REPLACEMENT PARTS LIST

BRAND

RYOBI

MODEL NO.

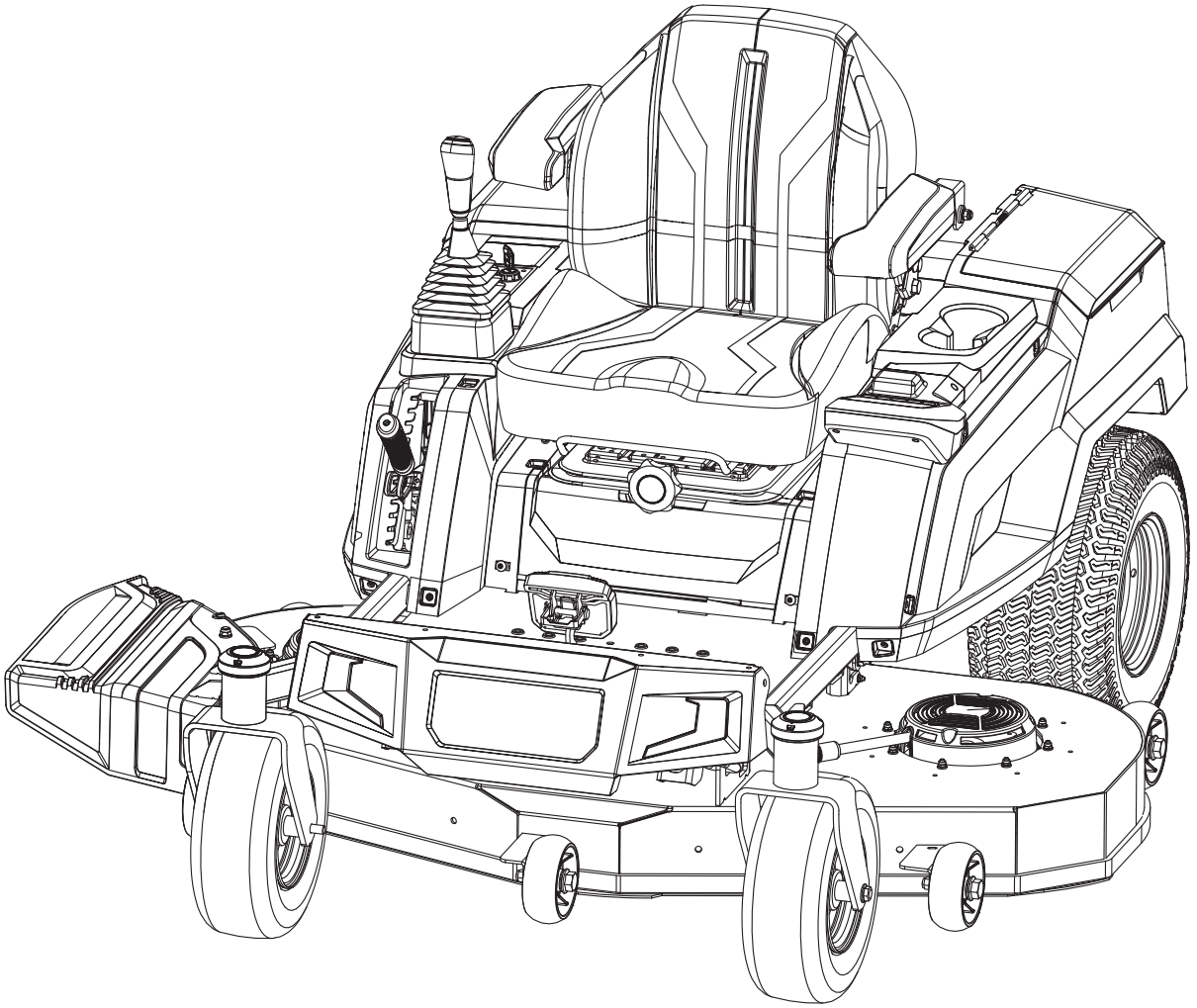
RYRM8003

MFG. NO.

099271013

DESCRIPTION

54 in. Riding Lawn Mower



TTI OUTDOOR POWER EQUIPMENT, INC.
P.O. Box 1288, Anderson, SC 29622 ■ 1-800-525-2579 ■ **www.ryobitools.com**

999000397
5-1-25 (REV:04)

The model number and manufacturing location will be found on a label attached to the product. Always mention this information in all communications regarding this product and when ordering parts.

RYRM8003

PARTS LIST — FIGURE A

KEY NO.	PART NO.	DESCRIPTION	QTY.
1	997000169	Front Wheel Assembly	2
2	997000179	Rear Wheel Assembly	2
3	996987001	Wheel Hub	2
4	997134001	Lock Spring Washer (ID20.6 x OD30.6 x 4.8T)	2
5	997138001	Castle Nubt (M20)	2
6	997139001	Cotter Pin	2
7	997143001	Acorn Nut (M14)	8
8	996029001	Wheel Hub Cover	2
9	996988001	Key (6 mm x 6 mm x 30 mm)	2
10	994842001	Washer (ID20.5 x OD28 x 4T)	4
11	996997001	Wheel Spacer	4
12	994857001	Bearing Cover	4
13	996998001	Flange Bolt (M12 x 170 mm, Hex Hd.)	2
14	996999001	Flange Nut (M12)	2
15	996990001	Caster Fork	2
16	996991001	Bearing Assembly Base	2
17	997125001	Rubber Seal	2
18	996992001	Tapered Roller Bearing (ID 25 mm x OD 52 mm)	4
19	996993001	Bearing Assembly Spacer	2
20	997036001	Fender Washer (ID12.5 x OD40 x 2t)	2
21	996994001	Bearing Assembly Cap	2
22	996995001	Fender Washer (ID8.4 x OD37 x 6t)	2
23	994770001	Lock Washer (M8)	2
24	996046001	Bolt (M8 x 25 mm)	2
25	997130001	Caster Fork Cover	2
	Not Shown:		
	998000937	Operator's Manual	

FIGURE A — WHEELS AND HUB CAPS

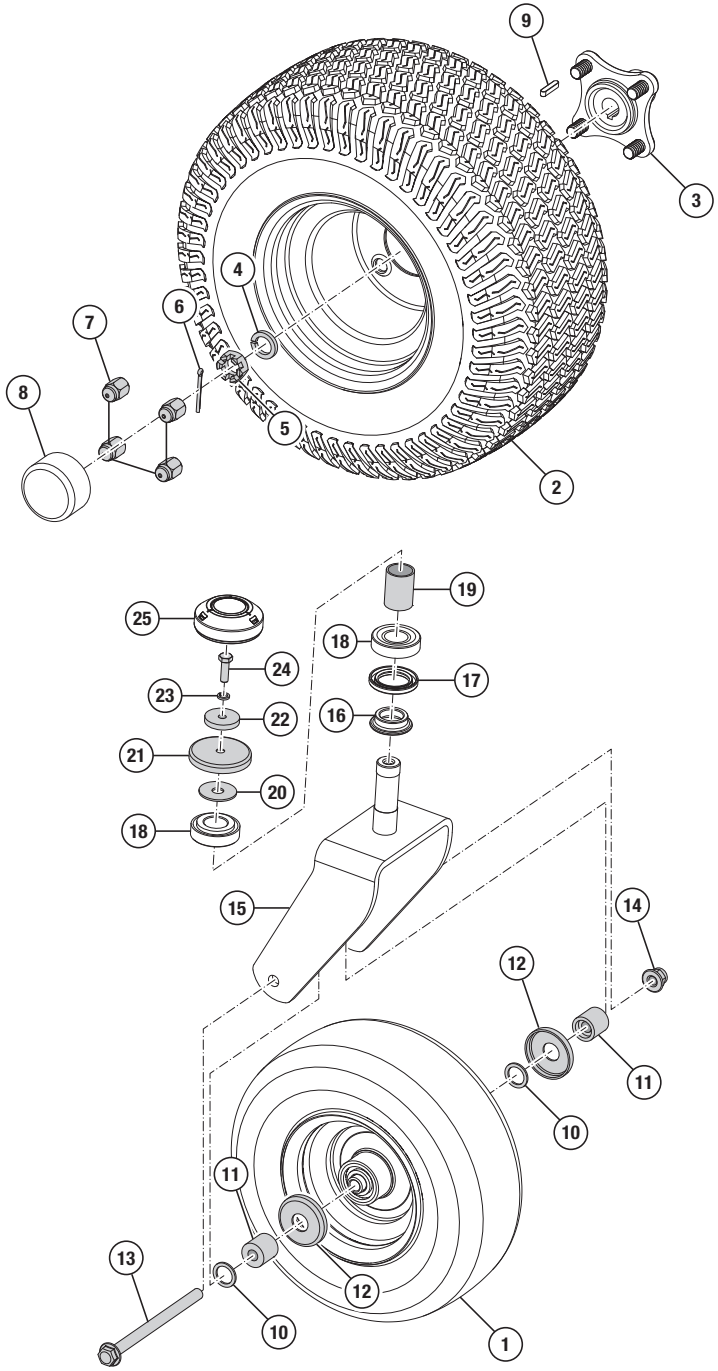
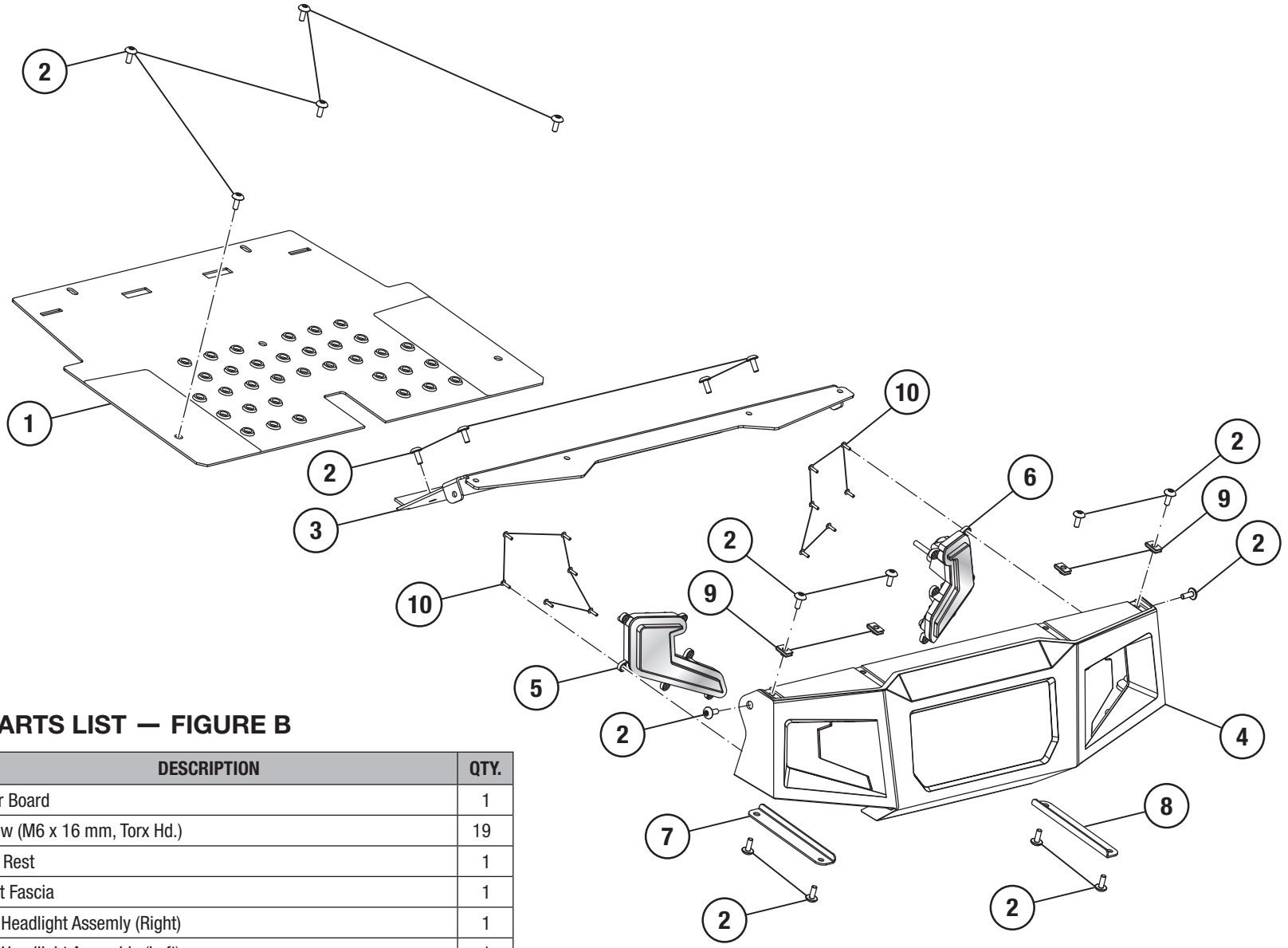


