

ROBINSON HELICOPTER COMPANY

R22 ILLUSTRATED PARTS CATALOG

RTR 060 VOLUME II

Production Certificate Number 424WE

Type Certificate Number H10WE



Robinson Helicopter Company
2901 Airport Drive
Torrance, California 90505-6115
United States of America

Phone: (310) 539-0508
Fax: (310) 539-5198
Web: www.robinsonheli.com

OFFICE HOURS

Monday through Friday, 7:30 a.m. to 4:30 p.m., Pacific Time.
Lunch hour is 11:30 a.m. to 12:30 p.m.

HOLIDAYS

Please visit www.robinsonheli.com for a list of holidays and company shutdowns.

CUSTOMER SUPPORT AND SPARES ORDERS

Please visit www.robinsonheli.com for Customer Support contact information. Procure parts from any R22 Dealer or Service Center, or order directly from RHC Customer Service via email, fax, or phone.

PUBLICATIONS

Viewing RHC Maintenance Manuals (MMs) and Illustrated Parts Catalogs (IPCs) online at www.robinsonheli.com is recommended to ensure use of current data. Viewing MMs and IPCs offline via paper or digital download requires verification that the data is current. Refer to the online MM or IPC Revision Log for the list of current pages.

SUBSCRIPTION ORDER AND RENEWAL FORMS

Subscription order and renewal forms are located at www.robinsonheli.com.

WARRANTY INFORMATION

Helicopter and parts warranty information is located at www.robinsonheli.com.

CHAPTER LIST

	Introduction
Chapter 6	Dimensions and Descriptions
Chapter 8	Weight and Balance
Chapter 9	Ground Handling
Chapter 10	Parking and Storage
Chapter 11	Placards and Markings
Chapter 12	Servicing
Chapter 18	Track and Balance
Chapter 21	Environment Control
Chapter 25	Furnishings
Chapter 28	Fuel System
Chapter 32	Landing Gear
Chapter 33	Lights
Chapter 52	Doors and Windows
Chapter 53	Fuselage
Chapter 62	Main Rotor
Chapter 63	Main Rotor Drive System
Chapter 64	Tail Rotor
Chapter 65	Tail Rotor Drive System
Chapter 67	Flight Controls
Chapter 71	Powerplant
Chapter 76	Engine Controls
Chapter 79	Engine Oil System
Chapter 90	Police Version
Chapter 95	Instrument System
Chapter 96	Electrical System
Chapter 97	Avionics
Chapter 99	Special Tools
Chapter 100	Revision Log

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TECHNICAL PUBLICATIONS

RECOMMENDED CHANGE REPORT

Please direct recommended changes to RHC Technical Publications via the email address listed below, by phone, or by submitting a duplicate of this completed form by fax or mail. Please include or have available the information detailed in this form.

Recommended changes may include but are not limited to general comments, corrections, omitted information, or clarification of instructions.

Please send recommendations to:

Email: techpubs@robinsonheli.com
Phone: (310) 539-0508
Fax: (310) 539-5198

Robinson Helicopter Company
Attention: Technical Publications
2901 Airport Drive
Torrance, CA 90505-6115
United States of America

Date:	_____	Publication:	_____
Name:	_____	Chapter:	_____
Company:	_____	Section:	_____
Helicopter Model:	_____	Page:	_____
Serial Number:	_____	Revision:	_____
Phone:	_____		
Email:	_____		

COMMENTS:

CATALOG FEATURESINTRODUCTION

The Illustrated Parts Catalog (IPC) is used in conjunction with the R22 Maintenance Manual (MM) to provide instructions for continued airworthiness. The IPC identifies parts, components, and detail parts that make up, and are required to support, the R22 helicopter. RHC uses a modified Air Transport Association (ATA) chapter structure to organize the various systems of the R22 Helicopter.

The catalog features:

1. A chapter list
2. A table of contents located in the front of the catalog
3. A table of contents at the front of each chapter
4. Alphabetical and numerical indexes located in the appendices at the back of the catalog

PART DESIGNATION

Robinson parts are designated with a part number prefix "A", "B", "C", etc., followed by three digits and a dash number, such as A101-1. Robinson special tools are designated with a part number prefix "MT". For standard hardware items such as bolts, nuts, screws, etc., "AN", "MS", and "NAS" part numbers are used. When a rivet length is not specified, length must be determined by the installer. In some instances, vendor part numbers are also used.

PARTS AVAILABILITY

"X" indicates part is available as a separate spares item.

"O" indicates part is no longer available, or only available as part of a higher assembly.

CHANGE BARS

Change bars are located on the outside edge of the page, and indicate new or revised data. Change bars between lines indicate data was removed, and parts renumbered as required. Change bars on figure pages indicate changes to the figure somewhere across the page in the area of the change bar. A change bar encompassing the figure title and item 1 indicates the figure number changed. Change bars that are the full length of the page indicate all new data, usually a new figure and parts data.

ABBREVIATIONS

Assy – assembly	max – maximum	rev. – Revision
A/R – as required	min – minimum	RH – right hand
A.O.G. – Aircraft On Ground	MM – Maintenance Manual	RHC – Robinson Helicopter Company
Cont'd – continued	MR – main rotor	§ – Section
Incl – includes	OH/EXCH – Overhaul/Exchange	TR – Tail Rotor
LH – left hand	Ref – Part(s) "referenced" for clarity	TRDS – Tail Rotor Drive Shaft

ORDERING AND SHIPPING

All orders must include instructions for shipping. All parts or components shipped to RHC must include a signed Component Return/Authorization Form. Return shipments must be paid for by the dealer or distributor. NOTE: Handling fees will be applied to all orders received which are under \$1,000.00. Orders shipped on an A.O.G. basis (24 hours domestic, 48 hours foreign) will be assessed additional charges.

WARRANTY

RHC will apply the same 1-year or 1000-hour RHC limited warranty to all parts and components purchased from RHC.

RETURNS

No unused parts may be returned to RHC for credit if the parts show any indication whatsoever of use or damage, or if the cost of the individual part was less than \$25 (U.S.). Parts returned within 30 days of purchase will be assessed a 20% restocking fee. No parts may be returned after 30 days without prior RHC approval. Any parts approved for return after 30 days will be assessed a 50% restocking fee.

CATALOG FEATURES (Cont'd)**REVISIONS**

Viewing the R22 Illustrated Parts Catalog (IPC) online at www.robinsonheli.com is recommended to ensure use of current data. Viewing the IPC offline via paper or digital download requires verification that the data is current. Refer to the online IPC Revision Log (Chapter 100) for the list of current pages.

HOW TO USE THE ILLUSTRATED PARTS CATALOG

Below are search protocols, based on the information known:

If searching by part number:

1. Digital Catalog:

The IPC is available online in digital PDF format.

- a. Open the chapter PDF or the full book PDF in the PDF reader of your choice.
- b. In your PDF reader open a "search" or "find" window and type in the p/n you are looking for.
- c. All instances of that p/n should be found, and you can move through the list until you find the information you are looking for.

2. Paper Catalog:

- a. Go to Appendix B, the Numerical Index, and locate the part number.
- b. You will find where that part number is called out in the Illustrated Parts Catalog (IPC).
The Numerical Index is divided into six sections, RHC part numbers, RHC "KI" (kit) numbers, RHC "MT" (tool) numbers, RHC "R" numbers (specialty parts), vendor part numbers, and standard hardware part numbers.
Note: Vendor part numbers are sorted by column from left to right numerically, then alphabetically, and all hyphens are ignored for sorting purposes, i.e. "75-900-2026" comes before "760", and "760" comes before "A15A".
- c. Note the page(s) and item number(s) listed.

If searching by part name:

1. Digital Catalog:

The IPC is available online in digital PDF format.

- a. Open the chapter PDF or the full book PDF in the PDF reader of your choice.
- b. In your PDF reader open a "search" or "find" window and type the part name you are looking for.
- c. All instances of that part name should be found, and you can move through the list until you find the information you are looking for.

2. Paper Catalog:

- a. Go to Appendix A, the Alphabetical Index, and look for the name of the part, component, or system you are looking for.
- b. You may find listings under multiple names for some components. Only the most common parts, components, and systems are listed in the Alphabetical Index.
- c. Note the page(s) and item number(s) listed.

If searching by system:

1. Go to the Chapter List on page iii, and determine the appropriate chapter.
2. Go to the Table of Contents, or the Chapter Table of Contents, and further determine from the Figure titles the illustration where the part might logically appear.
3. Go to the Figure number and locate the part and its item number on the illustration.
4. Go to the item number noted in the parts list and verify it is the part you are looking for by reading the description. Be aware of any asterisks and the notes they reference, to verify the part is the current part for your aircraft. Find the part number in the illustration for location and associated hardware and/or components.

PART INTERCHANGEABILITY

The following parts are interchangeable. Unless noted otherwise, whenever one part is referred to in this catalog, its substitute part is also permitted.

<u>PART:</u>	<u>INTERCHANGEABLE WITH:</u>
110-__ Telatemp	F110-__ Telatemp
22K1-048 Cap nut	B340-10 Cap nut
22K1-82 Cap nut	B340-4 Cap nut
354601 Fuse block	D262-1 Fuse block
354602 Fuse block	D262-2 Fuse block
4509 & Q4509 Lamp	B196-26 Lamp
4591 Lamp	B196-27 Lamp
511TS1-3 Switch	B300-4 Switch
94830A030 Nut	21FKF-518 Nut
AN_ and MS_ part	AS_ part or A880 part numbers. See pages x thru xx.
AN340 Nut	MS35649 Nut per NASM35649 except AN340B8 Nut
AN340B8 Nut	B301-8 Nut
AN345 Nut	MS35650 Nut per NASM35650
AN364 Nut	MS21083 Nut per NASM21083
AN507 Screw	MS24693 Screw per NASM24693
AN509 Screw	MS24694 Screw per NASM24694
AN515 Screw	MS35206 Screw per NASM35206
AN515C Screw	MS51957 Screw
AN515UB6R6 Screw	B567-25 Screw
AN515UB6R10 Screw	B567-28 Screw
AN515UB8R10 Screw	B567-43 Screw
AN515UB8R12 Screw	B567-44 Screw
AN515UB8R20 Screw	MS35214-47 Screw per NASM35214
AN525 & AN526 Screw	MS27039C Screw per NASM27039, or B526-6 or -8 Screw and B527-08 Washer per R22 MM § 23-86. Except where noted.
AN814 & MS24391 Plug	AS5169 Plug
AN815 & MS24392 Union	AS5174 Union
AN818-__ D Nut	AN818-__ W Nut
AN819 & MS20819 Sleeve	AS5176 Sleeve
AN822 & MS20822 Elbow	AS5195 Elbow
AN823 & MS20823 Elbow	AS5196 Elbow
AN825 & MS20825 Tee	AS5197 Tee
AN826 & MS20826 Tee	AS5198 Tee
AN894 & MS24398 Bushing	AS5173 Bushing
AN900 Gasket	MS35769 Gasket per AS35769
AN924 & MS24400 Nut	AS5178 Nut
AN931 Grommet	MS35489 Grommet
AN935 Lockwasher	B332-__ Lockwasher, dash number per MS35338
AN936 Lockwasher	MS35335 Lockwasher
AN960-4L Washer	NAS1149FN416P Washer
AN960-4 Washer	NAS1149FN432P Washer
AN960-6L Washer	NAS1149FN616P Washer
AN960-6 Washer	NAS1149FN632P Washer
AN960-8L Washer	NAS1149FN816P Washer
AN960-8 Washer	NAS1149FN832P Washer
AN960-10L Washer	NAS1149F0332P Washer

PART INTERCHANGEABILITY (Cont'd)

<u>PART:</u>	<u>INTERCHANGEABLE WITH:</u>
AN960-10 Washer	NAS1149F0363P Washer
AN960-416L Washer	NAS1149F0432P Washer
AN960-416 Washer	NAS1149F0463P Washer
AN960-516L Washer	NAS1149F0532P Washer
AN960-516 Washer	NAS1149F0563P Washer
AN960-616L Washer	NAS1149F0632P Washer
AN960-616 Washer	NAS1149F0663P Washer
AN960-816L Washer	NAS1149F0832P Washer
AN960-816 Washer	NAS1149F0863P Washer
AN960-1016L Washer	NAS1149F1032P Washer
AN960-1016 Washer	NAS1149F1063P Washer
AN960PD8L Washer	NAS1149DN816J Washer
AN960PD416L Washer	NAS1149D0416J Washer
AN960PD516L Washer	NAS1149D0516J Washer
AN960PD616L Washer	NAS1149D0616J Washer
AVDEL 016 _ _ Rivet	B204- _ Rivet
B270-6 Sealant	A701-11 Tape
CCR244SS-3-02 Rivet	B204-5 Rivet
MS26574- _ Circuit breaker	B297- _ Circuit breaker, except B297-25 and B297-120
MS3320-20 Circuit breaker	B297-120 Circuit breaker
LW-18959-150-25 Clamp	B444-1 Clamp
LW-18959-163-25 Clamp	B444-2 Clamp
LW-18959-175-25 Clamp	B444-3 Clamp
MS20604ML4W1 Rivet	MS20604M4W1 Rivet per NASM20604
MS21042L3 thru L6 Nut	D210-3 thru -6 Nut*
MS21209 _ _ Insert	MS21209 _ _ L or NAS1130 _ _ Insert
MS21919 _ _ Clamp	AS21919 _ _ Clamp
MS24665 CAD plated steel cotter pin	MS24665 CRES cotter pin per NASM24665
MS27039C080 _ _ Screw	B526-6 or -8 Screw and B527-08 Washer per R22 MM § 23-86. Except where noted.
MS27151- _ Palnut	B330- _ Palnut
NAS1067 Nutplate	MS21086 Nutplate per NASM21086
NAS1068A _ Nutplate	MS21075L _ E Nutplate per NASM21075
NAS1291-04 thru -08 Nut	MS21042 Nut per NASM21042
NAS1291-3 thru -10 Nut	D210-3 thru -10 Nut*
NAS1303 thru NAS1320 Bolt, except 1307 Bolt	NAS6603 thru NAS6620** Bolt, except 6607 Bolt
NAS1919B0 _ SO _ Rivet	NAS9301B- _ -0 _ Rivet
NAS1921B0 _ SO _ Rivet	NAS9302B- _ -0 _ Rivet
NAS428- _ - _ Bolt	NAS428- _ A _ Bolt
NAS487 Instrument nut	MS33737 Instrument nut per NASM33737
NAS679A _ Nut	NAS1291- _ Nut
NAS679C _ M Nut	NAS1291C _ M Nut
NAS696 Nutplate	MS21071 Nutplate per NASM21071
NAS697 Nutplate	MS21069 & MS21070 Nutplate per NASM21069 & NASM21070
NAS698 Nutplate	MS21073 Nutplate per NASM21073

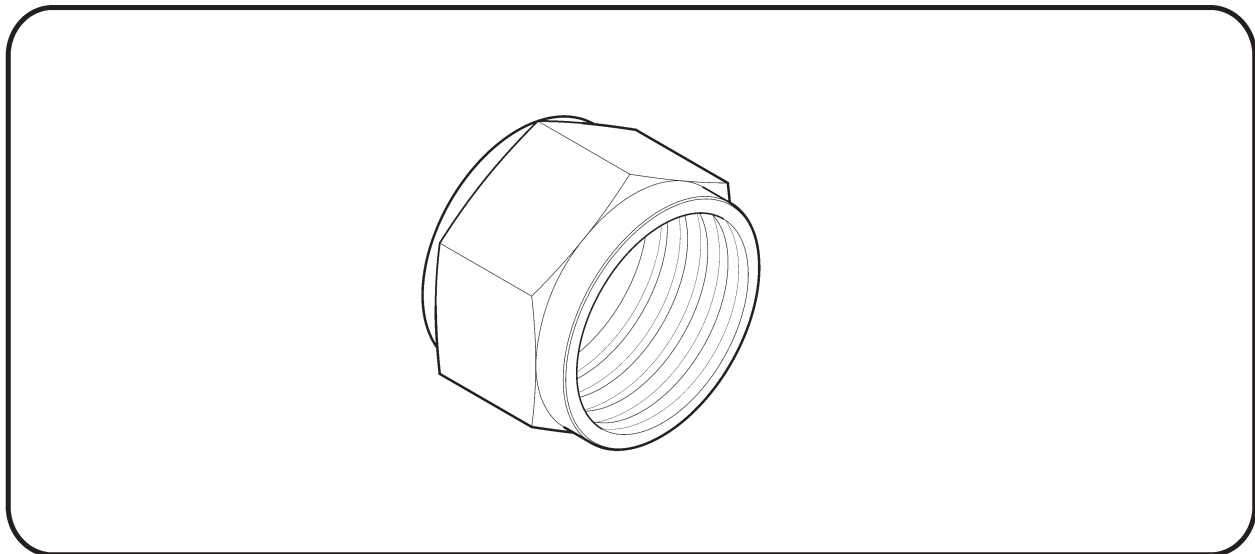
* One-way interchangeability, only D210 nut shall be used for listed sizes.

