

CHAPTER 96

ELECTRICAL SYSTEM

<i>Figure</i>	<i>Title</i>	<i>Page</i>
96-1	Aft Battery Installation	96.0
96-5	Nose Battery Installation	96.4
96-9	Nose Battery Relay Installation	96.8
96-11	Circuit Breaker Panel	96.10
96-15	Electrical Components	96.14
96-19	Electrical Wire Harness	96.18
96-21	RPM Governor Installation	96.20
96-23B	RPM Governor Installation	96.23A
96-25	Hourmeter and Collective-activated Switches	96.24
96-27	Carbon Monoxide Detector Installation	96.26
96-29	Strobe Power Supply Installation	96.28
96-31	Floor Transmit Switch Installation	96.30
96-33	Accessory Bars Installation	96.32
96-37	Cockpit Camera Installation	96.36

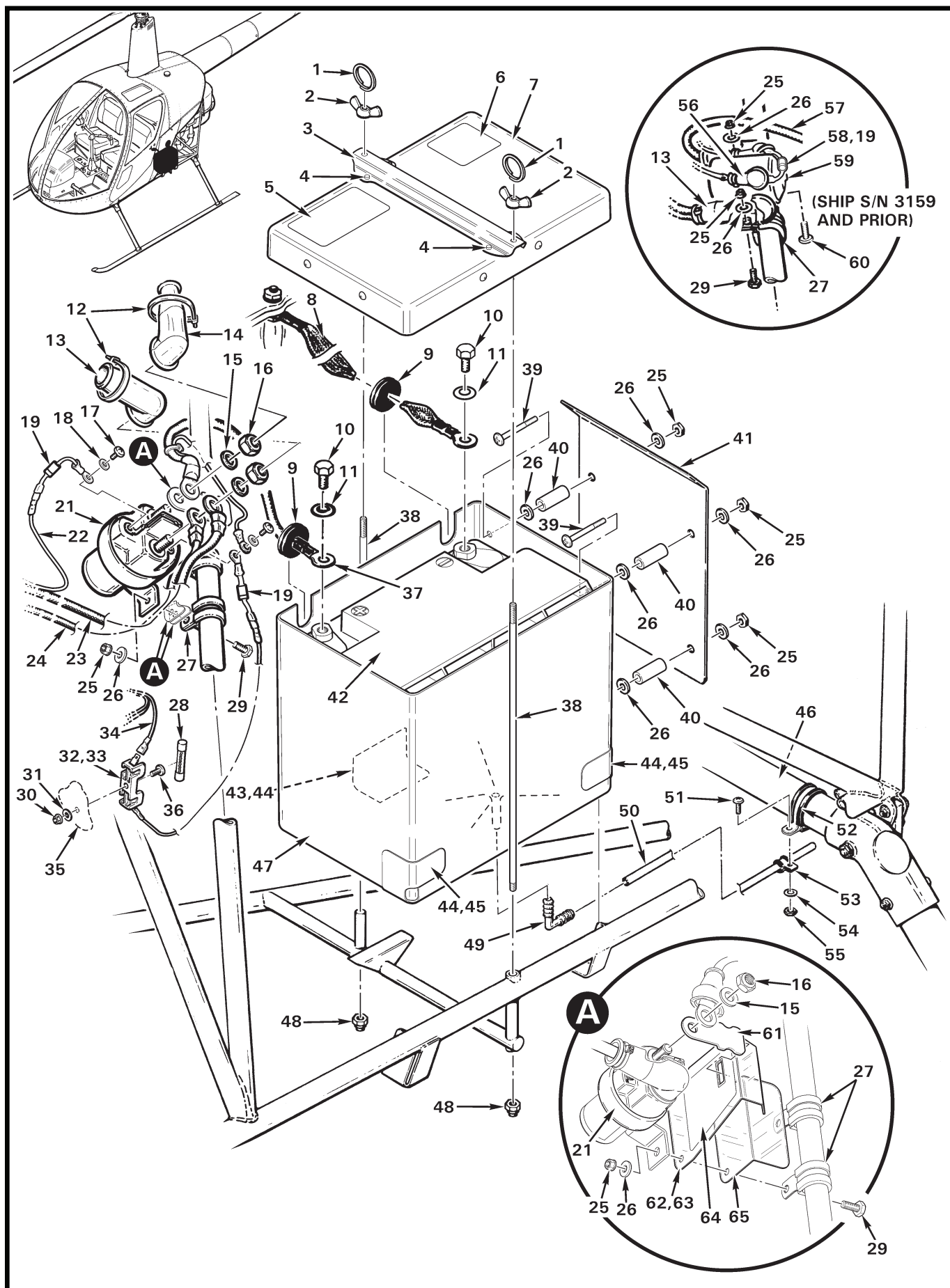


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		AFT BATTERY INSTALLATION*		
96-1-1	95390A317	Circle Cotter	X	2
2	94924A009	Wingnut	X	2
3	A922-2	Channel (attach using item 4)	X	1
4	MS20470AD3	Rivet	X	4
5	C654-44	Decal – "12V"	X	1
6	C654-45	Decal – "—"	X	1
7	A955-7	Cover Assembly (Incl items 3 thru 6)	X	1
8	A780-2	Cable – Ground	X	1
9	MS35489-40	Grommet (or AN931A6-10)	X	2
10	—	Screw (M8 hex head)	O	2
11	—	Washer (conical)	O	2
12	MS3367-4-9	Ty-Rap	X	A/R
13	MS25171-4S	Nipple	X	1
14	MS25171-2S	Nipple	X	1
15	O1000424	Washer	O	2
16	MS21044B5	Nut (supplied with item 21)	O	2
17	O1003621	Screw	O	2
18	O1004635	Washer	O	2
19	D275-102	Diode	X	1
20	O1009214	Diode	X	1
21	B415-1	Relay (Includes items 15 thru 18, and 20. Ship S/N 3160 and subsequent.)	X	1
22	A059-65	Wire (Ref, part of A059 wire harness)		
23	A067-581	Cable (to starter)	X	1
24	A780-34	Cable (to shunt)	X	1
25	D210-3	Nut	X	6
26	NAS1149F0363P	Washer	X	2
27	MS21919WDG10	Clamp	X	2
28	AGC-3	Fuse	X	1
29	AN3-4A	Bolt	X	2
30	MS21042L06	Nut	X	1
31	NAS1149FN616P	Washer	X	1
32	B304-8	Diode Assembly (includes items 19, 28, 30, 31, 33, 34, 36, heat shrink, terminal, and splice)	X	1
33	D262-1	Fuse Block	X	1

NOTES * Alpha and Beta models only.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		AFT BATTERY INSTALLATION* (Cont'd)		
96-1-34	-66	Wire (Ref)		
35	—	Vertical Firewall (Ref)		
36	MS35206-228	Screw	X	1
37	A780-33	Cable – Battery Positive (Incl wire no. 64)	X	1
38	A923-2	Rod	X	2
39	MS27039C1-24	Screw	X	4
40	A130-15	Spacer	X	4
41	A954-1	Shield	X	1
42	B237-6	Battery – Heavy Duty (Concorde part no. RG25XC; includes items 10 and 11)	X	1
43	A955-3	Pad (install using item 44)	X	1
44	B270-14	Adhesive	X	A/R
45	A955-4	Pad (install using item 44)	X	2
46	A241-2	Cross Tube (Ref)		
47	A955-5	Battery Box Assembly (Incl items 7, 25, 26, 39 thru 41, and 43 thru 45)	X	1
48	B340-4	Nut	X	2
49	0710-015	Elbow	X	1
50	B233-1	Tube Assembly (Incl item 49)	X	1
51	MS27039C0806	Screw	X	1
52	MS21919WDG24	Clamp	X	1
53	MS21919WDG6	Clamp	X	1
54	NAS1149FN816P	Washer	X	1
55	MS21042L08	Nut	X	1
56	MS25171-1S	Nipple	X	2
57	A780-7	Cable – Battery Positive (use with item 59 only)	X	1
58	B304-2	Diode Assembly (Includes item 19. Use with item 59 only.)	X	1
59	70-906	Relay (Ref; ship S/N 0001 thru 3159, no longer available. To replace, order item 66.)		
60	AN3-5A	Bolt	X	2
61	A448-25	Post (copper)	X	1
62	C452-9	Guard Assembly (upper; includes items 63 and 64)	X	1
63	C452-10	Guard (upper; polycarbonate)	X	1
64	G682-43	Decal – “12V, +”	X	1
65	C452-8	Guard (lower; polycarbonate)	X	1

NOTES * Alpha and Beta models only.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		AFT BATTERY INSTALLATION* (Cont'd)		
		* * *		
96-1-66	KI-154	Aft Battery Relay Upgrade Kit (Incl items 12 [5], 14, 21, 29, 37, 67, and 68; not shown)	X	1
67	B158-103-1	Heat Shrink (1-inch length)	X	1
	B158-103	Heat Shrink (12-inch length)	X	A/R
68	B260-2	Terminal	X	2
NOTES				