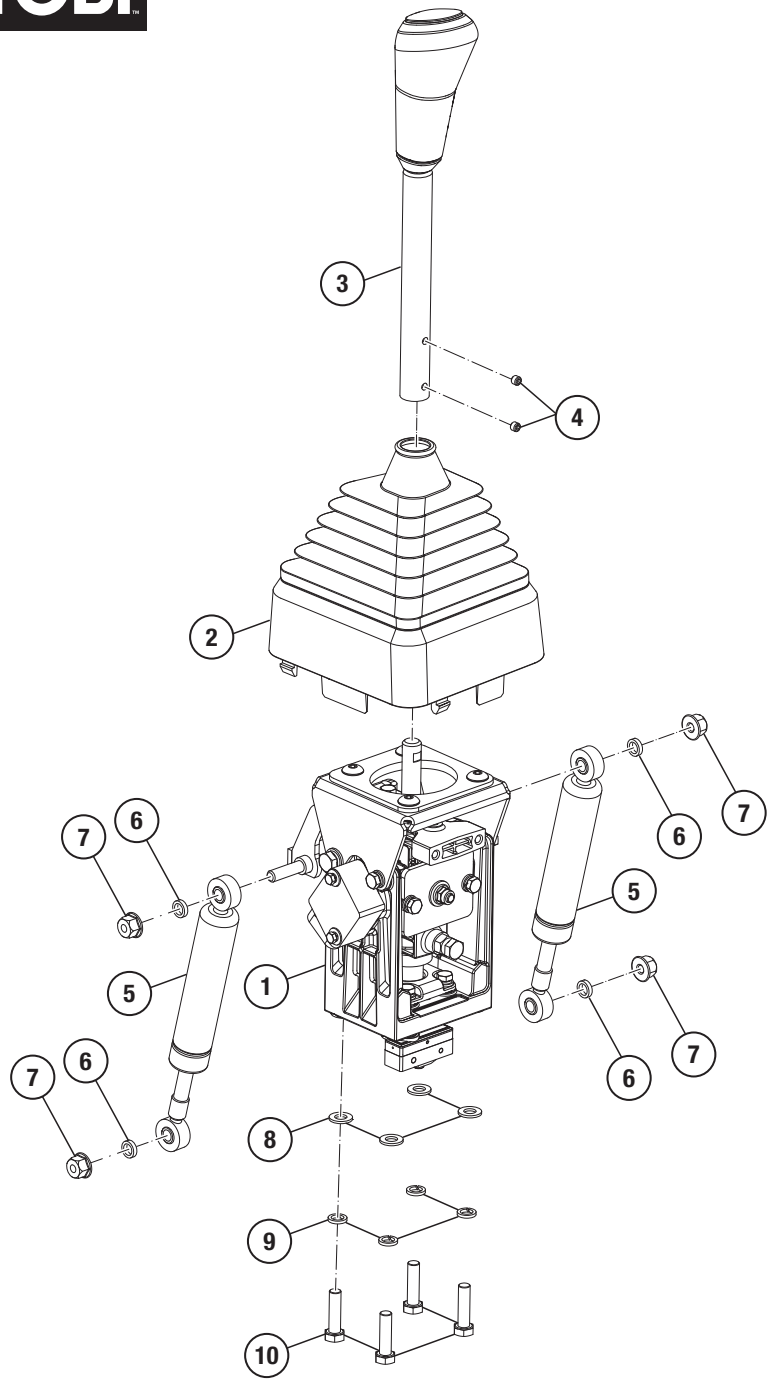
FIGURE B — Floor Panel Assembly



PARTS LIST — FIGURE B

KEY NO.	PART NO.	DESCRIPTION	QTY.
1	997931001	Floor Board	1
2	994989001	Screw (M6 x 16 mm, Torx Hd.)	19
3	997930001	Foot Rest	1
4	997927001	Front Fascia	1
5	997929001	LED Headlight Assemly (Right)	1
6	997928001	LED Headlight Assembly (Left)	1
7	997000185	Fascia Brace (Right)	1
8	997000184	Fascia Brace (Left)	1
9	994785001	Clip-On Nut (M6)	4
10	997094001	Screw (M3.5 x 13 mm, Pan Hd.)	12

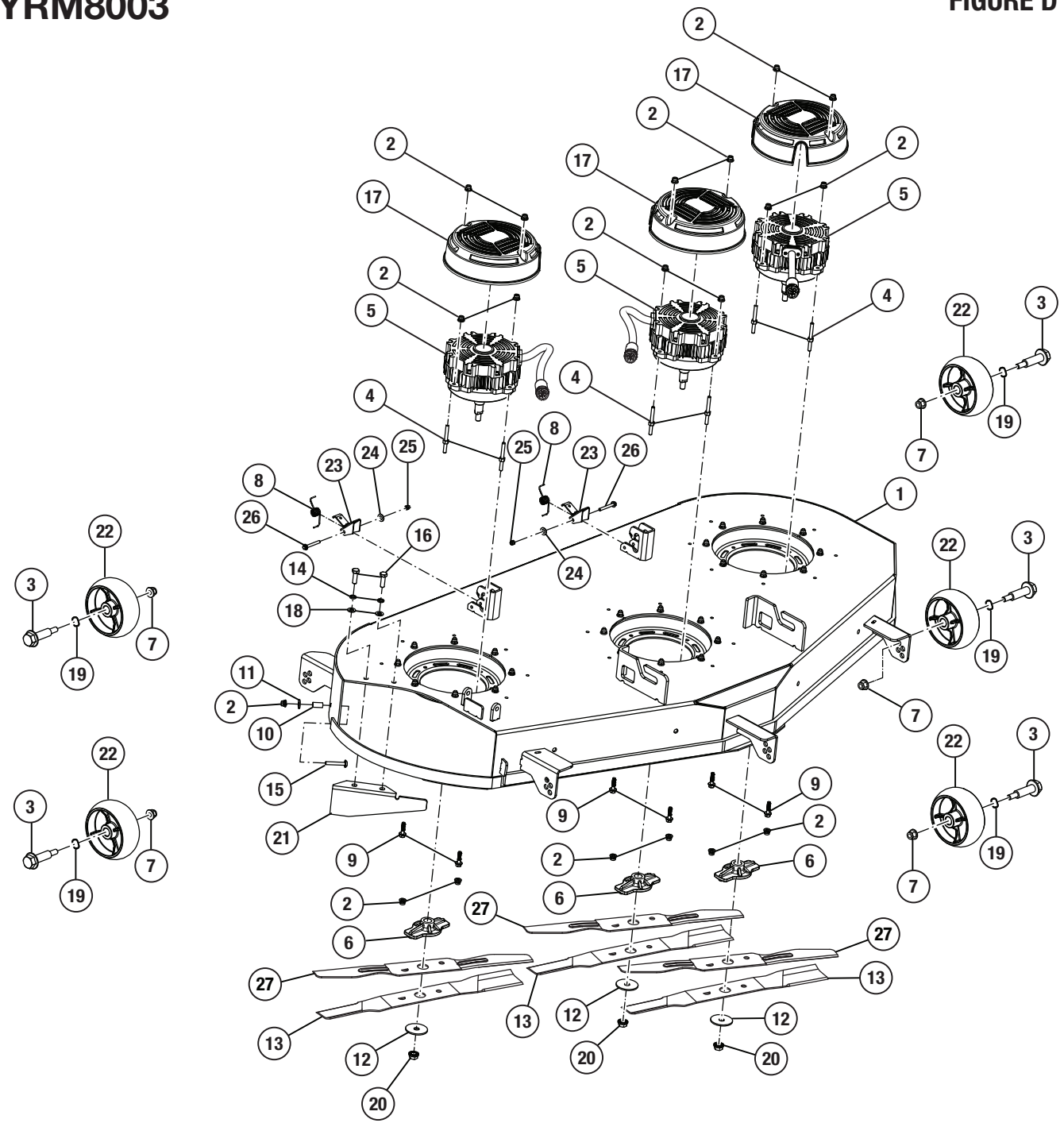
FIGURE C — JOYSTICK ASSEMBLY



PARTS LIST — FIGURE C

KEY NO.	PART NO.	DESCRIPTION	QTY.
1	099270002046	Joystick Assembly (42” and 54” ZTRs)	1
2	994000001	Joystick Bellow Assembly	1
3	997000029	Upper Joystick Handle	1
4	997000165	Set Screw (M6 x 5 mm)	2
5	099270008044	Self-Centering Damper	2
6	997000035	Damper Bushing	4
7	994867001	Flange Nut (M8)	4
8	994771001	Washer (ID8.4 x OD16 x 1.6t)	4
9	994770001	Spring Washer (M8)	4
10	997000161	Screw (M8 x 30 mm, Hex Hd.)	4

