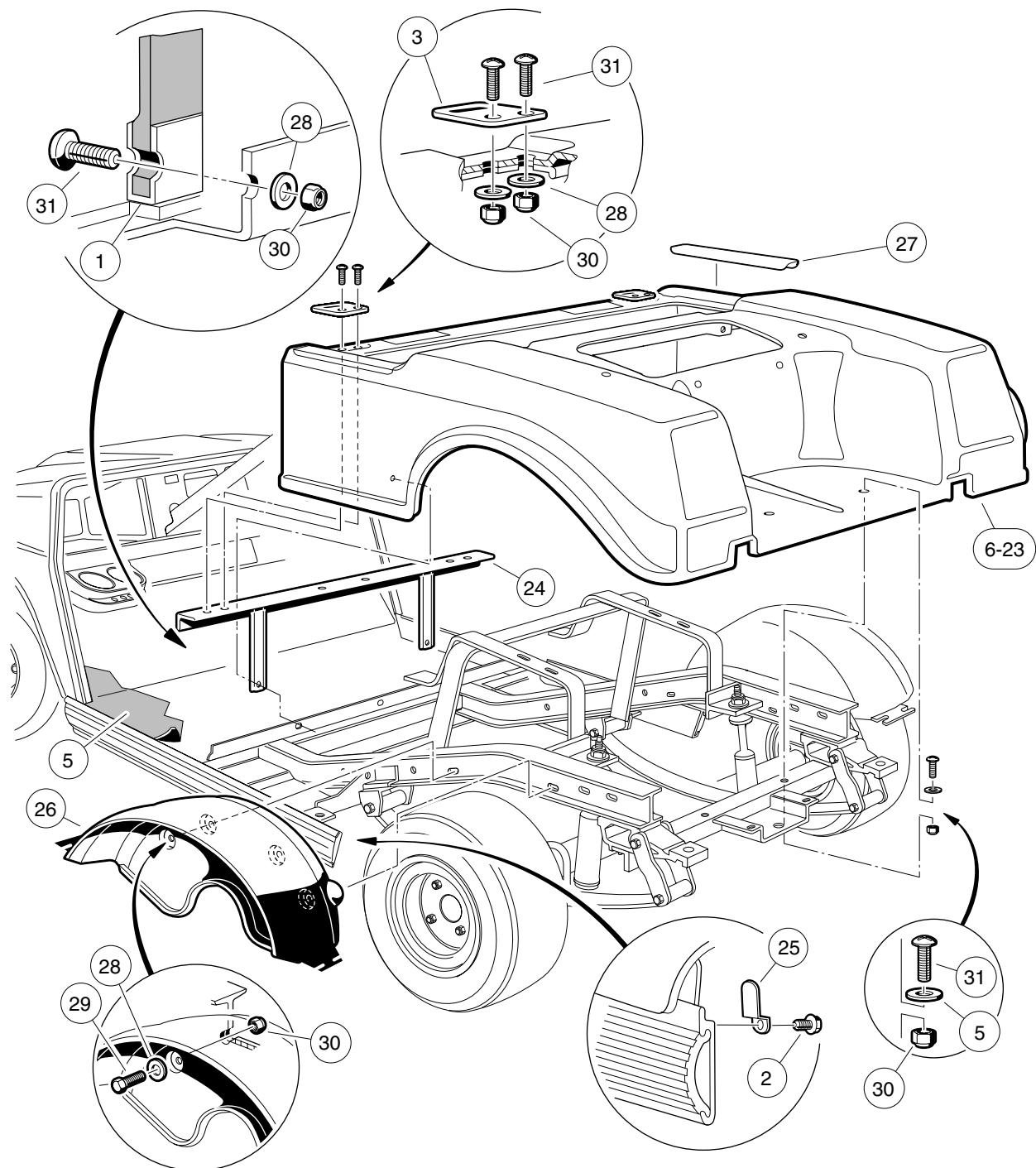
# FRONT SEAT BOTTOM AND ARMRESTS

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	
1	1010543	Insert - Wood .....	4
2	1011652	Hinge Plate .....	2
3	1016916	Screw, 1/4-20 X 1.50 Hex-Head Cap .....	8
4	101954301	Screw, 1/4-20 X 0.75 Hex-Head Cap .....	4
5	101985502	Armrest, Passenger (right) .....	1
6	101987602	Armrest, Driver (left) .....	1
7	102174201	Seat Bottom Assembly, Buff (includes items 8 through 11) .....	1
8	N/A	Plywood Assy .....	1
9	101998211	seat bottom cover .....	1
10	N/A	Foam, Seat .....	1
11	101998501	Gasket, Seat .....	2
12	102174202	Seat Bottom Assembly, White (includes items 13 through 16) .....	1
13	N/A	Plywood Assy .....	1
14	101998212	Vinyl Cover, Seat Bottom, White .....	1
15	N/A	Foam, Seat .....	1
16	101998501	Gasket, Seat .....	2
17	102174204	Seat Bottom Assembly, Black (includes items 18 through 21) .....	1
18	N/A	Plywood Assy .....	1
19	101998214	Vinyl Cover, Seat Bottom, Black .....	1
20	N/A	Foam, Seat .....	1
21	101998501	Gasket, Seat .....	2
22	102174205	Seat Bottom Assembly, Gray (includes items 23 through 26) .....	1
23	N/A	Plywood Assy .....	1
24	101998215	Vinyl Cover, Seat Bottom, Gray .....	1
25	N/A	Foam, Seat .....	1
26	101998501	Gasket, Seat .....	2
27	332	Washer, 1/4 Type A Narrow Flat .....	8
		Note: Sub-components contained in items 12, 17, and 22 are the same as those shown for item 7, except for the vinyl seat covers.	

1

G

E

**1****G****E**

000450-001

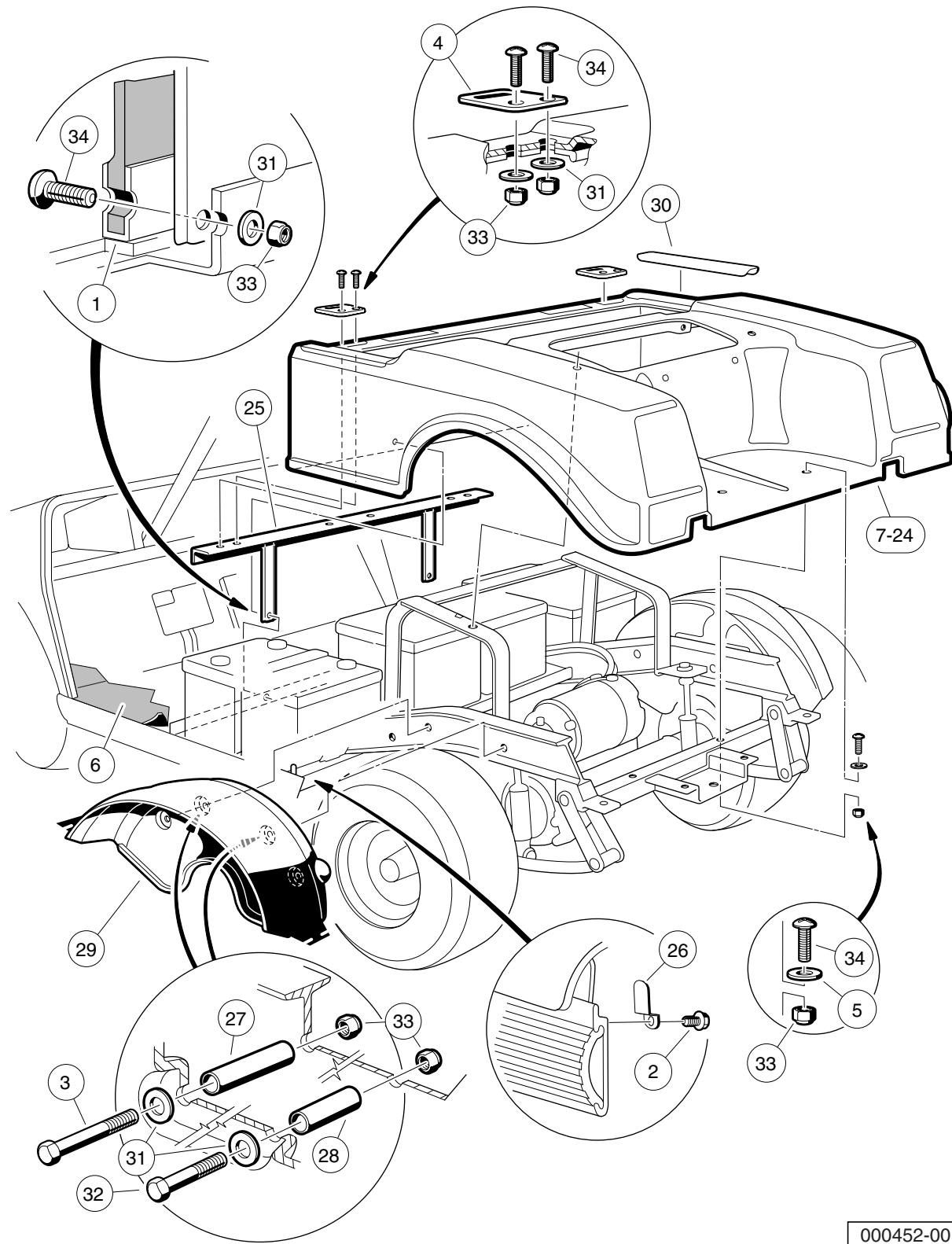
# REAR BODY AND FENDER – GASOLINE VEHICLE

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	
1	1010993	Body Kick Plate .....	1
2	1012047	Screw, #8-32 X .375 Self Tap .....	2
3	1012412	Body, Hinge Plate .....	2
4	1014306	Washer, 1/4" Type B Flat .....	2
5	101503202	Floormat .....	1
6	101692601	Body, Beige, TPO, Rear .....	1
7	101692602	Body, White, TPO, Rear .....	1
8	101692604	Body, Gray, TPO, Rear .....	1
9	101692606	Body, Red, TPO, Rear .....	1
10	101692609	Body, Pacific Blue (Royal Blue), TPO, Rear .....	1
11	101692610	Body, Dark Green, TPO, Rear .....	1
12	101692611	Body, Black, TPO, Rear .....	1
13	101692612	Body, Classic Blue, (Navy) TPO, Rear .....	1
14	101692613	Body, Burgundy, TPO, Rear .....	1
15	101696208	Body with Tail Light Hole, Beige, Rear .....	1
16	101696209	Body with Tail Light Hole, White, Rear .....	1
17	101696211	Body with Tail Light Hole, Gray, Rear .....	1
18	101696213	Body with Tail Light Hole, Red, Rear .....	1
19	101696215	Body with Tail Light Hole, Pacific Blue (Royal Blue), Rear .....	1
20	101696216	Body with Tail Light Hole, Dark Green, Rear .....	1
21	101696219	Body with Tail Light Hole, Black, Rear .....	1
22	101696220	Body with Tail Light Hole, Classic Blue, Rear .....	1
23	101696221	Body with Tail Light Hole, Burgundy, Rear .....	1
24	1017141	Body Support Front .....	1
25	1017748	Body Keeper Clip .....	2
26	1017936	Fender, Inner .....	2
27	102221201	Wear Pad .....	2
28	332	Washer, 1/4 Type A Narrow Flat .....	10
29	7847	Screw, 1/4-20 X 0.75 Hex-Head Cap .....	4
30	8233	Locknut, 1/4-20 Nylon Insert .....	12
31	8251	Screw, 1/4-20 X 1.0 Truss-Head Machine .....	8

1

G

E

**1****G****E**

000452-001

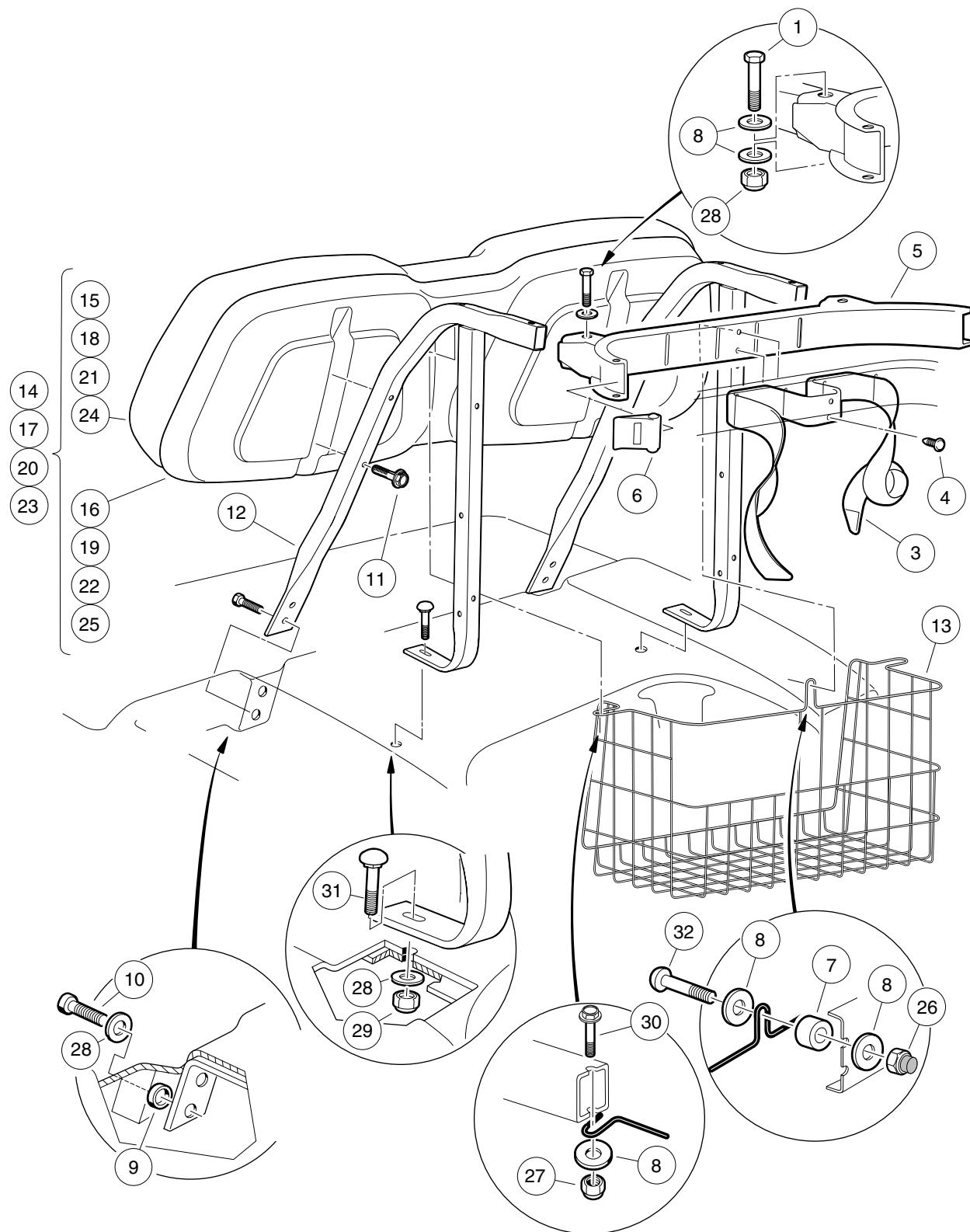
# REAR BODY AND FENDER – ELECTRIC VEHICLE

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	
1	1010993	Body Kick Plate .....	1
2	1012047	Screw, #8-32 X .375 Self Tap .....	2
3	1012159	Bolt, 1/4-20 X 2.75 Hex-Head .....	2
4	1012412	Body, Hinge Plate .....	2
5	1014306	Washer, 1/4" Type B Flat .....	2
6	101503202	Floormat .....	1
7	101693301	Body, Beige, TPO, Rear .....	1
8	101693302	Body, White, TPO, Rear .....	1
9	101693304	Body, Gray, TPO, Rear .....	1
10	101693306	Body, Red, TPO, Rear .....	1
11	101693309	Body, Pacific Blue (Royal Blue), TPO, Rear .....	1
12	101693310	Body, Dark Green, TPO, Rear .....	1
13	101693311	Body, Black, TPO, Rear .....	1
14	101693312	Body, Classic Blue, TPO, Rear .....	1
15	101693313	Body, Burgundy, TPO, Rear .....	1
16	101696201	Body with Tail Light Hole, Beige, Rear .....	1
17	101696202	Body with Tail Light Hole, White, Rear .....	1
18	101696204	Body with Tail Light Hole, Gray, Rear .....	1
19	101696206	Body with Tail Light Hole, Red, Rear .....	1
20	101696217	Body, Rear W/tlt -ele Pacific Blue (Royal Blue) .....	1
21	101696218	Body with Tail Light Hole, Dark Green, Rear .....	1
22	101696222	Body with Tail Light Hole, Black, Rear .....	1
23	101696223	Body with Tail Light Hole, Classic Blue, Rear .....	1
24	101696224	Body with Tail Light Hole, Burgundy, Rear .....	1
25	1017141	Body Support Front .....	1
26	1017748	Body Keeper Clip .....	2
27	1017814	Spacer, 1.88-inch .....	2
28	1017815	Spacer, 0.5-inch .....	2
29	1017936	Fender, Inner .....	2
30	102221201	Wear Pad .....	2
31	332	Washer, 1/4 Type A Narrow Flat .....	10
32	7479	Screw, 1/4-20 X 1.25 Hex-Head Cap .....	2
33	8233	Locknut, 1/4-20 Nylon Insert .....	12
34	8251	Screw, 1/4-20 X 1.0 Truss-Head Machine .....	8

1

G

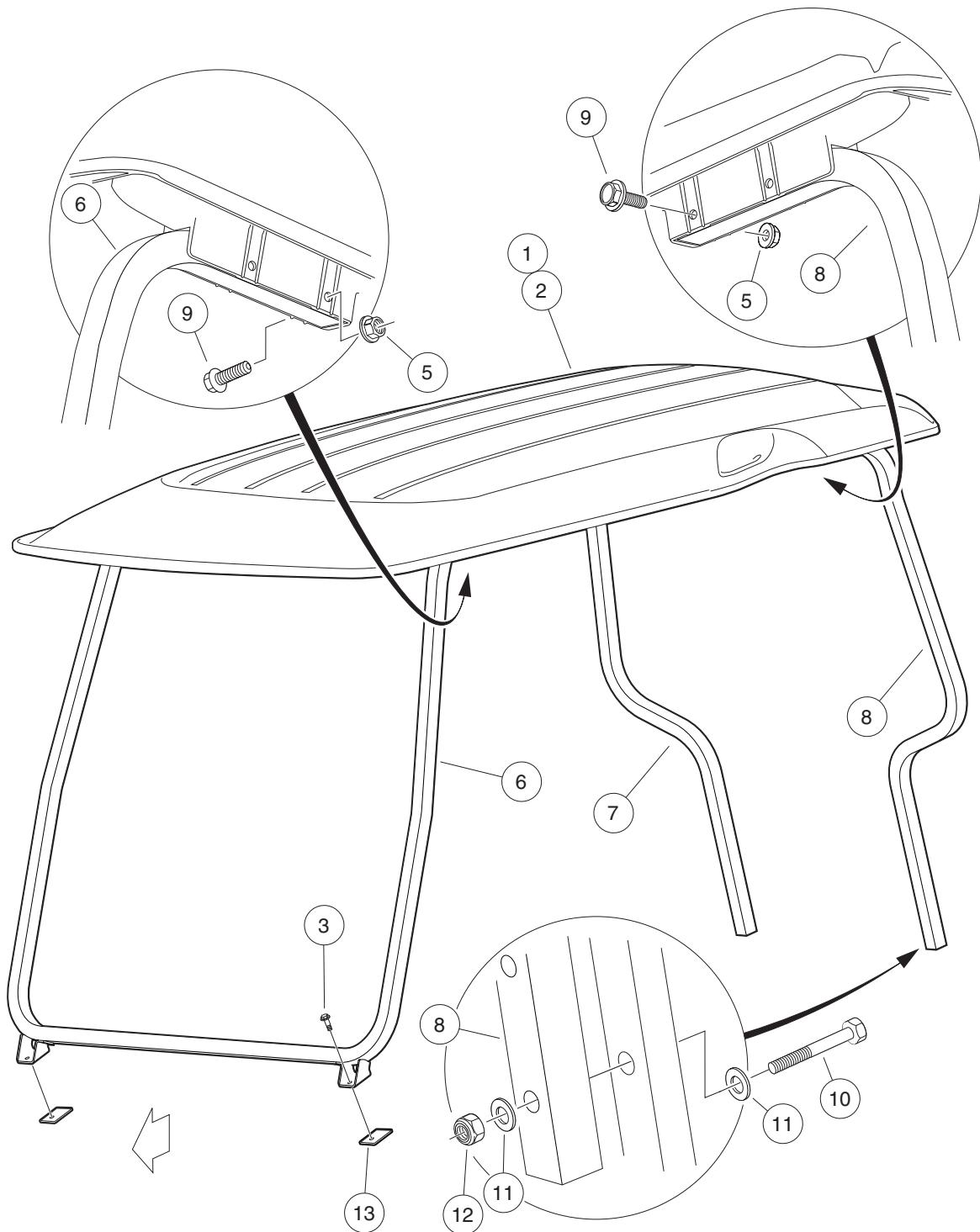
E

**1****G****E**

000453-001

# SEAT BACK AND BAG HOOP

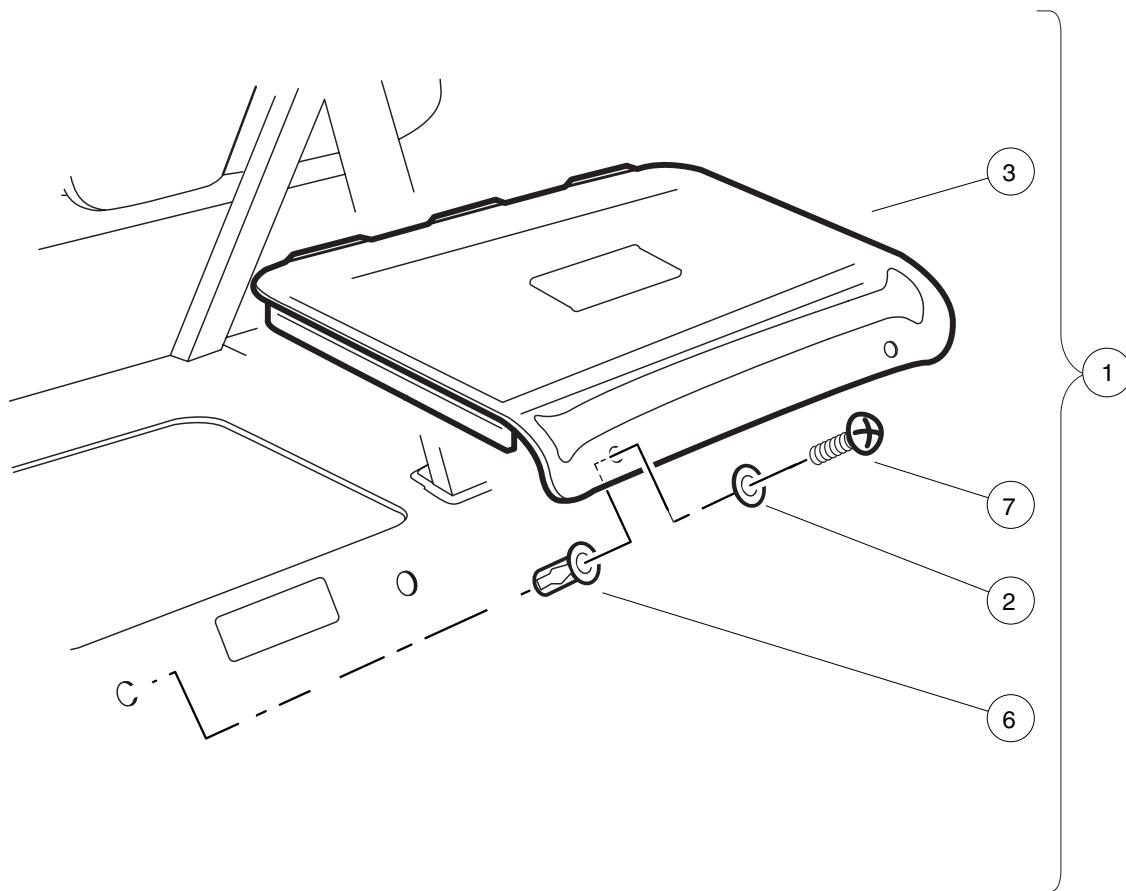
ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	1
1	1010921	Screw, 5/16-18 X 2.50 Hex Cap .....	2
2	1013935	Bag Hoop W/buckle & Strap Asm (includes items 3 through 6) .....	1
3	1010413	Bag Strap Assembly .....	1
4	1010434	Barrel - Plastic .....	2
5	1013656	Molded Bag Hoop .....	1
6	1013754	Buckle, Bag Strap .....	2
7	1014482	Spacer, Nylon .....	1
8	1015075	Washer, 5/16 Flat Type A .....	8
9	1017774	Body Spacer .....	4
10	101910401	Screw, 5/16-18 X 1.25 Thrd Frm .....	4
11	102076701	Screw, 1/4-20 X 1.75 Hex Sems .....	4
12	102236601	Support Weldment .....	2
13	102236703	Sweater Basket, Black .....	1
14	102238301	Kit, Seat Back, Buff (includes items 15 and 16) .....	1
15	102060511	Skin Seat Back, Beige .....	1
16	102237001	Cap - Seat Back .....	1
17	102238302	Kit, Seat Back, White (includes items 18 and 19) .....	1
18	102060512	Skin Seat Back, White .....	1
19	102237001	Cap - Seat Back .....	1
20	102238304	Kit, Seat Back, Black (includes items 21 and 22) .....	1
21	102060514	Skin Seat Back, Black .....	1
22	102237001	Cap - Seat Back .....	1
23	102238305	Kit, Seat Back, Gray (includes items 24 and 25) .....	1
24	102060515	Skin Seat Back, Gray .....	1
25	102237001	Cap - Seat Back .....	1
26	102242401	Nut - Nylon Insert W/cap .....	1
27	1028	Nut, 1/4-20 Hex .....	2
28	1241	Washer, 5/16 Type A Flat .....	6
29	7473	Locknut, 5/16-18 Nylon Insert .....	4
30	7479	Screw, 1/4-20 X 1.25 Hex-Head Cap .....	2
31	7818	Bolt, Carriage, 5/16-18 X 1.5 .....	2
32	8418	Screw, 1/4-20 X 1.50 Phillips Truss-Head .....	1

**1****G****E**

000454-001

# CANOPY

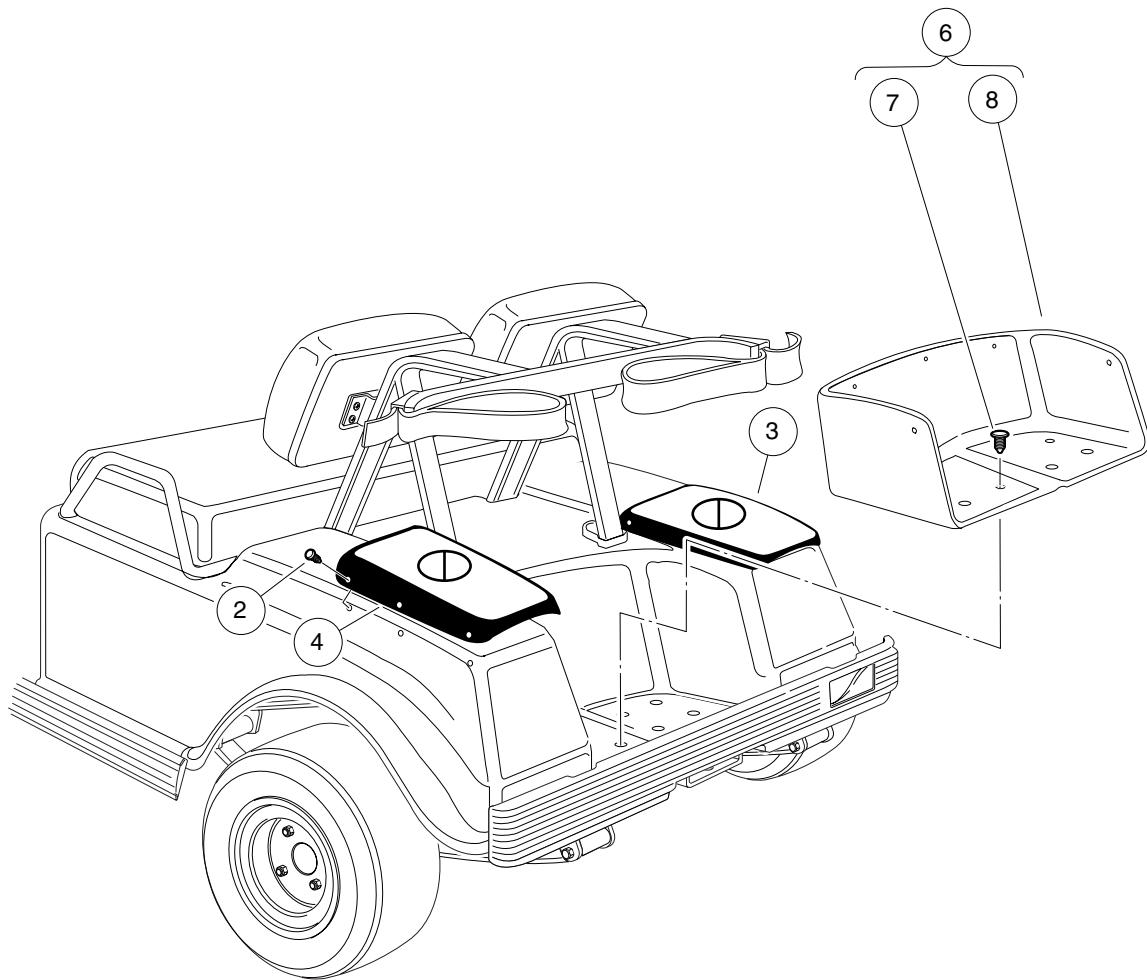
ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	
1	102061301	Canopy-sun-white .....	1
2	102061302	Canopy, Sun Beige .....	1
3	102099101	Screw, 5/16-18 X 1.00 Hex Sems .....	2
4	102155501	Canopy Kit Struts (includes items 5 through 12) .....	1
5	101835601	Locknut, 1/4-20 Hex Whiz .....	8
6	102063901	Weldment - Windshield Frame .....	1
7	102064601	Support, Rear Canopy, Right-Hand .....	1
8	102065501	Support, Rear Canopy Left-Hand .....	1
9	102076701	Screw, 1/4-20 X 1.75 Hex Sems .....	8
10	324	Screw, 1/4-20 X 2.50 Hx Hd Cap .....	4
11	332	Washer, 1/4 Type A Narrow Flat .....	8
12	8233	Locknut, 1/4-20 Nylon Insert .....	4
13	102198301	Pad, Windshield Frame .....	2

**1****G****E**

000783-001

## REAR ACCESS DOOR

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	
1	1013218	Kit, Access Door Black (includes items 2 through 7) .....	1
2	1012581	Washer, 0.609-inch OD, Nylon Cup .....	2
3	N/A	Molded Access Door Black .....	1
4	1013216	Plug, Button .....	2
5	1013217I	Instruction Sheet Access Door .....	1
6	1015525	Nut, 1/4-20 Blind .....	2
7	8251	Screw, 1/4-20 X 1.0 Truss-Head Machine .....	2

**1****G****E**

APM-000063-001

# SCUFF GUARD AND BAGWELL PROTECTOR KITS

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	1
1	101706702	Scuff Guard Kit, TPO Body (includes items 2 through 5) .....	1
2	1010434	Barrel - Plastic .....	12
3	101776201	Scuff Guard Rh .....	1
4	101776301	Scuff Guard Lh .....	1
5	101779801	Instructions, Scuff Grd Instal .....	1
6	101768202	Bagwell Protector Kit (includes items 7 through 9) .....	1
7	1010434	Barrel - Plastic .....	9
8	1017267	Protector Bagwell .....	1
9	1017682I	Instruction .....	1
10	101768204	Bagwell Protector - Ten Pack (includes items 11 through 13) .....	A/R
11	1010434	Barrel - Plastic .....	90
12	1017267	Protector Bagwell .....	10
13	1017682I	Instruction .....	1

1

G

E

***1***

***G***

***E***

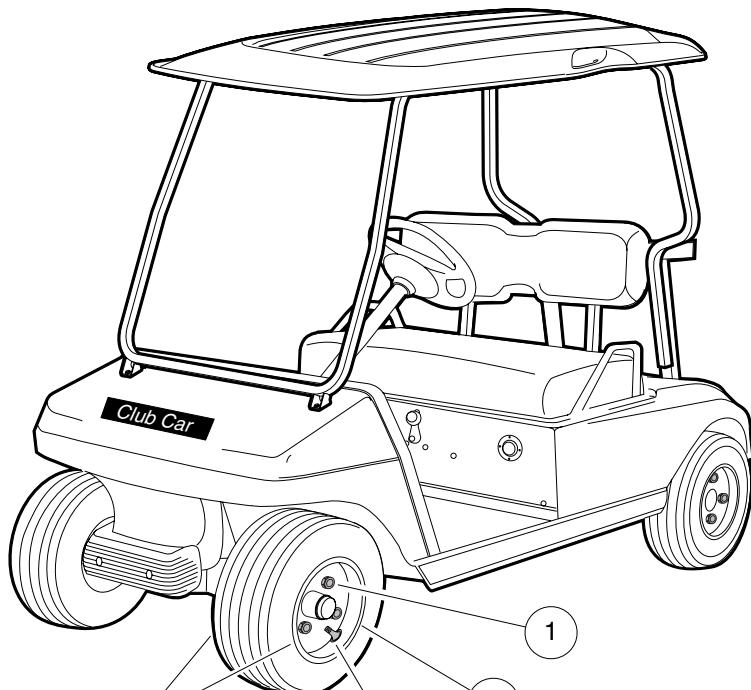
# **WHEELS AND TIRES**

---

**2**

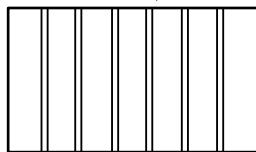
**G**

**E**

**2****G****E**

20

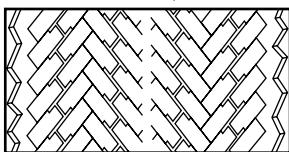
4



STANDARD TREAD  
Carlisle®

28

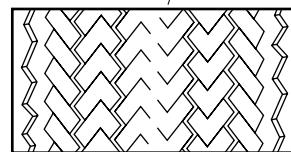
12



PERFORMANCE  
GRADE TREAD  
Duro®

33

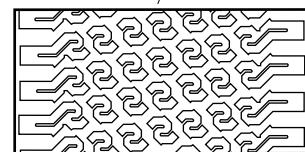
17



PREMIUM TREAD  
Kenda®

24

8



EXTRA TRACTION  
Duro

Note: The performance grade tire has the wheel and tire matched and balanced at the Duro tire factory.

000457-001

# WHEELS AND TIRES

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	
1	1010984	.500-20 Unf Lug Nut .....	16
2	101570501	Tire/Wheel Asm, Beige, Standard Tread (includes items 3 through 5) .....	4
3	1015707	Wheel Rim, Beige .....	1
4	727102	Tire Unmto Turf Glde 18x8.50-8 .....	1
5	7310	Valve Stem .....	1
6	101570507	Tire/Wheel Asm, Beige, Xtrac Tread, 6-ply (includes items 7 through 9) .....	2
7	1015707	Wheel Rim, Beige .....	1
8	101769302	Tire, Unmounted Xtrac 18 x 8.50-8 .....	1
9	7310	Valve Stem .....	1
10	101570512	Tire/Wheel Asm, Beige, Duro Premium Tread (includes items 11 through 13) .....	4
11	1015707	Wheel Rim, Beige .....	1
12	102569304	Duro 18 X 8.5 X 8, 4-Ply .....	1
13	7310	Valve Stem .....	1
14	101570513	Tire/Wheel Asm, Beige, Kenda Premium Tread (includes items 15 through 17) .....	4
15	1015707	Wheel Rim, Beige .....	1
16	7310	Valve Stem .....	1
17	AM10682	Unmounted Prem Tire 18.5x8.5x8 .....	1
18	101651401	Tire/Wheel Asm, White, Standard Tread (includes items 19 through 21) .....	4
19	1014771	Wheel Rim, White .....	1
20	727102	Tire Unmto Turf Glde 18x8.50-8 .....	1
21	7310	Valve Stem .....	1
22	101651407	Tire/Wheel Asm, White, Extra-Traction, 6-Ply (includes items 23 through 25) .....	2
23	1014771	Wheel Rim, White .....	1
24	101769302	Tire, Unmounted Xtrac 18 x 8.50-8 .....	1
25	7310	Valve Stem .....	1
26	101651412	Tire/Wheel Asm, White, Duro Premium Tread (includes items 27 through 29) .....	4
27	1014771	Wheel Rim, White .....	1
28	102569304	Duro 18 X 8.5 X 8, 4-Ply .....	1
29	7310	Valve Stem .....	1
30	101651413	Tire/Wheel Asm, White, Kenda Premium Tread (includes items 31 through 33) .....	4
31	1014771	Wheel Rim, White .....	1
32	7310	Valve Stem .....	1
33	AM10682	Unmounted Prem Tire 18.5x8.5x8 .....	1

2

G

E

**2**

**G**

**E**

# **DECALS**

---

**3**

**G**

**E**

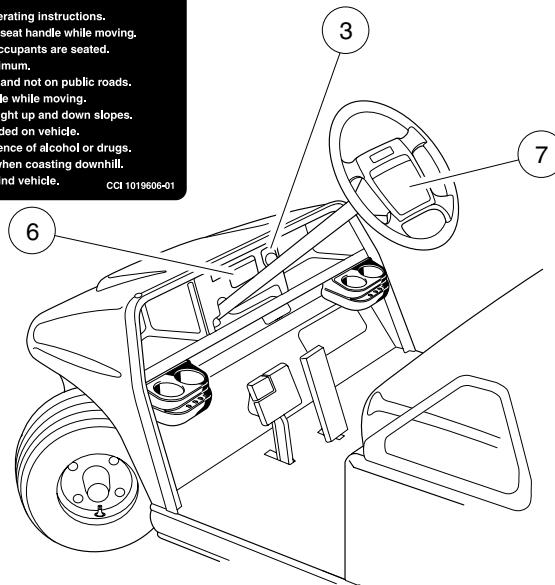
3

G

E



OFF | ON

**OPERATING INSTRUCTIONS**

- Read owner's manual and safety warnings located on dash panel prior to driving.
- Study and understand controls.

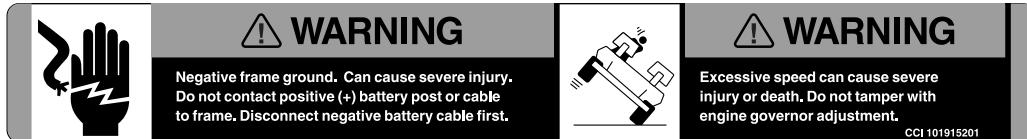
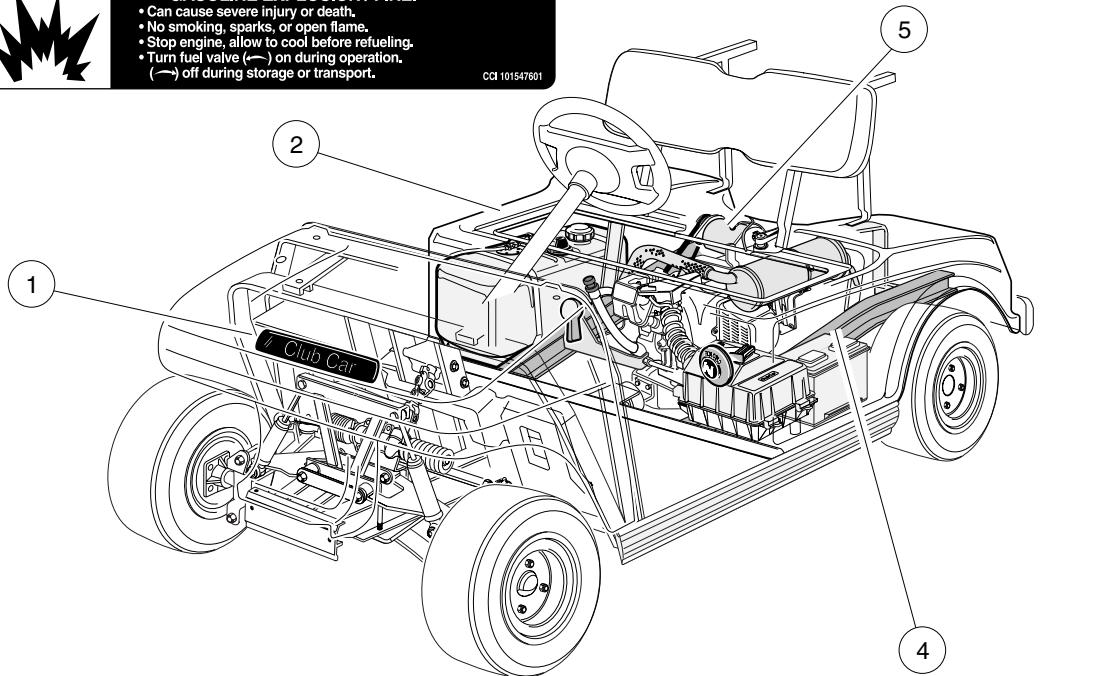
**TO OPERATE**

- Turn wheels to desired direction and ensure path is clear.
- Turn key to ON position.
- While stopped, place shift lever in desired position:  
F – Forward N – Neutral R – Reverse (Buzzer will sound)
- Park brake will release and vehicle will start moving when accelerator pedal is pressed.
- Slowly press accelerator pedal to increase speed.
- To stop, release accelerator pedal and press brake pedal.

**BEFORE LEAVING**

- Press park brake pedal until it locks and holds vehicle.
- Place Forward/Reverse switch in NEUTRAL position.
- Turn key OFF and remove key when not in use.

CCI 102519201



000458-001

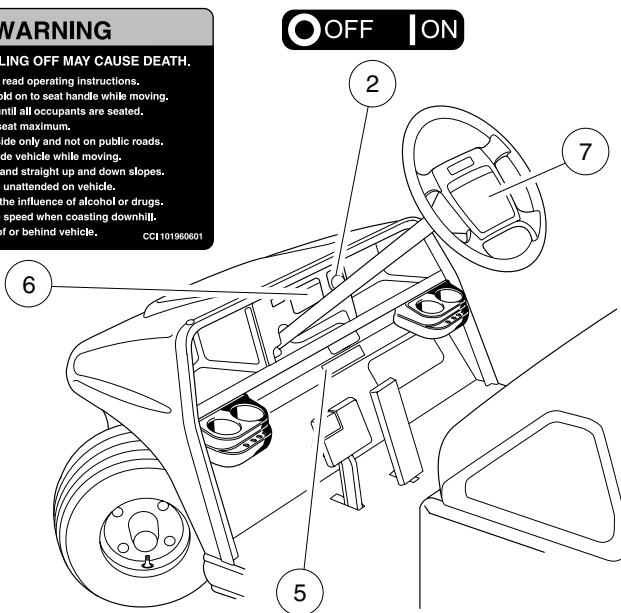
# DECALS – GASOLINE VEHICLE

ITEM	PART NO.	DESCRIPTION	QTY	
		1 2 3 4		<b>3</b>
1	1014198	Nameplate Kit (gold) .....	1	<b>G</b>
2	101547601	Decal, Gasoline Explosion/Fire Warning .....	1	
3	101825101	Decal, Off/On .....	1	
4	101915201	Decal, Frame Ground and Governor Warning .....	1	
5	101960501	Decal, Rotating Parts/Hot Manifold .....	2	
6	101960601	Decal, Dash Warning .....	1	
7	102519201	Decal, Operating Instr, Gas .....	1	<b>E</b>

3

G

E



### OPERATING INSTRUCTIONS

- Read owner's manual and dash-mounted safety warnings prior to driving.
- Study and understand controls.

#### TO OPERATE

- Turn wheels to desired direction and ensure path is clear.
- Turn key to ON position.
- Place Forward/Reverse switch in desired position:  
F=Forward N=Neutral R=Reverse (Buzzer will sound)
- Park brake will release and vehicle will start moving when accelerator pedal is pressed.
- Press accelerator pedal to increase speed.
- To stop, release accelerator pedal and press brake pedal.

#### BEFORE LEAVING

- Press park brake pedal until it locks and holds vehicle.
- Place Forward/Reverse switch in NEUTRAL position.
- Turn key OFF and remove key from vehicle.

#### MOTOR BRAKING

- Electric motor braking provides speed regulation functions.
- For parked vehicle, beeping alarm indicates vehicle roll away.
- In operation, beeping alarm indicates reduction in motor braking.
- System is activated only when tow switch is in the RUN position.
- When towing this vehicle, tow switch must be in the TOW position.

CCI 102518001

### IMPORTANT NOTICE

- Maximum vehicle speed is limited by motor braking during downhill operation with accelerator pedal depressed.
- If motor brake enabled, vehicle motor will brake when accelerator pedal is released.
- Beeping alarm indicates reduction in motor braking. Apply brakes to reduce speed.
- System is activated only when tow switch is in the "RUN" position.
- When towing vehicle, tow switch must be in the "TOW" position.

101959902

### WARNING

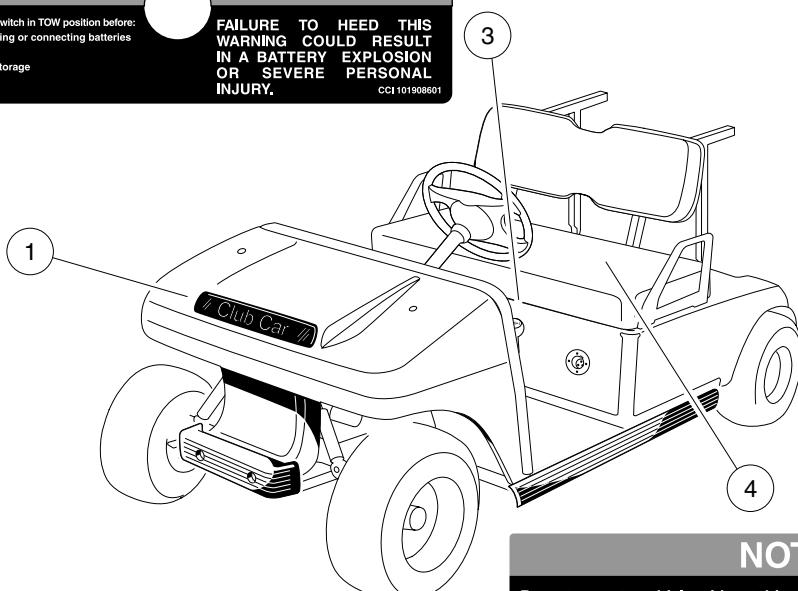
TOW

RUN

- Place Tow/Run switch in TOW position before:
- Disconnecting or connecting batteries
  - Towing
  - Extended storage
  - Servicing

**FAILURE TO HEED THIS  
WARNING COULD RESULT  
IN A BATTERY EXPLOSION  
OR SEVERE PERSONAL  
INJURY.**

CCI 101908601



### NOTICE

Do not operate vehicle without this cover properly installed.  
Do not direct water stream in this area; will cause damage to components.  
See vehicle maintenance and service manual before servicing.

CCI 101931501

000459-001

# DECALS – ELECTRIC VEHICLE

ITEM	PART NO.	DESCRIPTION	QTY	
		1 2 3 4		<b>3</b>
1	1014198	Nameplate Kit (gold) .....	1	<b>G</b>
2	101825101	Decal, Off/On .....	1	
3	101908601	Decal, Tow/Run Switch Warning .....	1	
4	101931501	Decal, Component Cover .....	1	
5	101959902	Decal, IQ System Motor Braking .....	1	
6	101960601	Decal, Dash Warning .....	1	
7	102518001	Decal, Operating Instr, Elec .....	1	<b>E</b>

**3**

**G**

**E**

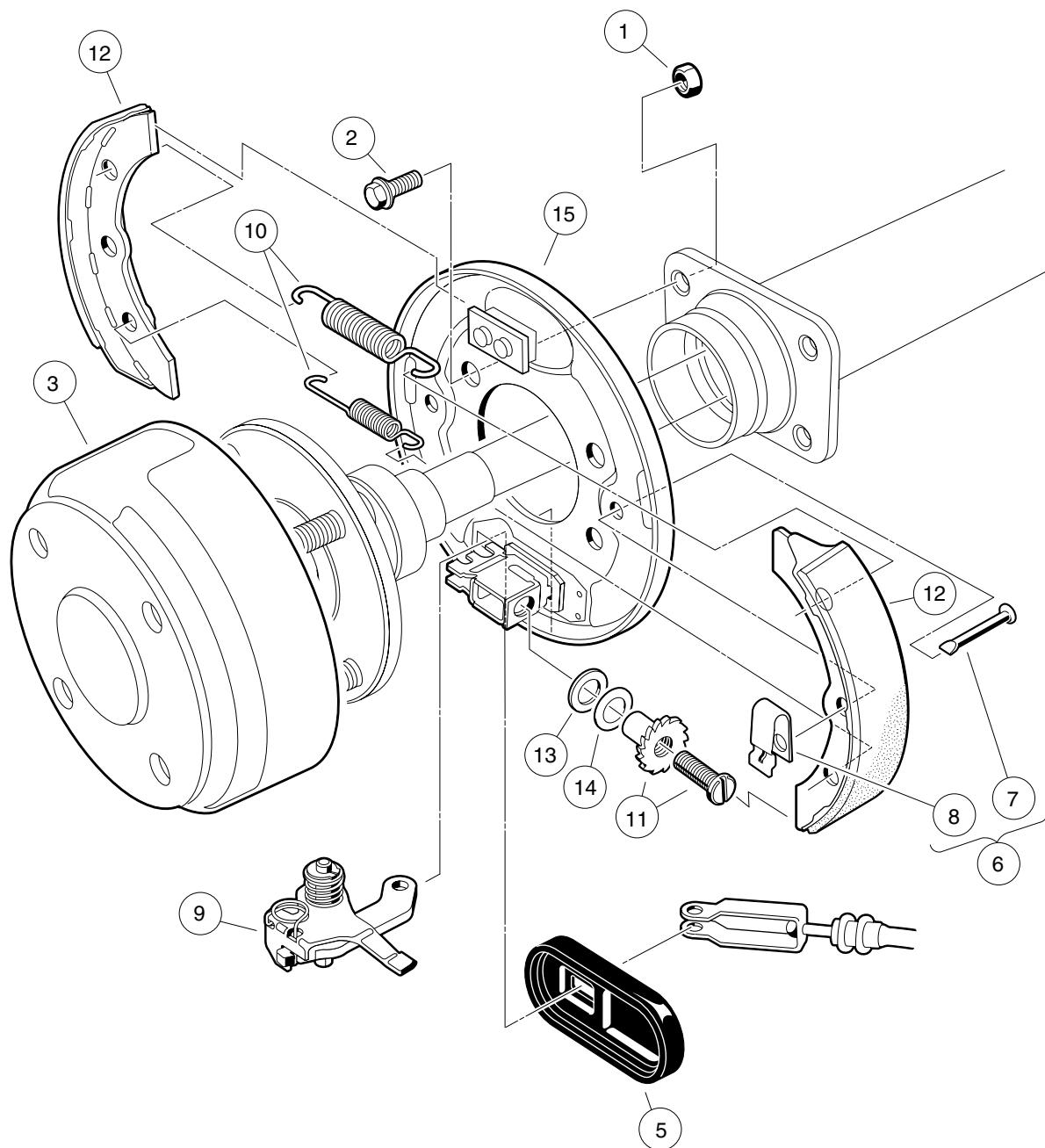
# **BRAKES, PEDAL, AND CABLE ASSEMBLIES**

---

**4**

**G**

**E**

**4****G****E**

000186-001

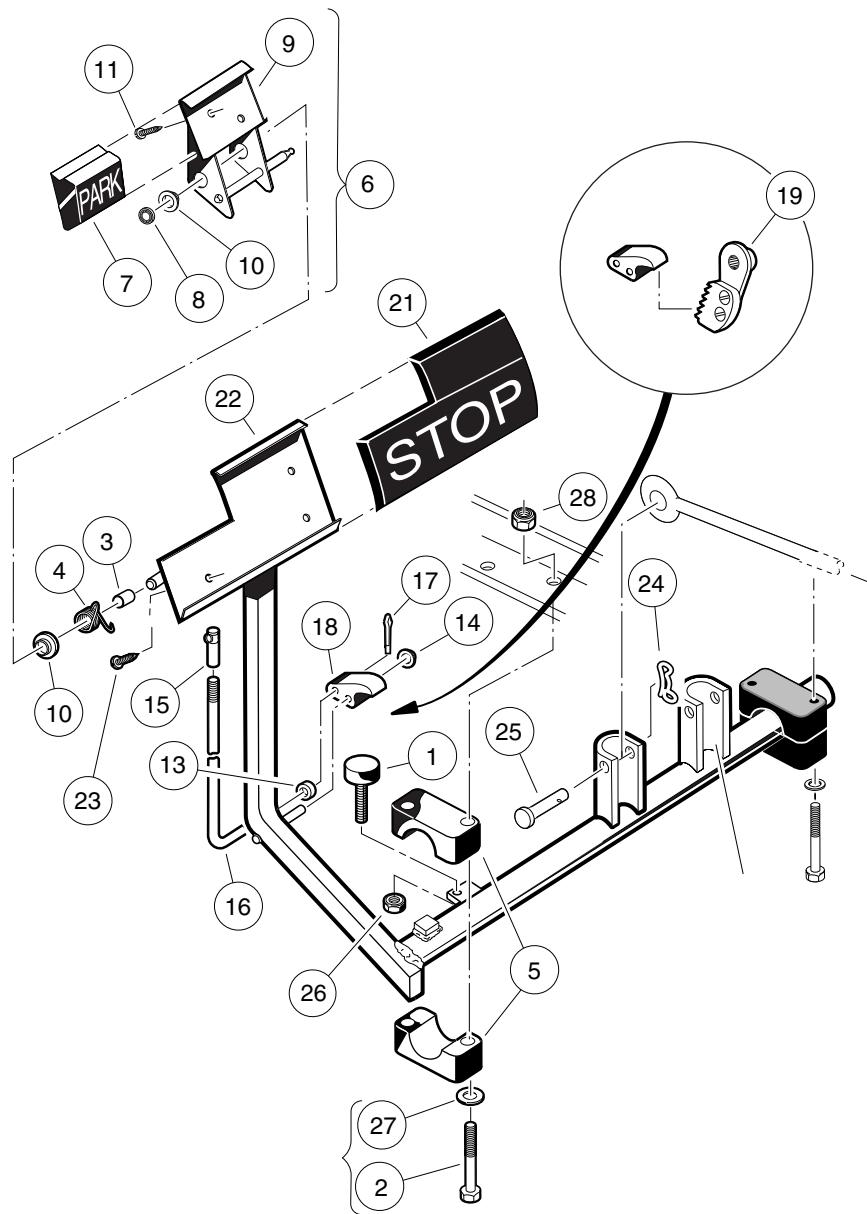
# REAR BRAKE ASSEMBLY, SELF-ADJUSTING

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	
1	1013924	Nut, 5/16-24 Hex Head Cone .....	8
2	1014153	Bolt, Brake Cluster Mounting .....	8
3	101791101	Drum without Center Hole, Brake .....	2
4	101823301	Cluster Assembly, Right (Passenger) Brake (includes items 5 through 15) .....	1
5	1010850	Dust Cover .....	1
6	1011466	Kit, Shoe Retainer (includes items 7 and 8) .....	1
7	N/A	Pin .....	2
8	N/A	Shoe Clamp Spring .....	2
9	101815501	Lever Assembly, Self-Adjusting Brake, Right (Passenger) .....	1
10	101816301	Package, Brake Spring, Self-Adjusting .....	1
11	101816501	Adj Mechanism, S.A. Brakes, Right (Passenger) .....	1
12	101823201	Package, Brake Shoe, Self-Adjusting .....	1
13	101823801	Plate, Washer, Brake, Self-Adjusting .....	1
14	101823901	Washer, Brake, Self-Adjusting .....	1
15	101824001	Plate Assembly, Right Brake Backing .....	1
16	101823302	Cluster Assembly, Left Brake (includes items 17 through 27) .....	1
17	1010850	Dust Cover .....	1
18	1011466	Kit, Shoe Retainer (includes items 19 and 20) .....	1
19	N/A	Pin .....	2
20	N/A	Shoe Clamp Spring .....	2
21	101815502	Lever Assembly, Self-Adjusting Brake, Left .....	1
22	101816301	Package, Brake Spring, Self-Adjusting .....	1
23	101816502	Adjusting Mechanism, Self-Adjusting Brake, Left .....	1
24	101823201	Package, Brake Shoe, Self-Adjusting .....	1
25	101823801	Plate, Washer, Brake, Self-Adjusting .....	1
26	101823901	Washer, Brake, Self-Adjusting .....	1
27	101824002	Plate Assembly, Left Brake Backing .....	1
		Note: Driver-side brake cluster not shown. Components have a similar appearance to passenger-side brake cluster components.	