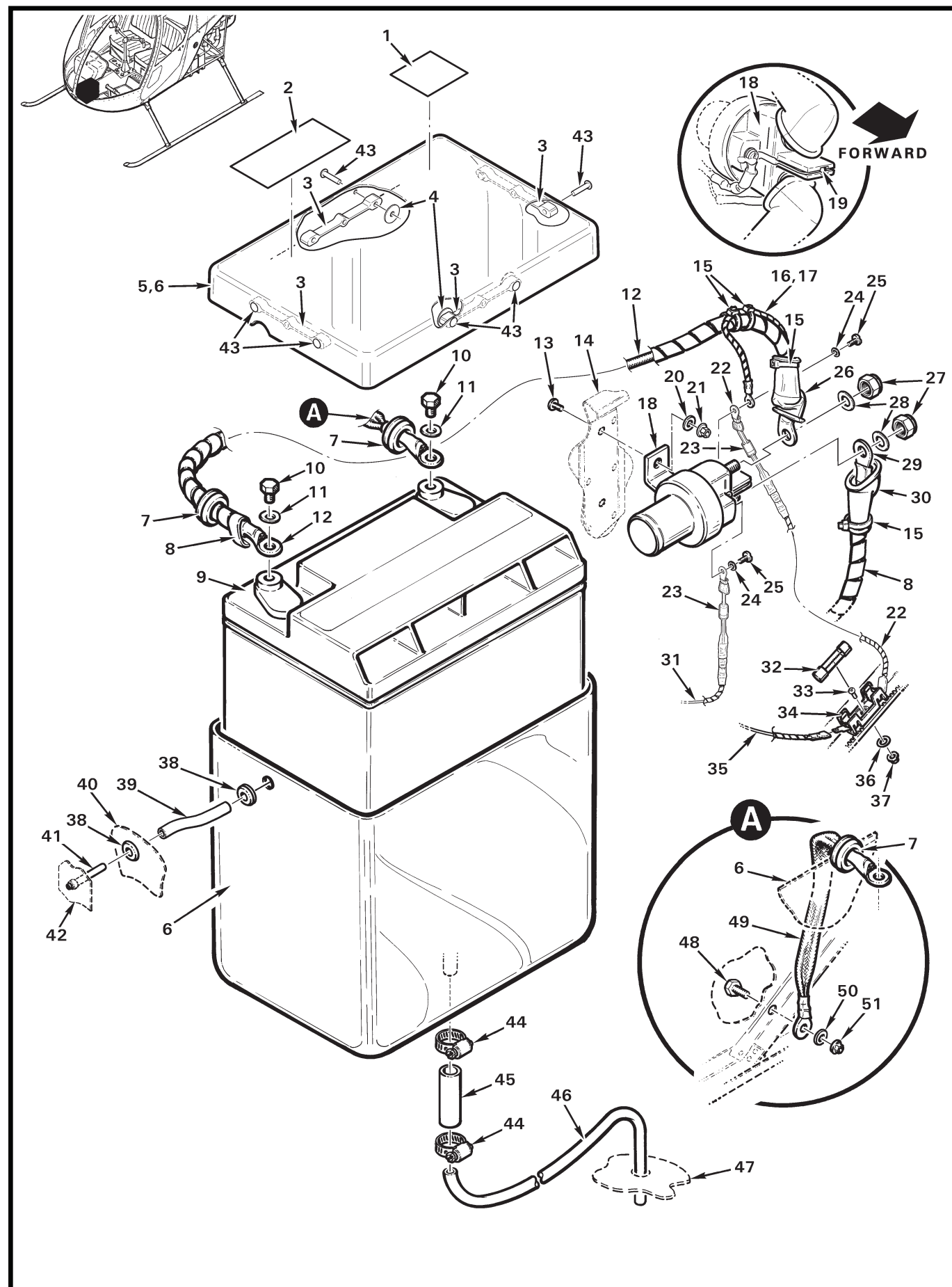


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		NOSE BATTERY INSTALLATION		
96-5-1	C654-45	Decal – “—”	X	1
2	C654-44	Decal – “12V + ”	X	1
3	A902-1	Spacer	X	4
4	A141-44	Washer (under bucked end)	X	4
5	A955-9	Cover Assembly (Incl items 1 thru 4)	X	1
6	A540-13	Battery Box	X	1
7	MS35489-40	Grommet (or AN931A6-10)	X	2
8	B161-8	Spirap	X	A/R
9	B237-6	Battery (Concorde part no. RG25XC; includes items 10 and 11)	X	1
10	—	Screw (M8 hex head)	O	2
11	—	Washer (conical)	O	2
12	A780-32	Cable – Battery Positive (Incl item 16)	X	1
13	MS27039C1-06	Screw	X	2
14	A033	Console (Ref)		
15	MS3367-4-9	Ty-Rap	X	A/R
16	A780-64	Wire (Ref)		
17	B161-2	Spirap	X	A/R
18	B415-1	Relay (Includes items 19, 24, 25, 27, and 28; ship S/N 3160 and subsequent. For ship S/N 3159 and prior, see Figure 96-9.)	X	1
19	01009214	Diode	X	1
20	NAS1149F0332P	Washer	X	2
21	D210-3	Nut	X	2
22	B304-8	Diode Assembly (Includes items 23, 32 thru 34, 36, 37, wire, terminal, and heat shrink.)	X	1
23	D275-102	Diode	X	1
24	01004635	Washer (Ref)	X	2
25	01003621	Screw (Ref)	X	2
26	MS25171-4S	Nipple	X	1
27	MS21044B5	Nut (supplied with item 18)	X	2
28	01000424	Washer	X	2
29	A067-587	Cable Assembly (wire no. 581, to starter)	X	1
30	MS25171-2S	Nipple	X	1
31	A059-141	Wire (Ref)		
32	D275-203	Fuse (3-amp; AGC-3-R)	X	1
33	MS35206-228	Screw	X	1
NOTES				
Continues				

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		NOSE BATTERY INSTALLATION (Cont'd)		
96-5-34	D262-1	Fuse Block	X	1
35	A059-142	Wire (Ref)		
36	NAS1149FN616P	Washer	X	1
37	MS21042L06	Nut	X	1
38	MS35489-6	Grommet (or AN931-4-7)	X	2
39	A691-1	Tube – Vent	X	1
40	—	Console (Ref)		
41	A690-1	Vent – Battery Box	X	1
42	B410-1	Retainer – Windshield (Ref)		
43	MS20470AD4	Rivet (head as shown)	O	1
44	B277-4	Clamp	X	2
45	A910-1	Tube	X	1
46	A910-2	Tube	X	1
47	A272-1	Chin (Ref)		
48	AN4-3A	Bolt	X	1
49	A780-2	Cable – Battery Ground	X	1
50	NAS1149FN432P	Washer	X	1
51	D210-4	Nut	X	1
NOTES				

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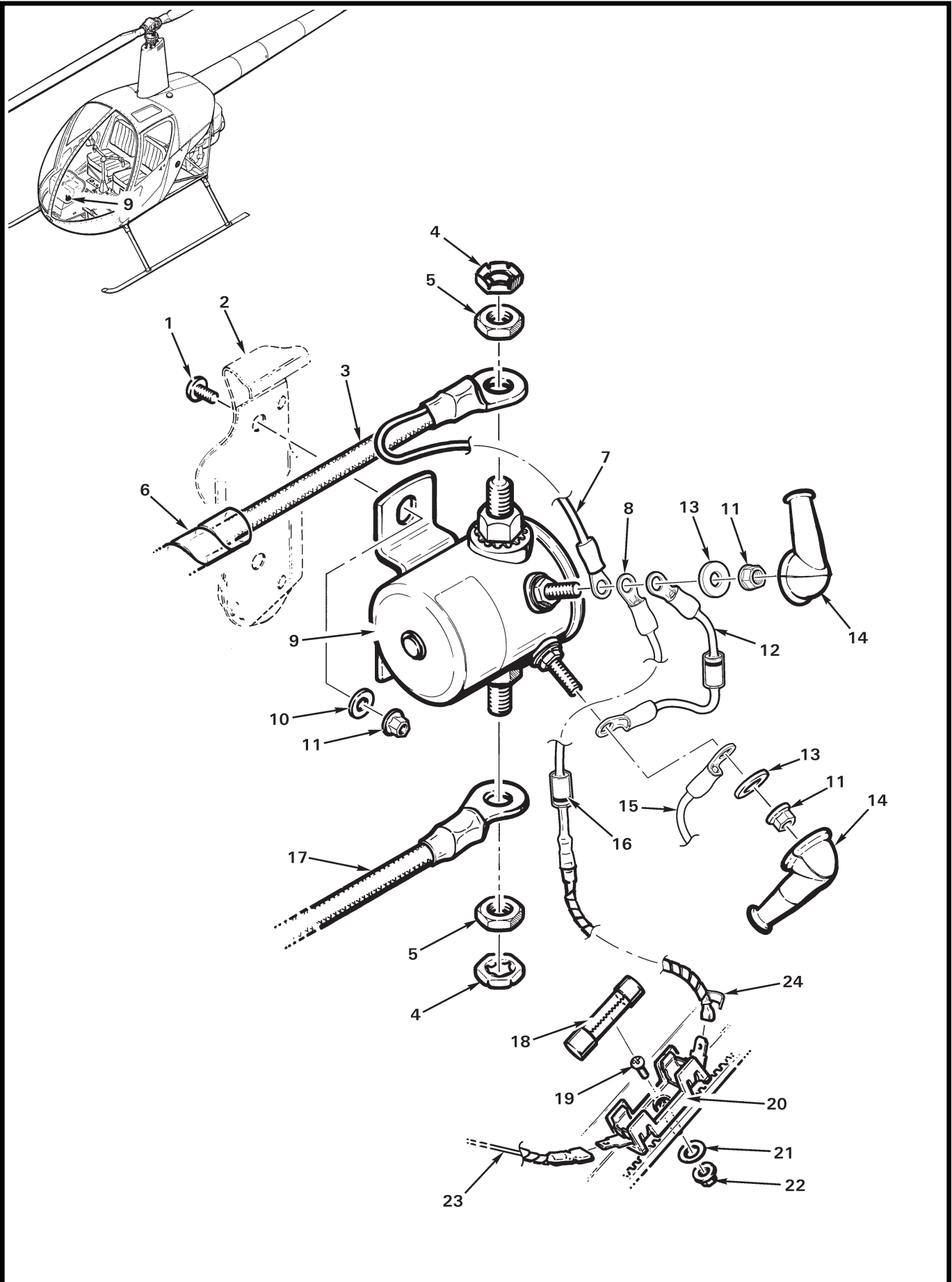


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		NOSE BATTERY RELAY INSTALLATION*		
96-9-1	AN525-10R6	Screw	X	2
2	A033	Console (Ref)		
3	A780-1	Cable – Battery Positive (Incl item 7)	X	1
4	B330-16	Palnut	X	2
5	AN316-5R	Nut	X	2
6	B161-8	Spirap	X	A/R
7	A059-64	Wire (Ref, no longer available)		
8	B304-3	Diode Assembly (Includes items 18 thru 22, wire, terminal, and heat shrink.)	X	1
9	70-906	Relay (Ref, no longer available. Order item 25 for replacement.)		
10	NAS1149F0332P	Washer	X	2
11	D210-3	Nut	X	4
12	B304-2	Diode Assembly (Incl item 16)	X	1
13	NAS1149F0363P	Washer	X	2
14	MS25171-1S	Nipple	X	2
15	A059-141	Wire (Ref)		
16	D275-102	Diode	X	1
17	A067-587	Cable (to starter)	X	1
18	AGC-3	Fuse (3-amp)	X	1
19	MS35206-228	Screw	X	1
20	D262-1	Fuse Block	X	1
21	NAS1149FN616P	Washer	X	1
22	MS21042L06	Nut	X	1
23	A059-142	Wire (Ref)		
24	B161-2	Spirap	X	A/R

25	KI-158	Nose Battery Relay Upgrade Kit (Includes items 26 thru 28, and items 7, 8, 12, 13, 15, 17, 18, 20, 21, 26, and 30 from Figure 96-5.)	X	1
26	B158-103	Heat Shrink (one-inch length)	X	2
27	MS3367-5-9	Ty-Rap	X	5
28	MS3367-7-9	Ty-Rap	X	5

NOTES * Ship S/N 0001 thru 3159.