** The following bolts must be NAS1300 series only: NAS1304-17 and NAS1305-35.

A880 FLARED TUBE COMPONENTS

A. Nuts – Flare

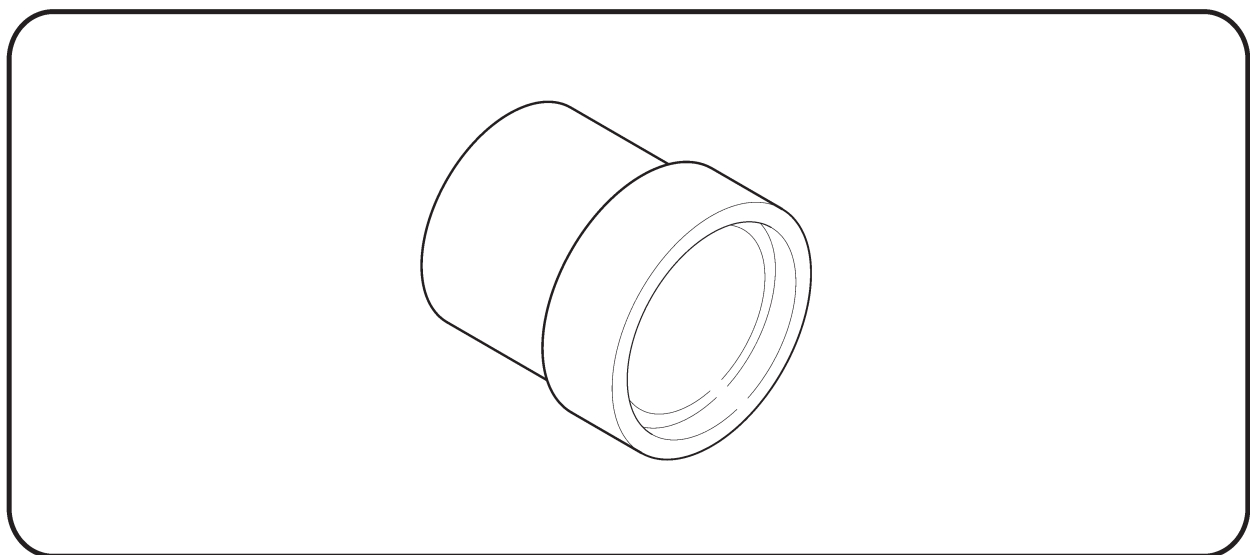
Dash Numbers	Allowable Part Numbers	Material REF	Tube OD REF
-102	AN818-2D, AN818-2W, AS5175W02	AL	1/8-inch
-103	AN818-3D, AN818-3W, AS5175W03	AL	3/16-inch
-104	AN818-4D, AN818-4W, AS5175W04	AL	1/4-inch
-105	AN818-5D, AN818-5W, AS5175W05	AL	5/16-inch
-106	AN818-6D, AN818-6W, AS5175W06	AL	3/8-inch
-108	AN818-8D, AN818-8W, AS5175W08	AL	1/2-inch
-110	AN818-10D, AN818-10W, AS5175W10	AL	5/8-inch
-202	AN818-2J, AS5175J02	CRES	1/8-inch
-203	AN818-3J, AS5175J03	CRES	3/16-inch
-204	AN818-4J, AS5175J04	CRES	1/4-inch
-205	AN818-5J, AS5175J05	CRES	5/16-inch
-206	AN818-6J, AS5175J06	CRES	3/8-inch
-208	AN818-8J, AS5175J08	CRES	1/2-inch
-210	AN818-10J, AS5175J10	CRES	5/8-inch



A880 FLARED TUBE COMPONENTS (Cont'd)

B. Sleeves

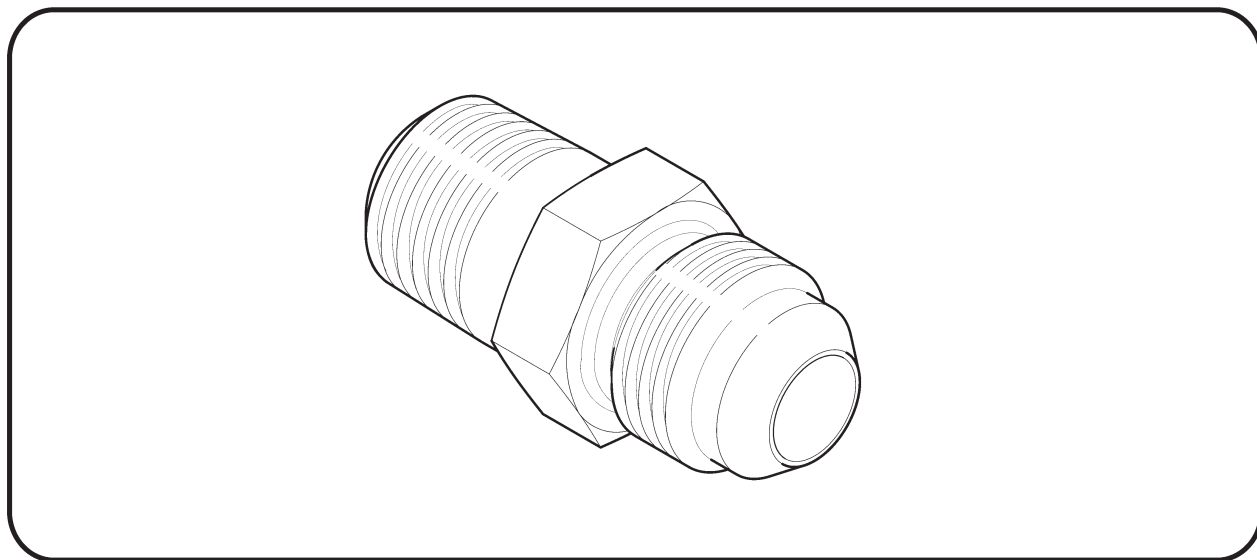
Dash Numbers	Allowable Part Numbers	Material REF	Tube OD REF
-302	MS20819-2D, AS3220D02, AS3220W02	AL	1/8-inch
-303	MS20819-3D, AS3220D03, AS3220W03	AL	3/16-inch
-304	MS20819-4D, AS3220D04, AS3220W04	AL	1/4-inch
-305	MS20819-5D, AS3220D05, AS3220W05	AL	5/16-inch
-306	MS20819-6D, AS3220D06, AS3220W06	AL	3/8-inch
-308	MS20819-8D, AS3220D08, AS3220W08	AL	1/2-inch
-310	MS20819-10D, AS3220D10, AS3220W10	AL	5/8-inch
-402	MS20819-2J, AS5176J02	CRES	1/8-inch
-403	MS20819-3J, AS5176J03	CRES	3/16-inch
-404	MS20819-4J, AS5176J04	CRES	1/4-inch
-405	MS20819-5J, AS5176J05	CRES	5/16-inch
-406	MS20819-6J, AS5176J06	CRES	3/8-inch
-408	MS20819-8J, AS5176J08	CRES	1/2-inch
-410	MS20819-10J, AS5176J10	CRES	5/8-inch



A880 FLARED TUBE COMPONENTS (Cont'd)

C. Adapters – NPT to Flare

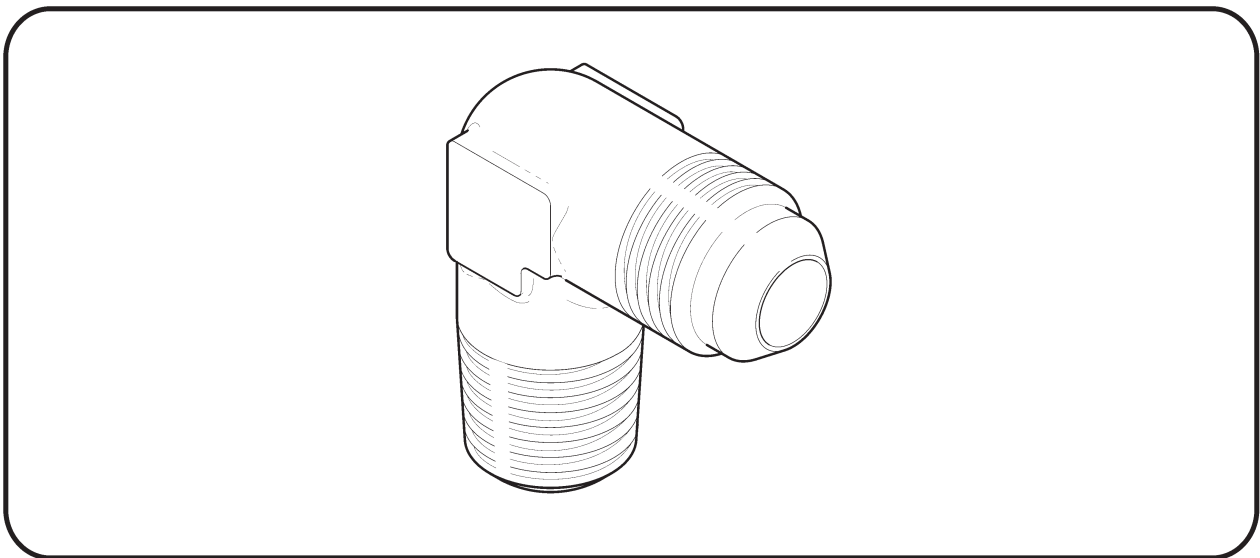
Dash Numbers	Allowable Part Numbers	Material REF	Tube OD REF
-502	AN816-2D, AS5194D0202	AL	1/8-inch
-503	AN816-3D, AS5194D0302	AL	3/16-inch
-504	AN816-4D, AS5194D0402	AL	1/4-inch
-505	AN816-5D, AS5194D0502	AL	5/16-inch
-506	AN816-6D, AS5194D0604	AL	3/8-inch
-508	AN816-8D, AS5194D0806	AL	1/2-inch
-510	AN816-10D, AS5194D1008	AL	5/8-inch
-532	AN816-2J, AS5194J0202	CRES	1/8-inch
-533	AN816-3J, AS5194J0302	CRES	3/16-inch
-534	AN816-4J, AS5194J0402	CRES	1/4-inch
-535	AN816-5J, AS5194J0502	CRES	5/16-inch
-536	AN816-6J, AS5194J0604	CRES	3/8-inch
-538	AN816-8J, AS5194J0806	CRES	1/2-inch
-540	AN816-10J, AS5194J1008	CRES	5/8-inch
-562	AN816-2, AS5194-0202	STL	1/8-inch
-563	AN816-3, AS5194-0302	STL	3/16-inch
-564	AN816-4, AS5194-0402	STL	1/4-inch
-565	AN816-5, AS5194-0502	STL	5/16-inch
-566	AN816-6, AS5194-0604	STL	3/8-inch
-568	AN816-8, AS5194-0806	STL	1/2-inch
-570	AN816-10, AS5194-1008	STL	5/8-inch



A880 FLARED TUBE COMPONENTS (Cont'd)

D. Elbows – 90°, NPT to Flare

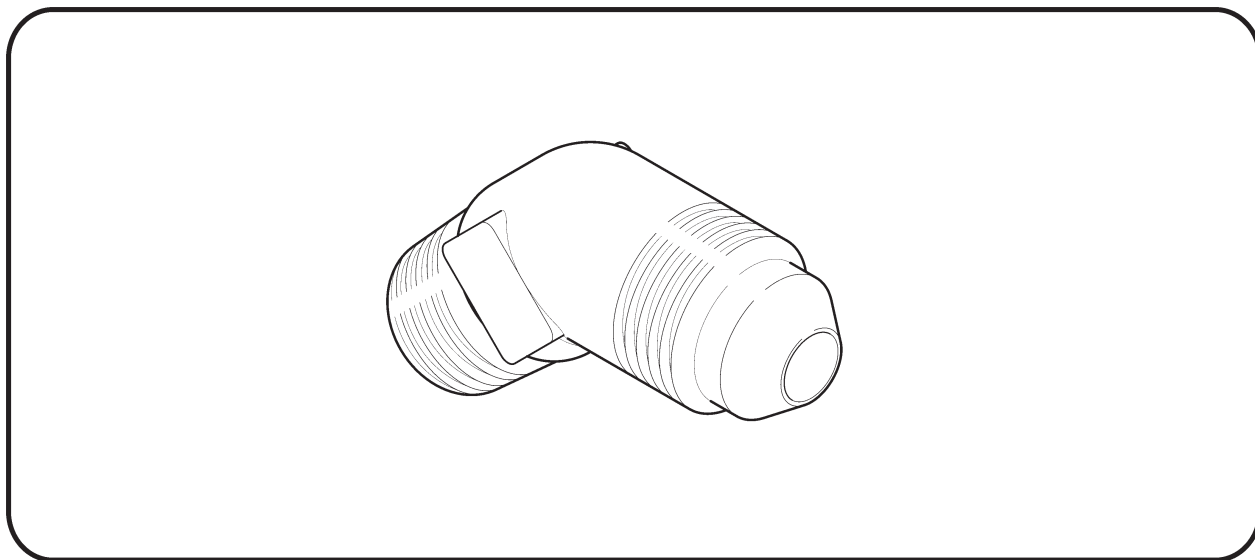
Dash Numbers	Allowable Part Numbers	Material REF	Tube OD REF
-602	AN822-2D, MS20822-2D, AS5195W0202	AL	1/8-inch
-603	AN822-3D, MS20822-3D, AS5195W0302	AL	3/16-inch
-604	AN822-4D, MS20822-4D, AS5195W0402	AL	1/4-inch
-605	AN822-5D, MS20822-5D, AS5195W0502	AL	5/16-inch
-606	AN822-6D, MS20822-6D, AS5195W0604	AL	3/8-inch
-608	AN822-8D, MS20822-8D, AS5195W0806	AL	1/2-inch
-610	AN822-10D, MS20822-10D, AS5195W1008	AL	5/8-inch
-632	AN822-2J, MS20822-2J, AS5195J0202	CRES	1/8-inch
-633	AN822-3J, MS20822-3J, AS5195J0302	CRES	3/16-inch
-634	AN822-4J, MS20822-4J, AS5195J0402	CRES	1/4-inch
-635	AN822-5J, MS20822-5J, AS5195J0502	CRES	5/16-inch
-636	AN822-6J, MS20822-6J, AS5195J0604	CRES	3/8-inch
-638	AN822-8J, MS20822-8J, AS5195J0806	CRES	1/2-inch
-640	AN822-10J, MS20822-10J, AS5195J1008	CRES	5/8-inch
-662	AN822-2, MS20822-2, AS5195-0202	STL	1/8-inch
-663	AN822-3, MS20822-3, AS5195-0302	STL	3/16-inch
-664	AN822-4, MS20822-4, AS5195-0402	STL	1/4-inch
-665	AN822-5, MS20822-5, AS5195-0502	STL	5/16-inch
-666	AN822-6, MS20822-6, AS5195-0604	STL	3/8-inch
-668	AN822-8, MS20822-8, AS5195-0806	STL	1/2-inch
-670	AN822-10, MS20822-10, AS5195-1008	STL	5/8-inch



A880 FLARED TUBE COMPONENTS (Cont'd)

E. Elbows – 45°, NPT to Flare

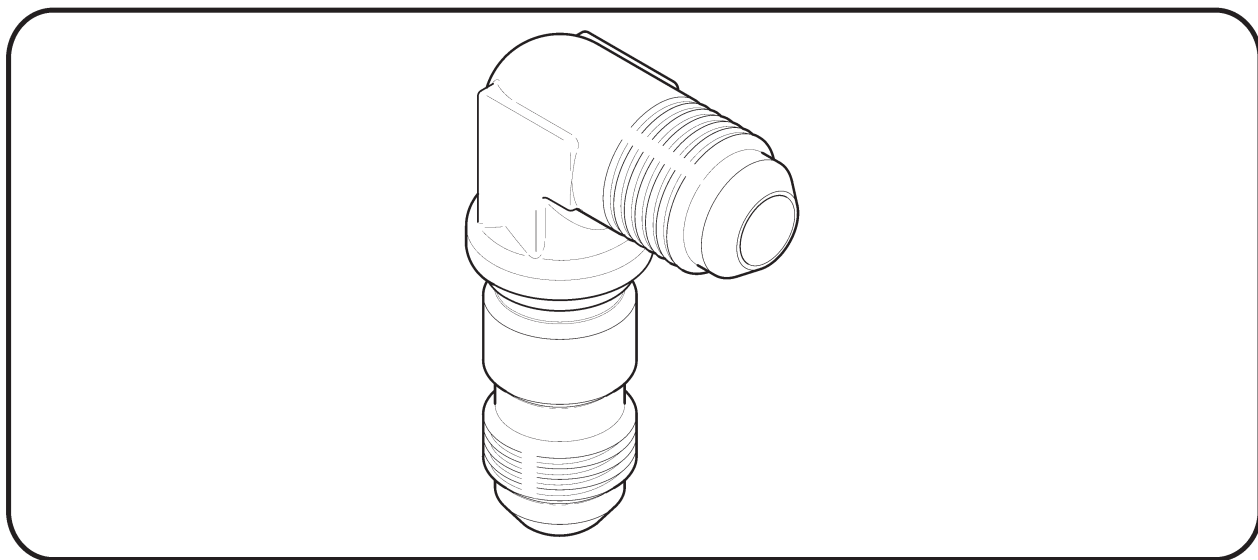
Dash Numbers	Allowable Part Numbers	Material REF	Tube OD REF
-702	AN823-2D, MS20823-2D, AS5196W0202	AL	1/8-inch
-703	AN823-3D, MS20823-3D, AS5196W0302	AL	3/16-inch
-704	AN823-4D, MS20823-4D, AS5196W0402	AL	1/4-inch
-705	AN823-5D, MS20823-5D, AS5196W0502	AL	5/16-inch
-706	AN823-6D, MS20823-6D, AS5196W0604	AL	3/8-inch
-708	AN823-8D, MS20823-8D, AS5196W0806	AL	1/2-inch
-710	AN823-10D, MS20823-10D, AS5196W1008	AL	5/8-inch
-732	AN823-2J, MS20823-2J, AS5196J0202	CRES	1/8-inch
-733	AN823-3J, MS20823-3J, AS5196J0302	CRES	3/16-inch
-734	AN823-4J, MS20823-4J, AS5196J0402	CRES	1/4-inch
-735	AN823-5J, MS20823-5J, AS5196J0502	CRES	5/16-inch
-736	AN823-6J, MS20823-6J, AS5196J0604	CRES	3/8-inch
-738	AN823-8J, MS20823-8J, AS5196J0806	CRES	1/2-inch
-740	AN823-10J, MS20823-10J, AS5196J1008	CRES	5/8-inch
-762	AN823-2, MS20823-2, AS5196-0202	STL	1/8-inch
-763	AN823-3, MS20823-3, AS5196-0302	STL	3/16-inch
-764	AN823-4, MS20823-4, AS5196-0402	STL	1/4-inch
-765	AN823-5, MS20823-5, AS5196-0502	STL	5/16-inch
-766	AN823-6, MS20823-6, AS5196-0604	STL	3/8-inch
-768	AN823-8, MS20823-8, AS5196-0806	STL	1/2-inch
-770	AN823-10, MS20823-10, AS5196-1008	STL	5/8-inch