4

G

E

**4****G****E**

000187-001

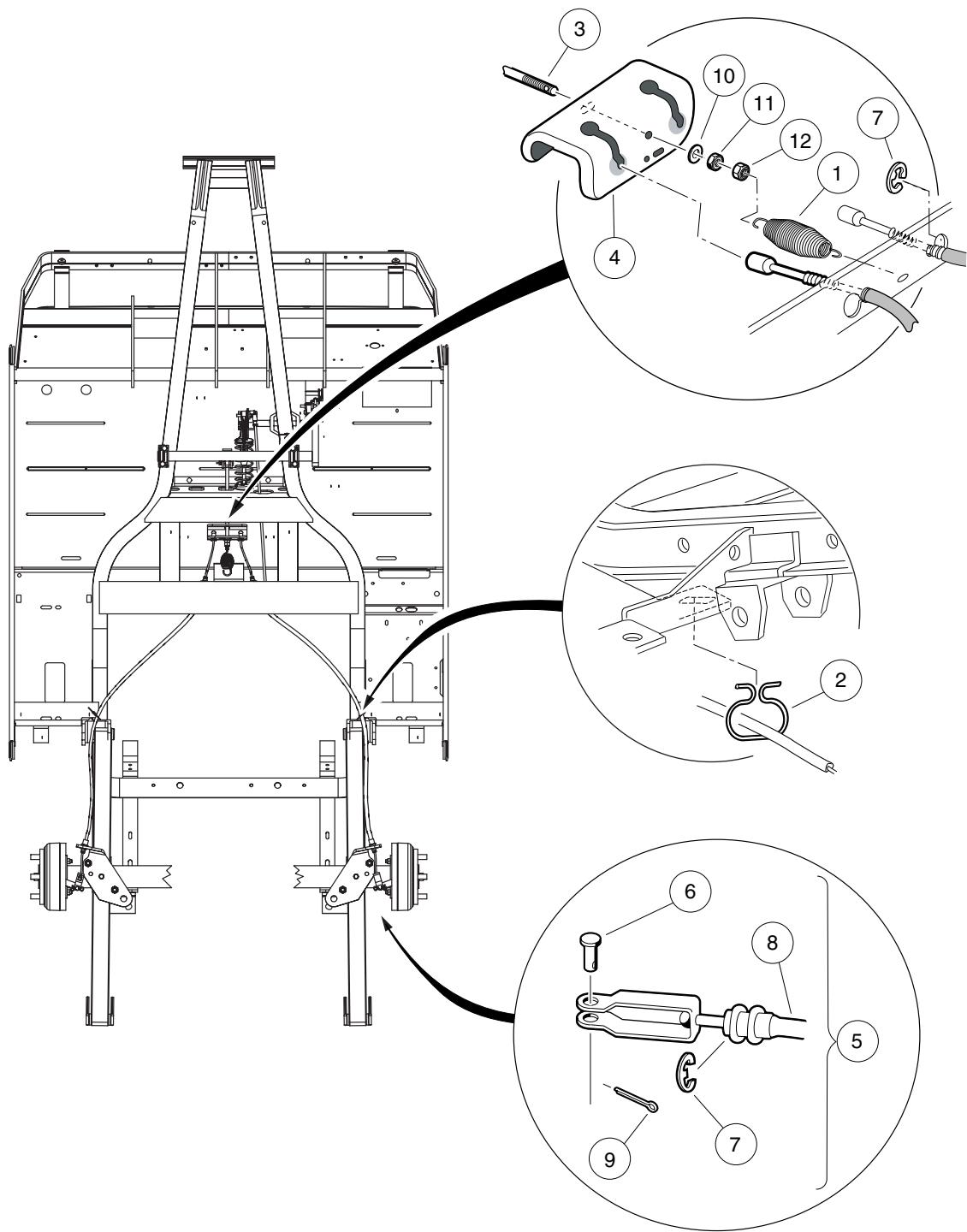
# BRAKE PEDAL ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	
1	1010878	Bumper, Rubber .....	1
2	1010921	Screw, 5/16-18 X 2.50 Hex Cap .....	4
3	1010927	Hill Brake Spacer .....	1
4	1010933	Spring, Hill Brake Torsion .....	1
5	1011402	Package, Brake Mounting Block .....	1
6	1011418	Kit, Hill Brake Pedal (includes items 7 through 11) .....	1
7	1013870	Pad, Hill Brake .....	1
8	1013876	Pushnut, 3/8 .....	1
9	N/A	Hill Brake Weld Assembly .....	1
10	1032	Bushing, Nylon .....	2
11	7716	Screw, #10-16 Type AB, Sheet Metal .....	2
12	101187702	Kit, Hill Brake Latch (includes items 13 through 19) .....	1
13	1010805	Sleeve, Hill Brake Rod .....	1
14	1010877	Pushnut, 3/8 .....	1
15	1010932	Ball Joint, 1/4-28 .....	1
16	N/A	Rod, Hill Brake .....	1
17	1017029	Pin, Cotter, 7/64 x 1/2 Stainless-Steel .....	1
18	N/A	Pawl, Hill Brake .....	1
19	N/A	Ratchet Assembly .....	1
20	101878201	Brake Pedal Kit (includes items 21 through 23) .....	1
21	1013869	Pad, Brake Pedal .....	1
22	N/A	Weldment, Brake Pedal 4wb Std .....	1
23	7716	Screw, #10-16 Type AB, Sheet Metal .....	3
24	102323101	Pin, Bow Tie Locking .....	1
25	102323201	Pin, 3/8 X 1-5/16 Clevis .....	1
26	1028	Nut, 1/4-20 Hex .....	1
27	1241	Washer, 5/16 Type A Flat .....	4
28	7473	Locknut, 5/16-18 Nylon Insert .....	4

4

G

E

**4****G****E**

000245-001

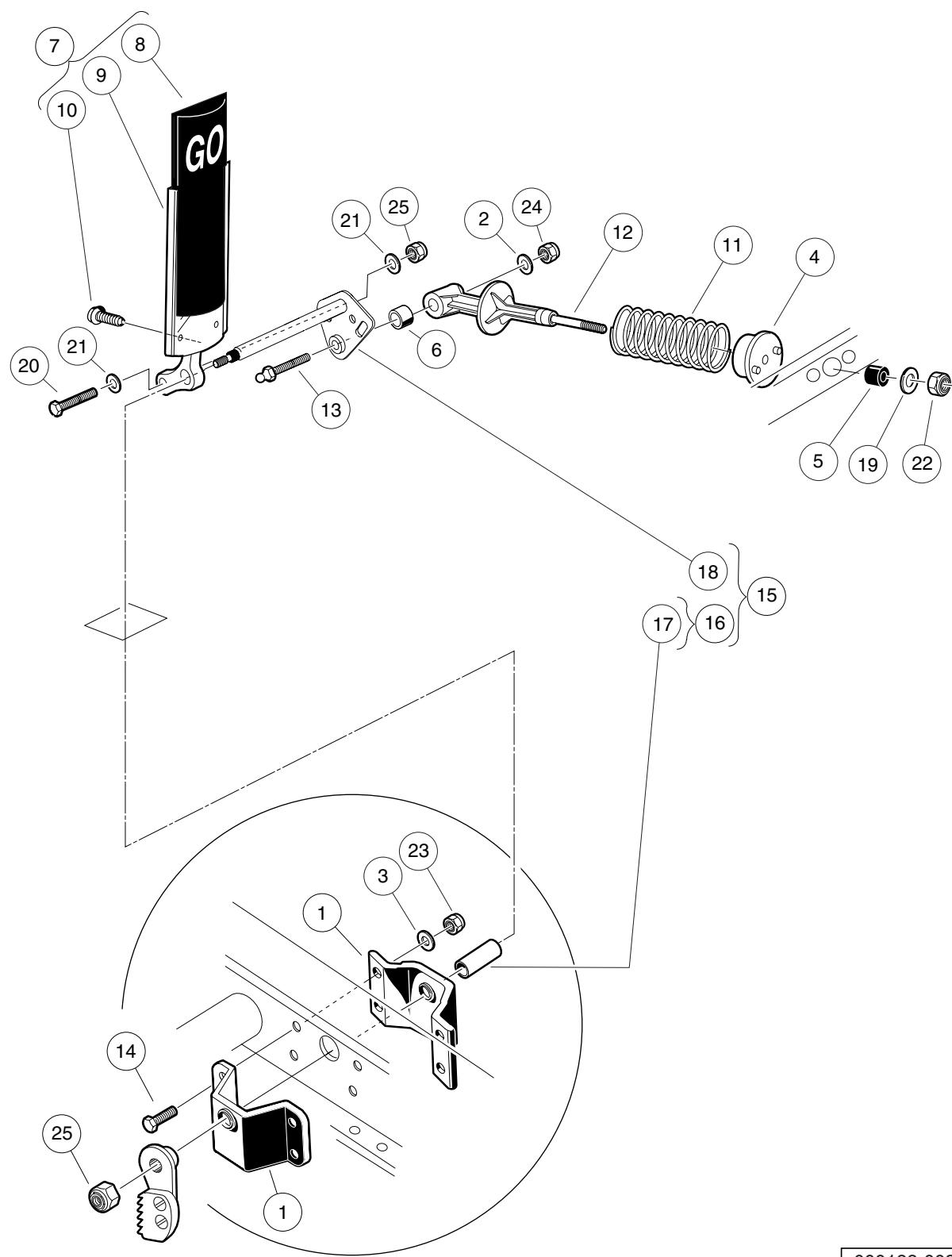
## BRAKE CABLE, EQUALIZER, AND EQUALIZER ROD

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	
1	1013531	Spring, Brake Return .....	1
2	101900801	Hanger, Brake Cable .....	2
3	101953101	Rod, Equalizer .....	1
4	101990801	Equalizer Bracket .....	1
5	102022101	Brake Cable Kit (includes items 6 through 9) .....	2
6	1010829	Pin, Clevis, 5/16 X 3/4 .....	1
7	1011779	E-Clip, 1/2 .....	2
8	N/A	Cable, Brake .....	1
9	1035	Cotter Pin, 3/32 x 1 .....	1
10	1241	Washer, 5/16 Type A Flat .....	5
11	1242	Nut, 5/16-18 Hex .....	1
12	7473	Locknut, 5/16-18 Nylon Insert .....	5

4

G

E

**4****G****E**

000188-003

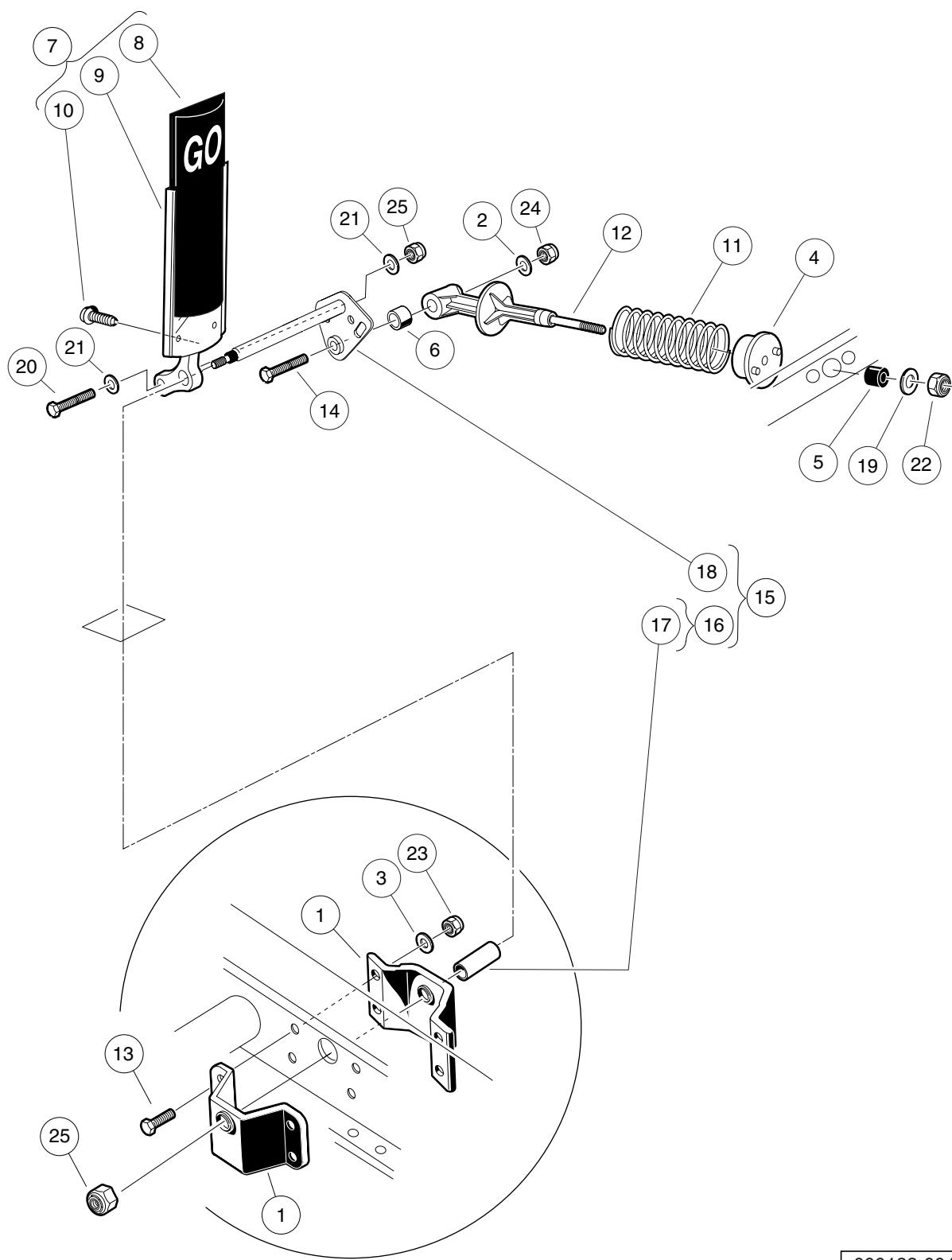
# ACCELERATOR PEDAL ASSEMBLY – GASOLINE VEHICLE

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	
1	1011694	Accelerator Bracket and Bearing Assembly .....	2
2	1011931	Washer, 1/4 Flat .....	1
3	1014007	Washer, 1/4 Flat .....	4
4	1017378	Cup, Spring .....	1
5	1017380	Bumper, Spring Return .....	1
6	1017424	Bearing, Pivot Support .....	1
7	1017696	Sub Asm, Accelerator Pedal (includes items 8 through 10) .....	1
8	1013871	Pad, Accelerator Pedal .....	1
9	N/A	Accelerator Pedal Weldment .....	1
10	7716	Screw, #10-16 Type AB, Sheet Metal .....	4
11	101796201	Spring, Accelerator Return .....	1
12	101817401	Retainer, Spring .....	1
13	101818801	Stud, 1/4-28 X 1.35 Ball .....	1
14	101861901	Screw, 1/4-20 X 1.125 Hex Cap .....	4
15	102026001	Kit, Accelerator Pivot Rod Assembly (includes items 16 through 18) .....	1
16	1011700	Spacer Assembly (includes item 17) .....	1
17	N/A	Spacer, Accelerator .....	1
18	N/A	Pivot Rod Weldment .....	1
19	1241	Washer, 5/16 Type A Flat .....	1
20	1624	Screw, 3/8-16 X 1.50 Hex-Head Cap .....	1
21	334	Washer, 3/8 Type A Flat .....	2
22	7473	Locknut, 5/16-18 Nylon Insert .....	1
23	8233	Locknut, 1/4-20 Nylon Insert .....	4
24	8717	Locknut, 1/4-28 Nylon Insert .....	1
25	8754	Locknut, 3/8-16 Hex .....	2

4

G

E

**4****G****E**

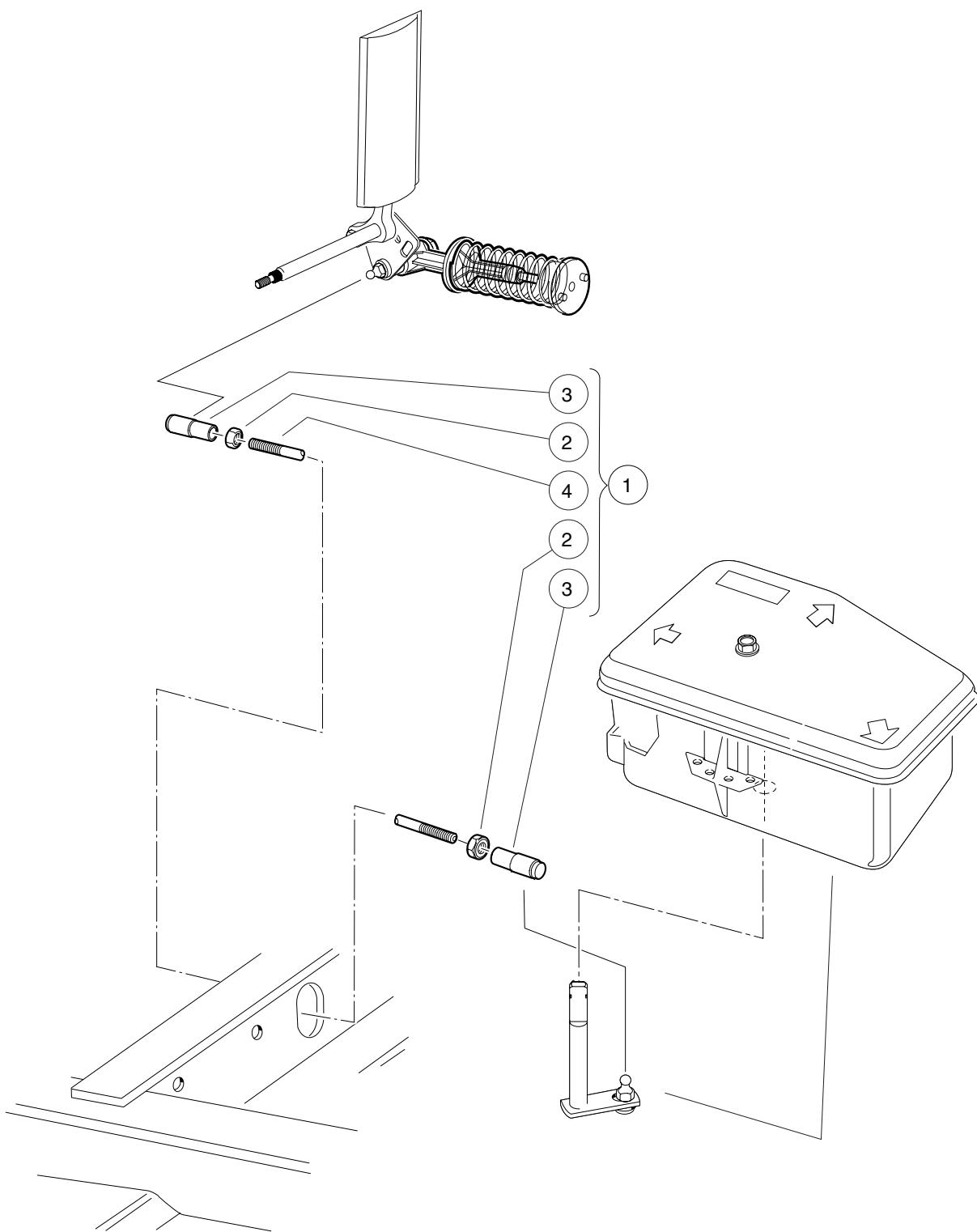
# ACCELERATOR PEDAL ASSEMBLY – ELECTRIC VEHICLES

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	
1	1011694	Accelerator Bracket and Bearing Assembly .....	2
2	1011931	Washer, 1/4 Flat .....	1
3	1014007	Washer, 1/4 Flat .....	4
4	1017378	Cup, Spring .....	1
5	1017380	Bumper, Spring Return .....	1
6	1017424	Bearing, Pivot Support .....	1
7	1017696	Sub Asm, Accelerator Pedal (includes items 8 through 10) .....	1
8	1013871	Pad, Accelerator Pedal .....	1
9	N/A	Accelerator Pedal Weldment .....	1
10	7716	Screw, #10-16 Type AB, Sheet Metal .....	4
11	101796201	Spring, Accelerator Return .....	1
12	101817401	Retainer, Spring .....	1
13	101861901	Screw, 1/4-20 X 1.125 Hex Cap .....	4
14	101862001	Screw, 1/4-20 X 1.500 Flange .....	1
15	102026001	Kit, Accelerator Pivot Rod Assembly (includes items 16 through 18) .....	1
16	1011700	Spacer Assembly (includes item 17) .....	1
17	N/A	Spacer, Accelerator .....	1
18	N/A	Pivot Rod Weldment .....	1
19	1241	Washer, 5/16 Type A Flat .....	1
20	1624	Screw, 3/8-16 X 1.50 Hex-Head Cap .....	1
21	334	Washer, 3/8 Type A Flat .....	2
22	7473	Locknut, 5/16-18 Nylon Insert .....	1
23	8233	Locknut, 1/4-20 Nylon Insert .....	4
24	8717	Locknut, 1/4-28 Nylon Insert .....	1
25	8754	Locknut, 3/8-16 Hex .....	2

4

G

E

**4****G****E**

000362-001

# ACCELERATOR ROD

ITEM	PART NO.	DESCRIPTION	QTY	
		1 2 3 4		4
1	101912401	Rod, Accelerator (includes items 2 through 4) .....	1	G
2	1011084	Nut, 1/4-28 Hex Jam .....	2	
3	1011734	Joint, Ball .....	2	E
4	N/A	Accelerator Rod .....	1	

**4**

**G**

**E**

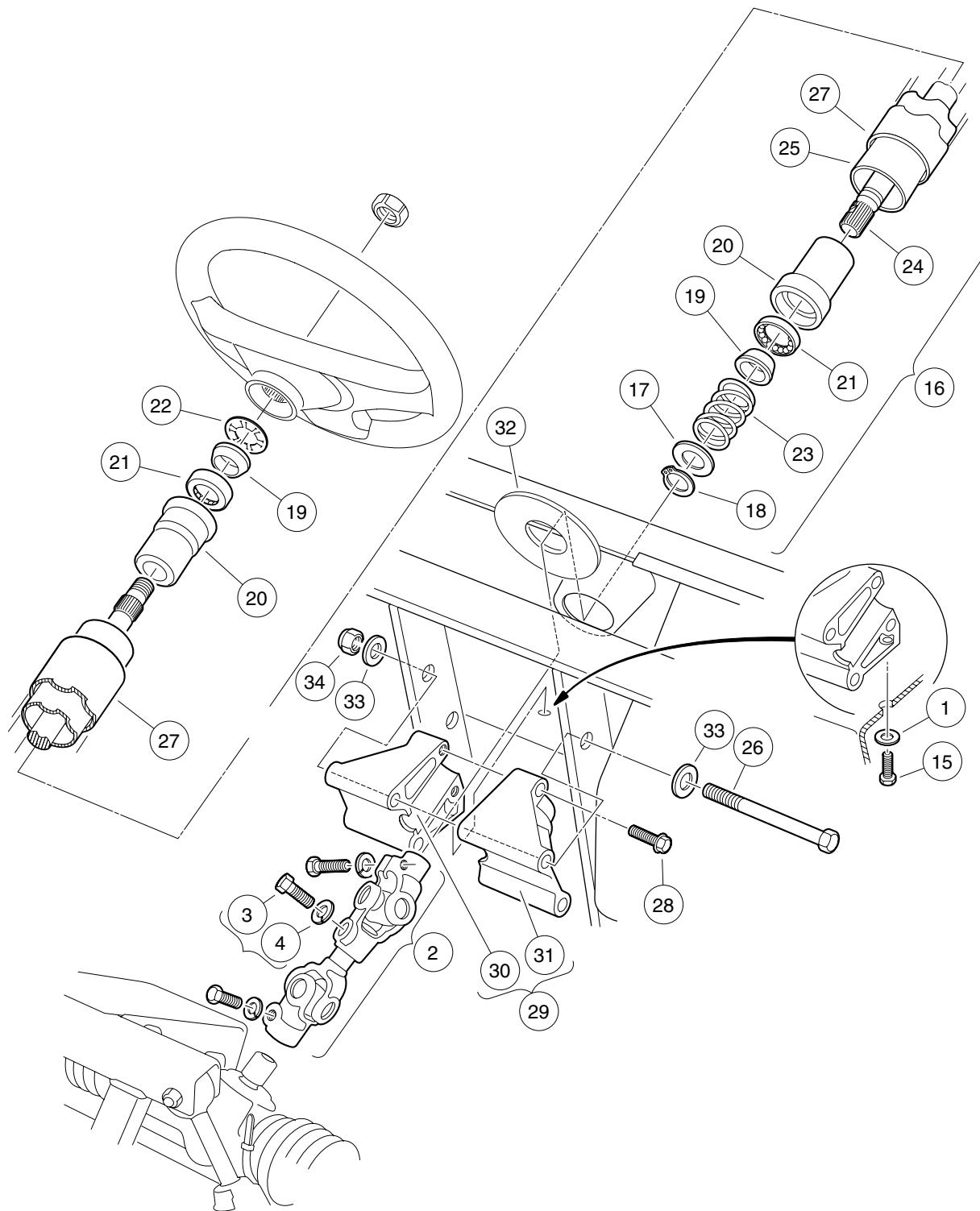
# **STEERING, FRONT AND REAR SUSPENSION**

---

**5**

**G**

**E**

**5****G****E**

000247-002

# STEERING COLUMN

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	5
1	1011697	Washer, 5/16 Flat .....	1
2	1013861	Intermediate Steering Shaft (includes items 3 and 4) .....	1
3	1017226	Bolt, Hex-Head, 8mm X 1.25 - 30 .....	3
4	7174	Lockwasher, 5/16 Split .....	3
5	1014216	Steering Column Rebuild Kit (includes items 6 through 14) .....	1
6	1012466	Dust Cover .....	1
7	1012605	Ring, 0.579 Internal Retaining .....	1
8	1014125	Wedge, Molded .....	2
9	1014126	Seat, Plastic Bearing .....	2
10	1014211	Seal, Bearing .....	1
11	1014212	Spacer, Shaft .....	1
12	1014213	Bearing, Ball .....	2
13	1014214	Ring, Retaining .....	1
14	1014217	Spring, Steering Shaft .....	1
15	1014288	Screw, 5/16-18 X 0.75 Thread-Forming .....	1
16	1016181	Steering Shaft Assembly (includes items 17 through 25) .....	1
17	1012604	Washer, 0.675 ID X 1.19 OD .....	1
18	1012605	Ring, 0.579 Internal Retaining .....	1
19	1014125	Wedge, Molded .....	2
20	1014126	Seat, Plastic Bearing .....	2
21	1014213	Bearing, Ball .....	2
22	1014214	Ring, Retaining .....	1
23	1014217	Spring, Steering Shaft .....	1
24	1015545	Shaft, Steering Column .....	1
25	1016622	Column, Aluminum Steering .....	1
26	1016183	Screw, 3/8-16 X 7.00 Hex Cap .....	2
27	1016263	Cover, Steering Column Tube .....	1
28	1016269	Screw, 5/16-18 Thrd Forming .....	2
29	101984801	Kit, Steering Column Mounting Bracket (includes items 30 and 31) .....	1
30	N/A	Bracket, RH Steering Column Mount .....	1
31	N/A	Bracket, LH Steering column mount .....	1
32	102278001	Boot, Steering Column Round .....	1
33	334	Washer, 3/8 Type A Flat .....	4
34	8754	Locknut, 3/8-16 Hex .....	2

Note: Item 5 is not illustrated.

5

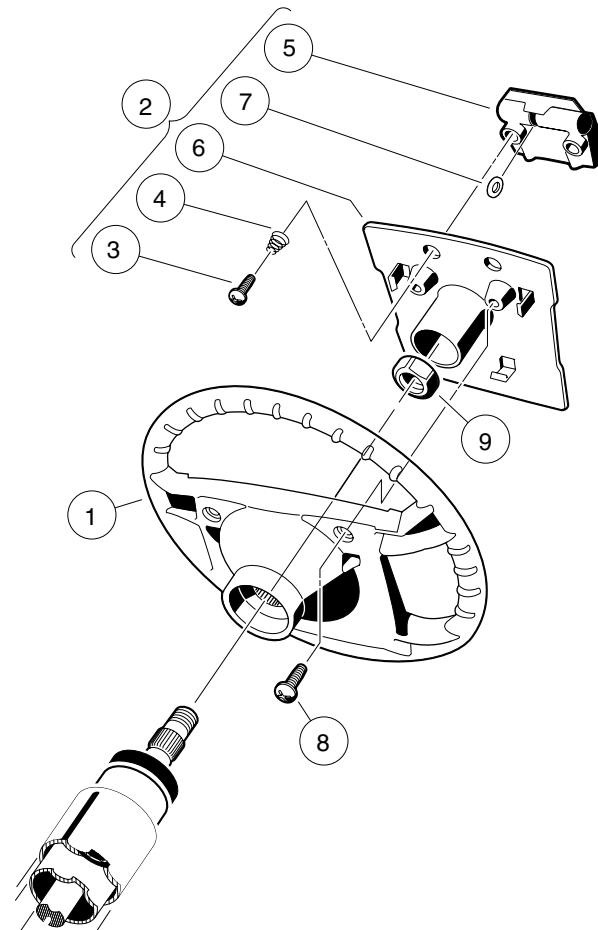
G

E

**5**

**G**

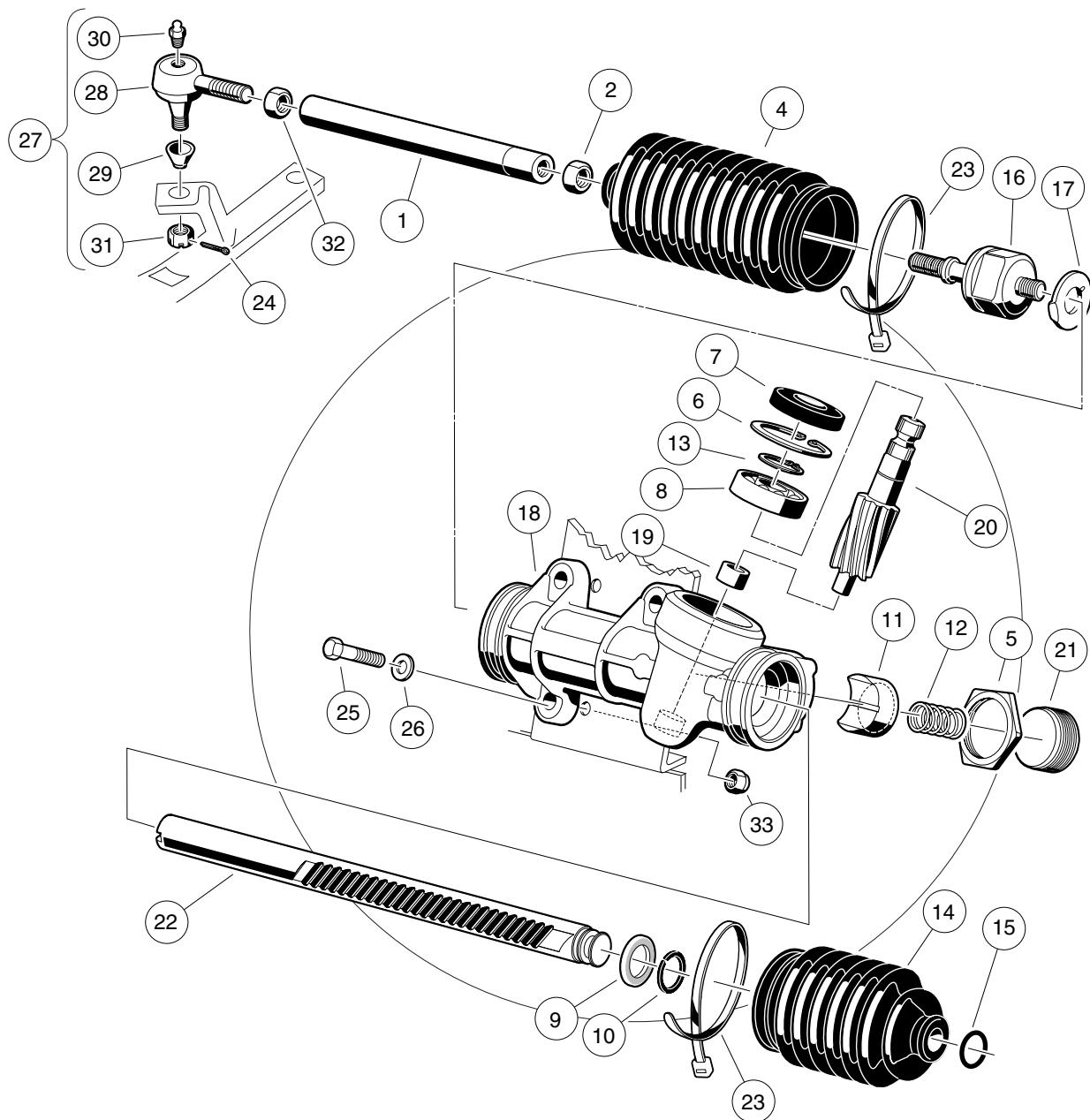
**E**



000246-002

# STEERING WHEEL

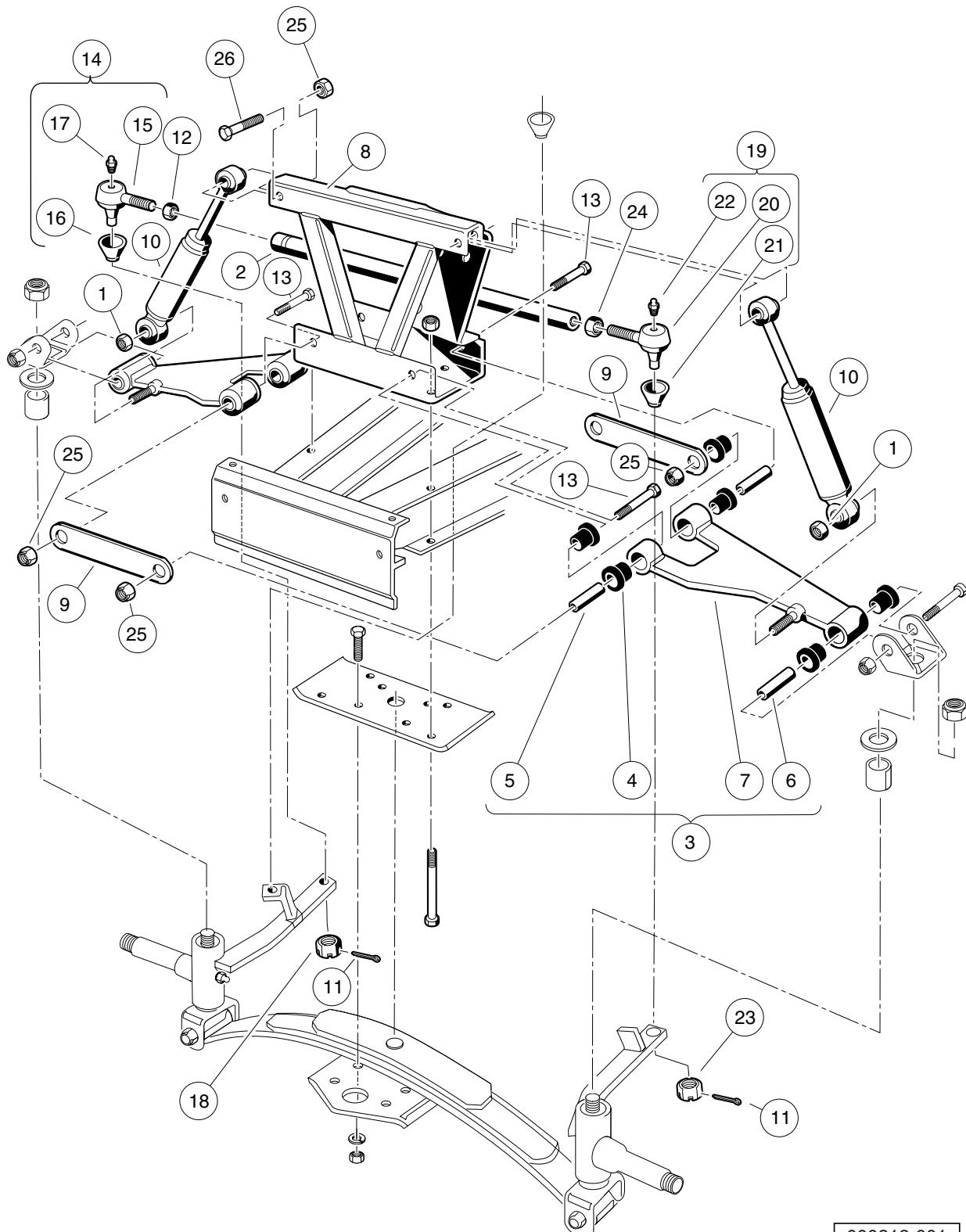
ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	5
1	1016156	Wheel, Steering .....	1
2	1016219	Plate, Scorecard (includes items 3 through 7) .....	1
3	1012565	Screw, #12 Phillips Round Head .....	2
4	1012566	Tapered Compression Spring .....	2
5	1016154	Clip, Scorecard .....	1
6	N/A	Plate, Score Card .....	1
7	1016214	Pencil Grip .....	1
8	1016663	Screw, #12-14 X 0.625 .....	2
9	1017273	Nut, 5/8-18 Nylon Insert Jam .....	1

**5****G****E**

000189-001

# STEERING GEAR ASSEMBLY

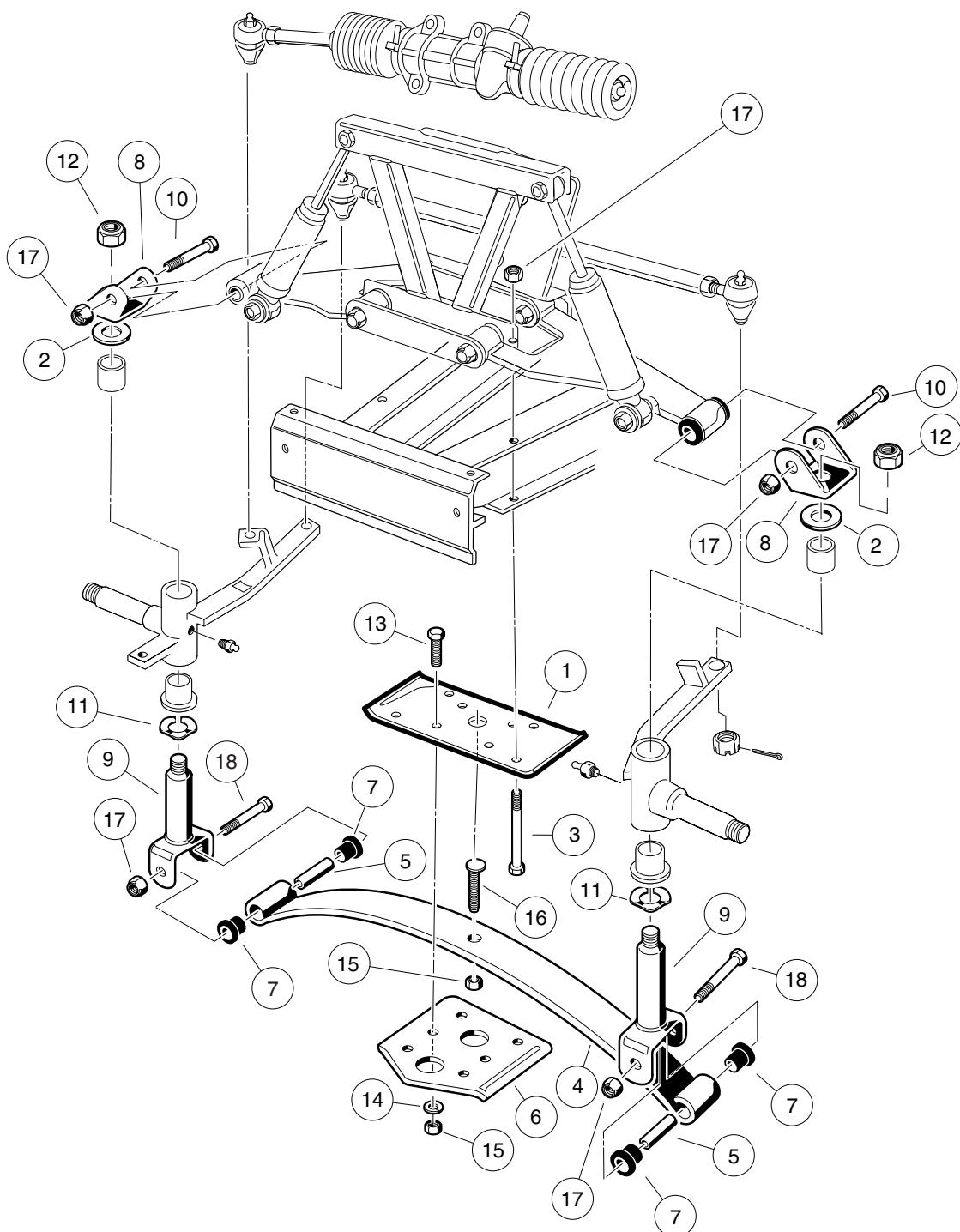
ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	5
1	1012467	Link, Rack and Pinion Drag .....	1
2	1013042	Nut, 12mm Hex .....	1
3	101878302	Steering Gear Assembly (without yoke) (includes items 4 through 23) .....	1
4	1013035	Bellows, Long .....	1
5	1013044	Rack Screw Locknut .....	1
6	1013051	Snap Ring .....	1
7	1013052	Seal, Steering Pinion Dust .....	1
8	101879401	Bearing, Ball .....	1
9	101879501	Stop Washer .....	1
10	101879601	Stop Ring, C-Type .....	1
11	101879701	Support Yoke .....	1
12	101879801	Rack Guide Pressure Spring .....	1
13	101879901	Ring, Stop, C-Type .....	1
14	101880001	Bellows, Short .....	1
15	101880101	Dust Seal Retaining Ring .....	1
16	101880201	Inner Ball Joint Asm .....	1
17	101880301	Washer, Tab .....	1
18	N/A	Box, Steering Gear .....	1
19	N/A	Bearing, Lower Pinion .....	1
20	N/A	Pinion, Steering .....	1
21	N/A	Screw, Rack Guide .....	1
22	N/A	Rack, Steering .....	1
23	8990	Tie Wrap, 8" Nylon .....	2
24	1035	Cotter Pin, 3/32 x 1 .....	1
25	1624	Screw, 3/8-16 X 1.50 Hex-Head Cap .....	3
26	334	Washer, 3/8 Type A Flat .....	3
27	7540	Ball Joint, Left (includes items 28 through 31) .....	1
28	N/A	Socket, LH Vertical .....	1
29	1011930	Seal, Vertical Socket Dust .....	1
30	1015597	Fitting, 1/4-28 Thread-Forming Grease .....	1
31	7602	Nut, 3/8-24 UNF Hex .....	1
32	7555	Nut, 1/2-20 Hex, Left-Hand Thread .....	1
33	8754	Locknut, 3/8-16 Hex .....	3

**5****G****E**

000312-001

# FRONT SUSPENSION, UPPER

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	5
1	1010138	Locknut, 3/8-16 Dimpled .....	2
2	1010219	Tie Rod .....	1
3	1016353	Sub-Assembly, Delta A-Plate (includes items 4 through 7) .....	2
4	1016346	Bushing, Urethane .....	6
5	1016349	Sleeve, Delta Inner .....	2
6	1016350	Sleeve, Delta Outer .....	1
7	N/A	Delta A-Plate .....	1
8	1016385	Delta Shock and Gear Support Assembly .....	1
9	1017266	A-Plate Strap .....	2
10	103351001	Shock Absorber, Front, Common .....	2
11	1035	Cotter Pin, 3/32 x 1 .....	2
12	1308	Nut, 1/2-20 Hex .....	1
13	2402	Screw, 3/8-16 X 2.25 Hx Hd Cap .....	4
14	7539	Ball Joint, Right-Hand (includes items 15 through 18) .....	1
15	N/A	Socket, RH Vertical .....	1
16	1011930	Seal, Vertical Socket Dust .....	1
17	1015597	Fitting, 1/4-28 Thread-Forming Grease .....	1
18	7602	Nut, 3/8-24 UNF Hex .....	1
19	7540	Ball Joint, Left (includes items 20 through 23) .....	1
20	N/A	Socket, LH Vertical .....	1
21	1011930	Seal, Vertical Socket Dust .....	1
22	1015597	Fitting, 1/4-28 Thread-Forming Grease .....	1
23	7602	Nut, 3/8-24 UNF Hex .....	1
24	7555	Nut, 1/2-20 Hex, Left-Hand Thread .....	1
25	8754	Locknut, 3/8-16 Hex .....	6
26	8861	Bolt, 3/8-16 X 1.75 Hex .....	2

**5****G****E**

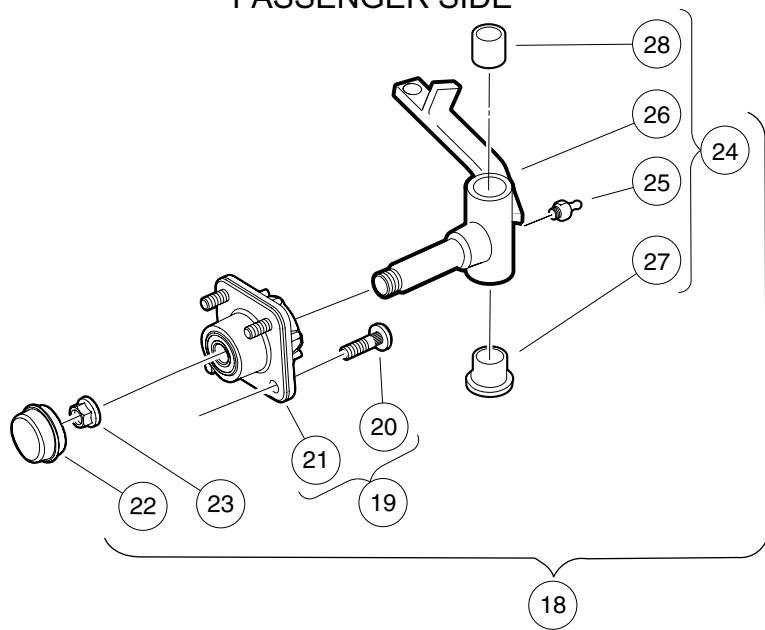
000311-001

# FRONT SUSPENSION, LOWER

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	5
1	1010124	Plate, Spring Mount .....	1
2	1010150	Bearing, Thrust .....	2
3	1010200	Bolt, 3/8-16 X 4.25 Hex Head .....	4
4	1012030	Spring, Front Leaf .....	1
5	1012303	Bushing, Steel .....	2
6	1014276	Plate, Front Spring Retainer .....	1
7	1015583	Bushing, Urethane .....	4
8	1016384	Clevis, Delta Upper .....	2
9	1016386	King Pin Assembly .....	2
10	1016387	Screw, 3/8-16 X 2.75 Hx Hd Cap .....	2
11	1016389	Washer, 1.125 Od Wave .....	2
12	101903101	Locknut, 1/2-20 Nylon Insert .....	2
13	1624	Screw, 3/8-16 X 1.50 Hex-Head Cap .....	4
14	357	Washer, Lock, Hel Sp 3/8 Reg .....	4
15	706	Nut, Hex 3/8-16 .....	5
16	8745	Screw, Eccentric Adjustment .....	1
17	8754	Locknut, 3/8-16 Hex .....	8
18	8755	Screw, 3/8-16 X 3.375 Hex Cap .....	2

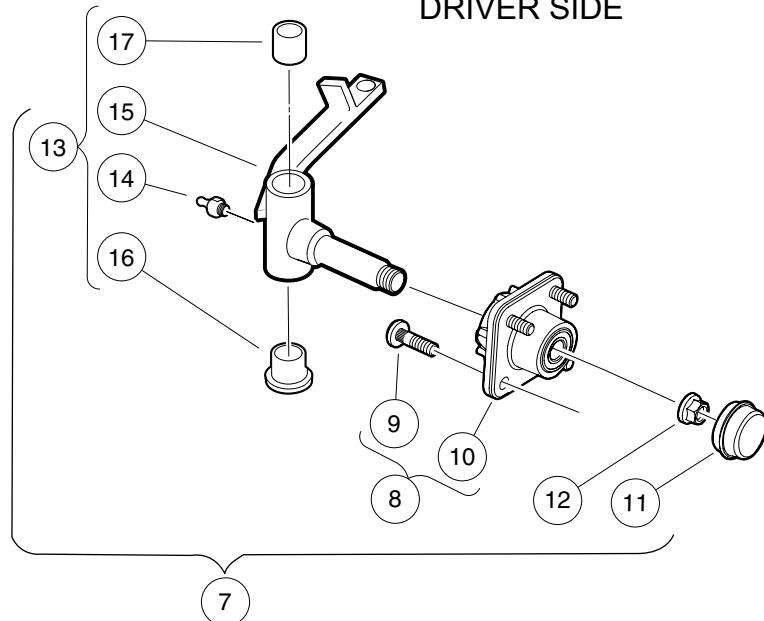
**5****G****E**

## PASSENGER SIDE

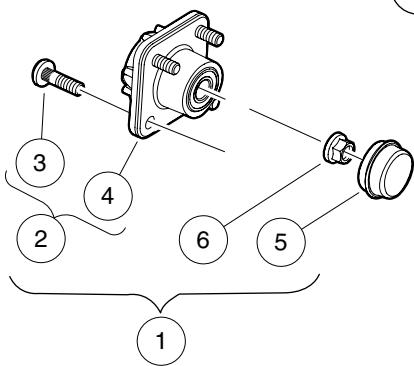


18

## DRIVER SIDE



7

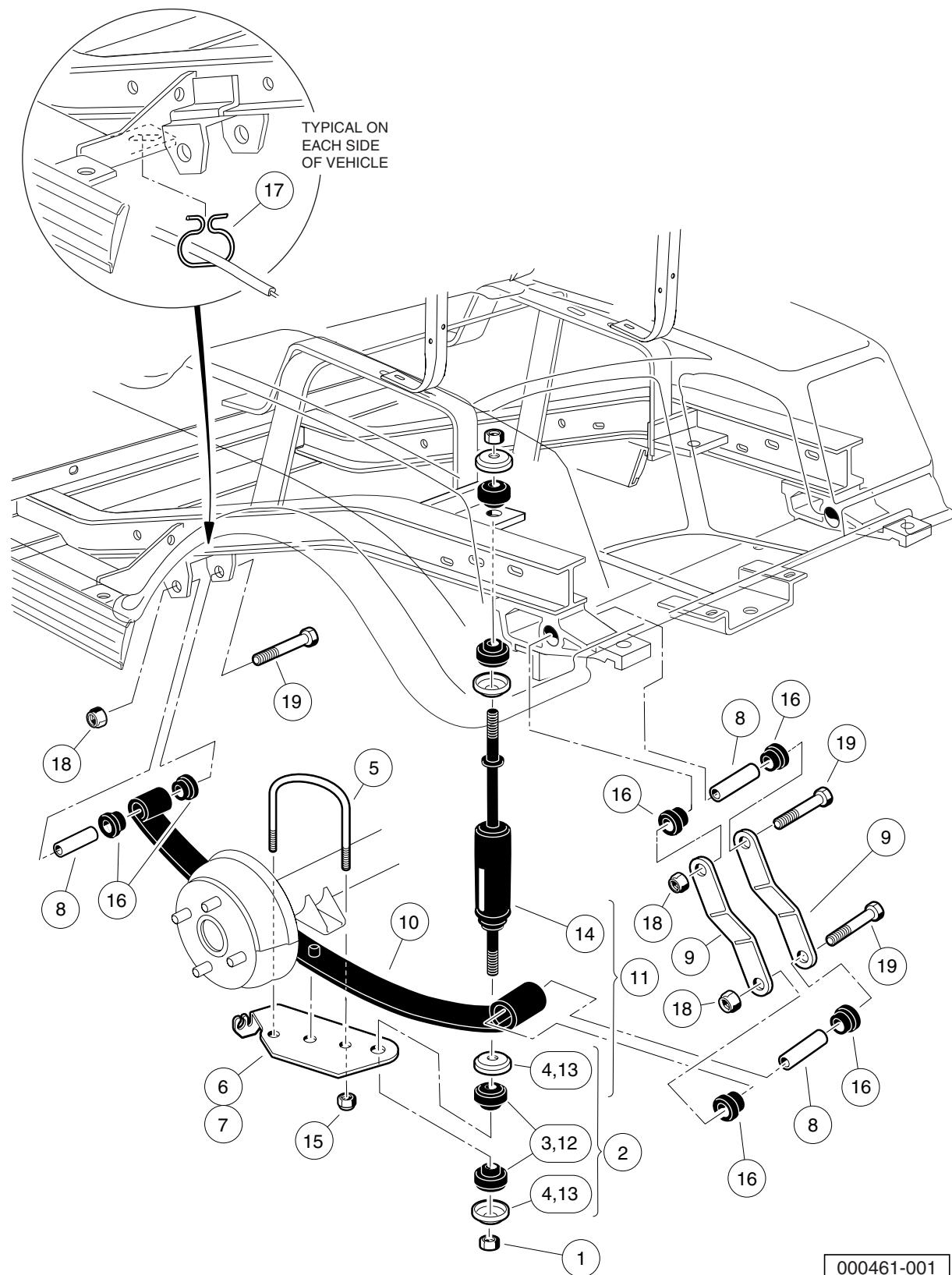
REPLACEMENT HUB  
FOR DRIVER OR  
PASSENGER SIDE

1

000301-002

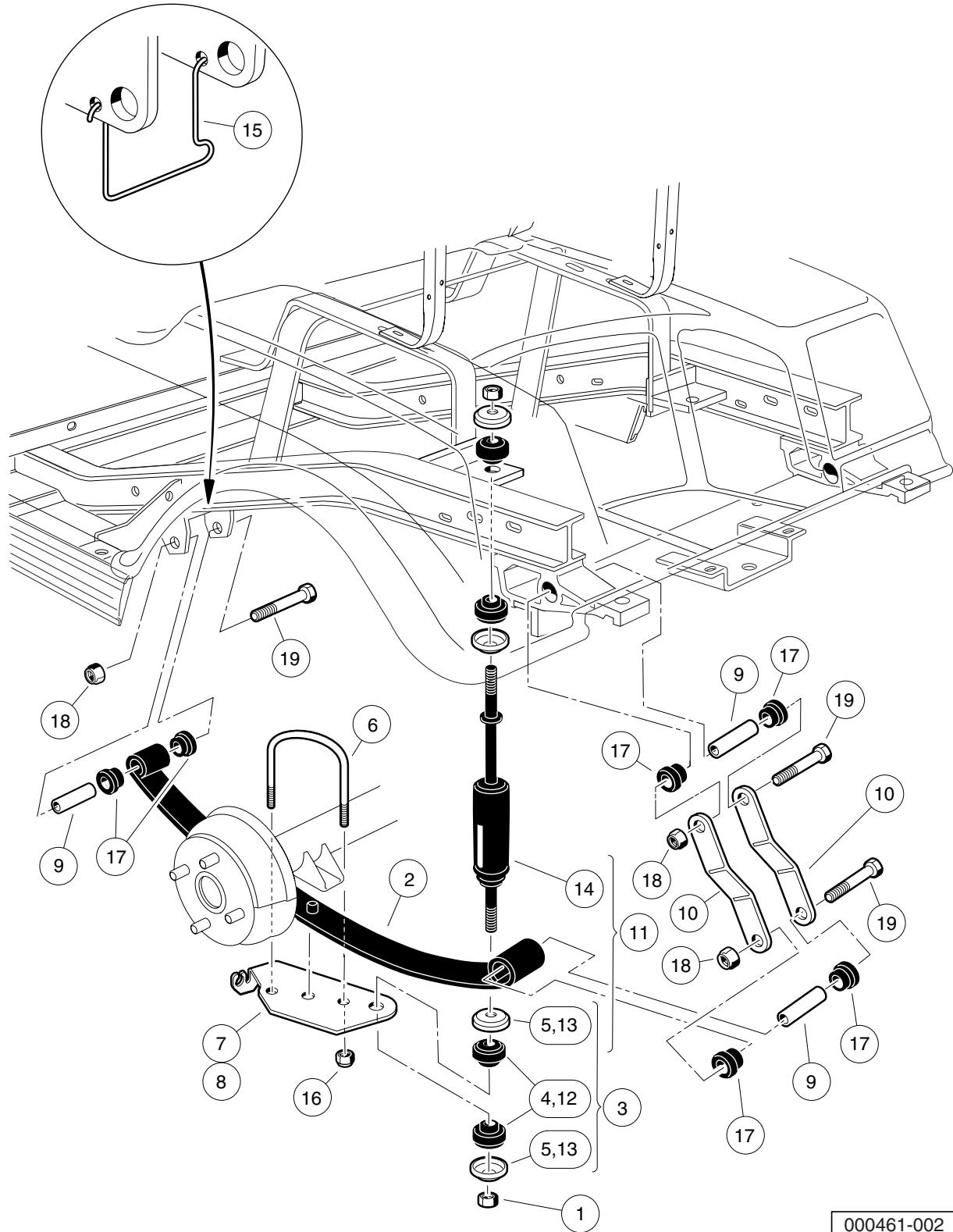
# FRONT SPINDLES AND HUBS

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	5
1	102357701	Replacement Kit, Front Hub (includes items 2 through 6) .....	2
2	N/A	Front Hub Assembly, Ball Bearing (includes items 3 and 4) .....	1
3	102353401	Lug Stud, 1/2-20 UNF, 4037 Stl .....	4
4	N/A	Hub, Front .....	1
5	102353201	Cap, Front Hub .....	1
6	102353301	Hex Nut, Locking Flange, M14x2 .....	1
7	N/A	Asm, Front Hub And Spindle, Left-Hand (includes items 8 through 13) .....	1
8	N/A	Front Hub Assembly, Ball Bearing (includes items 9 and 10) .....	1
9	102353401	Lug Stud, 1/2-20 UNF, 4037 Stl .....	4
10	N/A	Hub, Front .....	1
11	102353201	Cap, Front Hub .....	1
12	102353301	Hex Nut, Locking Flange, M14x2 .....	1
13	102354203	Assembly, Spindle, Left-Hand (includes items 14 through 17) .....	1
14	1015597	Fitting, 1/4-28 Thread-Forming Grease .....	1
15	N/A	Sub-Assembly, Spindle, Left-Hand .....	1
16	7048	Bushing, Flanged Bronze .....	1
17	8067	Bushing, Bronze Spindle .....	1
18	N/A	Asm, Front Hub And Spindle, Right-Hand (includes items 19 through 24) .....	1
19	N/A	Front Hub Assembly, Ball Bearing (includes items 20 and 21) .....	1
20	102353401	Lug Stud, 1/2-20 UNF, 4037 Stl .....	4
21	N/A	Hub, Front .....	1
22	102353201	Cap, Front Hub .....	1
23	102353301	Hex Nut, Locking Flange, M14x2 .....	1
24	102354103	Assembly, Spindle, Right-Hand (includes items 25 through 28) .....	1
25	1015597	Fitting, 1/4-28 Thread-Forming Grease .....	1
26	N/A	Sub-Assembly, Spindle, Right-Hand .....	1
27	7048	Bushing, Flanged Bronze .....	1
28	8067	Bushing, Bronze Spindle .....	1