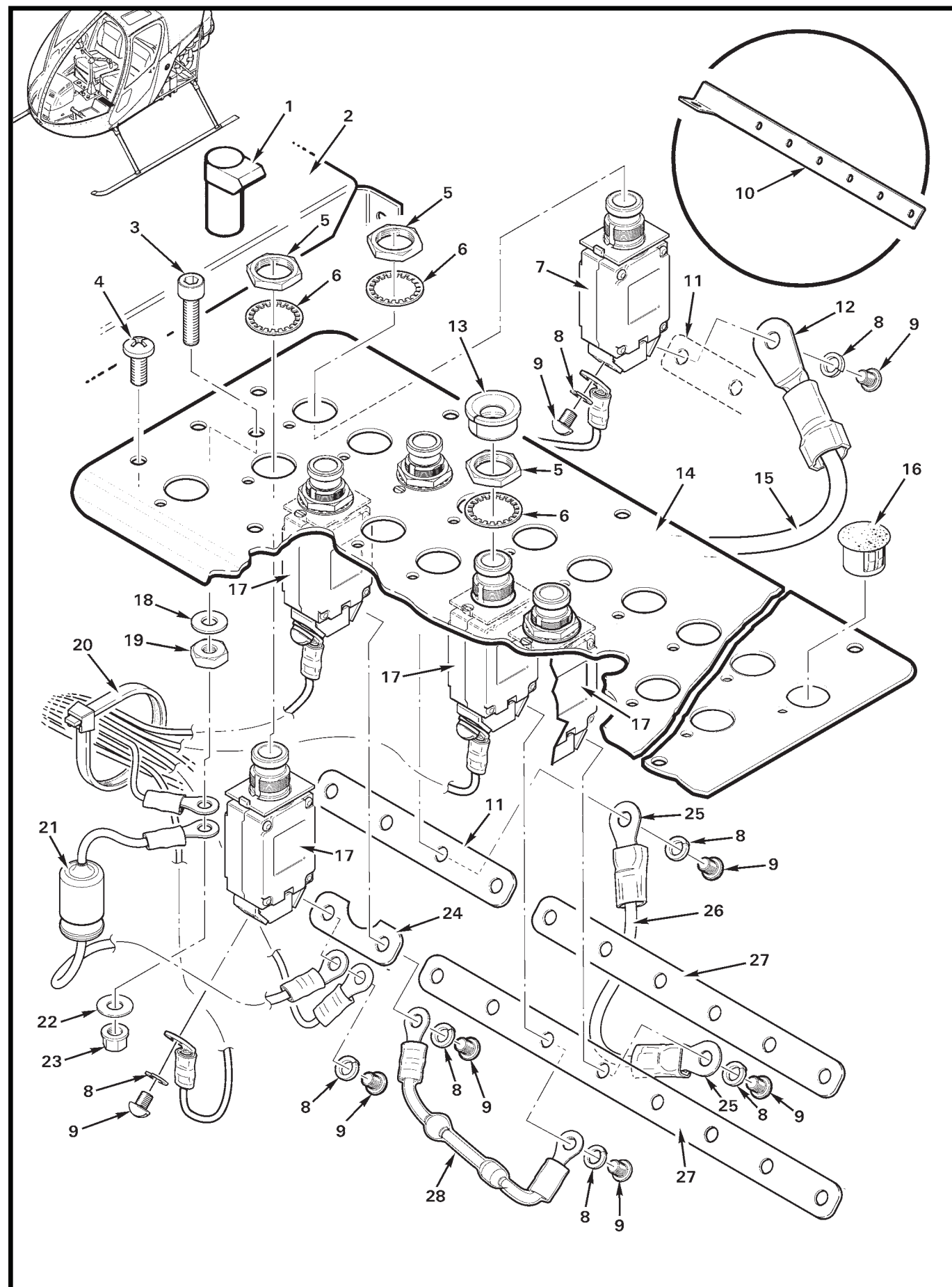


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		CIRCUIT BREAKER PANEL		
96-11-1	B195-6	Light – Panel (white lighting)	X	1
	B196-1	Lamp	X	1
2	A444-1	Cover – Cyclic Control (Ref)		
3	NAS1352-08-10P	Screw	X	1
4	MS27039C0806	Screw	X	12
5	—	Nut (included with circuit breaker)	O	1
6	—	Washer (included with circuit breaker)	O	1
7	B297-20*	Circuit Breaker (20 amp, landing lights)	X	1
8	—	Lockwasher (included with circuit breaker)	O	1
9	—	Screw (included with circuit breaker)	O	2
	MS35206-226	Screw (use when two or more items are installed on one post)	X	A/R
10	A448-5	Bus Bar (offset, for earlier R22s)	X	1
11	A448-10	Bus Bar (4 breakers)	X	1
12	B260-13	Terminal	X	1
13	10164-5	Button (red; for "Clutch/Start" breaker)	X	1
14	B490-5	Panel (24 holes, ship S/N's 4591, 4650, 4651, 4656 and subsequent)	X	1
	B490-2	Panel (24 holes, ship S/N's 2580 thru 4590, 4592 thru 4649, and 4652 thru 4655)	X	1
	A490-2**	Panel (18 holes)	X	1
	A490-3**	Panel (18 holes, Instrument Trainer)	X	1
	A490-4**	Panel (18 holes, Mariner and Police version)	X	1
15	A859-14	Wire (Ref; to aft shunt)		
16	2633	Hole Plug	X	A/R
17	B297-2*	Circuit Breaker (2 amp)	X	7
	B297-5*	Circuit Breaker (5 amp)	X	3
	B297-7*	Circuit Breaker (7 1/2 amp, for earlier R22s)	X	A/R
	B297-10*	Circuit Breaker (10 amp)	X	2
18	NAS1149DN832H	Washer	X	1
19	B301-8	Nut	X	1
20	MS3367-4-9	Ty-Rap	X	A/R
21	B304-1	Capacitor Assembly	X	1
22	NAS1149FN816P	Washer	X	1
23	MS21042L08	Nut	X	1
24	A448-3	Bus Bar (2 breakers)	X	1
NOTES * Includes items 5, 6, 8, and 9. ** Ship S/N 0333 thru 2579.				
				Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		CIRCUIT BREAKER PANEL (Cont'd)		
96-11-25	B260-11	Terminal	X	2
26	A045-102	Wire	X	1
27	A448-1	Bus Bar (6 breakers)	X	A/R
	A448-3	Bus Bar (2 breakers)	X	A/R
	A448-4	Bus Bar (3 breakers)	X	A/R
	A448-9	Bus Bar (9 breakers)	X	A/R
	A448-10	Bus Bar (4 breakers)	X	A/R
	A448-14	Bus Bar (8 breakers)	X	A/R
28	A045-2	Diode Assembly	X	1
NOTES				

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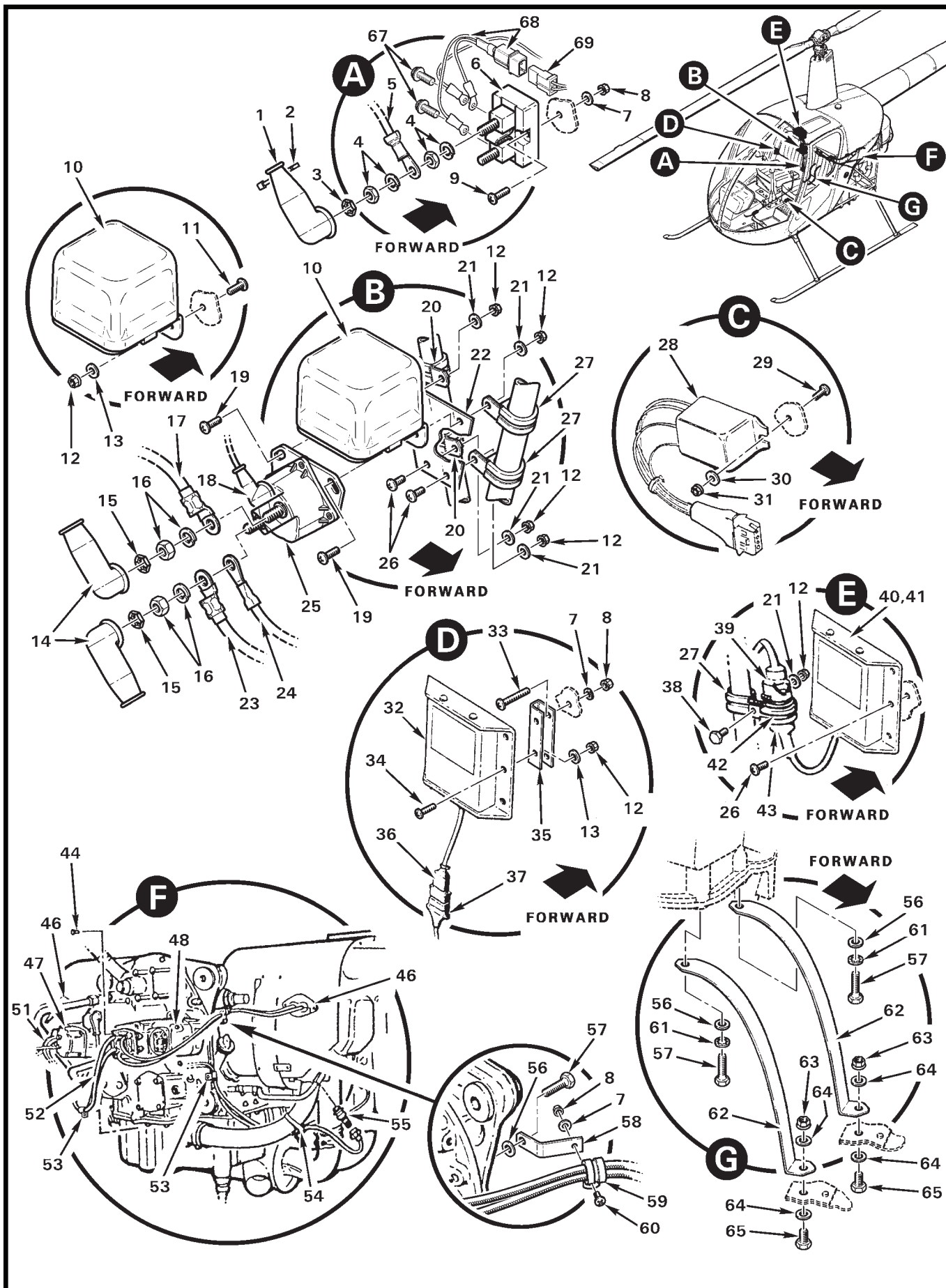


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		ELECTRICAL COMPONENTS		
96-15-1	MS25171-2S	Nipple	X	A/R
2	MS3367-4-9	Ty-Rap	X	A/R
3	B330-13	Palnut	X	2
4	—	Nut and Lockwasher (Ref; supplied with shunt)		
5	A059-22	Cable (alternator-to-shunt)	X	1
6	1465-70-104	Shunt – Ammeter (Incl item 67)	X	1
7	NAS1149FN816P	Washer	X	2
8	MS21042L08	Nut	X	4
9	MS27039C0809	Screw	X	2
10	10-176487-121*	Starting Vibrator (ship S/N 0078 and subsequent)	X	1
11	MS27039C1-08	Screw	X	2
12	D210-3	Nut	X	A/R
13	NAS1149F0363P	Washer	X	2
14	MS25171-4S	Nipple	X	2
15	B330-15	Palnut	X	2
16	—	Nut and Lockwasher (Ref; supplied with starter relay)		
17	A059-21	Cable (starter relay-to-starter; Kelly Aerospace starters only)	X	1
18	MS25171-1S	Nipple	X	1
19	MS27039C1-09	Screw	X	4
20	MS21919WDG10	Clamp	X	2
21	NAS1149F0332P	Washer	X	A/R
22	A311-1	Bracket – Starter Relay (earlier R22s)	X	1
23	A067-587**	Wire (battery relay-to-starter relay)	X	1
24	A059-26	Wire (starter relay-to-shunt; Kelly Aerospace starters only)	X	1
25	SAZ-4201E**	Starter Relay	X	1
26	MS27039C1-07	Screw	X	2
27	MS21919WDG12	Clamp	X	2
28	A999-1	Master Radio Relay (ship S/N 0350 thru 0449)	X	1
	A999-3	Master Radio Relay (ship S/N 0450 and subsequent)	X	1
29	MS35206-228	Screw	X	2
30	NAS1149FN632P	Washer	X	2
31	MS21042L06	Nut	X	2
32	A942-1	Alternator Control Unit (3-pin connector)	X	1
33	NAS603-18	Screw	X	4
34	NAS602-10P	Screw	X	4

