

CHAPTER 90
POLICE VERSION

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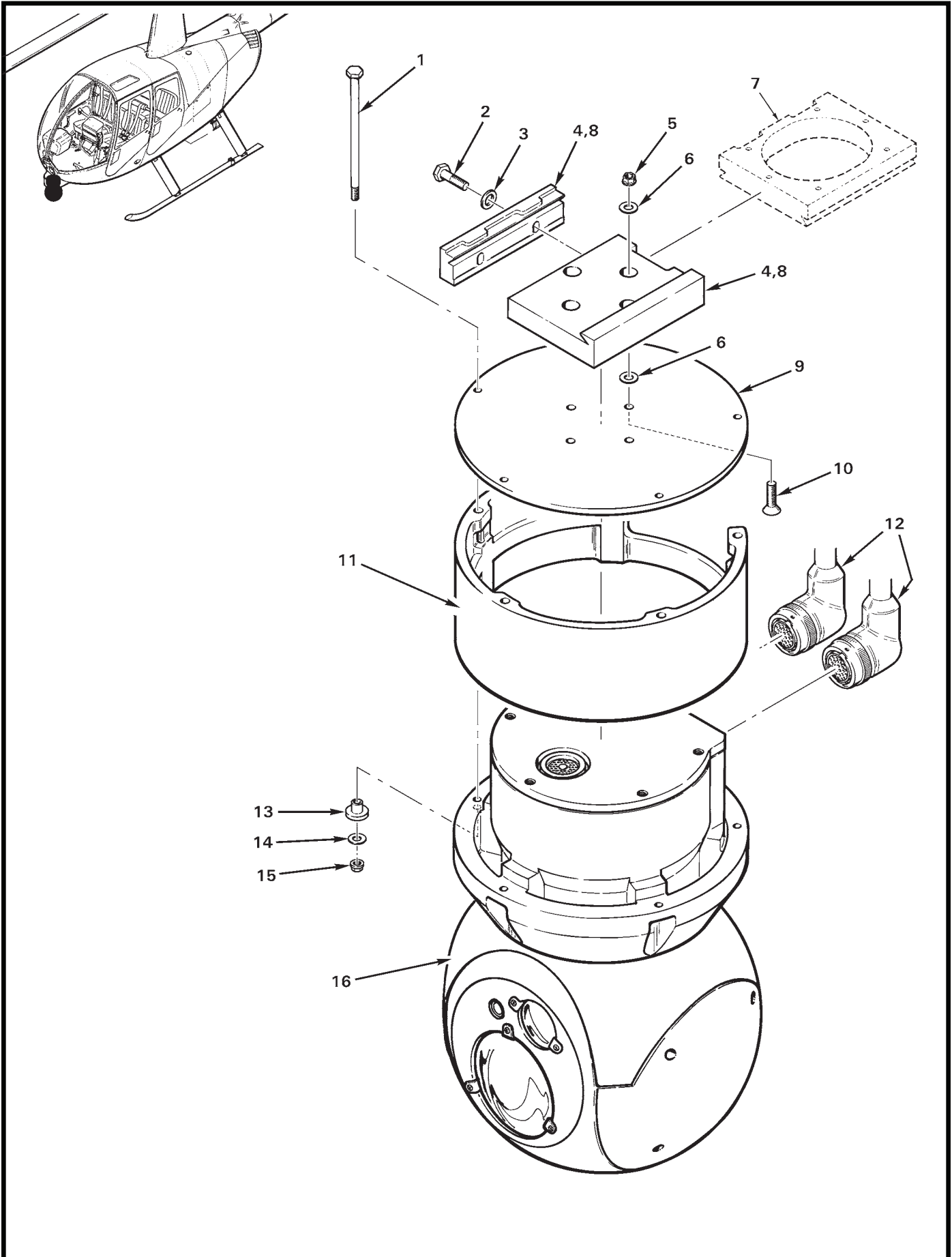


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
CAMERA AND GIMBAL INSTALLATION				
90-1-1	AN3-040A	Bolt	O	5
2	—	Bolt	O	2
3	—	Washer	O	2
4	IR-4100-1*	Adapter Assembly	O	1
5	MS21042L4	Nut	X	4
6	NAS1149D0463J	Washer	O	8
7	D400-1	Block (Ref, see Figure 90-9)		
8	IR-410*	Adapter Assembly - Gimbal Installation (Incl items 1 thru 6, 9 thru 11, and 13 thru 15)	X	1
9	IR-610-1*	Mount Plate	O	1
10	MS24693S297	Screw	O	4
11	IR-630-1*	Spacer	O	1
12	10349-104-1-C1**	Cable Pair (Ref)		
13	IR-620-1*	Bushing	O	5
14	NAS1149D0363J	Washer	O	5
15	MS21042L3	Nut	X	5
16	10369-202**	Gimbal Assembly (NTSC, Model No. FSI MK II; Ref)		

NOTES * Paravion Tech, Inc. part no.
 ** Inframetrics part no.

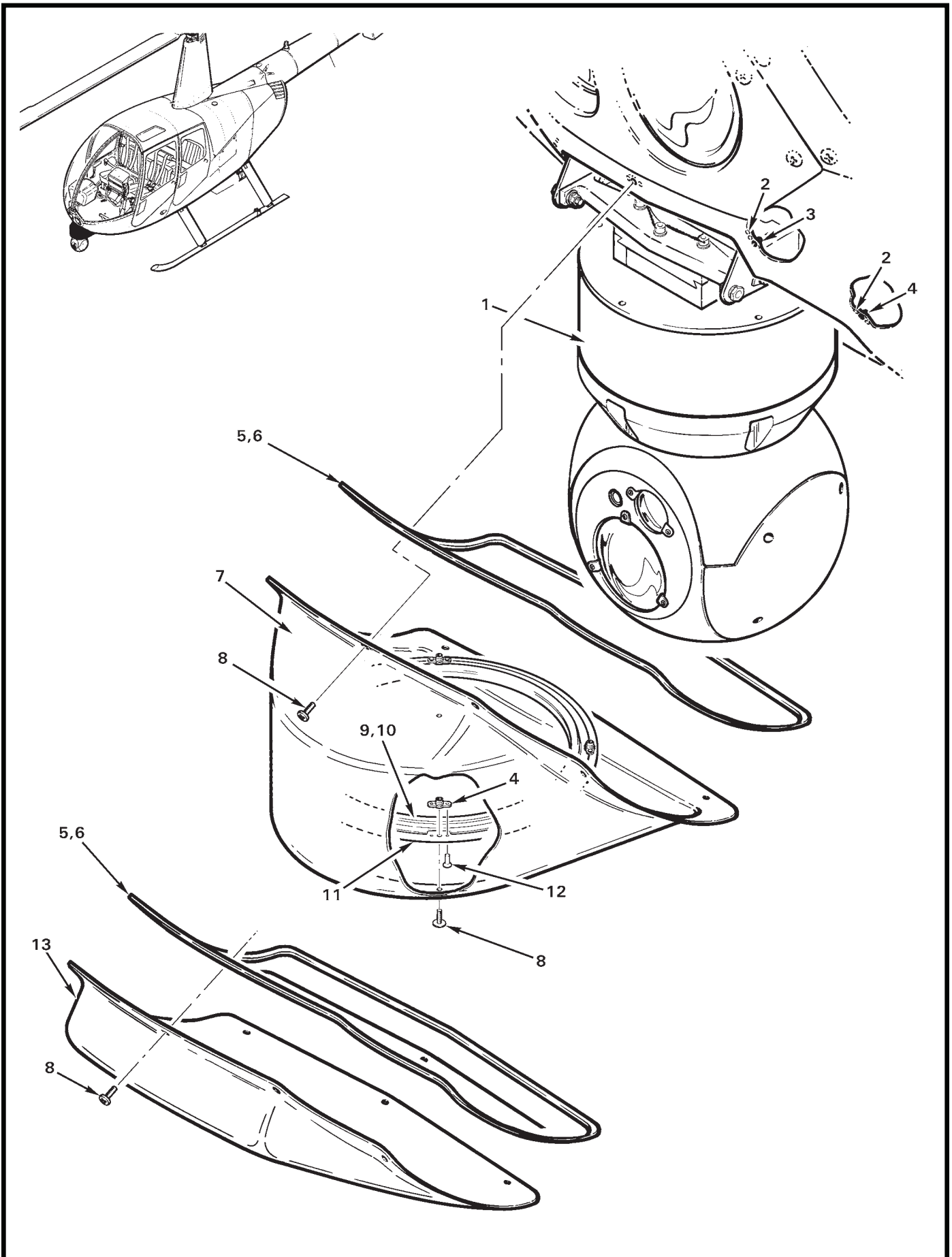


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
CAMERA AND GIMBAL FAIRING AND COVER				
90-3-1	10369-202*	Gimbal Assembly (Ref; Model No. FSI MK II, see Figure 90-1)		
2	NAS1097AD3	Rivet	X	24
3	MS21071L08	Nutplate	X	2
4	MS21069L08	Nutplate ([10] on helicopter chin, [4] on item 11)	X	A/R
5	A226-3	Seal (install using item 6)	X	A/R
6	B270-4	Sealant (silicone)	X	A/R
7	D412-1	Fairing	X	1
8	AN526C832R7	Screw	X	12
9	507P-SP	Seal (install using item 10)	X	A/R
10	B270-10	Adhesive	X	A/R
11	D350-6	Ring Assembly (Incl items 4 [4] and 12)	X	1
12	MS20470AD3	Rivet	X	8
13	D412-2	Cover (for use when item 1 is removed)	X	1

NOTES * Inframetrics part no.