**5****G****E**

## REAR SUSPENSION – GASOLINE VEHICLE

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	5
1	1010145	Nut, 3/8-24 Hex .....	4
2	1011415	Kit, Shock Absorber Cushion (includes items 3 and 4) .....	4
3	N/A	Cushion, Shock Absorber .....	2
4	N/A	Retainer, Shock Absorber Cushion .....	2
5	1012180	U-Bolt .....	2
6	1012181	Bracket, Shock Mounting, Right (Passenger) .....	1
7	1012182	Bracket, Shock Mounting, Left (Driver) .....	1
8	1012303	Bushing, Steel .....	6
9	1012304	Shackle, Rear Spring .....	4
10	1012324	Spring, Rear Leaf (gasoline vehicle) .....	2
11	1013164	Shock Absorber Kit (includes items 12 through 14) .....	1
12	N/A	Cushion, Shock Absorber .....	8
13	N/A	Retainer, Shock Absorber Cushion .....	8
14	102588501	Shock Absorber Rear Prv Spd .....	2
15	1014555	Locknut, 7/16-14 Nylon Insert .....	4
16	1015583	Bushing, Urethane .....	12
17	101900801	Hanger, Brake Cable .....	2
18	8754	Locknut, 3/8-16 Hex .....	6
19	8755	Screw, 3/8-16 X 3.375 Hex Cap .....	6

**5****G****E**

000461-002

# REAR SUSPENSION – ELECTRIC VEHICLE

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	5
1	1010145	Nut, 3/8-24 Hex .....	4
2	1010974	Spring, Rear Leaf (Electric Vehicle) .....	2
3	1011415	Kit, Shock Absorber Cushion (includes items 4 and 5) .....	4
4	N/A	Cushion, Shock Absorber .....	2
5	N/A	Retainer, Shock Absorber Cushion .....	2
6	1012180	U-Bolt .....	2
7	1012181	Bracket, Shock Mounting, Right (Passenger) .....	1
8	1012182	Bracket, Shock Mounting, Left (Driver) .....	1
9	1012303	Bushing, Steel .....	6
10	1012304	Shackle, Rear Spring .....	4
11	1013164	Shock Absorber Kit (includes items 12 through 14) .....	1
12	N/A	Cushion, Shock Absorber .....	8
13	N/A	Retainer, Shock Absorber Cushion .....	8
14	102588501	Shock Absorber Rear Prv Spd .....	2
15	1013207	Hanger, Brake Cable .....	2
16	1014555	Locknut, 7/16-14 Nylon Insert .....	4
17	1015583	Bushing, Urethane .....	12
18	8754	Locknut, 3/8-16 Hex .....	6
19	8755	Screw, 3/8-16 X 3.375 Hex Cap .....	6

**5**

**G**

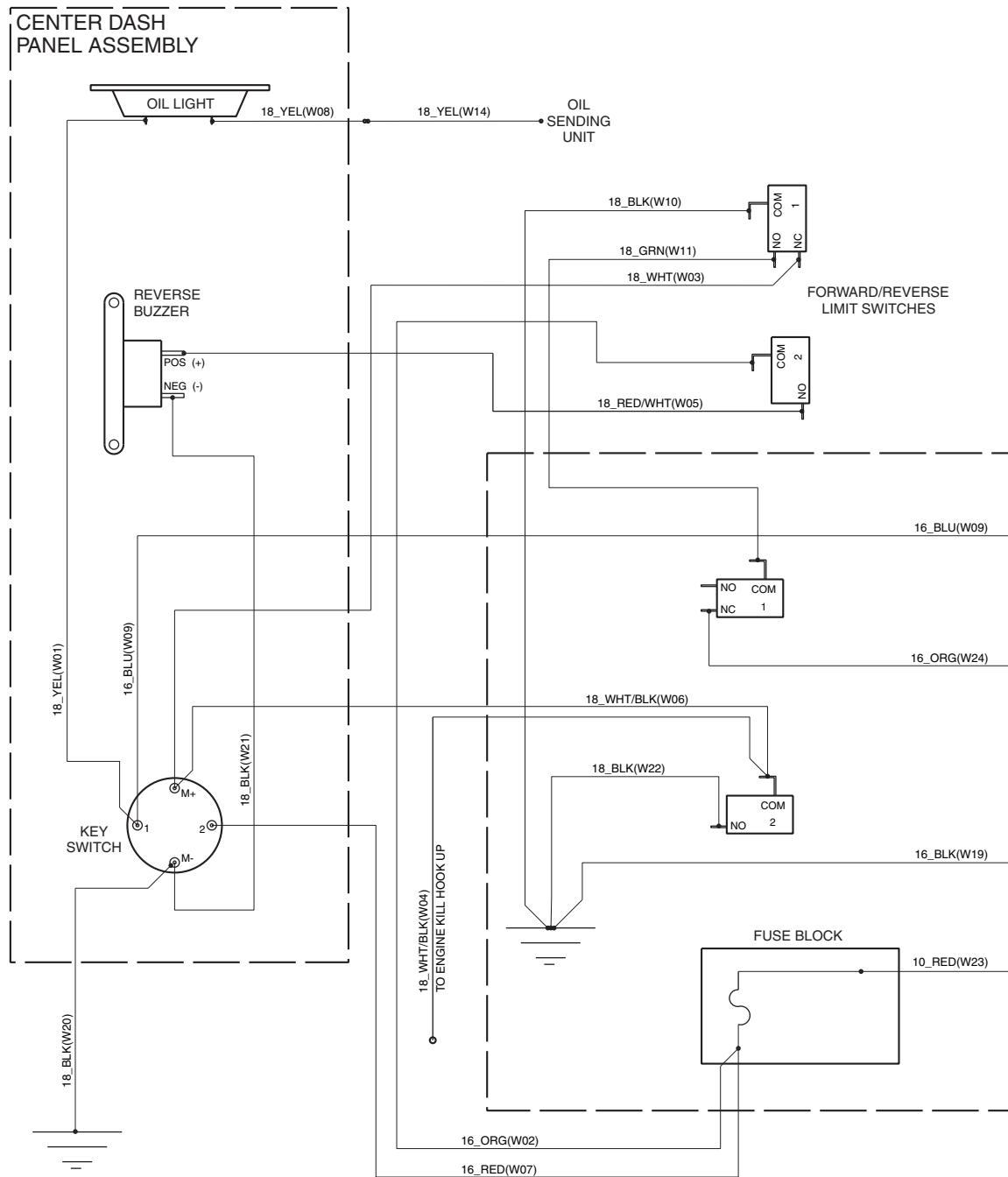
**E**

# **ELECTRICAL SYSTEM – GASOLINE VEHICLE**

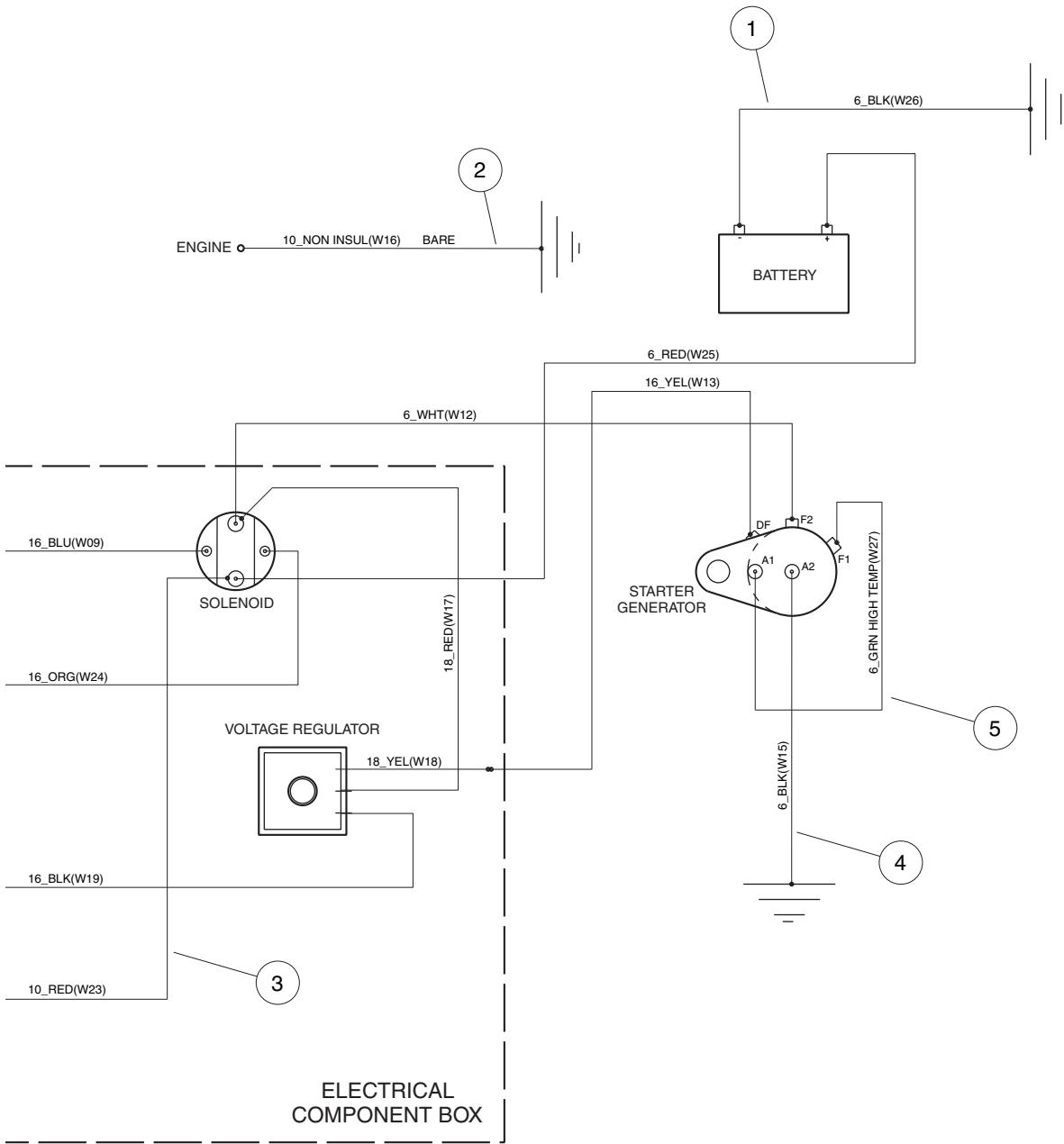
---

**6**

**G**



000468-001



000468-001

**6**

**G**

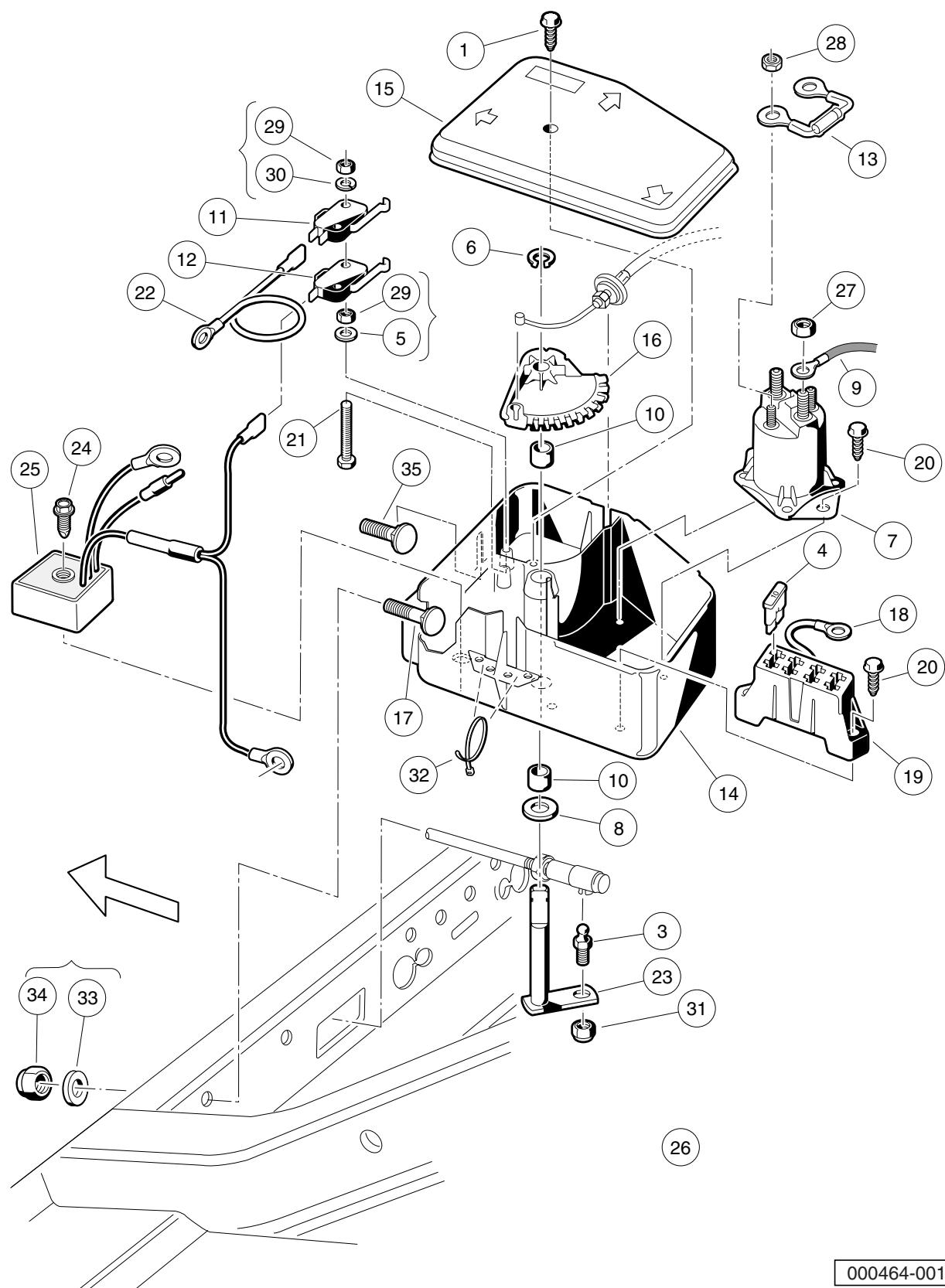
See previous two pages for illustration.

# WIRING

6

G

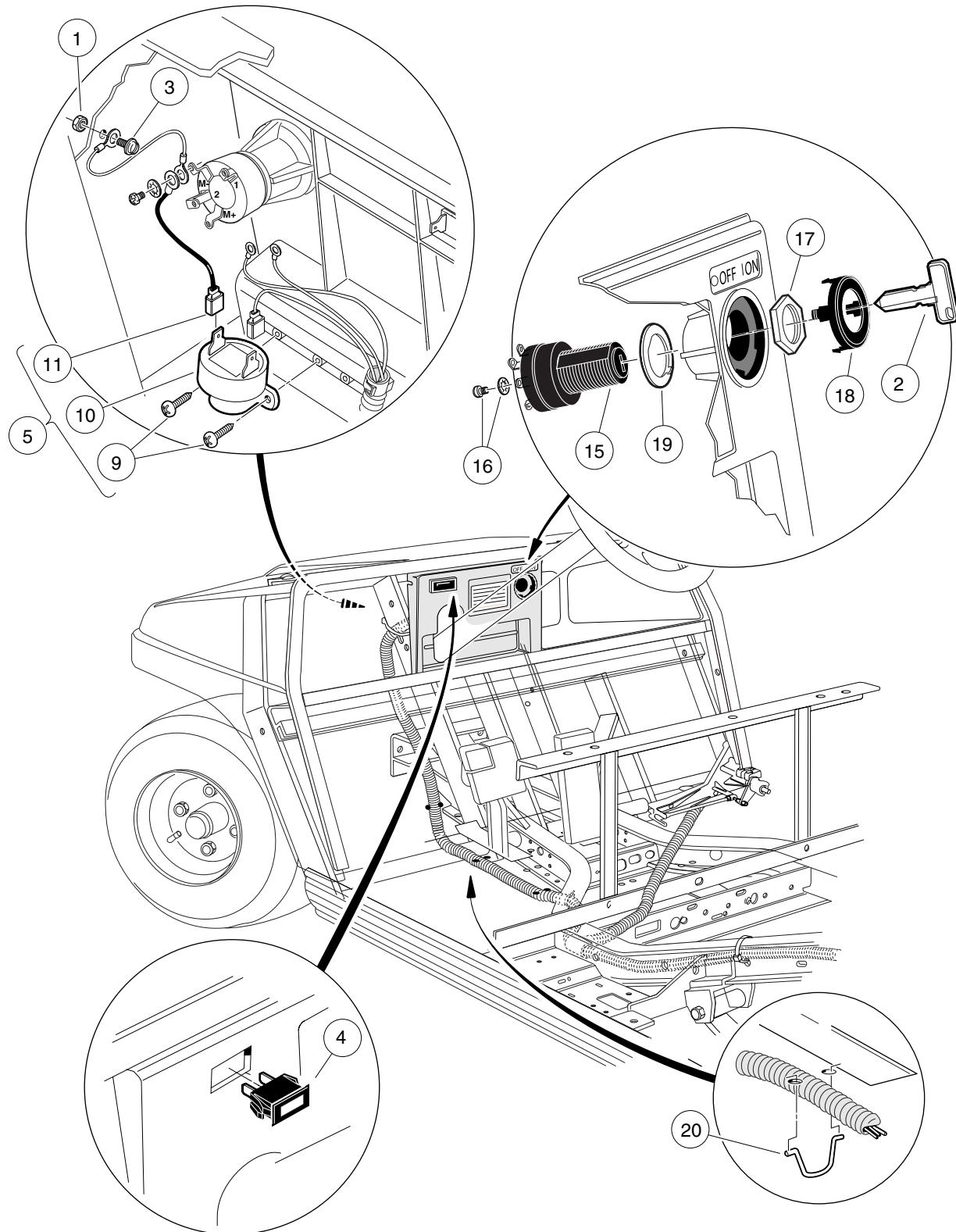
ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	
1	1012382	Wire Assy, #6 Black .....	1
2	1015332	Wire Assembly, #10, Uninsulated .....	1
3	1015737	Wire Assy, #10 Red .....	1
4	1015920	Ground Wire Assembly .....	1
5	101837301	Wire Assy, #6 Green .....	1
6	103332302	Assy Wire Harness Gas Ds Kit .....	1

**6****G**

000464-001

# ELECTRICAL COMPONENT BOX – GASOLINE VEHICLE

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	6
1	1015752	Screw, #12-16 X 0.625 Hi-Lo .....	1
2	101827601	Elec Component Box Asm , Ds (includes items 3 through 32) .....	1
3	1010954	Stud, 1/4-28 X 0.560 Ball .....	1
4	1012295	Fuse, 10-Amp .....	1
5	1012431	Washer, #4 Flat .....	2
6	1013589	Ring, 0.338" Internal Retaining .....	1
7	1013609	Solenoid, 12-Volt .....	1
8	1014065	Washer, 0.38" ID Delrin Flat .....	1
9	1014119	Wire Assembly #6 Red .....	1
10	1014145	Bushing, Secondary Weight, Split .....	2
11	1014807	Switch, Limit .....	1
12	1014808	Switch, Limit .....	1
13	1014948	Diode .....	1
14	1015371	Box, Electrical Component .....	1
15	1015372	Cover, Electric Box .....	1
16	1015373	Cam, Electric Box .....	1
17	1015405	Bolt, Carriage, 5/16-18 X 2.0 .....	1
18	1015737	Wire Assy, #10 Red .....	1
19	1015741	Fuse Block .....	1
20	1015752	Screw, #12-16 X 0.625 Hi-Lo .....	4
21	1015878	Screw, #4-40 Hex Head Machine .....	2
22	N/A	Wire Assy, #16 Orange .....	1
23	101821301	Bell Crank Weld Asm .....	1
24	101856102	Screw, 1/4-15 X 1.50 Hi-lo Hex .....	1
25	102711201	Voltage Regulator .....	1
26	103332302	Assy Wire Harness Gas Ds Kit .....	1
27	1242	Nut, 5/16-18 Hex .....	2
28	7893	Nut, #10-32 Hex .....	2
29	8057	Nut, #4-40 Hex Machine .....	4
30	8058	Lockwasher, #4 Helical Split .....	2
31	8717	Locknut, 1/4-28 Nylon Insert .....	1
32	8990	Tie Wrap, 8" Nylon .....	2
33	1241	Washer, 5/16 Type A Flat .....	2
34	7473	Locknut, 5/16-18 Nylon Insert .....	2
35	7818	Bolt, Carriage, 5/16-18 X 1.5 .....	1

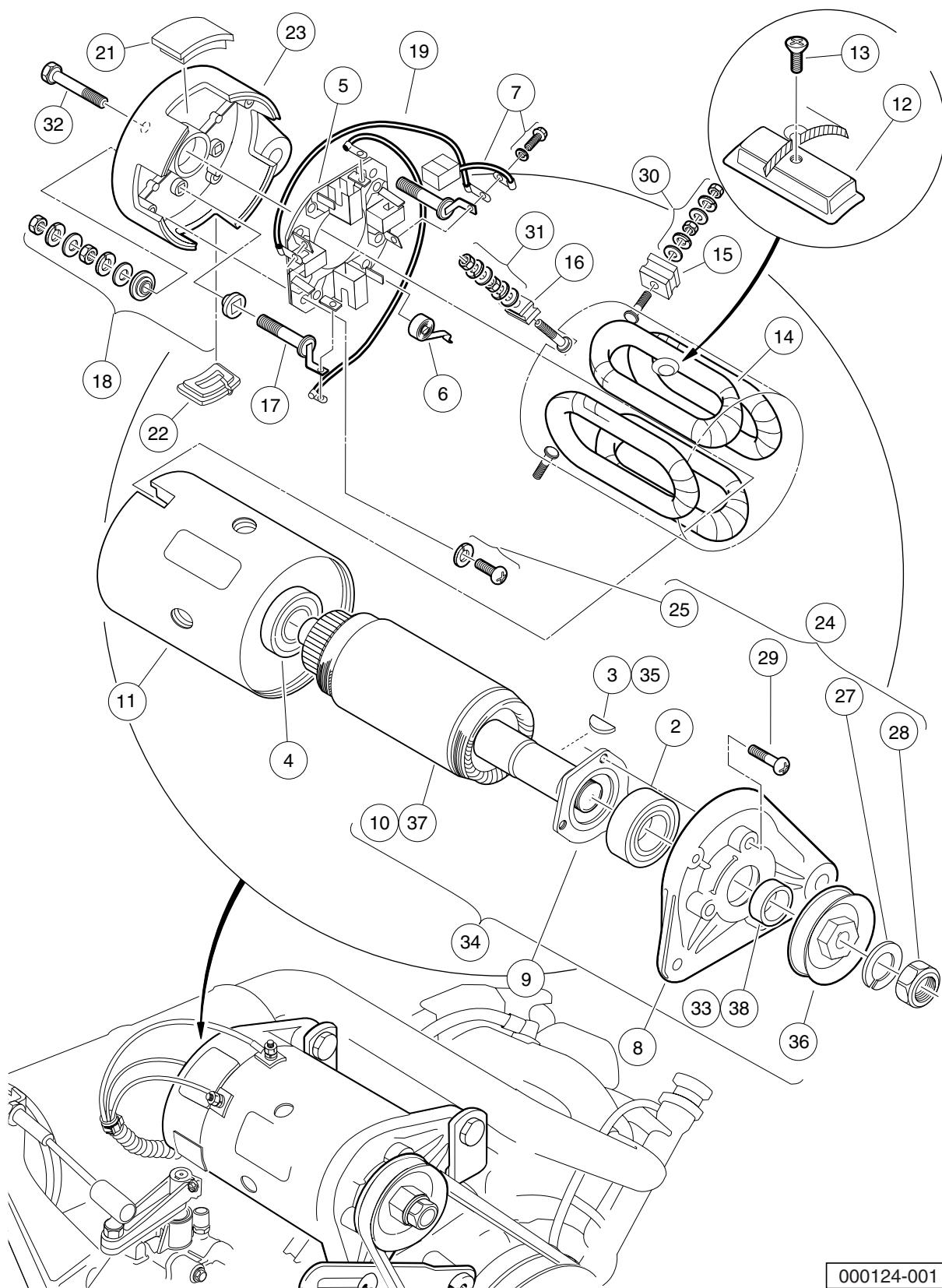
**6****G**

000465-001

# ELECTRICAL COMPONENTS, FRONT BODY – GASOLINE VEHICLE

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	6
1	1011229	Locknut, #6-32 Whiz .....	1
2	1012505	Keys (set of 2) .....	1
3	1015720	Screw, #6-32 X 1/2 Hex Washer-Head .....	1
4	1016630	Light, Oil .....	1
5	1016859	Kit, Reverse Buzzer (includes items 6 through 14) .....	1
6	1011229	Locknut, #6-32 Whiz .....	1
7	1012431	Washer, #4 Flat .....	2
8	1015720	Screw, #6-32 X 1/2 Hex Washer-Head .....	1
9	1016849	Screw, #4-24 X 0.33 Pan-Head Machine .....	2
10	1016851	Buzzer, Reverse (9-48 VDC) .....	1
11	N/A	Wire Assembly Black #18 .....	1
12	8056	Screw, #4-40 X 0.75 Round-Head Machine .....	2
13	8057	Nut, #4-40 Hex Machine .....	2
14	8058	Lockwasher, #4 Helical Split .....	2
15	101826301	Key Switch, 12-Volt, Off/On .....	1
16	101830601	Screw and Washer Assembly .....	4
17	101830701	Nut, Key Switch .....	1
18	101834502	Cap, Black Key Switch .....	1
19	101851101	Washer, Key Switch .....	1
20	101900901	Harness Retainer .....	3
21	AM10079	Bulk Std Keys (50) * .....	1

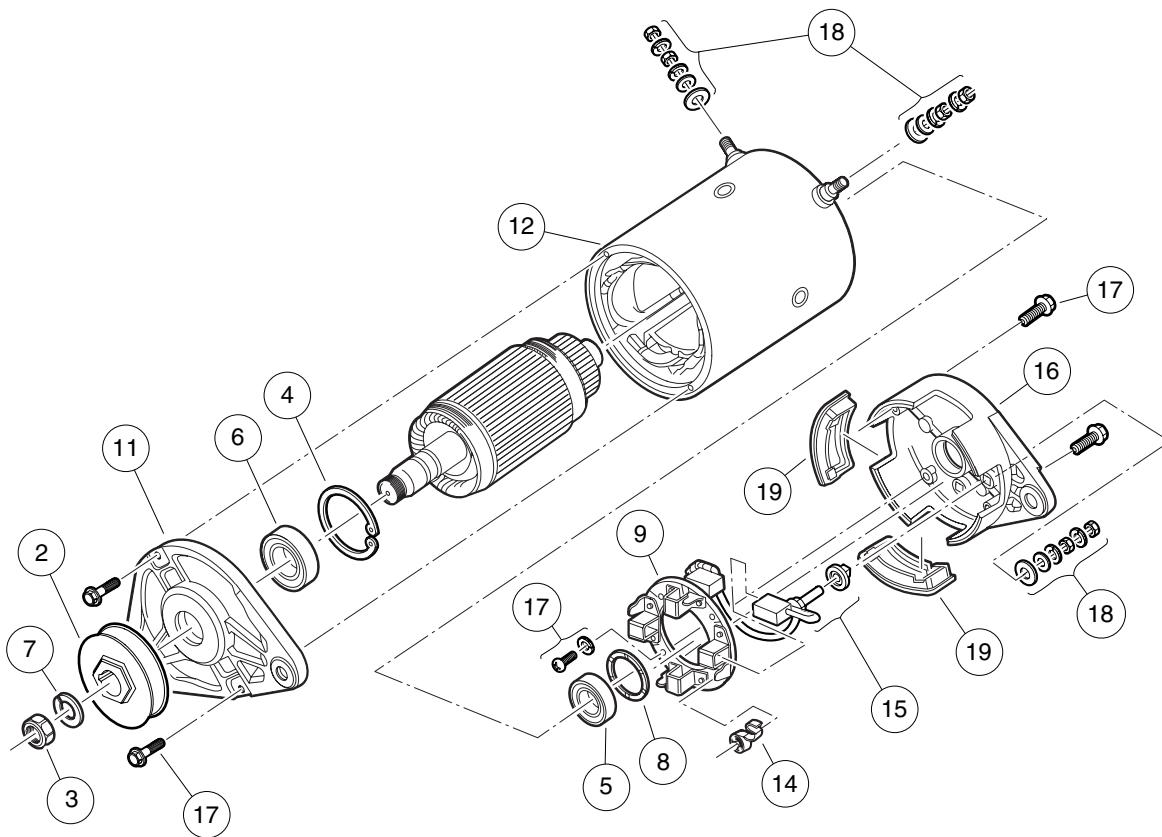
Note: Some parts in Reverse Buzzer Kit are not used in this application.

**6****G**

000124-001

**STARTER/GENERATOR ASSEMBLY  
MODEL G425419 – GASOLINE VEHICLES**

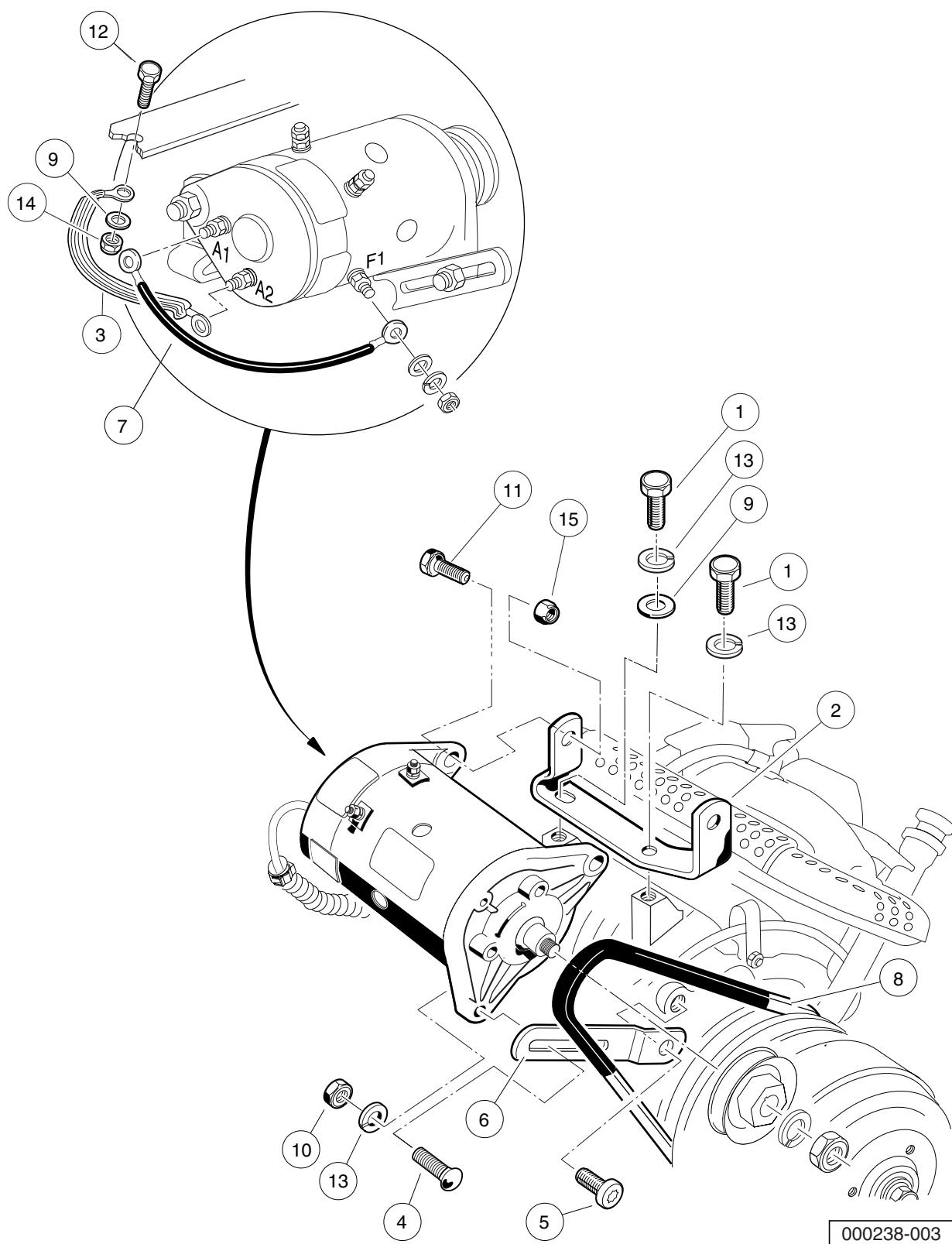
ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	6
1	101833701	Starter/Generator (cw) (includes items 2 through 33)	1
2	1013001	Bearing, Output Shaft Ball	1
3	1013003	Key, Starter/Generator	1
4	1013005	Bearing, Ball	1
5	101301102	Brush Holder Assembly (cw) (includes item 6)	1
6	101878101	Brush Spring Set	4
7	101869302	Brush and Screw Set (cw)	1
8	101874901	Front Bracket	1
9	101875001	Retainer	1
10	N/A	Armature	1
11	101875201	Field Coil Housing	1
12	101875301	Pole Set	1
13	101875401	Screw Set	1
14	101875501	Field Stator Coil Assembly	1
15	101875601	F Insulator Set	2
16	101875701	DF Insulator	1
17	101875802	A Connector (cw)	1
18	101876001	Screw and Mold Assembly	2
19	101876202	Brush Connector Assembly (cw)	2
20	101876301	Cover Set (includes items 21 and 22)	1
21	N/A	Brush Inspection Port Cover	3
22	N/A	Brush Port Cover w/Drain	1
23	101876402	Rear Bracket (cw)	1
24	101876501	Nut and Screw Set (includes items 25 through 29)	1
25	101896501	Brush Holder Asm Screw	2
26	N/A	Washer, M5 Flat	1
27	N/A	Washer, M14 Lock	1
28	N/A	Nut, Hex, M14 x 2	1
29	N/A	Screw, M5 x 0.8 x 18mm	3
30	101877601	Nut and Washer Set	2
31	101877701	Nut and Washer Set	1
32	101879001	Through Bolt Set	2
33	101939901	Spacer	1
34	101875102	Armature Asm Conversion Kit (includes items 35 through 38)	1
35	1013003	Key, Starter/Generator	1
36	1014289	Pulley, Starter/Generator	1
37	N/A	Armature	1
38	101939901	Spacer	1
		Note: Item 36 will ONLY fit Model G425419 Starter/Generator.	



000124-002

# STARTER/GENERATOR ASSEMBLY MODEL 114-01-4005 – GASOLINE VEHICLES

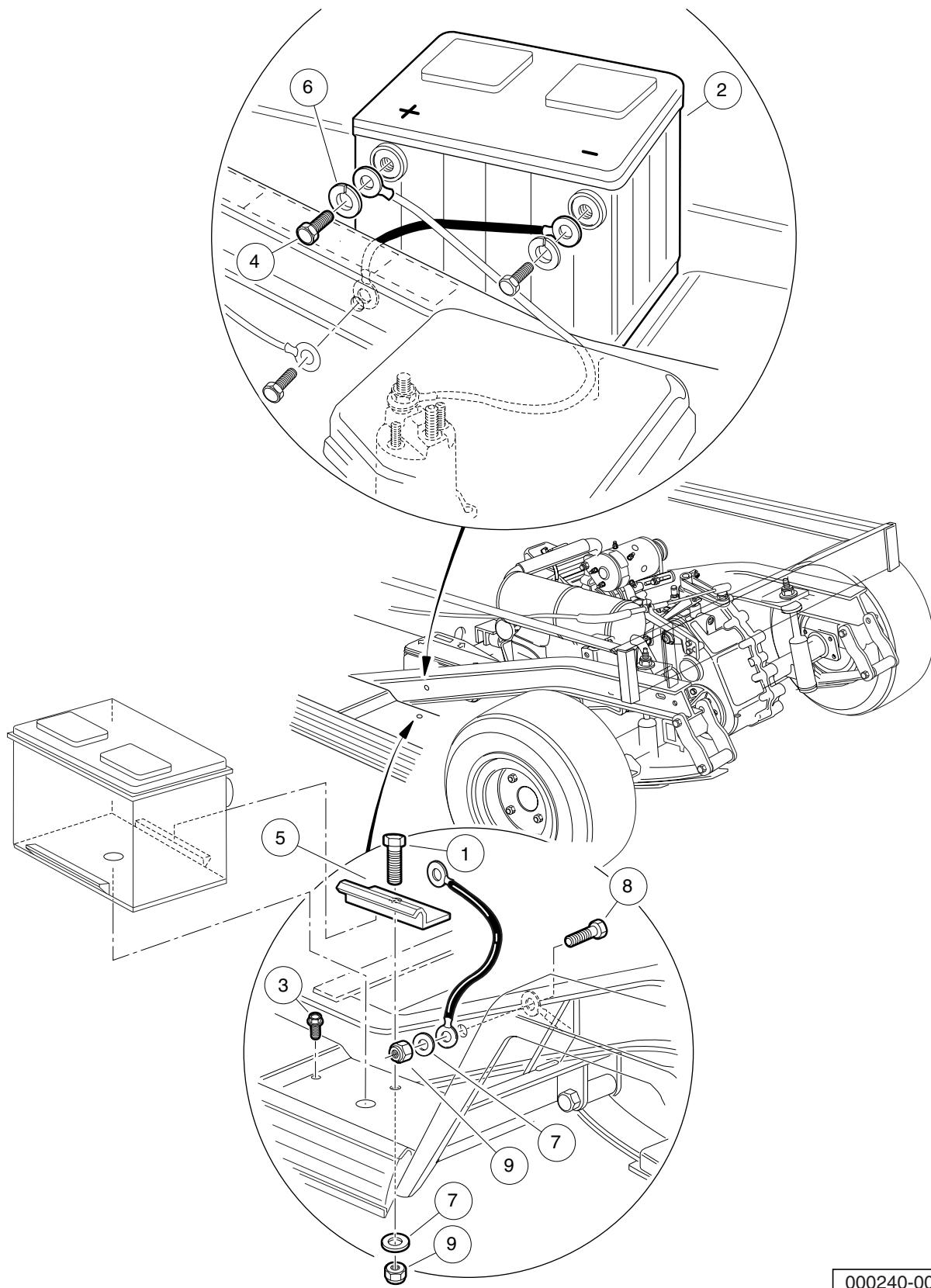
ITEM	PART NO.	DESCRIPTION	QTY
		<b>1 2 3 4</b>	
1	N/A	Starter/Generator Bi-Rotational (includes items 2 through 19) .....	1
2	102711001	Pulley, V-Belt .....	A/R
3	102838701	Nut, Hex, M14x2, S-g .....	1
4	102838801	Retainer, Front, S-g .....	1
5	102838901	Bearing, Ball, Front, S-g .....	1
6	102839001	Bearing, Ball, Front, S-g .....	1
7	102839301	Washer, Lock M14x2, S-g .....	1
8	102841101	Washer, Wave, S-g .....	1
9	102844401	Assembly, Brush Plate, Starter/Generator .....	1
10	N/A	Asm, Armature, Starter/Generator .....	1
11	102844601	Head, Drive End, S-g .....	1
12	102844701	Asm, Frame and Field, Starter/Generator .....	1
13	103347101	Kit, Spring Brush, Starter/Generator (includes item 14) .....	1
14	N/A	Spring, Brush, S-g .....	4
15	103347301	Set, Brush Term, S-g .....	1
16	103347601	Head, Comm End, S-g .....	1
17	103347701	Set, Fast, Ceh Deh, S-g .....	1
18	103347801	Set, Term Hadrware, S/G .....	1
19	103347901	Kit, Cover, Brush Insp, Starter/Generator (includes items 20 and 21) .....	1
20	N/A	Plug, Rubber Drain, Start/Generator .....	3
21	N/A	Cover, Inspection, S-g .....	1
		Note: Item 21 will ONLY fit Model 114-01-4005 Starter/Generator. For COMPLETE starter/generator replacement, order model G425419 and the compatible pulley.	

**6****G**

000238-003

# FE290 STARTER/GENERATOR MOUNTING

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	6
1	1012830	Screw, M8-125 X 22 Hex-Head .....	2
2	101524001	Bracket, Starter/Generator Mounting (FE290) .....	1
3	1015920	Ground Wire Assembly .....	1
4	1015932	Bolt, Carriage, 5/16-18 .....	1
5	1016074	Screw, M8-1.25 X 18mm Torx .....	1
6	1016883	Bracket, Starter/Generator Adjustment .....	1
7	101837301	Wire Assy, #6 Green .....	1
8	101916701	V-Belt .....	1
9	1241	Washer, 5/16 Type A Flat .....	1
10	1242	Nut, 5/16-18 Hex .....	1
11	705	Screw, Cap-hex Hd 3/8-16x1.25 .....	2
12	7173	Screw, 5/16-18 X 0.75 Hex-Head Cap .....	1
13	7174	Lockwasher, 5/16 Split .....	3
14	7473	Locknut, 5/16-18 Nylon Insert .....	1
15	8754	Locknut, 3/8-16 Hex .....	2

**6****G**

000240-001

# BATTERY – GASOLINE VEHICLE

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	6
1	1010934	Screw, 5/16-18 X 1.00 Hex Cap .....	1
2	1012328	Battery, 12-Volt .....	1
3	1014288	Screw, 5/16-18 X 0.75 Thread-Forming .....	1
4	1014375	Screw, 3/8-16 X 0.50 Stainless Steel Hex-Head .....	2
5	101898001	Clamp, Battery .....	1
6	102355301	Lockwasher, 3/8 Stainless Stl .....	2
7	1241	Washer, 5/16 Type A Flat .....	2
8	7173	Screw, 5/16-18 X 0.75 Hex-Head Cap .....	1
9	7473	Locknut, 5/16-18 Nylon Insert .....	2

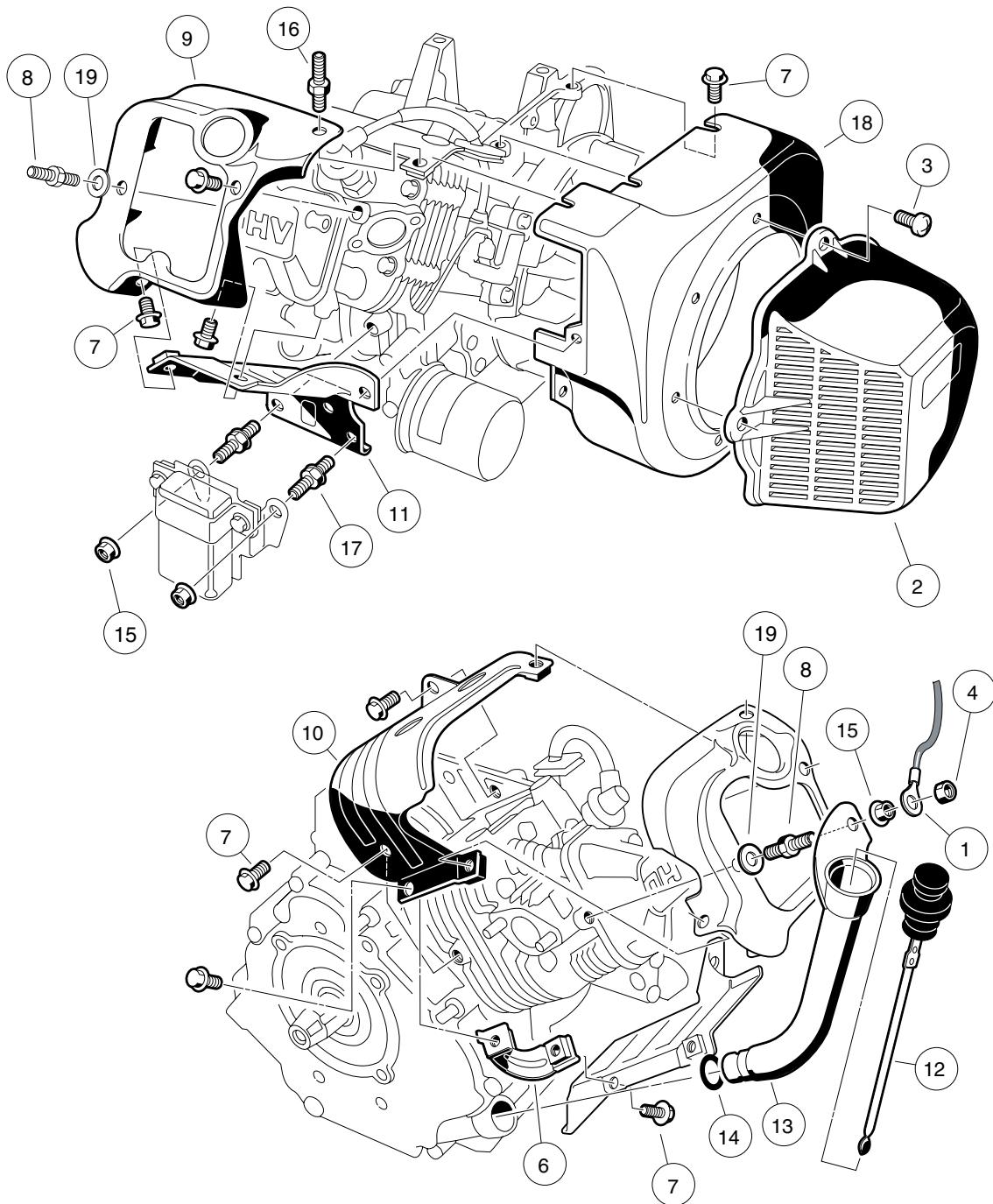
**6**

**G**

# FE290 ENGINE

7

G

**7****G**

000194-001

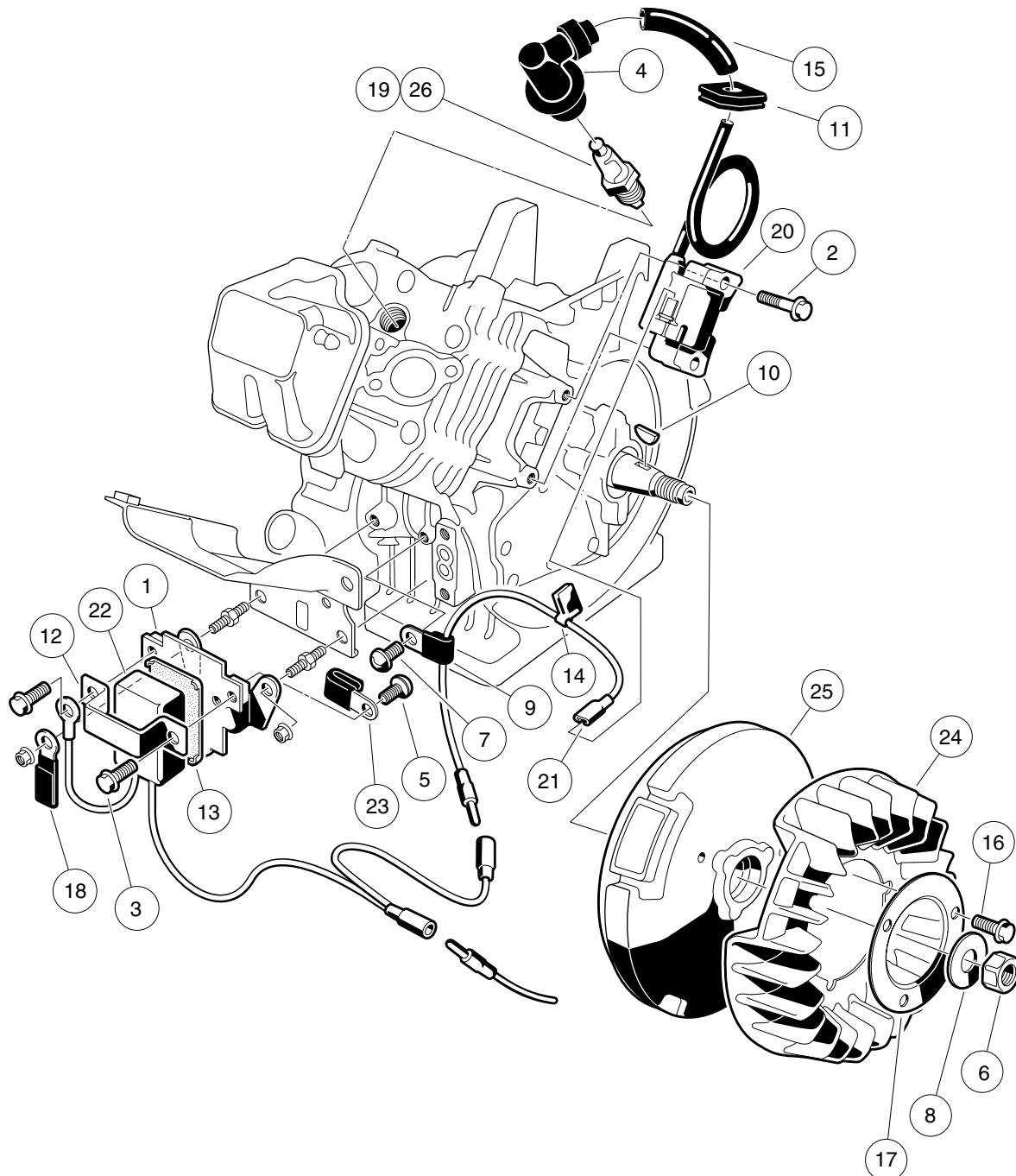
# FE290 ENGINE – SHROUDS AND BRACKETS

ITEM	PART NO.	DESCRIPTION	QTY
		<b>1 2 3 4</b>	
1	1015332	Wire Assembly, #10, Uninsulated .....	1
2	1015649	Shroud, Fan .....	1
3	1015969	Screw, M6-1.00 X 10mm Pan Hd .....	4
4	101887601	Locknut, M6-1.00 Nylon Insert .....	1
5	101953901	Engine, FE290 (cw) * (includes items 6 through 19) .....	1
6	1016443	Bracket .....	1
7	1016456	Bolt, Flange Head, M6 x 1 x 12 mm .....	15
8	1016507	Bolt, Two-Ended .....	1
9	1016524	Shroud, Engine, FE290D .....	1
10	1016525	Shroud, Engine, FE290D .....	1
11	1016526	Shroud, Engine, FE290D .....	1
12	1016531	Dipstick .....	1
13	1016536	Tube, Oil Filler, FE290D .....	1
14	1016539	O-Ring .....	1
15	1016547	Nut .....	3
16	1017221	Screw, M6-1.00 Stud .....	1
17	101909701	Stud, M6-1.00, Two-Ended .....	2
18	101915601	Housing, FE290 Fan .....	1
19	N/A	Washer, 6 mm Flat .....	1

\* Note: FE290 engine component listings span several pages.