NOTES * Teledyne Continental Motors part no.
 ** For use with Kelly Aerospace part no. MZ4224.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY								
		ELECTRICAL COMPONENTS (Cont'd)										
96-15-35	B811-1	Mounting Bracket	X	2								
36	B263-14	Housing	X	1								
	B263-3	Pin	X	3								
37	B811-2	Wire Harness Assembly	X	1								
38	AN3-3A	Bolt	X	1								
39	B264-23	Housing	X	1								
	B264-2	Socket ([5] with A942-2, [6] with A942-3)	X	A/R								
40	A942-2	Alternator Control Unit (7-pin connector)	X	1								
41	A942-3	Alternator Control Unit (7-pin connector)	X	1								
		A942 ALTERNATOR CONTROL UNIT REPLACEMENT CHART										
		<table><tr><th>A.C.U.</th><th>SHIP S/N</th></tr><tr><td>A942-1</td><td>0325-0411</td></tr><tr><td>A942-2</td><td>0412-0494</td></tr><tr><td>A942-3</td><td>0495 & subsequent</td></tr></table>	A.C.U.	SHIP S/N	A942-1	0325-0411	A942-2	0412-0494	A942-3	0495 & subsequent		
A.C.U.	SHIP S/N											
A942-1	0325-0411											
A942-2	0412-0494											
A942-3	0495 & subsequent											
42	MS21919WDG14	Clamp (around connector)	X	1								
43	207573-1	Receptacle	O	1								
	66102-6	Pin ([5] with A942-2, [6] with A942-3)	O	A/R								
	B158-12	Heat Shrink (0.75 in. dia, black)	X	A/R								
44	10-35937-10	Screw	X	8								
45	62224*	Gasket (not shown; install between magneto and accessory housing)	X	2								
46	LW-M-2375*	Harness Plate	X	2								
47	10-600614-1**	Magneto – Retard	X	1								
48	R8266	Magneto – Tachometer (or 10-600644-201** with pins and housing)	X	1								
49	68C19622*	Gear – Retard Magneto (O-360 engine, not shown)	X	1								
	73683*	Gear – Retard Magneto (O-320 engine, not shown)	O	1								
50	68C19622*	Gear – Tachometer Magneto (O-360, not shown)	X	1								
	61163*	Gear – Tachometer Magneto (O-320, not shown)	O	1								
51	M2403***	Ignition Wire Harness – Retard Magneto	X	1								
52	M2404***	Ignition Wire Harness – Tachometer Magneto	X	1								
53	LW-14060*	Clamp (O-320 engine, supplied with engine)	X	3								
	MS21333-102	Clamp	X	3								
54	LW-18959-150-25*	Clamp (O-320 engine).	X	4								
	LW-18959-175-25*	Clamp (O-360 engine)	X	4								
NOTES * Lycoming part no. ** Teledyne Continental Motors part no. *** Champion or Unison part no.												
				Continues								

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		ELECTRICAL COMPONENTS (Cont'd)		
96-15-55	UREM40E*	Spark Plug (or UREM38E*)	X	8
56	STD-8**	Washer (supplied with engine)	X	A/R
57	LW-25-0.94**	Bolt (supplied with engine)	X	A/R
58	B315-1	Clip	X	1
59	MS21919WDG8	Clamp (use with TCM magnetos)	X	1
60	MS27039C0806	Screw	X	1
61	STD-160**	Washer (supplied with engine)	X	A/R
62	A212-1	Engine Ground Strap	X	2
63	D210-4	Nut	X	2
64	NAS1149F0432P	Washer	X	4
65	AN4-3A	Bolt	X	2
66	M2402***	Ignition Wire Harness Set (for retard and tachometer magneto [set]; includes items 51 and 52)	X	1
67	—	Screw	O	2
68	B304-18	Fuse Assembly (includes fuses, connector, wires, terminals, and heat shrink; assembled as shown)	X	1
69	B263-33	Housing (Ref; A859 harness assembly)		
NOTES * Tempest part no. ** Lycoming part no. for O-360 engine. *** Champion or Unison part no.				

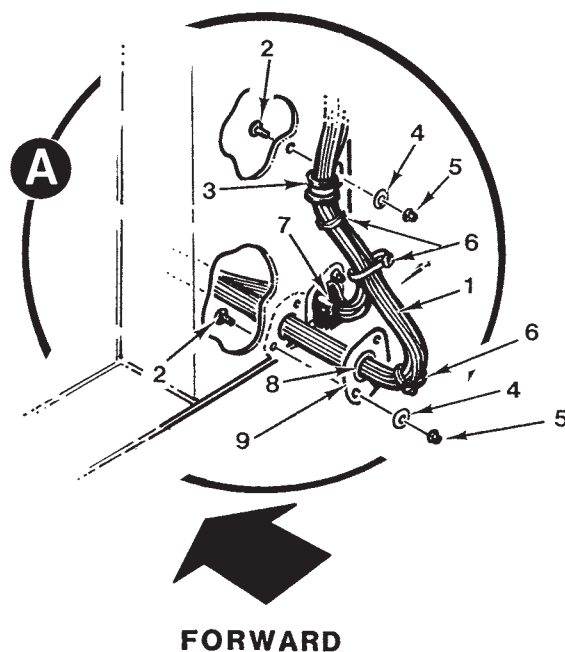
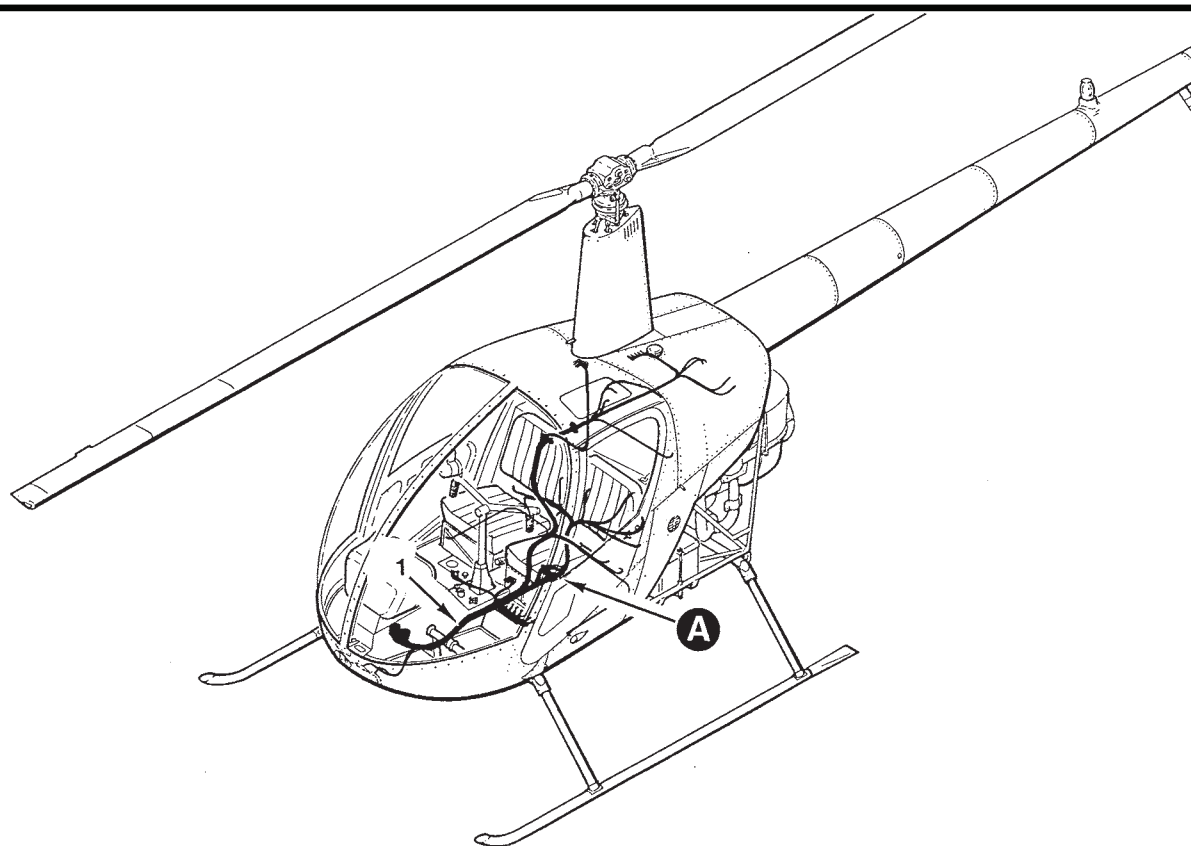


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		ELECTRICAL WIRE HARNESS		
96-19-1	A059-02*	Harness Assembly (cabin)	X	1
2	MS27039C0806	Screw	X	6
3	MS21919WDG9	Clamp	X	1
4	NAS1149FN816P	Washer	X	6
5	MS21042L08	Nut	X	6
6	MS3367-4-9	Ty-Rap	X	A/R
7	B270-5	Sealant (white)	X	A/R
8	NAS557-8A	Grommet	X	2
9	A453-1	Plate ([1] on each side of firewall)	X	4
NOTES * Ship S/N 4340 and higher. For ship S/N 4339 and earlier, contact RHC Tech Support.				