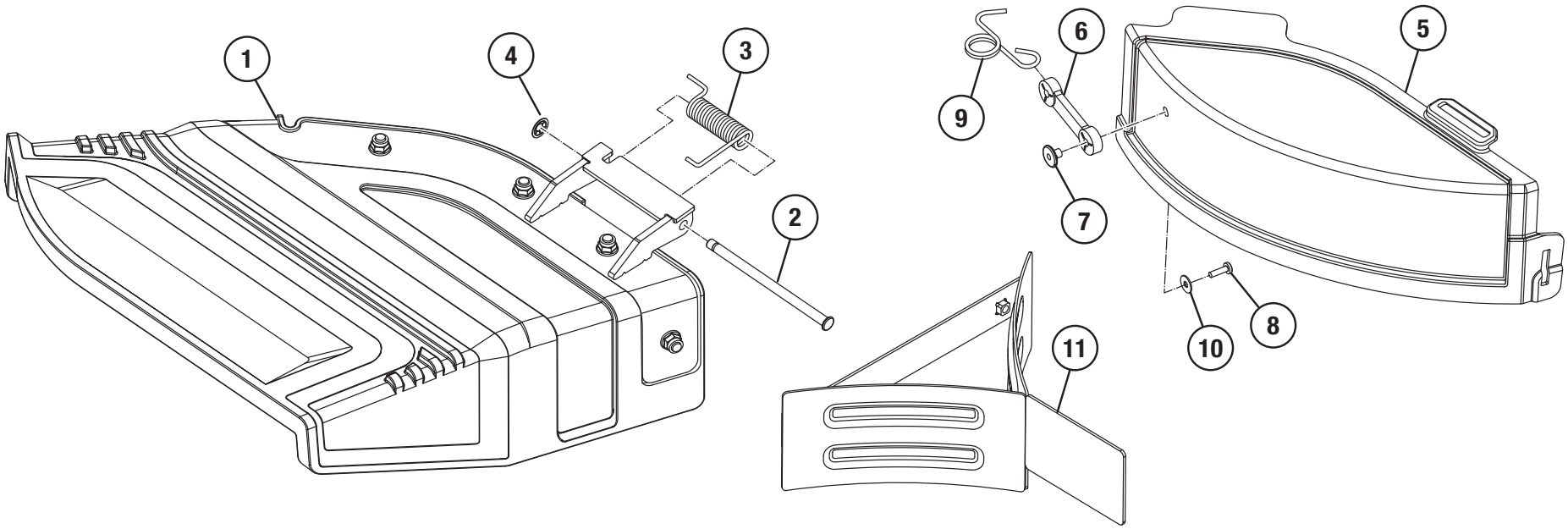
FIGURE D — DECK ASSEMBLY



PARTS LIST — FIGURE D

KEY NO.	PART NO.	DESCRIPTION	QTY.
1	997462001	Deck, 54 in. (Inc. Key Nos. 8, 23, and 28-29)	1
2	996251001	Flange Lock Nut (M6) (QTY-19)	17
3	996205001	Shoulder Bolt (M10 x 70 mm)	5
4	996201001	Threaded Stud (M6 x 35 mm)	6
5	997886001	Deck Motor	3
6	997920001-	Blade Adapter	3
7	996192001	Hex Lock Nut (M10)	5
8	997683001	Deck Clip Spring	2
9	996057001	Flange Bolt (M6 x 25 mm, Hex Hd.)	6
10	996039001	Deck Bagger Chute Mounting Shaft	1
11	996034001	Flat Washer (M6)	1
12	997028001	Blade Retainer Washer	3
13	997464001	Blade (18.5 in.)	3
14	997000268	Lock Washer (M8)	2
15	996250001	Screw (M6 x 40 mm, Torx Hd.)	1
16	996046001	Carriage Bolt (M8 x 25 mm)	2
17	997463001	Deck Motor Cover, Top	3
18	994771001	Washer (M8)	2
19	996355001	Spring Washer	5
20	996261001	Lock Nut (M10)	3
21	997471001	Deck Baffle	1
22	996265001	Front Deck Roller Wheel	5
23	997479001	Deck Clip Latch	2
24	996295001	Washer (ID5.3 x OD12 x 1t)	2
25	997477001	Flange Nut (M5)	2
26	997476001	Bolt (M5 x 40 mm)	2
27	997000267	Crosscut Blade	2

FIGURE E — DISCHARGE ASSEMBLY

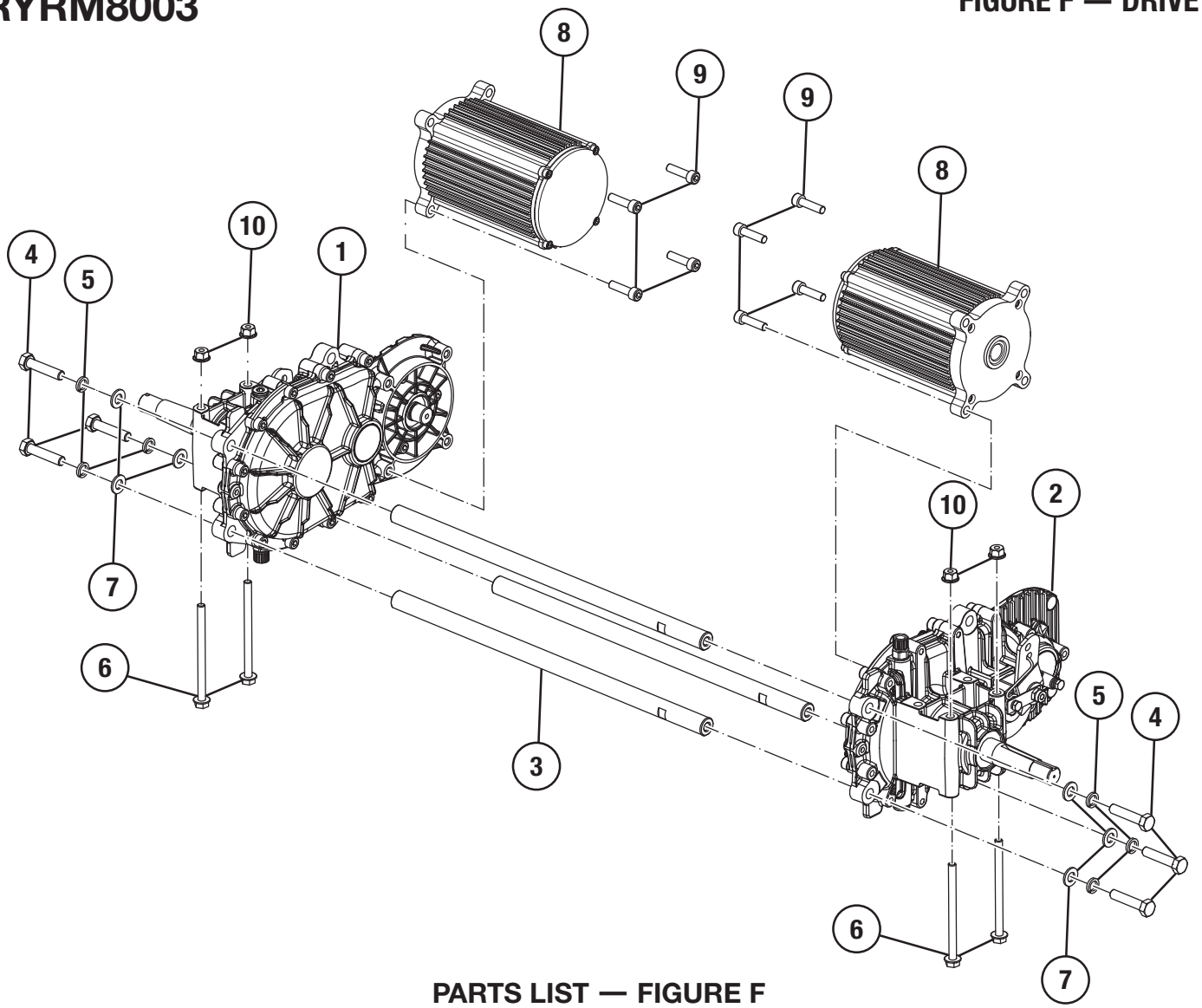


PARTS LIST — FIGURE E

KEY NO.	PART NO.	DESCRIPTION	QTY.
1	997900001	Side Discharge Chute Assembly	1
2	997974001	Discharge Chute Hinge	1
3	994980001	Discharge Chute Spring	1
4	996292001	Push-On Retainer Clip	1
5	553370001	Mulch Plug Assembly (Inc. Key Nos. 6-9)	1
6	564312001	Rubber Strap	1

KEY NO.	PART NO.	DESCRIPTION	QTY.
7	673645001	Bungie Anchor	1
8	662563001	Screw (M5 x 16 mm)	1
9	696023001	Latch Spring	1
10	678587003	Washer	1
11	657855003	Mulching Baffle	1