7

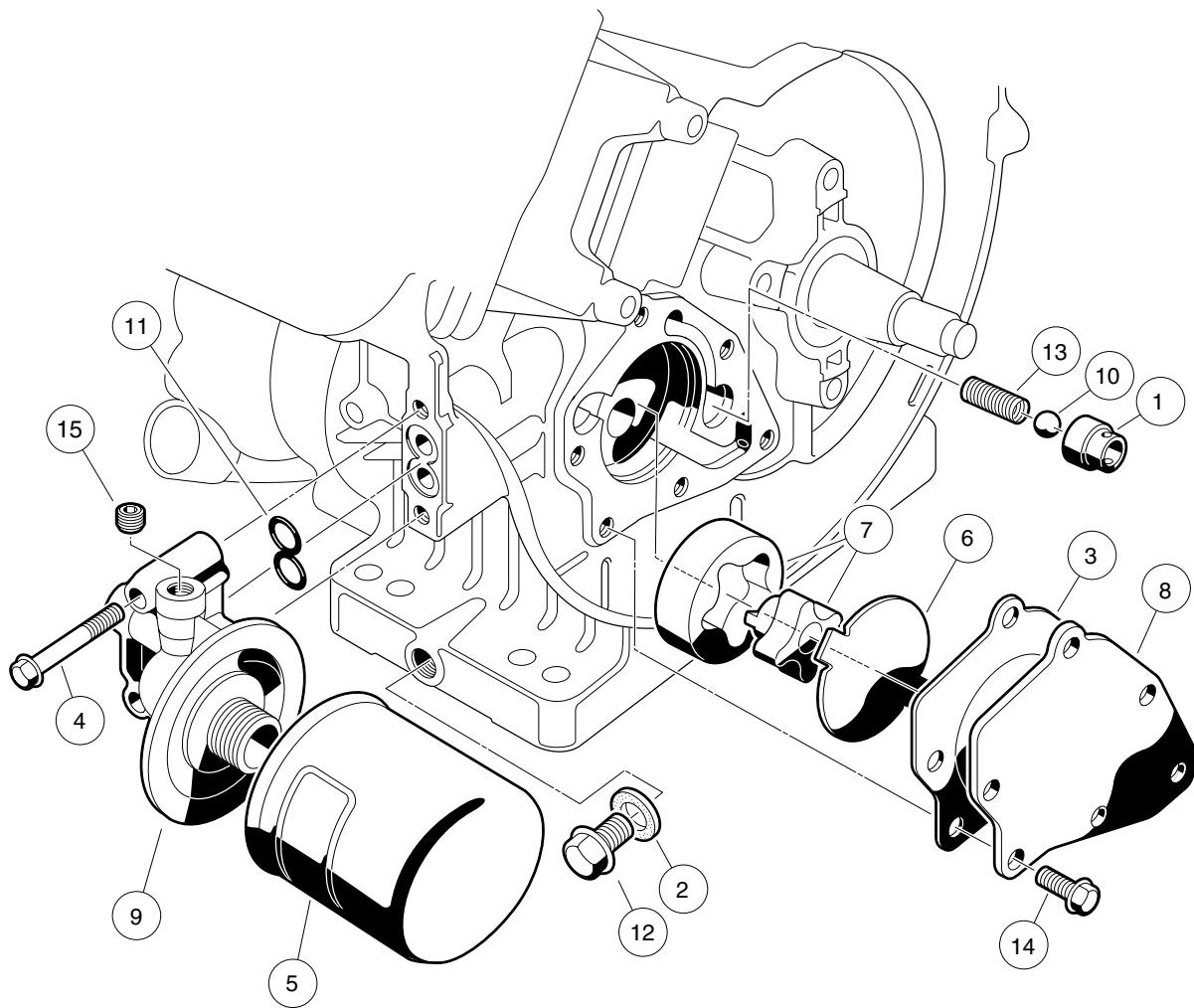
G



000195-001

# FE290 ENGINE – IGNITION COMPONENTS AND FLYWHEEL

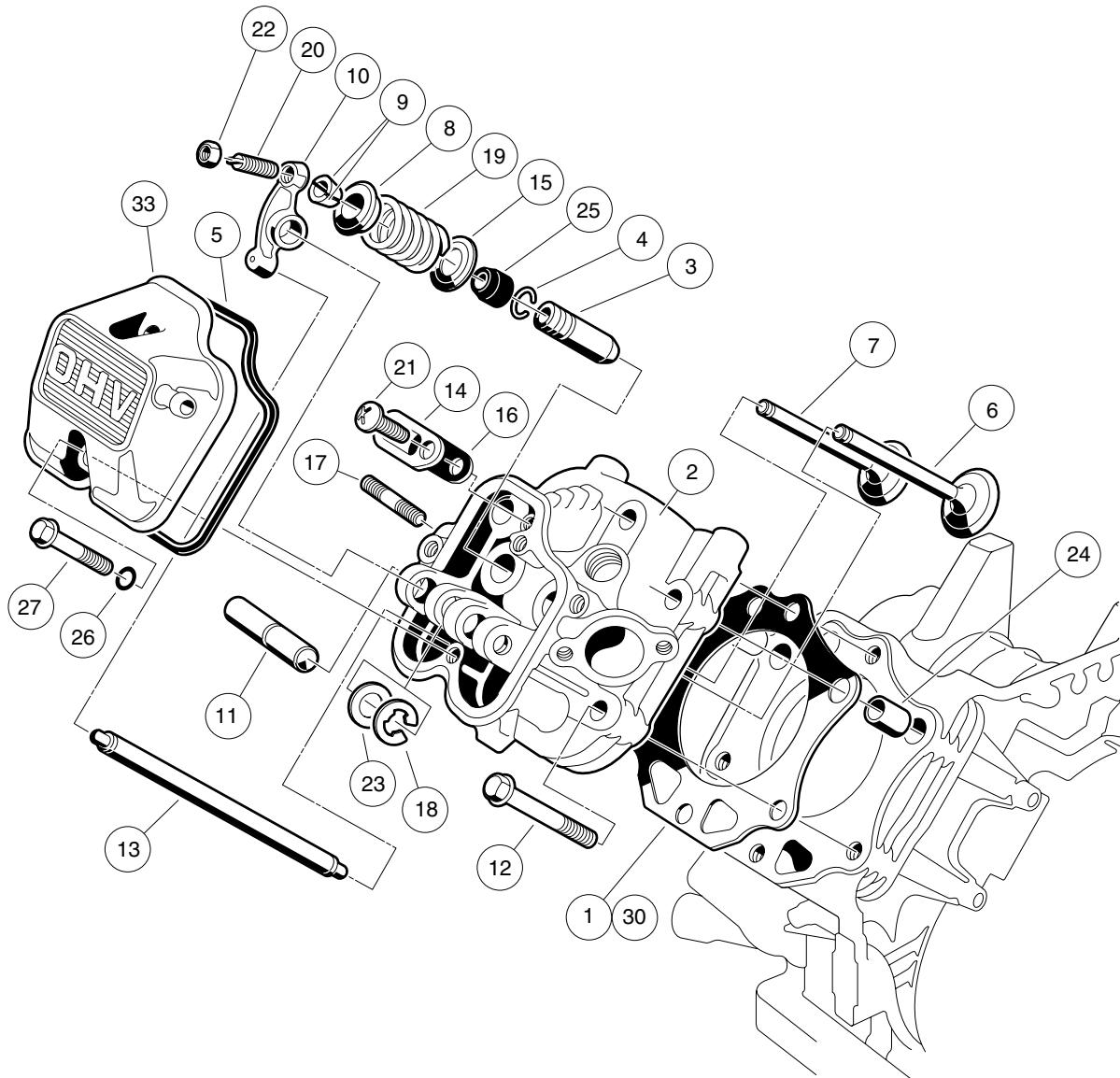
ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	7
1	1016445	Bracket, RPM Limiter .....	1
2	1016455	Bolt, Flange Head .....	2
3	1016456	Bolt, Flange Head, M6 x 1 x 12 mm .....	2
4	1016493	Cap, Spark Plug .....	1
5	1016497	Screw, Pan WP Cross .....	1
6	1016505	Nut, Hex, Fine .....	1
7	1016544	Screw .....	1
8	1016548	Washer, M16 Flat .....	1
9	1016561	Clamp .....	1
10	1016562	Key .....	1
11	1016578	Grommet .....	1
12	1016579	Band, RPM Limiter Mount .....	1
13	1016586	Damper, RPM Limiter .....	1
14	1016587	Clamp .....	1
15	1016588	Tube, 7mm X 10mm X 70mm .....	1
16	1017448	Bolt, Flanged .....	3
17	1017455	Plate, Flywheel Fan .....	1
18	1017468	Clamp .....	1
19	101881101	Spark Plug, OHV (Autolite) .....	1
20	101909201	Coil, Ignition .....	1
21	101909301	Lead Wire Assy .....	1
22	101909401	Limiter, RPM .....	1
23	N/A	Clamp, Steel .....	1
24	101915801	Fan, FE290 (cw) .....	1
25	101929301	Flywheel, Complete .....	1
26	AM10724	Spark Plug, OHV (NGK) .....	1



000196-001

# FE290 ENGINE – OIL CIRCULATION

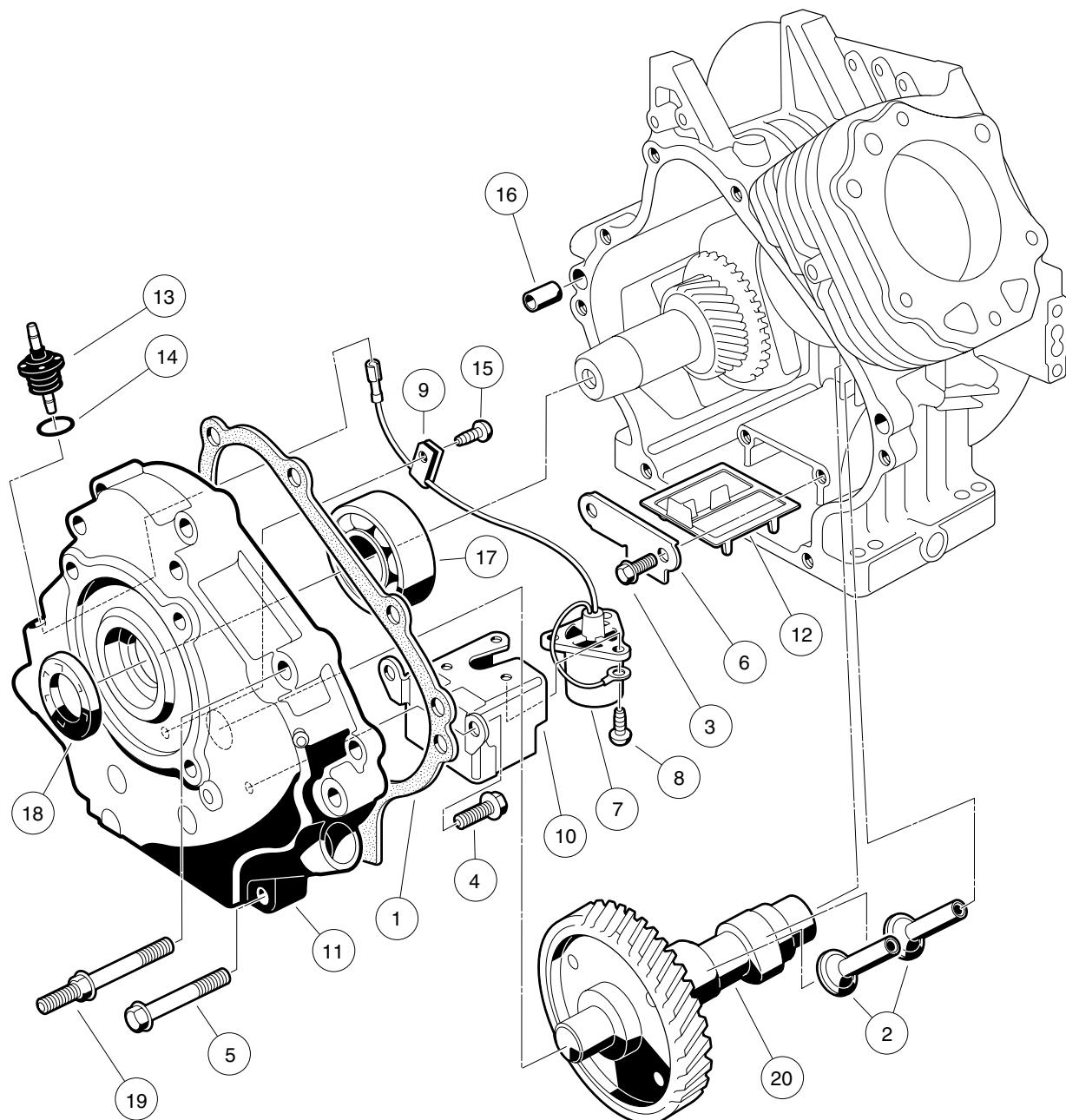
ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	
1	1016429	Seat, Valve Oil Press Relief .....	1
2	1016432	Gasket, Drain Plug .....	1
3	1016435	Gasket, Oil Pump .....	1
4	1016457	Bolt, Flange Head .....	2
5	1016467	Filter, Oil .....	1
6	1016473	Plate, Oil Pump .....	1
7	101648203	Oil Pump And Rotor .....	1
8	1016484	Cover, Pump .....	1
9	1016502	Bracket, Oil Filter Mount .....	1
10	1016537	Ball, Steel, Press, Relief .....	1
11	1016570	O-Ring .....	1
12	1016576	Plug, Drain .....	1
13	1016581	Spring .....	1
14	1017456	Bolt, Flanged .....	6
15	1017507	Plug .....	2



000197-001

# FE290 ENGINE – CYLINDER HEAD

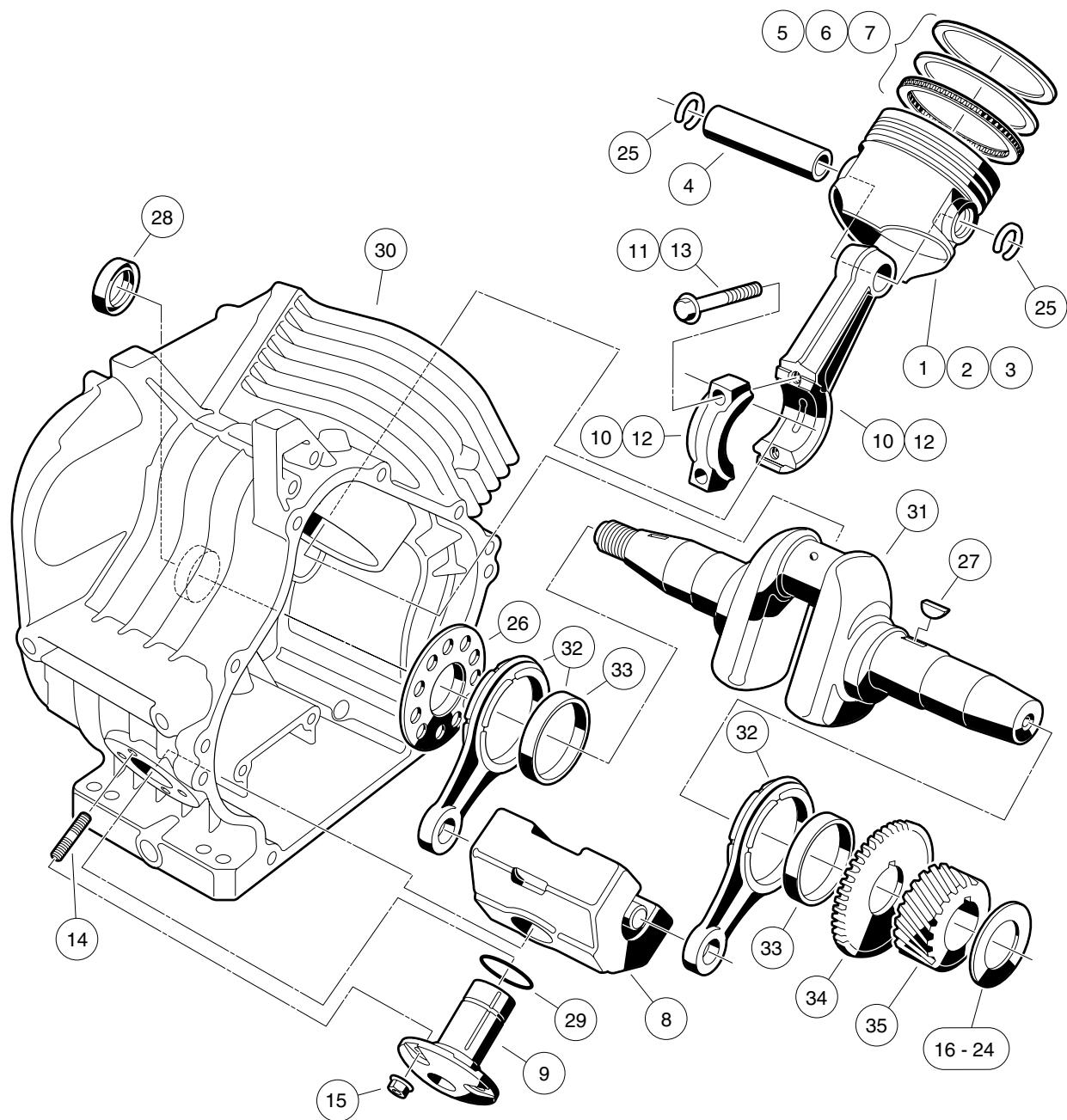
ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	7
1	1016430	Gasket, Head, FE290 .....	1
2	1016431	Head Assembly, FE290 Cylinder (includes items 3 and 4) .....	1
3	1016519	Guide, Valve .....	2
4	1016560	Snap Ring .....	2
5	1016436	Gasket, Rocker Case .....	1
6	1016447	Valve, Intake .....	1
7	1016448	Valve, Exhaust .....	1
8	1016449	Retainer, Valve Spring .....	2
9	1016450	Collet .....	4
10	N/A	Arm, Rocker .....	2
11	1016452	Shaft, Rocker .....	1
12	1016458	Bolt, Flange Head, M8 x 1.25 x 45 mm .....	6
13	1016471	Rod, Push .....	2
14	1016474	Plate .....	1
15	1016479	Seat, Spring .....	2
16	1016483	Valve .....	1
17	1016489	Stud, Two-Ended, M8-1.25 .....	2
18	1016517	Circlip, Type-E .....	1
19	1016523	Spring, Engine Valve .....	2
20	1016542	Screw .....	2
21	1016544	Screw .....	1
22	1016545	Nut .....	2
23	1016549	Washer, 12.1x19x1.8 .....	1
24	1016563	Pin .....	2
25	1016566	Seal, Oil .....	2
26	1016569	O-Ring .....	2
27	1016583	Bolt, 6x35 .....	2
28	102304701	Kit, Gasket, FE290 (includes items 29 through 32) .....	1
29	1015330	Gasket, Exhaust .....	1
30	1016430	Gasket, Head, FE290 .....	1
31	1016440	Gasket, Engine to Insulator .....	1
32	1016446	Gasket, Crankcase Cover .....	1
33	102753401	Case, Rocker -w/o Logo Fe290 .....	1



000198-001

# FE290 ENGINE – CRANKCASE, CAMSHAFT, AND OIL SENSOR

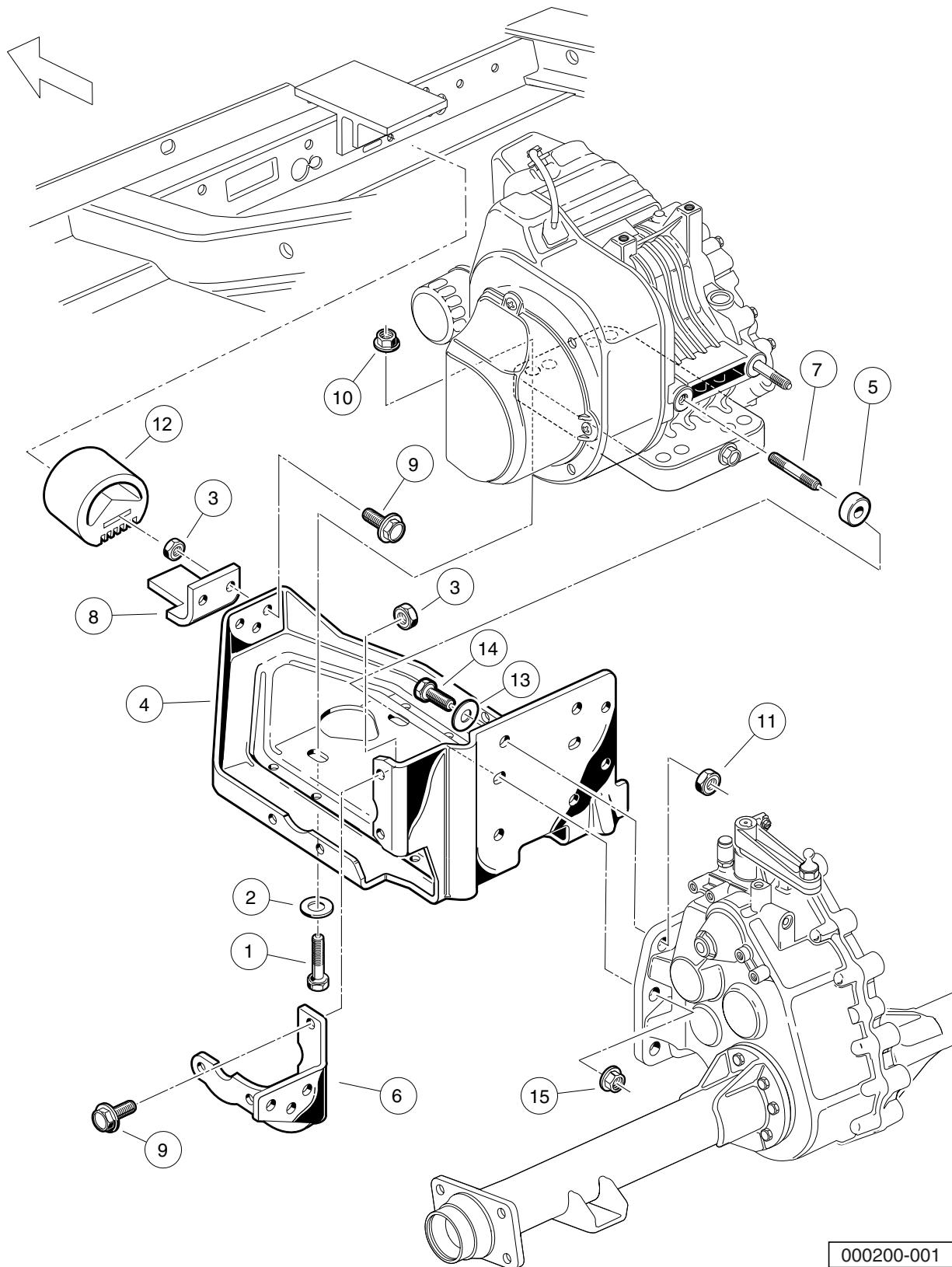
ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	7
1	1016446	Gasket, Crankcase Cover .....	1
2	1016453	Tappet .....	2
3	1016454	Bolt, Flange Head, M5 x 0.8 x 8 mm .....	2
4	1016456	Bolt, Flange Head, M6 x 1 x 12 mm .....	2
5	1016458	Bolt, Flange Head, M8 x 1.25 x 45 mm .....	6
6	1016472	Plate, Oil Filter Screen .....	1
7	1016494	Sensor, Oil Level .....	1
8	1016496	Screw, Cross Pan-Head, M4 x 0.7 x 8 mm .....	3
9	1016506	Clamp .....	1
10	1016510	Bracket, Switch, Oil Level .....	1
11	1016520	Cover, Crankcase .....	1
12	1016521	Screen, Oil Filter .....	1
13	1016535	Connector, Cord .....	1
14	1016538	O-Ring .....	1
15	1016544	Screw .....	1
16	1016564	Pin .....	2
17	1016565	Bearing, Ball .....	1
18	1016567	Seal, Crankshaft .....	1
19	1016584	Bolt, Two-Ended, M8 x 1.25 x 69 mm .....	2
20	101915401	Camshaft Complete, FE290 .....	1



000199-001

# FE290 ENGINE – CRANKCASE AND CRANKSHAFT

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	7
1	101645901	Piston .....	1
2	101645902	Piston, Engine 0.25 mm Over .....	1
3	101645903	Piston, Engine 0.50 mm Over .....	1
4	1016460	Pin, Piston .....	1
5	101646101	Ring Set, Piston .....	1
6	101646102	Ring Set, Piston 0.25 mm Over .....	1
7	101646103	Ring Set, Piston 0.50 mm Over .....	1
8	1016469	Weight, Counterbalance .....	1
9	1016470	Shaft, Guide, Counterbalance .....	1
10	101647501	Rod Assembly (includes item 11) .....	1
11	1016509	Bolt .....	2
12	101647502	Rod Assembly, Connecting 0.50 mm Under (includes item 13) .....	1
13	1016509	Bolt .....	2
14	1016541	Stud, 6x14 .....	4
15	1016547	Nut .....	4
16	101655001	Shim, Crankshaft T=1.13 .....	A/R
17	101655002	Shim, Crankshaft T=1.18 .....	A/R
18	101655003	Shim, Crankshaft T=1.23 .....	A/R
19	101655004	Shim, Crankshaft T=1.28 .....	A/R
20	101655005	Shim, Crankshaft T=1.33 .....	A/R
21	101655006	Shim, Crankshaft T=1.38 .....	A/R
22	101655007	Shim, Crankshaft T=1.43 .....	A/R
23	101655008	Shim, Crankshaft T=1.48 .....	A/R
24	101655009	Shim, Crankshaft T=1.53 .....	A/R
25	1016558	Ring, Snap .....	2
26	1016559	Spacer .....	1
27	1016562	Key .....	1
28	1016568	Seal, Oil .....	1
29	1016571	O-Ring .....	1
30	101915501	Crankcase Complete, FE290 (cw) .....	1
31	101922301	Crankshaft, FE290 Left-Hand Thread (includes items 32 through 35) .....	1
32	1016516	Rod (includes item 33) .....	2
33	1016580	Bearing, Plane .....	1
34	1016532	Gear, Spur .....	1
35	1016533	Gear, Helical .....	1

**7****G**

000200-001

# FE290 ENGINE MOUNTING

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	7
1	1010577	Bolt, Hex-Head, 5/16-18 X 1.50 .....	4
2	1012571	Washer, 5/16 Extra Thick Flat .....	4
3	1013924	Nut, 5/16-24 Hex Head Cone .....	6
4	101827101	Plate, Engine Mounting .....	1
5	101832101	Spacer, Powdered Metal .....	2
6	101832701	Stiffener (Flywheel Side) .....	1
7	101833201	Stud, M8-1.25 X 60mm Two-Ended .....	2
8	101834601	Snubber Bracket .....	1
9	101884801	Screw, 5/16-24 X 0.875 Grade-8 .....	6
10	101963401	Locknut, 5/16-18 Hex Flange .....	4
11	102065901	Locknut, 3/8-16 Flanged Dimple .....	4
12	102540301	Inner Frame Snubber .....	1
13	334	Washer, 3/8 Type A Flat .....	4
14	705	Screw, Cap-hex Hd 3/8-16x1.25 .....	4
15	96704416	Nut Flg, M8 X 1.25 Serrated .....	2

**7**

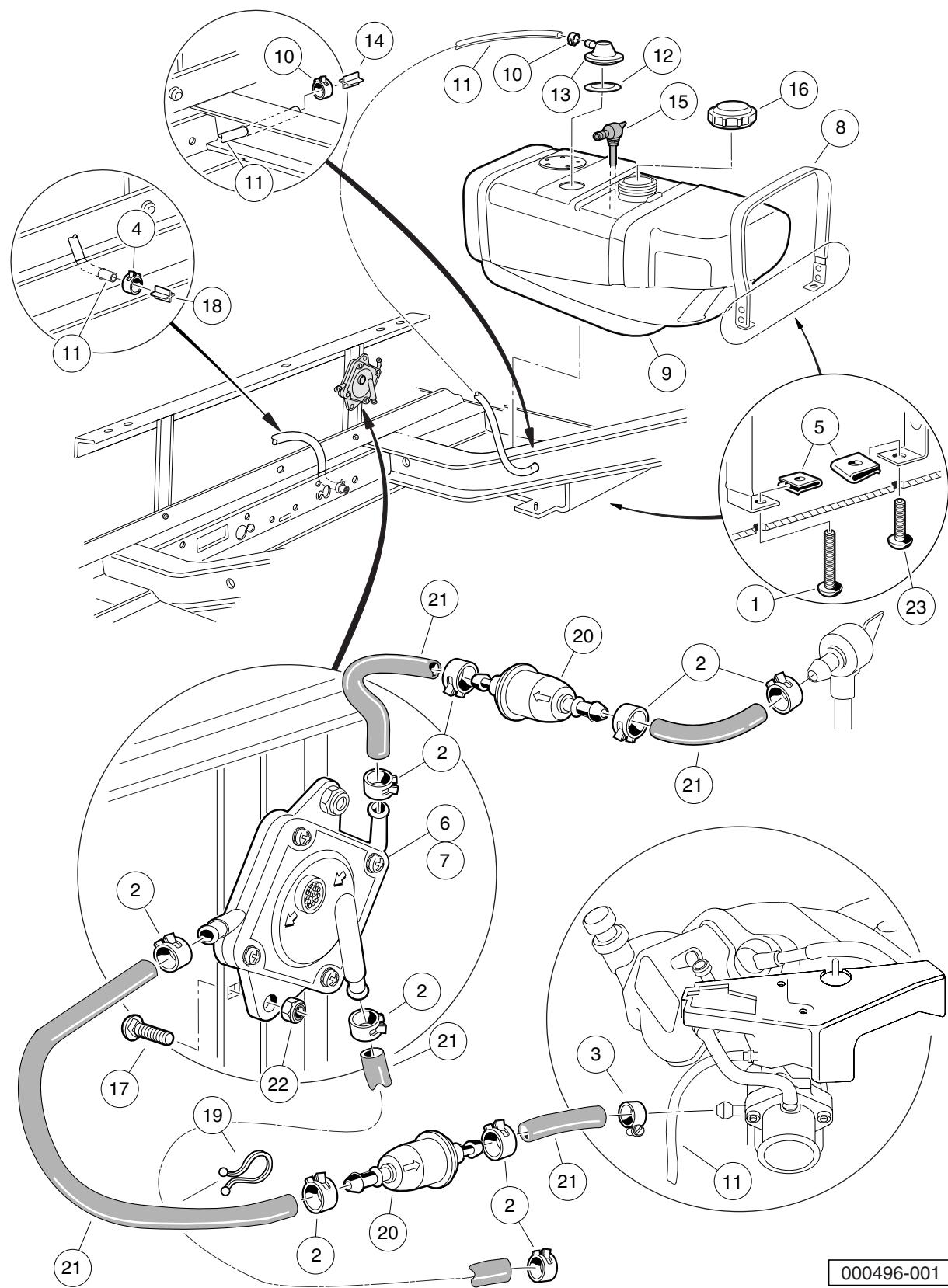
**G**

# **FUEL, INTAKE, AND GOVERNOR SYSTEMS**

---

**8**

**G**



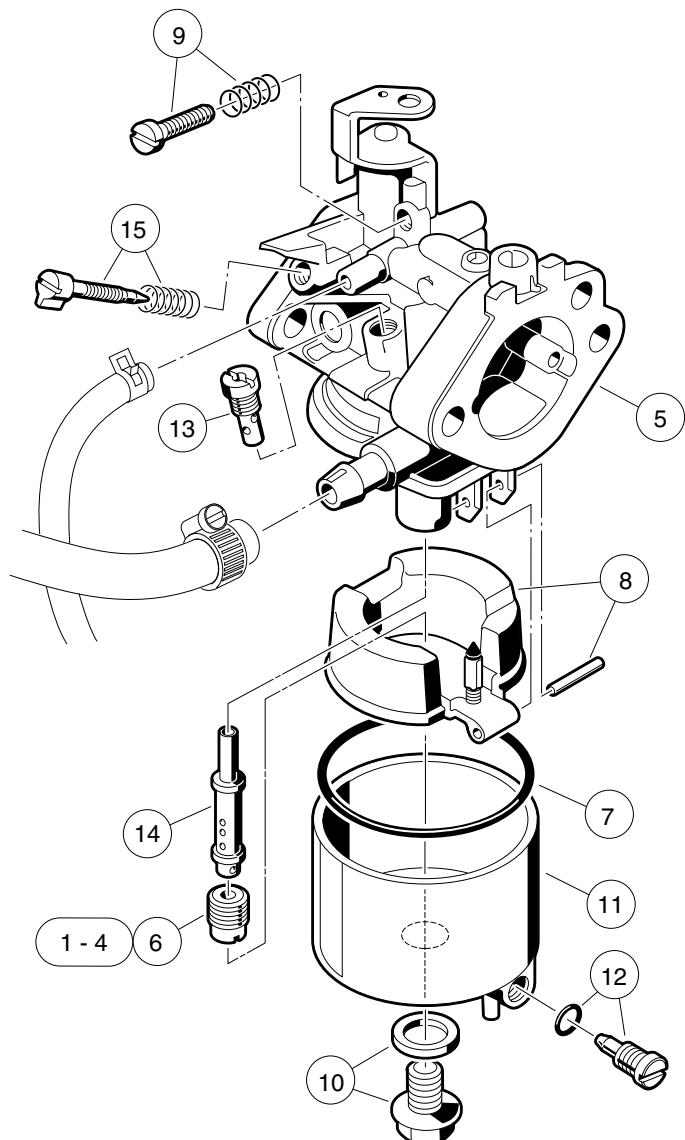
000496-001

# FUEL SYSTEM

**8**

**G**

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	
1	1011988	Screw, 1/4-20 X 2.00 Phillips Truss-Head .....	1
2	1012649	Clamp, 0.460 Red Hose .....	9
3	1013687	Clamp, 3/8" Hose (screw type) .....	1
4	1013746	Clamp, 0.301 ID Hose .....	2
5	1014116	Nut, 1/4-20 Speed .....	2
6	1014523	Pump, Impulse Fuel .....	1
7	1014524	Kit, Impulse Pump Rebuild .....	1
8	1014928	Fuel Strap Assembly Rear .....	1
9	1016003	Kit, Fuel Tank - Vented (includes items 10 through 16) .....	1
10	1013746	Clamp, 0.301 ID Hose .....	2
11	1015137	Fuel Line (available by the foot) .....	A/R
12	1015139	Insulation Grommet .....	1
13	1015143	Vent, Fuel Tank .....	1
14	101824401	Vent Barb .....	1
15	101896901	Fuel Pickup w/Shut-Off Valve .....	1
16	102751601	Cap, Fuel Tank, Gasoline .....	1
17	1017203	Carriage Bolt .....	2
18	101824401	Vent Barb .....	1
19	101987701	Clamp, Plastic Tie .....	1
20	102003201	Filter, Fuel, 30 Micron .....	2
21	102865101	Fuel Line .....	A/R
22	8233	Locknut, 1/4-20 Nylon Insert .....	2
23	8248	Screw, 1/4-20 X 0.75 Truss-Head Machine .....	1
		Note: Total fuel line length: 47 inches (119.4 cm)	



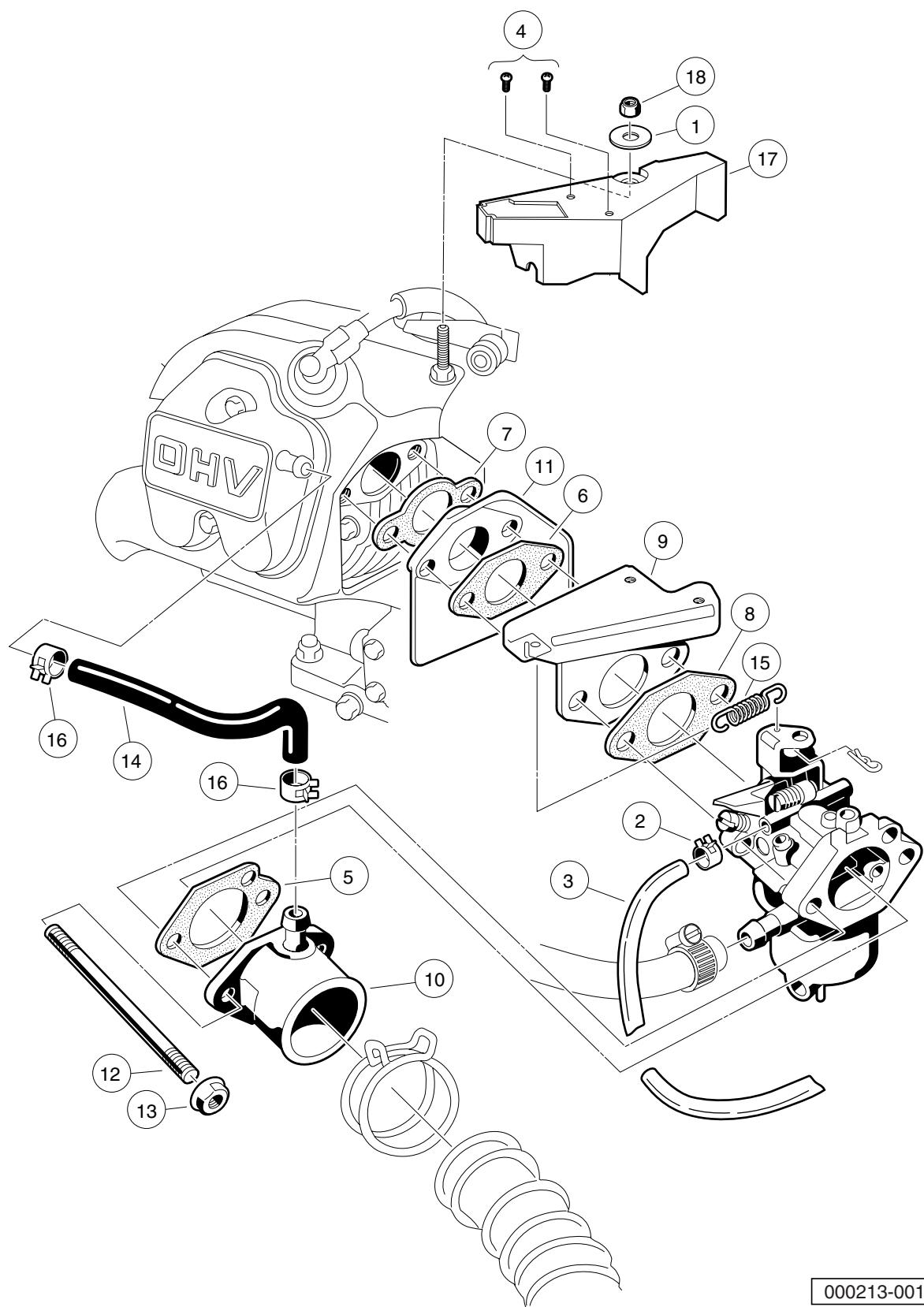
000211-001

# CARBURETOR ASSEMBLY – FE290

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	
1	101642572	Jet, Altitude, # 72 .....	A/R
2	101642575	Jet, Altitude, # 75 .....	A/R
3	101642578	Jet, Altitude, # 78 .....	A/R
4	101642580	Jet, Altitude, # 80 .....	A/R
5	101905601	Carburetor Assembly, FE290D (includes items 6 through 15) .....	1
6	101642582	Jet, Altitude, # 82 .....	1
7	1016437	Gasket, Carburetor Bowl OHV .....	1
8	1016486	Float Assembly .....	1
9	1016501	Screw Assembly .....	1
10	1016585	Bolt .....	1
11	1017461	Chamber Assembly, Float (includes item 12) .....	1
12	1016499	Screw Assembly .....	1
13	101973101	Jet, #40 Pilot .....	1
14	101973201	Nozzle, Main .....	1
15	N/A	Assembly, Pilot Air Screw .....	1
		Note: 101642582 for 0 - 3,000 feet; 101642580 for 3,000 - 5,000 feet; 101642578 for 5,000 - 8,000 feet; 101642575 for 8,000 - 10,000 feet; 101642572 for 10,000 feet and higher.	

8

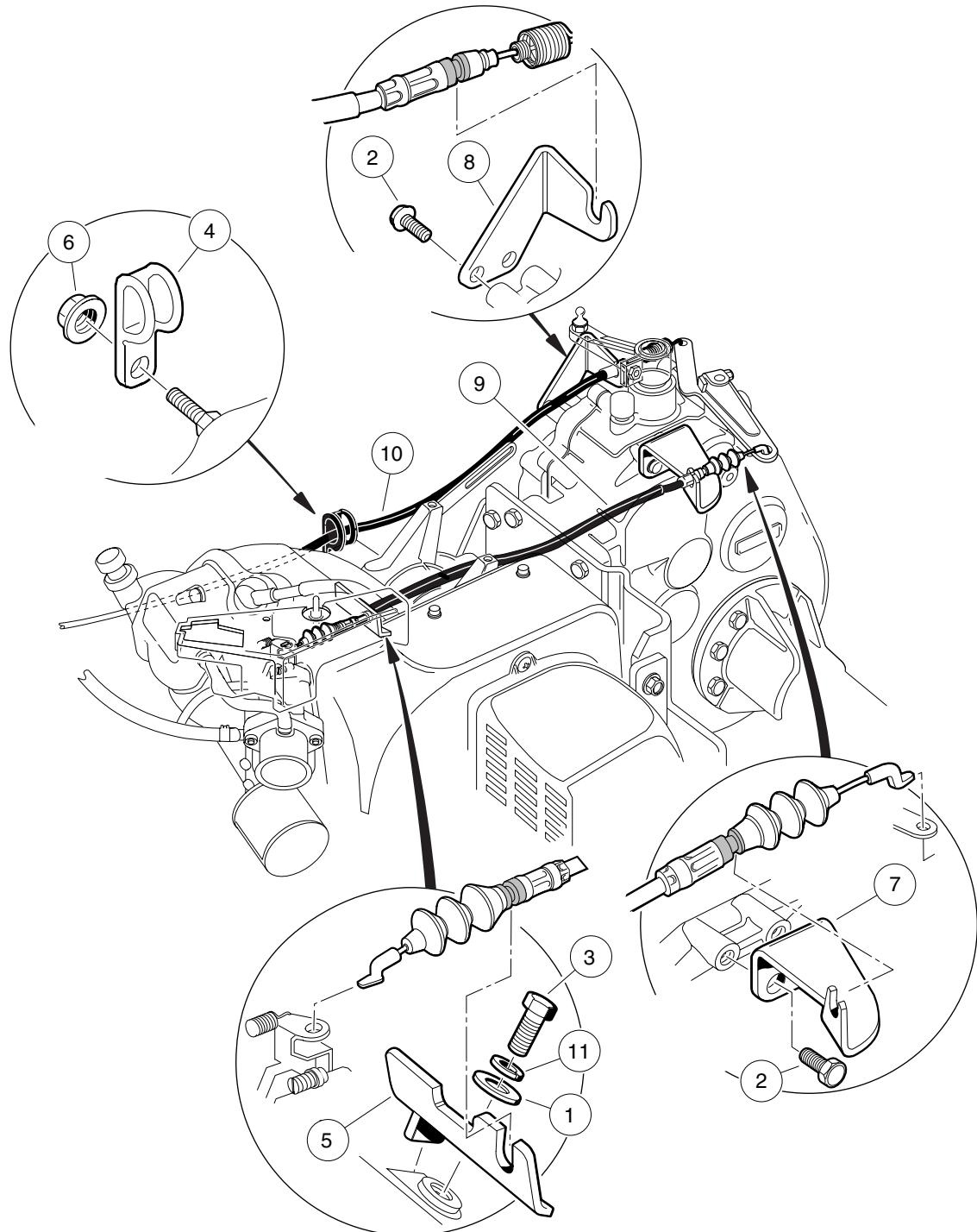
G



000213-001

# CARBURETOR INSTALLATION – FE290

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	
1	1011697	Washer, 5/16 Flat .....	1
2	1013746	Clamp, 0.301 ID Hose .....	1
3	1015137	Fuel Line (Available by the foot) .....	A/R
4	1016103	Screw, Pan Hd Tx, Taptite 6-32 .....	2
5	1016438	Gasket, Carb To Intake Manifold .....	1
6	1016439	Gasket, Insulator .....	1
7	1016440	Gasket, Engine to Insulator .....	1
8	1016441	Gasket, Sprg Brkt To Carb OHV .....	1
9	1016444	Bracket, Throttle Spring Return .....	1
10	1016480	Pipe, Intake Manifold .....	1
11	101648102	Insulator, Carburetor .....	1
12	101649002	Stud, M6-1.00 Two-Ended .....	2
13	1016547	Nut .....	2
14	1016572	Tube, Crankcase Vent .....	1
15	1016582	Spring, Throttle Return .....	1
16	1017466	Clamp .....	2
17	101820201	Shield, Governor .....	1
18	101887601	Locknut, M6-1.00 Nylon Insert .....	1



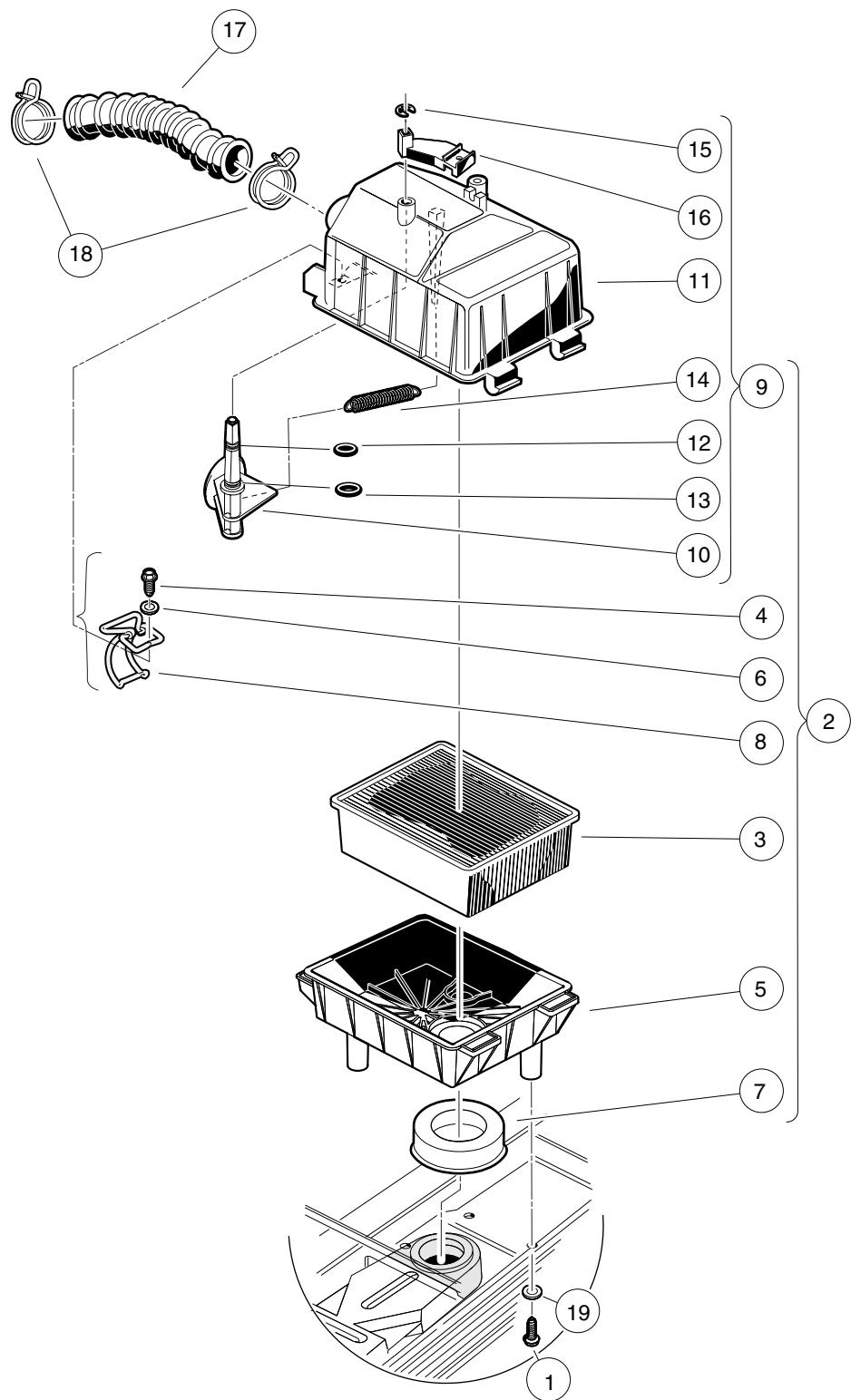
000215-001

# GOVERNOR AND ACCELERATOR CABLES

**8**

**G**

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	
1	1011697	Washer, 5/16 Flat .....	1
2	1012285	Screw, 1/4 X 0.625 Hex-Head .....	4
3	1012830	Screw, M8-125 X 22 Hex-Head .....	1
4	1013700	Clamp .....	2
5	101584502	Bracket, Governor Cable Snap-In .....	1
6	1016546	Nut .....	2
7	101832202	Bracket, Rear Governor Cable Snap-In .....	1
8	101832302	Bracket, Rear Accelerator Cable Snap-In .....	1
9	102336001	Cable, Governor, Snap-In .....	1
10	102336101	Cable, Accelerator, Snap-In .....	1
11	7174	Lockwasher, 5/16 Split .....	1



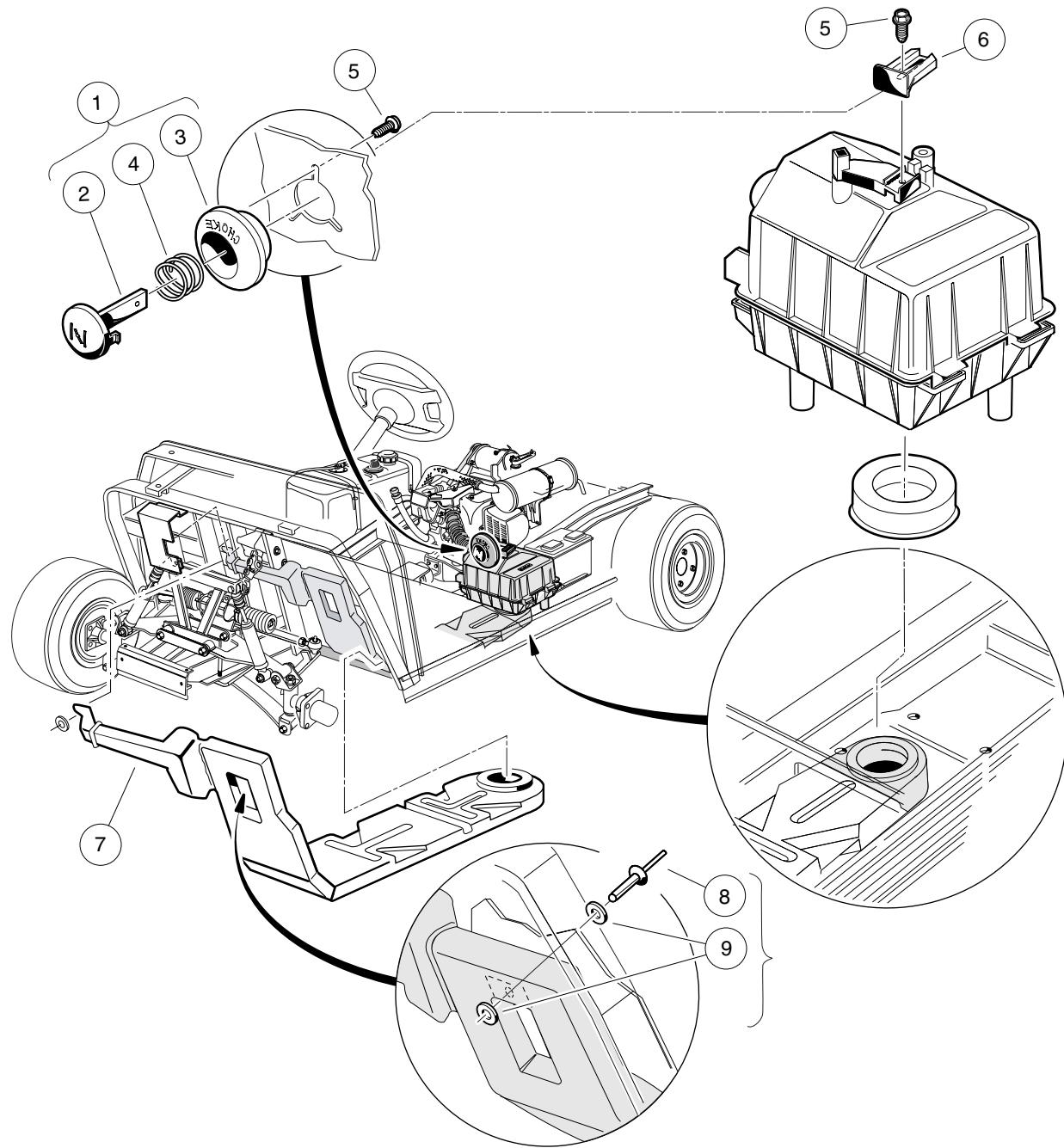
000332-001

# AIR BOX AND INTAKE HOSE

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	
1	1015752	Screw, #12-16 X 0.625 Hi-Lo .....	3
2	101821501	Assembly, Air Box (includes items 3 through 9) .....	1
3	1015426	Filter, Air .....	1
4	101804301	Screw, #8 X 0.500, Hex-Head Hi-Lo .....	2
5	101811901	Bottom, Air Box .....	1
6	101881701	Washer, #8 Stainless-Steel Flat .....	2
7	101921501	Seal, Intake .....	1
8	101925701	Latch, Wireform .....	2
9	101972801	Top Assy, Air Box (includes items 10 through 16) .....	1
10	N/A	Valve, Choke .....	1
11	N/A	Top, Air Box .....	1
12	N/A	O-Ring, 5/16 .....	1
13	N/A	O-Ring, 3/8 .....	1
14	101812301	Spring, Extension Return .....	1
15	101813001	Retaining Ring 0.25, Shaft .....	1
16	101917601	Lever, Choke .....	1
17	101837101	Hose, Air Intake .....	1
18	101971301	Clamp, 1.58" ID Hose .....	2
19	332	Washer, 1/4 Type A Narrow Flat .....	3

8

G



000338-004

# INTAKE SYSTEM

8

G

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	
1	101805701	Button Assembly, Choke (includes items 2 through 4) .....	1
2	101811401	Lever, Choke .....	1
3	101811501	Guide, Choke Lever .....	1
4	101856201	Compression Spring .....	1
5	101850301	Screw, #12-16 X 0.50 Washer-Head Hi-Lo .....	4
6	101917701	Choke Positioner .....	1
7	101958101	Duct Assembly .....	1
8	1606	Rivet, 3/16 X .500 Alum Pop .....	2
9	183	Washer, #10 Type A Flat .....	4

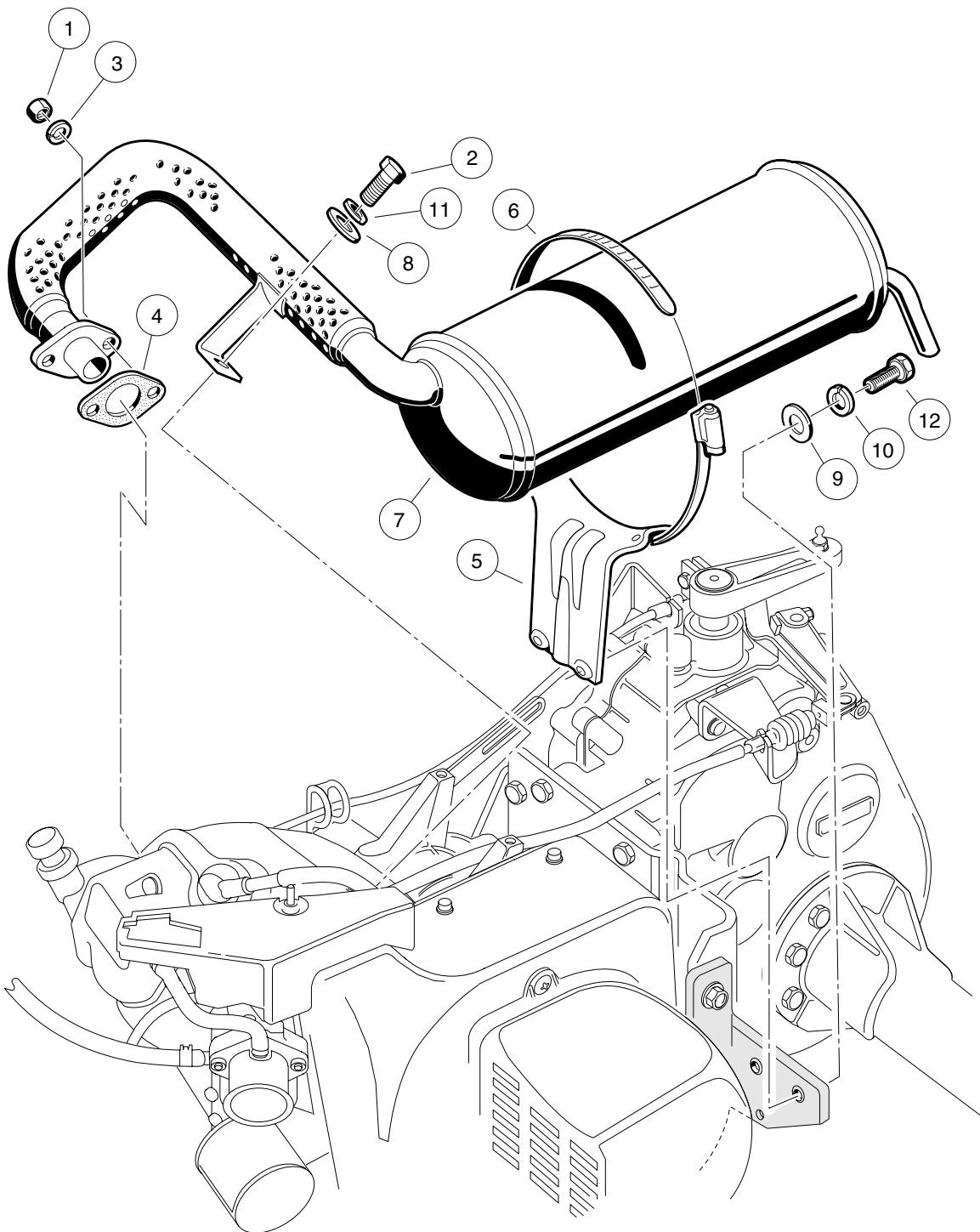
**8**

**G**

# EXHAUST SYSTEM

9

G



000208-001

# EXHAUST SYSTEM – FE290 ENGINE

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	9
1	1012528	Nut, M8-1.25 Hex .....	2
2	1012830	Screw, M8-125 X 22 Hex-Head .....	1
3	1013734	Lockwasher, 8mm Split .....	2
4	1015330	Gasket, Exhaust .....	1
5	1015814	Bracket, Muffler Mounting .....	1
6	1017689	Clamp, 5" Muffler Hose .....	1
7	101859301	Exhaust System, FE290 .....	1
8	1241	Washer, 5/16 Type A Flat .....	1
9	332	Washer, 1/4 Type A Narrow Flat .....	2
10	451	Lockwasher, 1/4 Helical Split .....	2
11	7174	Lockwasher, 5/16 Split .....	1
12	7847	Screw, 1/4-20 X 0.75 Hex-Head Cap .....	2