A880 FLARED TUBE COMPONENTS (Cont'd)

F. Elbows – 90°, Bulkhead Flare to Flare

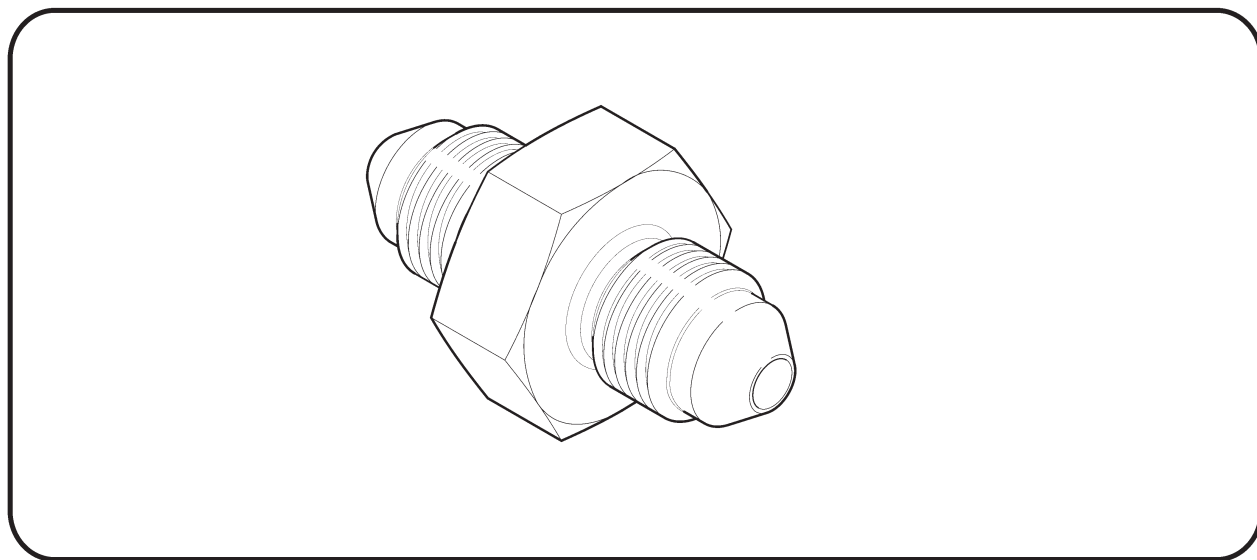
Dash Numbers	Allowable Part Numbers	Material REF	Tube OD REF
-802	AN833-2D, AS1038D0202, AS1038W0202	AL	1/8-inch
-803	AN833-3D, AS1038D0303, AS1038W0303	AL	3/16-inch
-804	AN833-4D, AS1038D0404, AS1038W0404	AL	1/4-inch
-805	AN833-5D, AS1038D0505, AS1038W0505	AL	5/16-inch
-806	AN833-6D, AS1038D0606, AS1038W0606	AL	3/8-inch
-808	AN833-8D, AS1038D0808, AS1038W0808	AL	1/2-inch
-810	AN833-10D, AS1038D1010, AS1038W1010	AL	5/8-inch
-832	AN833-2J, AS1038J0202	CRES	1/8-inch
-833	AN833-3J, AS1038J0303	CRES	3/16-inch
-834	AN833-4J, AS1038J0404	CRES	1/4-inch
-835	AN833-5J, AS1038J0505	CRES	5/16-inch
-836	AN833-6J, AS1038J0606	CRES	3/8-inch
-838	AN833-8J, AS1038J0808	CRES	1/2-inch
-840	AN833-10J, AS1038J1010	CRES	5/8-inch
-862	AN833-2, AS1038-0202	STL	1/8-inch
-863	AN833-3, AS1038-0303	STL	3/16-inch
-864	AN833-4, AS1038-0404	STL	1/4-inch
-865	AN833-5, AS1038-0505	STL	5/16-inch
-866	AN833-6, AS1038-0606	STL	3/8-inch
-868	AN833-8, AS1038-0808	STL	1/2-inch
-870	AN833-10, AS1038-1010	STL	5/8-inch



A880 FLARED TUBE COMPONENTS (Cont'd)

G. Unions – Flare to Flare

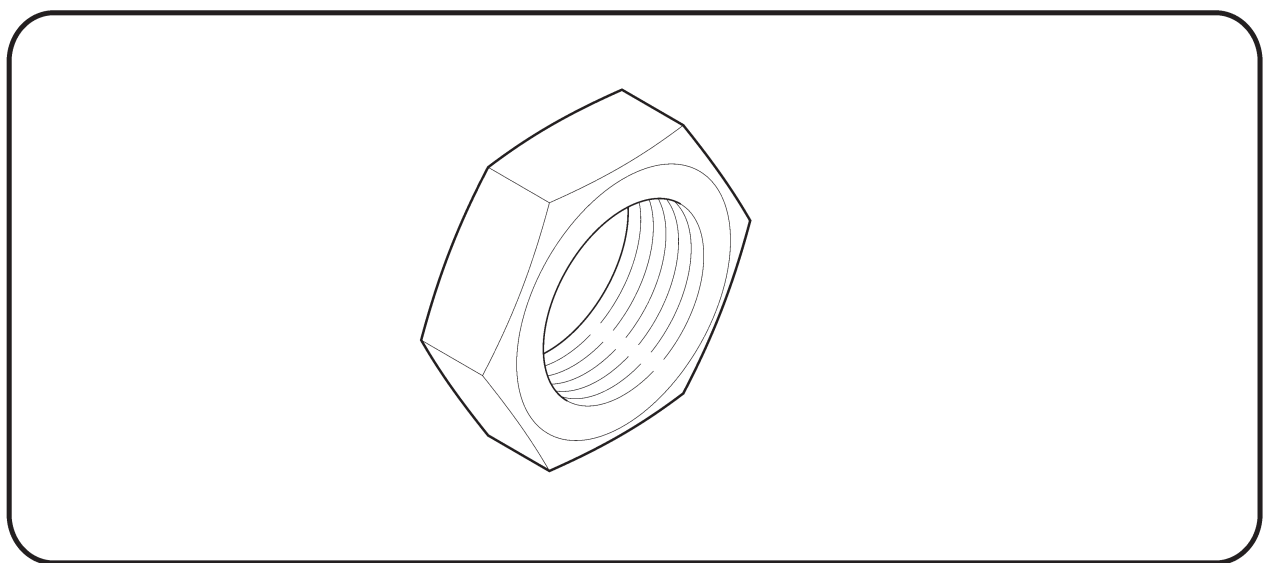
Dash Numbers	Allowable Part Numbers	Material REF	Tube OD REF
-902	AN815-2D, AS5174D0202, AS5174W0202	AL	1/8-inch
-903	AN815-3D, AS5174D0303, AS5174W0303	AL	3/16-inch
-904	AN815-4D, AS5174D0404, AS5174W0404	AL	1/4-inch
-905	AN815-5D, AS5174D0505, AS5174W0505	AL	5/16-inch
-906	AN815-6D, AS5174D0606, AS5174W0606	AL	3/8-inch
-908	AN815-8D, AS5174D0808, AS5174W0808	AL	1/2-inch
-910	AN815-10D, AS5174D1010, AS5174W1010	AL	5/8-inch
-932	AN815-2J, AS5174J0202	CRES	1/8-inch
-933	AN815-3J, AS5174J0303	CRES	3/16-inch
-934	AN815-4J, AS5174J0404	CRES	1/4-inch
-935	AN815-5J, AS5174J0505	CRES	5/16-inch
-936	AN815-6J, AS5174J0606	CRES	3/8-inch
-938	AN815-8J, AS5174J0808	CRES	1/2-inch
-940	AN815-10J, AS5174J1010	CRES	5/8-inch
-962	AN815-2, AS5174-0202	STL	1/8-inch
-963	AN815-3, AS5174-0303	STL	3/16-inch
-964	AN815-4, AS5174-0404	STL	1/4-inch
-965	AN815-5, AS5174-0505	STL	5/16-inch
-966	AN815-6, AS5174-0606	STL	3/8-inch
-968	AN815-8, AS5174-0808	STL	1/2-inch
-970	AN815-10, AS5174-1010	STL	5/8-inch



A880 FLARED TUBE COMPONENTS (Cont'd)

H. Nuts – Hex

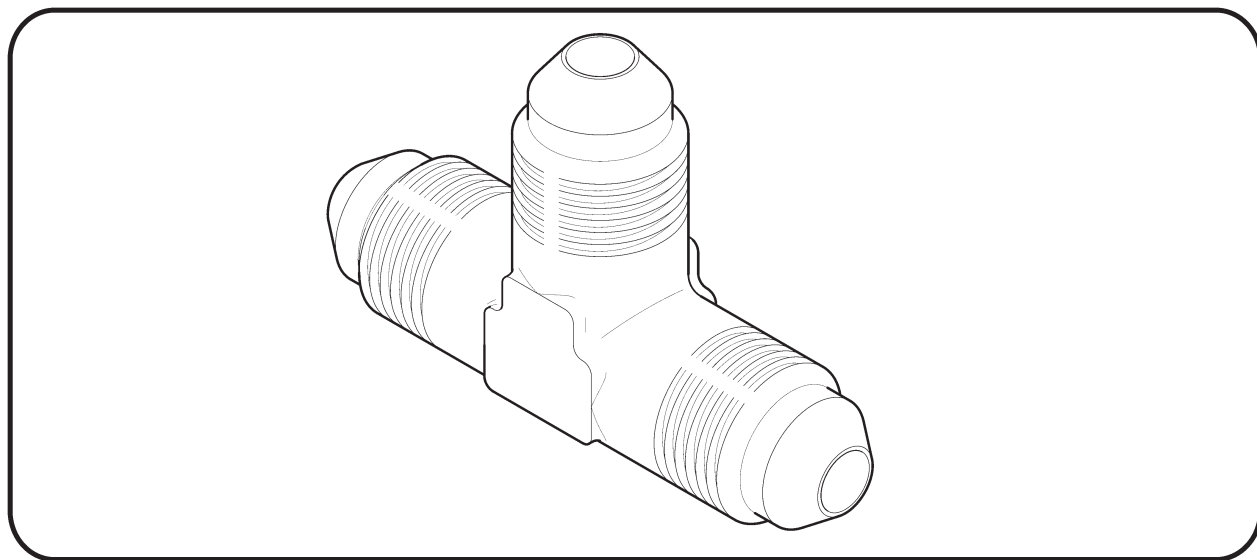
Dash Numbers	Allowable Part Numbers	Material REF	Tube OD REF
-1002	AN924-2D, AN924-2W, AS5178W02	AL	1/8-inch
-1003	AN924-3D, AN924-3W, AS5178W03	AL	3/16-inch
-1004	AN924-4D, AN924-4W, AS5178W04	AL	1/4-inch
-1005	AN924-5D, AN924-5W, AS5178W05	AL	5/16-inch
-1006	AN924-6D, AN924-6W, AS5178W06	AL	3/8-inch
-1008	AN924-8D, AN924-8W, AS5178W08	AL	1/2-inch
-1010	AN924-10D, AN924-10W, AS5178W10	AL	5/8-inch
-1032	AN924-2J, AS5178J02	CRES	1/8-inch
-1033	AN924-3J, AS5178J03	CRES	3/16-inch
-1034	AN924-4J, AS5178J04	CRES	1/4-inch
-1035	AN924-5J, AS5178J05	CRES	5/16-inch
-1036	AN924-6J, AS5178J06	CRES	3/8-inch
-1038	AN924-8J, AS5178J08	CRES	1/2-inch
-1040	AN924-10J, AS5178J10	CRES	5/8-inch
-1062	AN924-2, AS5178-02	STL	1/8-inch
-1063	AN924-3, AS5178-03	STL	3/16-inch
-1064	AN924-4, AS5178-04	STL	1/4-inch
-1065	AN924-5, AS5178-05	STL	5/16-inch
-1066	AN924-6, AS5178-06	STL	3/8-inch
-1068	AN924-8, AS5178-08	STL	1/2-inch
-1070	AN924-10, AS5178-10	STL	5/8-inch



A880 FLARED TUBE COMPONENTS (Cont'd)

I. Tees – NPT to Flare

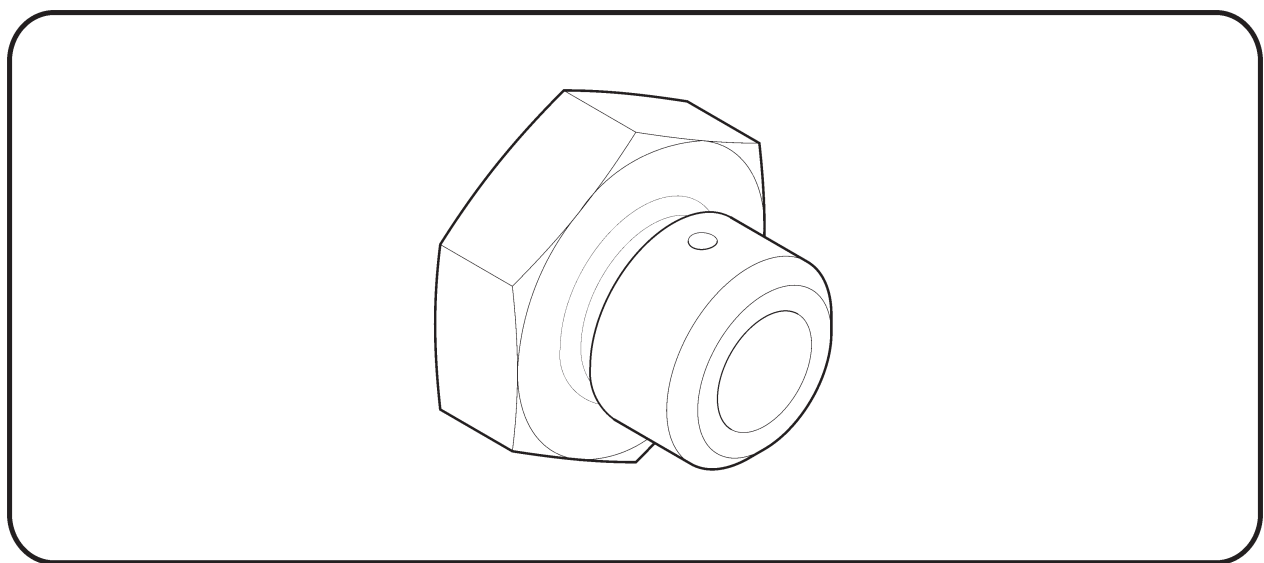
Dash Numbers	Allowable Part Numbers	Material REF	Tube OD REF
-1102	AN826-2D, MS20826-2D, AS5198W020202	AL	1/8-inch
-1103	AN826-3D, MS20826-3D, AS5198W030203	AL	3/16-inch
-1104	AN826-4D, MS20826-4D, AS5198W040204	AL	1/4-inch
-1105	AN826-5D, MS20826-5D, AS5198W050205	AL	5/16-inch
-1106	AN826-6D, MS20826-6D, AS5198W060406	AL	3/8-inch
-1108	AN826-8D, MS20826-8D, AS5198W080608	AL	1/2-inch
-1110	AN826-10D, MS20826-10D, AS5198W100810	AL	5/8-inch
-1132	AN826-2J, MS20826-2J, AS5198J020202	CRES	1/8-inch
-1133	AN826-3J, MS20826-3J, AS5198J030203	CRES	3/16-inch
-1134	AN826-4J, MS20826-4J, AS5198J040204	CRES	1/4-inch
-1135	AN826-5J, MS20826-5J, AS5198J050205	CRES	5/16-inch
-1136	AN826-6J, MS20826-6J, AS5198J060406	CRES	3/8-inch
-1138	AN826-8J, MS20826-8J, AS5198J080608	CRES	1/2-inch
-1140	AN826-10J, MS20826-10J, AS5198J100810	CRES	5/8-inch
-1162	AN826-2, MS20826-2, AS5198-020202	STL	1/8-inch
-1163	AN826-3, MS20826-3, AS5198-030203	STL	3/16-inch
-1164	AN826-4, MS20826-4, AS5198-040204	STL	1/4-inch
-1165	AN826-5, MS20826-5, AS5198-050205	STL	5/16-inch
-1166	AN826-6, MS20826-6, AS5198-060406	STL	3/8-inch
-1168	AN826-8, MS20826-8, AS5198-080608	STL	1/2-inch
-1170	AN826-10, MS20826-10, AS5198-100810	STL	5/8-inch



A880 FLARED TUBE COMPONENTS (Cont'd)