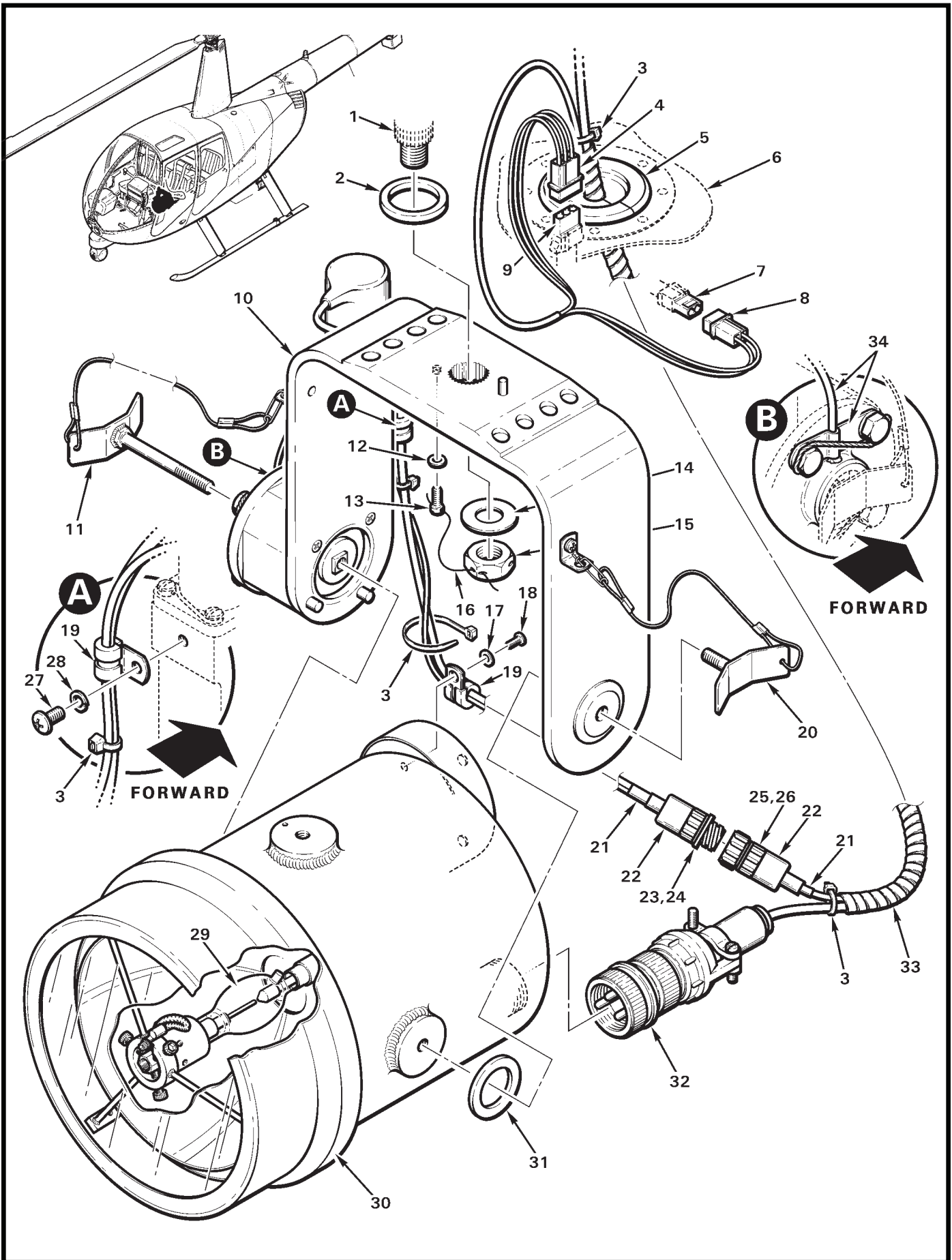


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
SEARCHLIGHT AND GIMBAL INSTALLATION				
90-5-1	D432-4	Gearmotor Assembly - Elevation (Ref; includes items 14 and 15)		
2	D405-4	Washer (optional)	X	1
3	MS3367-4-9	Ty-Rap	X	4
4	B263-34	Housing	X	1
	B263-1	Pin	X	3
5	D402-1	Grommet	X	1
6	C015-4	Skin (RH, Ref)		
7	B263-33	Housing (Ref)	X	1
	B263-2	Socket (Ref)	X	2
8	B263-32	Housing	X	1
	B263-1	Pin	X	2
9	B263-35	Housing	X	1
	B263-2	Socket	X	3
10	D432-3	Gimbal Assembly - Manual (Includes items 11 thru 13, 20, and elevation gearmotor assembly.)	X	1
	D432-1	Gimbal Assembly - Slaved (Includes items 11 thru 13, 20, 34, and elevation gearmotor assembly.)	X	1
11	017821-105*	Wing Bolt Assembly (Includes cable, clip, bracket, screw, and washer as shown.)	O	1
12	—	Washer	O	1
13	MS51960-65	Screw	O	1
14	MS15795-820	Washer	O	1
15	NAS509-10	Nut	O	1
16	MS20995C32	0.032 in. dia. Safety Wire	X	A/R
17	—	Washer	O	1
18	MS35206-328	Screw	X	1
19	MS21919WDG3	Clamp (slaved Gimbal)	X	2
	MS21919WDG2	Clamp (manual Gimbal)	X	2
20	017821-101*	Wing Bolt Assembly (Includes cable, clip, bracket, screw, and washer as shown.)	O	1
21	B158-3	Heat Shrink	X	A/R
22	54010-1	Seal (cable entry)	X	A/R

NOTES * Spectrolab, Inc., part no.

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FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
SEARCHLIGHT AND GIMBAL INSTALLATION (Cont'd)				
90-5-23	205841-2	Receptacle	X	1
	66506-9	Pin ([5] required for slaved Gimbal, [2] required for manual Gimbal)	X	A/R
	206403-1	Seal - Peripheral (inside receptacle, not shown; install using item 24)	X	1
24	B270-17	Adhesive	X	A/R
25	D403-2	Harness Assembly (Includes items 4, 8, 21, 22, 26, and wires as an assembled unit.)	X	1
26	205838-1	Plug	X	1
	66504-9	Socket	X	5
27	MS27039C1-06	Screw	X	1
28	B332-43	Lockwasher	X	1
29	030060-1 *	Lamp - Xenon (500-watt)	X	1
30	024711-31 *	Searchlight Assembly (Incl items 17 and 29)	X	1
31	D405-6	Washer (attached to item 30 with adhesive back)	X	1
32	D599-3/-9	Harness	X	1
33	B161-8	Spirap	X	A/R
34	6105	Slass Sensor - Gimbal (Ref; installed in slaved Gimbal only)	O	1

NOTES * Spectrolab, Inc., part no.