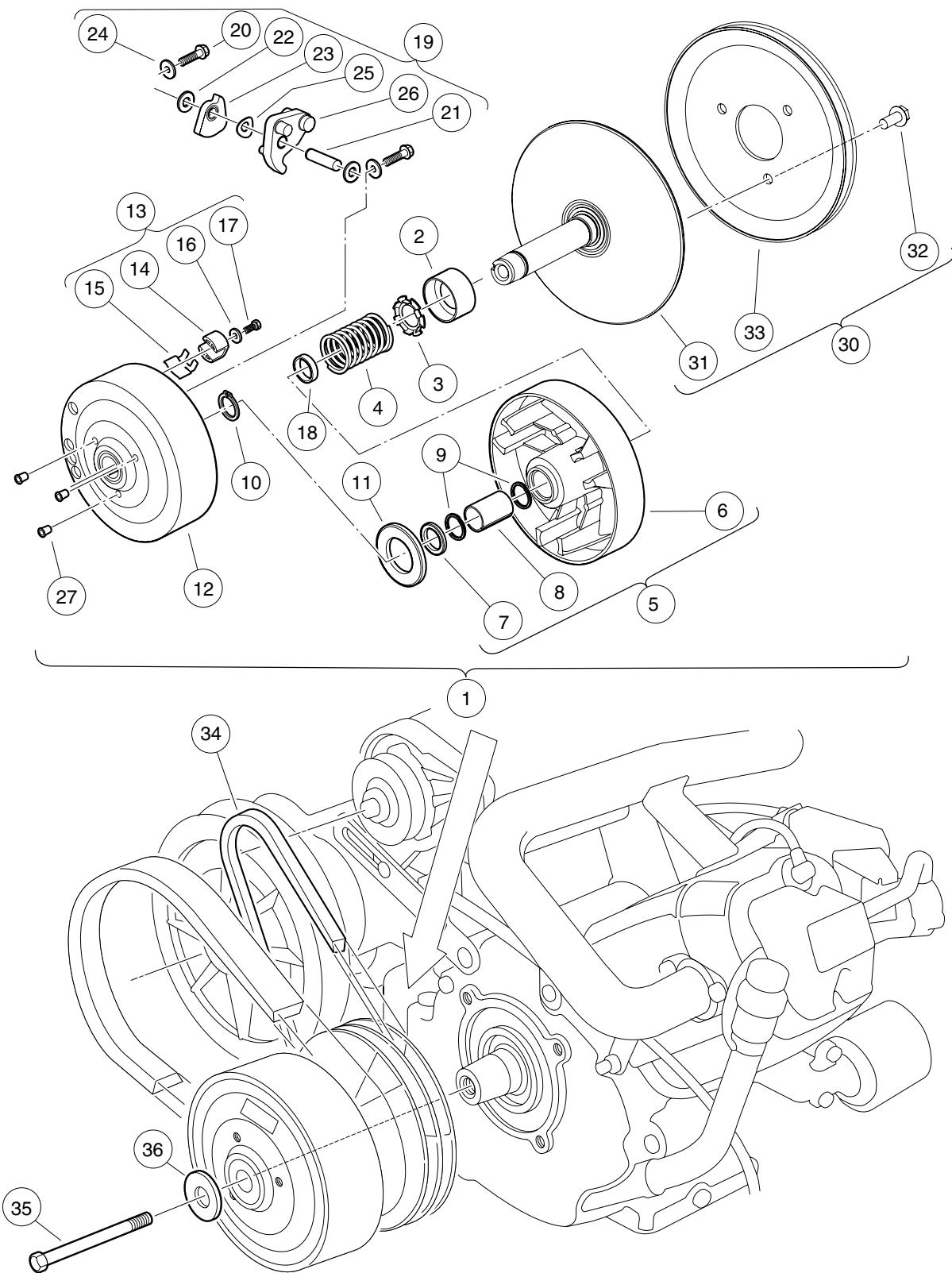
**9**

**G**

# TORQUE CONVERTER

10

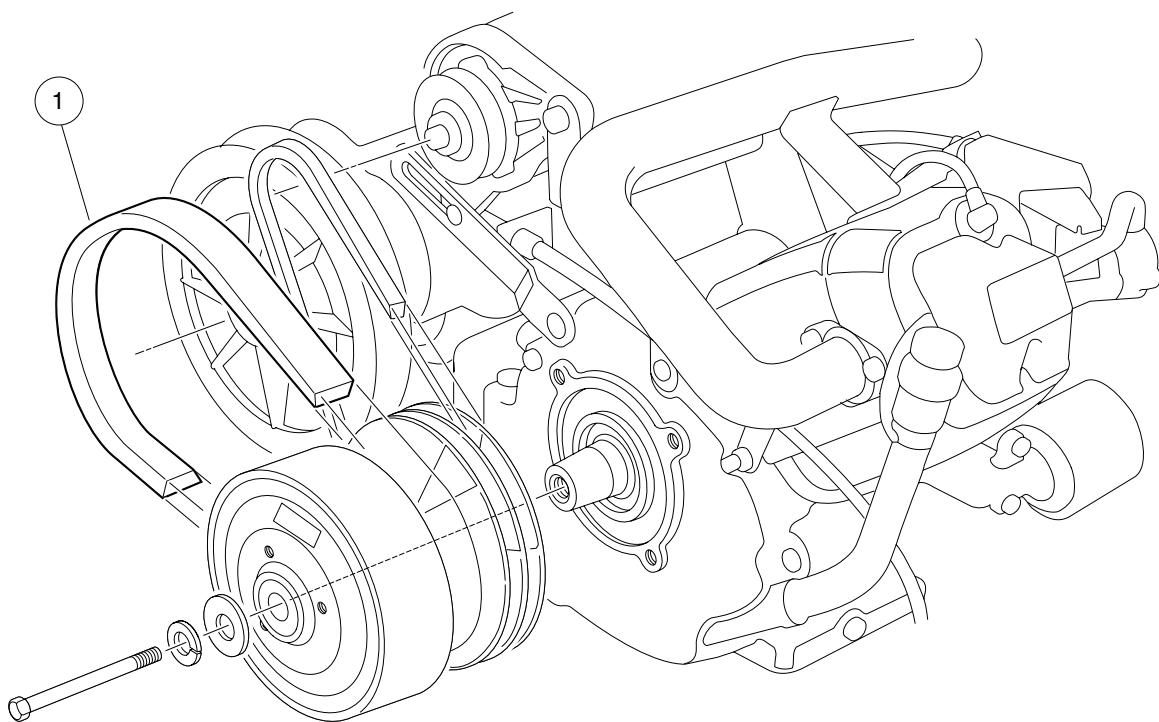
G

**10****G**

000217-001

# DRIVE CLUTCH

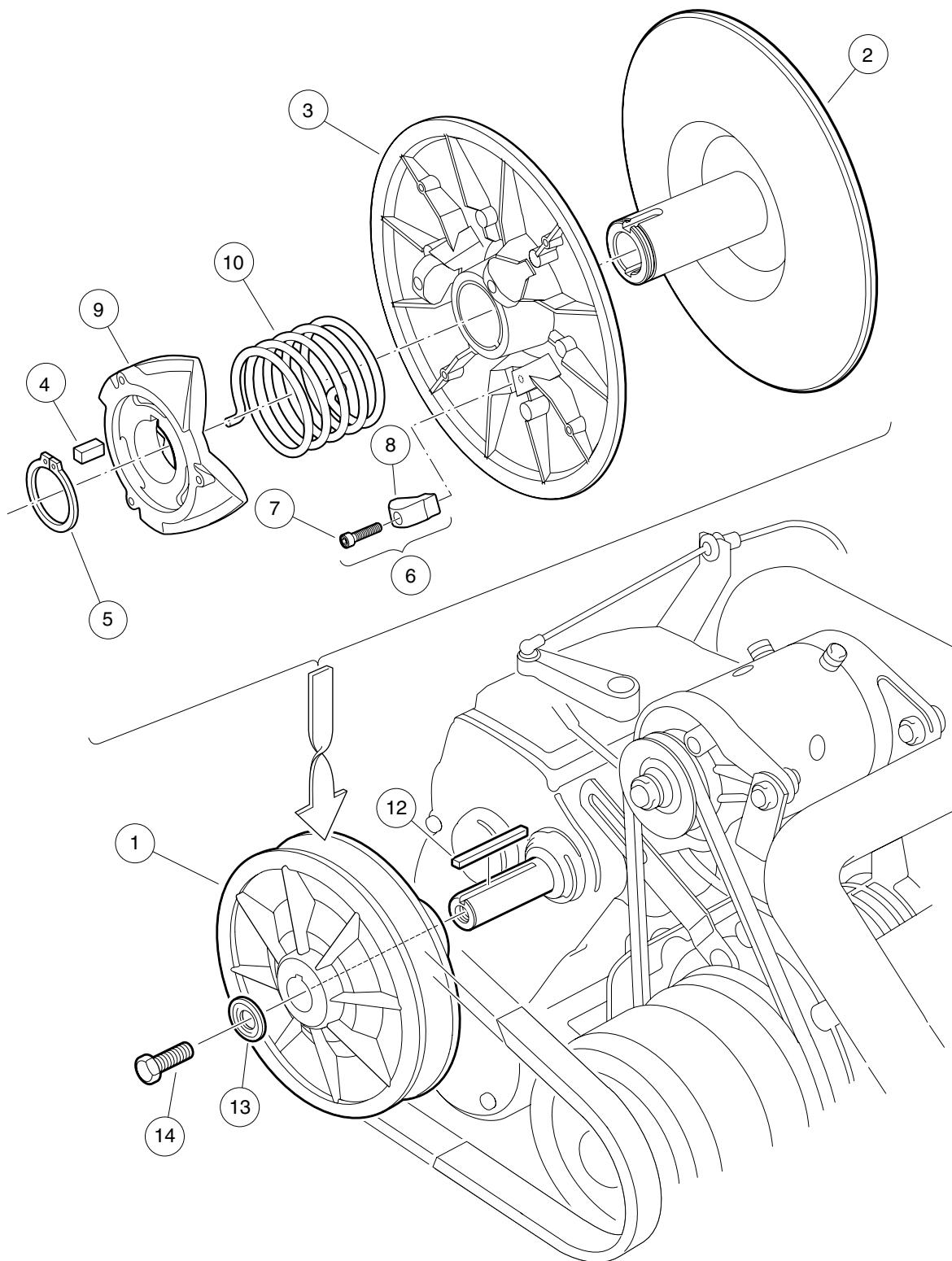
ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	10
1	101833902	Clutch, Drive (includes items 2 through 28) .....	1
2	1014049	Bearing, Idler .....	1
3	1014050	Retainer, Spring .....	1
4	1014051	Spring, Drive Clutch .....	1
5	1014052	Movable-Face Assembly (includes items 6 through 8) .....	1
6	N/A	Drive Clutch Movable Face .....	1
7	1014055	Retainer .....	1
8	N/A	Bushing, Split, Drive Clutch .....	1
9	1014056	Ring, Spiral Backup .....	2
10	1014057	Ring, 0.810" Internal Retaining .....	1
11	1014058	Washer, Thrust .....	1
12	1014059	Drive Hub Assy, Drive Clutch .....	1
13	1014453	Kit, Drive Clutch Button (includes items 14 through 17) .....	1
14	1014062	Driver, Drive Clutch .....	3
15	1014287	Spring, Drive Button .....	3
16	183	Washer, #10 Type A Flat .....	3
17	8450	Screw, #10-24 X 0.50 Hex-Head .....	3
18	1016289	Spacer, Fixed Face Shaft .....	1
19	1016801	Kit, Drive Clutch Weight (includes items 20 through 26) .....	1
20	1014063	Screw, 1/4-20 X 1.00 Hex Head .....	6
21	N/A	Pin, 0.3752 X 1.50 Dowel .....	3
22	1014065	Washer, 0.38" ID Delrin Flat .....	6
23	N/A	Clutch Weight, Secondary .....	3
24	N/A	Washer .....	6
25	1016201	Washer, Wave .....	3
26	N/A	Weight, Primary .....	3
27	N/A	Plug, Drive Clutch .....	3
28	101929802	Kit, Fxd Face Dr Asm Fe290/350 (includes items 29 and 30) .....	1
29	N/A	Desiccant Bag (Not Shown) .....	1
30	N/A	Assembly, Fixed-Face Drive (includes items 31 through 33) .....	1
31	N/A	Fixed Face Assembly, Drive Clutch .....	1
32	1014288	Screw, 5/16-18 X 0.75 Thread-Forming .....	3
33	N/A	Pulley, Clutch .....	1
34	101916701	V-Belt .....	1
35	103345701	Screw 3/8-24x5.5 Hex Loc Ptch .....	1
36	808	Washer, 3/8 Type B Flat .....	1
		Note: Item 29 not shown.	



000218-001

# DRIVE BELT – FE290

ITEM	PART NO.	DESCRIPTION	QTY	
1	1016203	1 2 3 4 Belt, Drive .....	1	<b>10</b> <b>G</b>

**10****G**

000219-001

# DRIVEN CLUTCH

ITEM	PART NO.	DESCRIPTION	QTY	
		1 2 3 4		10
1	101834001	Assembly, Driven Clutch (includes items 2 through 10) .....	1	
2	1014070	Fixed Face Assy, Driven Clutch .....	1	
3	1014072	Movable-Face Assembly with Bushing .....	1	
4	1014078	Key, Driven Clutch .....	1	
5	1014080	Ring, Retaining .....	1	
6	1014454	Kit, Driven Clutch Button (includes items 7 and 8) .....	1	
7	1012836	Screw, #8-32 X 3/4 Socket-Head Cap .....	3	
8	N/A	Button, Drive .....	3	
9	1017686	Cam, Driven Clutch .....	1	
10	101836201	Spring, Driven Clutch, Reversed .....	1	
11	AM10419	Kit, Clutch Repair (includes items 12 through 14) .....	1	
12	101833401	Key, 3/16 Sq X 1.50" .....	1	
13	N/A	Washer, Driven Clutch .....	1	
14	102242101	Screw, 5/16-18 X 3/4 Hex-Head with Patch .....	1	

**10**

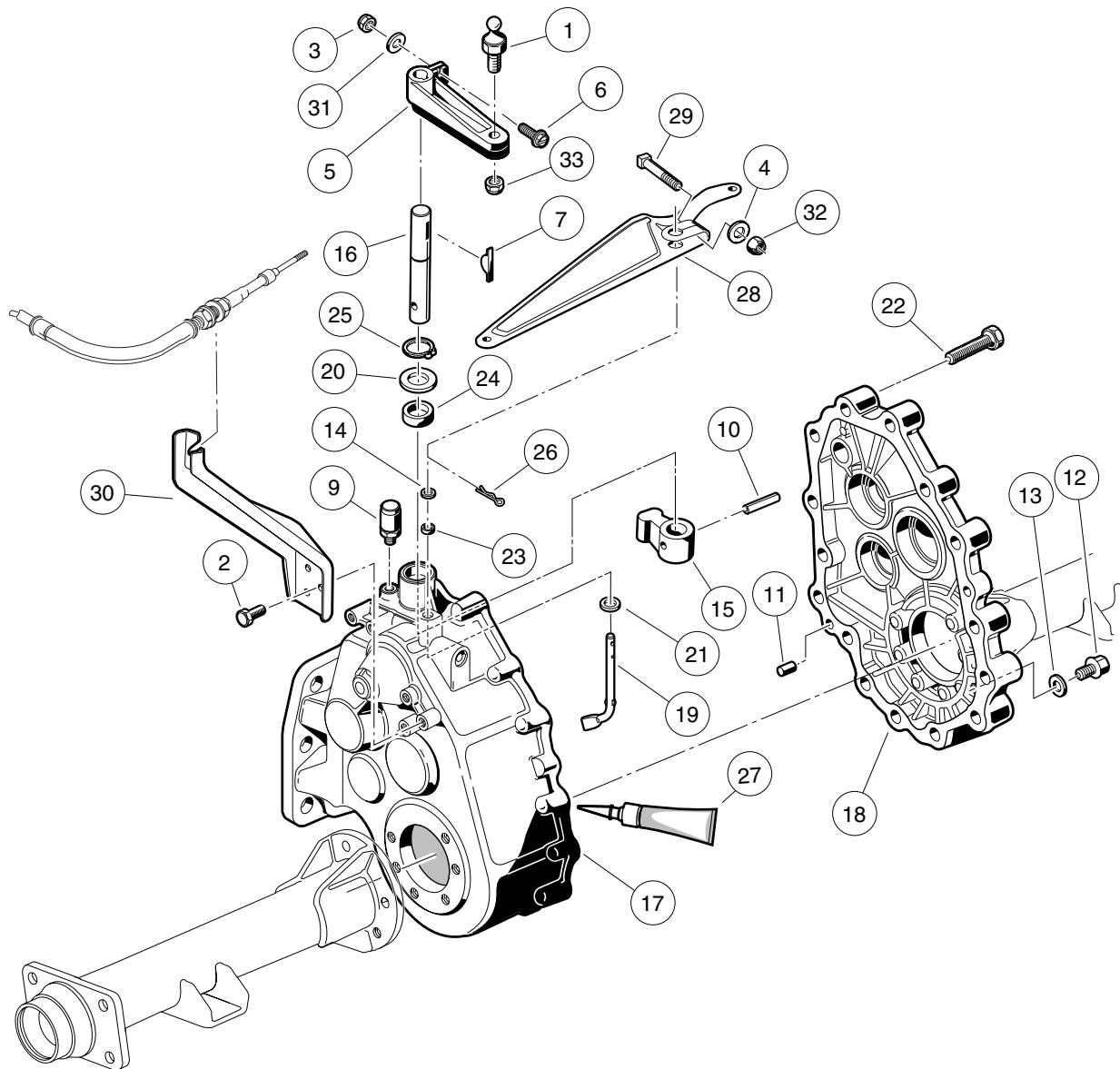
**G**

# **TRANSAXLE – GASOLINE VEHICLE**

---

**11**

**G**



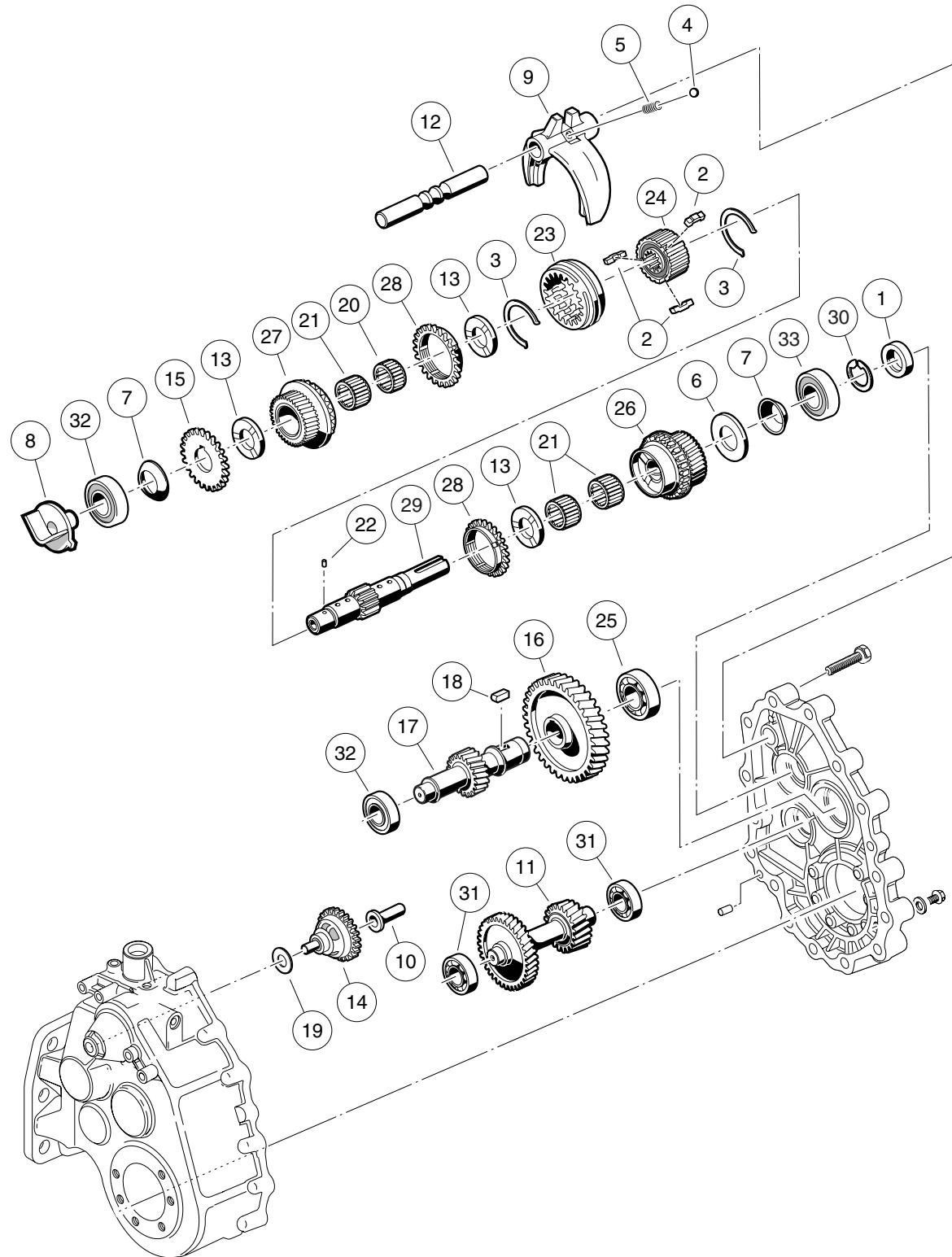
000220-001

**TRANSAXLE – GASOLINE VEHICLES,  
GEAR CASES AND BRACKETS**

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	
1	1010954	Stud, 1/4-28 X 0.560 Ball .....	1
2	1012285	Screw, 1/4 X 0.625 Hex-Head .....	3
3	1013061	Locknut, #10-32 Nylon Insert .....	1
4	1014007	Washer, 1/4 Flat .....	1
5	1016341	Lever, Transmission Shift .....	1
6	1017082	Screw, #10-32 X 0.75, Hex-Head Machine .....	1
7	1017231	Key, Woodruff .....	1
8	101833601	Transaxle, 11.77 Ratio (includes items 9 through 27) .....	1
9	1012711	Breather .....	1
10	1012752	Roll Pin .....	1
11	1012896	Pin, Dowel .....	2
12	1013760	Fill Plug .....	2
13	1016432	Gasket, Drain Plug .....	1
14	1016513	Washer, M6 Flat .....	1
15	101890101	Lever, Change .....	1
16	101890201	Shaft - Change .....	1
17	101890501	Gear Case (driver side) .....	1
18	101890601	Gear Case (passenger side) .....	1
19	101891301	Arm Pivot .....	1
20	101892901	Washer .....	1
21	101893801	Washer .....	1
22	101926901	Screw, M8-1.25 X 40mm Hex-Head .....	15
23	101927101	Seal, Oil .....	1
24	101927201	Seal, Oil .....	1
25	101927301	Snap Ring .....	1
26	101928601	Pin, Cotter .....	1
27	101928701	Liquid Gasket (Transaxle case) .....	A/R
28	101834801	Arm, Governor .....	1
29	101886101	Screw, 1/4-20 X 1.00 Square-Head .....	1
30	102045901	Bracket, Shifter .....	1
31	183	Washer, #10 Type A Flat .....	1
32	8233	Locknut, 1/4-20 Nylon Insert .....	1
33	8717	Locknut, 1/4-28 Nylon Insert .....	1

**11**

**G**



000221-001

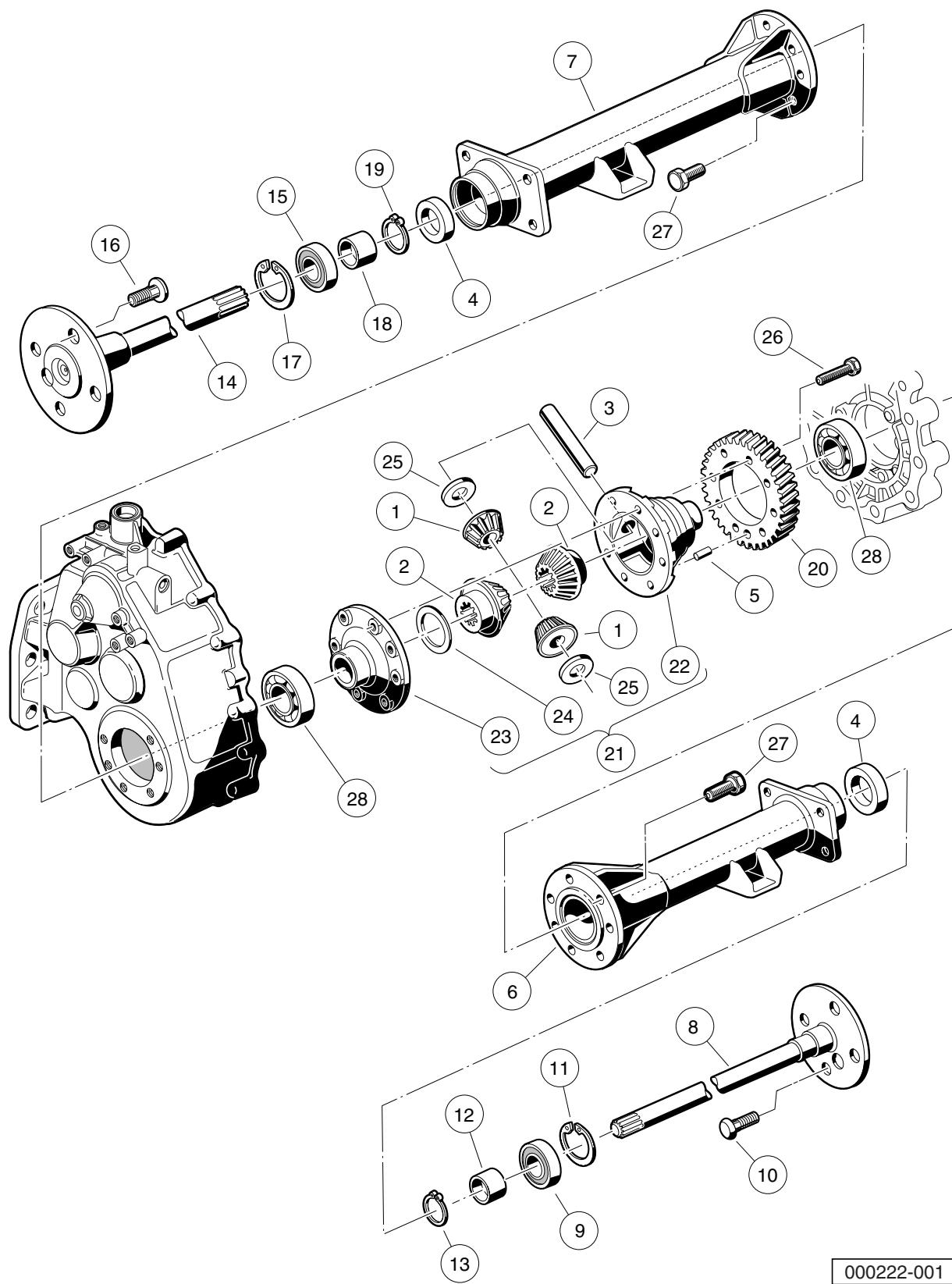
# TRANSAXLE – GASOLINE VEHICLES, TRANSMISSION AND GEAR REDUCTION

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	
1	1012714	Oil Seal .....	1
2	1012740	Synchro Insert .....	3
3	1012741	Synchro Spring .....	2
4	1012747	Shifter Ball .....	1
5	1012748	Shifter Spring .....	1
6	1016337	Washer, Thrust .....	1
7	1016338	Washer, Spring .....	2
8	101889401	Guide .....	1
9	101890001	Fork - Shift .....	1
10	101891601	Sleeve, Governor .....	1
11	101891901	Gear, Cluster .....	1
12	101892001	Rod, Shift .....	1
13	101892201	Plate, Thrust .....	3
14	101892301	Governor Assembly .....	1
15	101892401	Gear, Spur .....	1
16	101892501	Gear, Helical (61 Tooth) .....	1
17	101892601	Gear, Helical (17 Tooth) .....	1
18	101893201	Key Sunk .....	1
19	101893901	Washer .....	1
20	101927501	Needle Bearing .....	1
21	101927601	Needle Bearing .....	3
22	101927701	Pin, .116" Dia X 0.264 Dowel .....	1
23	101927901	Sleeve, Synchro .....	1
24	101928001	Hub, Synchro Clutch .....	1
25	101928101	Bearing, Ball .....	1
26	101980801	Gear Assembly, 16-Degree Synchro (25 Tooth) .....	1
27	101980901	Gear Assembly, 16-Degree Rear Synchro (28 Tooth) .....	1
28	101981001	Ring, 16-Degree Synchronizer .....	2
29	102453001	Shaft, Trans, with Circlip .....	1
30	102453101	Circlip .....	1
31	7335	Bearing .....	2
32	AM10080	Bearing, Ball, Sealed .....	2
33	AM10081	Bearing, Ball, Sealed .....	1

Note: Items listed on this page are components of the unitized transaxle.

**11**

**G**

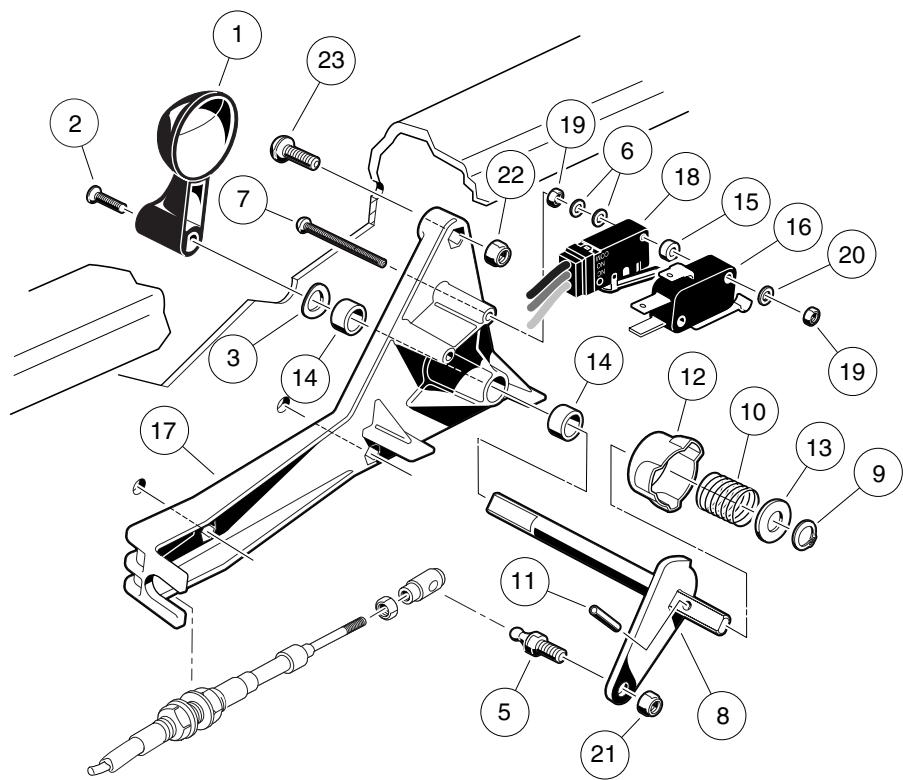
**11****G**

000222-001

# TRANSAXLE – GASOLINE VEHICLES, DIFFERENTIAL AND AXLES

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	11
1	1013770	Differential Idler Gear .....	2
2	1013771	Gear, Differential .....	2
3	1013772	Pin, Differential .....	1
4	1013794	Axle Shaft Oil Seal .....	2
5	N/A	Dowel Pin .....	1
6	101890901	Pipe .....	1
7	101891001	Pipe .....	1
8	101891401	Axle Assembly, Passenger Side (includes items 9 through 13) .....	1
9	1011291	Outer Axle, Tube Bearing .....	1
10	1013787	Lug Stud .....	4
11	1013792	Circlip Type C .....	1
12	1014207	Bushing .....	1
13	1016672	Retaining Ring .....	1
14	101891501	Axle Assembly, Driver-Side (includes items 15 through 19) .....	1
15	1011291	Outer Axle, Tube Bearing .....	1
16	1013787	Lug Stud .....	4
17	1013792	Circlip Type C .....	1
18	1014207	Bushing .....	1
19	1016672	Retaining Ring .....	1
20	101892701	Gear, Helical .....	1
21	101910501	Kit, Differential Gear Case (includes items 22 through 25) .....	1
22	1013768	Differential Gear Case, Left-Hand .....	1
23	1013769	Differential Gear Case, Right-Hand .....	1
24	1013773	Plate, Thrust (Differential Gear) .....	1
25	1013774	Plate, Thrust (Idler Gear) .....	2
26	101928301	Screw, M8-1.25 X 35mm Hex Head .....	8
27	102031901	Bolt, M10 X 1.5 X 30mm .....	14
28	7330	Inner Axle Tube Bearing .....	2

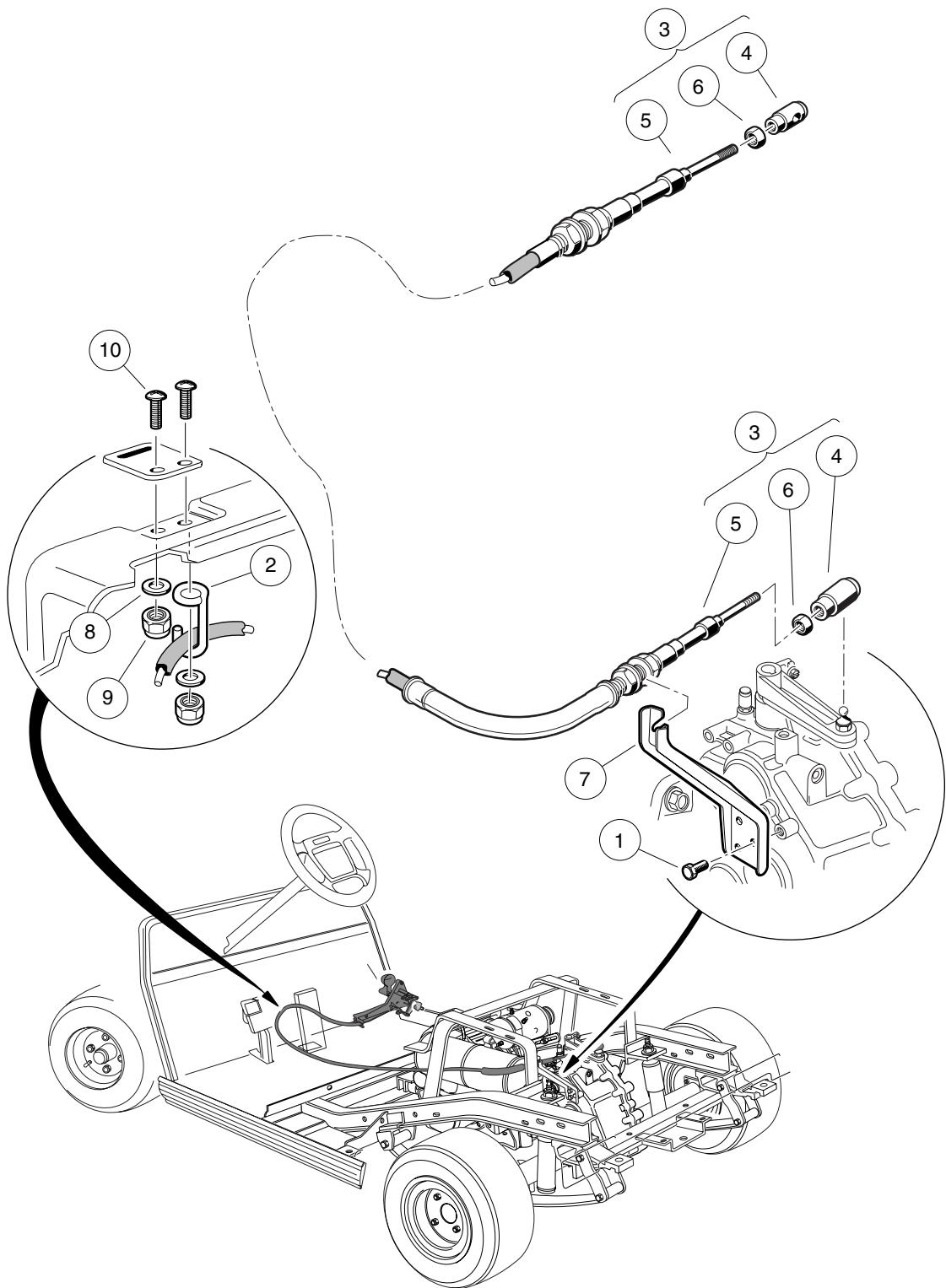
Note: Items listed on this page are components of the unitized transaxle.



000236-001

# FORWARD/REVERSE SHIFTER ASSEMBLY – GASOLINE VEHICLES

ITEM	PART NO.	DESCRIPTION	QTY	11	G
		<b>1 2 3 4</b>			
1	1012987	Handle, FNR .....	1		
2	1015064	Screw, #8-32 X 0.63 Machine .....	1		
3	1016201	Washer, Wave .....	1		
4	1016947	Assembly, FNR Shifter (includes items 5 through 21) .....	1		
5	1010954	Stud, 1/4-28 X 0.560 Ball .....	1		
6	1012431	Washer, #4 Flat .....	4		
7	1012594	Screw, #4-40 Machine .....	2		
8	1013587	FNR Bell Crank Weldment .....	1		
9	1013589	Ring, 0.338" Internal Retaining .....	1		
10	1013590	Spring, FNR Cam .....	1		
11	1013591	Pin, 1/8 X 1/2 Roll .....	1		
12	1014089	Neutral Lockout Cam Kit (includes item 13) .....	1		
13	1014065	Washer, 0.38" ID Delrin Flat .....	1		
14	1014145	Bushing, Secondary Weight, Split .....	2		
15	1014727	Washer, #4 Nylon Flat .....	2		
16	1014807	Switch, Limit .....	1		
17	1016342	FNR Shifter Base .....	1		
18	101979101	Assembly, Switch, Limit .....	1		
19	8057	Nut, #4-40 Hex Machine .....	4		
20	8058	Lockwasher, #4 Helical Split .....	2		
21	8717	Locknut, 1/4-28 Nylon Insert .....	1		
22	8233	Locknut, 1/4-20 Nylon Insert .....	4		
23	8248	Screw, 1/4-20 X 0.75 Truss-Head Machine .....	4		

**11****G**

000248-001

# FORWARD/REVERSE SHIFTER CABLE – GASOLINE VEHICLES

ITEM	PART NO.	DESCRIPTION	QTY
		<b>1 2 3 4</b>	
1	1012285	Screw, 1/4 X 0.625 Hex-Head .....	3
2	101855801	Cable Retainer .....	1
3	101951501	FNR Shifter Cable (includes items 4 through 6) .....	1
4	1012333	Joint, #10-32 Ball .....	2
5	N/A	Cable, Forward/Reverse Shifter .....	1
6	7893	Nut, #10-32 Hex .....	2
7	102045901	Bracket, Shifter .....	1
8	332	Washer, 1/4 Type A Narrow Flat .....	4
9	8233	Locknut, 1/4-20 Nylon Insert .....	4
10	8251	Screw, 1/4-20 X 1.0 Truss-Head Machine .....	4

**11**

**G**

**11**

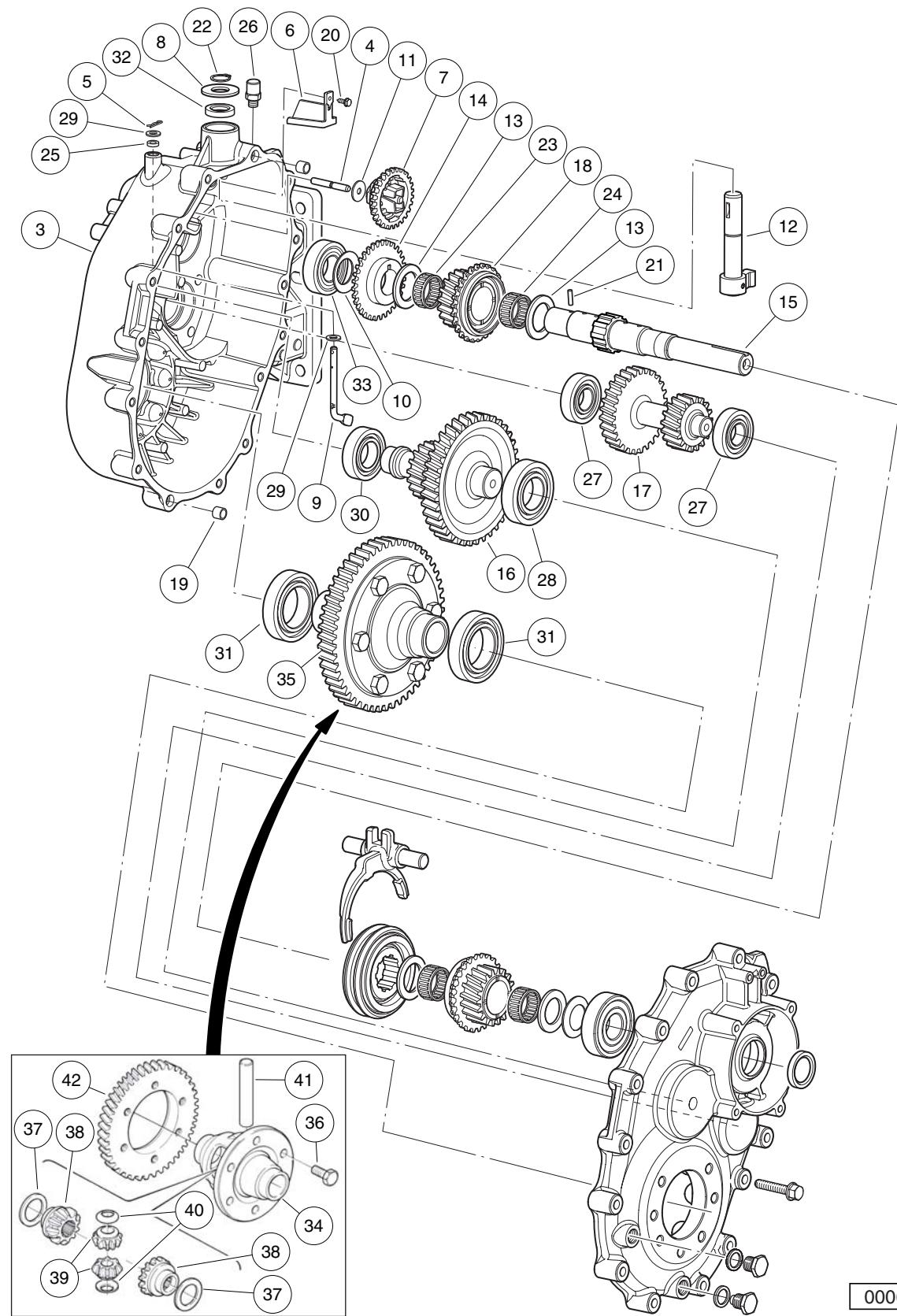
**G**

# **GRAZIANO TRANSAXLE – GASOLINE VEHICLE**

---

**12**

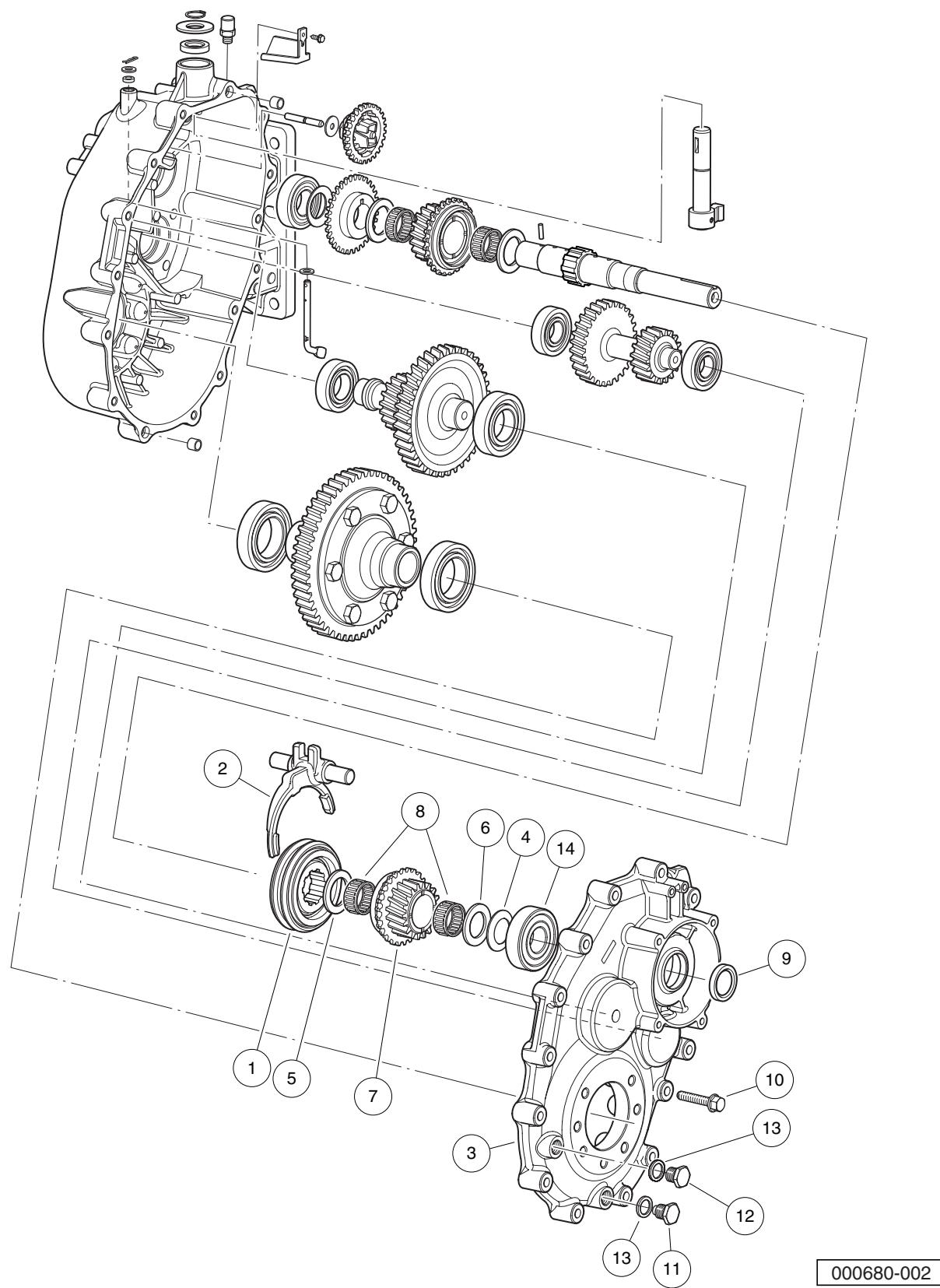
**G**

**12****G**

000680-001

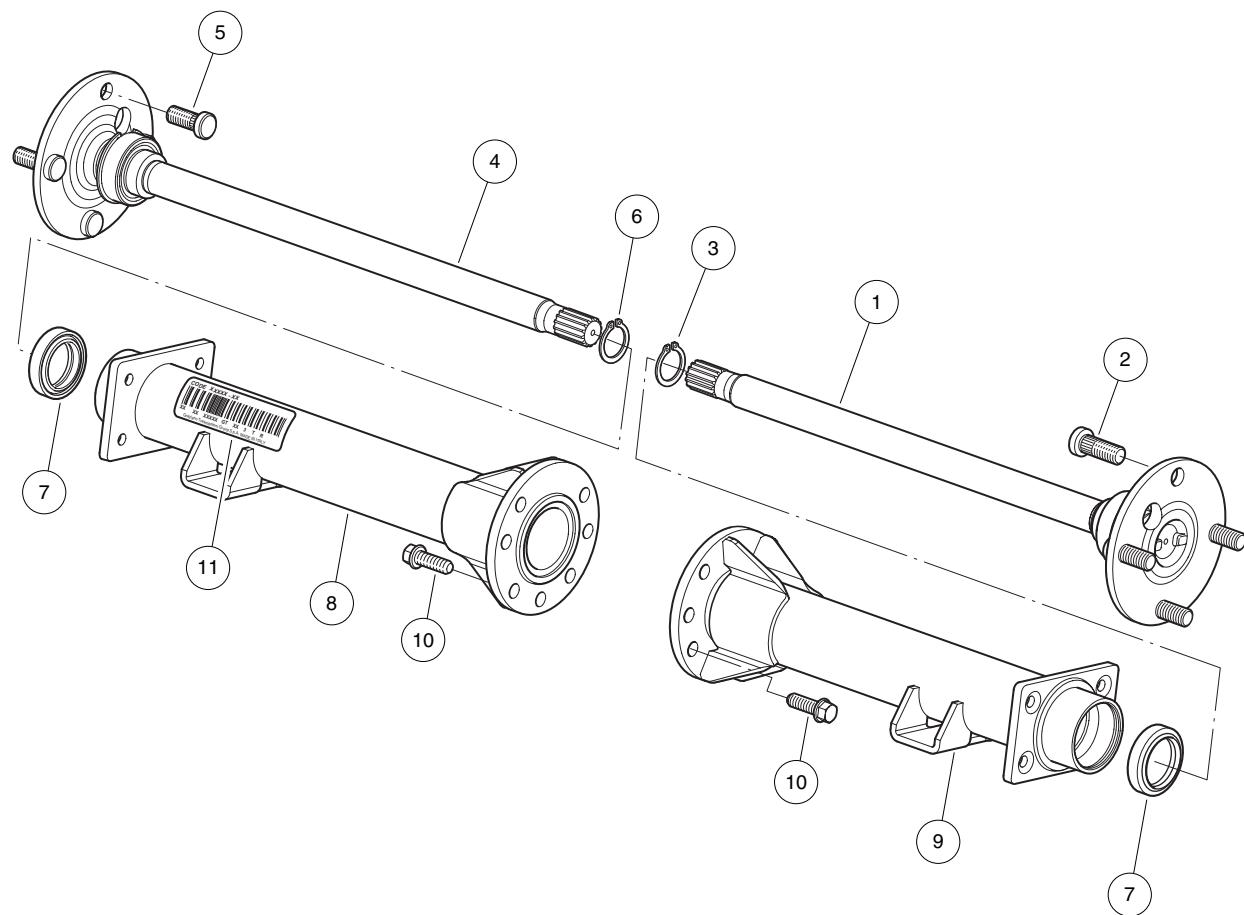
# GRAZIANO TRANSAXLE – GASOLINE VEHICLES

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	12
1	102896801	Transaxle, Unitized, Graziano (includes items 2 through 35) .....	1
2	102896901	Gear Box, Complete (includes items 3 and 4) .....	1
3	N/A	Gear Box .....	1
4	N/A	Pin, Speed Governor .....	1
5	102897401	Pin, Split .....	1
6	102897601	Conveyor, Oil .....	1
7	102897701	Assembly, Speed Governor .....	1
8	102897801	Washer, Thrust .....	1
9	102897901	Lever, Speed Governor .....	1
10	102898001	Washer, Belleville .....	1
11	102898101	Bearing, Thrust .....	1
12	102898201	Unit, Drive Selector .....	1
13	102898301	Bearing, Thrust .....	2
14	102898501	Gear, Speed Governor .....	1
15	102898601	Shaft, Main .....	1
16	102898701	Shaft, Secondary .....	1
17	102898801	Shaft, Reverse Gear .....	1
18	102899001	Gear, Complete, 28t .....	1
19	102899101	Dowel .....	2
20	102899201	Screw .....	1
21	102899301	Pin .....	1
22	102899401	Ring, Snap .....	1
23	102899501	Cage, Roller .....	1
24	102899601	Cage, Roller .....	1
25	102899701	Grommet .....	1
26	102899801	Bleeder .....	1
27	102900401	Bearing .....	2
28	102900501	Bearing .....	1
29	102900601	Washer .....	2
30	102900701	Bearing .....	1
31	102900801	Bearing .....	2
32	102900901	Grommet .....	1
33	102901001	Bearing .....	1
34	102901201	Box, Differential .....	1
35	102902001	Assembly, Differential (includes items 36 through 42) .....	1
36	102901301	Screw, M10 X 25 .....	6
37	102901401	Ring, Sleeve .....	2
38	102901501	Gear, Sun .....	2
39	102901601	Gear, Planetary .....	2
40	102901701	Ring, Sleeve .....	2
41	102901801	Pin .....	1
42	102901901	Gear .....	1

**12****G**

# GRAZIANO TRANSAXLE – GASOLINE VEHICLES

ITEM	PART NO.	DESCRIPTION	QTY	
		1 2 3 4		12
1	102897201	Synchronizer, Complete .....	1	G
2	102897301	Fork, Complete .....	1	
3	102897501	Cover, Box .....	1	
4	102898001	Washer, Belleville .....	1	
5	102898301	Bearing, Thrust .....	1	
6	102898401	Washer, Thrust .....	1	
7	102898901	Gear, Complete, 25t .....	1	
8	102899601	Cage, Roller .....	2	
9	102899901	Grommet .....	1	
10	102900001	Screw .....	15	
11	102900101	Plug, Magnetic .....	1	
12	102900201	Plug .....	1	
13	102900301	Seal .....	2	
14	102901101	Bearing .....	1	
Note: Items listed on this page are components of the Graziano transaxle assembly.				



000681-001

# GRAZIANO TRANSAXLE – GASOLINE VEHICLES

ITEM	PART NO.	DESCRIPTION	QTY	
		1 2 3 4		<b>12</b>
1	N/A	Shaft, Short, Complete (includes items 2 and 3) .....	1	
2	102902301	Bolt, Stud .....	4	
3	102902401	Snap Ring .....	1	
4	102902201	Shaft, Long, Complete (includes items 5 and 6) .....	1	
5	102902301	Bolt, Stud .....	4	
6	102902401	Snap Ring .....	1	
7	102902501	Seal, Lip .....	2	
8	102902601	Assembly, Tube Extension, Lh .....	1	
9	102902701	Assembly, Tube Extension, Rh .....	1	
10	102902801	Screw, M10 X 30 .....	14	
11	N/A	Tag, Serial .....	1	
Note: Items listed on this page are components of the Graziano transaxle assembly.				