J. Plugs without Holes

Dash Numbers	Allowable Part Numbers	Material REF	Tube OD REF
-1202	AN814-2D, AN814-2W, AS5169D02, AS5169W02	AL	1/8-inch
-1203	AN814-3D, AN814-3W, AS5169D03, AS5169W03	AL	3/16-inch
-1204	AN814-4D, AN814-4W, AS5169D04, AS5169W04	AL	1/4-inch
-1205	AN814-5D, AN814-5W, AS5169D05, AS5169W05	AL	5/16-inch
-1206	AN814-6D, AN814-6W, AS5169D06, AS5169W06	AL	3/8-inch
-1208	AN814-8D, AN814-8W, AS5169D08, AS5169W08	AL	1/2-inch
-1210	AN814-10D, AN814-10W, AS5169D10, AS5169W10	AL	5/8-inch
-1232	AN814-2J, AS5169J02	CRES	1/8-inch
-1233	AN814-3J, AS5169J03	CRES	3/16-inch
-1234	AN814-4J, AS5169J04	CRES	1/4-inch
-1235	AN814-5J, AS5169J05	CRES	5/16-inch
-1236	AN814-6J, AS5169J06	CRES	3/8-inch
-1238	AN814-8J, AS5169J08	CRES	1/2-inch
-1240	AN814-10J, AS5169J10	CRES	5/8-inch
-1262	AN814-2, AS5169-02	STL	1/8-inch
-1263	AN814-3, AS5169-03	STL	3/16-inch
-1264	AN814-4, AS5169-04	STL	1/4-inch
-1265	AN814-5, AS5169-05	STL	5/16-inch
-1266	AN814-6, AS5169-06	STL	3/8-inch
-1268	AN814-8, AS5169-08	STL	1/2-inch
-1270	AN814-10, AS5169-10	STL	5/8-inch



A880 FLARED TUBE COMPONENTS (Cont'd)

K. Plugs with Holes

Dash Numbers	Allowable Part Numbers	Material REF	Tube OD REF
-1302	AN814-2DL, AN814-2WL, AS5169D02L, AS5169W02L	AL	1/8-inch
-1303	AN814-3DL, AN814-3WL, AS5169D03L, AS5169W03L	AL	3/16-inch
-1304	AN814-4DL, AN814-4 WL, AS5169D04L, AS5169W04L	AL	1/4-inch
-1305	AN814-5DL, AN814-5WL, AS5169D05L, AS5169W05L	AL	5/16-inch
-1306	AN814-6DL, AN814-6WL, AS5169D06L, AS5169W06L	AL	3/8-inch
-1308	AN814-8DL, AN814-8WL, AS5169D08L, AS5169W08L	AL	1/2-inch
-1310	AN814-10DL, AN814-10WL, AS5169D10L, AS5169W10L	AL	5/8-inch
-1332	AN814-2JL, AS5169J02L	CRES	1/8-inch
-1333	AN814-3JL, AS5169J03L	CRES	3/16-inch
-1334	AN814-4JL, AS5169J04L	CRES	1/4-inch
-1335	AN814-5JL, AS5169J05L	CRES	5/16-inch
-1336	AN814-6JL, AS5169J06L	CRES	3/8-inch
-1338	AN814-8JL, AS5169J08L	CRES	1/2-inch
-1340	AN814-10JL, AS5169J10L	CRES	5/8-inch
-1362	AN814-2L, AS5169-02L	STL	1/8-inch
-1363	AN814-3L, AS5169-03L	STL	3/16-inch
-1364	AN814-4L, AS5169-04L	STL	1/4-inch
-1365	AN814-5L, AS5169-05L	STL	5/16-inch
-1366	AN814-6L, AS5169-06L	STL	3/8-inch
-1368	AN814-8L, AS5169-08L	STL	1/2-inch
-1370	AN814-10L, AS5169-10L	STL	5/8-inch

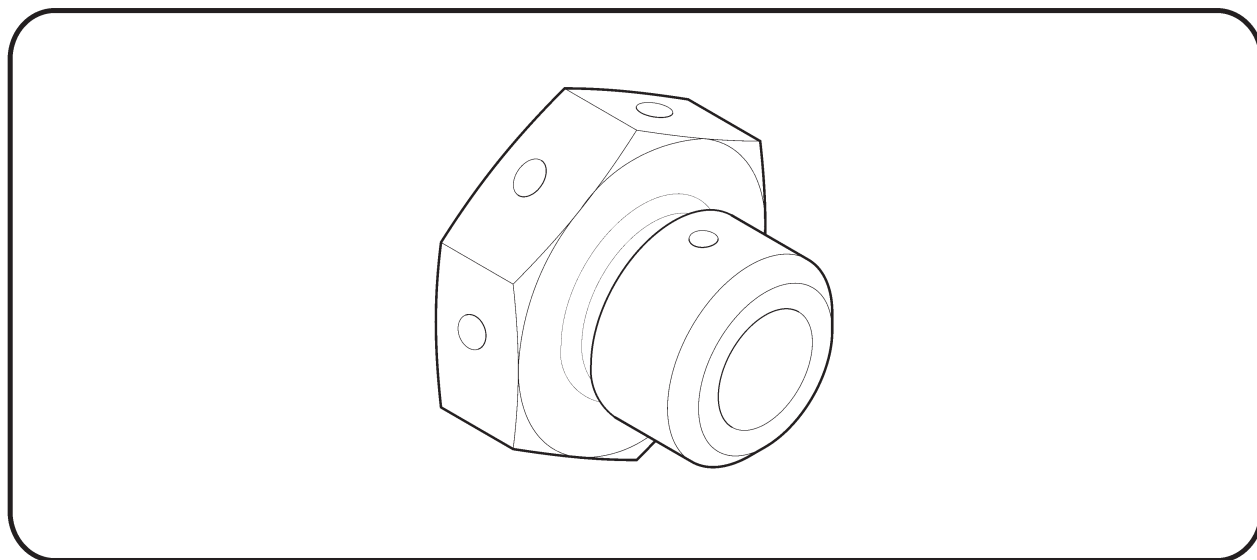


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
KANNAD ELT ANTENNA INSTALLATION*				
6-13-1	AV-300	Antenna (install using item 2)	X	1
2	B270-1	Sealant	X	A/R
3	21-84-5	Screw (install using item 4; included with item 1)	O	3
4	B270-4	Sealant	X	A/R
5	11-33-2	Lockwasher (countersunk; included with item 1)	O	3
6	MS27039C0806	Screw	X	2
7	B423-3	Stiffener (Ref)		
8	MS21919WDG3	Clamp	X	2
9	NAS1149FN816P	Washer	X	2
10	MS21042L08	Nut	X	2
11	B429-2	Skin (Ref)		
12	A837-2	Doubler	X	1
13	MS20470AD3	Rivet	X	8
14	5225395-6	Plug (BNC)	X	1
15	B274-518	Cable – Coaxial	X	A/R
16	NAS1149F0316P	Washer	X	3
17	MS21042L3	Nut	X	3

NOTES * Kannad ELT model AF Integra.

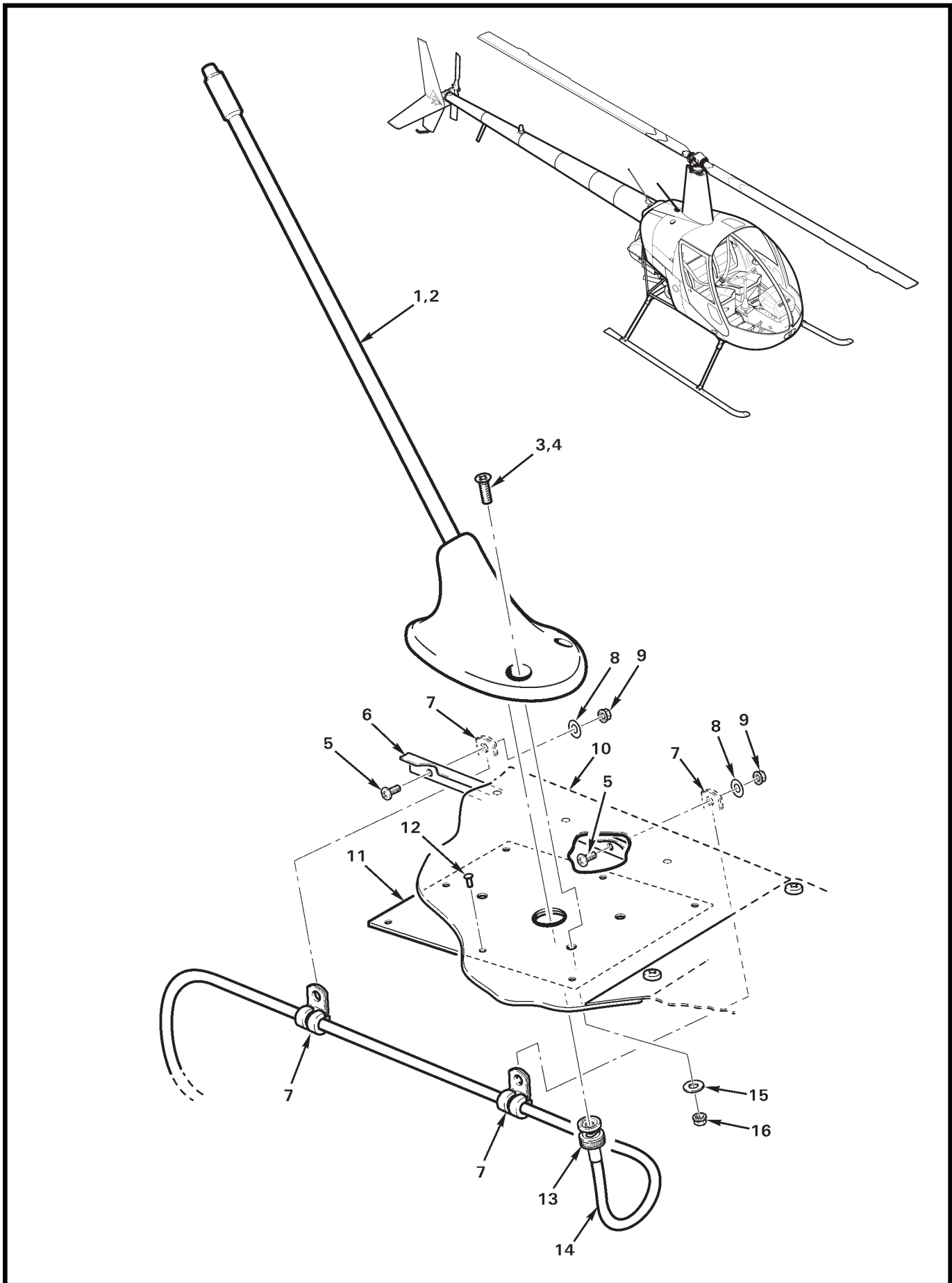


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
KANNAD ELT ANTENNA INSTALLATION*				
6-15-1	1327-82	Antenna (install using item 2)	O	1
2	B270-1	Sealant	X	A/R
3	MS24694-C51	Screw (install using item 4)	X	3
4	B270-4	Sealant	X	A/R
5	MS27039C0806	Screw	X	2
6	B423-3	Stiffener (Ref)		
7	MS21919WDG3	Clamp	X	2
8	NAS1149FN816P	Washer	X	2
9	MS21042L08	Nut	X	2
10	B429-2	Skin (Ref)		
11	A837-2	Doubler	X	1
12	MS20470AD3	Rivet	X	8
13	5225395-6	Plug (BNC)	X	1
14	B274-518	Cable – Coaxial	X	A/R
15	NAS1149F0316P	Washer	X	3
16	MS21042L3	Nut	X	3

NOTES * Kannad ELT model 406 AF.

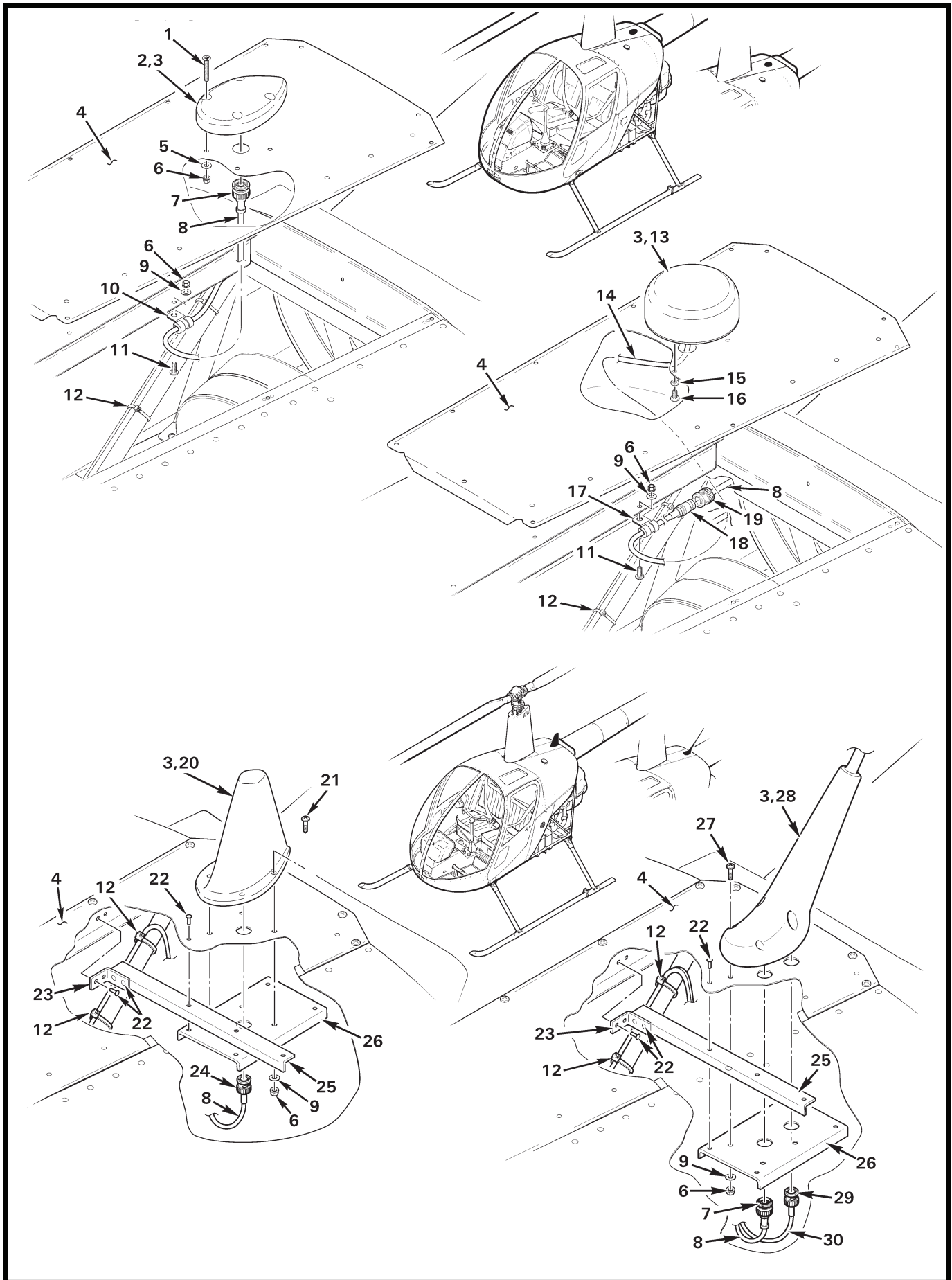


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
GPS ANTENNA INSTALLATION				
6-17-1	MS24694-S13	Screw	X	1
2	013-00235-00*	Antenna – GPS (Garmin model GA 35. Install using item 3.) . .	X	1
3	B270-1	Sealant	X	A/R
4	B429	Skin (Ref)		
5	NAS1149FN832P	Washer	X	4
6	MS21042L08	Nut	X	5
7	5225555-6	Plug (GPS)	X	1
8	A850-468	Cable – (GPS, Ref)		
9	NAS1149FN816P	Washer	X	5
10	MS21919WDG3	Clamp	X	1
11	MS27039C0806	Screw	X	1
12	MS3367-4-9	Ty-Rap (or MS3367-5-9).	X	A/R
13	010-00174-03*	Antenna – GPS (Garmin model GA 29F. For use when ELT is installed. No longer available; superceded by item 2.)	O	1
14	—	Cable (supplied with item 13)		
15	B332-42	Lockwasher	X	2
16	92000A218	Screw	X	2
17	MS21919WDG4	Clamp	X	1
18	5225396-1	Jack	X	1
19	5225395-6	Plug	X	1
20	011-00013-00*	Antenna – GPS (install using item 3).	O	1
21	MS24694-C5	Screw	X	4
22	MS20470AD3	Rivet	X	9
23	A787-1	Angle	X	1
24	5225395-1	Plug	X	1
25	A788-1	Stiffener	X	1
26	A904-1	Doubler	X	1
27	MS27039C0811	Screw	X	4
28	CI-4510-7C	Antenna (Ref, VHF/GPS; 118-137 MHz [VHF], 1575.42 MHz [GPS]. No longer available; order item 15 on Figure 6-23. For use when ELT is not installed.)		
29	225395-6	Plug (COM)	X	1
30	A850-212	Cable – (COM, Ref)		

NOTES * Garmin part no.