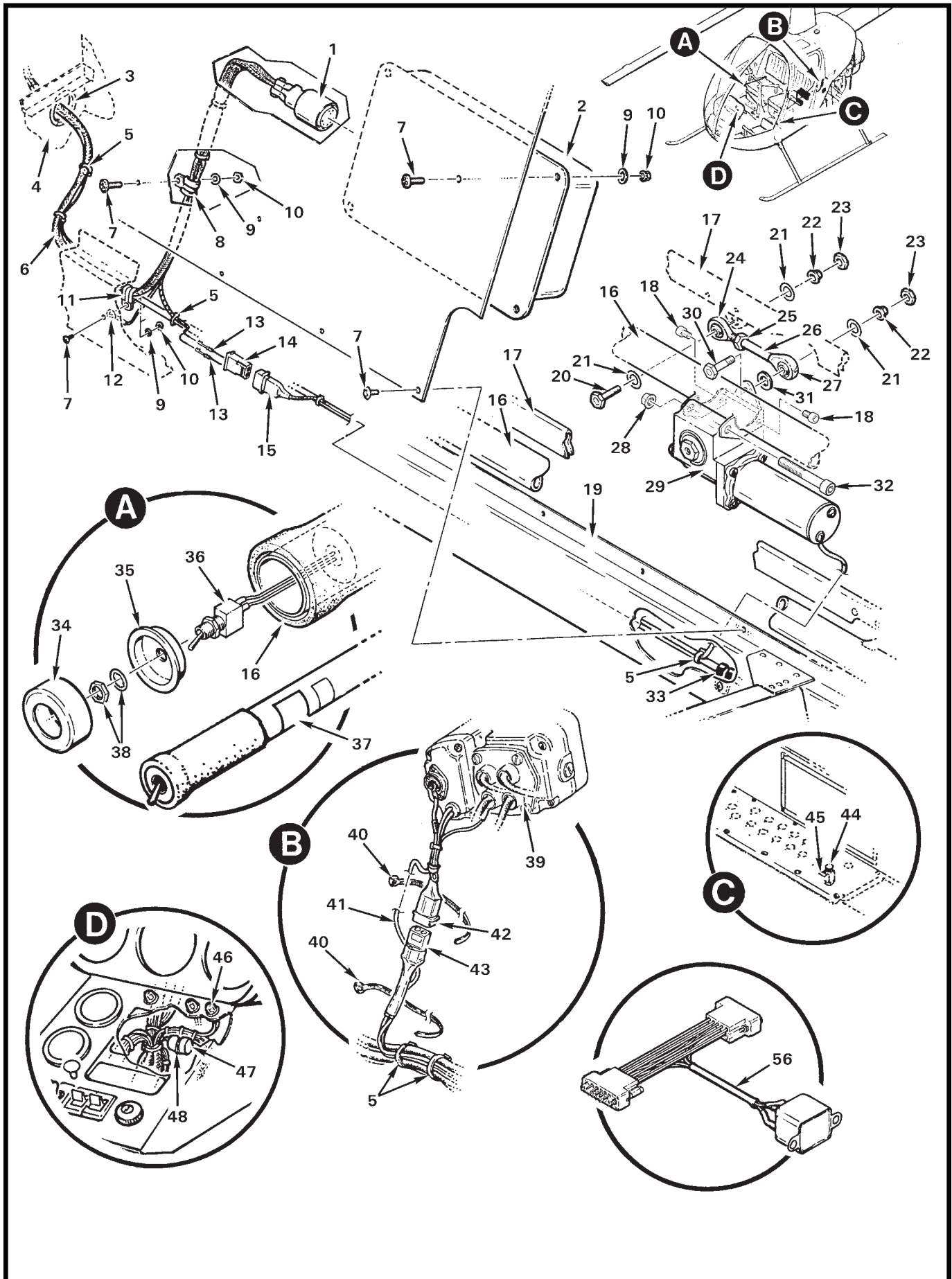


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		RPM GOVERNOR INSTALLATION		
96-21-1	MS3116F12-10SX	Plug	X	1
2	B286-2	Controller	X	1
3	NAS557-18B	Grommet	X	1
4	A292	Keel Panel (Ref)		
5	MS3367-5-9	Ty-Rap (or MS3367-4-9)	X	A/R
6	B266-8	Sleeving	X	A/R
7	MS27039C0806	Screw	X	21
8	MS21919WDG3	Clamp	X	1
9	NAS1149FN816P	Washer	X	6
10	MS21042L08	Nut	X	6
11	MS21919WDG4	Clamp (or MS21919WDG5)	X	1
12	B260-3	Terminal	X	1
13	B263-2	Socket	X	2
14	B263-33	Housing	X	1
15	B263-32	Housing	X	1
	B263-1	Pin	X	2
	B158-3	Heat Shrink (around wires)	X	A/R
	B158-8	Heat Shrink (around connector)	X	A/R
16	A758-6	Stick Assembly (RH pilot side. Includes items 17 thru 32, 34 thru 36, 37, and 38. See also Figure 67-21.)	X	1
17	B328-1	Connecting Rod (Ref)	X	1
18	NAS1352N08-4	Screw	X	2
19	A288-1	Cross Beam (LH, Ref)		
20	NAS6603-6	Bolt	X	1
21	NAS1149F0332P	Washer	X	3
22	D210-3	Nut	X	2
23	B330-7	Palnut	X	2
24	A127-3	Rod End	X	1
25	AN315-3R	Nut	X	1
26	A430-2	Tube	X	1
27	A498-1	Rod End	X	1
28	D210-4	Nut	X	1
29	B247-5	Governor Assembly	X	1
30	NAS6603-7	Bolt	X	1
31	NAS620-10	Washer	X	1
NOTES				
				Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		RPM GOVERNOR INSTALLATION (Cont'd)		
96-21-32	NAS1351-4-28P	Screw	X	1
33	MS21919WDG2	Clamp	X	2
34	A959-2	End Cap (install using B270-15 adhesive)	X	1
35	B252-4	Mount (install using B270-15 adhesive)	X	1
36	B280-1	Switch Assembly (includes B300-1 switch, wires and heat shrink)	X	1
	B300-1	Switch (switch only)	X	1
37	A654-79	Decal – “On-Off” (governor switch)	X	1
38	—	Washer	O	1
	—	Nut	O	1
39	R8266*	Magneto (tach, engine right side; Ref, 10-600644-201*)		
40	MS3367-5-9	Ty-Rap	X	2
41	A059-16	Wire (Ref)		
42	B263-12	Housing	X	1
	B263-1	Pin	X	2
	B158-8	Heat Shrink	X	A/R
43	B263-13	Housing	X	1
	B263-2	Socket	X	2
	B158-8	Heat Shrink (around connector)	X	A/R
	B158-3	Heat Shrink (around wires)	X	A/R
44	B297-2	Circuit Breaker (2-amp)	X	1
		* * *		
45	A654-70	Decal – “Gov” (for earlier R22s)	X	1
46	B198-1	Warning Light – “Gov Off” (yellow; order also B196-1 lamp)	X	1
47	B280-4	Relay Assembly (“Gov Off” warning light)	X	1
48	MS3367-4-9	Ty-Rap	X	A/R
		* * *		
49	KI-67-2**	RPM Governor Installation Kit (For R22s without previously installed governor. Includes items 2, 5, 7 thru 11, 46, and 50 thru 58. No longer available.)	O	1
50	A654-89	Decal – “Gov Off”	X	1
51	A758-5	Stick Assembly – Collective (LH [co-pilot] removable. See Figure 67-21.)	X	1
52	A758-6A	Stick Assembly – Collective (RH [co-pilot] without A038 collective spring assembly. Includes items 17 thru 32, and 34 thru 38. See Figure 67-21.)	X	1

NOTES * Lycoming part no. See also Figure 96-15.

** R22s equipped with “Slick” magnetos must also order KI-78 to install KI-67-2 or -3.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		RPM GOVERNOR INSTALLATION (Cont'd)		
96-21-53	B260-2	Terminal	X	2
54	B804-2	Harness Assembly (Incl items 1, 5, 6, 13, and 14)	X	1
55	B804-3	Harness Assembly – Console (Incl item 47)	X	1
56	B817-1	Filter Assembly (required for Rev "F" and earlier A792 tachometers)	X	1
57	B263-12	Housing	X	1
58	MS35489-6	Grommet	X	1
		* * *		
59	KI-67-3*	RPM Governor Upgrade Installation Kit (For R22s with previously installed governor. Includes items 2, 5, 7, 9, 10, 46, 54 thru 57, and 60 thru 62.)	O	1
60	MS16562-18	Roll Pin	X	1
61	C342-1	Arm	X	1
62	B247-5R	Governor Assembly (overhaul exchange).	X	1
NOTES * Not shown.				

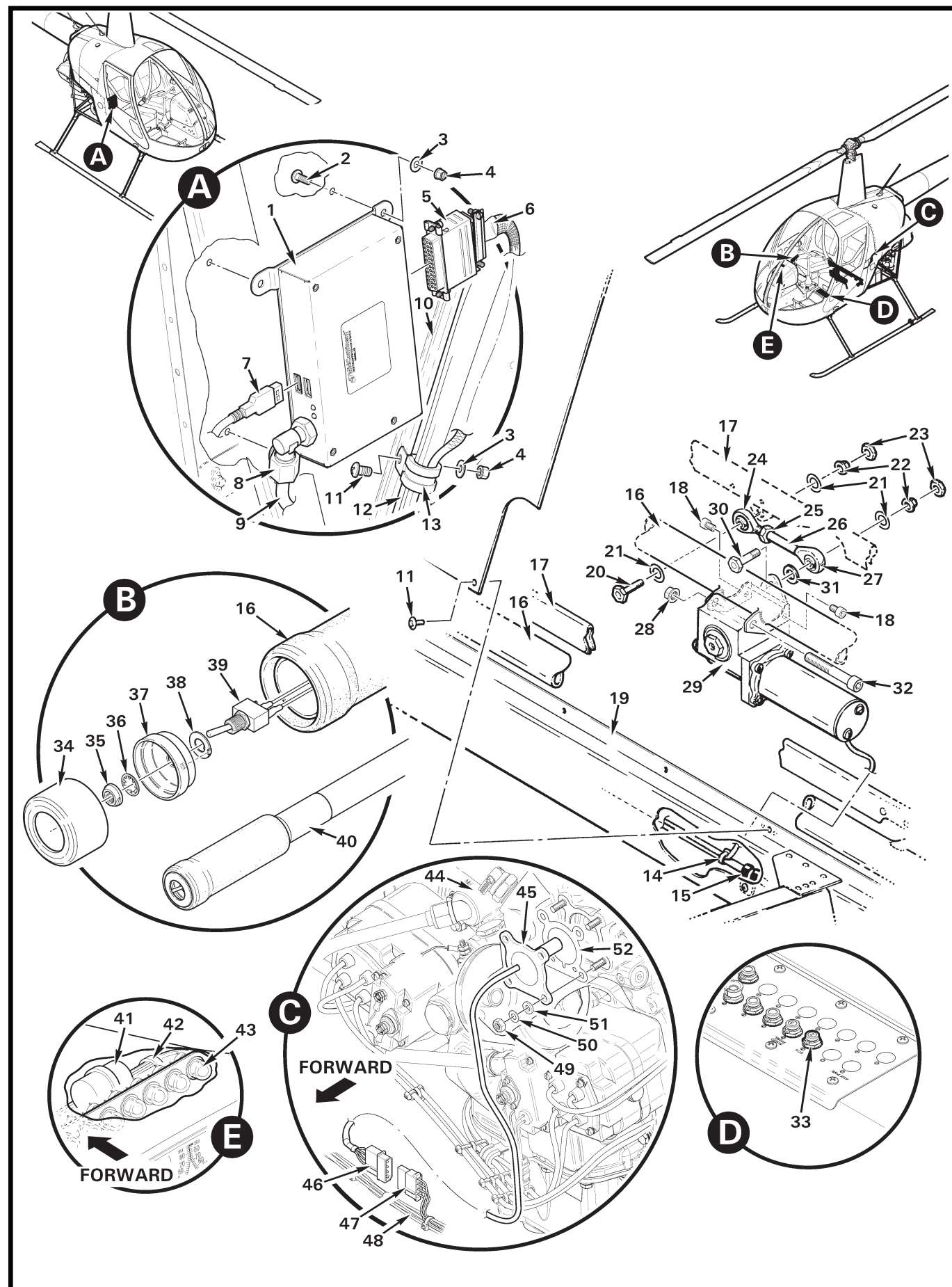


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		RPM GOVERNOR INSTALLATION		
96-23B-1	D270-1.CS	Controller – Governor	X	1
2	MS27039C0805	Screw	X	4
3	NAS1149FN816P	Washer	X	6
4	MS21042L08	Nut	X	6
5	B269-82	Receptacle (Ref; 44-pin connector)		
6	B158-8	Heat Shrink (Ref)		
7	1598-01C	Cable	X	1
8	40-4-2-N-O	Elbow (90 degree)	X	1
9	A729-24	Tube (MAP)	X	1
10	A384-3	Stiffener (Ref)		
11	MS27039C0806	Screw	X	21
12	A859	Harness Assembly (Ref)		
13	MS21919WDG9	Clamp	X	1
14	MS3367-5-9	Ty-Rap (or MS3367-4-9)	X	A/R
15	MS21919WDG2	Clamp	X	2
16	A758-6	Stick Assembly (RH pilot side. Includes items 17, 18, 20 thru 22, 24 thru 32, 34, 37, 39, and 40. See also Figure 67-21.)	X	1
17	B328-1	Connecting Rod (Ref)		
18	NAS1352N08-4	Screw	X	2
19	A288-1	Cross Beam (LH, Ref)		
20	NAS6603-6	Bolt	X	1
21	NAS1149F0332P	Washer	X	3
22	D210-3	Nut	X	2
23	B330-7	Palnut (earlier aircraft; no longer required with item 22)	X	A/R
24	A127-3	Rod End	X	1
25	AN315-3R	Nut	X	1
26	A430-2	Tube	X	1
27	A498-1	Rod End	X	1
28	D210-4	Nut	X	1
29	B247-5	Governor Assembly	X	1
30	NAS6603-7	Bolt	X	1
31	NAS620-10	Washer	X	1
32	NAS1351-4-28P	Screw	X	1
33	B297-2	Circuit Breaker (2-amp)	X	1
NOTES				
Continues				