**12**

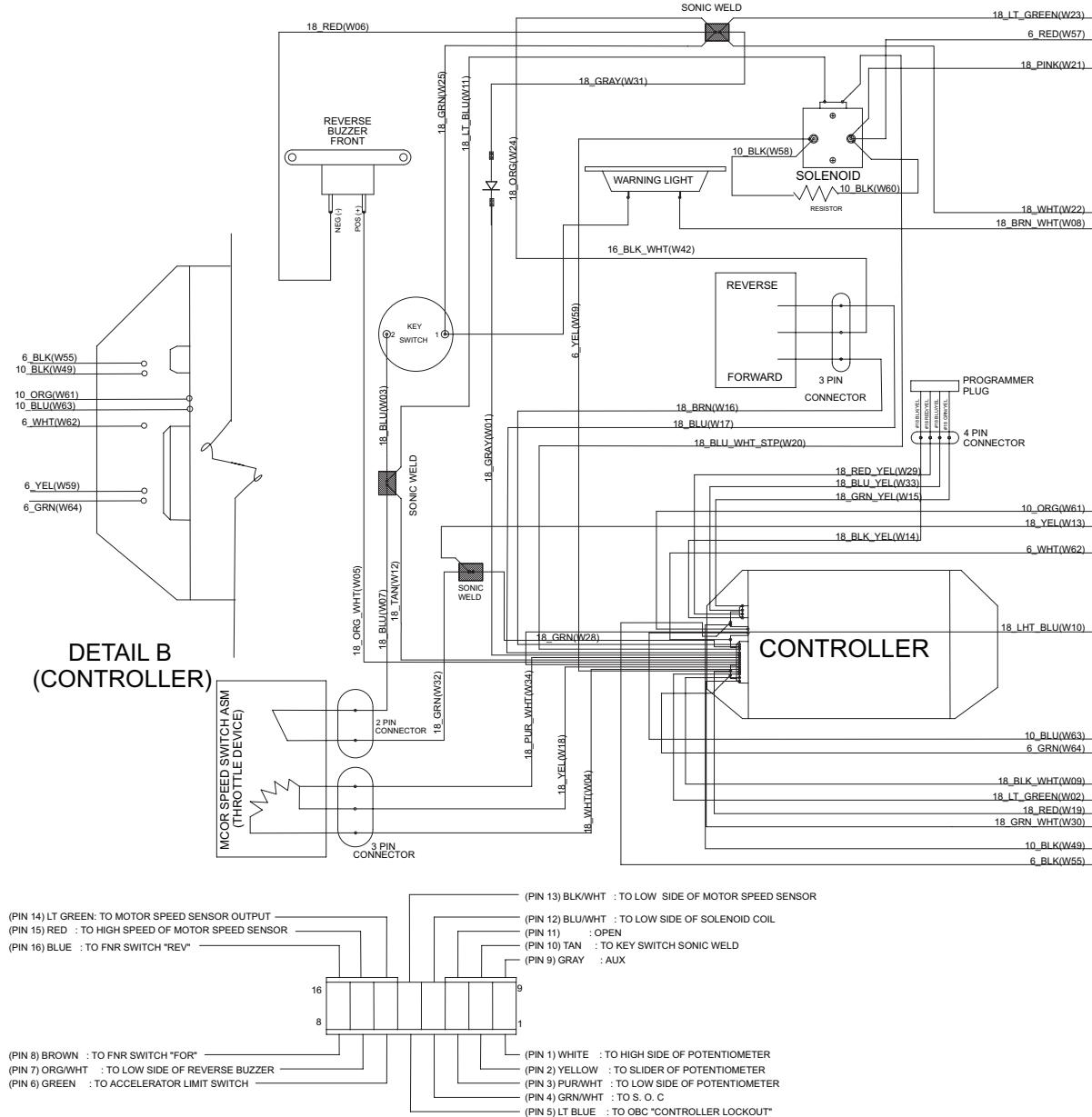
**G**

# ELECTRICAL SYSTEM – ELECTRIC VEHICLE

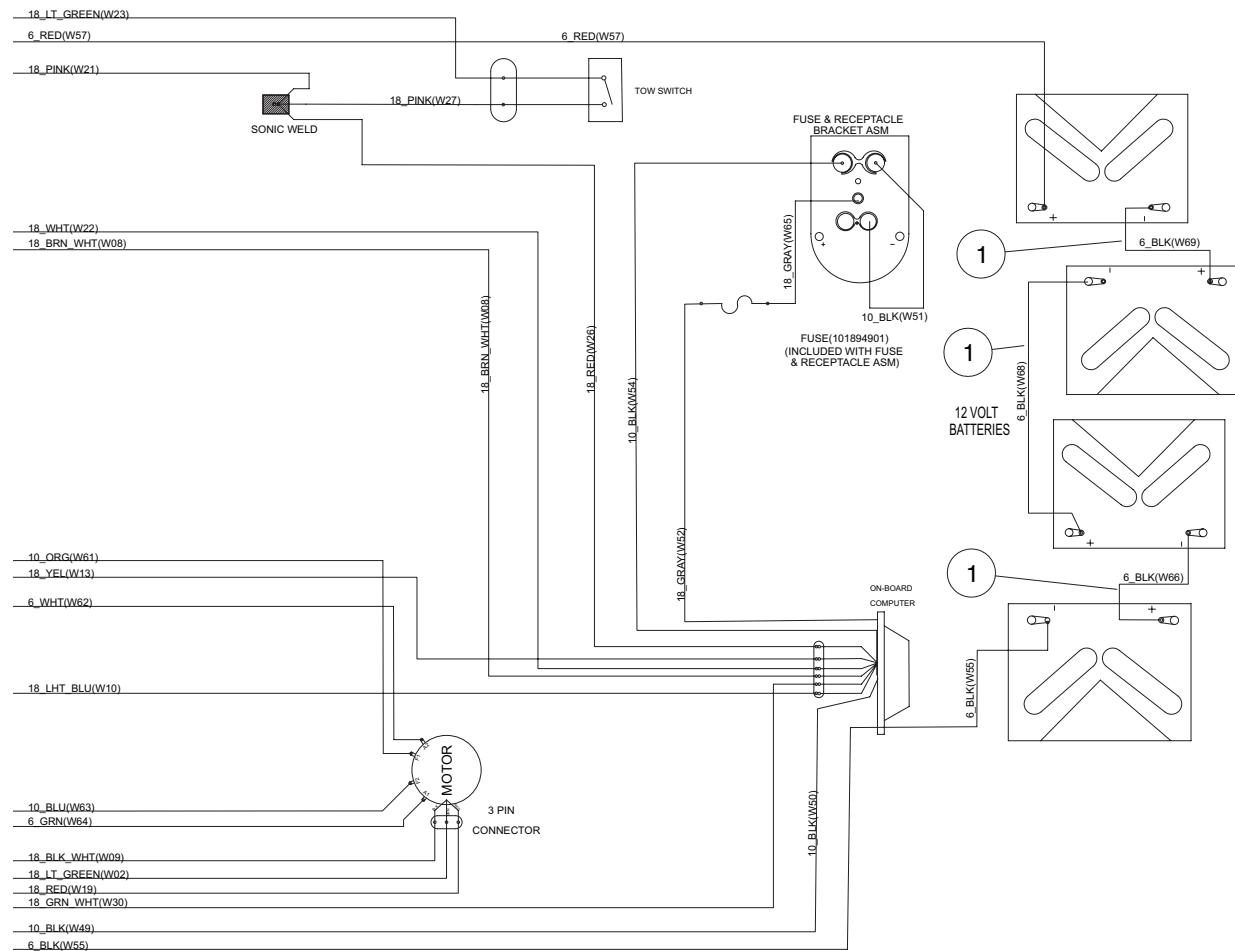
---

13

E



000412-002



000412-002

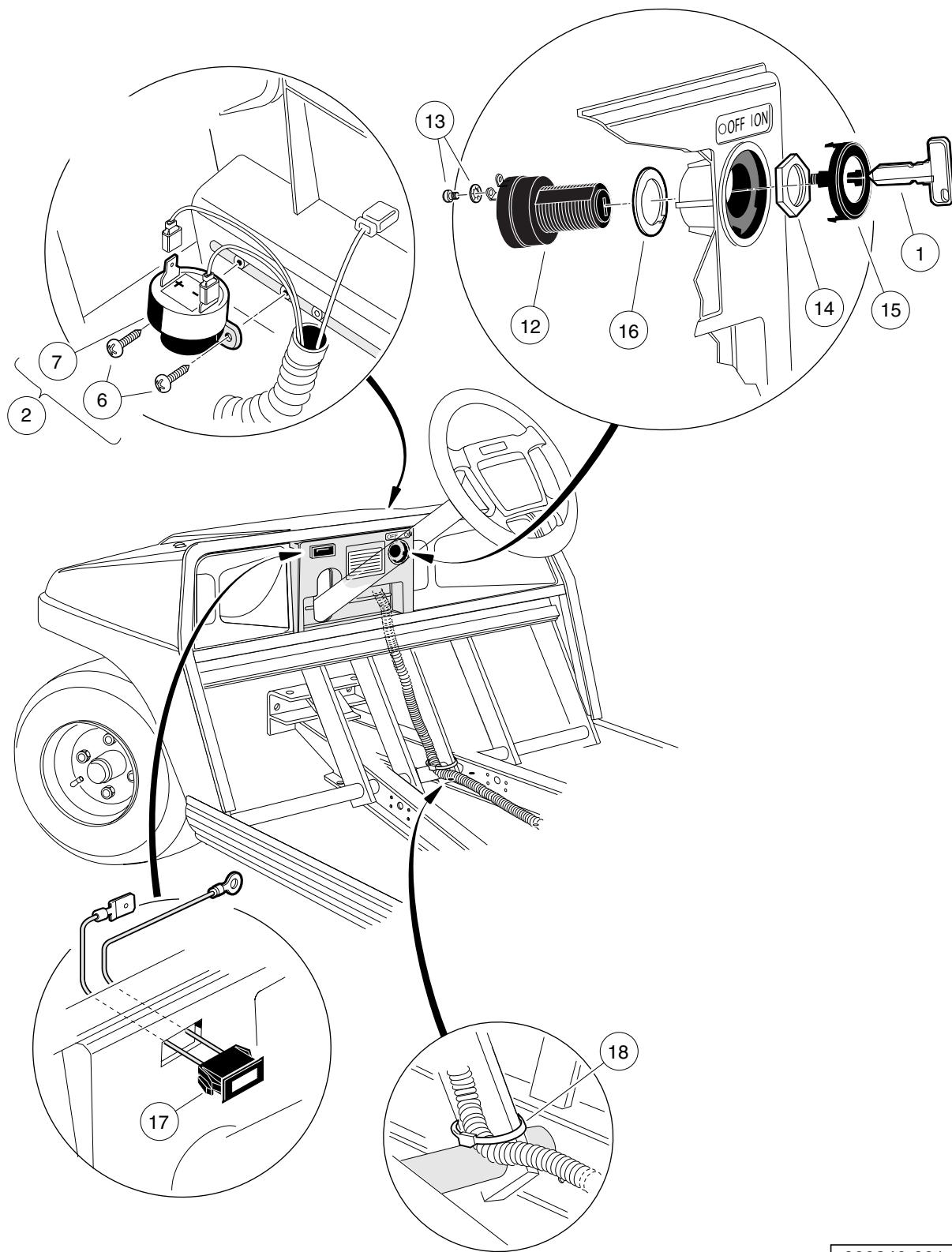
**13**

**E**

See previous two pages for illustration.

## WIRING

ITEM	PART NO.	DESCRIPTION	QTY	
1	101795701	1 2 3 4 Asm, Wire, #6blk 13in .....	3	
2	102913301	Wire Harness, Electric, DS, Four 12-Volt Batteries .....	1	E
3	103250701	Wire Harness Ds Iq Data .....	1	

**13****E**

000340-001

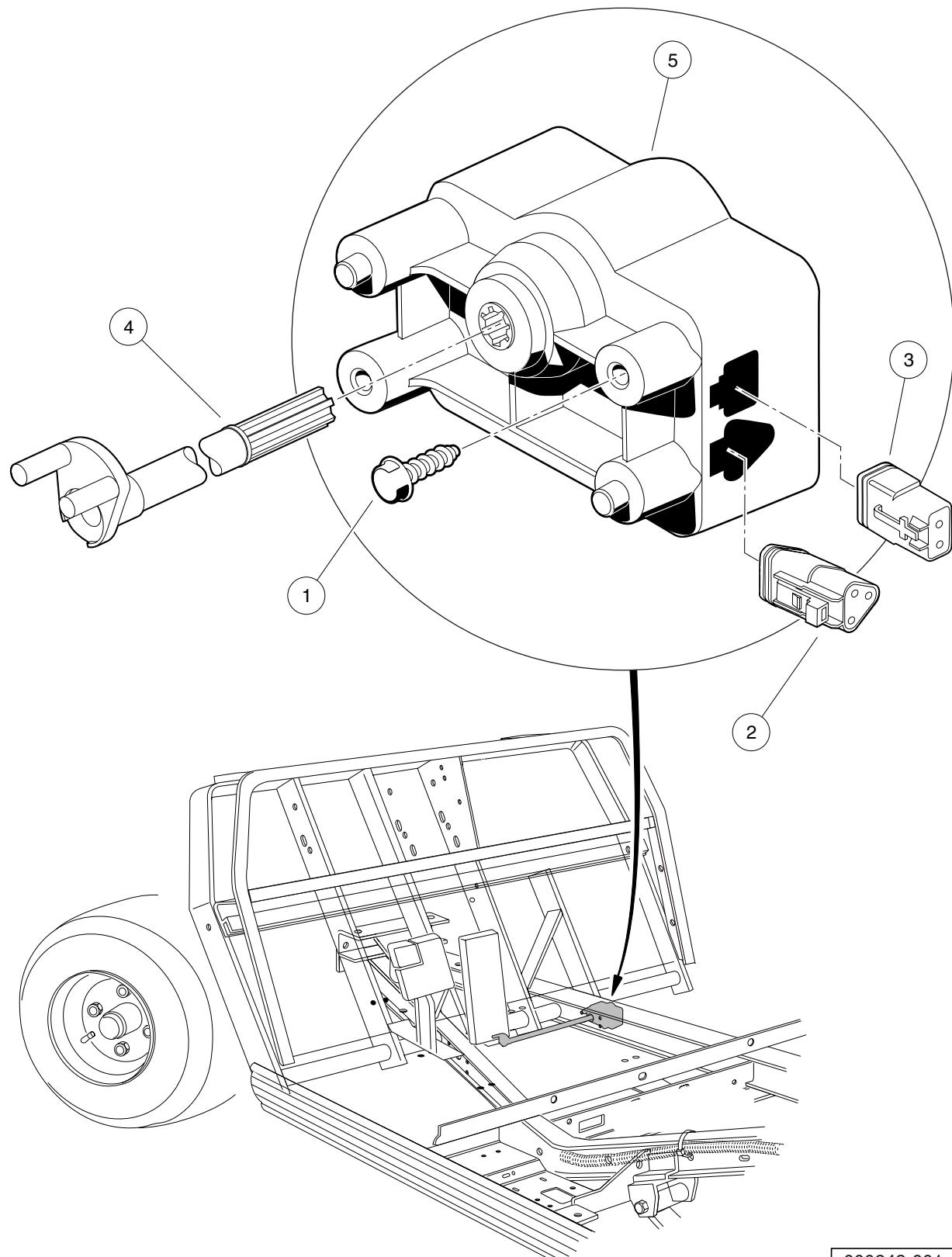
# INSTRUMENT PANEL COMPONENTS

ITEM	PART NO.	DESCRIPTION	QTY	
		1 2 3 4		<b>13</b>
1	1012505	Keys (set of 2) .....	1	
2	1016859	Kit, Reverse Buzzer (includes items 3 through 11) .....	1	<b>E</b>
3	1011229	Locknut, #6-32 Whiz .....	1	
4	1012431	Washer, #4 Flat .....	2	
5	1015720	Screw, #6-32 X 1/2 Hex Washer-Head .....	1	
6	1016849	Screw, #4-24 X 0.33 Pan-Head Machine .....	2	
7	1016851	Buzzer, Reverse (9-48 VDC) .....	1	
8	N/A	Wire Assembly Black #18 .....	1	
9	8056	Screw, #4-40 X 0.75 Round-Head Machine .....	2	
10	8057	Nut, #4-40 Hex Machine .....	2	
11	8058	Lockwasher, #4 Helical Split .....	2	
12	101826201	Key Switch, On/Off .....	1	
13	101830601	Screw and Washer Assembly .....	2	
14	101830701	Nut, Key Switch .....	1	
15	101834502	Cap, Black Key Switch .....	1	
16	101851101	Washer, Key Switch .....	1	
17	101935501	Light, Battery (Amber) .....	1	
18	8990	Tie Wrap, 8" Nylon .....	2	

Note: Item 2, Reverse Buzzer Kit, contains parts not used in this application.

**13**

**E**



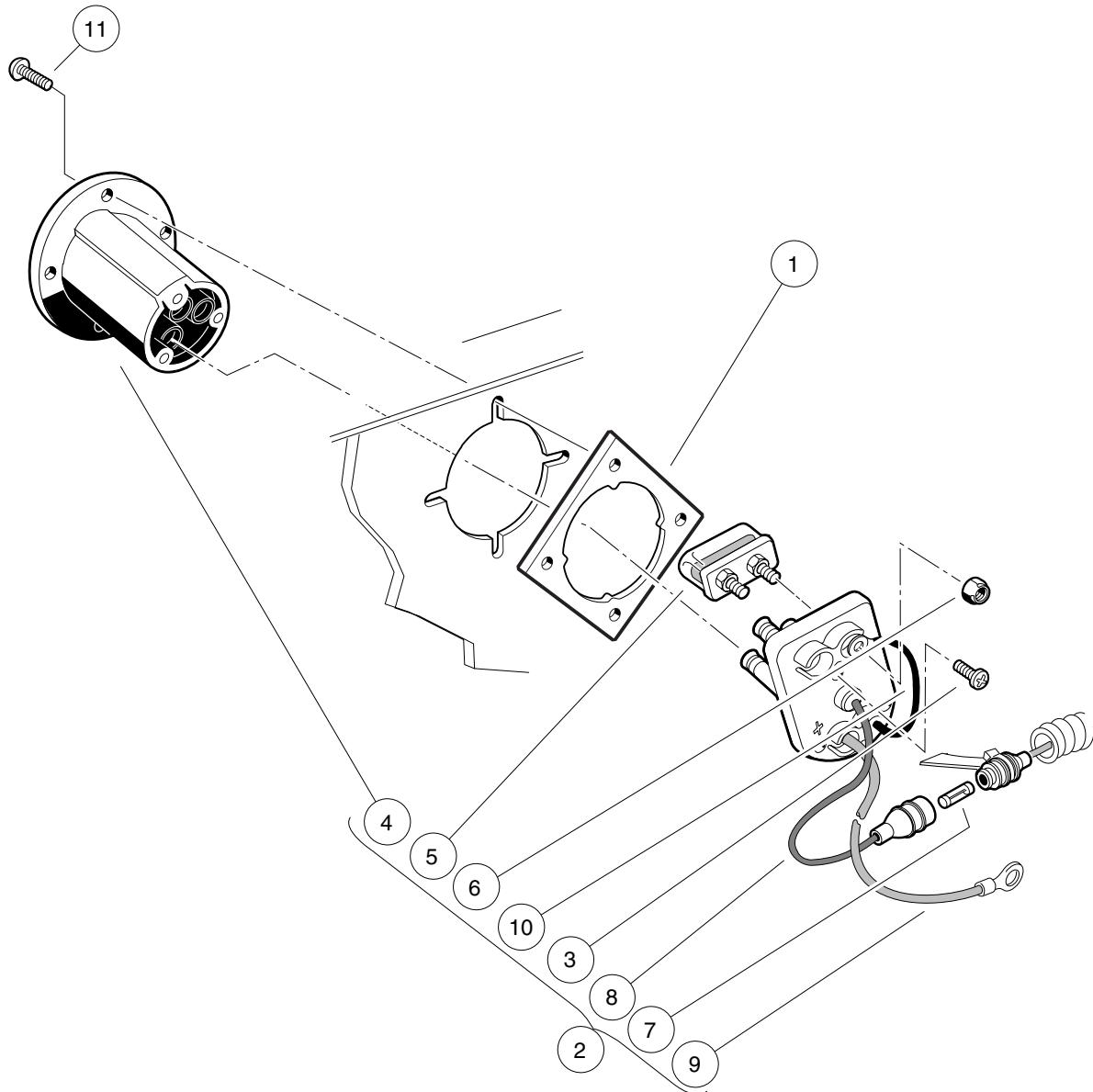
000243-001

# MOTOR CONTROLLER OUTPUT REGULATOR (MCOR)

ITEM	PART NO.	DESCRIPTION	QTY	
		1 2 3 4		13
1	1015752	Screw, #12-16 X 0.625 Hi-Lo .....	2	
2	101920101	Kit, 3-Pin Wedge Lock .....	1	E
3	101936801	Kit, 2-Pin Wedge Lock .....	1	
4	102101001	Bar, Drive, Cast .....	1	
5	102101101	MCOR .....	1	

**13**

**E**



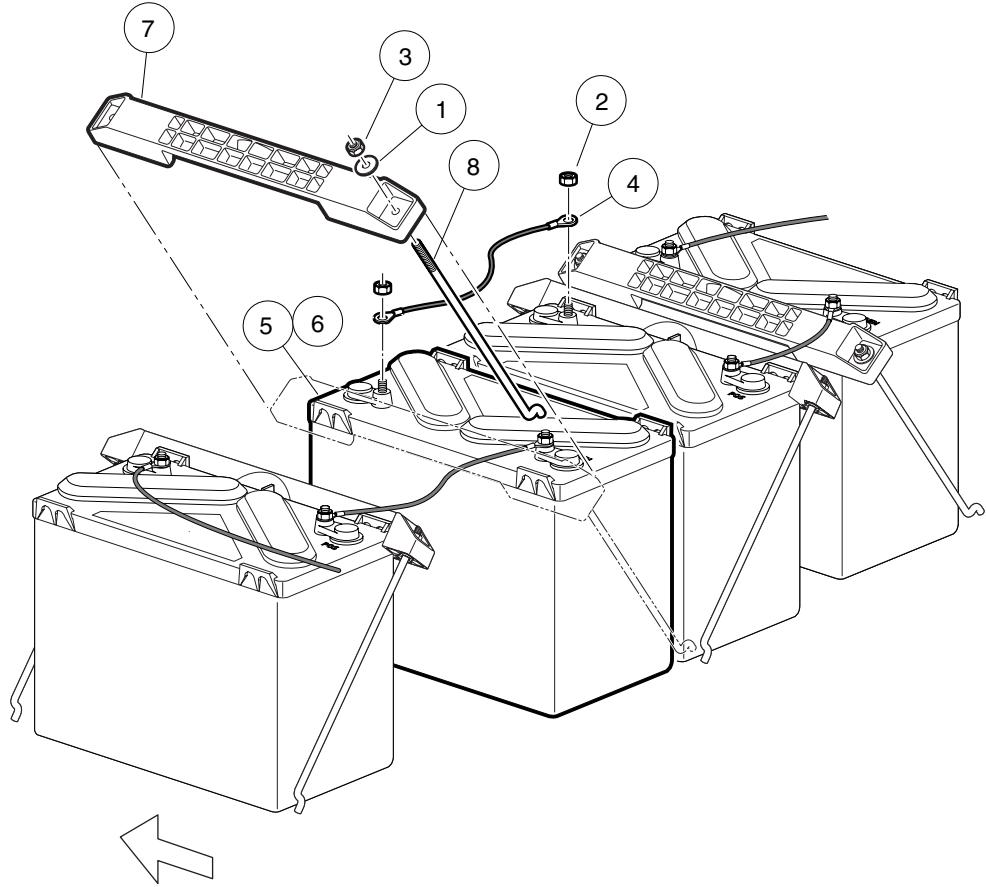
000369-001

# BATTERY CHARGER RECEPTACLE

ITEM	PART NO.	DESCRIPTION	QTY	
		1 2 3 4		<b>13</b>
1	101801001	Plate, Receptacle Backing .....	1	
2	101802101	Fuse and Receptacle Assembly (includes items 3 through 10) .....	1	<b>E</b>
3	1017705	Screw, #8 X 5/8 Phillips Pan-Head Type AB .....	3	
4	101796501	Receptacle .....	1	
5	101796801	Fuse Assembly (includes item 6) .....	1	
6	1013061	Locknut, #10-32 Nylon Insert .....	2	
7	101894901	Fuse, 3/8-Amp .....	1	
8	N/A	Wire Assembly, Sense Lead, Gray .....	1	
9	N/A	Wire Assembly, #10 Red .....	1	
10	N/A	Wire Assembly, #10 Black .....	1	
11	101832001	Screw, #7-19 X 0.625 Phillips Pan-Head Tap .....	4	

**13**

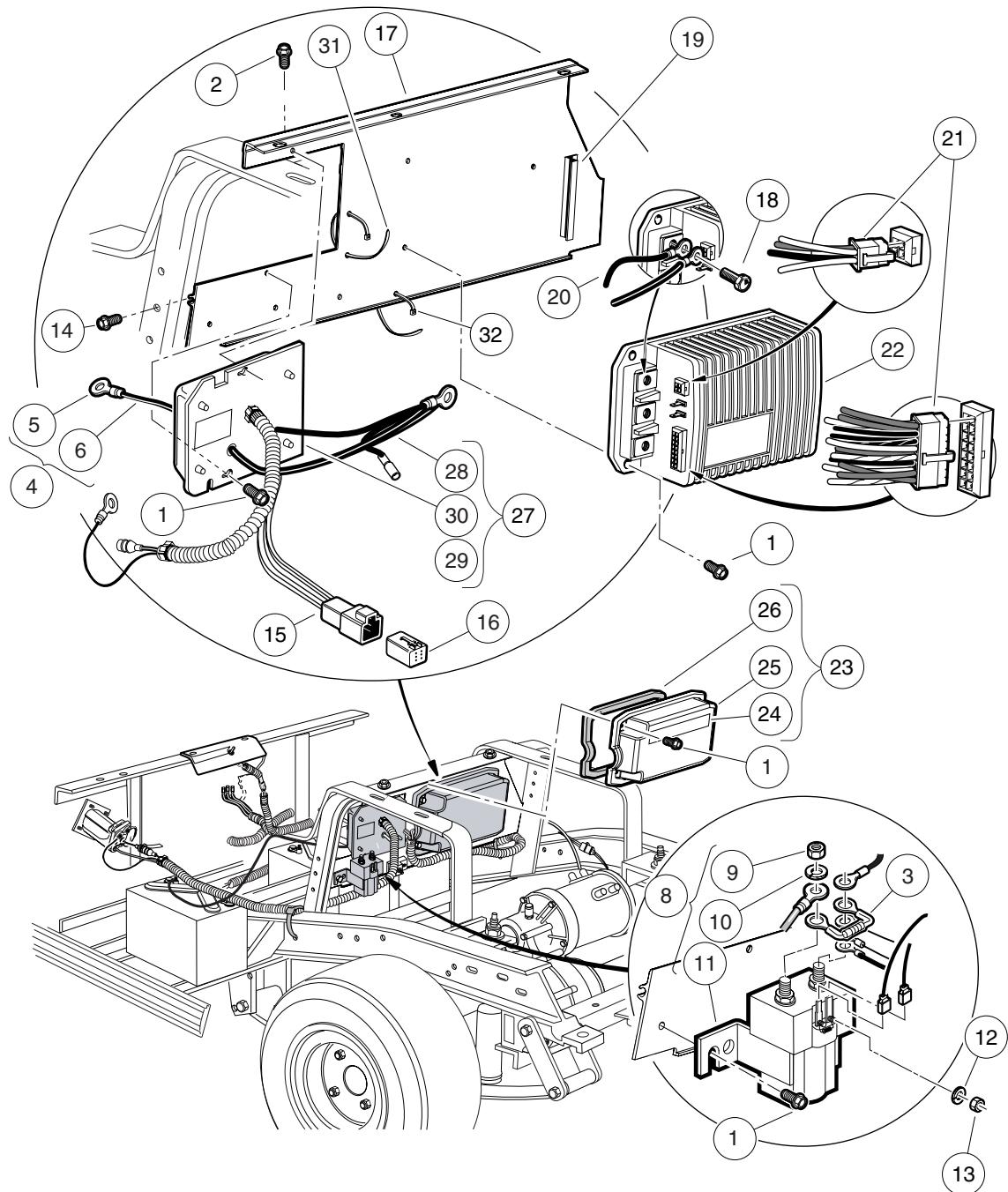
**E**



000241-002

# BATTERIES, ELECTRIC VEHICLE

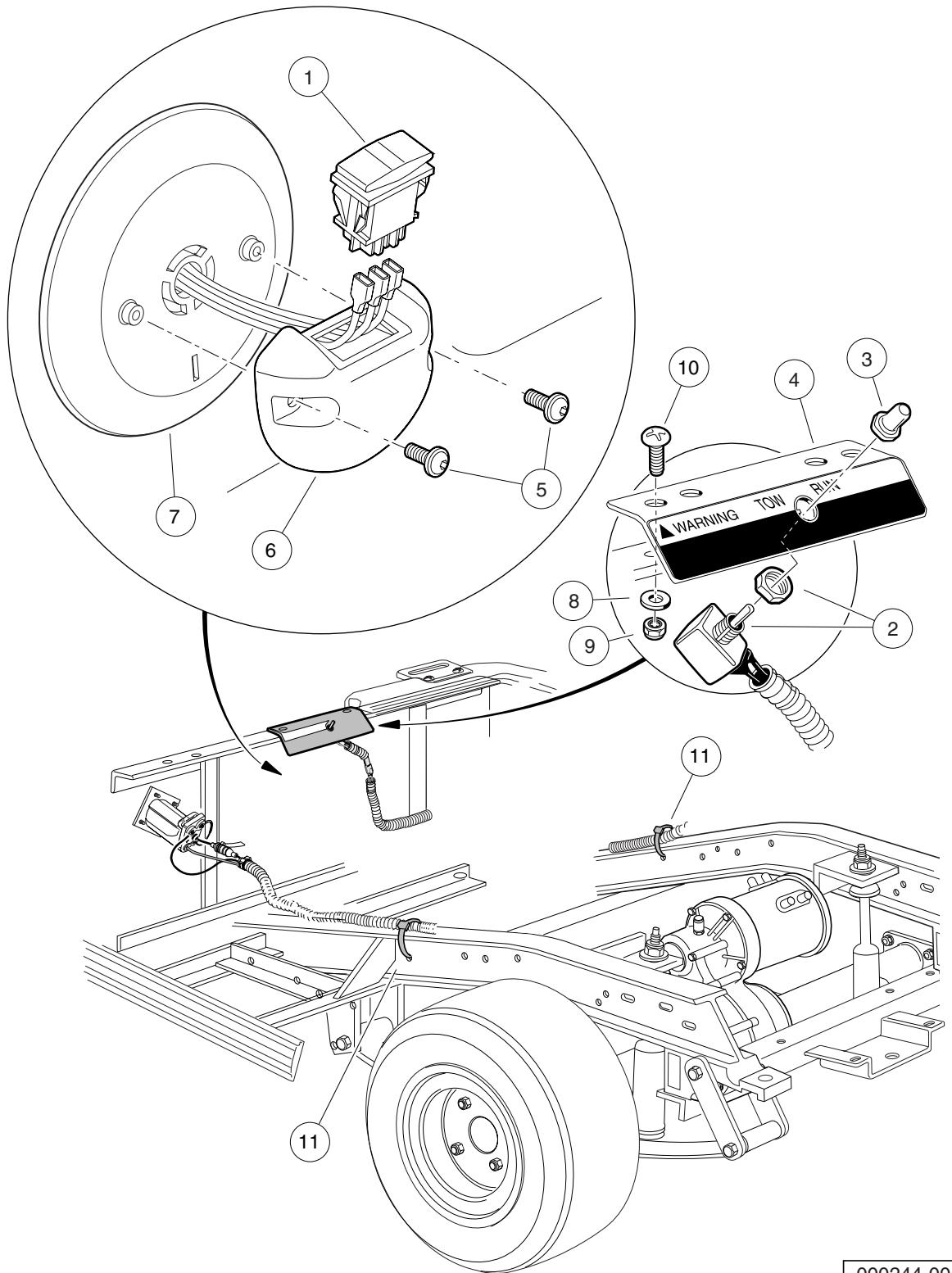
ITEM	PART NO.	DESCRIPTION	QTY	
1	1011697	Washer, 5/16 Flat .....	8	
2	1014304	Nut, 5/16-18 Stainless-Steel Hex .....	8	
3	1015072	Locknut, 5/16-18 Nylon Insert .....	8	
4	101795701	Asm, Wire, #6blk 13in .....	3	
5	102511301	Battery, Ventmaster 12-Volt (Wet) .....	4	
6	102511302	Battery, Ventmaster 12-Volt (Dry, also known as moist) .....	4	
7	102777401	Battery Hold-Down .....	4	
8	102832601	Bolt, Battery, J- .....	8	

**13****E**

000242-005

# OBC, CONTROLLER, AND SOLENOID – ELECTRIC VEHICLE

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	13
1	1012285	Screw, 1/4 X 0.625 Hex-Head .....	9
2	1014288	Screw, 5/16-18 X 0.75 Thread-Forming .....	2
3	1014947	Resistor Assembly .....	1
4	101827801	Ground Wire Kit, 48-Volt (includes items 5 through 7) .....	1
5	N/A	Compression Lug .....	1
6	N/A	Wire Assembly, Black .....	1
7	8990	Tie Wrap, 8" Nylon .....	3
8	101908701	Solenoid, 48-Volt (includes items 9 through 13) .....	1
9	1012528	Nut, M8-1.25 Hex .....	2
10	1013734	Lockwasher, 8mm Split .....	2
11	N/A	Solenoid, 48-Volt .....	1
12	N/A	Washer, Lock .....	2
13	N/A	Nut .....	2
14	101910401	Screw, 5/16-18 X 1.25 Thrd Frm .....	2
15	101932601	Kit, 6-Pin Wedge Lock .....	1
16	101932701	Kit, 6-Pin Receptacle and Wedge Lock .....	1
17	101965205	Plate, Component Mounting .....	1
18	102240501	Bolt, Controller, Terminal .....	3
19	****	Extrusion, Cover Support .....	1
20	102263601	Wire Assy, #10 Black .....	1
21	102266501	Kit, Connector, IQ Controller .....	1
22	102806201	Controller, IQ, 48-volt .....	1
23	103316901	Cover Asm - Controller (includes items 24 through 26) .....	1
24	101931501	Decal, Component Cover .....	1
25	103316701	Cover - Controller, Deep .....	1
26	103316801	Gasket - Controller Cover .....	1
27	103359401	Kit, OBC, DS and Util IQ (includes items 28 through 30) .....	1
28	103282601	Wire Assembly Black #10 .....	1
29	103359501	Instr Obc Ds Pre 01-28-2007 .....	1
30	N/A	Asm, Obc, Iq, V3.0 .....	1
31	8639	Tie Wrap, 11" Nylon .....	1
32	8990	Tie Wrap, 8" Nylon .....	1
		**** Special order item available upon request.	

**13****E**

000244-005

# FORWARD/REVERSE SWITCH, TOW/RUN SWITCH

ITEM	PART NO.	DESCRIPTION	QTY	
		1 2 3 4		<b>13</b>
1	101856001	Switch, Rocker, Double-Pole .....	1	
2	101908101	Switch Assembly, Tow/Run .....	1	<b>E</b>
3	101908401	Boot, Switch .....	1	
4	101922501	Bracket, Tow/Run Switch Mounting .....	1	
5	102296920	Screw, M6 Torx Bttn Hd Sems .....	2	
6	102508401	Housing, FNR Electric .....	1	
7	103262701	Bezel Adapter Fnr .....	1	
8	332	Washer, 1/4 Type A Narrow Flat .....	2	
9	8233	Locknut, 1/4-20 Nylon Insert .....	2	
10	8248	Screw, 1/4-20 X 0.75 Truss-Head Machine .....	2	
11	8990	Tie Wrap, 8" Nylon .....	1	

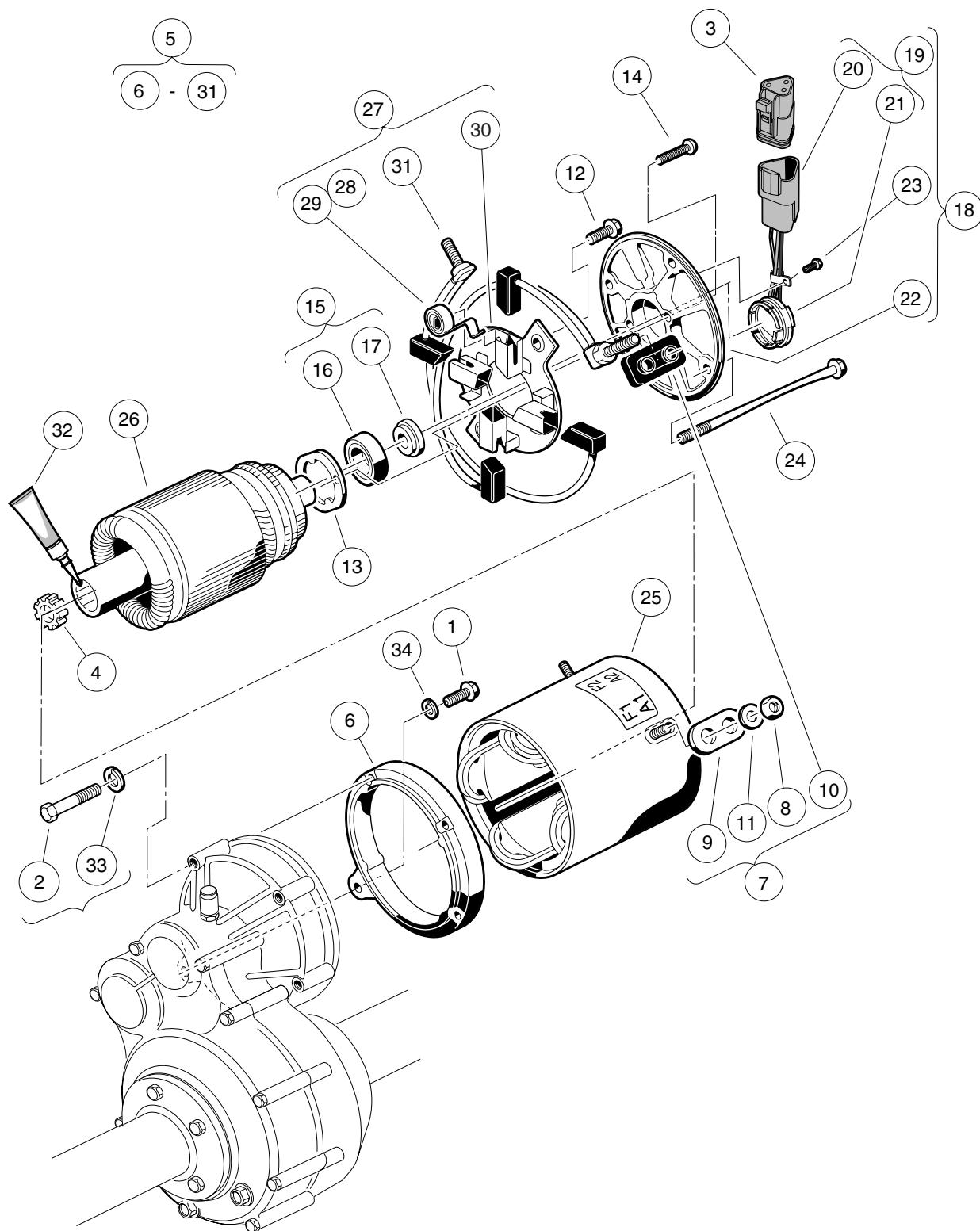
**13**

**E**

# ELECTRIC MOTOR

---

E

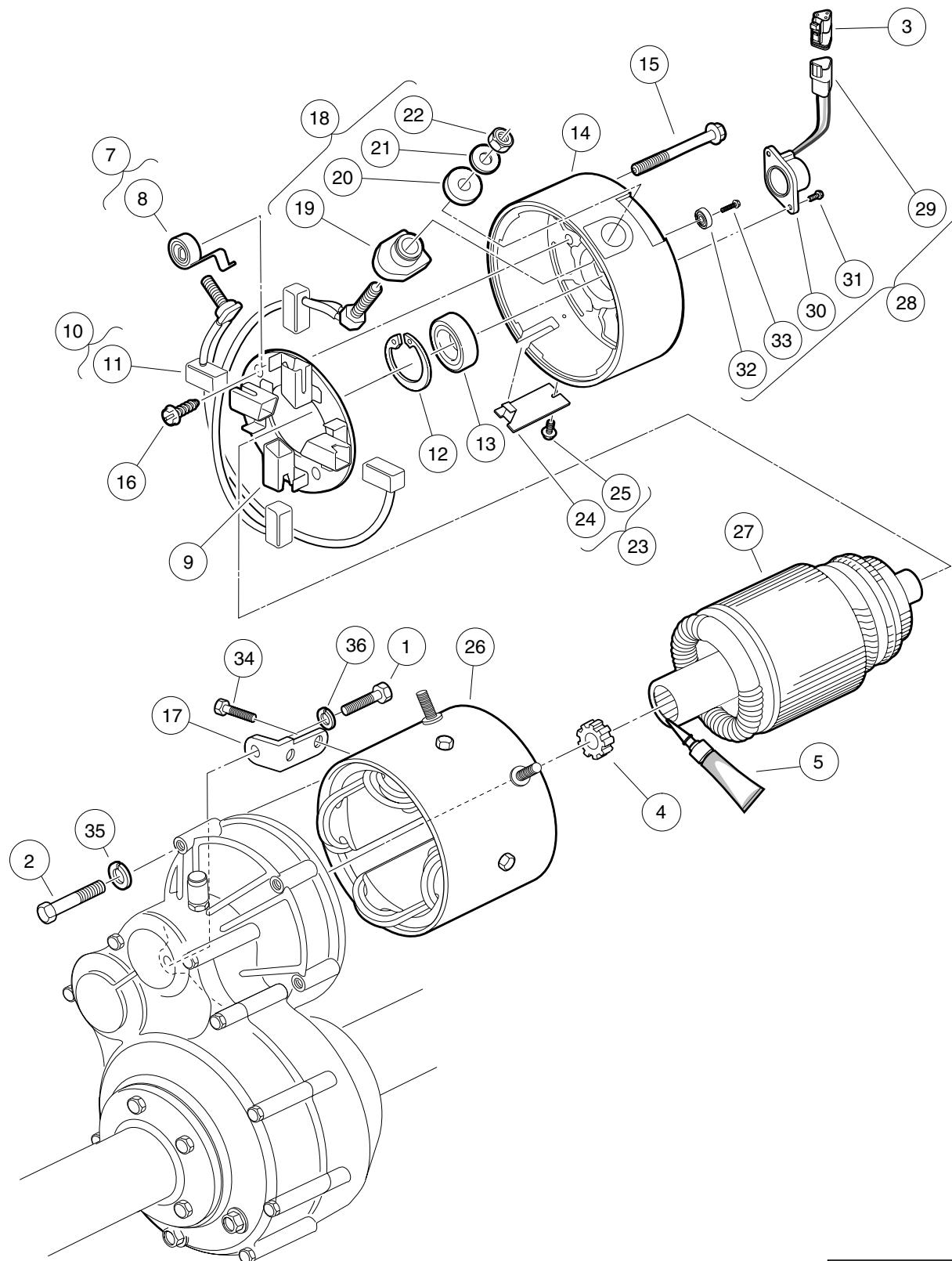
**14****E**

000349-002

# MOTOR (MODEL 5BC59JBS6390) – ELECTRIC VEHICLE

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	14
1	1010934	Screw, 5/16-18 X 1.00 Hex Cap .....	1
2	1014201	Screw, 1/4-20 X 2.25 Hex Cap .....	3
3	101920101	Kit, 3-Pin Wedge Lock .....	1
4	102235201	Bumper, Drive Unit .....	1
5	N/A	Motor, 48-Volt Non-Skew IQ * (includes items 6 through 27) .....	1
6	1017944	End Shield .....	1
7	1017947	Hardware Package (includes items 8 through 11) .....	1
8	1011280	Locknut, 5/16-18 .....	4
9	N/A	Insulator Bushing .....	2
10	N/A	Insulated Bushing .....	2
11	1241	Washer, 5/16 Type A Flat .....	4
12	1017949	Screw, #6-32 X 0.480 Hex-Head .....	2
13	1017950	Bearing Retainer .....	1
14	1017953	Screw, Bearing Retainer .....	2
15	102265701	Kit, Bearing and Magnet (includes items 16 and 17) .....	1
16	N/A	Ball Bearing .....	1
17	N/A	Magnet .....	1
18	102265901	Motor End Shield Asm (includes items 19 through 23) .....	1
19	102265601	Speed Sensor Assembly (includes items 20 and 21) .....	1
20	101942301	Kit, 3-Pin Wedge Lock .....	1
21	N/A	Sensor, Speed, without Connector .....	1
22	102266001	End Shield, Motor .....	1
23	102267001	Screw, #8-32 X 0.375 Hex-Head .....	1
24	102266101	Screw, #10 - 32 X 8.250 .....	4
25	103325701	Stator Shell and Winding .....	1
26	N/A	Non Skew Armature .....	1
27	103337601	Brush Assembly, IQ Motor, Non-Skew (includes items 28 through 31) .....	1
28	1011411	Kit, Brush Spring (ge Motor) (includes item 29) .....	1
29	N/A	Brush Spring .....	4
30	103325501	Brush Rigging, Non-Skew Motor .....	1
31	103325601	Brush Set, Non-Skew .....	1
32	102243403	Lubricant, Moly-Teflon (Single-Use Tube) .....	1
33	451	Lockwasher, 1/4 Helical Split .....	3
34	7174	Lockwasher, 5/16 Split .....	1

\* Note: The model 5BC59JBS6390 motor has been discontinued. To replace the motor, use motor model EJ8-4001A.

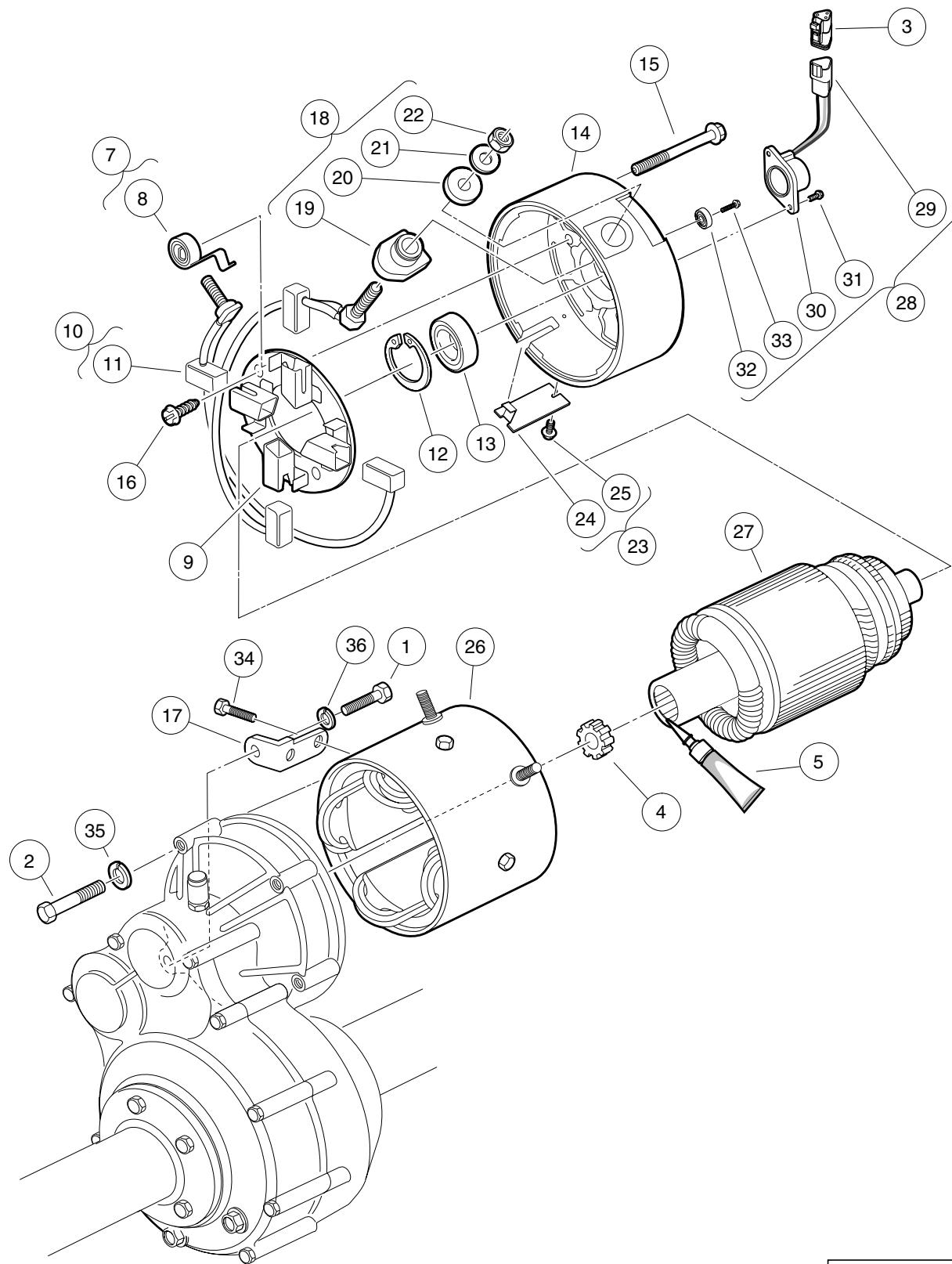
**14****E**

000185-001

# MOTOR (MODEL EJ4-4001) – ELECTRIC VEHICLE

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	14
1	1010934	Screw, 5/16-18 X 1.00 Hex Cap .....	1
2	1014201	Screw, 1/4-20 X 2.25 Hex Cap .....	3
3	101920101	Kit, 3-Pin Wedge Lock .....	1
4	102235201	Bumper, Drive Unit .....	1
5	102243403	Lubricant, Moly-Teflon (Single-Use Tube) .....	1
6	N/A	IQ Electric Motor, 48-VDC 3.3 hp * (includes items 7 through 34) .....	1
7	102186001	Spring Kit, Motor Brush (includes item 8) .....	1
8	N/A	Spring, Brush, S-g .....	4
9	102186101	Brush Box Assembly .....	1
10	102186201	Brush Kit, Motor (includes item 11) .....	1
11	N/A	Assembly, Brush and Terminal .....	2
12	102186301	Ring, 2.24" Internal Retaining .....	1
13	102186401	Bearing, Ball .....	1
14	102186701	End Cap, Motor .....	1
15	N/A	Screw, 1/4-20 X 2.25 Hex-Head Washer .....	2
16	102186901	Screw, #8-32 X .5 Hex-Head .....	2
17	102187001	L-Bracket, Motor .....	1
18	102187101	Hardware Kit, Motor Terminal (includes items 19 through 22) .....	2
19	N/A	Bushing, Nylon .....	2
20	N/A	Washer, Nylon Flat .....	2
21	N/A	Washer, Flat, 5/16 Steel .....	2
22	N/A	Nut, Brass Hex, 5/16 - 18 .....	2
23	102187201	Plate Kit, Motor Cover (includes items 24 and 25) .....	1
24	N/A	Assembly, Cover Plate .....	1
25	N/A	Screw, #8-32 x 0.375, Taptite Thread .....	1
26	102704701	Frame and Field Assembly .....	1
27	102704801	Armature Assembly .....	1
28	102704901	Kit, Speed Sensor (includes items 29 through 33) .....	1
29	101942301	Kit, 3-Pin Wedge Lock .....	1
30	N/A	Sensor, Motor Speed, ADC .....	1
31	N/A	Screw, #8-32, Taptite Thread .....	2
32	N/A	Magnet, ADC Motor .....	1
33	N/A	Screw, 1/4-20 x 0.5 .....	1
34	N/A	Bolt, 1/4 - 20 x 0.73 Thread-Forming .....	2
35	451	Lockwasher, 1/4 Helical Split .....	3
36	7174	Lockwasher, 5/16 Split .....	1

\* Note: The model EJ4-4001 motor has been discontinued. To replace the motor, use motor model EJ8-4001A.