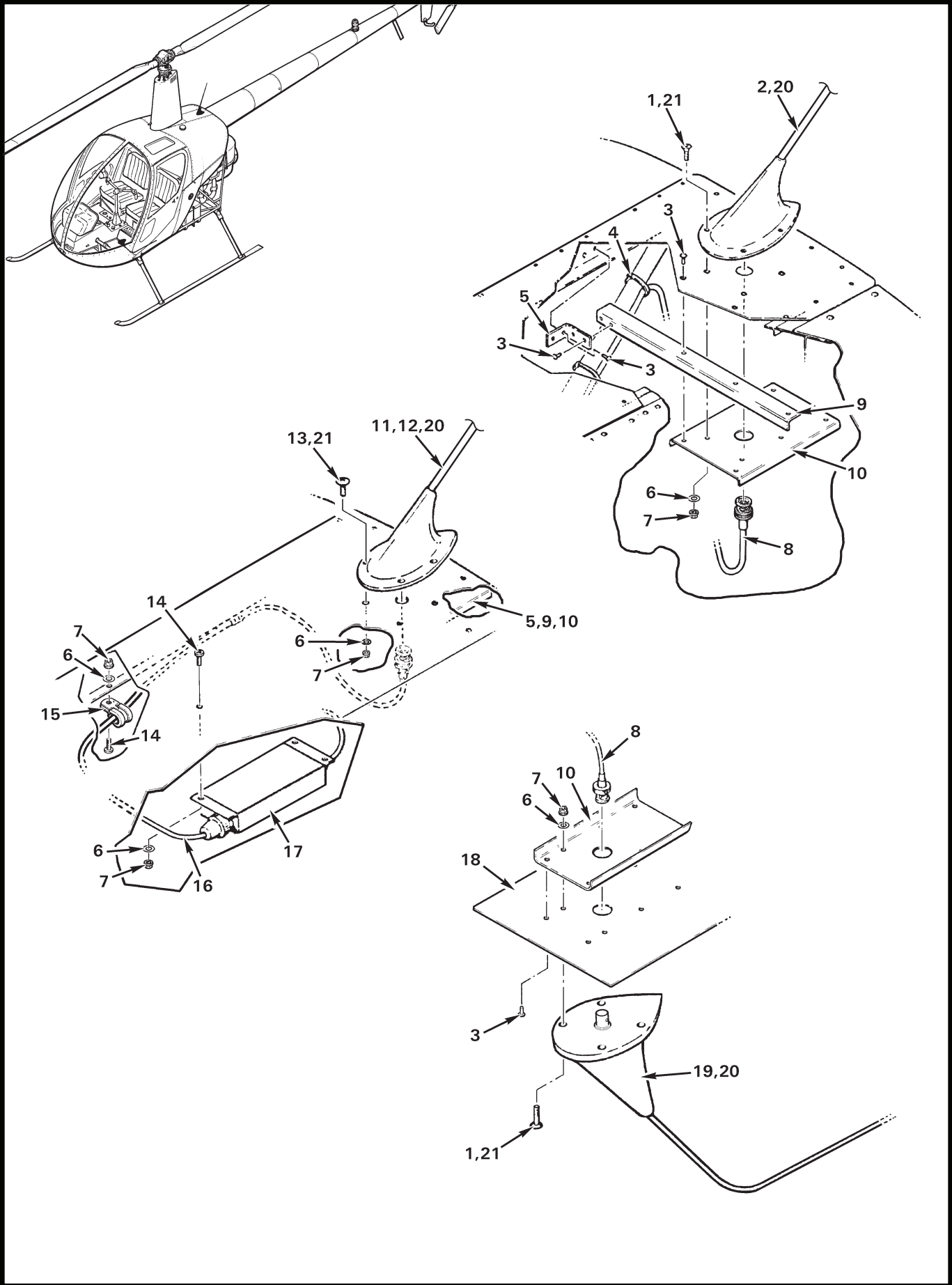


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
PLACARDS AND MARKINGS* (Cont'd)				
11-1-25	C654-5	Decal – Fuel Fill (100 octane; aux fuel tank)	X	1
	B841-42	Brazilian Version	X	1
	B842-47	Chinese Version	X	1
	C654-6**	Decal – Fuel Fill (100 octane; aux fuel tank)	X	1
	B841-43	Brazilian Version	X	1
	B842-52	Chinese Version	X	1
	A654-57	Decal – Fuel Fill (91/96 octane; aux fuel tank)	X	1
	A654-77**	Decal – Fuel Fill (91/96 octane; aux fuel tank)	X	1
26	R5049***	Decal – Registration Letters/Numbers	X	A/R
	R5378***	Stencil – Registration Letters/Numbers	X	A/R
27	R5051	Decal – “R22 Alpha” (stencil set, RH and LH)	X	1
	R5052	Decal – “R22 Beta” (stencil set, RH and LH)	X	1
	R5053	Decal – “R22 HP” (stencil set, RH and LH)	X	1
	R22BETA2	Decal – “R22 Beta II” (stencil set, RH and LH)	X	1
	R22MARINER2	Decal – “R22 Mariner II” (stencil set, RH and LH)	X	1
28	A654-30	Decal – “Step Here”	X	1
	B841-24	Brazilian Version	X	1
29	A725-1	Mount – MAP Limits Decal (2-graph)	X	1
30	A654-29	Decal – Flight Limitations (Ref; used on Standard, no longer available)		
	A654-41	Decal – Flight Limitations (used on HP and Alpha)	X	1
	A654-64	Decal – Flight Limitations (used on Beta)	X	1
	A654-90	Decal – Flight Limitations (used on Beta II)	X	1
	B204-2	Blind Rivet	X	2
32	A725-2	Mount – MAP Limits Decal (3-graph, used on Mariner)	X	1
33	A654-65	Decal – MAP Limits (131 hp Takeoff, used on Mariner)	X	1
	A654-91	Decal – Flight Limitations (used on Mariner II)	X	1
34	A654-44	Decal – “Tip Weights Installed” ([1] decal on console and [1] decal on underside of each main rotor blade)	X	3
35	A654-43	Decal – “Solo From Right Seat Only”	X	1
36	A654-79	Decal – “Gov, On-Off” (see also Figure 96-21)	X	1
37	A654-14	Decal – “DME”	X	1
38	A654-70	Decal – “Gov” (earlier R22s; see also Figure 96-21)	X	1
39	A654-45	Decal – “Mixture Control Guard”	X	1
40	A654-63	Decal – Cyclic Trim Adjust	X	1

NOTES * Country specific decals available only to dealers in noted country.
 ** For dark colored ships.
 *** Customer to Specify Letters/Numbers.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
PLACARDS AND MARKINGS* (Cont'd)				
11-1-41	A654-51	Decal – "R" (removable right pedal)	X	1
42	A654-50	Decal – "L" (removable left pedal)	X	1
43	A654-37	Decal – "R22 Robinson Helicopter"	X	1
44	F110-4	Telatemp (temperature recorder 220° – 270°F)	X	1
45	A654-61	Decal – Flight Limitations (used on Mariner)	X	1
46	B170-1	Data Plate – Cabin Heat (replaces all heater decals)	X	1
47	D682-44	Decal (fuel cap instructions)	X	2
	B841-36	Brazilian Version	X	2

NOTES * Country specific decals available only to dealers in noted country.

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY	
SEAT COMPARTMENT COVERS					
25-13-1	A748-4	Cover Assembly – Seat Compartment Cover (RH, without cabin heater. Used on Mariner.)	X	1	
	A748-1	Cover Assembly – Baggage Compartment (RH, Ref; with cabin heater, not shown. See Figure 21-9.)			
	2	B340-4	Nut	X	11
	3	NAS1149FN832P	Washer	X	11
	4	MS27039C0806	Screw	X	12
	5	A748-6	Cover Assembly – Seat Compartment Cover (LH, used on Mariner)	X	1

NOTES

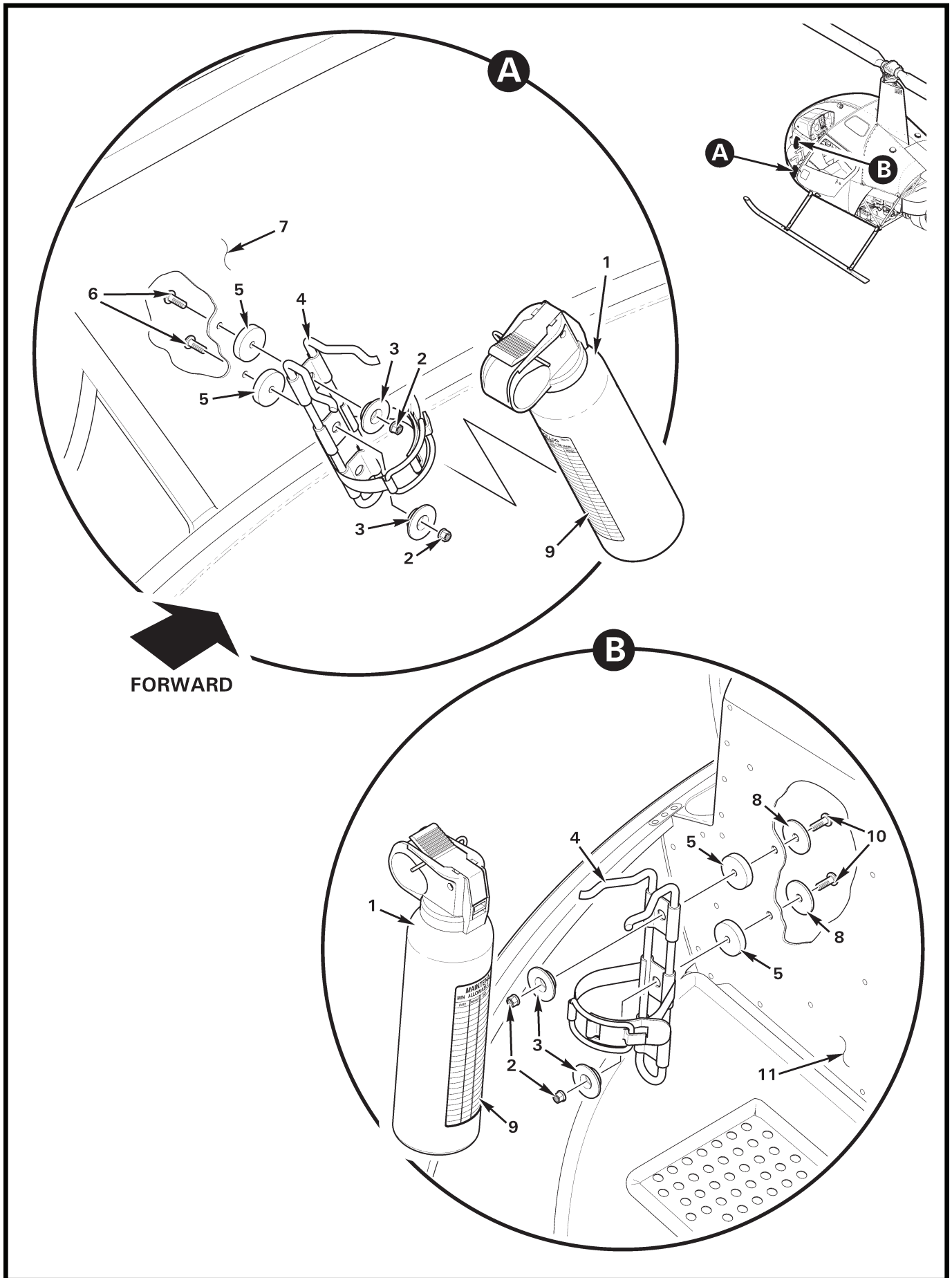


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
FIRE EXTINGUISHER INSTALLATION				
25-15-1	B381-1	Fire Extinguisher (halon, 14-oz)	X	1
2	MS21042L08	Nut	X	2
3	G220-1	Retainer	X	2
4	B381-3	Bracket	X	1
5	C130-54	Spacer	X	2
6	MS27039C0808	Screw (length as required)	X	2
7	—	Panel (LH, ref)		
8	AN970-3	Washer	X	2
9	G654-15	Decal "MAINTENANCE LOG MIN ALLOWABLE WEIGHT..." . .	X	1
10	MS27039C0808	Screw	X	2
11	A359	Panel (LH, Ref)		

NOTES

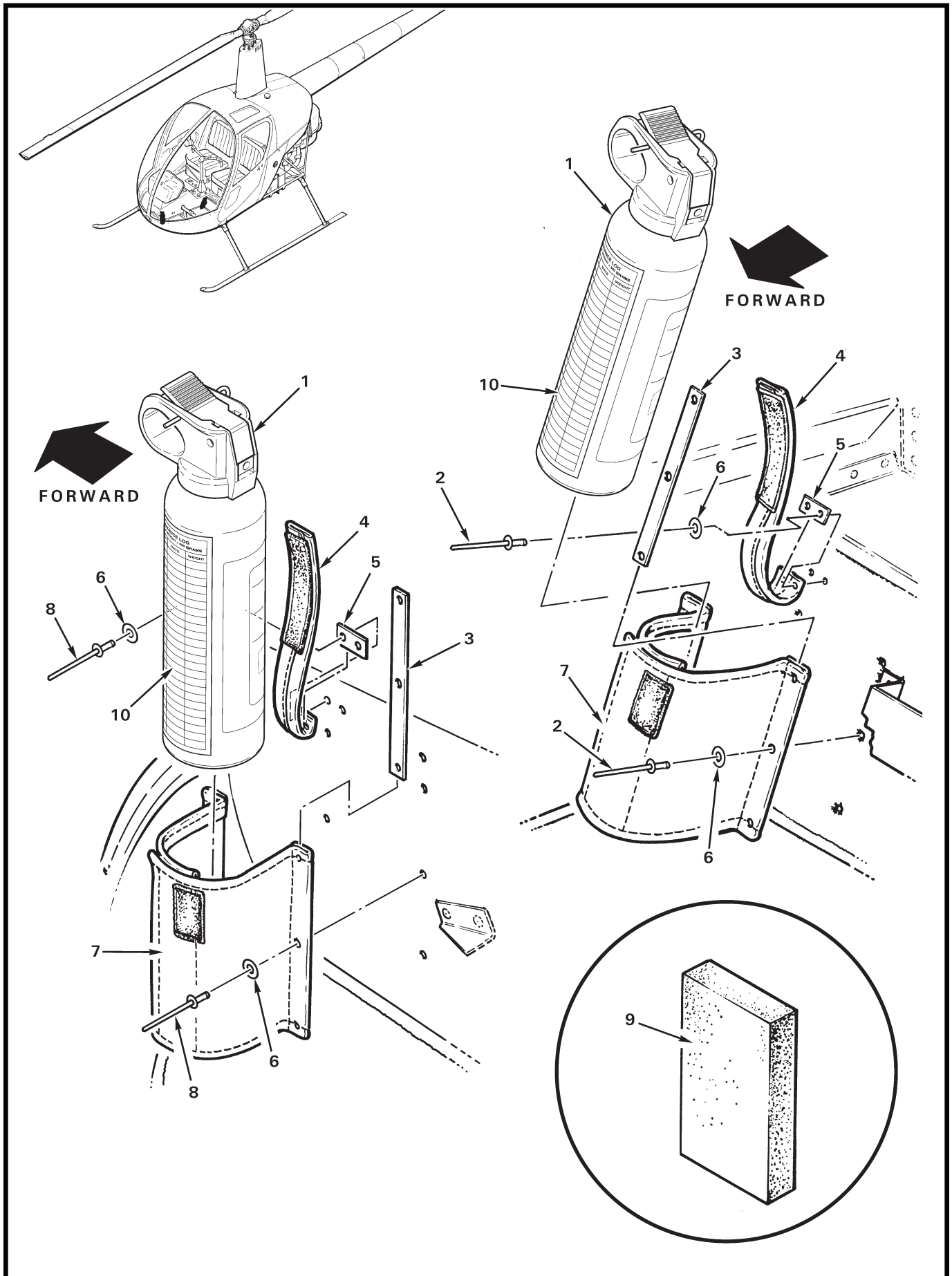
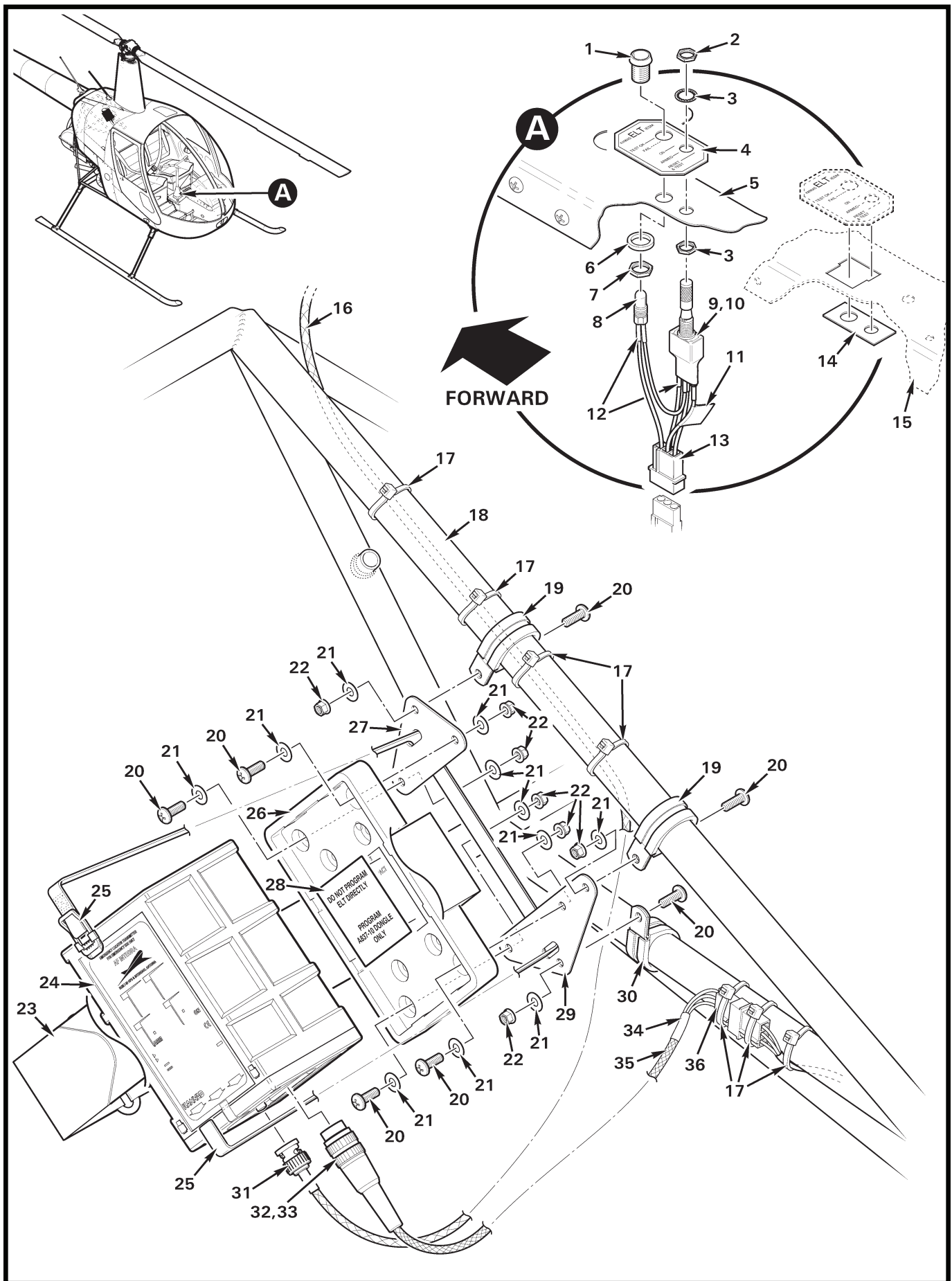


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
FIRE EXTINGUISHER INSTALLATION				
25-17-1	B381-1	Fire Extinguisher* (halon, 14-oz)	X	1
	2 AD46BS	Rivet (aft installation)	X	8
	3 A913-1	Strip	X	2
	4 B219-4BL	Strap Assembly (blue)	O	1
	B219-4GR	Strap Assembly (gray)	X	1
	B219-4TN	Strap Assembly (tan)	X	1
	5 A913-2	Strip	X	1
	6 NAS1149FN616P	Washer	X	8
	7 B219-3BL	Pocket Assembly (blue, 2-piece)	O	1
	B219-3GR	Pocket Assembly (gray, 2-piece)	X	1
	B219-3TN	Pocket Assembly (tan, 2-piece)	X	1
	8 1693-0414	Rivet (forward installation)	X	8
	9 B816-1 *	Spacer Pad	O	1
	10 G654-15	Decal "MAINTENANCE LOG MIN ALLOWABLE WEIGHT..." ..	X	1

NOTES * For earlier R22s with one-piece pocket assembly.