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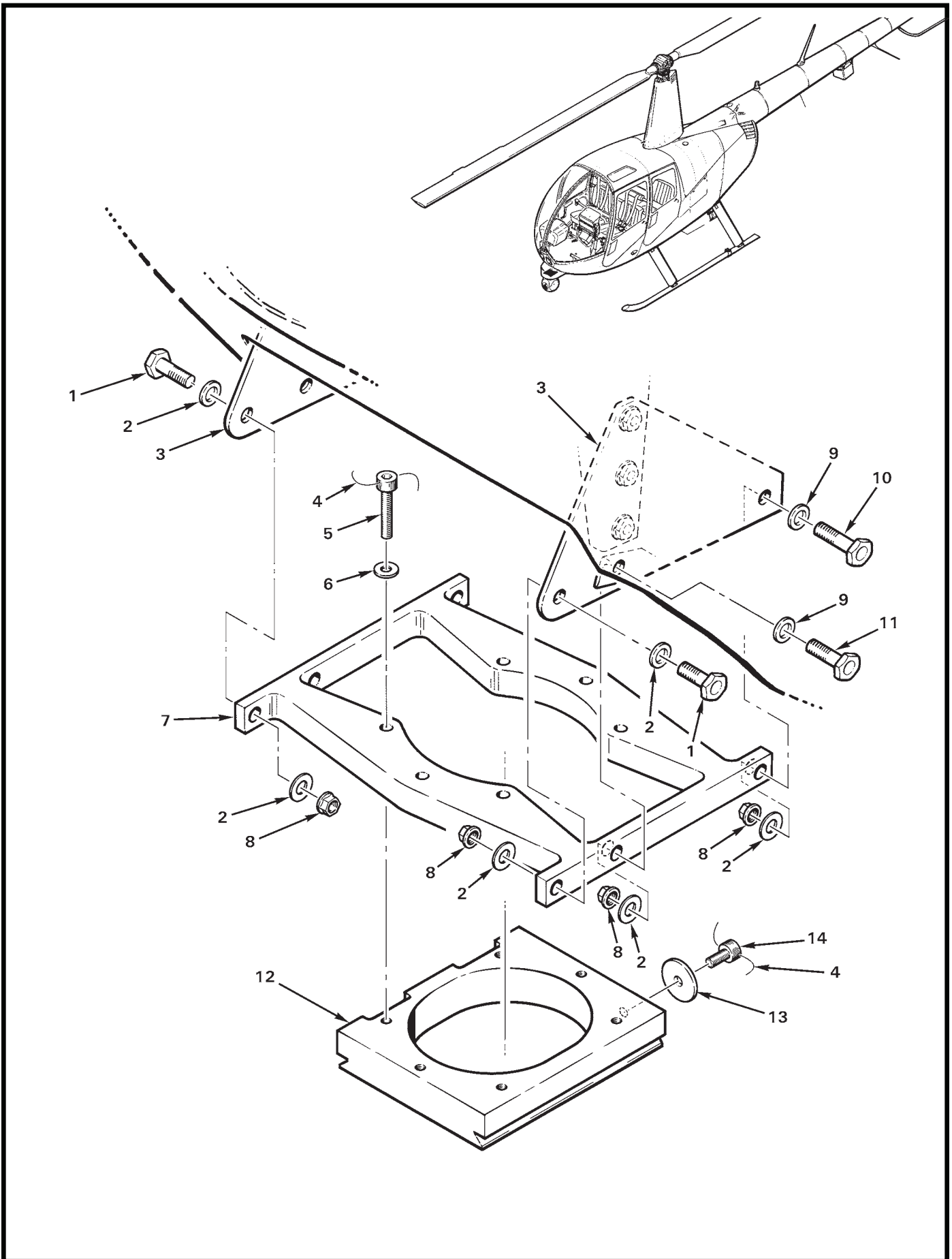


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
SEARCHLIGHT AND GIMBAL SUPPORT INSTALLATION				
90-9-1	NAS6604-4	Bolt	X	2
2	NAS1149F0432P	Washer	X	8
3	D349-1	Support (Ref)		
4	MS20995C32	0.032 in. dia. Safety Wire	X	A/R
5	NAS1352-3H16P	Screw	X	6
6	NAS1149F0332P	Washer	X	6
7	D349-3	Plate	X	1
8	MS21042L4	Nut	X	6
9	A141-11	Washer	X	4
10	NAS6604-7	Bolt	X	2
11	NAS6604-5	Bolt	X	2
12	D400-1	Block	X	1
13	A141-18	Washer	X	1
14	NAS1352-3H6P	Screw	X	1

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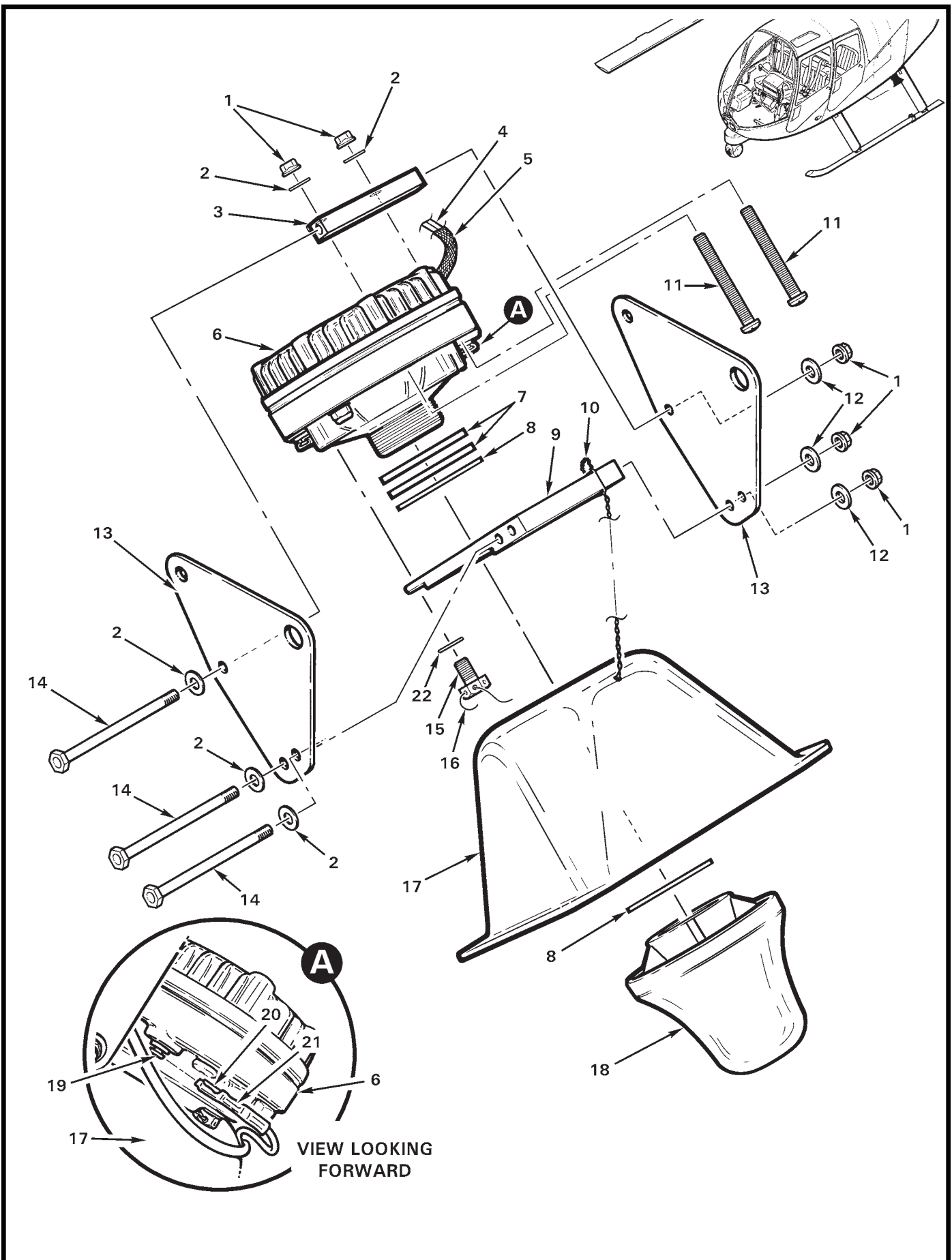


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		PA/SIREN SPEAKER ASSEMBLY		
90-11-1	MS21042L3	Nut	X	5
2	NAS1149F0332P	Washer	X	5
3	C644-1	Support	X	1
4	- 400	Wire (Ref, terminal no. 1)		
	- 401	Wire (Ref, terminal no. 2)		
5	B266-4	Sleeving	X	A/R
6	SA340TS*	Speaker - Siren (Incl items 4, 7, 8, 17, and 18)	X	1
7	-	Washer (thick)	O	2
8	-	Washer (thin)	O	1
9	A644-3	Support	X	1
10	MS20995C20	0.020 in. dia. Safety Wire	X	A/R
11	NAS603-32P	Screw	X	2
12	NAS1149F0363P	Washer	X	2
13	C663-1	Plate	X	2
14	NAS6603-44	Bolt	X	3
15	MS20074-04-03	Bolt	X	3
16	MS20995C41	0.041 in. dia. Safety Wire	X	A/R
17	-	Horn (Ref)		
18	-	Retainer - Horn (Ref)		
19	-	Terminal (no. 2, for -401 wire. Terminal no. 1 for -400 wire [not shown].)		
20	B262-4	Receptacle	X	2
21	MS25171-1S	Nipple	X	2
22	NAS1149F0432P	Washer	X	3

NOTES * Whelen Engineering part no.