**14****E**

000185-002

# MOTOR (MODEL EJ8-4001A) – ELECTRIC VEHICLE

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	14
1	1010934	Screw, 5/16-18 X 1.00 Hex Cap .....	1
2	1014201	Screw, 1/4-20 X 2.25 Hex Cap .....	3
3	101920101	Kit, 3-Pin Wedge Lock .....	1
4	102235201	Bumper, Drive Unit .....	1
5	102243403	Lubricant, Moly-Teflon (Single-Use Tube) .....	1
6	103572501	IQ Electric Motor, 48-VDC 3.3 hp (includes items 7 through 34) .....	1
7	102186001	Spring Kit, Motor Brush (includes item 8) .....	1
8	N/A	Spring, Brush, S-g .....	4
9	102186101	Brush Box Assembly .....	1
10	102186201	Brush Kit, Motor (includes item 11) .....	1
11	N/A	Assembly, Brush and Terminal .....	2
12	102186301	Ring, 2.24" Internal Retaining .....	1
13	102186401	Bearing, Ball .....	1
14	102186701	End Cap, Motor .....	1
15	N/A	Screw, 1/4-20 X 2.25 Hex-Head Washer .....	2
16	102186901	Screw, #8-32 X .5 Hex-Head .....	2
17	102187001	L-Bracket, Motor .....	1
18	102187101	Hardware Kit, Motor Terminal (includes items 19 through 22) .....	2
19	N/A	Bushing, Nylon .....	2
20	N/A	Washer, Nylon Flat .....	2
21	N/A	Washer, Flat, 5/16 Steel .....	2
22	N/A	Nut, Brass Hex, 5/16 - 18 .....	2
23	102187201	Plate Kit, Motor Cover (includes items 24 and 25) .....	1
24	N/A	Assembly, Cover Plate .....	1
25	N/A	Screw, #8-32 x 0.375, Taptite Thread .....	1
26	102704701	Frame and Field Assembly .....	1
27	102704801	Armature Assembly .....	1
28	102704901	Kit, Speed Sensor (includes items 29 through 33) .....	1
29	101942301	Kit, 3-Pin Wedge Lock .....	1
30	N/A	Sensor, Motor Speed, ADC .....	1
31	N/A	Screw, #8-32, Taptite Thread .....	2
32	N/A	Magnet, ADC Motor .....	1
33	N/A	Screw, 1/4-20 x 0.5 .....	1
34	N/A	Bolt, 1/4 - 20 x 0.73 Thread-Forming .....	2
35	451	Lockwasher, 1/4 Helical Split .....	3
36	7174	Lockwasher, 5/16 Split .....	1

**14**

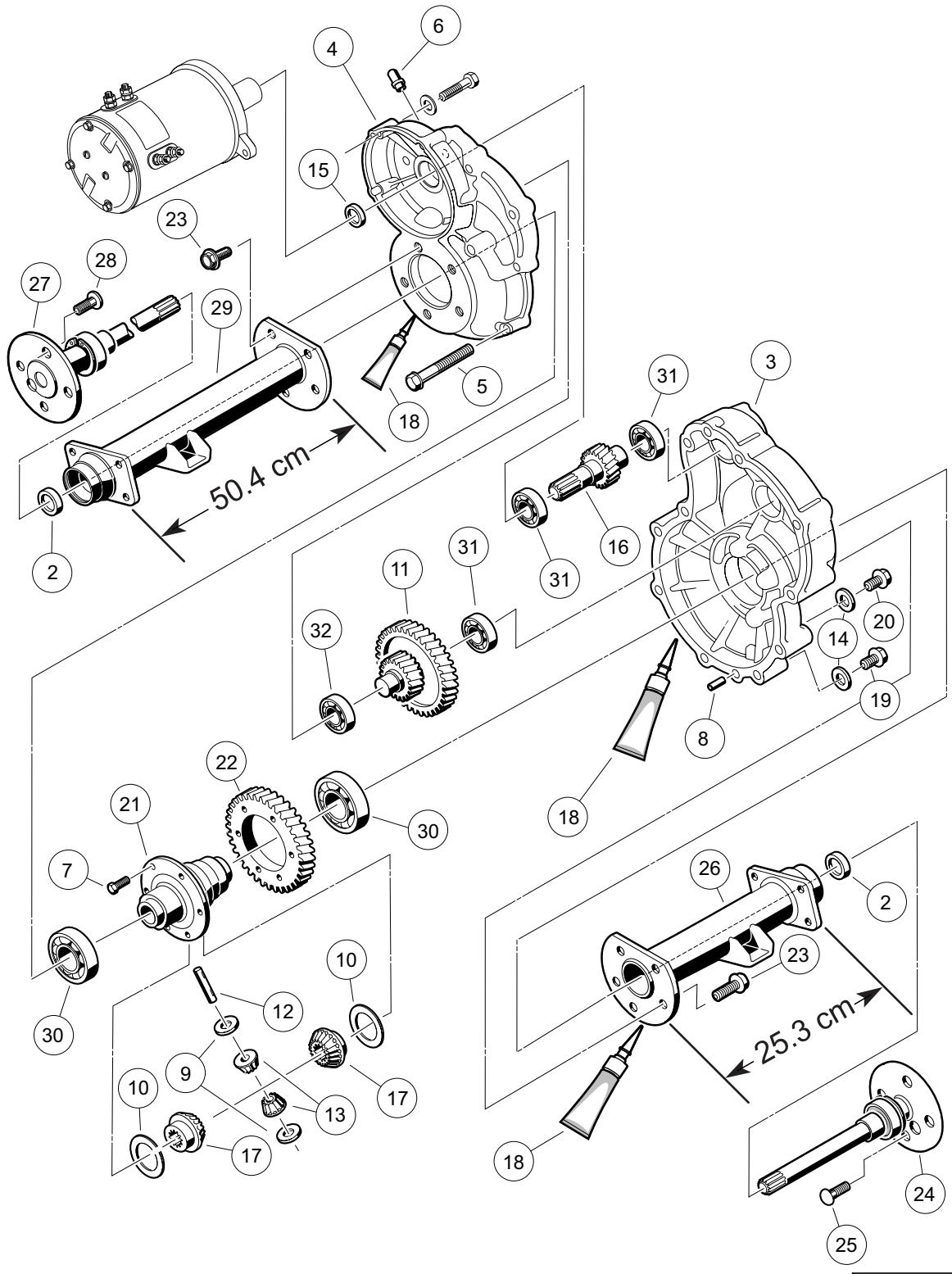
**E**

# **TRANSAXLE – ELECTRIC VEHICLES**

---

**15**

**E**

**15****E**

# TRANSAXLE – ELECTRIC VEHICLES

ITEM	PART NO.	DESCRIPTION	QTY	
		1 2 3 4		<b>15</b>
1	102771701	Transaxle, Electric (includes items 2 through 32) .....	1	
2	1013794	Axle Shaft Oil Seal .....	2	<b>E</b>
3	101895401	Gear Case, Left-Hand .....	1	
4	101895501	Gear Case, Passenger-Side .....	1	
5	101897001	Screw, M8-1.25 X 60mm Hex-Head .....	11	
6	101897201	Breather .....	1	
7	101897401	Screw, M10-1.25 X 25mm .....	6	
8	101897601	Pin, 11mm OD X 8.5mm ID X 10mm .....	2	
9	101903601	Washer, Thrust .....	2	
10	101903701	Washer, Thrust .....	2	
11	101906901	Intermediate Shaft Assembly .....	1	
12	101922101	Pin, 15.99mm X 88.7mm Dowel .....	1	
13	101923001	Gear, Differential Idler .....	2	
14	101923201	Gasket .....	2	
15	101923501	Seal, Lip .....	1	
16	101923701	Shaft, Input .....	1	
17	101923901	Gear, Differential .....	2	
18	101928701	Liquid Gasket (Transaxle case) .....	A/R	
19	101972101	Plug, M14-1.5 X 12mm Magnetic .....	1	
20	101972201	Plug, M14-1.5 X 12mm Hex .....	1	
21	102356601	Housing, Differential, 6 Bolt .....	1	
22	102356801	Gear, Differential Output, 6-Bolt .....	1	
23	102357001	Screw, Flg Hd M10 X 1.5 X 30 .....	10	
24	102886301	Axle Assembly, Driver-Side (includes item 25) .....	1	
25	101922201	Lug Stud .....	4	
26	102886401	Tube, Axle, Driver-Side .....	1	
27	102886501	Axle Assembly, Passenger-Side (includes item 28) .....	1	
28	101922201	Lug Stud .....	4	
29	102886601	Tube, Axle, Passenger-Side .....	1	
30	7330	Inner Axle Tube Bearing .....	2	
31	7335	Bearing .....	3	
32	7336	Bearing .....	1	

**15**

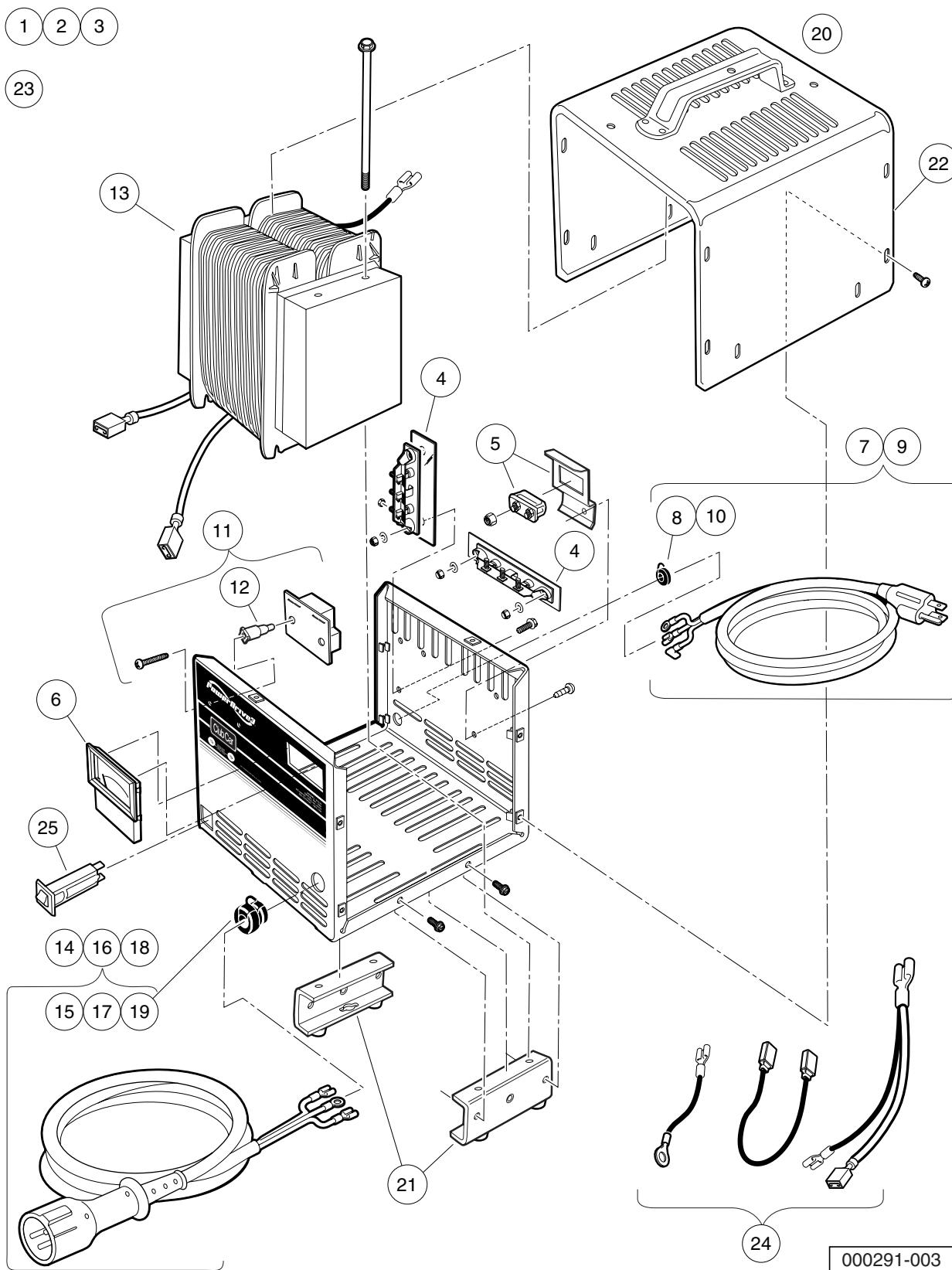
**E**

# BATTERY CHARGER

---

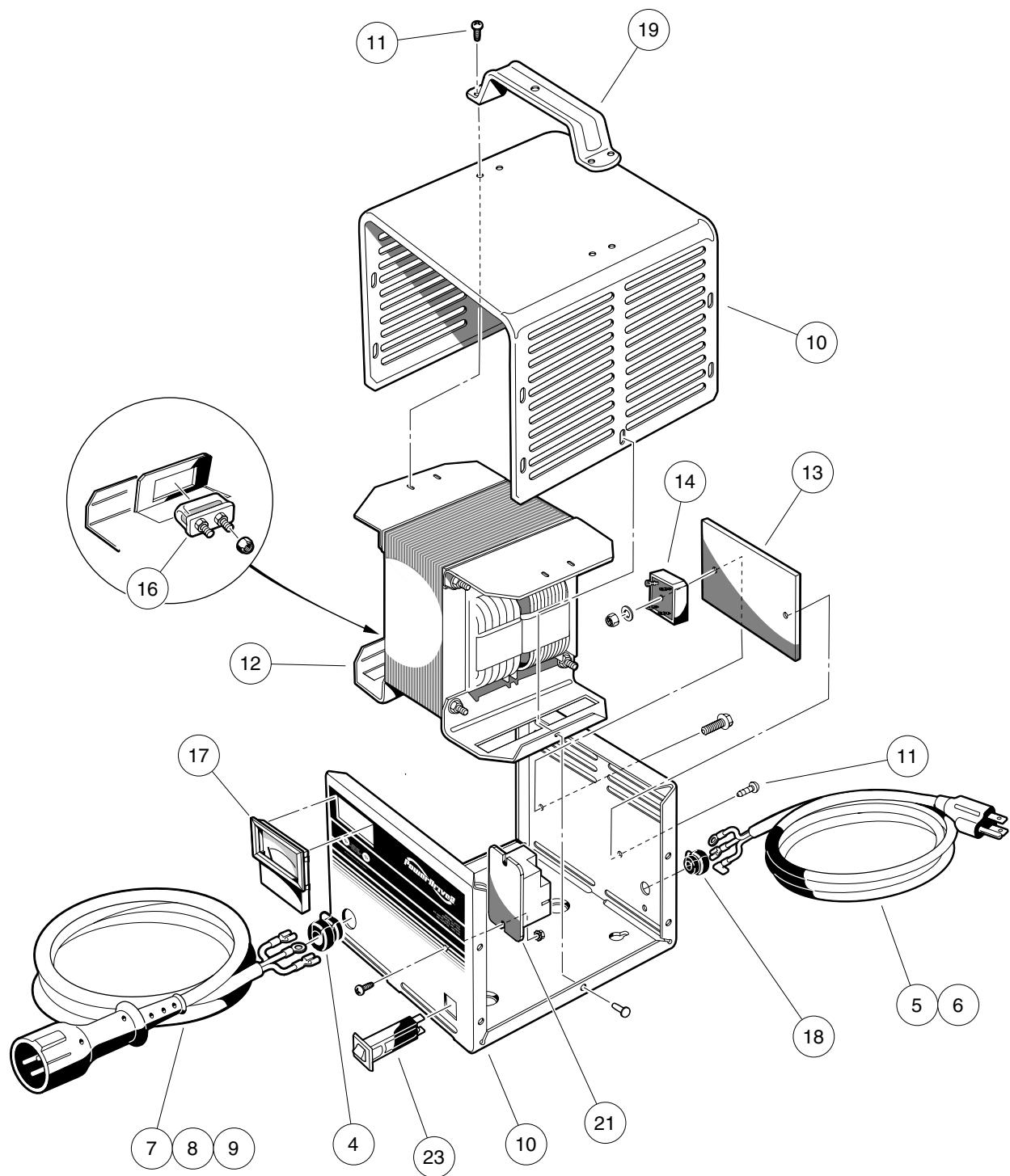
16

E

**16****E**

# POWERDRIVE 3 BATTERY CHARGER, DOMESTIC

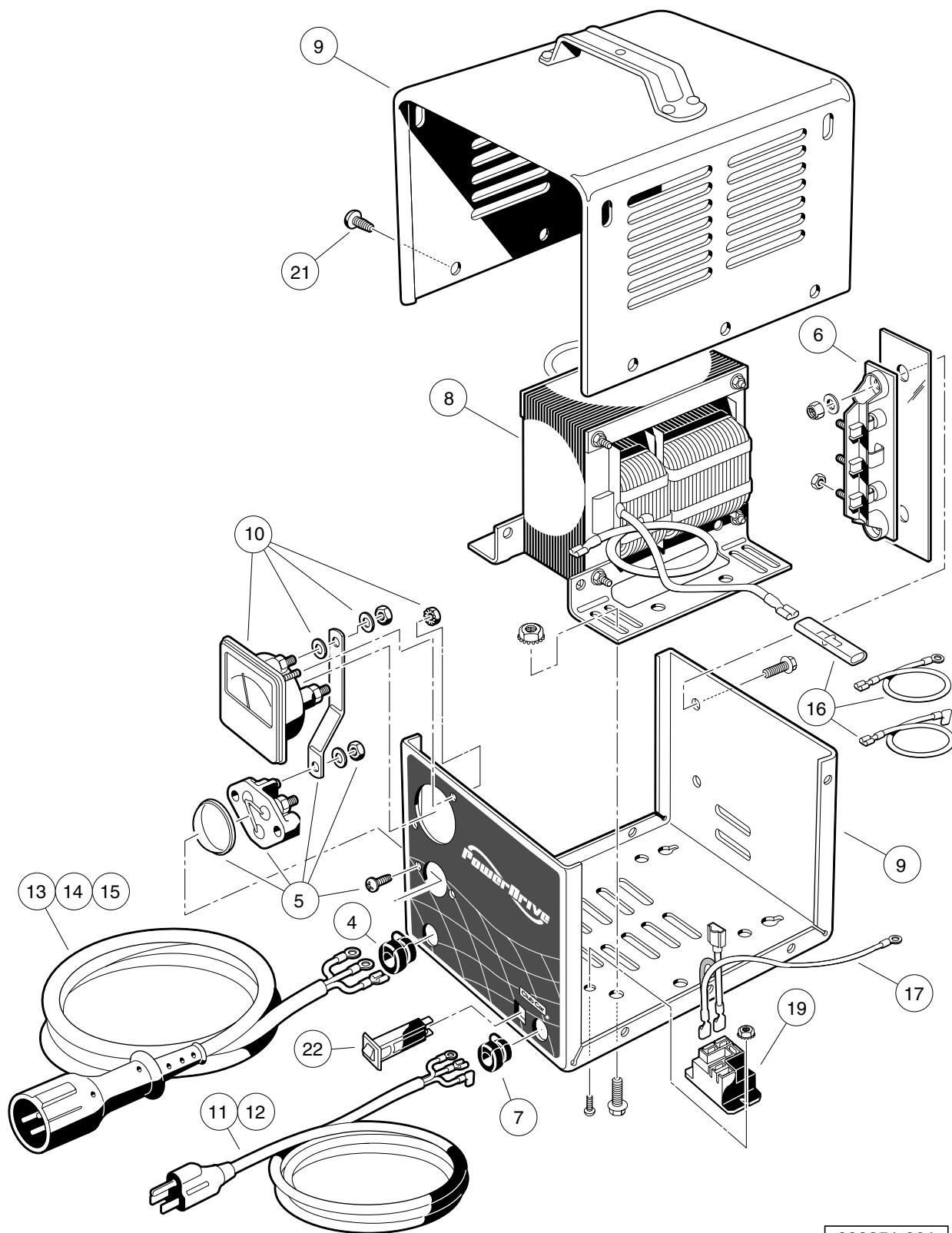
ITEM	PART NO.	DESCRIPTION	QTY	
		1 2 3 4		<b>16</b>
1	103499101	Chgr, Pd3 Stnry, 9Dc/6'Ac'	1	
2	103499102	Chgr, Pd3 Stnry, 12Dc/9'Ac'	1	
3	103499103	Chgr, Pd3 Stnry, 20Dc/9'Ac'(includes items 4 through 25)	1	
4	1015914	Rectifier with Heatsink Assembly	2	
5	102273701	PD2 Fuse Asm	1	
6	102273801	PD2 Ammeter	1	
7	103428501	Kit, PD3 Cordset - AC 80" (includes item 8)	1	
8	102273901	PD2 AC Cord Bushing	1	
9	103428601	Kit, PD3 Cordset, - AC 114" (includes item 10)	1	
10	102273901	PD2 AC Cord Bushing	1	
11	103428701	Asm, PD3 Board Relay (includes item 12)	1	
12	103429701	PD3 Plastic Stand-Offs	2	
13	103428801	PD3 Transformer	1	
14	103429001	PD3 Cordset - DC 113" (includes item 15)	1	
15	1012098	Bushing, DC Cord	1	
16	103429101	PD3 Cordset - DC 154" (includes item 17)	1	
17	1012098	Bushing, DC Cord	1	
18	103429201	PD3 Cordset - DC 205" (includes item 19)	1	
19	1012098	Bushing, DC Cord	1	
20	103429301	Asm, PD3 Case (includes items 21 and 22)	1	
21	103434001	Asm, PD3 Legs	1	
22	103439901	PD3 Case Top (Includes Handle)	1	
23	103429501	Kit, PD3 Hardware	1	
24	103429601	Kit, PD3 Wires	1	
25	CCX8506	Circuit Breaker, 15-Amp/120-Volt	1	



000291-001

# POWERDRIVE 2 BATTERY CHARGER (MODEL 22110), DOMESTIC

ITEM	PART NO.	DESCRIPTION	QTY	
		1 2 3 4		16
1	N/A	48-V/13-A PowerDrive 2 (9-ft. DC, 6-ft. AC) .....	1	
2	N/A	48-V/13-A PowerDrive 2 (12-ft. DC, 9-ft. AC) .....	1	E
3	N/A	48-V/13-A PowerDrive 2 (20-ft. DC, 9-ft. AC) (includes items 4 through 23) .....	1	
4	1012098	Bushing, DC Cord .....	1	
5	101828801	Cord, AC, 80-Inch (203 cm) .....	1	
6	101828802	Cord, AC, 108-Inch (274 cm) .....	1	
7	101828904	PD2 DC Cordset, 113-inch .....	1	
8	101828905	PD2 DC Cordset, 154-inch .....	1	
9	101828906	Pd2 Dc Cordset 250 Inch .....	1	
10	102273201	PD2 Case (includes item 11) .....	1	
11	7577	Screw, #10 X 0.50 Phillips Pan-Head .....	12	
12	102273301	PD2 Transformer Asm .....	1	
13	102273401	PD2 Heatsink .....	1	
14	102273501	PD2 Diode Bridge w/Film .....	1	
15	102273601	PD2 Wire Asm .....	1	
16	102273701	PD2 Fuse Asm .....	1	
17	102273801	PD2 Ammeter .....	1	
18	102273901	PD2 AC Cord Bushing .....	1	
19	102274001	PD2 Handle .....	1	
20	103414901	Kit, Relay, 48v 30a W/instr (includes items 21 and 22) .....	1	
21	103397901	Relay, Spst No, 48v 30a, Pmt .....	1	
22	103415001	Kit, Relay, 48v 30a Instrns .....	1	
23	CCX8506	Circuit Breaker, 15-Amp/120-Volt .....	1	
		Note: Item 16 not shown. Level 1 Battery Charger part numbers include one AC and one DC cord. They do not include all of the level 2 cords listed.		

**16****E**

000351-001

# POWERDRIVE BATTERY CHARGER (MODEL 17930), DOMESTIC

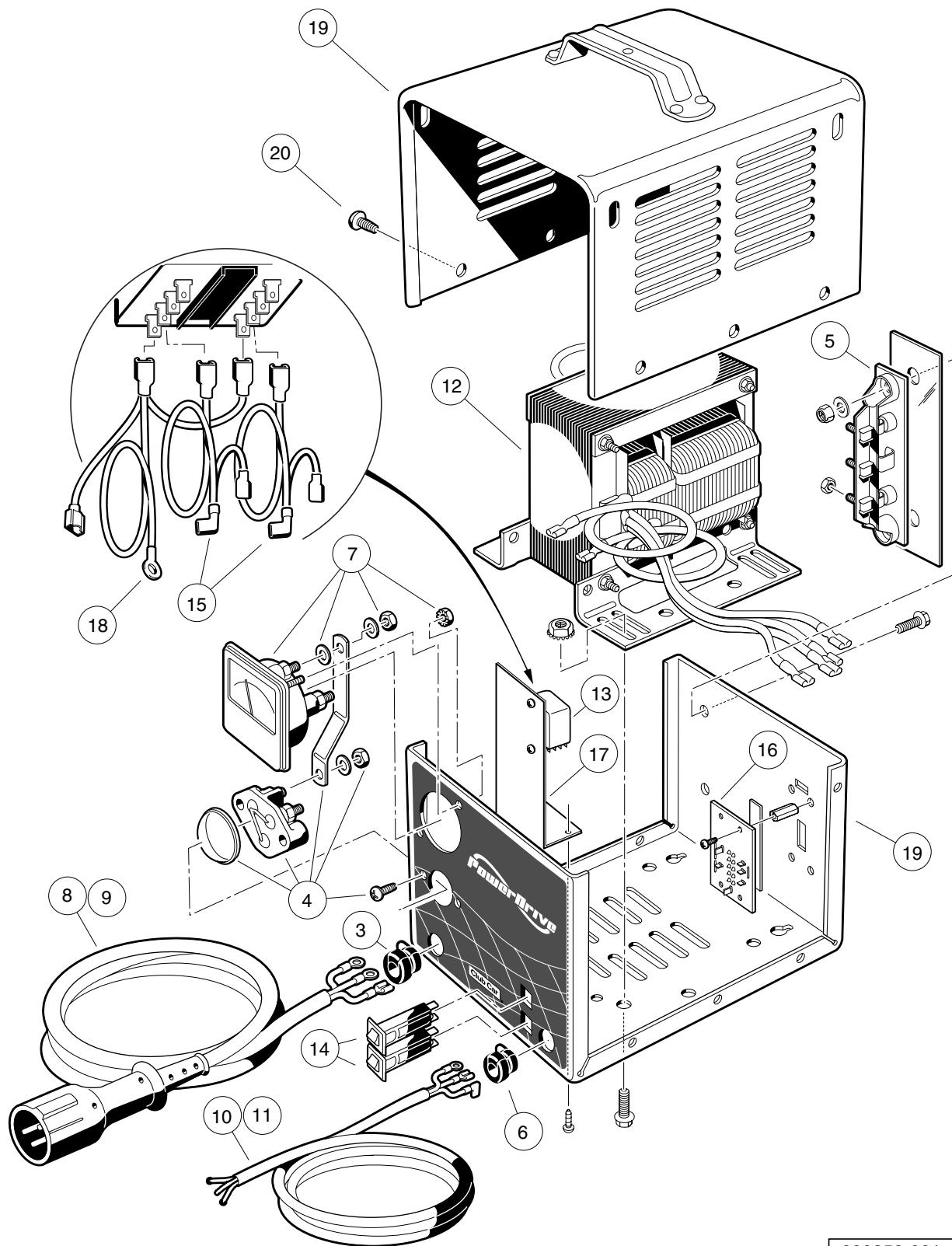
ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	
1	101802201	48V/17A PowerDrive (9-ft DC, 6-ft AC Cord) .....	1
2	101802202	48V/17A PowerDrive (12-ft DC, 9-ft AC Cord) .....	1
3	101802203	48V/17A PowerDrive (20-ft DC, 9-ft AC Cord) (includes items 4 through 22) .....	1
4	1012098	Bushing, DC Cord .....	1
5	1012101	Fuse Assembly .....	1
6	1015914	Rectifier with Heatsink Assembly .....	1
7	1015917	Bushing, AC Cord .....	1
8	****	Transformer, Battery Charger .....	1
9	101828301	Case Assembly .....	1
10	****	Ammeter .....	1
11	101828801	Cord, AC, 80-Inch (203 cm) .....	1
12	101828802	Cord, AC, 108-Inch (274 cm) .....	1
13	101828901	Cord, DC, 113-Inch (287 cm) .....	1
14	101828902	Cord, DC, 154-Inch (391 cm) .....	1
15	101828903	Cord, DC, 250-Inch (635 cm) .....	1
16	101831101	Wire Assembly Kit .....	1
17	101914401	Assembly, Voltage Suppressor .....	1
18	103414901	Kit, Relay, 48v 30a W/instr (includes items 19 and 20) .....	1
19	103397901	Relay, Spst No, 48v 30a, Pmt .....	1
20	103415001	Kit, Relay, 48v 30a Instrns .....	1
21	7577	Screw, #10 X 0.50 Phillips Pan-Head .....	10
22	CCX8506	Circuit Breaker, 15-Amp/120-Volt .....	1

\*\*\*\* Special order item available upon request.

Note: Level 1 Battery Charger part numbers include one AC and one DC cord.  
They do not include all of the level 2 cords listed.

16

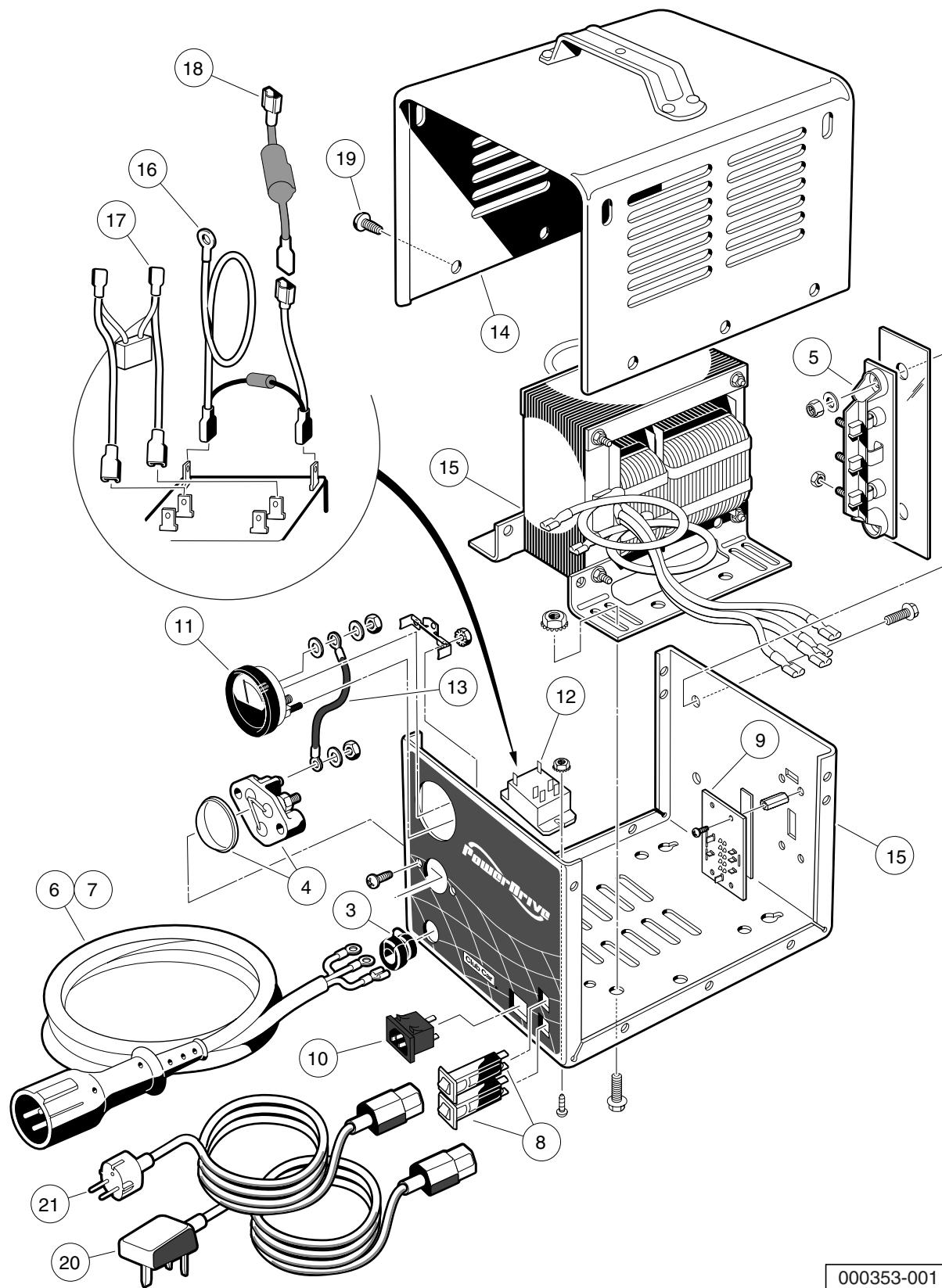
E

**16****E**

000352-001

# POWERDRIVE BATTERY CHARGER (MODEL 18780), EXPORT

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	
1	101831503	Battery Charger, 48-Volt DC (8.5-ft DC, 6-ft AC) .....	1
2	101831504	Battery Charger, 48-Volt DC (12-ft DC, 9-ft AC) (includes items 3 through 20) .....	1
3	1012098	Bushing, DC Cord .....	1
4	1012101	Fuse Assembly .....	1
5	1015914	Rectifier with Heatsink Assembly .....	1
6	1015917	Bushing, AC Cord .....	1
7	****	Ammeter .....	1
8	101828901	Cord, DC, 113-Inch (287 cm) .....	1
9	101828902	Cord, DC, 154-Inch (391 cm) .....	1
10	101831701	Cord, AC, 80-Inch (203 cm), without Plug .....	1
11	****	Cord, AC, 118-Inch (203 cm), without Plug .....	1
12	101838201	Transformer, Export Battery Charger .....	1
13	101838301	Relay, Export Charger .....	1
14	101838401	Circuit Breaker .....	2
15	101838501	Kit, Wire Assembly .....	1
16	101838601	Four-Position Switch .....	1
17	****	Mounting Bracket, Relay .....	1
18	101914401	Assembly, Voltage Suppressor .....	1
19	N/A	Case, Charger .....	1
20	7577	Screw, #10 X 0.50 Phillips Pan-Head .....	10
		**** Special order item available upon request.	
		Note: Level 1 Battery Charger part numbers include one AC and one DC cord. They do not include all of the level 2 cords listed.	

**16****E**

000353-001

# POWERDRIVE BATTERY CHARGER (MODEL 20310), EUROPEAN

ITEM	PART NO.	DESCRIPTION	QTY
		1 2 3 4	
1	101956201	Battery Charger, 48-Volt w/ 4-Position Switch (8.5-ft DC) .....	1
2	101956202	Battery Charger, 48-Volt w/ 4-Pos. Switch (12-ft DC) (includes items 3 through 19) .....	1
3	1012098	Bushing, DC Cord .....	1
4	1012101	Fuse Assembly .....	1
5	1015914	Rectifier with Heatsink Assembly .....	1
6	101828901	Cord, DC, 113-Inch (287 cm) .....	1
7	101828902	Cord, DC, 154-Inch (391 cm) .....	1
8	101838401	Circuit Breaker .....	2
9	101838601	Four-Position Switch .....	1
10	101973501	Receptacle, AC Cord .....	1
11	101976601	Ammeter with Mounting Bracket .....	1
12	101987501	Relay .....	1
13	N/A	Wire, Jumper .....	1
14	N/A	Case, Charger .....	1
15	****	Transformer, European Battery Charger .....	1
16	****	Suppressor, AC Voltage .....	1
17	****	Assembly, Wire .....	1
18	****	Limiter, Current .....	1
19	7577	Screw, #10 X 0.50 Phillips Pan-Head .....	10
20	101958201	Cord, UK, AC, Battery Charger .....	1
21	101958301	Cord, European AC, Battery Charger .....	1
		**** Special order item available upon request.	
		Note: Level 1 Battery Charger part numbers include one AC and one DC cord. They do not include all of the level 2 cords listed.	

16

E

**16**

**E**

# MAINTENANCE AND SERVICE TOOLS

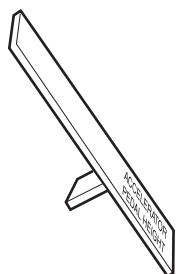
---

17

G

E

D

**17****G****E****D**

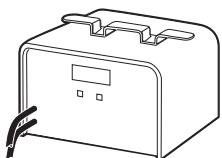
1



2



3



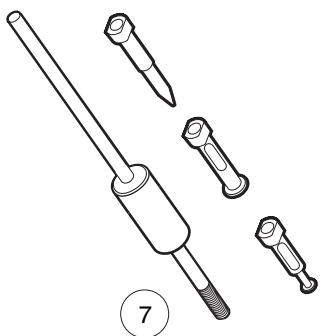
4



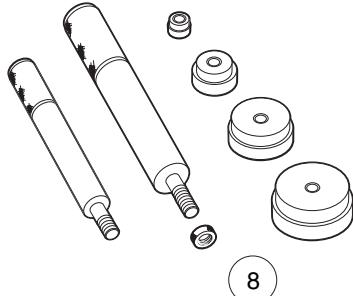
5



6



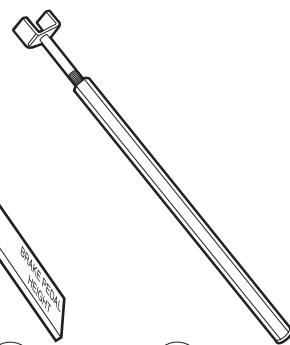
7



8

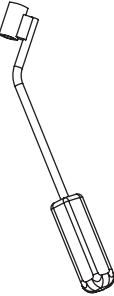


9



14

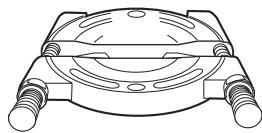
15



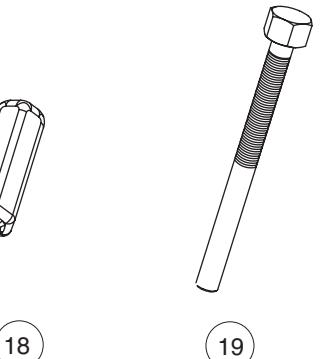
12



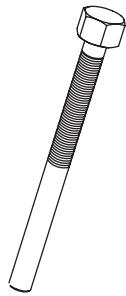
11



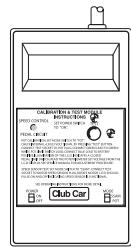
10



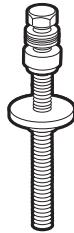
18



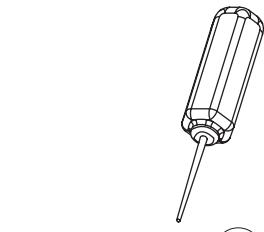
19



16

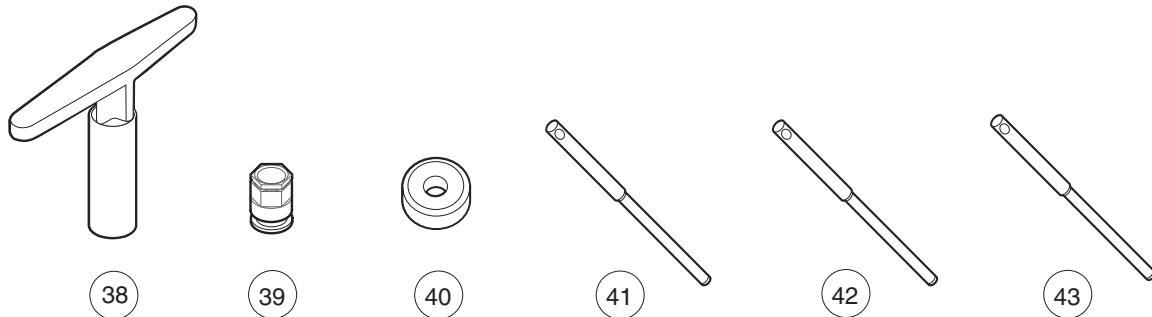
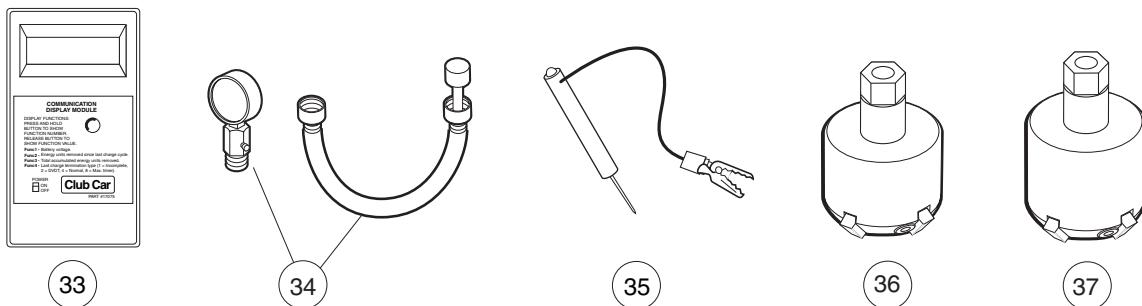
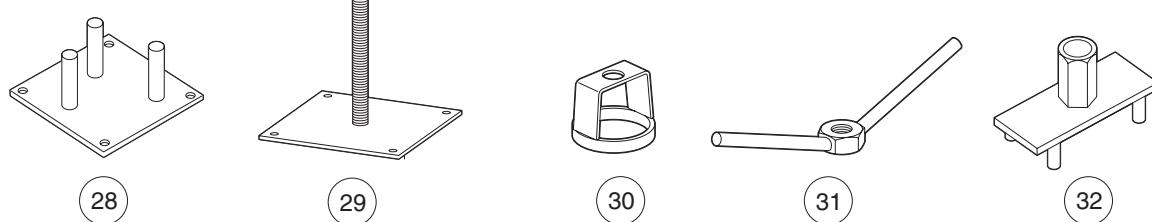
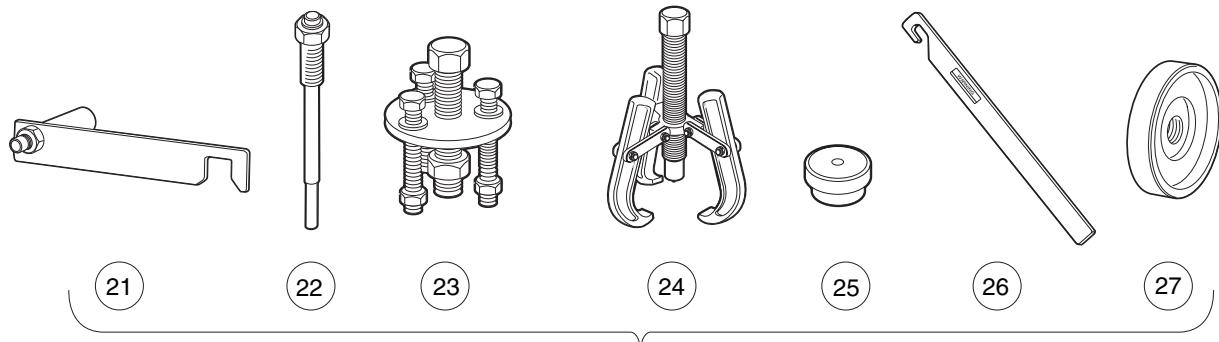


17



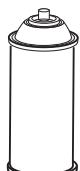
# MAINTENANCE AND SERVICE TOOLS

ITEM	PART NO.	DESCRIPTION	QTY DIESEL	QTY GAS	QTY ELEC	
		<b>1 2 3 4</b> The following tool list includes all tools available from Club Car for maintenance and service procedures for gasoline, electric, and/or diesel vehicles, both past and present models. Be sure to carefully examine the tool list for applicability to your vehicle before ordering.				<b>17</b>
1	101871001	Accelerator Pedal Adjustment Tool .....		1	1	<b>G</b>
2	101813202	Adhesive, Guide Ring, 3-Gram Tube .....			1	<b>E</b>
3	101641202	Arbor .....		1		<b>D</b>
4	101831901	Battery Discharge Machine, 36/48 Volt .....			1	
5	1014305	Battery Terminal Protector Spray .....	1	1	1	
6	1011767	Battery Thermometer .....	1	1	1	
7	1016417	Bearing and Oil Seal Remover Assembly .....	1	1	1	
8	1016416	Bearing Driver Set .....	1	1	1	
9	1012811	Bearing Puller .....	1	1	1	
10	1012812	Bearing Puller Wedge Attachment .....	1	1	1	
11	1013582	Brake Adjustment Tool (used only on vehicles with manually adjusted mechanical brakes) .....		1	1	
12	102555501	Brake Cable Release Tool .....	1	1	1	
13	102249901	Brake Pedal Adjustment Tool Kit (used for the Carryall Electric Industrial Truck only) (includes items 14 and 15).....			1	
14	****	Brake Pedal Adjustment Tool .....			1	
15	****	Brake Pedal Tension Tool .....			1	
16	101887101	Calibration Test Module .....			1	
17	101808401	Cam Installation Tool .....			1	
18	102562401	Charger Bezel Tool .....			1	
19	102686101	Clutch Removal Tool (for 4x4 vehicles) .....	1	1		
		Please refer to the maintenance and service manual for proper tool application.  **** Special order item available upon request				

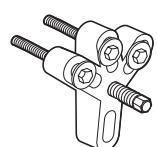
**17****G****E****D**

## MAINTENANCE AND SERVICE TOOLS, CONTINUED

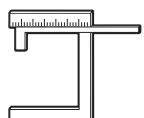
ITEM	PART NO.	DESCRIPTION	QTY DIESEL	QTY GAS	QTY ELEC	
		1 2 3 4				<b>17</b>
20	1014510	Clutch Tool Kit (includes items 21 - 27) .....		1		<b>G</b>
21	1014498	Clutch Alignment Tool (for pre-unitized transaxle vehicles built prior to 1997 model year) .....		1		<b>E</b>
22	1014496	Drive Clutch Puller (for Kawasaki engines only) .....		1		<b>D</b>
23	1014497	Drive Clutch Hub Puller (for Kawasaki engines only) .....		1		
24	1014508	Driven Clutch Cam Puller (for Kawasaki engines only) .....		1		
25	1014507	Driven Clutch Puller Plug (for Kawasaki engines only) .....		1		
26	1015524	Drive Clutch Holder Tool Assembly (for Kawasaki engines only) .....		1		
27	101809101	Press Weldment (for Kawasaki engines only) .....		1		
28	102601501	Drive ClutchFixed Sheave Tool (for 4x4 vehicles) .....	1	1		
29	102603501	Driven Clutch Spring Compression Base (for use with items 30 and 31) (for 4x4 vehicles) .....	1	1		
30	102605201	Driven Clutch Spring Compression Collar (for use with items 29 and 31) (for 4x4 vehicles) .....	1	1		
31	102606101	Driven Clutch Spring Compression Nut (for use with items 29 and 30) (for 4x4 vehicles) .....	1	1		
32	102607501	Drive Clutch Spider Removal Tool (for 4x4 vehicles) .....	1	1		
33	101831801	Communication Display Module .....			1	
34	101641002	Compression Gauge and Adapter .....		1		
35	1011273	Continuity Tester .....		1	1	
36	102773801	Cutter, Valve Seat, #122 .....		1		
37	102773901	Cutter, Valve Seat #115 .....		1		
38	102774101	Wrench, T, #505.....		1		
39	102774101	Adapter, T-Wrench.....		1		
40	102675401	Cutter, Valve Seat, 60 Degree (requires item 51) (for Honda GX620 Gasoline Engines) .....		1		
41	102774201	Pilot, 6.6 MM .....		1		
42	102774301	Pilot, 6.62 MM.....		1		
43	102774401	Pilot, 6.65 MM.....		1		
		Please refer to the maintenance and service manual for proper tool application.				

**17****G****E****D**

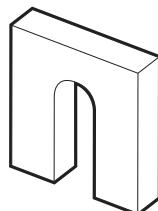
44



45



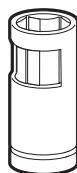
46



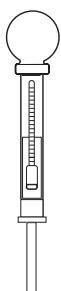
47



48



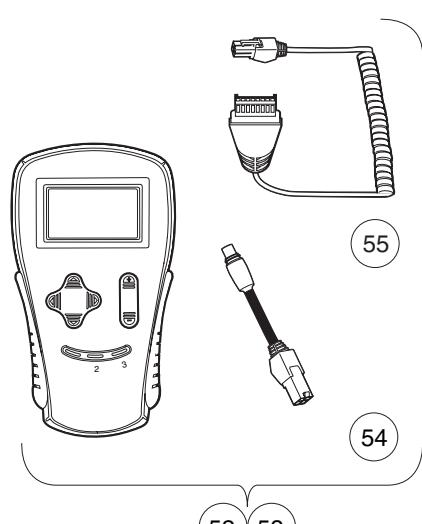
49



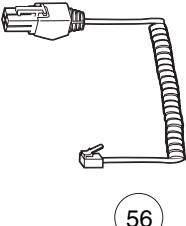
50



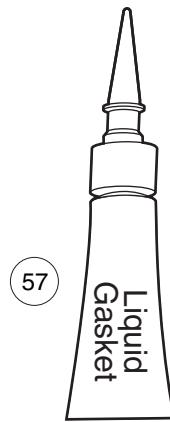
51



52 53



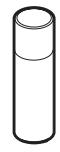
56



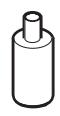
57



58



59 60



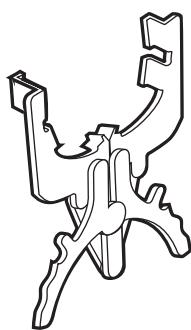
61

## MAINTENANCE AND SERVICE TOOLS, CONTINUED

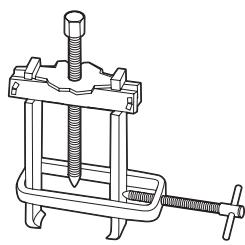
ITEM	PART NO.	DESCRIPTION	QTY DIESEL	QTY GAS	QTY ELEC	
		1 2 3 4				<b>17</b>
44	1012151	Dry Moly Lubricant .....	1	1	1	<b>G</b>
45	1016627	Flywheel Puller Kit (for Kawasaki Engines) .....		1		
46	102669901	Gauge, Carburetor Float Level (for Honda GX620 Gasoline Engines) .....		1		<b>E</b>
47	1016418	Gear Yoke .....	1	1	1	
48	101933101	Governor Shaft Installation Tool (for Kawasaki Engine Vehicles) .....		1		
49	102169401	Hydraulic Brake Adjuster (for Turf/CA 272/472, Pioneer/XRT 1200, Bobcat 2100, HUV 4213) .....			1	<b>D</b>
50	1011478	Hydrometer .....	1	1	1	
51	1013593	Internal Retaining Ring Pliers .....	1	1	1	
52	102248803	IQ Display Module (IQDM) Kit (IQ System and IQ Plus vehicles) .. (includes items 54 and 55)			1	
53	102248804	IQ Display Module (IQDM-P) Kit (IQ System and IQ Plus vehicles) .. (includes items 54 and 55)			1	
54	102251501	Adaptor, Cable .....			1	
55	102241502	IQDM Series 2 Cable .....			1	
56	102241501	IQDM Series 1 Cable (replacement) .....			1	
57	101928701	Liquid Gasket (transaxle case) .....	1	1	1	
58	102243402	Moly-Teflon Lubricant (4-oz. (113-gram) tube) .....			1	
59	101997201	Paint, Touch-Up – Beige* .....		1	1	
59	101997207	Paint, Touch-Up – Black* .....		1	1	
59	101997212	Paint, Touch-Up – Burgundy* .....		1	1	
59	101997211	Paint, Touch-Up – Classic Blue (Navy)* .....		1	1	
59	101997205	Paint, Touch-Up – Dark Gray* .....	1	1	1	
59	101997209	Paint, Touch-Up – Dark Green* .....	1	1	1	
59	101997204	Paint, Touch-Up – Gray* .....	1	1	1	
59	101997203	Paint, Touch-Up – Red* .....	1	1	1	
59	101997206	Paint, Touch-Up – Royal Blue (Pacific Blue)* .....		1	1	
59	101997202	Paint, Touch-Up – White* .....	1	1	1	
60	102562301	Paint, Precedent Underbody – Gray .....		1	1	
61	102587201	Paint Pen, Touch-Up, Precedent Underbody – Black .....		1	1	
		Please refer to the maintenance and service manual for proper tool application.				
		* Item 59 is not for use on Surlyn® body material, which is used on Precedent vehicles.				

**17****G****E****D**

62



63



64



65



66



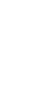
67



68



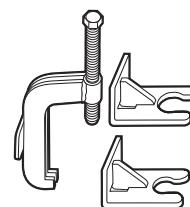
69



70



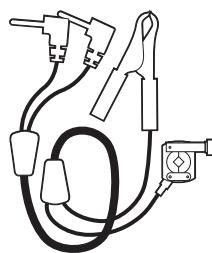
71



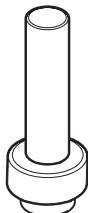
72



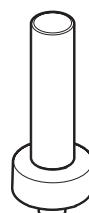
73



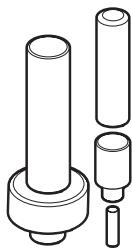
74



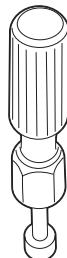
75



76



77



83



84



85



86

## MAINTENANCE AND SERVICE TOOLS, CONTINUED

ITEM	PART NO.	DESCRIPTION	QTY DIESEL	QTY GAS	QTY ELEC	
		1 2 3 4				<b>17</b>
62	1016414	Piston Ring Compressor Kit (FE290, FE350 and FE400 engines) .....		1		<b>G</b>
63	1016415	Piston Ring Pliers (for Kawasaki Engines) .....		1		
64	102668801	Puller, Special Use (for Kubota D722 Diesel Engines) .....	1			<b>E</b>
65	1012549	Retaining Ring Pliers, 45° External .....	1	1	1	
66	1012560	Retaining Ring Pliers, 90° Internal .....	1	1	1	
67	101823101	Safety First Card (50 per pack) .....	1	1	1	
68	1012809	Seal Puller .....	1	1	1	
69	102330901	Spanner Wrench (for coil over shock front suspension vehicles only) .....	1	1		
70	1014264	Steering Column Bearing Press Tool .....		1	1	
71	1014259	Steering Column Retaining Ring Tool .....		1	1	
72	102061201	Steering Wheel Puller Tool .....	1	1	1	
73	AM10753	Tachometer (includes gasoline engine pick up lead only) .....	1	1		
74	AM10771	Tachometer Diesel Probe (for use with item 73) .....	1			
75	1014162	Transaxle Axle Seal Tool .....		1		
76	1014161	Transaxle Pinion Seal Tool .....		1		
77	1014115	Transmission Tool Kit .....		1		
78	101611003	Tune-Up Kit, All OHV (for FE290, FE350, FE400 only) (includes air filter, spark plug, oil filter, fuel filters) (not shown) .....		1		
79	AM11804	Tune-Up Kit, Gx620 (for Honda Engines) (includes air filter, spark plug, oil filter, fuel filters) (not shown) .....		1		
80	AM11805	Tune-Up Kit, D722 (for Kubota Engines) (includes air filter, oil filter, fuel filters, water separator filter) (not shown) .....	1			
81	AM1220301	Tune-Up Kit, Precedent (for FE290/350 Engines) (includes air filter, spark plug, oil filter, fuel filters) (not shown) .....		1		
82	AM1232401	Tune-Up Kit, FH680D (for Kawasaki V-Twin Engines) (includes oil filter, fuel filter, air filter, and spark plugs) (not shown) .....		1		
83	1016413	Valve Clearance Adjuster Screw Holder (for FE290 engines only) .....		1		
84	102674601	Valve Guide Driver (for Honda GX620 Gasoline Engines) .....		1		
85	101641201	Valve Guide Reamer (FE290, FE350, and FE400 only) .....		1		
86	102674401	Valve Guide Reamer, 6.6 mm (for Honda GX620 Gasoline Engines) .....		1		

**17**

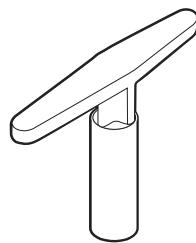
**G**

**E**

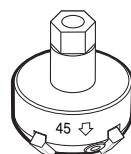
**D**



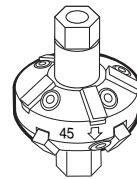
**87**



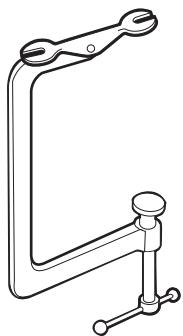
**88**



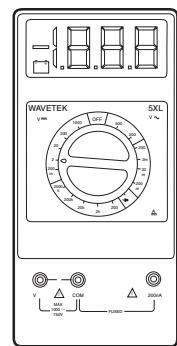
**89**



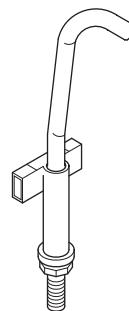
**90**



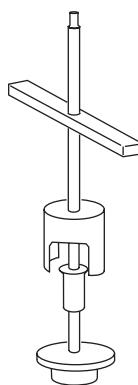
**91**



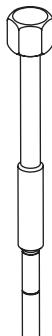
**92**



**93**



**94**



**95**

## MAINTENANCE AND SERVICE TOOLS, CONTINUED

ITEM	PART NO.	DESCRIPTION	QTY DIESEL	QTY GAS	QTY ELEC	
		1 2 3 4				<b>17</b>
87	1016552	Valve Seat Cutter Guide .....		1		<b>G</b>
88	1016551	Valve Seat Cutter T-Wrench .....		1		
89	1016553	Valve Seat Cutter, 45° (32 mm diameter) (for FE290 engines only) .....		1		<b>E</b>
90	1016554	Valve Seat Cutter, 45°/30° (35 mm diameter) .....		1		
91	101641101	Valve Spring Compressor .....		1		
92	1011480	Volt Ohm Meter .....	1	1	1	<b>D</b>
93	102570401	Tool, Tensioning, Starter Generator (For Precedent vehicles) .....		1		
94	103601401	Puller, Drive Clutch, XRT 950.....		1		
95	103601701	Tool, Disassembly, Driven Clutch, XRT 950.....		1		



# INDEX

## **Part Number and Page**

AM10753	17-9	8067	5-13	1011652	1-11
AM10771	17-9	8233	1-13, 1-15, 1-19, 4-9, 4-11, 8-3, 11-3, 11-9, 11-11, 13-17	1011694	4-9, 4-11
AM10079	6-9	8248	8-3, 11-9, 13-17	1011697	1-5, 5-3, 8-7, 8-9, 13-13
AM10080	11-5	8251	1-13, 1-15, 1-21, 11-11	1011700	4-9, 4-11
AM10081	11-5	8418	1-17	1011734	4-13
AM10419	10-7	8450	10-3	1011767	17-3
AM10682	2-3	8639	13-15	1011779	4-7
AM10724	7-5	8717	4-9, 4-11, 6-7, 11-3, 11-9	101187702	4-5
CCX8506	16-3, 16-5, 16-7	8745	5-11	1011930	5-7, 5-9
183	8-13, 10-3, 11-3	8754	4-9, 4-11, 5-3, 5-7, 5-9, 5-11, 5-15, 5-17, 6-15	1011931	4-9, 4-11
324	1-19	8755	5-11, 5-15, 5-17	1011988	8-3
332	1-11, 1-13, 1-15, 1-19, 8-11, 9-3, 11-11, 13-17	8861	5-9	1012030	5-11
334	4-9, 4-11, 5-3, 5-7, 7-15	8990	5-7, 6-7, 13-7, 13-15, 13-17	1012047	1-13, 1-15
357	5-11	1010124	5-11	1012098	16-3, 16-5, 16-7, 16-9, 16-11
451	9-3, 14-3, 14-5, 14-7	1010138	5-9	1012101	16-7, 16-9, 16-11
705	6-15, 7-15	1010145	5-15, 5-17	1012151	17-7
706	5-11	1010150	5-11	1012159	1-15
808	10-3	1010200	5-11	1012180	5-15, 5-17
1028	1-17, 4-5	1010219	5-9	1012181	5-15, 5-17
1032	4-5	1010413	1-17	1012182	5-15, 5-17
1035	4-7, 5-7, 5-9	1010434	1-17, 1-23	1012285	8-9, 11-3, 11-11, 13-15
1241	1-3, 1-17, 4-5, 4-7, 4-9, 4-11, 6-7, 6-15, 6-17, 9-3, 14-3	1010435	1-3	1012295	6-7
1242	4-7, 6-7, 6-15	1010543	1-11	1012303	5-11, 5-15, 5-17
1308	5-9	1010577	7-15	1012304	5-15, 5-17
1606	8-13	1010805	4-5	1012324	5-15
1620	1-7	1010829	4-7	1012328	6-17
1624	4-9, 4-11, 5-7, 5-11	1010850	4-3	1012333	11-11
2402	5-9	1010877	4-5	1012382	6-5
7048	5-13	1010878	4-5	1012412	1-13, 1-15
7173	6-15, 6-17	1010921	1-17, 4-5	1012431	6-7, 6-9, 11-9, 13-7
7174	5-3, 6-15, 8-9, 9-3, 14-3, 14-5, 14-7	1010927	4-5	1012466	5-3
7251	1-3	1010932	4-5	1012467	5-7
727102	2-3	1010933	4-5	1012505	6-9, 13-7
7310	2-3	1010934	6-17, 14-3, 14-5, 14-7	1012528	9-3, 13-15
7330	11-7, 15-3	1010954	6-7, 11-3, 11-9	1012549	17-9
7335	11-5, 15-3	1010974	5-17	1012560	17-9
7336	15-3	1010984	2-3	1012565	5-5
7473	1-3, 1-5, 1-17, 4-5, 4-7, 4-9, 4-11, 6-7, 6-15, 6-17	1010993	1-13, 1-15	1012566	5-5
7479	1-15, 1-17	1011014	1-3	1012571	7-15
7539	5-9	1011017	1-3	1012581	1-21
7540	5-7, 5-9	1011019	1-7	1012594	11-9
7555	5-7, 5-9	1011084	4-13	1012604	5-3
7577	16-5, 16-7, 16-9, 16-11	1011229	6-9, 13-7	1012605	5-3
7602	5-7, 5-9	1011273	17-5	1012649	8-3
7716	4-5, 4-9, 4-11	1011280	14-3	1012711	11-3
7818	1-17, 6-7	1011291	11-7	1012714	11-5
7847	1-9, 1-13, 9-3	1011394	1-3	1012740	11-5
7893	6-7, 11-11	1011402	4-5	1012741	11-5
7973	1-7	1011411	14-3	1012747	11-5
8056	6-9, 13-7	1011415	5-15, 5-17	1012748	11-5
8057	6-7, 6-9, 11-9, 13-7	1011418	4-5	1012752	11-3
8058	6-7, 6-9, 11-9, 13-7	1011466	4-3	1012809	17-9
		1011478	17-7	1012811	17-3
		1011480	17-11	1012812	17-3
				1012830	6-15, 8-9, 9-3
				1012836	10-7