CHAPTER 28**FUEL SYSTEM**

<i>Figure</i>	<i>Title</i>	<i>Page</i>
28-1	Fuel Tank Assembly Installation	28.0
28-5	Main Tank Assembly	28.4
28-7	Main Tank Assembly	28.6
28-9	Auxiliary Tank Assembly	28.8
28-13	Fuel System Components	28.12
28-17	Vent Lines Installation	28.16
28-19	Primer System	28.18
28-23	Fuel System Installation (All-Aluminum Tanks)	28.22
28-27	Auxiliary Tank Assembly (All-Aluminum Tanks)	28.26

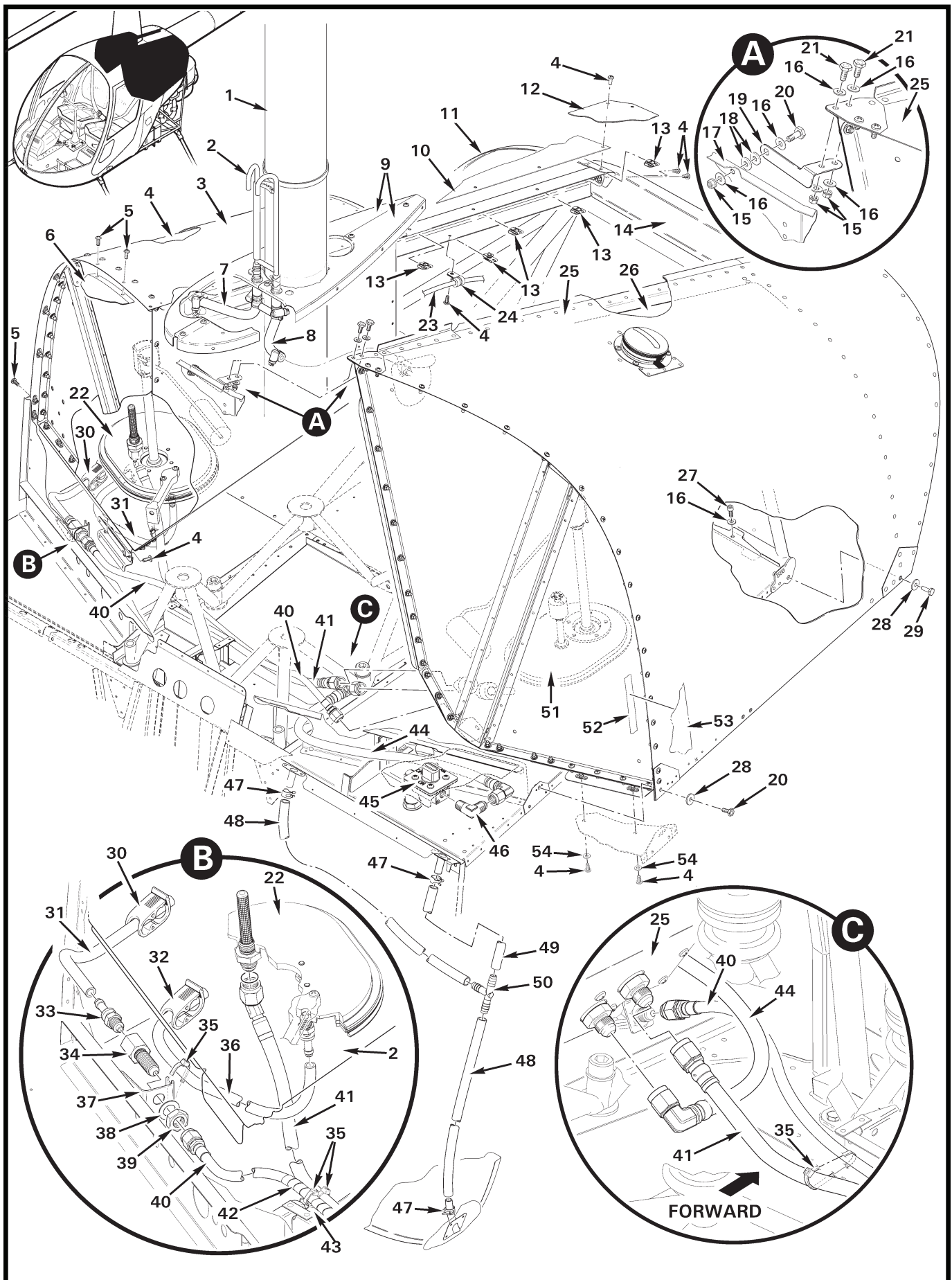


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
FUEL TANK ASSEMBLY INSTALLATION				
28-1-1	A283-5	Mast Assembly (Ref)		
2	A731-10	Vent Tube Assembly (Ref, see Figure 28-17)		
3	A010-15	Tank – Auxiliary (Ref, see Figure 28-9)		
4	B028-2	Bladder (Ref, see Figure 28-9)		
5	MS27039C0806	Screw	X	14
6	A015	Cabin Assembly (Ref)		
7	A729-48	Tube (Ref, see Figure 28-17)		
8	A729-62	Tube (Ref, see Figure 28-17)		
9	A261	Rib (Ref, see Figure 28-17)		
10	B430-4	Skin (Ref)		
11	B429-5	Frame (Ref)		
12	B429-1	Skin (Ref)		
13	B162-3	Clipnut	X	5
14	B428-1	Frame (Ref)		
15	D210-3	Nut	X	3
16	NAS1149F0332P	Washer	X	7
17	—	Bulkhead (Ref)		
18	NAS1149F0363P	Washer (between items 17 and 19)	X	2
19	A713-1	Strap	X	1
20	NAS6603-3	Bolt	X	1
21	NAS6603-2	Bolt	X	2
22	D250-8	Cover Assembly (Ref, see Figure 28-9)		
23	A729-6	Tube – Static Pressure (Ref, see Figure 95-61)		
24	MS21919WDG4	Clamp	X	1
25	A028-21	Tank Assembly – Main (Ref, see Figure 28-5)		
26	B028-1	Bladder (Ref, see Figure 28-5)		
27	NAS1351-3-8P	Screw	X	1
28	A141-17	Washer	X	2
29	NAS6603-4	Bolt	X	1
30	D663-1	Clamp	X	1
31	A729-17	Tube	X	1
32	D663-1	Clamp (Ref)		
33	A761-1	Drain	X	1
34	D255-4	Connector	X	1
35	MS3367-5-9	Ty-Rap	X	4

NOTES

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
FUEL TANK ASSEMBLY INSTALLATION (Cont'd)				
28-1-36	A729-60	Tube (Ref, see Figure 28-9)		
37	B576-5	Angle (Ref)		
38	NAS1149F0732P	Washer	X	1
39	A880-1004*	Nut	X	1
40	D205-34	Hose Assembly	X	1
41	D205-33	Hose Assembly	X	1
42	B161-8	Spirap	X	A/R
43	B580-3	Support (Ref)		
44	D205-32	Hose Assembly	X	1
45	A670-1	Valve – Fuel Shut-Off (Ref, see Figure 28-13)		
46	A880-636 or -666*	Elbow (Ref, see Figure 28-13)		
47	D277-8	Clamp	X	3
48	A729-3	Tube	X	2
49	A729-2	Tube	X	1
50	A457-1	Tee	X	1
51	D250-6	Cover Assembly (Ref, see Figure 28-7)		
52	A701-3	Tape (polyethylene)	X	A/R
53	A015-9	Skin (Ref)		
54	NAS1149FN832P	Washer	X	2

NOTES * See *Introduction* for allowable part numbers.

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
MAIN TANK ASSEMBLY				
28-5-1	MS27039C0805	Screw	X	2
2	MS27039C0806	Screw	X	37
3	A028-21	Main Tank Assembly (Incl items 1, 2, 8 thru 10, and 13 thru 16)	X	1
4	A142-1	Screw	X	6
5	A689-6*	Cap Assembly (primered; includes items 6 and 7. Order item 26 as required.)	X	1
	A689-6.PT*	Cap Assembly (painted white; includes items 6, 7, and 26) . .	X	1
6	A689-8	Washer	X	1
7	A689-7	Gasket	X	1
8	B175-4	Loop Tape (install using item 9)	X	A/R
9	B270-8qt	Adhesive	X	A/R
10	B575-5	Stiffener	X	1
11	B028-1	Bladder – Fuel (Incl item 12)	X	1
12	B175-1	Hook Tape (Ref)		
13	NAS1149FN816P	Washer	X	39
14	MS21042L08	Nut	X	39
15	B578-1	Bulkhead (Ref)		
16	B575-4	Channel	X	1
17	MS29512-06	Packing (o-ring, install using item 18)	X	2
18	A257-6	Grease	X	A/R
19	B254-3	Strainer Assembly	X	1
20	D205-32	Hose Assembly (Ref)		
21	A880-936 or -966**	Union	X	1
22	MS29512-04	Packing (o-ring, install using item 18)	X	1
23	A880-934 or -964**	Union	X	1
24	D205-34	Hose Assembly (Ref)		
25	D205-33	Hose Assembly (Ref)		
26	D682-44	Decal – "Caution: Align Stripes"	X	1

NOTES * Revision J or subsequent. Refer to MM § 12.130.
 ** See *Introduction* for allowable part numbers.

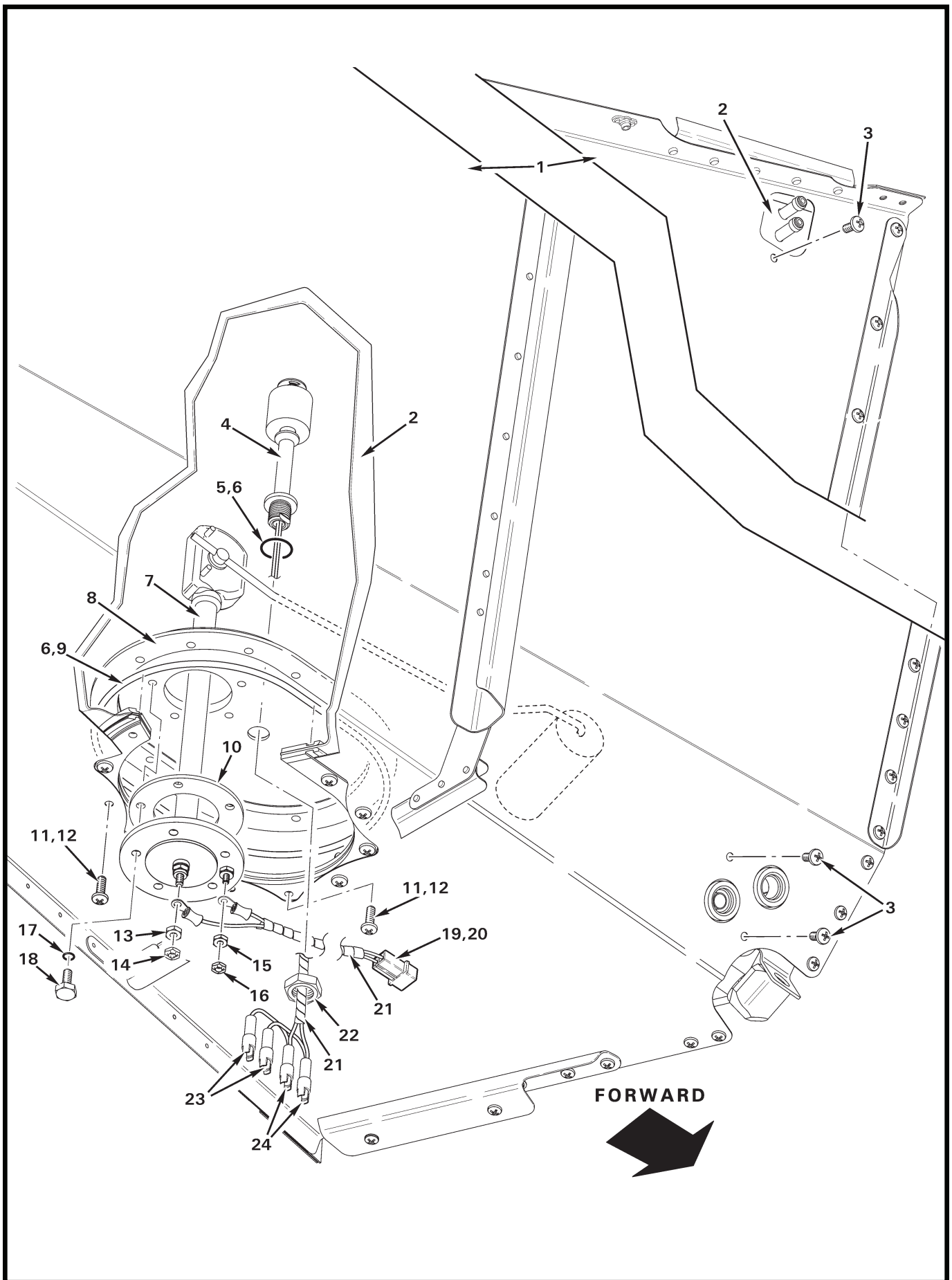


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
MAIN TANK ASSEMBLY				
28-7-1	A028-1	Main Fuel Tank Assembly (Ref)		
2	B028-1	Bladder – Fuel (Ref)		
3	MS27039C1-06	Screw	X	3
4	A521-3	Switch Assembly – Low-Fuel (Incl items 23 and 24)	X	1
5	MS29512-05	Packing (o-ring; install using item 6)	X	1
6	A257-6	Grease	X	A/R
7	D252-3	Sender – Fuel Quantity (Incl items 10, 13, and 15)	X	1
8	D250-6	Cover Assembly	X	1
9	MS29513-260	Packing (o-ring; install using item 6)	X	1
10	0015-00423	Gasket (alternate part no. 15-423)	X	1
11	MS27039C1-09	Screw (install using item 12)	X	14
12	A257-9	Lubricant (anti-seize)	X	A/R
13	0044-00408	Nut (Ref)		
14	B330-6	Palnut	X	1
15	44-121	Nut (Ref)		
16	B330-5	Palnut	X	1
17	5-108	O-ring (5-108 N674-70, Parker P/N)	X	1
18	B289-1	Bolt (Incl item 17)	X	5
19	C049-11	Harness Assembly (Incl items 20 and 21)	X	1
20	B263-12	Housing	X	1
	B263-1	Pin	X	2
21	B161-2	Spirap	X	A/R
22	A880-1005*	Nut (apply B270-1 sealant under nut)	X	1
23	B263-30	Housing	X	2
	B263-1	Pin	X	2
24	B263-10	Housing	X	2
	B263-3	Pin	X	2

NOTES * See *Introduction* for allowable part numbers.