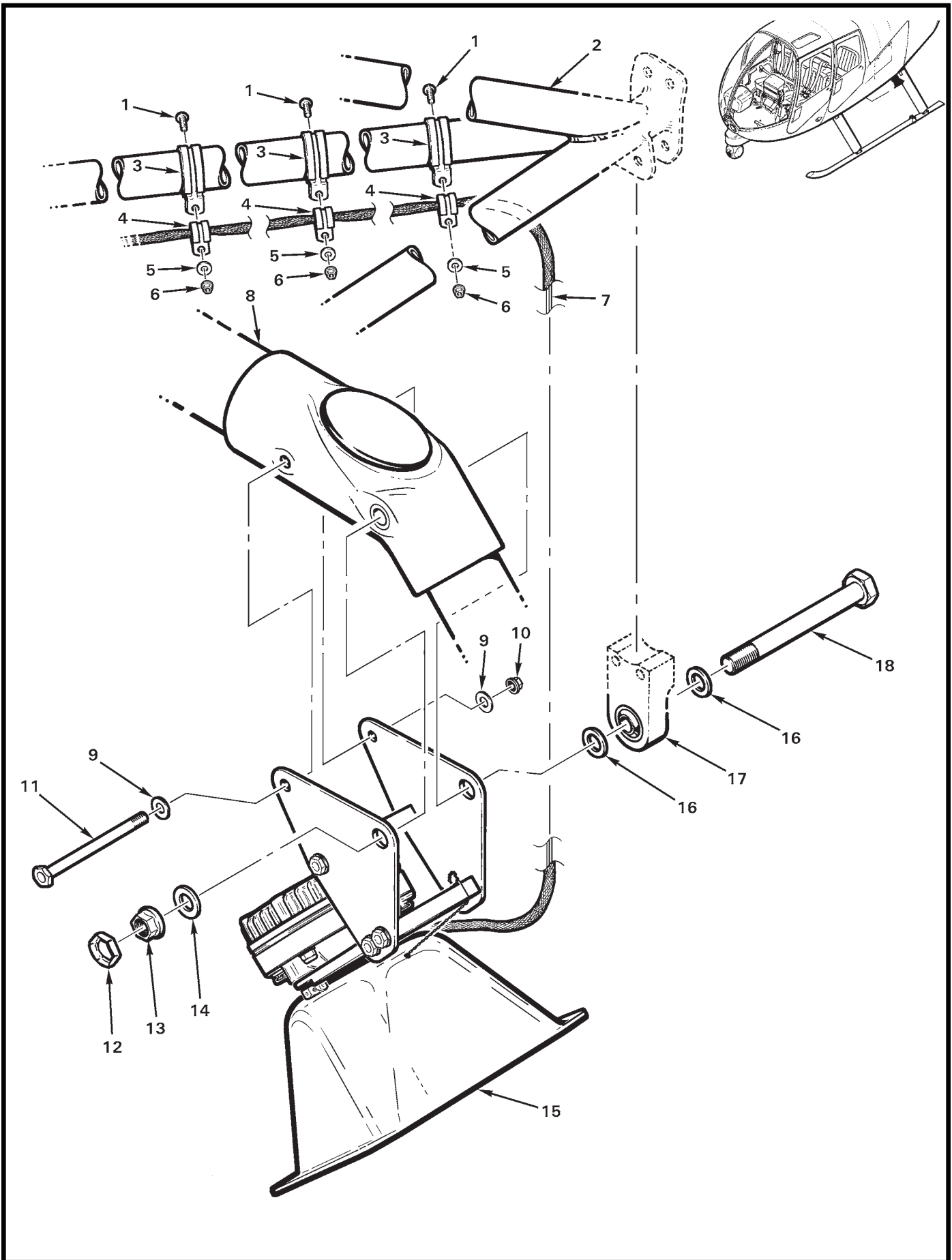


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
PA/SIREN SYSTEM INSTALLATION				
90-13-1	MS27039C0807	Screw	X	3
2	C046	Lower Frame - (LH, Ref)		
3	MS21919WDG16	Clamp	X	3
4	MS21919WDG2	Clamp	X	3
5	NAS1149FN816P	Washer	X	3
6	MS27042L08	Nut	X	3
7	- 400	Wire (Ref, see Figure 90-11)		
	- 401	Wire (Ref, see Figure 90-11)		
8	C014	Landing Gear Assembly (Ref)		
9	NAS1149F0432P	Washer	X	2
10	MS21042L4	Nut	X	1
11	NAS6604-43	Bolt	X	1
12	B330-21	Palnut	X	12
13	NAS1291-7	Nut	X	1
14	NAS1149F0763P	Washer	X	1
15	SA340TS	Siren Speaker (Ref, see Figure 90-11)		
16	C141-4	Washer	X	2
17	C574-1	Bearing (Ref)		
18	NAS6607-54	Bolt	X	1

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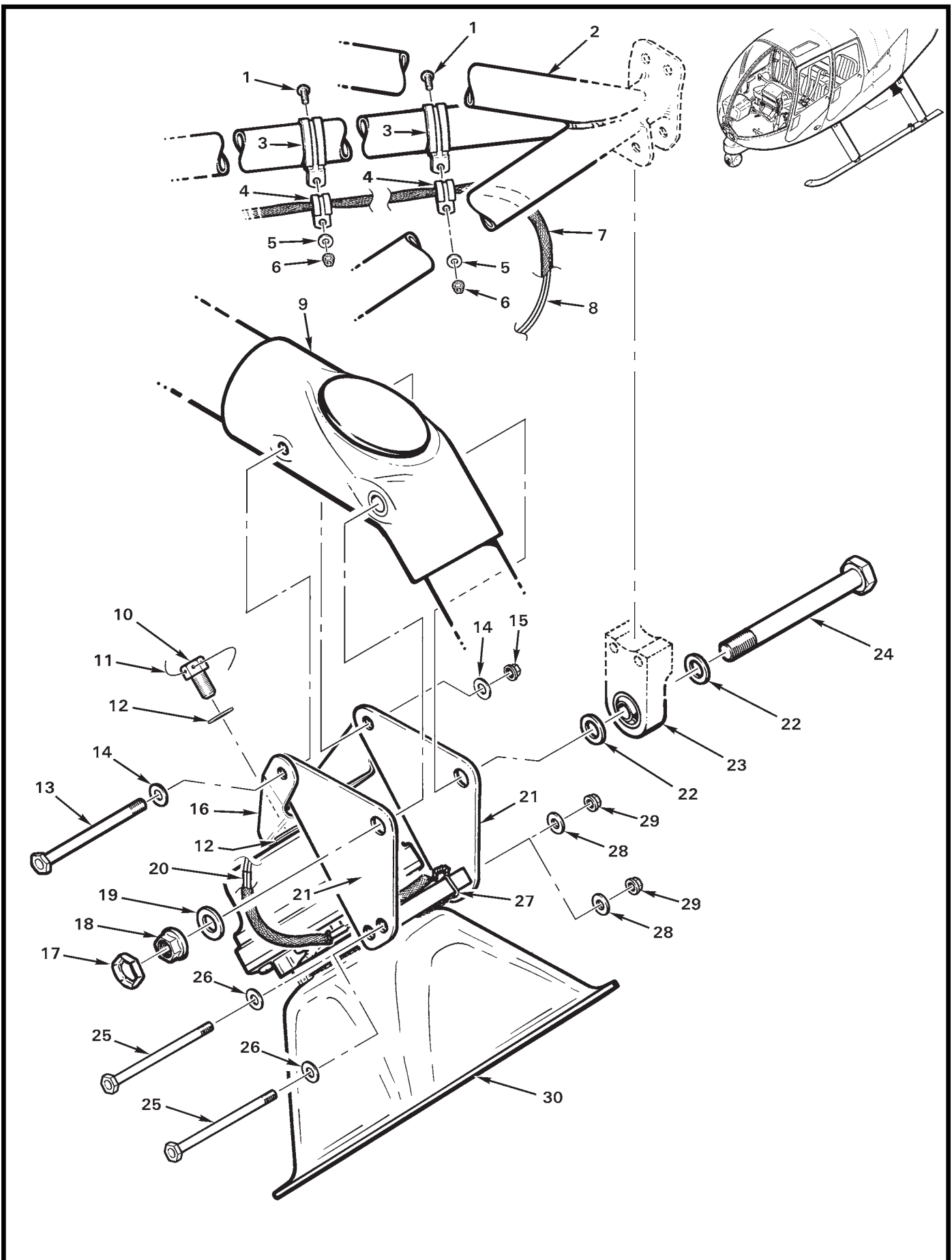


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
PA/SIREN SYSTEM INSTALLATION*				
90-15-1	MS27039C0807	Screw	X	2
2	C046	Lower Frame - (LH, Ref)		
3	MS21919WDG16	Clamp	X	2
4	MS21919WDG2	Clamp	X	2
5	NAS1149FN816P	Washer	X	2
6	MS21042L08	Nut	X	2
7	B266-4	Sleeving	X	A/R
8	- 400	Wire (red, Ref)		
	- 401	Wire (black, Ref)		
9	C014	Landing Gear Assembly (Ref)		
10	MS20074-05-05	Bolt	X	1
11	MS20995C32	0.032 in. dia. Safety Wire	X	A/R
12	NAS1149F0563P	Washer	X	3
13	NAS6604-45	Bolt	X	1
14	NAS1149F0432P	Washer	X	2
15	MS21042L4	Nut	X	1
16	C663-2	Bracket	X	1
17	B330-21	Palnut	X	1
18	NAS1291-7	Nut	X	1
19	NAS1149F0763P	Washer	X	1
20	B261-2	Splice - Wire	X	2
21	C663-1	Plate	X	2
22	C141-4	Washer	X	2
23	C574-1	Bearing (Ref)		
24	NAS6607-54	Bolt	X	1
25	NAS6603-44	Bolt	X	2
26	NAS1149F0332P	Washer	X	2
27	MS20995C20	0.020 in. dia. Safety Wire	X	A/R
28	NAS1149F0363P	Washer	X	2
29	MS21042L3	Nut	X	2
30	SA340TS	Siren Speaker	X	1

NOTES * Earlier Police ships.