FIGURE F — DRIVE TRAIN ASSEMBLY

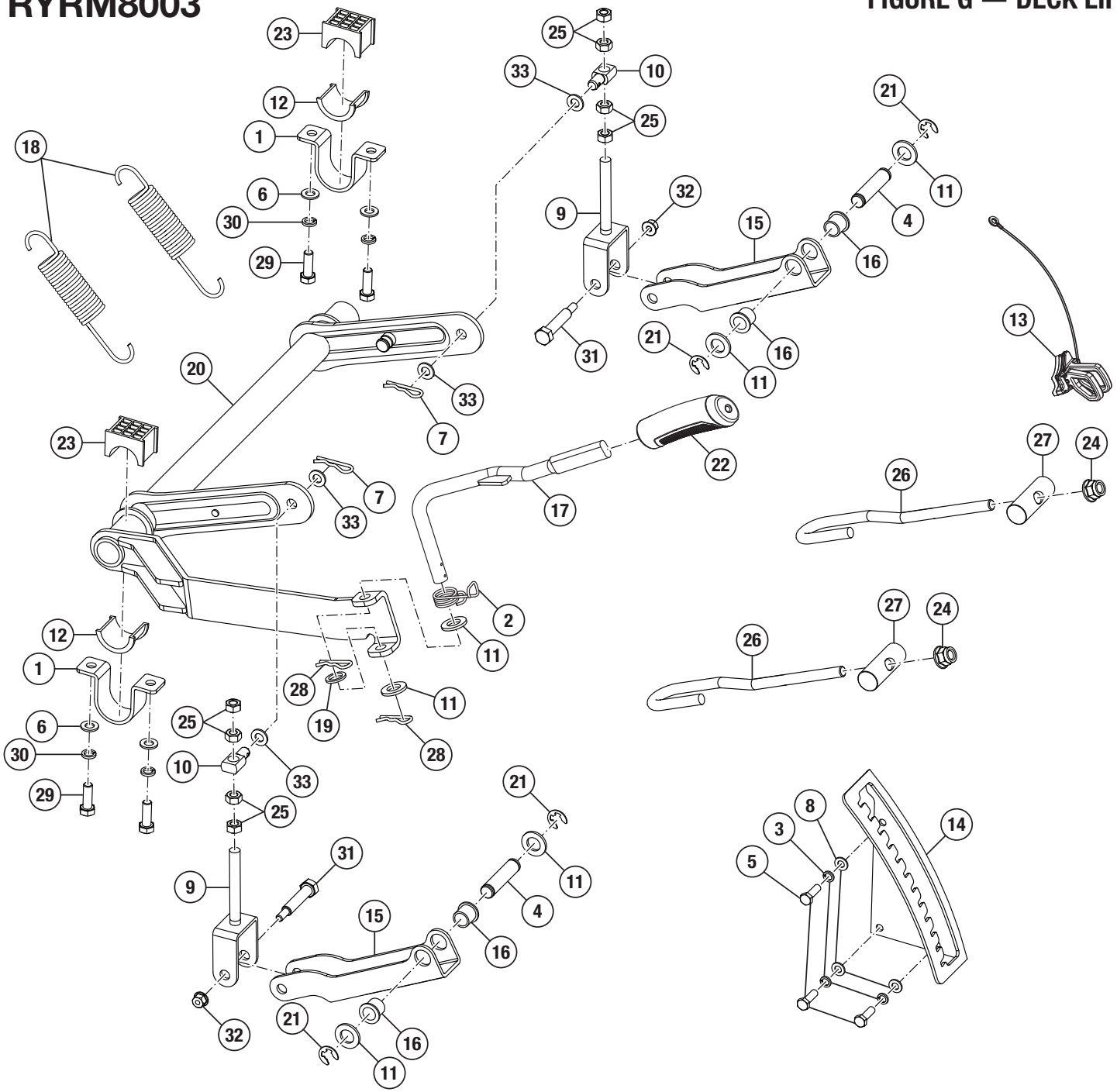


PARTS LIST — FIGURE F

KEY NO.	PART NO.	DESCRIPTION	QTY.
1	997158001	Gearbox Assembly (Left)	1
2	997159001	Gearbox Assembly (Right)	1
3	997000001	Tie Rod	3
4	996323001	Bolt (M10 x 45 mm, Hex Hd.)	6
5	994998001	Lock Spring Washer (ID10.9 x OD16.1 x 2.6T)	6

KEY NO.	PART NO.	DESCRIPTION	QTY.
6	997088001	Flange Bolt (M8 x 110 mm, Hex Hd.)	4
7	994996001	Washer (M10)	6
8	997000275	80V Drive Motor	2
9	997000231	Screw (M8 x 30 mm, Soc. Hd.)	8
10	994867001	Flange Nut (M8)	4

FIGURE G — DECK LIFTING ASSEMBLY

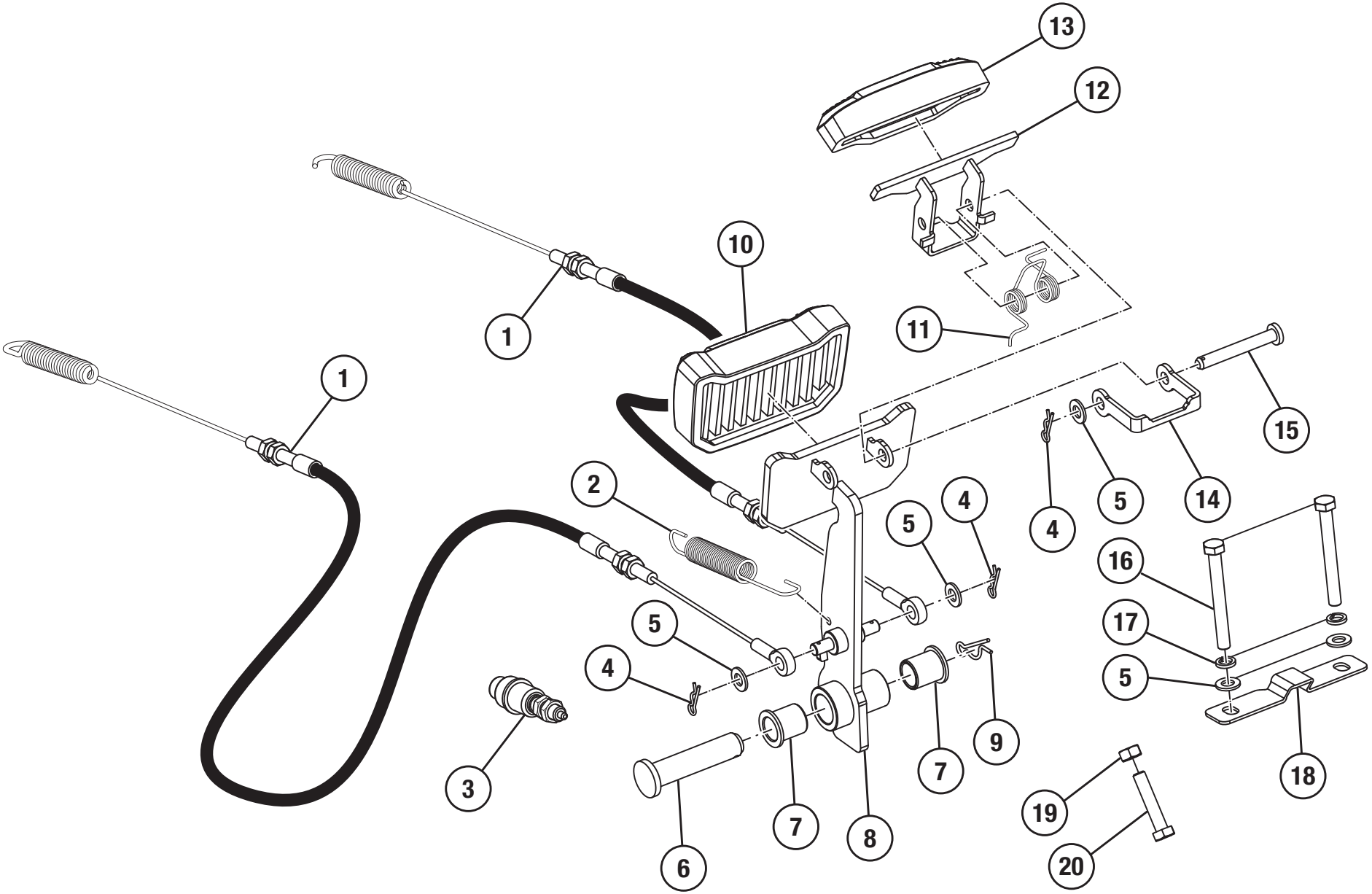


PARTS LIST — FIGURE G

KEY NO.	PART NO.	DESCRIPTION	QTY.
1	997000250	Deck Lift Axle Mount	2
2	997000256	Deck Lift Lever Torsion Spring	1
3	994771001	Lock Washer (ID8.4 x OD16 x 1.6t)	3
4	997000254	Deck Lift Linkage Axle	2
5	996046001	Bolt (M8 x 25 mm)	3
6	994996001	Washer (M10)	4
7	996233001	Cotter Pin	3
8	994771001	Washer (M8)	3
9	997000247	Deck Lift Linkage	2
10	997000246	Hanger Stud	2
11	994763001	Washer (ID17 x OD30 x 3t)	6
12	997000249	Top Deck Lift Axle Bushing	2
13	997128001	Cut Height Memory Plug	1
14	997679001	Detent Plate	1
15	997000253	Deck Lift Linkage	2
16	997000252	Deck Lift Linkage Bushing	4
17	997000258	Deck Lift Lever	1

KEY NO.	PART NO.	DESCRIPTION	QTY.
18	997000255	Deck Lift Spring	2
19	997000257	Deck Lever Int. Washer	1
20	997000251	Deck Lift Axle	1
21	994833001	E-Clip	4
22	997000259	Decklift Handle	1
23	997000248	Bottom Deck Lift Axle Bushing	2
24	996999001	Flange Nut (M12)	2
25	994788001	Nut (M12)	8
26	997000245	J-Hook, Front Deck Hanger	2
27	997097001	Front Deck Hanger Pivot Axle	2
28	994930001	Cotter Pin	2
29	997106001	Bolt (M10 x 30 mm, Hex Hd.)	4
30	994998001	Lock Spring Washer (ID10.9 x OD16.1 x 2.6t)	4
31	997478001	Deck Linkage Shoulder Bolt	2
32	994867001	Flange Nut (M8)	2
33	994891001	Washer (M13)	4