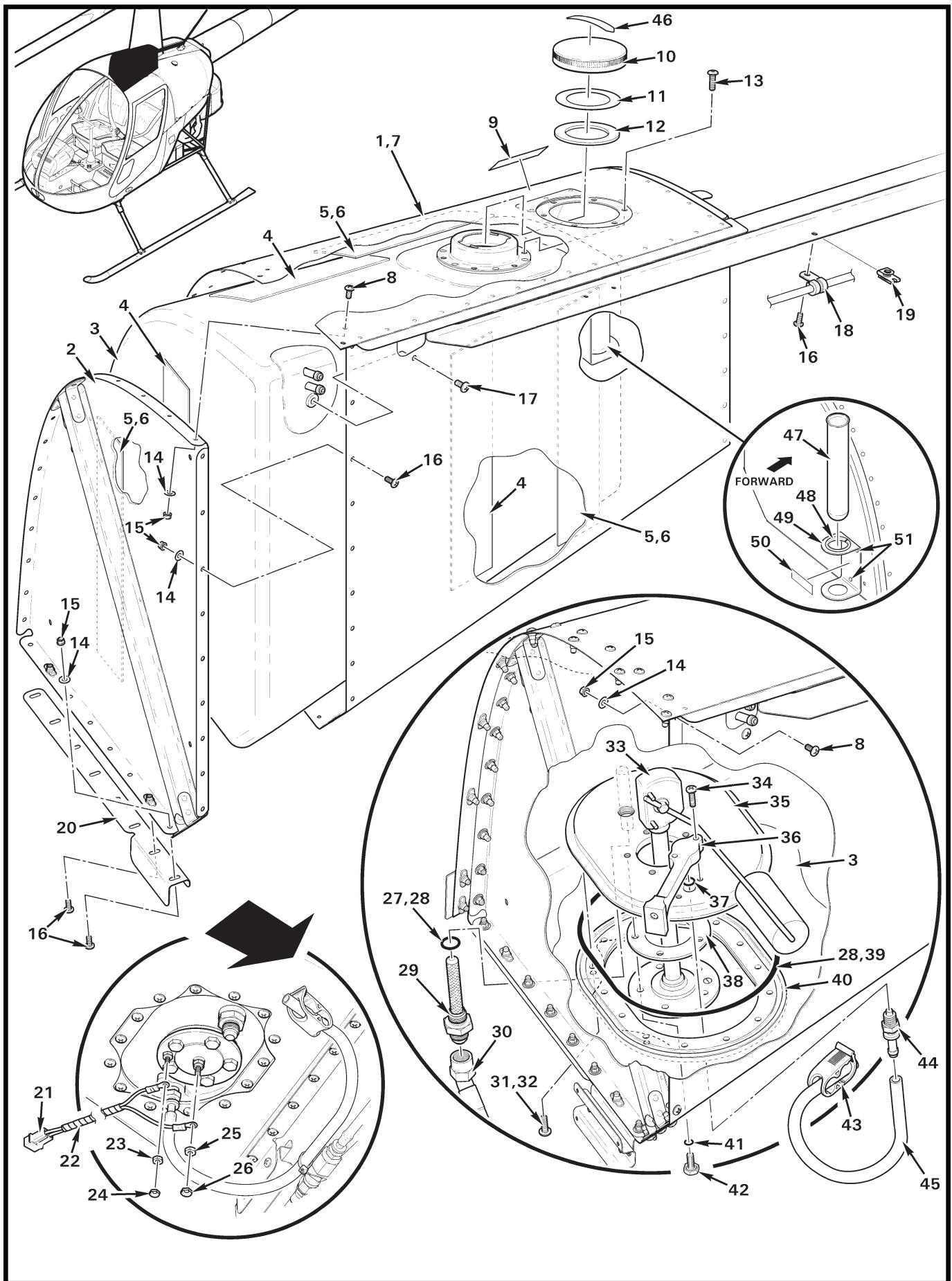


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
AUXILIARY TANK ASSEMBLY				
28-9-1	A010-15	Aux Fuel Tank Assembly (Incl items 3, 7, 9 thru 13, 18, 19, 21, 24, 26 thru 29, and 42 thru 45)	X	1
2	B579-1	Bulkhead Assembly	X	1
3	B028-2	Bladder Assembly (Incl items 4 and 40)	X	1
4	B175-1	Hook Tape (Ref)		
5	B175-4	Loop Tape (install using item 6)	X	A/R
6	B270-8qt	Adhesive	X	A/R
7	B044-8	Tank Assembly (aluminum enclosure; includes items 2, 5, 6, 8, 14 thru 16, and 20)	X	1
8	MS27039C0805	Screw	X	2
9	A654-57	Decal – Fuel Fill (91/96 octane; aux fuel tank)	X	1
	A654-77*	Decal – Fuel Fill (91/96 octane; aux fuel tank)	X	1
	C654-5	Decal – Fuel Fill (100 octane; aux fuel tank)	X	1
	C654-6*	Decal – Fuel Fill (100 octane; aux fuel tank)	X	1
10	A689-6**	Cap Assembly (primered; includes items 11 and 12. Order item 46 as required.)	X	1
	A689-6.PT**	Cap Assembly (painted white; includes items 11, 12, and 46)	X	1
11	A689-8	Washer (plastic)	X	1
12	A689-7	Gasket (rubber)	X	1
13	A142-1	Screw	X	6
14	NAS1149FN816P	Washer	X	33
15	MS21042L08	Nut	X	33
16	MS27039C0806	Screw	X	34
17	MS27039C1-06	Screw	X	1
18	MS21919WDG4	Clamp	X	1
19	B162-3	Clipnut	X	1
20	B577-2	Stiffener	X	1
21	B049-7	Wire Harness Assembly (Incl item 22)	X	1
22	B161-2	Spirap	X	A/R
23	—	Nut	O	1
24	B330-5	Palnut	X	1
25	—	Nut	O	1
26	B330-6	Palnut	X	1
27	MS29512-06	Packing (install using item 28)	X	1
28	A257-6	Grease	X	A/R

NOTES * For dark colored ships.
 ** Revision J or subsequent. Refer to MM § 12.130.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
AUXILIARY TANK ASSEMBLY (Cont'd)				
28-9-29	B254-3	Strainer Assembly	X	1
30	D205-33	Hose Assembly (Ref)		
31	MS27039C1-09	Screw	X	14
32	A257-9	Anti-seize	X	A/R
33	D252-4	Sender – Fuel Quantity (Incl items 23, 25 and 38)	X	1
34	MS27039C0810	Screw	X	2
35	D250-8	Cover Assembly	X	1
36	B574-1	Siphon Assembly	X	1
37	A215-112	Packing (o-ring)	X	1
38	0015-00423	Gasket (alternate part no. 15-423)	X	1
39	MS29513-260	Packing (install using item 28)	X	1
40	D250-5	Ring (Ref)		
41	5-108	O-ring (5-108 N674-70, Parker P/N)	X	1
42	B289-1	Bolt (Incl item 41)	X	5
43	D663-1	Clamp	X	1
44	A761-1	Drain	X	1
45	A729-60	Tube	X	1
46	D682-44	Decal – "Caution: Align Stripes"	X	1
47	MT106-3	Fuel Sample Tube (Pyrex®)	X	1
48	NAS557-16A	Grommet	X	1
49	G926-7	Holder (Ref)		
50	G682-21	Decal – "STOW MT106-3 FUEL SAMPLE TUBE HERE"	X	1
51	MS20470AD4	Rivet	X	3
* * *				
52	KI-230	Fuel Sample Tube Installation Kit (if not previously installed) . .	X	1

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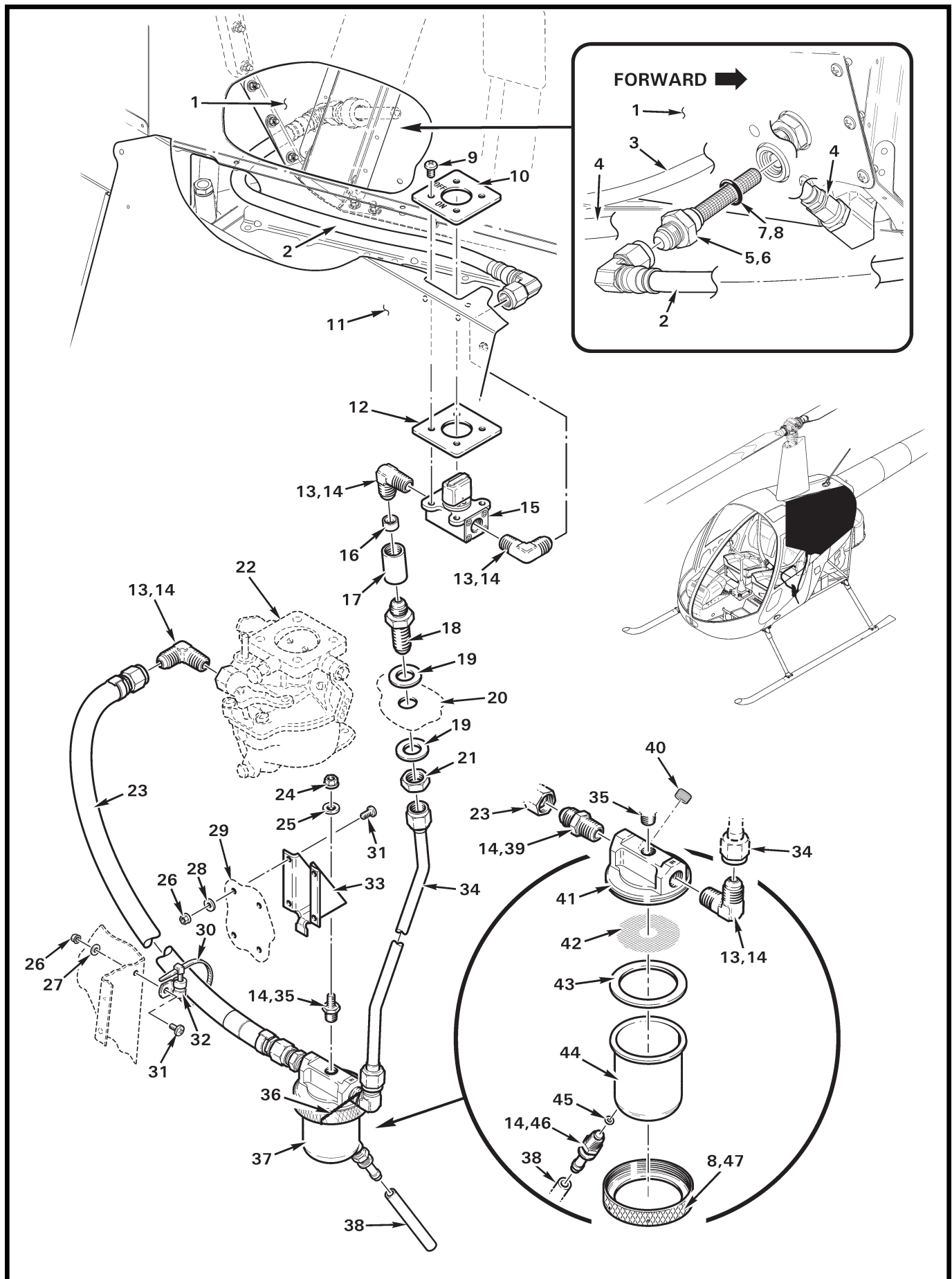


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
FUEL SYSTEM COMPONENTS				
28-13-1	A010-14*	Fuel Tank Assembly (Ref, see Figure 28-1)		
2	D205-32	Hose Assembly	X	1
3	D205-34	Hose Assembly (Ref; see Figure 28-1)		
4	C595-1	Hose Assembly (Ref; see Figure 28-1)		
5	B254-3	Strainer – Fuel (install using item 6)	X	1
6	A257-9	Anti-seize	X	A/R
7	MS29512-06	Packing (o-ring; install using item 8)	X	1
8	A257-6	Grease	X	A/R
9	MS27039C1-06	Screw	X	4
10	A798-3	Plate	X	1
11	A465-1	Panel – Seat Back (LH, Ref)		
12	A798-1	Plate	X	1
13	A880-636	Elbow (or A880-666; install using item 14)	X	4
14	B270-6	Sealant (4-oz tube)	X	A/R
15	A670-1	Valve – Fuel Shut-Off (revision “1” and subsequent)	X	1
16	A656-1	Sleeve (inside item 17)	X	1
17	A657-1	Nut	X	1
18	A457-15	Bulkhead Union (Incl item 21)	X	1
19	NAS1149F0932P**	Washer (minimum of [2], one each side of firewall)	X	A/R
20	A234-1	Firewall – Horizontal (Ref)		
21	—	Nut	O	1
22	—	Carburetor (Ref)		
23	B283-2	Hose Assembly (O-320 engine)	X	1
	B283-6	Hose Assembly (O-360 engine)	X	1
24	A210-4	Nut	X	1
25	NAS1149F0463P	Washer	X	1
26	MS21042L08	Nut	X	5
27	NAS1149FN816P	Washer	X	1
28	NAS1149FN832P	Washer	X	4
29	A233-1	Firewall – Vertical (Ref)		
30	MS3367-7-9	Ty-Rap	X	1
31	MS27039C0806	Screw	X	5
32	MS21919WDG3	Clamp	X	1
33	A454-1	Support	X	1
34	A726-1	Line Assembly	X	1

NOTES * Primered only.
 ** Use additional washers as required to adjust height of valve.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
FUEL SYSTEM COMPONENTS (Cont'd)				
28-13-35	A455-1	Plug (install using item 14)	X	1
36	MS20995C32	0.032-inch dia Safety Wire	X	A/R
37	A666-1	Gascolator (Revision "M" and subsequent; includes items 41 and 47. Does not include item 40 [order as required].) . . .	X	1
38	A729-5	Tube	X	1
39	A880-536	Nipple (or A880-566; install using item 14)	X	1
40	MS27769D2	Plug (install using item 14)	X	1
41	B402-3	Top	O	1
42	10543-2	Screen	X	1
43	10536-1	Gasket – Gascolator (Viton, replaces 10536)	X	1
44	10541	Bowl	O	1
45	A215-006	O-Ring	X	2
46	CAV-110H-4	Drain Valve (install using item 14)	X	1
47	B416-1	Collar (lubricate threads using item 8)	O	1

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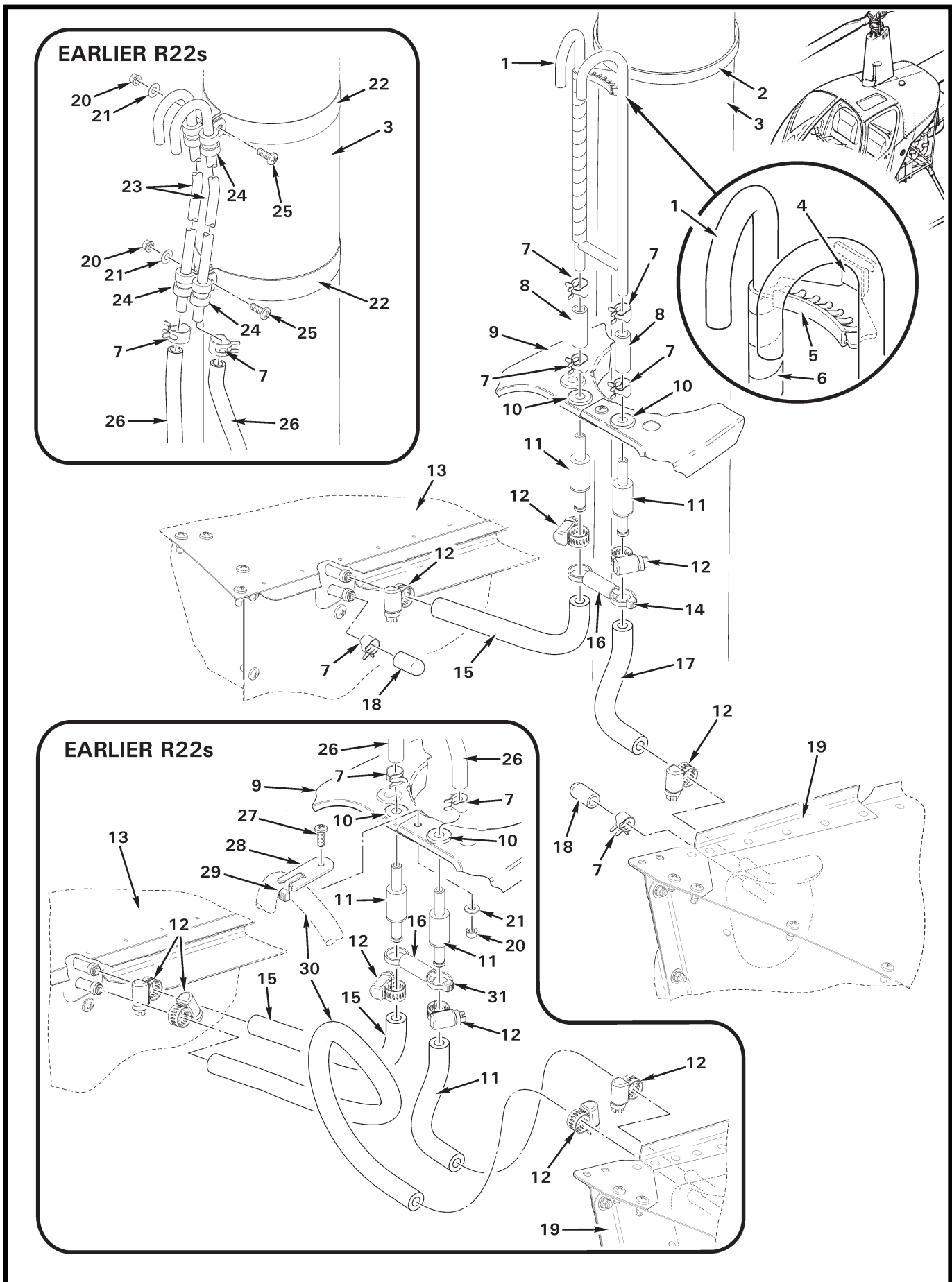


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
VENT LINES INSTALLATION				
28-17-1	A731-10	Vent Tube Assembly (Incl items 4, 5, and 6)	X	1
2	MS3367-6-0	Ty-Rap	X	1
3	A283-5	Mast Assembly (Ref)		
4	B158-6	Heat Shrink	X	A/R
5	A225-1	Grommet	X	A/R
6	B161-4	Spirap	X	A/R
7	D277-6	Clamp	X	6
8	A729-79	Tube	X	2
9	A261-1	Mast Fairing Assembly (Ref)		
10	MS35489-6	Grommet	X	2
11	D251-1	Valve Assembly	X	2
12	B277-4	Clamp	X	4
13	A010-15	Aux Fuel Tank Assembly (Ref)		
14	MS3367-4-9	Ty-Rap	X	2
15	A729-48	Tube	X	1
16	A729-63	Tube	X	1
17	A729-62	Tube	X	1
18	A457-19	Cap	X	2
19	A010-14	Main Fuel Tank Assembly (Ref)		
20	MS21042L08*	Nut	X	3
21	NAS1149FN816P*	Washer	X	3
22	B277-56*	Clamp	X	2
23	A731-4*	Tube – Vent	X	2
24	MS21919WDG4*	Clamp	X	4
25	MS27039C0807*	Screw	X	2
26	A729-61*	Tube	O	2
27	MS27039C0806*	Screw	X	1
28	B576-6*	Tab	X	1
29	MS3367-5-9*	Ty-Rap	X	1
30	A729-49*	Tube	O	1
31	MS3367-7-9*	Ty-Rap	X	1

NOTES * Earlier R22s.