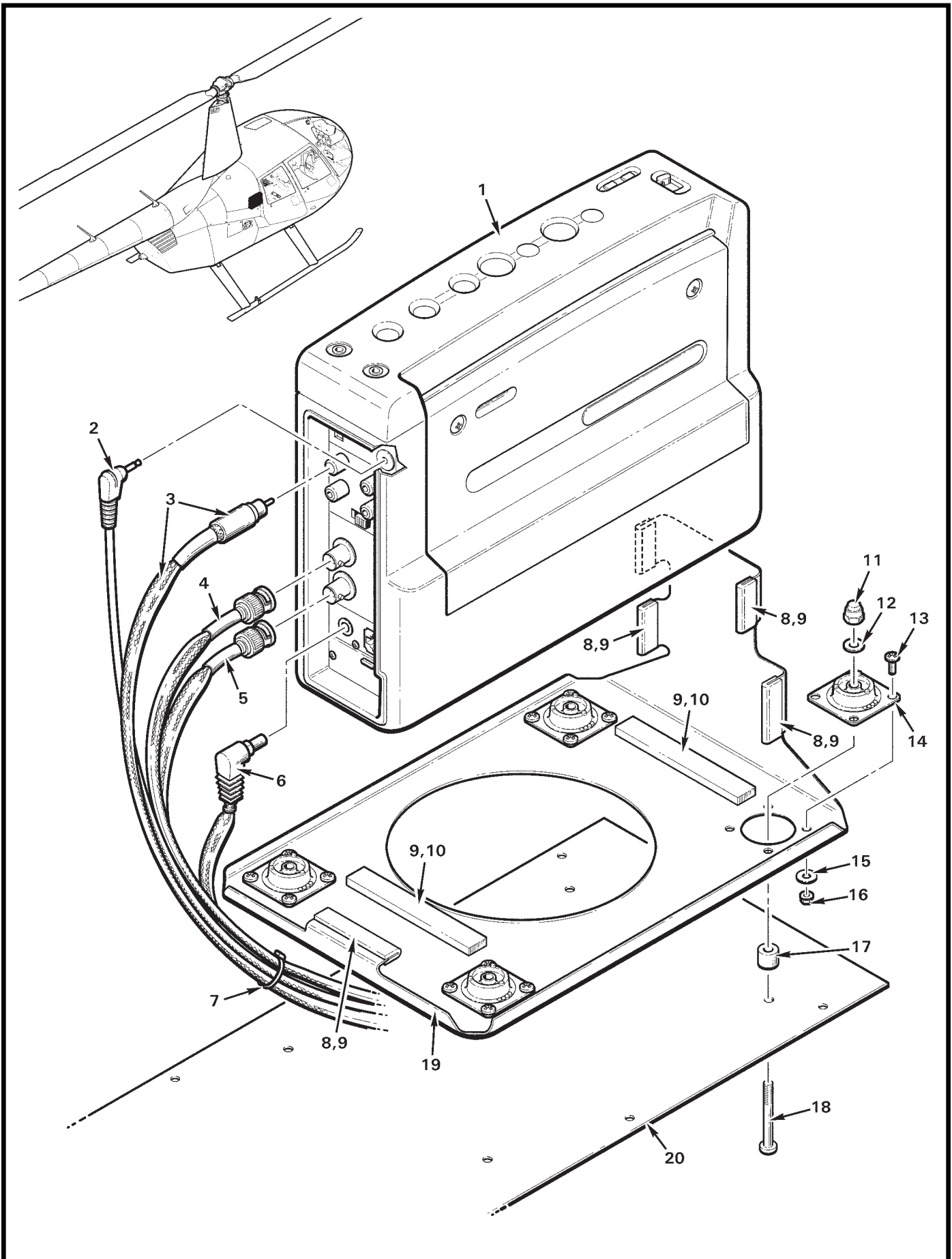


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
VCR INSTALLATION				
90-17-1	AG-720P*	VCR (VHS, Ref)		
	AG-750P*	VCR (SVHS, Ref)		
2	D421-2	Cable Assembly (Ref)		
3	174-4356	Plug	X	1
	—	Wire (Ref, no. 1388, white)		
	—	Wire (Ref, no. 1389, blue)		
4	D431-794	Cable Assembly (video in)	X	1
5	D431-789	Cable Assembly (video out)	X	1
6	VJAW0037*	Cable - DC (Ref, supplied with VCR)		
7	MS3367-5-9	Ty-Rap	X	A/R
8	A226-9	Moulding (install using item 9)	X	A/R
9	B270-14	Adhesive (or B270-8qt)	X	A/R
10	A226-4	Seal (install using item 9)	X	A/R
11	B340-4	Nut	X	4
12	NAS1149FN832P	Washer	X	4
13	MS35206-227	Screw	X	16
14	106PL-1	Mount	X	4
15	NAS1149FN616P	Washer	X	16
16	MS21042L06	Nut	X	16
17	A130-33	Spacer	X	4
18	MS27039C0822	Screw	X	4
19	D439-1	Tray Assembly (Ref; Includes items 8, 9, 10, 13 thru 16. No longer available.)		
20	C474-2	Cover (Ref)		

NOTES * Panasonic part no.