FIGURE H — BRAKE PEDAL ASSEMBLY

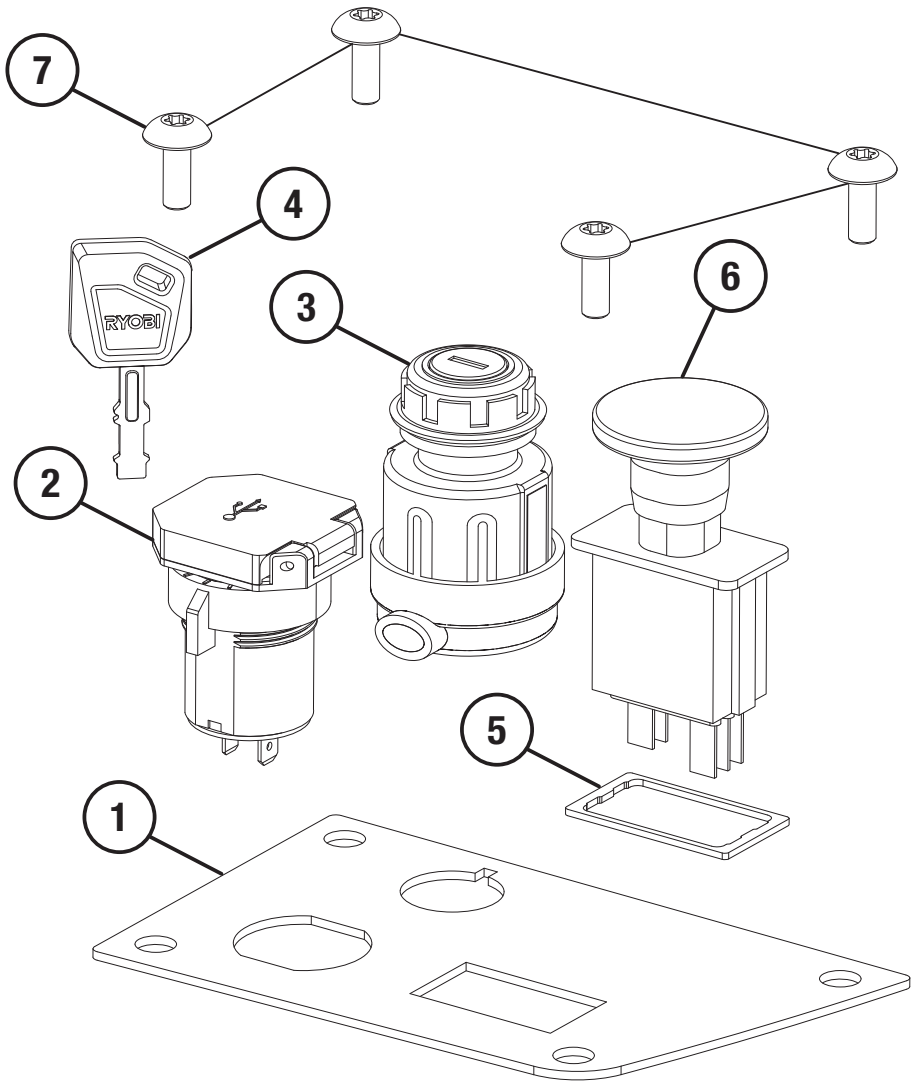


PARTS LIST — FIGURE H

KEY NO.	PART NO.	DESCRIPTION	QTY.
1	997000244	Brake Cable	2
2	997011001	Brake Pedal Spring	1
3	994837001	Brake Switch	1
4	996013001	Lock Pin (8 mm)	3
5	994771001	Washer (ID8.4 x OD16 x 1.6t)	5
6	994929001	Clevis Pin (M16 x 70 mm)	1
7	997004001	Brake Pedal Bushing	2
8	991004001	Brake Pedal Lever	1
9	994930001	Lock Pin (16 mm)	1
10	997009001	Brake Pedal Rubber Pad	1

KEY NO.	PART NO.	DESCRIPTION	QTY.
11	997008001	Parking Brake Torsion Spring	1
12	997005001	Parking Brake Pedal	1
13	997010001	Parking Brake Rubber Pad	1
14	997006001	Parking Brake Latch	1
15	997007001	Clevis Pin (M8 x 60 mm)	1
16	997089001	Bolt (M8 x 70 mm, Hex Hd.)	2
17	994770001	Lock Washer (M8)	2
18	997003001	Brake Latch Hook	1
19	996346001	Hex Nut (M8)	1
20	997131001	Bolt (M8 x 40 mm, Hex Hd.)	1

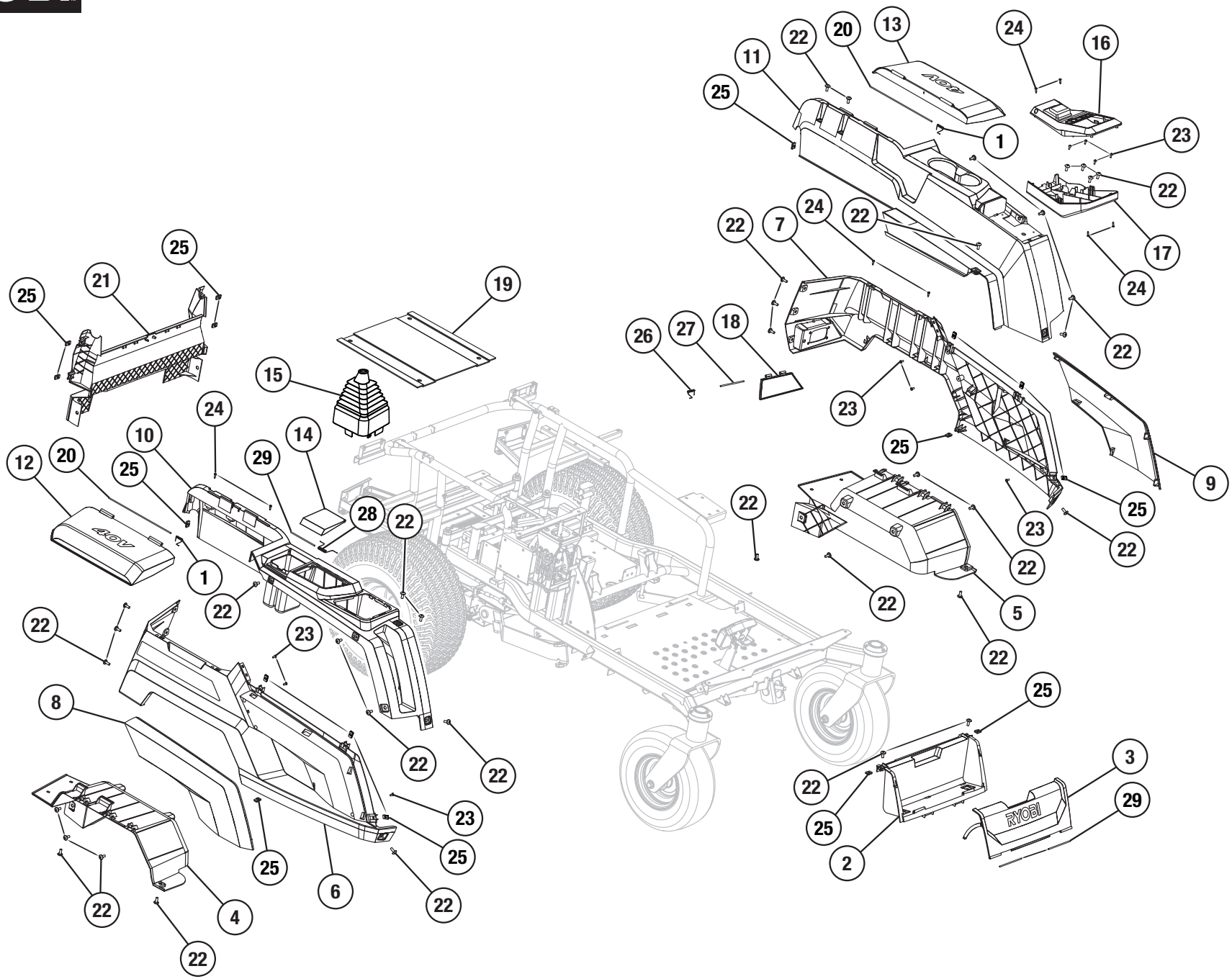
FIGURE I — CONTROL PANEL ASSEMBLY



PARTS LIST — FIGURE I

KEY NO.	PART NO.	DESCRIPTION	QTY.
1	997000243	Control Panel Plate	1
2	994963001	USB-C Module	1
3	997792001	Key Module	1
4	997966001	Key	1
5	997082001	PTO Gasket	1
6	997345001	PTO	1
7	994989001	Screw (M6 x 16mm, Torx Hd.)	4