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
RPM GOVERNOR INSTALLATION (Cont'd)				
96-23B-34	A959-2	End Cap (install using B270-15 adhesive)	X	1
35	B227-4	Dress Nut	X	1
36	B227-3	Lock Washer	X	1
37	B252-4	Mount (install using B270-15 adhesive)	X	1
38	B227-5	Locking Ring	X	1
39	B280-1	Switch Assembly (includes B300-1 switch, wires and heat shrink and item 38)	X	1
	B300-1	Switch (includes 5/16 inch nut and items 35 and 36)	X	1
40	A654-79	Decal – “On-Off” (governor switch)	X	1
41	B280-4	Relay Assembly (“Gov Off” warning light)	X	1
42	MS3367-4-9	Ty-Rap	X	4
43	B198-1	Warning Light – “Gov Off” (yellow; order also B196-1 lamp)	X	1
44	A145	Engine (Ref; see Figure 71-1)		
45	C143-1	Sensor Assembly – Hall Effect (Incl item 46)	X	1
46	B263-16	Housing	X	1
	B263-1	Pin	X	4
	B267-3	Terminator (not shown)	X	1
47	B263-17	Housing	X	1
	B263-2	Socket	X	4
	B267-2	Terminator (not shown)	X	1
48	A859	Harness Assembly – Cabin (Ref; revision E or later)		
49	STD-1411*	Nut (1/4-20 plain)	X	4
50	STD-160*	Lockwasher (1/4 inch, locking; internal teeth)	X	4
51	STD-8*	Washer (1/4 inch, plain)	X	4
52	61183*	Gasket	X	1

NOTES * Lycoming part number.

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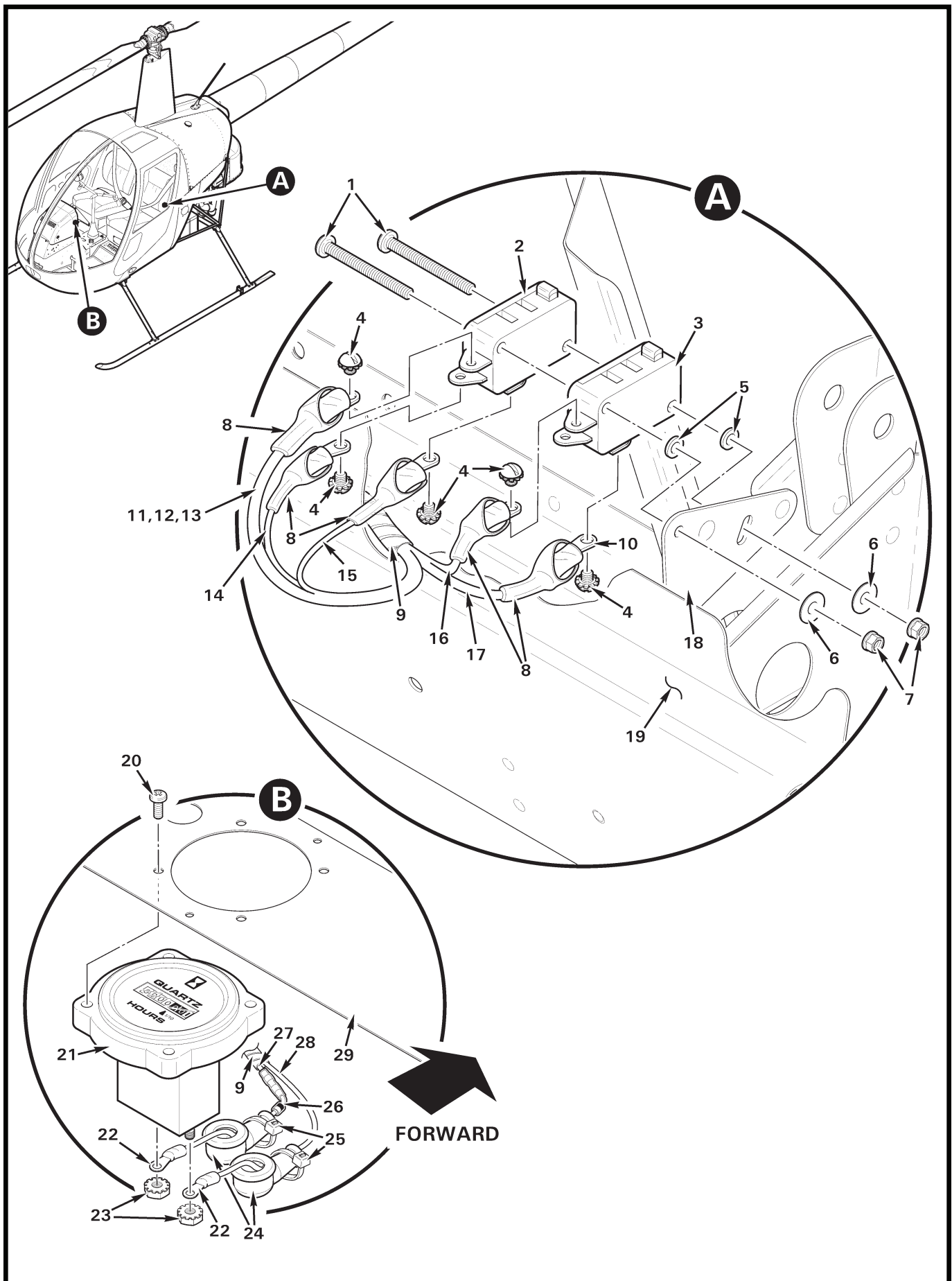


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		HOURLMETER AND COLLECTIVE-ACTIVATED SWITCHES		
96-25-1	MS35206-222	Screw	X	2
2	V3-1	Switch – Micro (hourmeter; includes item 4)	X	1
3	V3-1	Switch – Micro (low RPM warning; includes item 4)	X	1
4	—	Screw	O	3
	—	Lockwasher	O	3
5	NAS620-4	Washer	X	2
6	NAS1149FN416P	Washer	X	2
7	MS21042L04	Nut	X	2
8	B158-3	Heat Shrink	X	A/R
9	B161-2	Spirap	X	A/R
10	B260-1	Terminal	X	5
11	-750	Wire (Ref)		
12	-1556	Wire (Ref)		
13	-2600	Wire (Ref)		
14	-2599	Wire (Ref)		
15	-751	Wire (Ref)		
16	-76	Wire (Ref)		
17	-75	Wire (Ref)		
18	A485-2	Plate (limit switch mount)	X	1
19	A288-1	Cross Beam – LH	X	1
20	—	Screw	O	4
21	D830-1	Hourmeter – Collective Activated (Incl item 20)	X	1
22	B260-3	Terminal	X	2
23	—	Lock Nut	O	2
24	MS25171-1S	Nipple	X	2
25	MS3367-4-9	Ty-rap	X	2
26	1N4005	Diode	X	1
27	-750	Wire (Ref)		
28	-42	Wire (Ref)		
29	A304-2	Cap (Ref)		
NOTES				

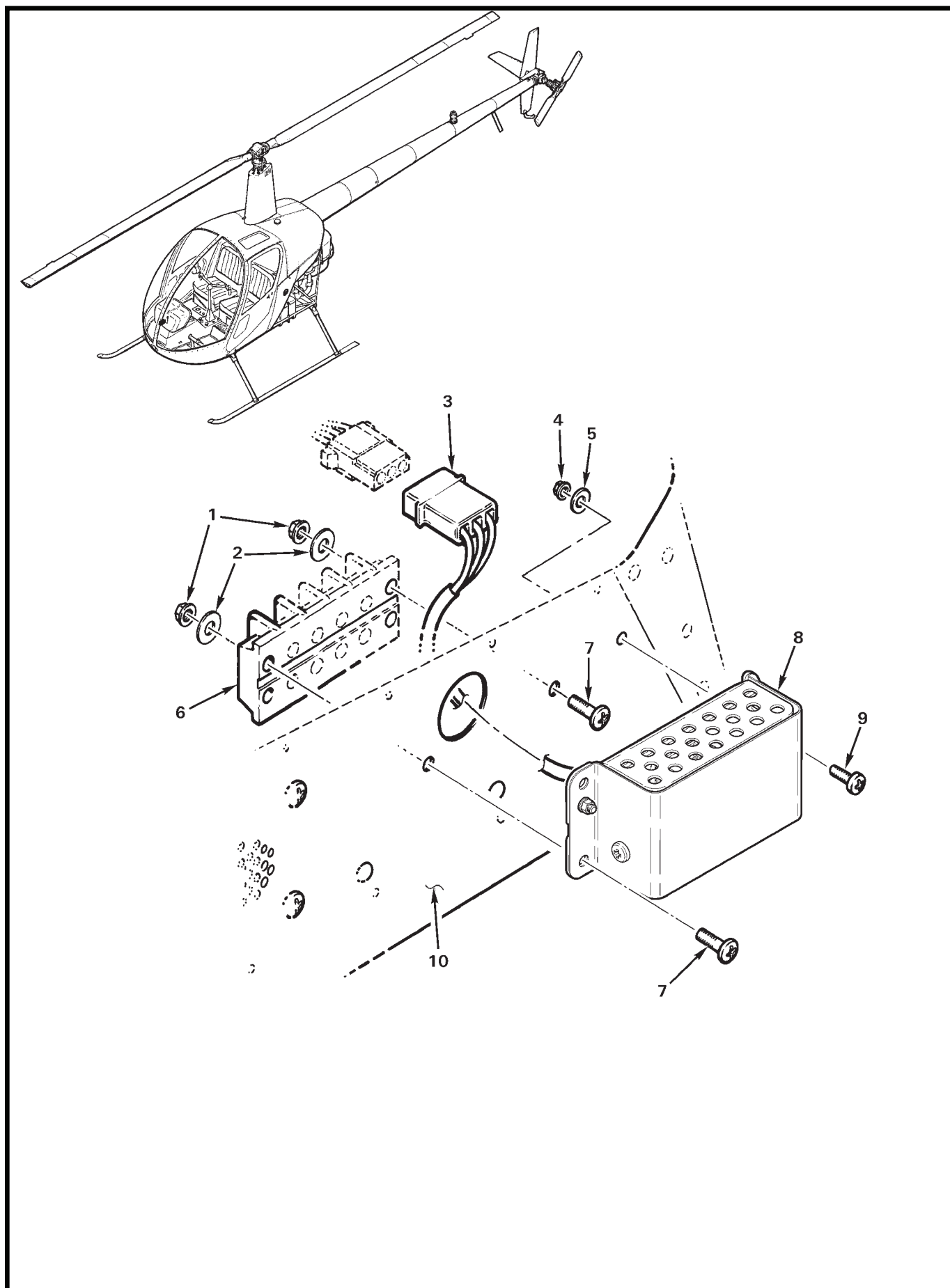


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		CARBON MONOXIDE DETECTOR INSTALLATION*		
96-27-1	MS21042L06	Nut	X	2
2	NAS1149FN616P	Washer	X	2
3	B263-14	Housing	X	1
	B263-1	Pin	X	3
4	MS21042L04	Nut	X	1
5	NAS1149FN416P	Washer	X	1
6	601716-4	Terminal Block (Ref)		
7	MS35206-232	Screw	X	2
8	C696-1	Carbon Monoxide Detector (Incl item 3)	X	1
9	MS35206-215	Screw	X	1
10	—	Panel – Console (RH, Ref)		
NOTES * Included on ship S/N 4038 and subsequent with cabin heaters installed.				