# INDEX

1012896	11-3	1014051	10-3	1014727	11-9
1012987	11-9	1014052	10-3	1014771	2-3
1013001	6-11	1014055	10-3	1014807	6-7, 11-9
1013003	6-11	1014056	10-3	1014808	6-7
1013005	6-11	1014057	10-3	1014928	8-3
101301102	6-11	1014058	10-3	1014947	13-15
1013035	5-7	1014059	10-3	1014948	6-7
1013042	5-7	1014062	10-3	101503202	1-7, 1-13, 1-15
1013044	5-7	1014063	10-3	1015064	11-9
1013051	5-7	1014065	6-7, 10-3, 11-9	1015072	13-13
1013052	5-7	1014070	10-7	1015075	1-3, 1-17
1013061	11-3, 13-11	1014072	10-7	1015137	8-3, 8-7
1013164	5-15, 5-17	1014078	10-7	1015139	8-3
1013207	5-17	1014080	10-7	1015143	8-3
1013216	1-21	1014089	11-9	101524001	6-15
1013217I	1-21	1014115	17-9	1015330	7-9, 9-3
1013218	1-21	1014116	8-3	1015332	6-5, 7-3
1013343	1-7	1014119	6-7	1015371	6-7
1013344	1-7	1014125	5-3	1015372	6-7
1013494	1-7	1014126	5-3	1015373	6-7
1013531	4-7	1014145	6-7, 11-9	1015405	6-7
1013582	17-3	1014153	4-3	1015426	8-11
1013587	11-9	1014161	17-9	101547601	3-3
1013589	6-7, 11-9	1014162	17-9	1015524	17-5
1013590	11-9	1014198	3-3, 3-5	1015525	1-21
1013591	11-9	1014201	14-3, 14-5, 14-7	1015545	5-3
1013593	17-7	1014207	11-7	1015583	5-11, 5-15, 5-17
1013609	6-7	1014211	5-3	1015597	5-7, 5-9, 5-13
1013656	1-17	1014212	5-3	1015649	7-3
1013687	8-3	1014213	5-3	101570501	2-3
1013700	8-9	1014214	5-3	101570507	2-3
1013734	9-3, 13-15	1014216	5-3	101570512	2-3
1013746	8-3, 8-7	1014217	5-3	101570513	2-3
1013754	1-17	1014259	17-9	1015707	2-3
1013760	11-3	1014264	17-9	1015720	6-9, 13-7
1013768	11-7	1014276	5-11	1015737	6-5, 6-7
1013769	11-7	1014287	10-3	1015741	6-7
1013770	11-7	1014288	5-3, 6-17, 10-3, 13-15	1015752	6-7, 8-11, 13-9
1013771	11-7	1014289	6-11	1015814	9-3
1013772	11-7	1014304	13-13	101584502	8-9
1013773	11-7	1014305	17-3	1015878	6-7
1013774	11-7	1014306	1-13, 1-15	1015914	16-3, 16-7, 16-9, 16-11
1013787	11-7	1014375	6-17	1015917	16-7, 16-9
1013792	11-7	1014453	10-3	1015920	6-5, 6-15
1013794	11-7, 15-3	1014454	10-7	1015932	6-15
1013861	5-3	1014482	1-17	1015969	7-3
1013869	4-5	1014496	17-5	1016003	8-3
1013870	4-5	1014497	17-5	1016074	6-15
1013871	4-9, 4-11	1014498	17-5	1016103	8-7
1013876	4-5	1014507	17-5	101611003	17-9
1013924	4-3, 7-15	1014508	17-5	1016154	5-5
1013935	1-17	1014510	17-5	1016156	5-5
1013983	1-5	1014523	8-3	1016181	5-3
1014007	4-9, 4-11, 11-3	1014524	8-3	1016183	5-3
1014049	10-3	1014555	5-15, 5-17	1016201	10-3, 11-9
1014050	10-3	1014645	1-7	1016203	10-5

# INDEX

1016214	5-5	1016455	7-5	1016532	7-13
1016219	5-5	1016456	7-3, 7-5, 7-11	1016533	7-13
1016263	5-3	1016457	7-7	1016535	7-11
1016269	5-3	1016458	7-9, 7-11	1016536	7-3
1016289	10-3	101645901	7-13	1016537	7-7
1016337	11-5	101645902	7-13	1016538	7-11
1016338	11-5	101645903	7-13	1016539	7-3
1016341	11-3	1016460	7-13	1016541	7-13
1016342	11-9	101646101	7-13	1016542	7-9
1016346	5-9	101646102	7-13	1016544	7-5, 7-9, 7-11
1016349	5-9	101646103	7-13	1016545	7-9
1016350	5-9	1016467	7-7	1016546	8-9
1016353	5-9	1016469	7-13	1016547	7-3, 7-13, 8-7
1016379	1-5	1016470	7-13	1016548	7-5
1016384	5-11	1016471	7-9	1016549	7-9
1016385	5-9	1016472	7-11	101655001	7-13
1016386	5-11	1016473	7-7	101655002	7-13
1016387	5-11	1016474	7-9	101655003	7-13
1016389	5-11	101647501	7-13	101655004	7-13
101641002	17-5	101647502	7-13	101655005	7-13
101641101	17-11	1016479	7-9	101655006	7-13
101641201	17-9	1016480	8-7	101655007	7-13
101641202	17-3	101648102	8-7	101655008	7-13
1016413	17-9	101648203	7-7	101655009	7-13
1016414	17-9	1016483	7-9	1016551	17-11
1016415	17-9	1016484	7-7	1016552	17-11
1016416	17-3	1016486	8-5	1016553	17-11
1016417	17-3	1016489	7-9	1016554	17-11
1016418	17-7	101649002	8-7	1016558	7-13
101642572	8-5	1016493	7-5	1016559	7-13
101642575	8-5	1016494	7-11	1016560	7-9
101642578	8-5	1016496	7-11	1016561	7-5
101642580	8-5	1016497	7-5	1016562	7-5, 7-13
101642582	8-5	1016499	8-5	1016563	7-9
1016429	7-7	1016501	8-5	1016564	7-11
1016430	7-9	1016502	7-7	1016565	7-11
1016431	7-9	1016505	7-5	1016566	7-9
1016432	7-7, 11-3	1016506	7-11	1016567	7-11
1016435	7-7	1016507	7-3	1016568	7-13
1016436	7-9	1016509	7-13	1016569	7-9
1016437	8-5	1016510	7-11	1016570	7-7
1016438	8-7	1016513	11-3	1016571	7-13
1016439	8-7	101651401	2-3	1016572	8-7
1016440	7-9, 8-7	101651407	2-3	1016576	7-7
1016441	8-7	101651412	2-3	1016578	7-5
1016443	7-3	101651413	2-3	1016579	7-5
1016444	8-7	1016516	7-13	1016580	7-13
1016445	7-5	1016517	7-9	1016581	7-7
1016446	7-9, 7-11	1016519	7-9	1016582	8-7
1016447	7-9	1016520	7-11	1016583	7-9
1016448	7-9	1016521	7-11	1016584	7-11
1016449	7-9	1016523	7-9	1016585	8-5
1016450	7-9	1016524	7-3	1016586	7-5
1016452	7-9	1016525	7-3	1016587	7-5
1016453	7-11	1016526	7-3	1016588	7-5
1016454	7-11	1016531	7-3	101660404	1-7

# INDEX

1016622	5-3	1016952	1-9	101779801	1-23
1016627	17-7	101696201	1-15	1017814	1-15
1016630	6-9	101696202	1-15	1017815	1-15
1016663	5-5	101696204	1-15	101791101	4-3
1016672	11-7	101696206	1-15	1017936	1-13, 1-15
1016801	10-3	101696208	1-13	1017944	14-3
1016849	6-9, 13-7	101696209	1-13	1017947	14-3
1016851	6-9, 13-7	101696211	1-13	1017949	14-3
1016859	6-9, 13-7	101696213	1-13	1017950	14-3
1016868	1-3	101696215	1-13	1017953	14-3
1016874	1-5	101696216	1-13	101795701	13-5, 13-13
1016875	1-5	101696217	1-15	101796201	4-9, 4-11
1016876	1-5	101696218	1-15	101796501	13-11
1016883	6-15	101696219	1-13	101796801	13-11
1016916	1-11	101696220	1-13	101801001	13-11
101692501	1-3	101696221	1-13	101802101	13-11
101692502	1-3	101696222	1-15	101802201	16-7
101692504	1-3	101696223	1-15	101802202	16-7
101692506	1-3	101696224	1-15	101802203	16-7
101692509	1-3	1016967	1-3	101804301	8-11
101692510	1-3	1017029	4-5	101805701	8-13
101692511	1-3	101706702	1-23	101808401	17-3
101692512	1-3	1017079	1-5	101809101	17-5
101692513	1-3	1017080	1-3	101811401	8-13
101692514	1-3	1017082	11-3	101811501	8-13
101692515	1-3	101708301	1-9	101811901	8-11
101692601	1-13	1017141	1-13, 1-15	101812301	8-11
101692602	1-13	1017203	8-3	101813001	8-11
101692604	1-13	1017221	7-3	101813202	17-3
101692606	1-13	1017226	5-3	101815501	4-3
101692609	1-13	1017231	11-3	101815502	4-3
101692610	1-13	1017266	5-9	101816301	4-3
101692611	1-13	1017267	1-23	101816501	4-3
101692612	1-13	1017273	5-5	101816502	4-3
101692613	1-13	1017378	4-9, 4-11	101817401	4-9, 4-11
101693301	1-15	1017380	4-9, 4-11	101818801	4-9
101693302	1-15	1017424	4-9, 4-11	101820201	8-7
101693304	1-15	1017448	7-5	101821301	6-7
101693306	1-15	1017455	7-5	101821501	8-11
101693309	1-15	1017456	7-7	101823101	17-9
101693310	1-15	1017461	8-5	101823201	4-3
101693311	1-15	1017466	8-7	101823301	4-3
101693312	1-15	1017468	7-5	101823302	4-3
101693313	1-15	1017507	7-7	101823801	4-3
101693901	1-3	101768202	1-23	101823901	4-3
101693902	1-3	101768204	1-23	101824001	4-3
101693904	1-3	10176821	1-23	101824002	4-3
101693906	1-3	1017686	10-7	101824401	8-3
101693908	1-3	1017689	9-3	101825101	3-3, 3-5
101693909	1-3	101769302	2-3	101826201	13-7
101693910	1-3	1017696	4-9, 4-11	101826301	6-9
101693911	1-3	1017705	13-11	101827101	7-15
101693912	1-3	1017748	1-13, 1-15	101827601	6-7
101693913	1-3	101776201	1-23	101827801	13-15
101693914	1-3	101776301	1-23	101828301	16-7
1016947	11-9	1017774	1-17	101828801	16-5, 16-7

# INDEX

101828802	16-5, 16-7	101875601	6-11	101895501	15-3
101828901	16-7, 16-9, 16-11	101875701	6-11	101896501	6-11
101828902	16-7, 16-9, 16-11	101875802	6-11	101896901	8-3
101828903	16-7	101876001	6-11	101897001	15-3
101828904	16-5	101876202	6-11	101897201	15-3
101828905	16-5	101876301	6-11	101897401	15-3
101828906	16-5	101876402	6-11	101897601	15-3
101830601	6-9, 13-7	101876501	6-11	101898001	6-17
101830701	6-9, 13-7	101877601	6-11	101900801	4-7, 5-15
101831101	16-7	101877701	6-11	101900901	6-9
101831503	16-9	101878101	6-11	101903101	5-11
101831504	16-9	101878201	4-5	101903601	15-3
101831701	16-9	101878302	5-7	101903701	15-3
101831801	17-5	101879001	6-11	101905601	8-5
101831901	17-3	101879401	5-7	101906901	15-3
101832001	13-11	101879501	5-7	101908101	13-17
101832101	7-15	101879601	5-7	101908401	13-17
101832202	8-9	101879701	5-7	101908601	3-5
101832302	8-9	101879801	5-7	101908701	13-15
101832701	7-15	101879901	5-7	101909201	7-5
101833201	7-15	101880001	5-7	101909301	7-5
101833401	10-7	101880101	5-7	101909401	7-5
101833601	11-3	101880201	5-7	101909701	7-3
101833701	6-11	101880301	5-7	101910401	1-17, 13-15
101833902	10-3	101881101	7-5	101910501	11-7
101834001	10-7	101881701	8-11	101912401	4-13
101834502	6-9, 13-7	101884801	7-15	101914401	16-7, 16-9
101834601	7-15	101886101	11-3	101915201	3-3
101834801	11-3	101887101	17-3	101915401	7-11
101835601	1-19	101887601	7-3, 8-7	101915501	7-13
101836201	10-7	101889401	11-5	101915601	7-3
101837101	8-11	101890001	11-5	101915801	7-5
101837301	6-5, 6-15	101890101	11-3	101916701	6-15, 10-3
101838201	16-9	101890201	11-3	101917601	8-11
101838301	16-9	101890501	11-3	101917701	8-13
101838401	16-9, 16-11	101890601	11-3	101920101	13-9, 14-3, 14-5, 14-7
101838501	16-9	101890901	11-7	101921501	8-11
101838601	16-9, 16-11	101891001	11-7	101922101	15-3
101850301	8-13	101891301	11-3	101922201	15-3
101851101	6-9, 13-7	101891401	11-7	101922301	7-13
101855801	11-11	101891501	11-7	101922501	13-17
101856001	13-17	101891601	11-5	101923001	15-3
101856102	6-7	101891901	11-5	101923201	15-3
101856201	8-13	101892001	11-5	101923501	15-3
101859301	9-3	101892201	11-5	101923701	15-3
101861901	4-9, 4-11	101892301	11-5	101923901	15-3
101862001	4-11	101892401	11-5	101925701	8-11
101869302	6-11	101892501	11-5	101926901	11-3
101871001	17-3	101892601	11-5	101927101	11-3
101874901	6-11	101892701	11-7	101927201	11-3
101875001	6-11	101892901	11-3	101927301	11-3
101875102	6-11	101893201	11-5	101927501	11-5
101875201	6-11	101893801	11-3	101927601	11-5
101875301	6-11	101893901	11-5	101927701	11-5
101875401	6-11	101894901	13-11	101927901	11-5
101875501	6-11	101895401	15-3	101928001	11-5

# INDEX

101928101	11-5	101998211	1-11	102243402	17-7
101928301	11-7	101998212	1-11	102243403	14-3, 14-5, 14-7
101928601	11-3	101998214	1-11	102248803	17-7
101928701	11-3, 15-3, 17-7	101998215	1-11	102249901	17-3
101929301	7-5	101998501	1-11	102251501	17-7
101929802	10-3	102003201	8-3	102263601	13-15
101931501	3-5, 13-15	102022101	4-7	102265601	14-3
101932601	13-15	102026001	4-9, 4-11	102265701	14-3
101932701	13-15	102031901	11-7	102265901	14-3
101933101	17-7	102045901	11-3, 11-11	102266001	14-3
101935501	13-7	102060511	1-17	102266101	14-3
101936801	13-9	102060512	1-17	102266501	13-15
101939901	6-11	102060514	1-17	102267001	14-3
101942301	14-3, 14-5, 14-7	102060515	1-17	102273201	16-5
101951501	11-11	102061201	17-9	102273301	16-5
101953101	4-7	102061301	1-19	102273401	16-5
101953901	7-3	102061302	1-19	102273501	16-5
101954301	1-11	102063901	1-19	102273601	16-5
101956201	16-11	102064601	1-19	102273701	16-3, 16-5
101956202	16-11	102065501	1-19	102273801	16-3, 16-5
101958101	8-13	102065901	7-15	102273901	16-3, 16-5
101958201	16-11	102076701	1-17, 1-19	102274001	16-5
101958301	16-11	102099101	1-19	102278001	5-3
101959902	3-5	102101001	13-9	102296920	13-17
101960501	3-3	102101101	13-9	102304701	7-9
101960601	3-3, 3-5	102155501	1-19	102310701	1-5
101963401	7-15	102169401	17-7	102323101	4-5
101965205	13-15	102174201	1-11	102323201	4-5
101971301	8-11	102174202	1-11	102330901	17-9
101972001	17-7	102174204	1-11	102336001	8-9
101972002	17-7	102174205	1-11	102336101	8-9
101972003	17-7	102186001	14-5, 14-7	102353201	5-13
101972004	17-7	102186101	14-5, 14-7	102353301	5-13
101972005	17-7	102186201	14-5, 14-7	102353401	5-13
101972006	17-7	102186301	14-5, 14-7	102354103	5-13
101972007	17-7	102186401	14-5, 14-7	102354203	5-13
101972009	17-7	102186701	14-5, 14-7	102355301	6-17
101972011	17-7	102186901	14-5, 14-7	102356601	15-3
101972012	17-7	102187001	14-5, 14-7	102356801	15-3
101972101	15-3	102187101	14-5, 14-7	102357001	15-3
101972201	15-3	102187201	14-5, 14-7	102357701	5-13
101972801	8-11	102198301	1-19	102453001	11-5
101973101	8-5	102221201	1-5, 1-13, 1-15	102453101	11-5
101973201	8-5	102235201	14-3, 14-5, 14-7	102508401	13-17
101973501	16-11	102236601	1-17	102511301	13-13
101976601	16-11	102236703	1-17	102511302	13-13
101979101	11-9	102237001	1-17	102518001	3-5
101980801	11-5	102238301	1-17	102519201	3-3
101980901	11-5	102238302	1-17	102540301	7-15
101981001	11-5	102238304	1-17	102555501	17-3
101984801	5-3	102238305	1-17	102562401	17-3
101985502	1-11	102240501	13-15	102569304	2-3
101987501	16-11	102241501	17-7	102570401	17-11
101987602	1-11	102241502	17-7	102588501	5-15, 5-17
101987701	8-3	102242101	10-7	102601501	17-5
101990801	4-7	102242401	1-17	102603501	17-5

# INDEX

102605201	17-5	102898501	12-3	103347101	6-13
102606101	17-5	102898601	12-3	103347301	6-13
102607501	17-5	102898701	12-3	103347601	6-13
102668801	17-9	102898801	12-3	103347701	6-13
102669901	17-7	102898901	12-5	103347801	6-13
102674001	17-5	102899001	12-3	103347901	6-13
102674101	17-5	102899101	12-3	103351001	5-9
102674201	17-5	102899201	12-3	103359401	13-15
102674401	17-9	102899301	12-3	103359501	13-15
102674601	17-9	102899401	12-3	103397901	16-5, 16-7
102675001	17-5	102899501	12-3	103414901	16-5, 16-7
102675101	17-5	102899601	12-3, 12-5	103415001	16-5, 16-7
102675201	17-5	102899701	12-3	103428501	16-3
102675301	17-5	102899801	12-3	103428601	16-3
102675401	17-5	102899901	12-5	103428701	16-3
102686101	17-3	102900001	12-5	103428801	16-3
102704701	14-5, 14-7	102900101	12-5	103429001	16-3
102704801	14-5, 14-7	102900201	12-5	103429101	16-3
102704901	14-5, 14-7	102900301	12-5	103429201	16-3
102711001	6-13	102900401	12-3	103429301	16-3
102711201	6-7	102900501	12-3	103429501	16-3
102751601	8-3	102900601	12-3	103429601	16-3
102753401	7-9	102900701	12-3	103429701	16-3
102771701	15-3	102900801	12-3	103434001	16-3
102777401	13-13	102900901	12-3	103439901	16-3
102806201	13-15	102901001	12-3	103499101	16-3
102832601	13-13	102901101	12-5	103499102	16-3
102838701	6-13	102901201	12-3	103499103	16-3
102838801	6-13	102901301	12-3	103572501	14-7
102838901	6-13	102901401	12-3	96704416	7-15
102839001	6-13	102901501	12-3		
102839301	6-13	102901601	12-3		
102841101	6-13	102901701	12-3		
102844401	6-13	102901801	12-3		
102844601	6-13	102901901	12-3		
102844701	6-13	102902001	12-3		
102865101	8-3	102902201	12-7		
102886301	15-3	102902301	12-7		
102886401	15-3	102902401	12-7		
102886501	15-3	102902501	12-7		
102886601	15-3	102902601	12-7		
102896801	12-3	102902701	12-7		
102896901	12-3	102902801	12-7		
102897201	12-5	102913301	13-5		
102897301	12-5	103250701	13-5		
102897401	12-3	103262701	13-17		
102897501	12-5	103282601	13-15		
102897601	12-3	103316701	13-15		
102897701	12-3	103316801	13-15		
102897801	12-3	103316901	13-15		
102897901	12-3	103325501	14-3		
102898001	12-3, 12-5	103325601	14-3		
102898101	12-3	103325701	14-3		
102898201	12-3	103332302	6-5, 6-7		
102898301	12-3, 12-5	103337601	14-3		
102898401	12-5	103345701	10-3		

## A

- absorber, rear shock 5-15, 5-17
- AC cord 16-5, 16-7, 16-9, 16-11
- AC cord bushing 16-3, 16-5
- AC cord receptacle 16-11
- AC cordset 16-3
- accelerator bracket and bearing assembly 4-9, 4-11
- accelerator cable 8-9
- accelerator pedal 4-9, 4-11
- accelerator pedal adjustment tool 17-3
- accelerator pivot rod 4-9, 4-11
- accelerator return spring 4-9, 4-11
- accelerator rod 4-13
- access door 1-21
- adapter
  - cable (IQDM) 17-7
- adhesive, guide ring 17-3
- adjuster
  - hydraulic brake 17-7
- air box 8-11
- air box top 8-11
- air duct assembly 8-13
- air filter 8-11
- air intake hose 8-11

# INDEX

- ammeter 16-3, 16-5, 16-7, 16-9, 16-11  
A-plate strap 5-9  
A-plate, delta 5-9  
arbor 17-3  
arm  
  governor 11-3  
  pivot 11-3  
  rocker 7-9  
armature 6-11, 14-3, 14-5, 14-7  
armature conversion kit 6-11  
armrest 1-11  
assembly  
  accelerator bracket and bearing 4-9, 4-11  
  accelerator pivot rod 4-9, 4-11  
  air box 8-11  
  air box top 8-11  
  air duct 8-13  
  armature 6-11  
  axle 11-7  
  bearing, steering shaft 5-3  
  brake lever 4-3  
  brush connector 6-11  
  brush holder 6-11  
  carburetor 8-5  
  connecting rod 7-13  
  delta A-plate 5-9  
  delta shock and gear support 5-9  
  drive hub 10-3  
  driven clutch 10-7  
  driven clutch fixed-face 10-7  
  field coil 6-11  
  float 8-5  
  Forward/Reverse shifter 11-9  
  frame and field (motor) 14-5, 14-7  
  fuel tank vent 8-3  
  governor 11-5  
  idle screw 8-5  
  inner ball joint 5-7  
  kingpin 5-11  
  moveable-face 10-3, 10-7  
  pilot air screw 8-5  
  ratchet 4-5  
  score card plate 5-5  
  secondary clutch weight 10-3  
  steering shaft 5-3  
  steering wheel 5-5  
axle 11-7, 12-3, 15-3  
axle shaft oil seal 11-7, 15-3  
axle tube 15-3
- B**  
backing plate, brake 4-3  
bag hoop 1-17  
bag strap assembly 1-17  
bag strap buckle 1-17  
bag well protector 1-23
- bag, desiccant 10-3  
bagwell protector 1-23  
ball joint 4-5, 4-13, 5-7, 5-9, 11-11  
ball joint, left-hand thread 5-7, 5-9  
ball stud 6-7, 11-3, 11-9  
ball, bearing 6-13  
ball, shifter 11-5  
ball, steel pressure relief 7-7  
band, RPM limiter mount 7-5  
bar, drive 13-9  
barb, vent 8-3  
barrel, plastic 1-17, 1-23  
basket, sweater 1-17  
battery charger 16-5, 16-7, 16-9, 16-11  
battery charger case 16-5, 16-7, 16-9, 16-11  
battery charger handle 16-5  
battery charger receptacle 13-11  
battery charger transformer 16-5, 16-7, 16-9, 16-11  
battery clamp 6-17  
battery discharge machine 17-3  
battery hold-down, 12-volt 13-13  
battery terminal protector spray 17-3  
battery thermometer 17-3  
battery warning light 13-7  
battery, 12-volt 6-17  
battery, 12-volt, Trojan T1275, moist 13-13  
battery, 12-volt, Trojan T1275, wet 13-13  
bearing 15-3  
  ball 6-13  
  ball (motor) 14-5, 14-7  
  ball (steering pinion) 5-7  
  idler 10-3  
  inner axle tube 11-7, 15-3  
  lower pinion (steering) 5-7  
  needle 11-5  
  outer axle tube 11-7  
  pivot support 4-9, 4-11  
  steering shaft 5-3  
  thrust 5-11  
bearing and oil seal remover 17-3  
bearing driver set 17-3  
bearing puller 17-3  
bearing puller wedge 17-3  
bearing retainer 14-3  
bearing seal 5-3  
bearing seat 5-3  
bell crank 6-7, 11-9  
bellows 5-7  
belt, drive 10-5  
belt, starter/generator 6-15, 10-3  
beverage holder 1-9  
block, brake-mounting 4-5  
block, fuse 6-7  
body kick plate 1-13, 1-15  
body, front 1-3
- body, rear 1-13, 1-15  
bolt, J- 13-13  
boot, steering column 5-3  
boot, switch 13-17  
bottom, air box 8-11  
box  
  air 8-11  
  electrical component 6-7  
  steering gear 5-7  
bracket 7-3  
  accelerator cable 8-9  
  adjustable starter/generator 6-15  
  governor cable 8-9  
  muffler mounting 9-3  
  oil filter mount 7-7  
  oil level switch 7-11  
  relay mounting 16-9  
  RPM limiter 7-5  
  shifter 11-3, 11-11  
  shock absorber 5-15, 5-17  
  shock mounting 5-15, 5-17  
  snubber 7-15  
  starter/generator mounting 6-15  
  steering column 5-3  
  steering column mounting 5-3  
  throttle spring return 8-7  
  Tow/Run switch 13-17  
brake adjusting mechanism 4-3  
brake adjustment tool 17-3  
brake backing plate 4-3  
brake cable 4-7  
brake cable equalizer 4-7  
brake cable hanger 4-7, 5-15, 5-17  
brake cable release tool 17-3  
brake cluster 4-3  
brake drum 4-3  
brake lever 4-3  
brake mounting block 4-5  
brake pedal 4-5  
brake pedal adjustment tool 17-3  
brake pedal pad 4-5  
brake pedal tension tool 17-3  
brake return spring 4-7  
brake self-adjusting mechanism 4-3  
brake shoe 4-3  
brake spring 4-3  
breaker, circuit 16-3, 16-5, 16-7, 16-9, 16-11  
breather 11-3, 15-3  
brush 14-3, 14-5, 14-7  
brush and screw set 6-11  
brush box assembly 14-5, 14-7  
brush connector 6-11  
brush cover kit, starter/generator 6-13  
brush holder 6-11  
brush inspection port cover 6-11  
brush plate

# INDEX

starter/generator 6-13  
 brush port cover 6-11  
 brush rigging 14-3, 14-5, 14-7  
 brush spring 6-13, 14-3, 14-5, 14-7  
 brush spring set 6-11  
 brush spring, starter/generator 6-13  
 brush terminal, starter/generator 6-13  
 buckle, bag strap 1-17  
 bumper  
     drive unit (motor) 14-3, 14-5, 14-7  
     front 1-3  
     front, kit 1-3  
     rear 1-5  
     rubber 4-5  
     side trim 1-5  
     spring return 4-9, 4-11  
 bumper mounting 1-5  
 bushing 10-3  
     AC cord 16-3, 16-5  
     bronze 5-13  
     nylon 4-5  
     spindle 5-13  
     steel 5-11, 5-15, 5-17  
     urethane 5-9, 5-11, 5-15, 5-17  
 bushing, insulated 14-3  
 button, choke 8-13  
 button, drive 10-7  
 buzzer, reverse 6-9, 13-7

## C

cable  
     accelerator 8-9  
     brake 4-7  
     FNR shifter 11-11  
     governor 8-9  
     IQDM 17-7  
     transmission 11-11  
 cable retainer 11-11  
 calibration test module 17-3  
 cam  
     driven clutch 10-7  
     electrical component box 6-7  
     neutral lockout 11-9  
 cam installation tool 17-3  
 camshaft 7-11  
 canopy 1-19  
 canopy support 1-19  
 cap  
     fuel tank 8-3  
     key switch 6-9, 13-7  
     spark plug 7-5  
 carburetor 8-5  
 carburetor float level tool 17-7  
 carburetor insulator 8-7, 14-3  
 carburetor mounting gasket 8-7  
 card, safety first 17-9

case  
     battery charger 16-5, 16-7, 16-9, 16-11  
     differential gear 11-7  
     gear 11-3, 15-3  
     rocker 7-9  
 case, charger 16-3  
 charger bezel tool 17-3  
 charger board relay 16-3  
 charger case 16-3  
 charger hardware 16-3  
 charger legs 16-3  
 charger receptacle 13-11  
 charger wires 16-3  
 charger, battery 16-5, 16-7  
 choke button 8-13  
 choke lever 8-13  
 choke lever guide 8-13  
 choke positioner 8-13  
 choke valve 8-11  
 circuit breaker 16-3, 16-5, 16-7, 16-9, 16-11  
 clamp  
     battery 6-17  
     cable retaining 8-9  
     hose 8-3, 8-7, 8-11  
     muffler hose 9-3  
 clevis, upper delta 5-11  
 clip, score card 5-5  
 cluster idler gear 11-5  
 cluster, brake 4-3  
 clutch alignment tool 17-5  
 clutch pulley 10-3  
 clutch removal tool 17-3  
 clutch repair kit 10-7  
 clutch tool kit 17-5  
 clutch weight 10-3  
 clutch, drive 10-3  
 clutch, driven 10-7  
 coil, field 6-11  
 coil, ignition 7-5  
 collet 7-9  
 column, steering 5-3  
 communication display module 17-5  
 component box, electrical 6-7  
 component mounting plate 13-15  
 compression gauge 17-5  
 compression lug 13-15  
 compression spring 8-13  
 compressor, piston ring 17-9  
 compressor, valve spring 17-11  
 computer, onboard 13-15  
 connecting rod 7-13  
 connector, a- 6-11  
 connector, speed controller 13-15  
 continuity tester 17-5  
 controller cover 13-15  
 controller cover gasket 13-15  
 controller, motor speed 13-15  
 cord connector 7-11  
 cord set, DC 16-5  
 cord, AC 16-5, 16-7, 16-9, 16-11  
 cord, DC 16-7, 16-9, 16-11  
 Cordset  
     PD3, AC 114" 16-3  
     PD3, AC 80" 16-3  
     PD3, DC 113" 16-3  
     PD3, DC 154" 16-3  
     PD3, DC 205" 16-3  
 counterbalance guide shaft 7-13  
 counterbalance weight 7-13  
 cover  
     brush inspection port 6-11  
     brush port 6-11  
     crankcase 7-11  
     dust 4-3, 5-3  
     electrical box 6-7  
     oil pump 7-7  
     screw head 1-7  
     steering column tube 5-3  
 cover gasket, controller 13-15  
 cover plate 14-5, 14-7  
 cover, controller 13-15  
 cover, speed controller 13-15  
 cowl 1-3  
 crank, bell 11-9  
 crankcase 7-13  
 crankcase cover gasket 7-9, 7-11  
 crankcase vent tube 8-7  
 crankshaft 7-13  
 crankshaft seal 7-11  
 crankshaft shim 7-13  
 C-type stop ring 5-7  
 cup holder 1-9  
 cup, spring 4-9, 4-11  
 current limiter 16-11  
 cushion, shock absorber 5-15, 5-17  
 cutter, valve seat 17-5, 17-11

## D

damper, RPM limiter 7-5  
 dash component 1-7  
 dash panel 1-7  
 DC cord 16-7, 16-9, 16-11  
 DC cord set 16-5  
 DC cordset 16-3  
 decal  
     component cover 3-5, 13-15  
     dash warning 3-3, 3-5  
     driver/passenger 3-3  
     frame ground 3-3  
     motor braking 3-5  
     on/off 3-3, 3-5  
     operating instructions (electric) 3-5

# INDEX

operating instructions (gas) 3-3  
rotating parts 3-3  
Tow/Run switch warning 3-5  
delta A-plate 5-9  
delta A-plate sub-assembly 5-9  
delta shock and gear support 5-9  
desiccant bag 10-3  
DF-terminal insulator 6-11  
diesel tachometer probe 17-9  
differential  
    drive unit 12-3, 15-3  
differential gear 11-7, 15-3  
differential gear case 11-7  
differential housing 15-3  
differential idler gear 11-7  
differential pin 11-7  
diode 6-7  
diode, rectifier 16-5  
dipstick 7-3  
door, access 1-21  
drain plug 7-7  
drain plug gasket 7-7, 11-3  
drain plug, rubber 6-13  
drink holder 1-9  
drive bar 13-9  
drive belt 10-5  
drive button 10-7  
drive clutch 10-3  
drive clutch button 10-3  
drive clutch fixed sheave tool 17-5  
drive clutch fixed-face 10-3  
drive clutch holder tool 17-5  
drive clutch hub puller 17-5  
drive clutch puller 17-5  
drive clutch spider removal tool 17-5  
drive clutch spring 10-3  
drive clutch weight 10-3  
drive hub 10-3  
drive unit bumper 14-3, 14-5, 14-7  
driven clutch 10-7  
driven clutch button 10-7  
driven clutch cam 10-7  
driven clutch cam puller 17-5  
driven clutch fixed-face assembly 10-7  
driven clutch puller plug 17-5  
driven clutch spring compression base tool 17-5  
driven clutch spring compression collar tool 17-5  
driven clutch spring compression nut tool 17-5  
driver, drive clutch 10-3  
drum, brake 4-3  
dry moly lubricant 17-7  
dust cover 4-3, 5-3

## E

eccentric adjustment screw 5-11  
E-clip 4-7  
electrical box cover 6-7  
electrical component box 6-7  
end bell, commutator 6-11  
end bell, output shaft 6-11  
end cap, motor 14-3, 14-5, 14-7  
end shield  
    motor 14-3  
engine 7-3  
engine mounting plate 7-15  
engine shroud 7-3  
engine valve spring 7-9  
equalizer rod 4-7  
equalizer, brake cable 4-7  
exhaust system 9-3  
exhaust valve 7-9  
extrusion 13-15

## F

face, moveable 10-3, 10-7  
fan housing 7-3  
fan shroud 7-3  
fan, flywheel 7-5  
fender, inner 1-13, 1-15  
field coil 6-11  
field coil housing 6-11  
fill plug 11-3  
filter  
    air 8-11  
    fuel 8-3  
    oil 7-7  
fitting, thread-forming grease 5-7, 5-9, 5-13  
fixed-face, drive clutch 10-3  
fixed-face, driven clutch 10-7  
float 8-5  
floor mat 1-7, 1-13, 1-15  
flywheel 7-5  
flywheel fan plate 7-5  
flywheel puller 17-7  
FNR handle 11-9  
FNR housing 13-17  
FNR shifter base 11-9  
FNR shifter cable 11-11  
foam, seat 1-11  
fork, shift 11-5  
Forward/Reverse shifter 11-9  
frame and field assembly (motor) 14-5, 14-7  
frame and field, starter/generator 6-13  
front body 1-3  
front body support 1-13, 1-15  
front bumper 1-3  
front bumper kit 1-3  
front hub 5-13

front spring retainer plate 5-11  
F-terminal hardware 6-11  
f-terminal insulator 6-11  
fuel filter 8-3  
fuel line 8-3, 8-7  
fuel pump, impulse 8-3  
fuel tank 8-3  
fuel tank cap 8-3  
fuel tank strap 8-3  
fuel tank vent 8-3  
fuse 13-11, 16-7, 16-9, 16-11  
    10-amp 6-7  
    3/8-amp 13-11  
    charger 16-3, 16-5  
fuse block 6-7

## G

gasket 15-3  
carburetor mounting 8-5, 8-7  
crankcase cover 7-9, 7-11  
drain plug 7-7, 11-3  
exhaust 7-9, 9-3  
head 7-9  
insulator 7-9, 8-7  
liquid 11-3, 15-3, 17-7  
oil pump 7-7  
rocker case 7-9  
seat 1-11  
gasket kit, FE290 7-9  
gasket, controller cover 13-15  
gauge, compression 17-5  
gear  
    case 11-3, 15-3  
    cluster idler 11-5  
    differential 11-7, 15-3  
    differential idler 11-7, 15-3  
    differential output 15-3  
    helical 7-13, 11-5, 11-7  
    spur 7-13, 11-5  
    synchro 11-5  
gear yoke 17-7  
governor 11-5  
governor arm 11-3  
governor cable 8-9  
governor cable bracket 8-9  
governor shaft installation tool 17-7  
governor shield 8-7  
grip, pencil 5-5  
grommet 8-3  
guide  
    choke lever 8-13  
    intake valve 7-9  
    valve seat cutter 17-11  
guide ring adhesive 17-3

# INDEX

## H

handle, battery charger 16-5  
handle, FNR 11-9  
hanger, brake cable 4-7, 5-15, 5-17  
hardware kit, charger 16-3  
hardware, F-terminal 6-11  
harness, wire 6-5, 6-7, 13-5  
head gasket 7-9  
head, FE290 7-9  
heatsink 16-5  
heatsink and rectifier 16-3, 16-7, 16-9, 16-11  
helical gear 7-13, 11-5, 11-7  
hill brake rod 4-5  
hill brake weld assembly 4-5  
hinge plate 1-11, 1-13, 1-15  
hold-down, battery, 12-volt 13-13  
holder, cup 1-9  
hoop, bag 1-17  
hose, air intake 8-11  
hose, fuel 8-3  
housing  
    2-pin 13-9  
    3-pin 13-9, 14-3, 14-5, 14-7  
    6-pin 13-15  
    differential 15-3  
    fan 7-3  
    field coil 6-11  
hub 5-13  
hub and spindle 5-13  
hub, front 5-13  
hub, synchronizer clutch 11-5  
hubcap 5-13  
hydraulic brake adjuster 17-7  
hydrometer 17-7

## I

idle screw assembly 8-5  
idler bearing 10-3  
idler gear, differential 15-3  
ignition coil 7-5  
inner frame snubber 7-15  
input shaft 15-3  
insert, synchronizer 11-5  
instrument panel 1-7  
insulated bushing 14-3  
insulator gasket 7-9, 8-7  
insulator, carburetor 8-7, 14-3  
intake pipe 8-7  
intake valve 7-9  
intermediate shaft 15-3  
intermediate steering shaft 5-3  
internal retaining ring pliers 17-7  
IQ display module (IQDM) 17-7

## J

J-bolt 13-13  
jet, main 8-5  
jet, pilot 8-5  
joint  
    ball 4-5, 4-13, 5-9, 11-11  
    left-hand thread ball 5-7, 5-9

## K

key  
    crankshaft 7-5, 7-13  
    driven clutch 10-7  
    On/Off 6-9, 13-7  
    square 10-7  
    starter/generator 6-11  
    woodruff 11-3  
key switch 6-9  
key switch cap 6-9, 13-7  
key switch, On/Off 13-7  
kick plate, body 1-13, 1-15  
kingpin 5-11  
kit  
    2-pin housing 13-9  
    3-pin housing 13-9, 14-3, 14-5, 14-7  
    6-pin housing 13-15  
    accelerator pivot rod 4-9, 4-11  
    brake cable 4-7  
    brake pedal 4-5  
    brake pedal adjustment tool 17-3  
    brake shoe retainer 4-3  
    clutch repair 10-7  
    differential gear case 11-7  
    drive clutch button 10-3  
    drive clutch weight 10-3  
    driven clutch button 10-7  
    front hub replacement 5-13  
    impulse fuel pump rebuild 8-3  
    IQ display module (IQDM) 17-7  
    magnet and bearing 14-3  
    motor brush 14-5, 14-7  
    motor brush spring 14-5, 14-7  
    motor cover plate 14-5, 14-7  
    motor speed sensor 14-5, 14-7  
    motor terminal hardware 14-5, 14-7  
    neutral lockout cam 11-9  
    park brake latch 4-5  
    park brake pedal 4-5  
    PD3 Cordest, AC 114" 16-3  
    PD3 Cordest, AC 80" 16-3  
    PD3 Cordest, DC 113" 16-3  
    PD3 Cordest, DC 154" 16-3  
    PD3 Cordest, DC 205" 16-3  
    PD3 hardware 16-3  
    PD3 wiring 16-3  
    reverse buzzer 6-9, 13-7

shock absorber 5-15, 5-17  
shock absorber cushion 5-15, 5-17  
steering column rebuild 5-3  
tune-up 17-9

## L

latch, air box 8-11  
latch, park brake 4-5  
L-bracket, motor 14-5, 14-7  
leaf spring 5-11, 5-15, 5-17  
legs, charger 16-3  
lever  
    change 11-3  
    choke 8-11, 8-13  
    transmission shifter 11-3  
light  
    battery warning 13-7  
    oil 6-9  
limit switch 6-7, 11-9  
limiter  
    current 16-11  
    RPM 7-5  
line, fuel 8-3, 8-7  
link, rack and pinion drag 5-7  
liquid gasket 11-3, 15-3, 17-7  
low oil warning light 6-9  
lubricant, dry moly 17-7  
lubricant, moly-teflon 14-3, 14-5, 14-7, 17-7  
lug nut 2-3  
lug stud 5-13, 11-7, 15-3  
lug, compression 13-15

## M

magnet and bearing kit 14-3  
magnet, speed sensor 14-3, 14-5, 14-7  
main jet 8-5  
main nozzle 8-5  
mat, floor 1-7, 1-13, 1-15  
MCOR 13-9  
mechanism, brake adjusting 4-3  
meter, volt ohm 17-11  
module  
    calibration test 17-3  
    communication display 17-5  
moly-teflon lubricant 17-7  
motor  
    48-volt 14-3  
    48-volt IQ 14-5, 14-7  
motor armature 14-3  
motor brush 14-3  
motor brush kit 14-5, 14-7  
motor brush spring kit 14-5, 14-7  
motor bumper 14-3, 14-5, 14-7  
motor end cap 14-3, 14-5, 14-7  
motor end shield 14-3

# INDEX

motor L-bracket 14-5, 14-7  
motor magnet, speed sensor 14-3, 14-5, 14-7  
motor speed controller 13-15  
motor speed sensor 14-3, 14-5, 14-7  
motor speed sensor kit 14-5, 14-7  
motor stator shell and winding 14-3  
motor terminal hardware kit 14-5, 14-7  
mounting block, brake 4-5  
moveable-face 10-3, 10-7  
muffler hose clamp 9-3

## N

nameplate kit, amber 3-3, 3-5  
needle bearing 11-5  
neutral lockout cam 11-9  
nozzle, main 8-5  
nut, lug 2-3

## O

OBC 13-15  
OBC, onboard computer 13-15  
oil filler tube 7-3  
oil filter 7-7  
oil filter mount bracket 7-7  
oil filter screen 7-11  
oil filter screen plate 7-11  
oil level sensor 7-11  
oil level switch bracket 7-11  
oil pump and rotor 7-7  
oil pump cover 7-7  
oil pump gasket 7-7  
oil pump plate 7-7  
oil seal 7-9, 7-13, 11-3, 11-5  
oil warning light, low 6-9  
onboard computer 13-15  
O-ring 7-3, 7-9, 7-11, 7-13

## P

pad  
  accelerator pedal 4-9, 4-11  
  brake pedal 4-5  
  park brake 4-5  
  wear 1-5, 1-13, 1-15  
paint, touch-up 17-7  
park brake latch 4-5  
park brake pedal 4-5  
park brake rod sleeve 4-5  
park brake spacer 4-5  
park brake torsion spring 4-5  
pawl 4-5  
pedal, accelerator 4-9, 4-11  
pedal, brake 4-5  
pedal, park brake 4-5  
pencil grip 5-5  
pilot air screw 8-5

pilot jet 8-5  
pin, differential 11-7  
pin, piston 7-13  
pinion, steering 5-7  
pipe, intake 8-7  
piston 7-13  
piston ring 7-13  
piston ring compressor 17-9  
piston ring pliers 17-9  
pivot arm 11-3  
pivot support bearing 4-9, 4-11  
plate  
  backing (brake) 4-3  
  body kick 1-13, 1-15  
  bumper mounting 1-5  
  component mounting 13-15  
  cover 14-5, 14-7  
  engine mounting 7-15  
  flywheel fan 7-5  
  front spring retainer 5-11  
  hinge 1-11, 1-13, 1-15  
  oil filter screen 7-11  
  oil pump 7-7  
  receptacle backing 13-11  
  score card 5-5  
  spring mounting 5-11  
  thrust 11-5, 11-7  
pliers  
  internal retaining ring 17-7  
  piston ring 17-9  
  retaining ring 17-9  
plug  
  6-pin 13-15  
  drain 7-7  
  driven clutch puller 17-5  
  fill 11-3  
  rubber drain 6-13  
  spark 7-5  
pole set 6-11  
positioner, choke 8-13  
press weldment 17-5  
protector spray, battery terminal 17-3  
puller  
  bearing 17-3  
  clutch 17-3  
  drive clutch 17-5  
  drive clutch hub 17-5  
  driven clutch cam 17-5  
  flywheel 17-7  
  seal 17-9  
  special use tool 17-9  
pulley 6-13  
  clutch 10-3  
  starter-generator 6-11  
pump, impulse fuel 8-3  
push rod 7-9

## R

rack and pinion drag link 5-7  
rack guide pressure spring 5-7  
rack, steering 5-7  
ratchet, park brake 4-5  
reamer, valve guide 17-9  
rear bumper 1-5  
rear spring shackle 5-15, 5-17  
receptacle 13-11  
receptacle backing plate 13-11  
receptacle, AC cord 16-11  
receptacle, battery charger 13-11  
rectifier diode 16-5  
rectifier with heatsink 16-3, 16-7, 16-9, 16-11  
regulator, voltage 6-7  
relay 16-9, 16-11  
relay mounting bracket 16-9  
relay, charger board 16-3  
remover, bearing and oil seal 17-3  
resistor assembly 13-15  
retainer  
  accelerator pedal spring 4-9, 4-11  
  bearing 14-3  
  brake shoe 4-3  
  cable 11-11  
  shock absorber cushion 5-15, 5-17  
  spring (drive clutch) 10-3  
  valve spring 7-9  
retaining ring 5-3  
retaining ring pliers 17-9  
return spring bumper 4-9, 4-11  
reverse buzzer 6-9, 13-7  
rigging, brush 14-3  
rim, wheel, white 2-3  
ring  
  piston 7-13  
  retaining 5-3, 6-7, 10-3, 10-7, 11-9  
  snap 5-7, 7-9, 7-13  
  spiral backup 10-3  
  synchronizer 11-5  
ring, C-type stop 5-7  
rivet, blind push 1-3  
rocker arm 7-9  
rocker case 7-9  
rocker case gasket 7-9  
rocker shaft 7-9  
rocker switch 13-17  
rod  
  accelerator 4-13  
  accelerator pivot 4-9, 4-11  
  connecting 7-13  
  crankshaft 7-13  
  equalizer 4-7  
  hill brake 4-5  
  push 7-9

# INDEX

shift 11-5  
 tie 5-9  
 rotor, oil pump and 7-7  
 RPM limiter 7-5  
 RPM limiter bracket 7-5  
 RPM limiter damper 7-5  
 RPM limiter mount band 7-5

## S

safety first card 17-9  
 score card clip 5-5  
 score card plate 5-5  
 screen, oil filter 7-11  
 screw, eccentric adjustment 5-11  
 screw, valve clearance adjuster 17-9  
 scuff guard 1-23  
 scuff guard kit, rear body 1-23  
 seal  
     bearing 5-3  
     crankshaft 7-11  
     intake 8-11  
     lip 15-3  
     oil 7-9, 7-13, 11-3, 11-5, 11-7, 15-3  
     steering pinion dust 5-7  
     vertical socket dust 5-7, 5-9  
 seal puller 17-9  
 sealant 11-3, 15-3  
 seat  
     spring 7-9  
     valve 7-7  
 seat back 1-17  
 seat back cap 1-17  
 seat bottom assembly 1-11  
 seat bottom cover 1-11  
 seat cover, vinyl 1-11  
 seat cover, white 1-11  
 seat foam 1-11  
 seat gasket 1-11  
 seat, bearing 5-3  
 sensor, motor speed 14-3, 14-5, 14-7  
 sensor, oil level 7-11  
 sensor, speed 14-3  
 set, brush and screw 6-11  
 set, pole 6-11  
 shackle, rear spring 5-15, 5-17  
 shaft  
     change 11-3  
     counterbalance guide 7-13  
     input 15-3  
     intermediate 15-3  
     intermediate steering 5-3  
     rocker 7-9  
     transmission 11-5  
 shield, governor 8-7  
 shift fork 11-5  
 shift rod 11-5

shifter base, FNR 11-9  
 shifter bracket 11-3, 11-11  
 shim, crankshaft 7-13  
 shock absorber 5-9  
 shock absorber (rear) 5-15, 5-17  
 shock absorber cushion 5-15, 5-17  
 shock absorber cushion retainer 5-15, 5-17  
 shock mounting bracket 5-15, 5-17  
 shoe, brake 4-3  
 shroud, engine 7-3  
 shroud, fan 7-3  
 sleeve  
     delta A-plate 5-9  
     governor 11-5  
     park brake rod 4-5  
     synchronizer 11-5  
 snap ring 5-7, 7-9, 7-13  
 snubber bracket 7-15  
 snubber, inner frame 7-15  
 socket 5-7, 5-9  
 solenoid, 12-volt 6-7  
 solenoid, 48-volt 13-15  
 spacer  
     accelerator pivot rod 4-9, 4-11  
     park brake 4-5  
 spanner wrench 17-9  
 spark plug 7-5  
 spark plug cap 7-5  
 speed controller 13-15  
 speed controller connector 13-15  
 speed controller cover 13-15  
 speed sensor 14-3, 14-5, 14-7  
 speed sensor magnet 14-3, 14-5, 14-7  
 speed sensor, motor 14-3, 14-5, 14-7  
 spindle 5-13  
 spindle and hub 5-13  
 spiral backup ring 10-3  
 spray, battery terminal protector 17-3  
 spring  
     accelerator return 4-9, 4-11  
     brake 4-3  
     brake return 4-7  
     brush 6-11, 6-13, 14-3, 14-5, 14-7  
     compression 5-5, 8-13  
     drive button 10-3  
     drive clutch 10-3  
     driven clutch 10-7  
     engine valve 7-9  
     extension return 8-11  
     forward/reverse cam 11-9  
     leaf 5-11, 5-15, 5-17  
     park brake torsion 4-5  
     rack guide pressure 5-7  
     shifter 11-5  
     steering shaft compression 5-3  
     synchronizer 11-5  
 throttle return 8-7  
 spring cup 4-9, 4-11  
 spring mounting plate 5-11  
 spur gear 7-13, 11-5  
 stand-offs, plastic 16-3  
 starter/generator 6-11  
 starter/generator (cw) 6-13  
 starter/generator belt 6-15, 10-3  
 starter/generator brush cover kit 6-13  
 starter/generator brush plate 6-13  
 starter/generator brush spring 6-13  
 starter/generator brush terminal 6-13  
 starter/generator frame and field 6-13  
 starter/generator mounting bracket 6-15  
 starter/generator pulley 6-11  
 stator shell and winding 14-3  
 steel bushing 5-11, 5-15, 5-17  
 steel pressure relief ball 7-7  
 steering column 5-3  
 steering column bearing press tool 17-9  
 steering column retaining ring tool 17-9  
 steering gear box 5-7  
 steering pinion 5-7  
 steering pinion dust seal 5-7  
 steering rack 5-7  
 steering shaft assembly 5-3  
 steering shaft column 5-3  
 steering shaft compression spring 5-3  
 steering wheel 5-5  
 steering wheel puller tool 17-9  
 stem, valve 2-3  
 stiffener, flywheel side 7-15  
 strap, A-plate 5-9  
 strap, fuel tank 8-3  
 stud 7-15  
     lug 5-13, 11-7, 15-3  
 stud, ball 6-7, 11-3, 11-9  
 support yoke (steering) 5-7  
 support, front body 1-13, 1-15  
 suppressor, voltage 16-7, 16-9, 16-11  
 sweater basket 1-17  
 switch  
     four-position 16-9, 16-11  
     key 6-9, 13-7  
     limit 6-7, 11-9  
     rocker 13-17  
     Tow/Run 13-17  
 switch rubber boot 13-17  
 synchro gear 11-5  
 synchronizer clutch hub 11-5  
 synchronizer insert 11-5  
 synchronizer sleeve 11-5  
 synchronizer spring 11-5  
 system, exhaust 9-3

# INDEX

## T

12-volt battery 6-17  
12-volt solenoid 6-7  
tachometer 17-9  
tachometer probe, diesel 17-9  
tank, fuel 8-3  
tappet 7-11  
tester, continuity 17-5  
thermometer, battery 17-3  
thread-forming grease fitting 5-7, 5-9, 5-13  
throttle return spring 8-7  
throttle spring return bracket 8-7  
thrust bearing 5-11  
thrust plate 11-5, 11-7  
tie rod 5-9  
tie wrap 5-7, 6-7, 13-7, 13-15, 13-17  
tire 2-3  
tire and wheel assembly 2-3  
tool  
  accelerator pedal adjustment 17-3  
  belt tensioning, starter/generator 17-11  
  brake adjustment 17-3  
  brake cable release 17-3  
  brake pedal adjustment 17-3  
  brake pedal tension 17-3  
  cam installation 17-3  
  carburetor float level 17-7  
  charger bezel 17-3  
  clutch alignment 17-5  
  cT-wrench 17-5  
  drive clutch fixed sheave 17-5  
  drive clutch holder 17-5  
  drive clutch spider removal 17-5  
  driven clutch spring compression base 17-5  
  driven clutch spring compression collar 17-5  
  driven clutch spring compression nut 17-5  
  governor shaft installation 17-7  
  puller, special use 17-9  
  steering column bearing press 17-9  
  steering column retaining ring 17-9  
  steering wheel puller 17-9  
  transaxle axle seal 17-9  
  transaxle pinion seal 17-9  
  transmission 17-9  
  valve guide driver 17-9  
  valve seat cutter 17-5  
tool kit, clutch 17-5  
touch-up paint 17-7  
Tow/Run switch 13-17  
Tow/Run switch bracket 13-17  
transaxle 12-3, 15-3  
transaxle axle seal tool 17-9  
transaxle housing 15-3  
transaxle pinion seal tool 17-9

## transaxle, unitized 11-3

transformer 16-3  
transformer, battery charger 16-5, 16-7, 16-9, 16-11  
transmission cable 11-11  
transmission shaft 11-5  
transmission tool 17-9  
trim  
  cowl 1-3  
tube  
  crankcase vent 8-7  
  oil filler 7-3  
tune-up kit 17-9  
T-wrench tool 17-5

## U

u-bolt 5-15, 5-17  
unitized transaxle 11-3  
upper delta clevis 5-11  
urethane bushing 5-9, 5-11, 5-15, 5-17

## V

valve  
  choke 8-11  
  exhaust 7-9  
  fuel pickup tube 8-3  
  intake 7-9  
  reed 7-9  
valve clearance adjuster screw 17-9  
valve guide driver tool 17-9  
valve guide reamer 17-9  
valve guide, intake 7-9  
valve seat 7-7  
valve seat cutter 17-5, 17-11  
valve seat cutter guide 17-11  
valve seat cutter tool 17-5  
valve seat t-wrench 17-11  
valve spring compressor 17-11  
valve spring retainer 7-9  
valve stem 2-3  
vent barb 8-3  
vertical socket dust seal 5-7, 5-9  
volt ohm meter 17-11  
voltage regulator 6-7  
voltage suppressor 16-7, 16-9, 16-11

## W

warning light, low oil 6-9  
wear pad 1-5, 1-13, 1-15  
wedge, bearing puller 17-3  
weight  
  clutch 10-3  
  counterbalance 7-13  
  secondary clutch 10-3  
weldment

## press 17-5

wheel 2-3  
wheel and tire assembly 2-3  
wheel rim, white 2-3  
wheel, steering 5-5  
windshield frame 1-19  
windshield frame pad 1-19  
wire harness 6-5, 6-7, 13-5  
wiring, charger 16-3  
woodruff key 11-3  
wrap, tie 5-7, 6-7, 13-7, 13-15, 13-17  
wrench, spanner 17-9

## Y

yoke, gear 17-7  
yoke, support (steering) 5-7





**Club Car, Inc.**  
P.O. Box 204658  
Augusta, GA 30917-4658  
USA

**Web** [www.clubcar.com](http://www.clubcar.com)  
**Phone** 1.706.863.3000  
1.800.ClubCar  
**Int'l** +1 706.863.3000  
**Fax** 1.706.863.5808