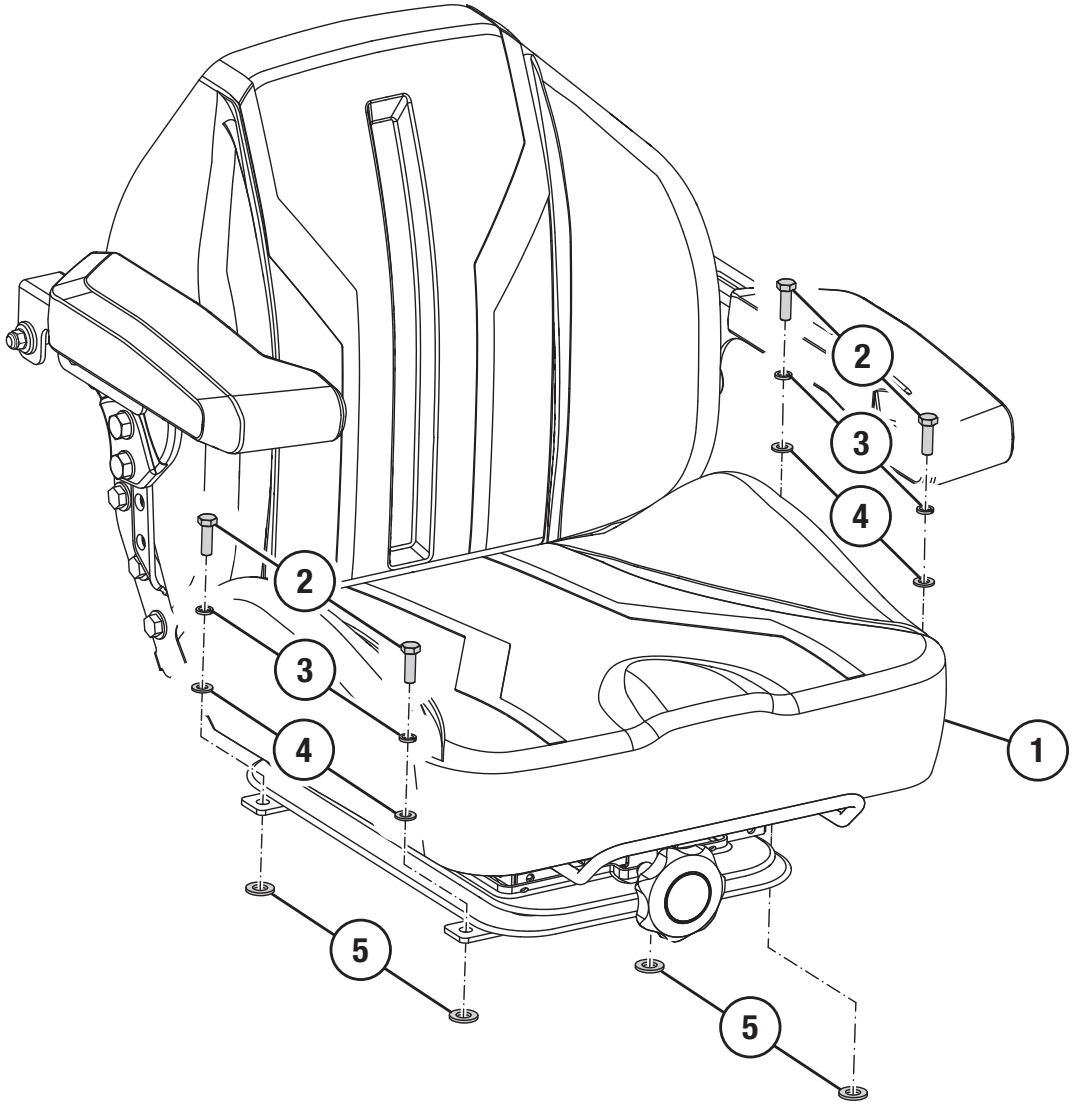
FIGURE J — PANEL HOUSING



PARTS LIST — FIGURE J

KEY NO.	PART NO.	DESCRIPTION	QTY.
1	997000221	Battery Cover Spring	2
2	997956001	Front Pocket	1
3	997955001	Front Pocket Door	1
4	997941001	Wheel Well (Right)	1
5	997940001	Wheel Well (Left)	1
6	997937001	Fender (Right)	1
7	099270002024	Fender (Left, 80v ZTR 42/54)	1
8	997935001	Trim Panel (Right)	1
9	997934001	Trim Panel (Left)	1
10	997939001	Console (Right)	1
11	997938001	Console (Left)	1
12	997000223	40V Battery Lid (Right)	1
13	997947001	40V Battery Lid (Left)	1
14	997967001	Storage Lid	1
15	994000001	Joystick Bellow Assembly	1
16	997949001	LCD Upper Cover	1
17	997948001	LCD Lower Cover	1
18	997970001	Charging Door	1
19	997954001	Controller Cover	1
20	997000220	Battery Cover Hinge Pin	2
21	997942001	Rear Cover	1
22	994989001	Screw (M6 x 16 mm)	43
23	996297001	Screw (M4 x 10 mm)	6
24	997094001	Screw (M3 x 12 mm, Pan Hd.)	12
25	994785001	Clip-On Nut (M6)	16
26	997000194	Charger Door Spring	1
27	997000195	Charger Door Hinge	2
28	997076001	Storage Bin Spring	1
29	997000214	Storage Box Hinge Pin	3

FIGURE K — SEAT ASSEMBLY

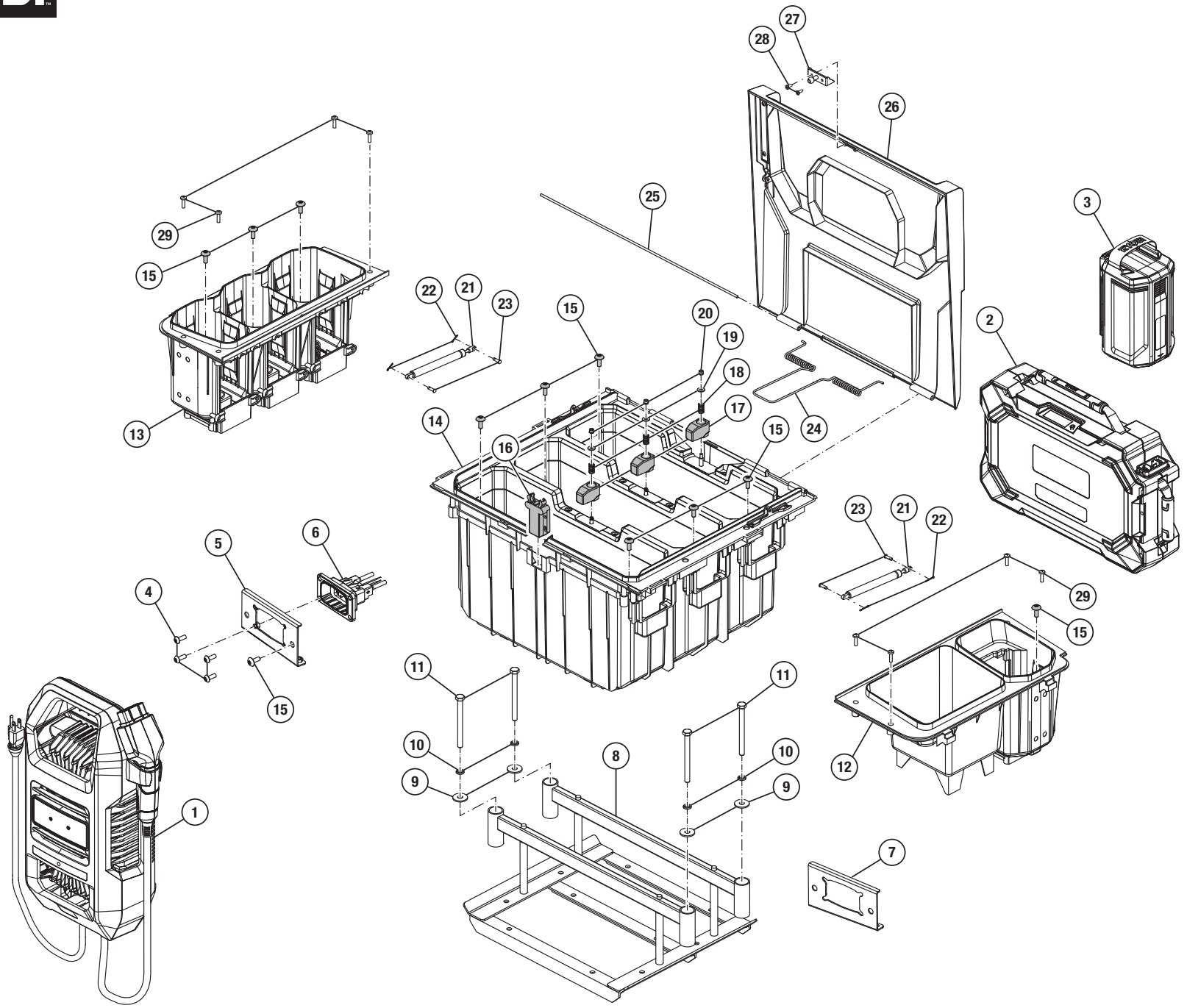


PARTS LIST — FIGURE K

KEY NO.	PART NO.	DESCRIPTION	QTY.
1	997922001	Seat	1
2	996046001	Bolt (M8 x 25 mm, Hex Hd.)	4
3	994770001	Spring Washer (M8)	4

KEY NO.	PART NO.	DESCRIPTION	QTY.
4	994771001	Washer (ID8.4 x OD16 x 1.6t)	4
5	994891001	Washer (M13)	4

FIGURE L — CHARGER PORT ASSEMBLY

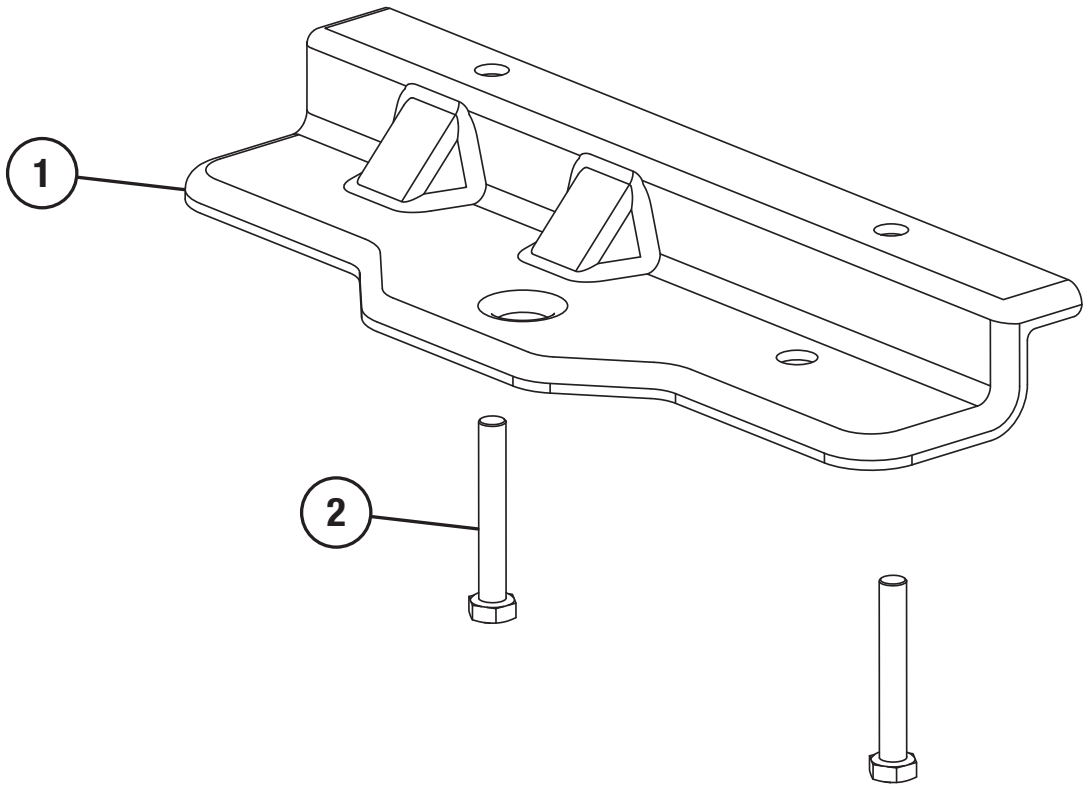


PARTS LIST — FIGURE L

KEY NO.	PART NO.	DESCRIPTION	QTY.
1	140494001	Charger, 120V-AC (1440W, 90V-DC)	1
2	130662001DG9	80V Battery Pack (720Wh)	2
3	130531003DG9	40V Battery Pack (12Ah)	2
4	997000283	Screw (M6 x 16 mm, Torx Hd.)	4
5	997000196	Charging Port Mount	1
6	997971001	80V Charging Receptacle	1
7	997000213	Mount Plate (Right)	1
8	997000210	Battery Compartment Frame	1
9	994827001	Washer (ID8.4 x OD24 x 2t)	4
10	994770001	Lock Washer (M8)	4
11	997000297	Bolt (M8 x 90 mm, Hex Hd.)	4
12	997952001	40V Battery Bucket (Right)	1
13	997946001	40V Battery Bucket (Left)	1
14	997000282	80V Battery Bucket Assembly	1
15	994989001	Screw (M6 x 16 mm, Torx Hd.)	11