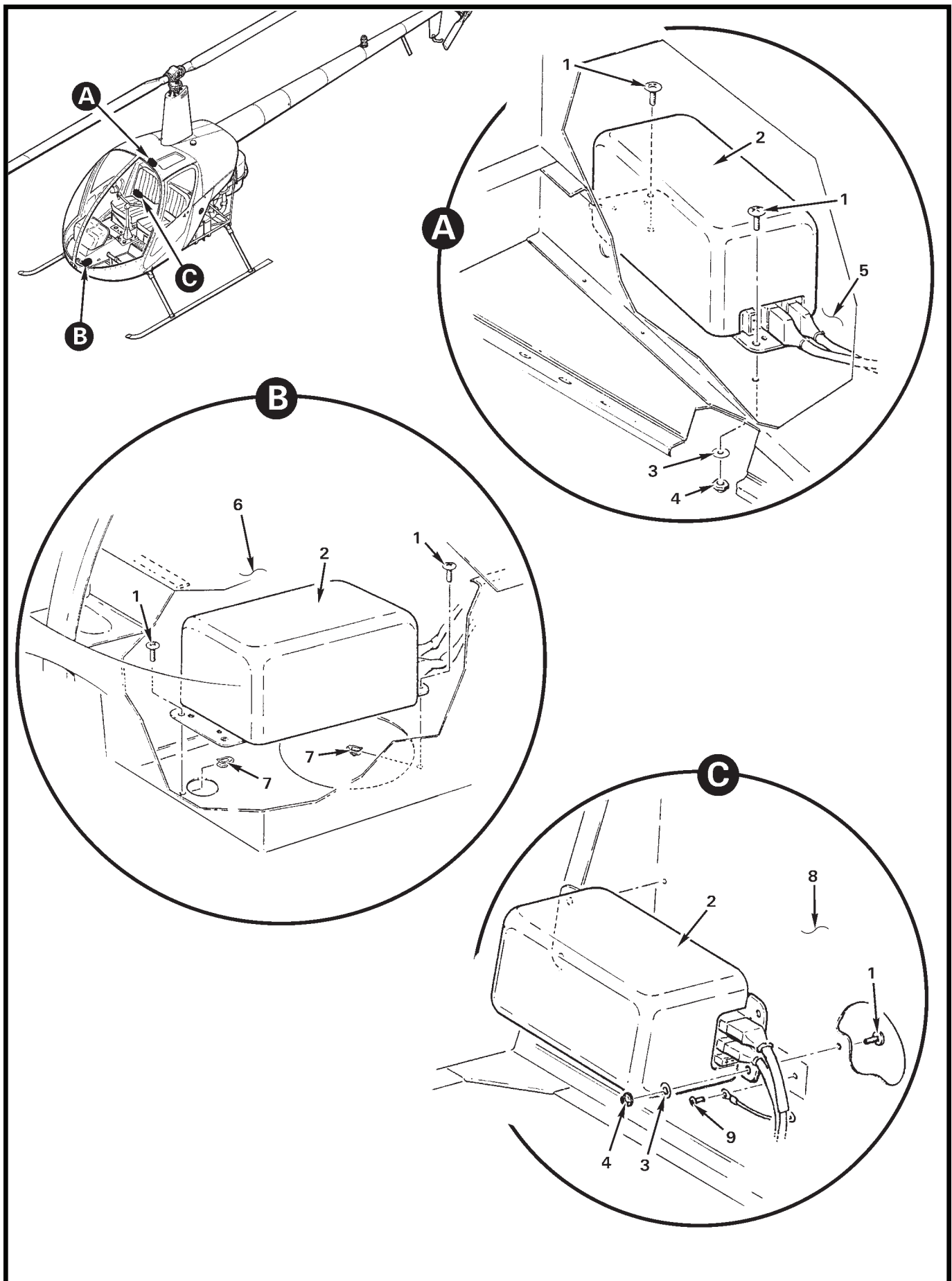


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		STROBE POWER SUPPLY INSTALLATION		
96-29-1	MS27039C0806	Screw (3 required for nose installation)	X	2
2	A708-1	Strobe Power Supply Unit	X	1
3	NAS1149FN816P	Washer	X	2
4	MS21042L08	Nut	X	2
5	A259-2	Horizontal Firewall (Ref)		
6	A033	Console (Ref)		
7	B162-3	Clipnut (3 required for nose installation)	X	2
8	A233-2	Vertical Firewall (Ref)		
9	—	Screw – Ground	O	1
NOTES				

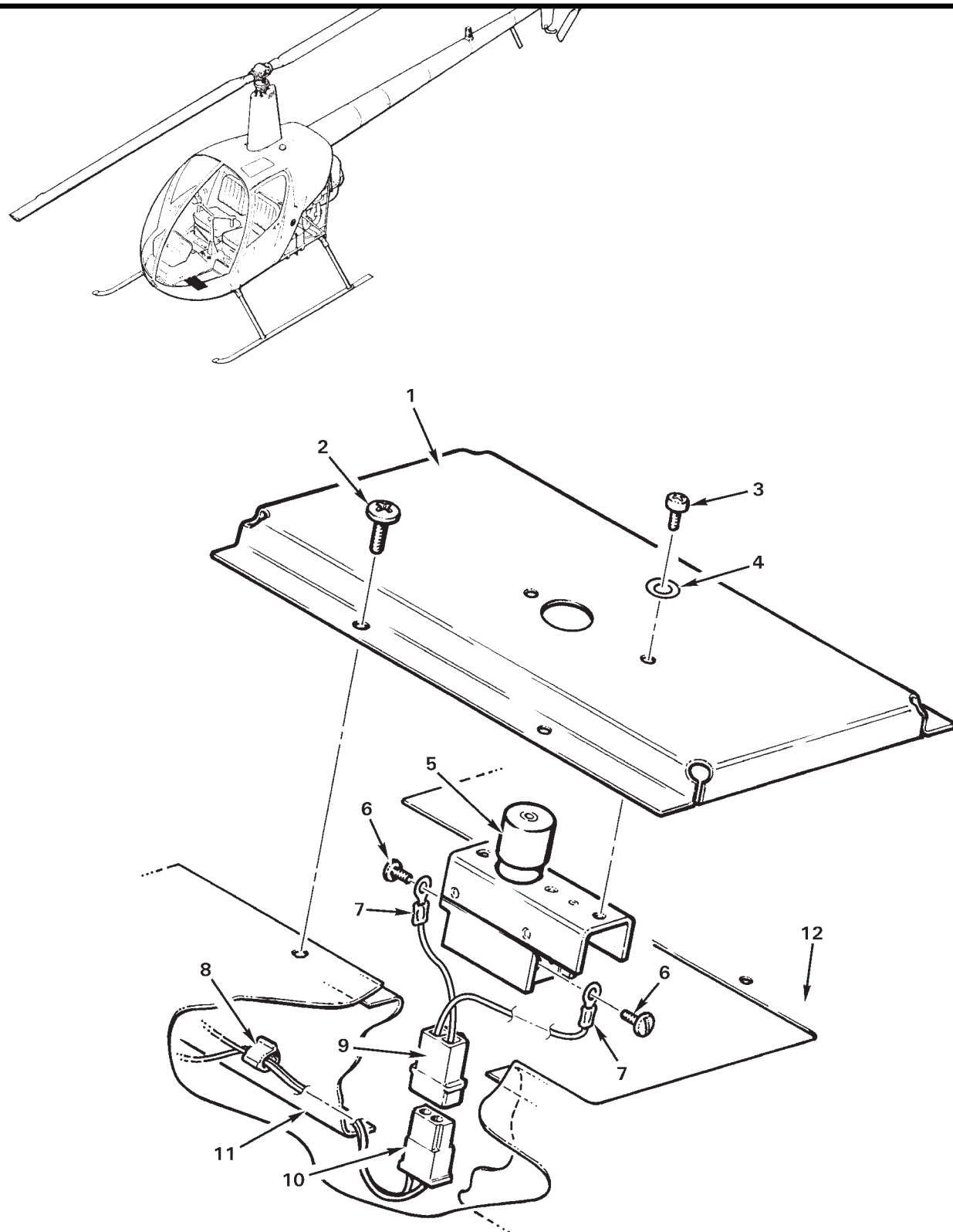


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		FLOOR TRANSMIT SWITCH INSTALLATION		
96-31-1	B236-2	Cover	X	1
2	MS27039C0807	Screw	X	4
3	AN502-6-6	Screw	X	2
4	NAS1149FN616P	Washer	X	2
5	B565-1	Switch (Incl item 6)	X	1
6	—	Screw	O	2
7	B260-2	Terminal	X	2
8	220-242400-09	Clip	X	1
9	B263-32	Housing	X	1
	B263-1	Pin	X	2
10	B263-33	Housing	X	1
	B263-2	Socket	X	2
11	A406-1	Beam (Ref)		
12	A232-1	Panel-Floor (LH, Ref)		
NOTES				