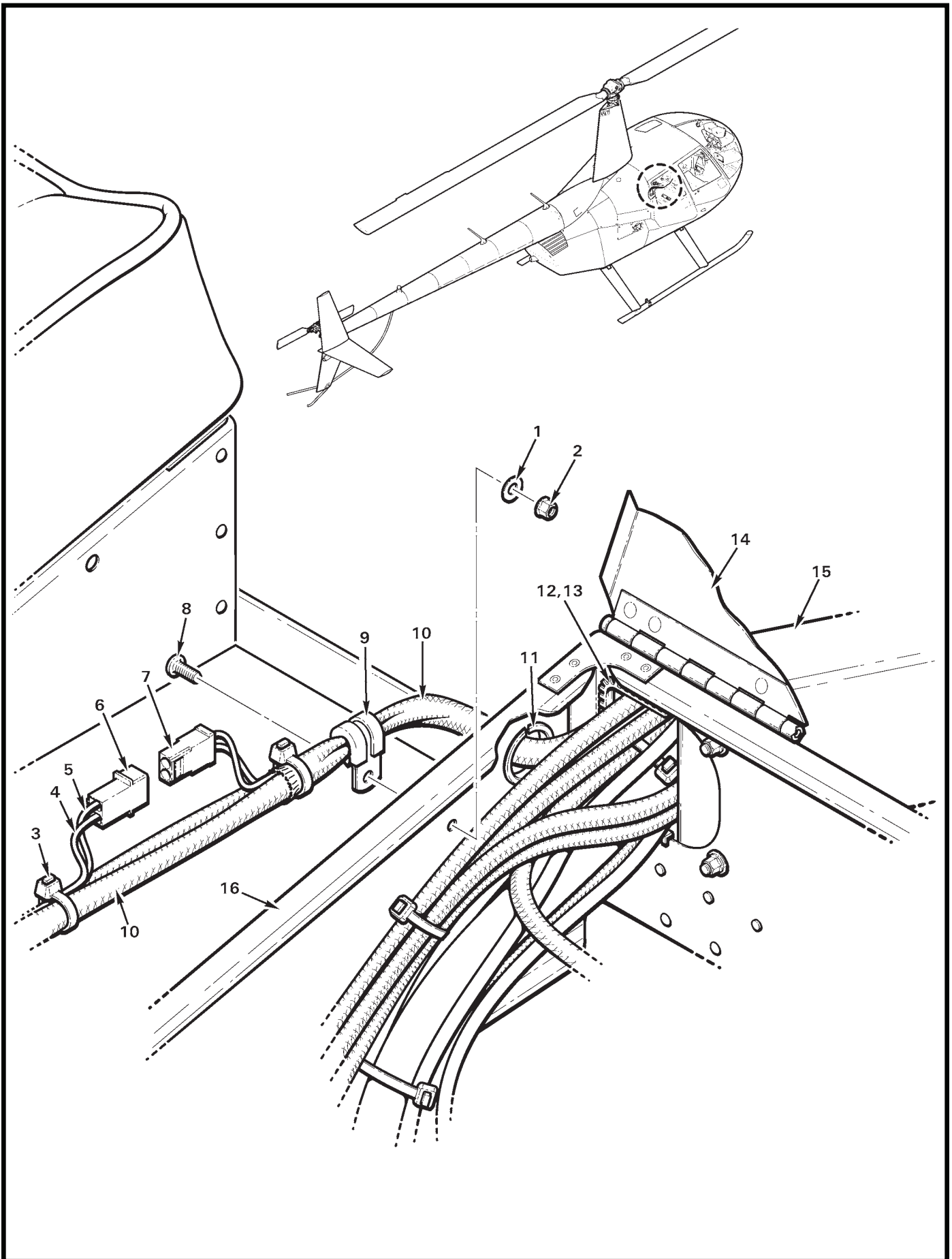


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
VCR WIRING INSTALLATION				
90-19-1	NAS1149FN832P	Washer	X	1
2	MS21042L08	Nut	X	1
3	MS3367-5-9	Ty-Rap	X	A/R
4	—	Wire (Ref, no. 774)		
5	—	Wire (Ref, no. 773)		
6	B263-12	Housing	X	1
	B263-1	Pin	X	2
7	B263-13	Housing	X	1
	B263-2	Socket	X	2
8	MS27039C0806	Screw	X	1
9	MS21919WDG4	Clamp	X	1
10	B266-4	Sleeving (expandable; 0.25 in. inside dia., nominal)	X	A/R
	B266-8	Sleeving (expandable; 0.50 in. inside dia., nominal)	X	A/R
	B266-12	Sleeving (expandable; 0.75 in. inside dia., nominal)	X	A/R
	B266-20	Sleeving (expandable; 1.25 in. inside dia., nominal)	X	A/R
11	NAS557-12A	Grommet	X	1
12	MS21266-1N	Grommet (install using item 13)	X	1
13	B270-14	Adhesive (or B270-8qt)	X	A/R
14	D670-1	Cover Assembly (Ref, includes C928-5 hinge and D428-8 pin) .	X	1
15	D440	Cover - Auxiliary Wiring (Aft tunnel, Ref)		
16	C291	Support Assembly - Seat Aft (RH, Ref)		

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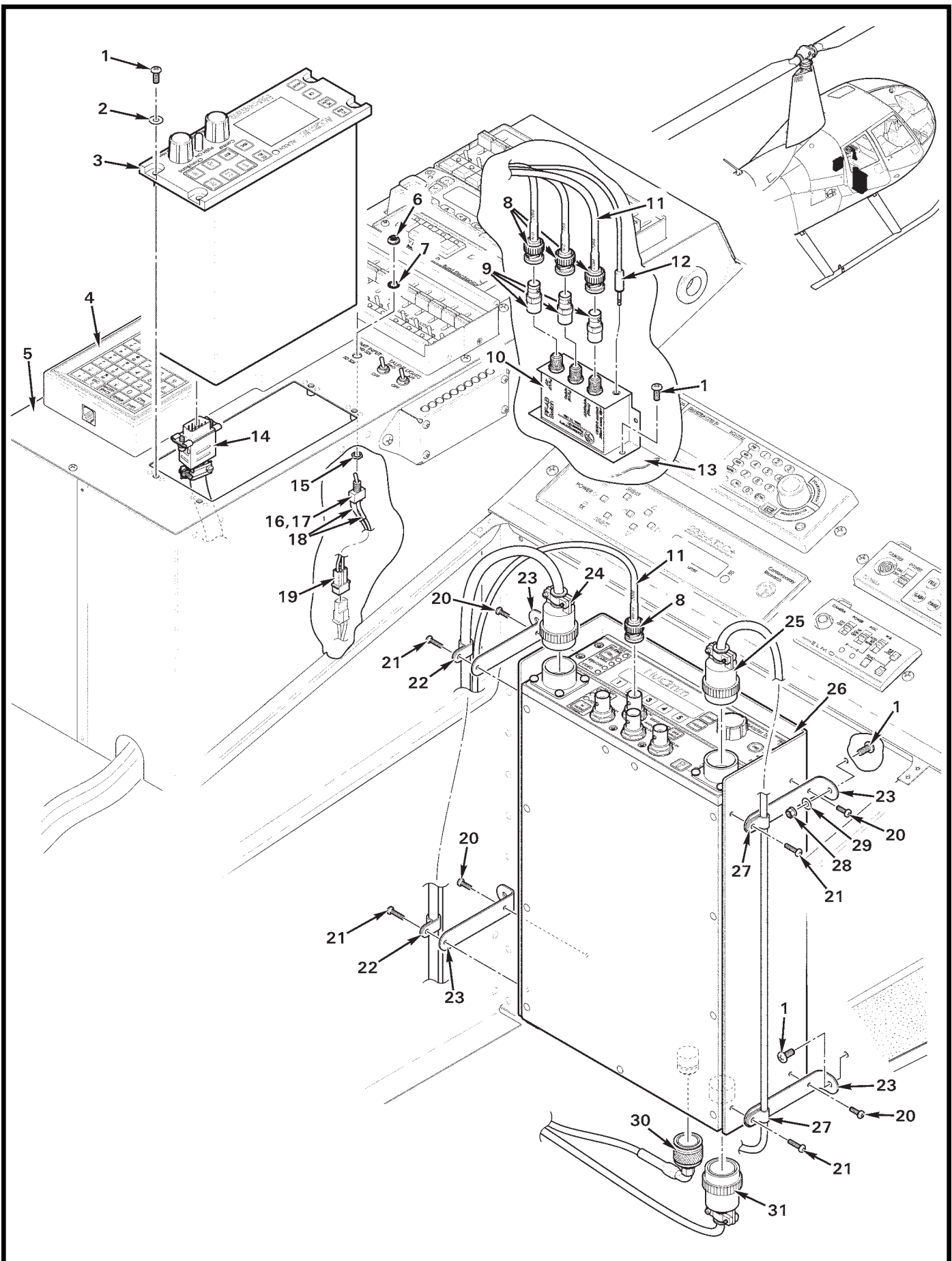


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		HD MICROWAVE SYSTEM - NUCOMM		
90-21-1	MS27039C0806	Screw	X	10
2	NAS1149FN832P	Washer	X	4
3	ARC-CM-TX-RX-CR-01	Controller	X	1
4	D588-5	Controller (Ref)		
5	D360-1	Console (Ref)		
6	B227-4	Dress Nut	X	1
7	B227-3	Lockwasher	X	1
8	20605-11-9	Plug (Ref)		
9	242199	Adapter	X	3
10	RF-AB	Video Switch	X	1
11	- 2066	Cable (Ref)		
12	171-2035	Plug (Ref)		
13	D650-4	Cover (Ref)		
14	B269	Plug (Ref)		
15	-	Hex Nut	O	1
16	B049-9	Switch Assembly (Includes items 6, 7, 15, 17 thru 19 and wires.)	X	1
17	A123S1YZQ	Switch	X	1
18	B158-1	Heat Shrink	X	A/R
19	B263-12	Housing	X	1
	B263-1	Pin	X	2
20	MS33206-217	Screw	X	4
21	MS35206-215	Screw	X	4
22	8876T18	Clamp	X	2
23	D429-12	Angle	X	4
24	MS316F14-18S	Plug (Ref)		
25	MS316F14-15S	Plug (Ref)		
26	CMTX7-LITE	Transmitter	X	1
27	7622	Clamp	X	2
28	MS21042L08	Nut	X	2
29	NAS1149FN816P	Washer	X	2
30	D766-2379	Cable Assembly (Includes SMA straight plug, Type "N" 90° plug, heat shrink, and microflex 165 cable.)	X	1
31	MS316F14-12S	Plug (Ref)		