KEY NO.	PART NO.	DESCRIPTION	QTY.
16	997945001	Push-To-Open Switch	1
17	997000211	Battery Retainer	3
18	997000137	Battery Retainer Spring	3
19	996294001	Washer (ID4.3 x OD12 x 1t)	3
20	996301001	Lock Nut (M4)	3
21	997000198	Battery Compartment Shock	2
22	997000139	Cotter Pin	4
23	997000138	Damper Pin	4
24	997000201	Torsion Spring	1
25	997000199	Compartment Lid Pin	1
26	997000200	80V Battery Lid	1
27	997000206	Battery Cover Lock	1
28	997000299	Lock Block Screw	2
29	996213001	Screw (M5 x 16 mm)	8

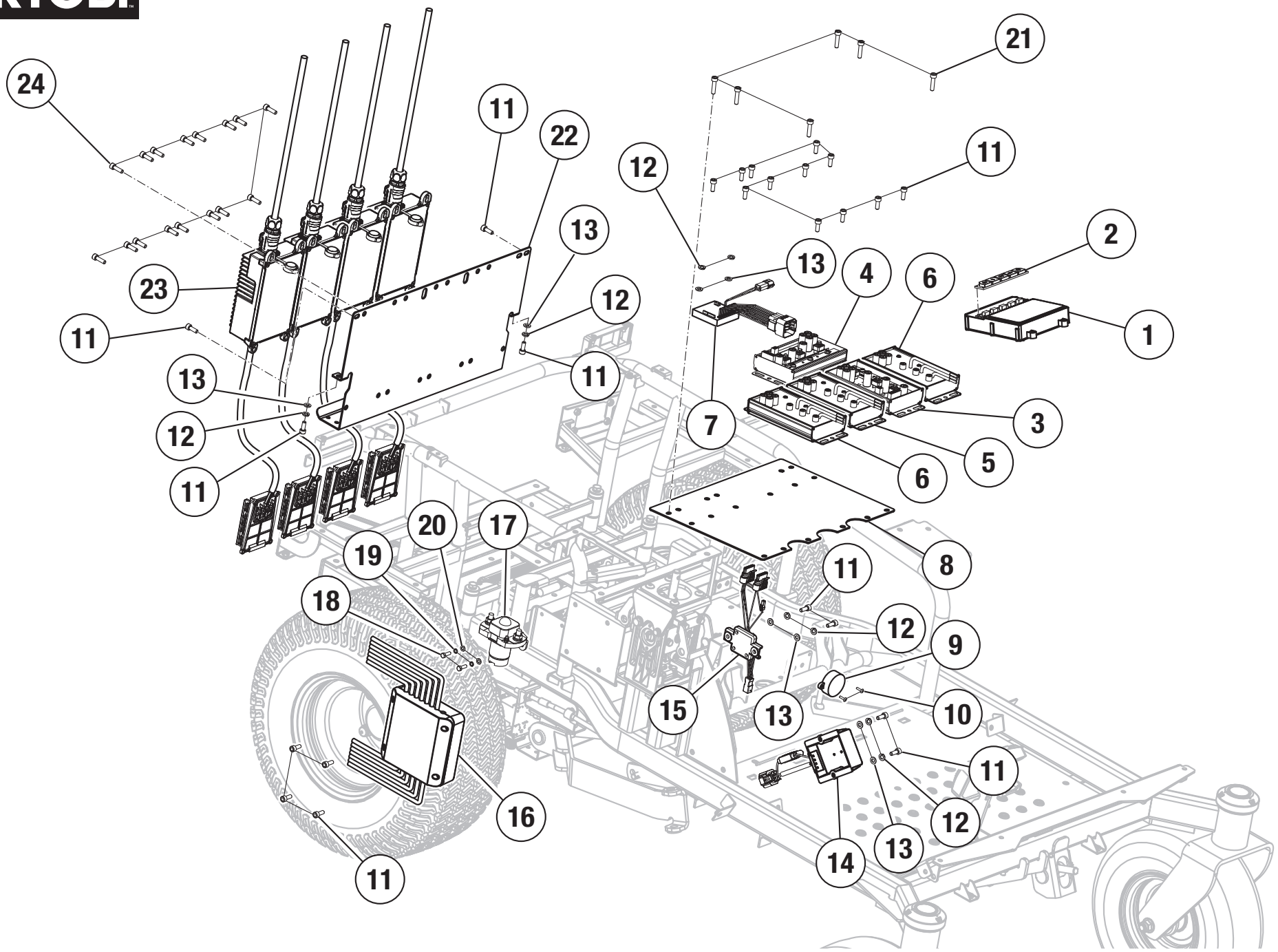
FIGURE M — CROSS MEMBER ASSEMBLY



PARTS LIST — FIGURE M

KEY NO.	PART NO.	DESCRIPTION	QTY.
1	997000166	Tow Plate	1
2	997136001	Bolt (M8 x 55 mm, Hex Hd.)	2

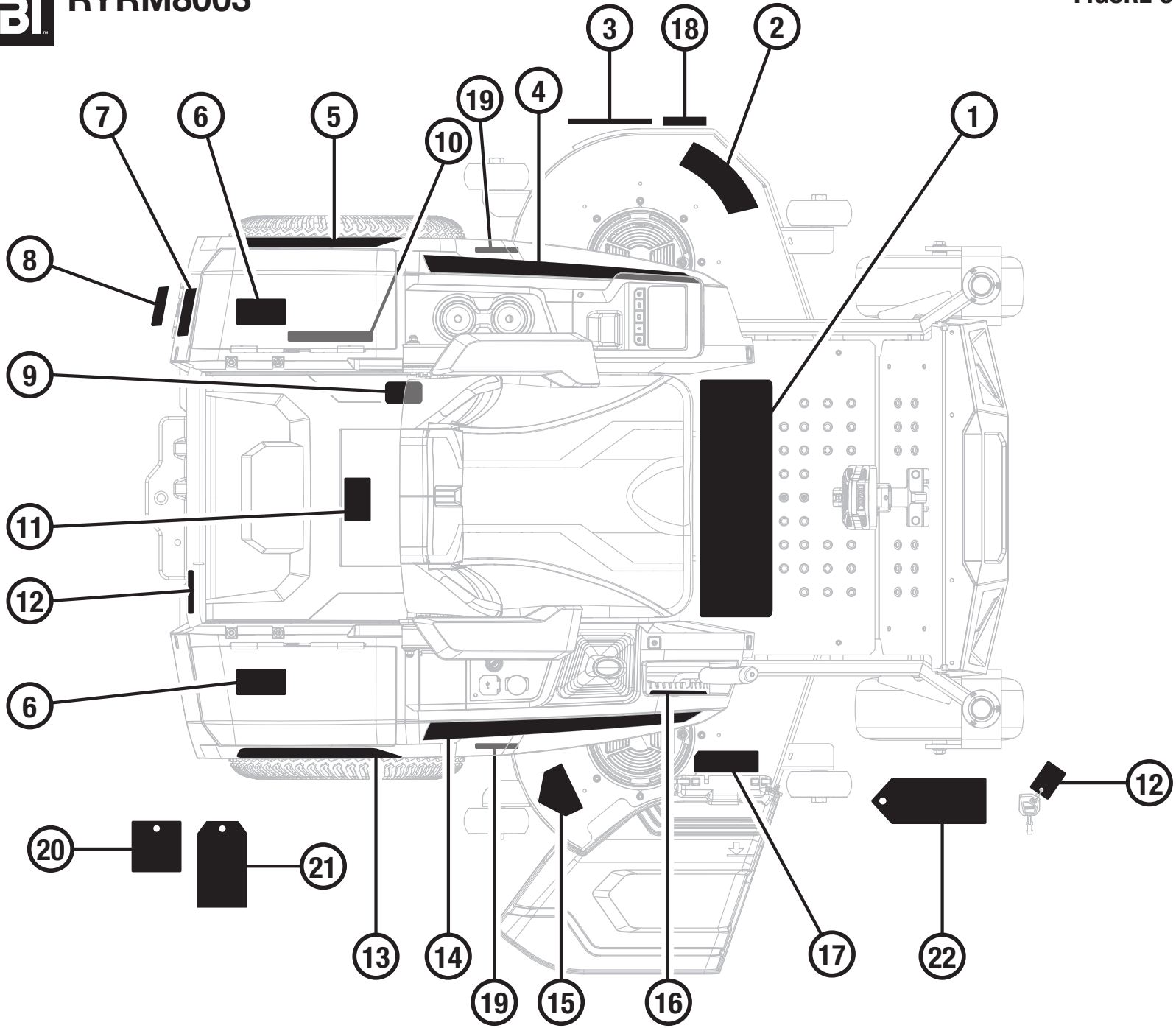
FIGURE N — ELECTRICAL COMPONENTS



PARTS LIST — FIGURE N

KEY NO.	PART NO.	DESCRIPTION	QTY.
1	997000281	LCD Module Assembly	1
2	997000006	LCD Buttons	1
3	997958001	Drive motor controller (Primary)	1
4	997957001	Drive motor controller (Secondary)	1
5	997000272	Deck Controller (Primary)	1
6	997000273	Deck Controller (Secondary)	2
7	281478001	TIC Assembly	1
8	997961001	Controller Mounting Plate	1
9	997149001	Beeper	1
10	997094001	Screw (M3 x 12 mm, Pan Hd.)	2
11	997098001	Screw (M6 x 16 mm)	24
12	996058001	Lock Washer (6 mm)	8
13	996281001	Washer (ID 6.4 x OD 12 x 1.6t)	8
14	997077001	12 Volt Converter	1
15	281496002	Mixing Board Assembly	1
16	997000080	Terminal Box Assembly	1
17	997000192	Main Relay (80V)	1
18	996565001	Bolt (M5 x 16 mm, Hex Hd)	2
19	996286001	Lock Washer (5 mm)	2
20	996295001	Washer (ID 5.3 x OD 12 x 1t)	2
21	997000230	Bolt (M6 x 25 mm, Socket Hd.)	6
22	997962001	Booster Mounting Plate	1
23	997976001	80V Booster	4
24	997148001	Screw (M6 x 20 mm)	16
	Not Shown:		
	997000187	Main Wiring Harness	1
	997000274	Main Battery Cable	1
	997000189	Battery Cable 2	1
	997000190	Battery Cable 3	1
	997000191	Battery Cable 4	1