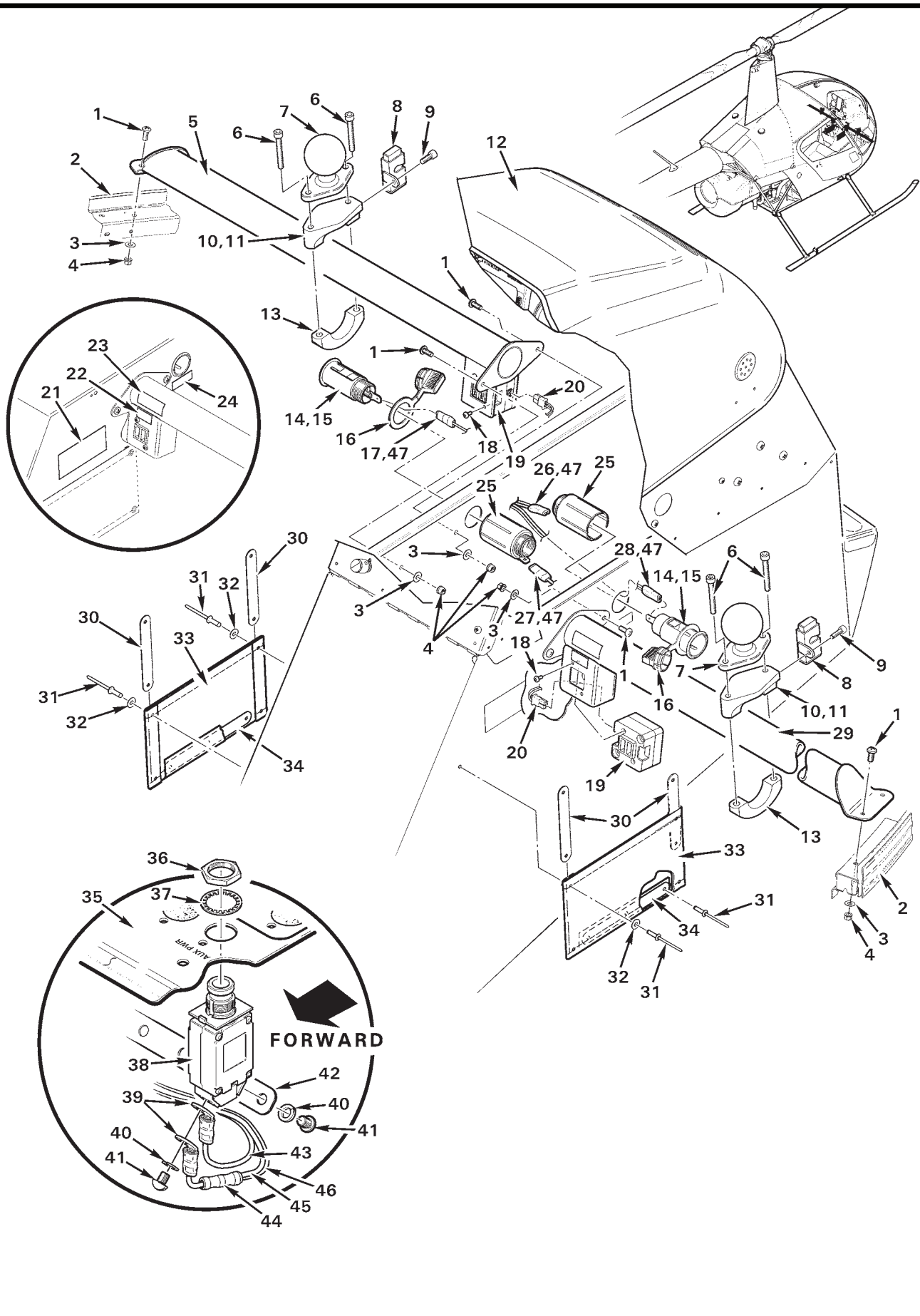


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		ACCESSORY BARS INSTALLATION		
96-33-1	MS27039C0806	Screw	X	8
2	A015	Cabin Assembly (Ref)		
3	NAS1149FN816P	Washer	X	8
4	MS21042L08	Nut	X	8
5	B703-9	Support Weldment (LH)	O	1
6	NAS1351-3-24	Screw	X	4
7	RAM-238	Mount (1.5-inch diameter ball)	X	A/R
8	B631-1	Clamp Assembly	X	1
9	NAS1352-08-8	Screw	X	1
10	B630-1	Clamp Assembly (Incl items 11 and 13)	X	A/R
11	B630-3	Clamp	X	1
12	G050	Console Assembly (Ref)		
13	B630-2	Clamp Assembly	X	1
14	D692-4	Socket (Incl items 15 and 25)	X	2
15	205471	Switch Base (Ref)		
16	D692-3	Cover	X	1
17	B262-4	Receptacle	X	1
	A859-2692	Wire (power, Ref)		
18	MS35206-213	Screw	X	2
19	TA102	USB Port	X	2
20	43645-0200	Housing	O	2
	43030-0007	Socket	O	2
	-2578	Wire (power, pin "A"; Ref)		
	-2579	Wire (ground, pin "B"; Ref)		
21	G682-15	Decal (accessory instructions)	X	1
22	F654-49	Decal	X	1
23	G682-14	Decal	X	1
24	G682-19	Decal	X	1
25	210664	Clamp Shell (Ref)		
26	B262-5	Receptacle	X	1
	A859-2691	Wire (ground; Ref)		
	A859-2693	Wire (ground; Ref)		
NOTES				
Continues				

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		ACCESSORY BARS INSTALLATION (Cont'd)		
96-31-27	B262-4	Receptacle	X	1
	A859-2693	Wire (ground, Ref)		
28	B262-5	Receptacle	X	1
	A859-2690	Wire (power, Ref)		
	A859-2692	Wire (power, Ref)		
29	B703-2	Support Weldment (RH)	O	1
30	A913-6	Strip	X	2
31	B204-2	Rivet	X	14
32	NAS1149FN632P	Washer	X	8
33	A912-7	Pocket Assembly	X	1
34	A913-1	Strip	X	2
35	A490	Panel – Circuit Breaker (Ref)		
36	—	Nut	O	1
37	—	Lockwasher	O	1
38	B297-7	Circuit Breaker (7 amp, "AUX PWR"; includes items 36, 37, 40 and 41)	X	1
39	B260-2	Terminal	X	2
40	—	Washer	O	2
41	—	Screw	O	2
42	A448	Bus Bar (Ref)		
43	-2690	Wire (Ref)		
44	B267-2	Terminator	X	1
45	-2627	Wire (Ref)		
46	-2626	Wire (Ref)		
47	B158-4	Heat Shrink	X	A/R
NOTES				

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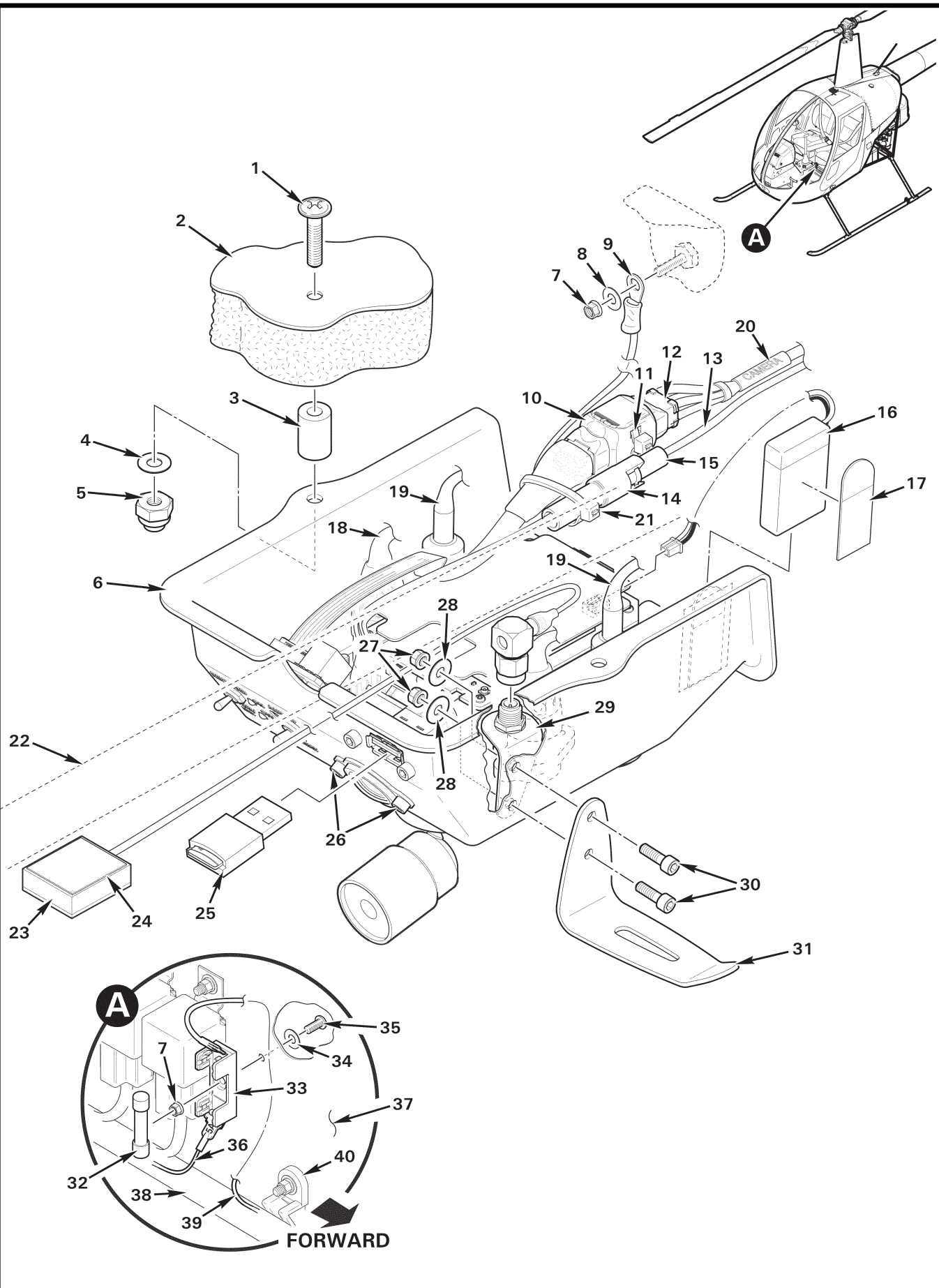


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		COCKPIT CAMERA INSTALLATION		
96-37-1	AN525-832R12	Screw	X	2
2	A273-1	Roof (Ref)		
3	94639A838	Spacer (or A130-34 Spacer)	X	2
4	NAS1149FN816P	Washer	X	2
5	B340-4	Nut	X	2
6	F039-1	Enclosure Assembly – Cockpit Camera (does not include items 23 thru 25).	X	1
7	MS21042L08	Nut	X	2
8	NAS1149FN816P	Washer	X	1
9	B260-3	Terminal (A039-1858 wire, ground)	X	1
10	D269-5	Plug (includes [6] M39029/58-360 pins)	X	1
11	MS3367-4-9	Ty-Rap (locks connector)	X	1
12	D269-6	Receptacle (Ref, includes [6] M39029/57-354 sockets)		
13	-111	Wire (Ref)		
14	B263-10	Housing	X	1
	B263-1	Pin	X	1
15	B263-11	Housing	X	1
	B263-2	Socket	X	1
16	RV-BATT-LIPO500	Battery (install using item 17)	X	1
17	1024A38	Adhesive Strip	X	1
18	TJ-120	Jack (Ref; see Figure 97-29)		
19	D746	Connector Assembly – Bose (Ref; see Figure 97-29)		
20	B158-3	Heat Shrink (Ref; labeled “CAMERA”)		
21	MS3367-4-9	Ty-Rap	X	A/R
22	A238-15	Support (Ref)		
23	F714-2	Antenna Assembly (install metal side down using item 22) . .	X	1
24	A701-7	Tape	X	A/R
25	F714-4	Flash Drive Assembly	X	1
26	NAS1352-04-4	Screw	X	2
27	MS21042L04	Nut (Ref; see Figure 33-13)		
28	NAS1149FN416P	Washer (Ref; see Figure 33-13)		
29	F713-7	Angle	O	1
30	NAS1352-04-6	Screw (Ref; see Figure 33-13)		
31	A752-1	Angle (Ref; see Figure 33-13)		
32	D275-205	Fuse (5 amp)	X	1
NOTES				
Continues				

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		COCKPIT CAMERA INSTALLATION (Cont'd)		
96-37-33	D262-1	Fuse Block	X	1
34	NAS1149FN616P	Washer	X	1
35	MS35206-227	Screw	X	1
36	-3079	Wire (Ref, A859 main wire harness)		
37	A292-1	Keel Panel (Ref)		
38	A859	Main Wire Harness (Ref)		
	A059	Main Wire Harness (Ref; installed on earlier R22s)		
39	-3078	Wire (Ref, A859 main wire harness)		
40	D268-2	Support (Ref)		

41	KI-271-1	R22-series Cockpit Camera Installation Kit Instructions (Eligible for installation on R22-series helicopter S/N 4825 and subsequent, with factory-installed camera provisions.)	X	A/R
42	KI-275-1	R22-series Cockpit Camera Installation Kit Instructions (Eligible for installation on R22-series helicopter S/N 2969 thru 4824, and earlier helicopters equipped with ICS or audio panel installations. Helicopters equipped with "hot mic" toggle switch are not compatible.)	X	A/R
NOTES				