NOTES

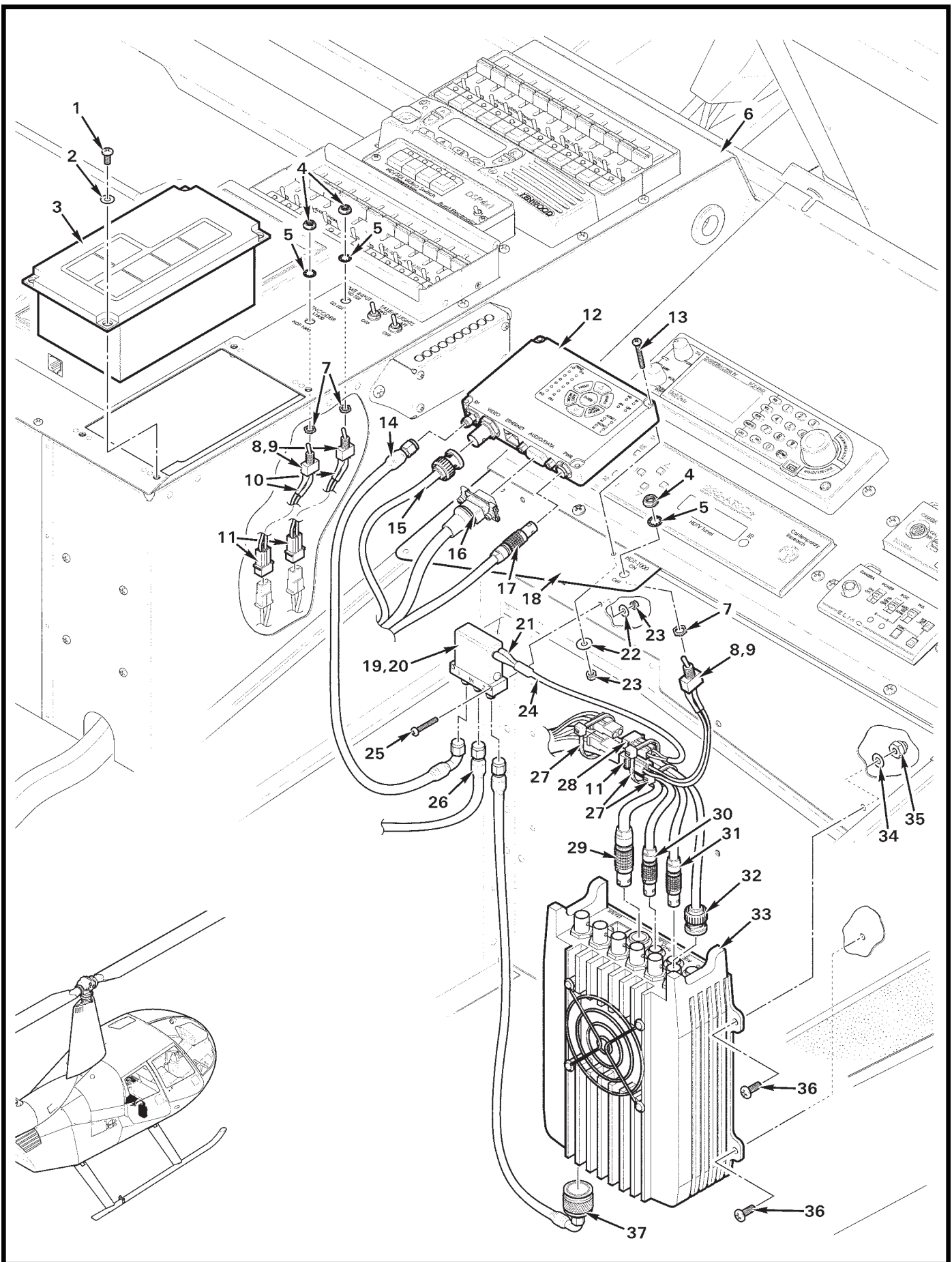


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
HD MICROWAVE SYSTEM - VISLINK				
90-23-1	MS27039C0806	Screw	X	4
2	NAS1149FN832P	Washer	X	4
3	L1260	Control Panel	X	1
4	B227-3	Lockwasher	X	1
5	B227-4	Dress Nut	X	1
6	D360-1	Console (Ref)		
7	—	Hex Nut	O	1
8	B049-9	Switch Assembly (Includes items 4, 5, 7, 9, 10, 11, and wires.)	X	1
9	A123S1YZQ	Switch	X	1
10	B158-1	Heat Shrink	X	A/R
11	B263-12	Housing	X	1
	B263-1	Pin	X	2
12	HDT-1000	Encoder Transmitter	X	1
13	MS35206-220	Screw	X	3
14	D766-2390	Cable Assembly (Includes 2 SMA 90° plugs, heat shrink, and microflex 165 cable.)	X	1
15	— 2068	Wire (Ref)		
16	MDM-21PH003A	Plug (Ref)		
17	FGG0B304CLAD52	Plug (Ref)		
18	D429-13	Plate	X	1
19	D551-1	Switch Assembly (Includes items 20, 21, 24, 28, and wires.)	X	1
20	D1-413A30	Switch	X	1
21	B158-2	Heat Shrink	X	A/R
22	NAS1149FN416P	Washer	X	5
23	B269	Nut	X	5
24	B158-3	Heat Shrink	X	A/R
25	MS35206-219	Screw	X	2
26	D766-1631	Cable Assembly (Includes SMA straight plug, SMA 90° plug, heat shrink, A729-5 tube, and microflex 165 cable.)	X	1
27	MS3367-5-0	Ty-Rap	X	A/R
28	B263-12	Housing	X	1
	B263-1	Pin	X	2

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FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
HD MICROWAVE SYSTEM - VISLINK (Cont'd)				
90-23-29	FGG1B304CLAD62	Plug - 14-volt (Ref)		
30	FGF0B306CLAD52	Plug - Data (Ref)		
31	FGG0B305CLAD52	Plug - Audio (Ref)		
32	D431-754	Cable Assembly (Includes B274-525 video coax, heat shrink, and [2] 2065-11-9 BNC plugs.)	X	1
33	L1600	Encoder Transmitter	X	1
34	NAS1149FN816P	Washer	X	2
35	B340-4	Nut	X	2
36	MS27039C0807	Screw	X	4
37	D766-2379	Cable Assembly (Includes SMA straight plug, Type "N" 90° plug, heat shrink, and microflex 165 cable.)	X	1

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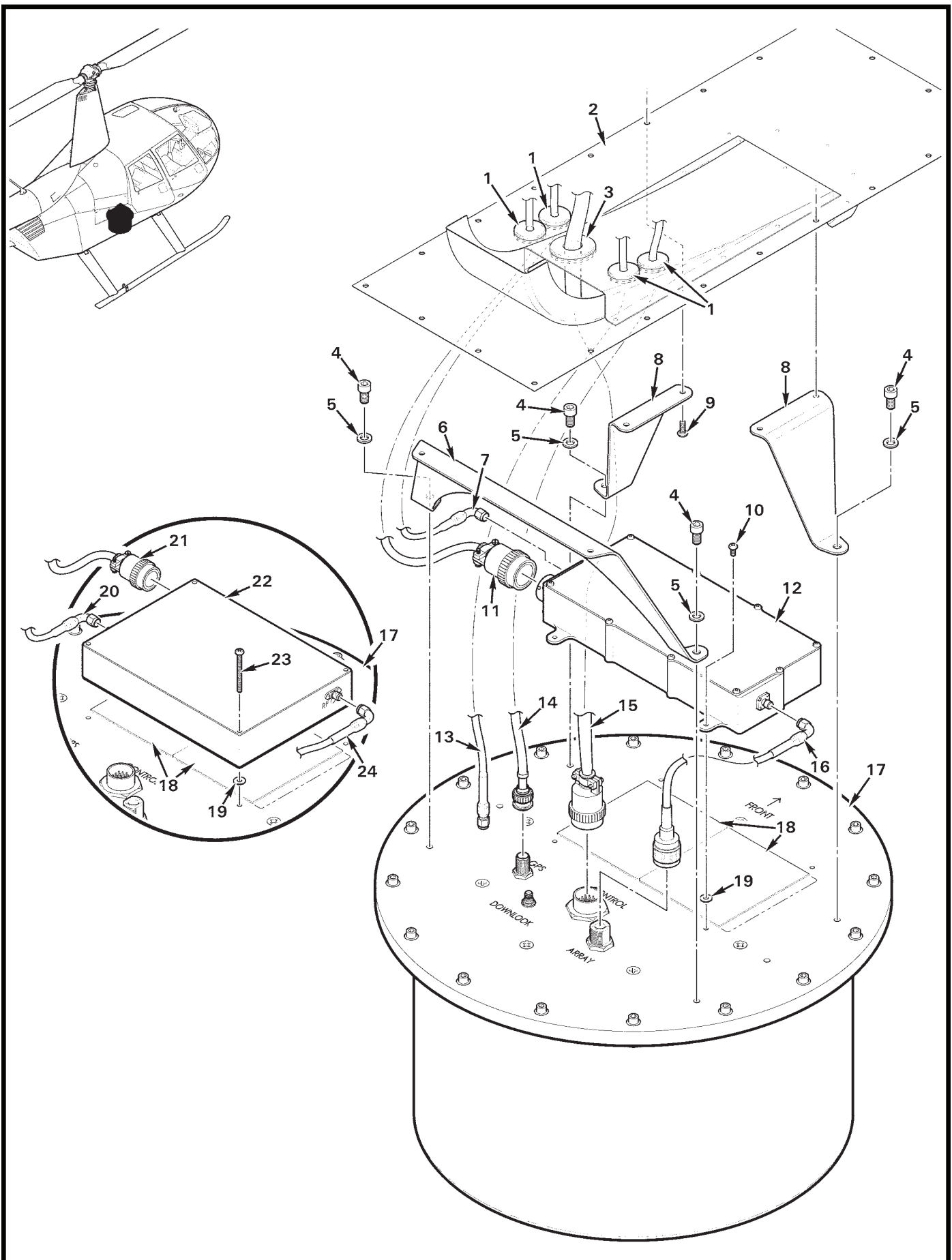