FIGURE 0 — LABELS

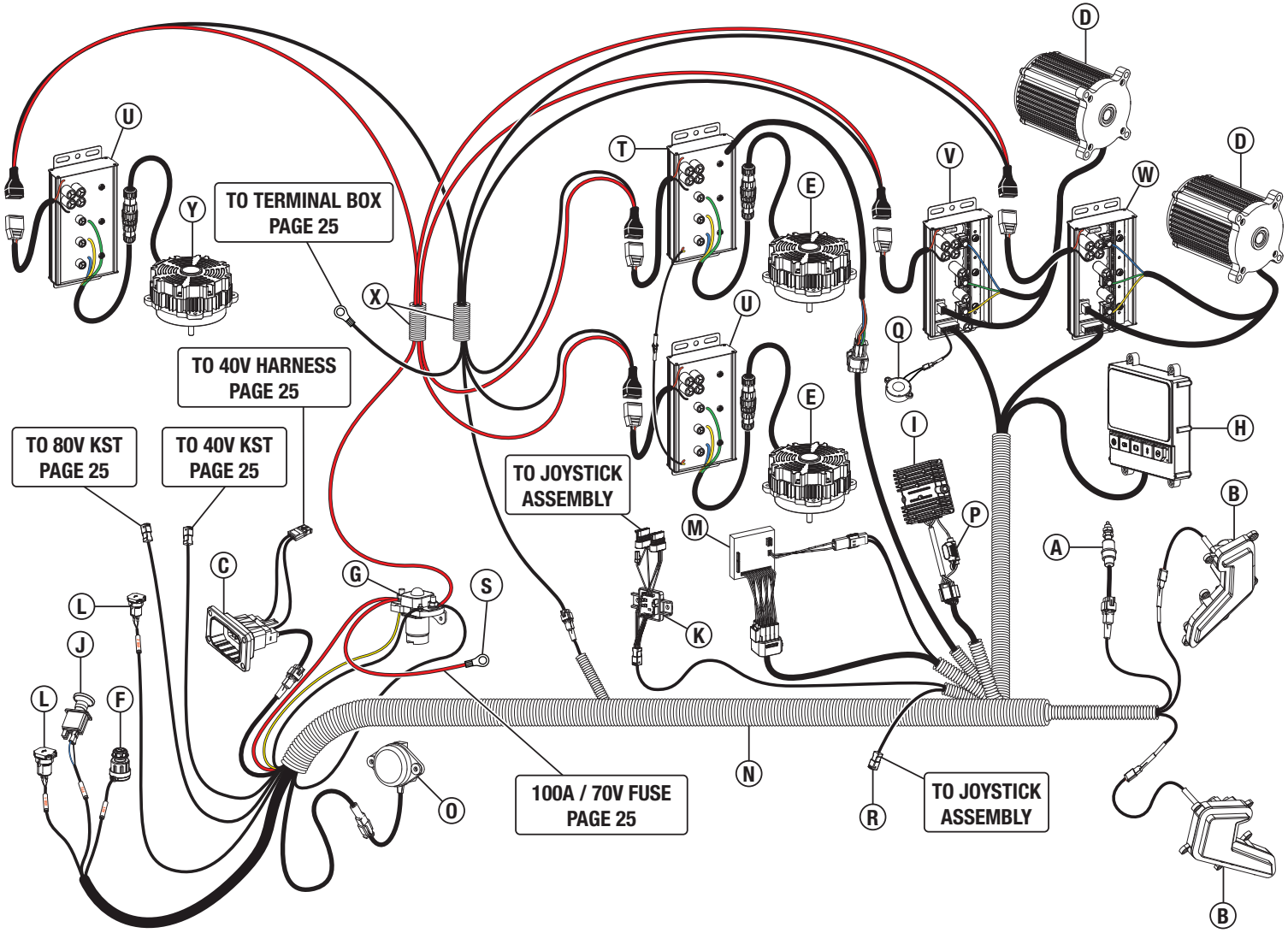


PARTS LIST — FIGURE O

KEY NO.	PART NO.	DESCRIPTION	QTY.
1	941166358	Danger/Warning/Joystick Control/Brake Label (Eng)	1
	941166357	Danger/Warning/Joystick Control/Brake Label (Sp)	1
2	940851207	Deck Warning Label (Eng)	1
	940851227	Deck Warning Label (Sp)	1
3	940779309	Cutting Width Deck Part A Label	1
4	941705209	80V HP Brushless Hero Label	1
5	941705214	Sub Brand Logo Hero Label	1
6	961021150	40V Battery Connection Instrucion Card	2
7	941194398	QR Code	1
8	941166359	Charging Port Label (Eng)	1
	941166360	Charging Port Label (Sp)	1
9	941194397	Data Label	1
10	940779513	FCC Label	1
11	961021151	80V Battery Connection Instrucion Card	1

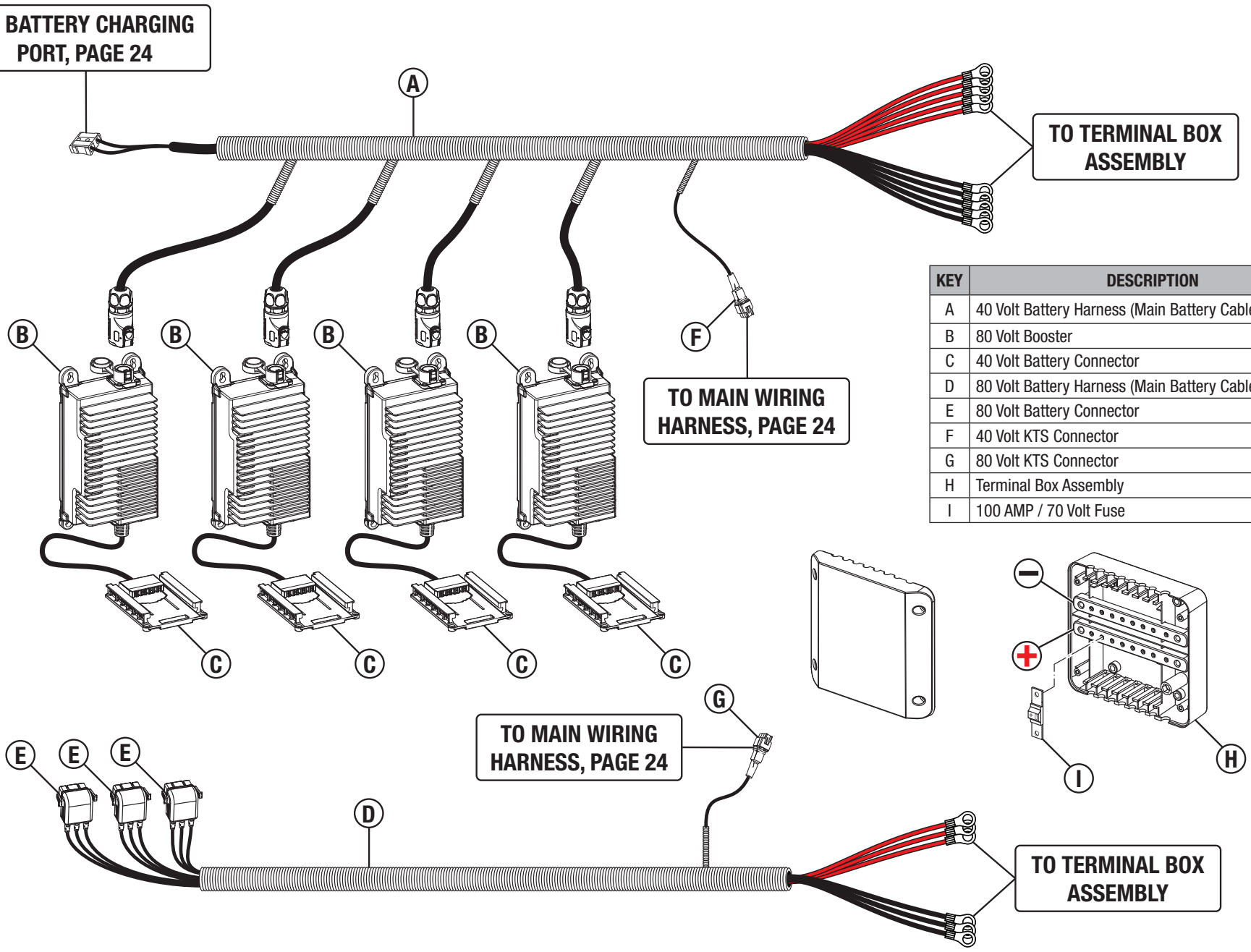
KEY NO.	PART NO.	DESCRIPTION	QTY.
12	997000004	Key Chain Tag (Eng)	1
	997000005	Key Chain Tag (Sp)	1
13	941705215	Sub Brand Logo Non-Hero Label	1
14	941705210	80V HP Brushless Non-Hero Label	1
15	940851219	Cut Finger CPSC (Eng)	1
	940851226	Cut Finger CPSC (Sp)	1
16	941166362	Deck Height Adjustment Label	1
17	941166363	Discharge Chute Icons	1
18	940779310	Cutting Width Deck Part B Label	1
19	940779312	Pinch Point Icon Label	2
20	941511019	Prop 65 Canada Label	1
21	918015038	Seat Assembly Tag	1
22	918015036	Joystick Hangtag	1

MAIN HARNESS WIRING DIAGRAM



KEY	DESCRIPTION
A	Brake Switch
B	Headlights
C	Charger Port
D	Drive Motor
E	Deck Motor
F	Switch w/Key
G	Relay
H	LCD Assembly
I	12 Volt Power Converter
J	Blade PTO
K	Mixing Board Assembly
L	USB
M	TIC Assembly
N	Main Wiring Harness
O	Seat Switch
P	5 Amp Fuse
Q	Beeper
R	Neutral Switch Connector
S	Main Battery Cable 2
T	Primary Deck Motor Controller
U	Secondary Deck Motor Controller
V	Primary Drive Motor Controller
W	Secondary Drive Motor Controller
X	Main Battery Cable 1

BATTERY HARNESS WIRING DIAGRAM



KEY	DESCRIPTION
A	40 Volt Battery Harness (Main Battery Cable 3)
B	80 Volt Booster
C	40 Volt Battery Connector
D	80 Volt Battery Harness (Main Battery Cable 4)
E	80 Volt Battery Connector
F	40 Volt KTS Connector
G	80 Volt KTS Connector
H	Terminal Box Assembly
I	100 AMP / 70 Volt Fuse