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
HD MICROWAVE SYSTEM - POD ANTENNA				
90-27-1	MS35489-7	Grommet	X	4
2	C794-3	Panel (Ref)		
3	MS35489-18	Grommet	X	1
4	—	Screw (supplied with item 17)	O	4
5	—	Washer (supplied with item 17)	O	4
6	D586-6	Bracket	X	1
	D586-4	Bracket (Used on D053-3 installation, not shown)	X	1
7	D766-2379	Cable Assembly (includes type "N" 90° plug, SMA plug, heat shrink, and microflex 165 cable.)	X	1
8	D586-5	Bracket	X	2
	D586-3	Bracket (Used on D053-3, not shown.)	X	2
9	MS27039C0807	Screw	X	6
10	MS35206-227	Screw	X	4
11	MS3116F14-12S	Plug (Ref)		
12	D618-1	Amp Assembly (Ref, D056-1 Installation)		
13	D766-1616	Cable Assembly (Ref)		
14	D766-1621	Cable Asssembly - GPS (Ref)		
15	D588-4	Cable Assembly (Ref)		
16	D766-2378	Cable Assemby (Includes SMA 90° plug, type "N" straight plug, and microflex 165 cable)	X	4
17	PA16-__	Pod Antenna	X	1
	PA8-__	Pod Antenna (Used on D053-3 installation, not shown.)	X	1
18	GP1500-0.040-02-0404	Thermal Pad	X	2
19	NAS1149FN632P	Washer	X	4
20	D766-1631	Cable Assembly (Ref)		
21	—	Plug (supplied with item 22)	O	1
22	DPA-200-250-10-43-1228	Power Amp (Ref, D056-2 Installation)	X	1
23	MS35206-236	Screw	X	4
24	D766-1876	Cable Assembly (Includes SMA 90° plug, Type "N" straight plug, heat shrink, and microflex 165 cable.)	X	1

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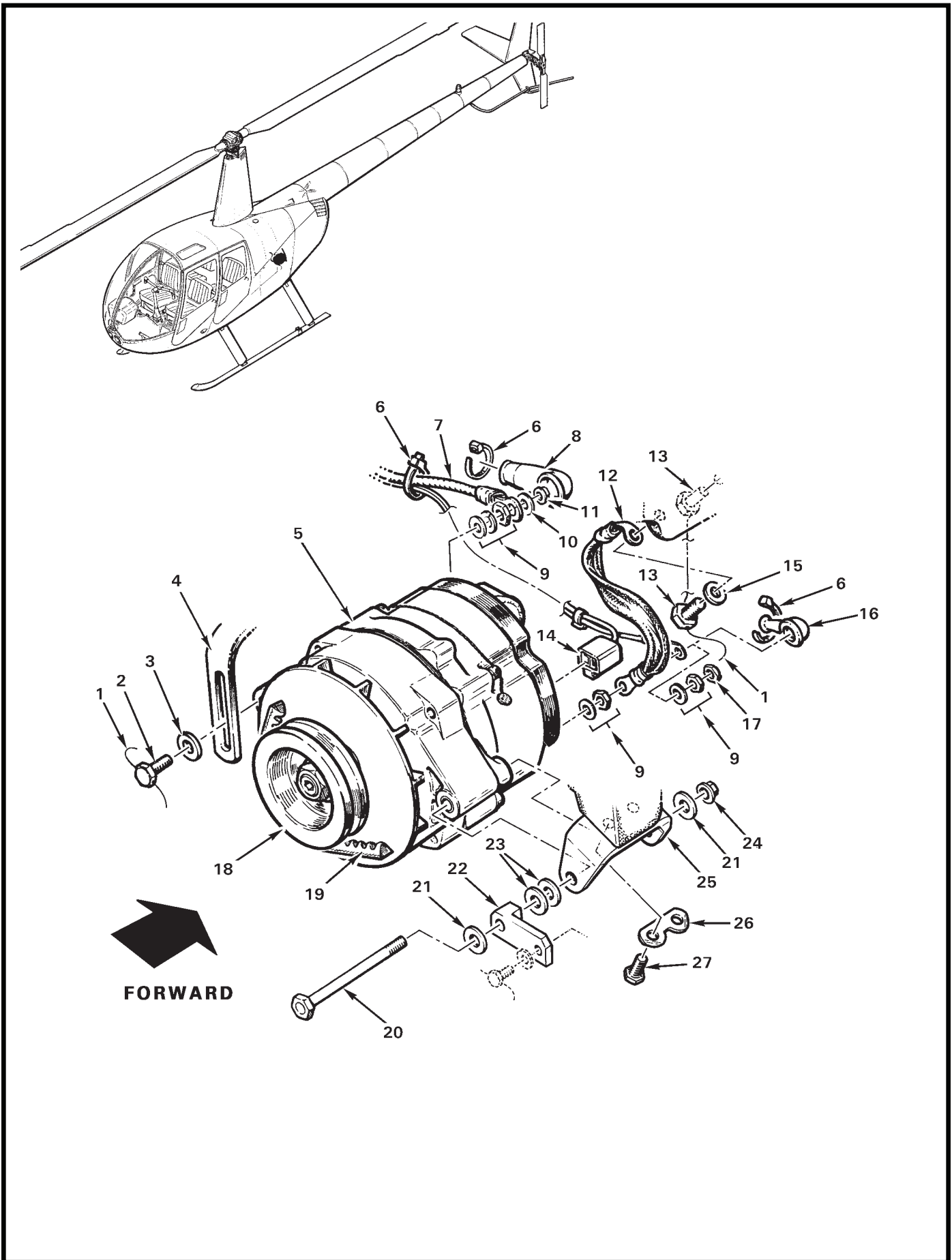


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
ALTERNATOR INSTALLATION				
90-29-1	MS20995C32	Safety Wire (0.032 in. dia.)	X	A/R
2	LW-31H0.75*	Bolt (Ref; supplied with engine)		
3	STD-1727*	Washer	X	1
4	—	Arm (black; supplied with item 5)	O	1
5	N300P324R(L)	Alternator 70-Amp (Ref; 28-volt Police ships only. National Airparts part no. Incl items 4, 9, and 18. Superseded; for Police ships see Figure 71-59 [D729-1; 130-Amp], for ENG Figure 71-51 [D748-1; 70-Amp Kelly Aerospace].)	O	1
6	MS3367-4-9	Ty-Rap	X	3
7	A780-36	Cable Assembly (aft and tailcone battery)	X	1
	A780-37	Cable Assembly (forward and under seat battery)	X	1
8	MS25171-2S	Nipple	X	1
9	—	Hardware (supplied with item 5)	O	1
10	NAS1149F0432P	Washer	X	1
11	MS21042L4	Nut	X	1
12	A780-13	Cable Assembly (ground; Ref)		
13	MS20074-05-04	Bolt	X	2
14	N502	Housing (Ref, no longer available)		
	N1340	Receptacle (Ref, no longer available)		
15	NAS1149F0532P	Washer	X	2
16	MS25171-1S	Nipple	X	1
17	B330-12	Palnut	X	1
18	—	Pulley (supplied with item 5)	X	1
19	B173-1**	V-Belt	X	1
20	NAS6606-50	Bolt	X	2
21	—	Washer (supplied with engine)	O	2
22	B299-2	Link (use only with item 5)	X	1
23	—	Washer (as required for shimming; supplied with engine)	X	A/R
24	MS21042L6	Nut	X	2
25	74324*	Bracket	X	1
26	73383*	Lockplate	X	1
27	LW-31-0.94*	Bolt	X	2

NOTES * Lycoming part no.
 ** Use with 31M21951* ring gear.

Intentionally Blank