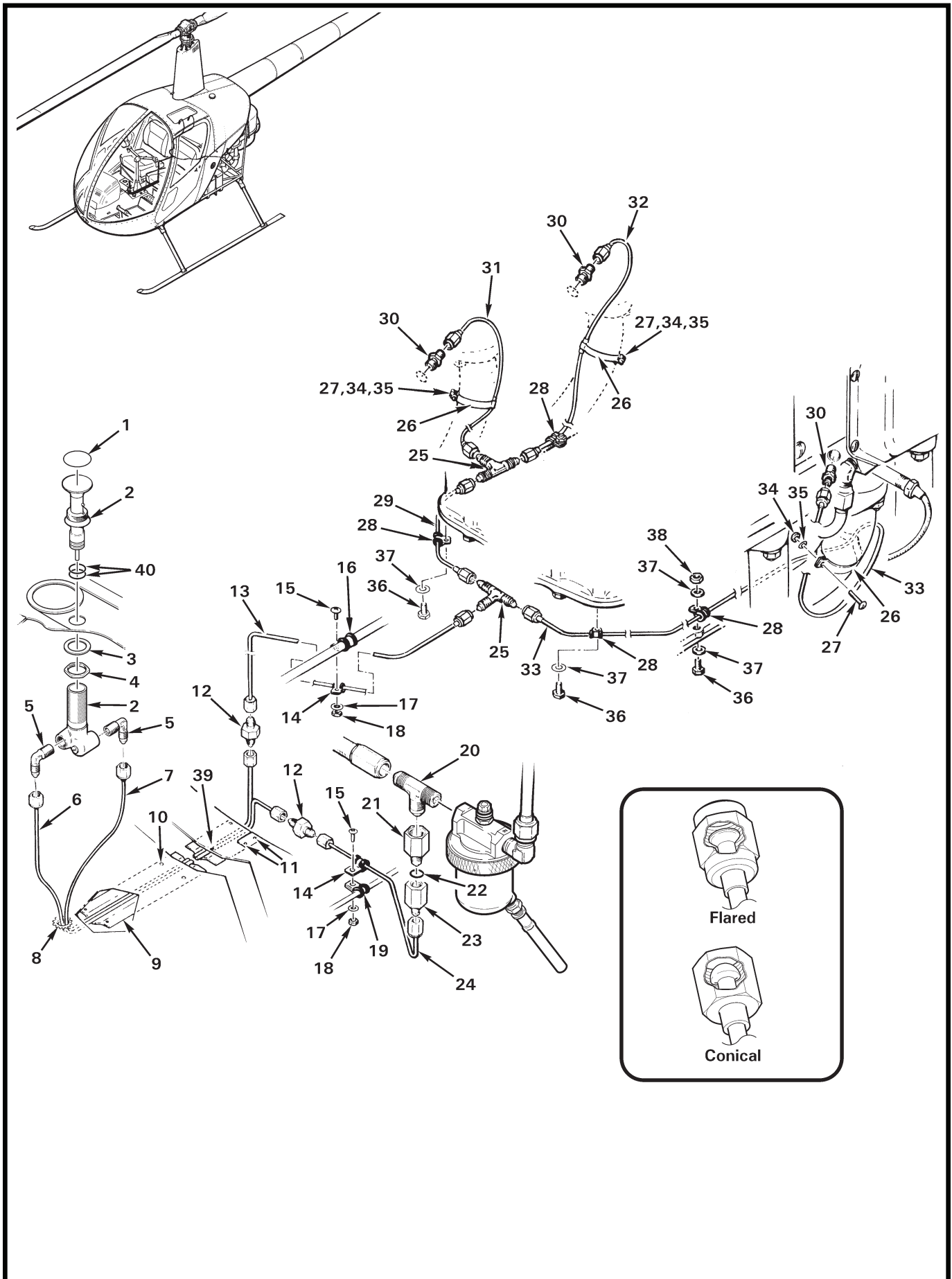


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
PRIMER SYSTEM				
28-19-1	D682-39	Decal (centered on pump head)	X	1
2	K2404-1/8-4	Primer Pump (Incl items 3, 4, and 40)	X	1
3	—	Washer	O	1
4	—	Nut	O	1
5	A880-602*	Elbow	X	2
6	B104-1	Line Assembly (outlet)	X	1
7	B104-3	Line Assembly (inlet)	X	1
8	NAS557-8A	Grommet	X	1
9	B106-1	Channel	X	1
10	MS20470AD3-3	Rivet	X	13
11	MS20470AD4-4	Rivet	X	2
12	A880-902*	Union	X	2
13	B104-5	Line Assembly (flared-end fittings**)	X	1
	B104-2***	Line Assembly (with brass, hemispherical cone fittings**; earlier R22s)	O	1
14	MS21919WDG2	Clamp	X	2
15	MS27039C0807	Screw	X	2
16	MS21919WDG8	Clamp	X	1
17	NAS1149FN816P	Washer	X	2
18	MS21042L08	Nut	X	2
19	MS21919WDG3	Clamp	X	1
20	A880-1136 or -1166*	Tee	X	1
21	AN894D6-4	Bushing	X	1
22	MS29512-04	Gasket	X	1
23	AN894D4-2	Bushing	X	1
24	B104-4	Line Assembly (gascolator outlet)	X	1
25	MS24402-2D	Tee (aluminum, for use with flared-end fittings**)	X	2
	AN795-2***	Tee (brass, for use with cone fittings**; earlier R22s)	O	2
26	LW-18959-150-25	Clamp (Lycoming part no., O-320 engine)	X	3
	LW-18959-175-25	Clamp (Lycoming part no., O-360 engine)	X	3
27	MS35206-230	Screw	X	3
28	MS21333-96	Clamp	X	4
29	B103-2	Line Assembly (flared-end fittings**)	X	1
	B103-1***	Line Assembly (with brass, hemispherical cone fittings**; earlier R22s)	O	1

NOTES * See *Introduction* for allowable part numbers.
 ** Cone fitting and flared-end fitting line assemblies are not interchangeable.
 *** Contact RHC Technical Support for replacement assistance.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
PRIMER SYSTEM (Cont'd)				
28-19-30	B310-2	Injector (aluminum, for use with flared-end fittings*)	X	3
	63B21408**	Injector (brass, for use with cone fittings*; earlier R22s)	X	3
31	B102-2	Line Assembly (flared-end fittings*)	X	1
	B102-1***	Line Assembly (cone fittings*; earlier R22s)	O	1
32	B101-2	Line Assembly (flared-end fittings*)	X	1
	B101-1***	Line Assembly (cone fittings*; earlier R22s)	O	1
33	B100-2	Line Assembly (flared-end fittings*)	X	1
	B100-1***	Line Assembly (cone fittings*; earlier R22s)	O	1
34	MS21042L06	Nut	X	3
35	NAS1149FN616P	Washer	X	3
36	—	Bolt (existing engine bolt, Ref)		
37	—	Washer (existing engine washer, Ref)		
38	—	Nut (existing engine nut, Ref)		
39	MS20426AD4-3.5	Rivet	X	1
40	AS3578-012	O-Ring (alternate part no. MS29513-12)	X	2

NOTES * Cone fitting and flared-end fitting line assemblies are not interchangeable.
 ** Lycoming part number. (RHC part number B310-1.)
 *** Contact RHC Technical Support for replacement assistance.

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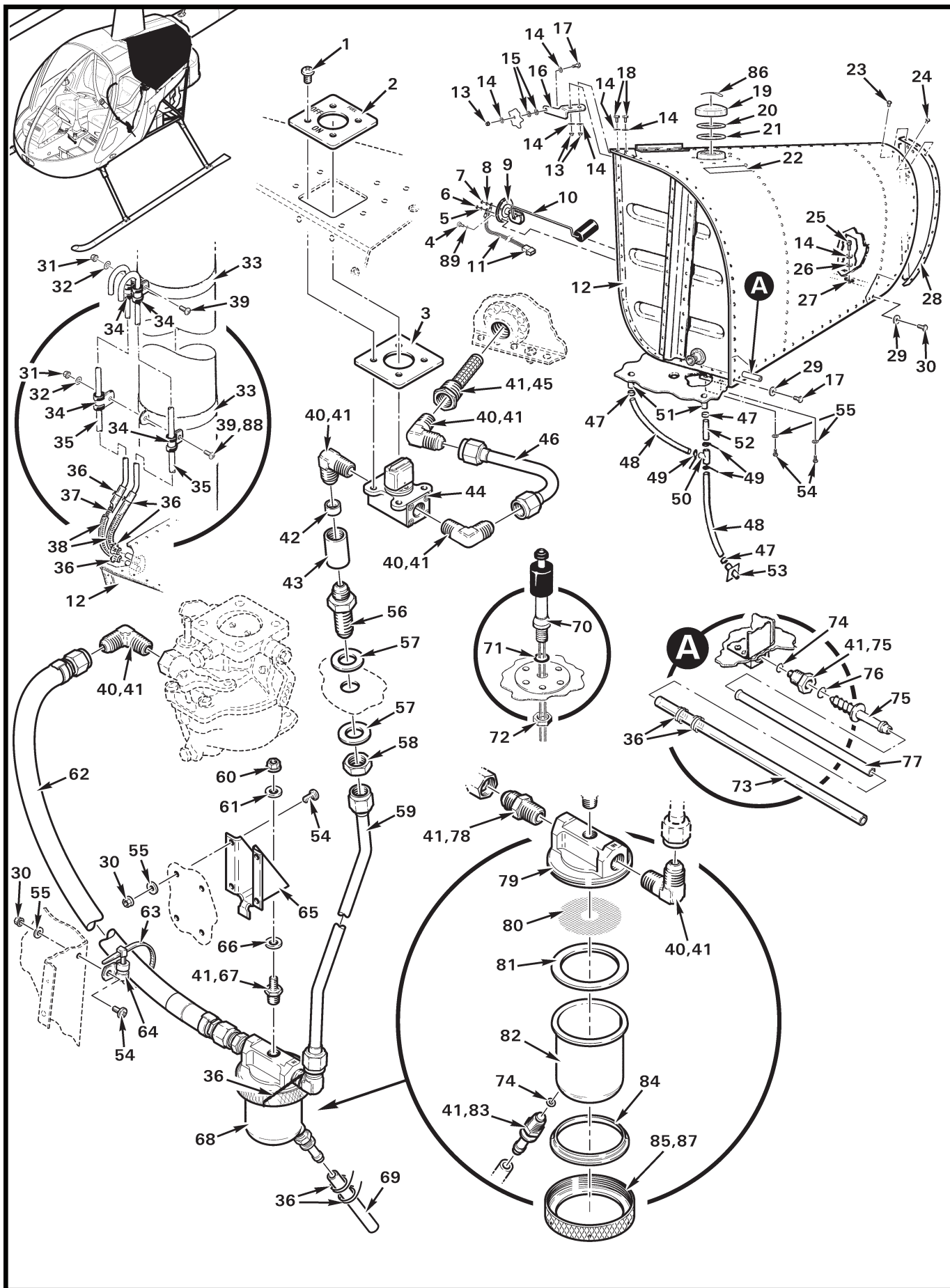


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		FUEL SYSTEM INSTALLATION (ALL-ALUMINUM TANKS)		
28-23-1	MS27039C1-06	Screw	X	4
2	A798-3	Plate	X	1
3	A798-1	Plate	X	1
4	B289-1	Bolt (Incl item 89)	X	5
5	—	Nut (small)	O	1
6	B330-5	Palnut	X	1
7	B330-6	Palnut	X	1
8	—	Nut (large)	O	1
9	0015-00423	Gasket (alternate part no. 15-423)	X	1
10	A550-1	Sender – Fuel Quantity (Incl items 5, 8, and 9)	O	1
11	C049-11	Wire Harness Assembly	X	1
12	A010-2*	Fuel Tank Assembly (Includes A028-1 fuel tank and items 4, 6, 7, 10, 11, 19, 36, 38 [2], 45, 70 thru 73, 75, and 77.)	X	1
	A028-1*	Fuel Tank (tank only)	X	1
13	MS21042L3	Nut	X	4
14	NAS1149F0332P	Washer	X	7
15	NAS1149F0363P	Washer	X	2
16	A713-1	Strap	X	1
17	NAS6603-3	Bolt	X	2
18	NAS6603-2	Bolt	X	3
19	A689-6**	Cap Assembly (primered; includes items 20 and 21. Order item 86 as required.)	X	1
	A689-6.PT**	Cap Assembly (painted white; includes items 20, 21, and 86)	X	1
20	A141-38	Washer (plastic)	X	1
21	A689-7	Gasket – Fuel Cap (black rubber)	X	1
22	A654-1	Decal – Fuel Fill (black letters)	O	1
	A654-75	Decal – Fuel Fill (white letters, for dark-colored ships)	O	1
23	MS20470AD4	Rivet	X	2
24	MS20470AD3	Rivet	X	11
25	NAS1351-3-8P	Screw	X	2
26	AN960PD10L	Washer (for shimming, [4] maximum)	X	A/R
27	MS21069L3	Nutplate (install using MS20605R3W2 rivets [2])	X	1
	MS20605R3W2	Rivet	X	2
28	A028-7	Frame	X	1
29	A141-17	Washer	X	2

NOTES ** Revision J or subsequent. Refer to MM § 12.130.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
FUEL SYSTEM INSTALLATION (ALL-ALUMINUM TANKS; Cont'd)				
28-23-30	NAS6603-4	Bolt	X	1
31	MS21042L08	Nut	X	7
32	NAS1149FN816P	Washer	X	2
33	A695-1	Clamp (bolted mast tube)	X	2
	A695-3	Clamp (welded mast tube)	X	2
34	MS21919WDG4	Clamp	X	4
35	A731-3	Vent Tube	O	2
36	MS20995C32	0.032-inch dia Safety Wire	X	A/R
37	B408-2	Spring	O	2
38	A729-7	Tube	O	2
39	MS27039C0807	Screw	X	2
40	MS20822-6D*	Elbow (or AN822-6D)	X	5
41	B270-6	Sealant (4-oz tube)	X	A/R
42	A656-1	Sleeve (inside item 43)	X	1
43	A657-1	Nut	X	1
44	A670-1	Valve – Fuel Shut-Off (revision "I" and subsequent)	X	1
45	B254-1*	Strainer – Fuel	X	1
46	A726-2	Line Assembly	O	1
47	B277-4	Clamp	X	3
48	A729-3	Tube	X	2
49	MS3367-4-9	Ty-Rap	X	3
50	A457-1	Tee	X	1
51	A456-1**	Drain (install using MS20470AD4 rivets [2])	X	2
52	A729-2	Tube	X	1
53	A458-1	Drain	X	1
54	MS27039C0806	Screw	X	7
55	NAS1149FN832P	Washer	X	7
56	0363-6-6	Bulkhead Union (Incl item 58)	X	1
57	NAS1149F0932P***	Washer (minimum of [2], one each side of firewall)	X	A/R
58	—	Nut	O	1
59	A726-1	Line Assembly	X	1
60	MS21042L4	Nut	X	1
61	NAS1149F0463P	Washer	X	1
62	B283-2	Hose Assembly (O-320 engine)	X	1
	B283-6	Hose Assembly (O-360 engine)	X	1

NOTES * Install using item 41.
 ** Apply B270-1 sealant between channel and drain. Seal rivets after installation.
 *** Use additional washers as required to adjust height of valve.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
FUEL SYSTEM INSTALLATION (ALL-ALUMINUM TANKS; Cont'd)				
28-23-63	MS3367-7-9	Ty-Rap	X	1
64	MS21919WDG3	Clamp	X	1
65	A454-1	Support	X	1
66	NAS1149FO463P	Washer	X	A/R
67	A455-1 *	Plug	X	1
68	A666-1	Gascolator (revision "M" and subsequent; includes 74, and 79 thru 85)	X	1
69	A729-5	Tube	X	1
70	A521-1	Switch Assembly – Low Fuel	O	1
71	MS29512-5	Packing (o-ring)	X	1
72	AN924-5D	Nut	X	1
73	A729-1	Tube (plastic)	O	1
74	A215-006	O-Ring	X	2
75	A761-1 *	Drain Valve Assembly (Incl items 74 [1] and 76)	X	1
76	5-108	O-Ring	X	1
77	A728-1	Stiffener (aluminum)	O	1
78	AN816-6D*	Nipple	X	1
79	B402-3	Top	O	1
80	10543-2	Screen	X	1
81	10536-1	Gasket – Gascolator (Viton, replaces 10536)	X	1
82	10541	Bowl	O	1
83	CAV-110H-4*	Drain Valve	X	1
84	B416-2	Ring	O	1
85	B416-1	Collar (lubricate threads using item 87)	O	1
86	D682-44	Decal – "Caution: Align Stripes"	X	1
87	A257-6	Grease	X	A/R
88	MS27039C0806	Screw (used in place of MS27039C0807 screw at lower A695-1 clamp)	X	1
89	5-108	O-ring (5-108 N674-70, Parker P/N)	X	1
* * *				
90	KI-118-1	Fuel Tank Vent Upgrade Kit (For R22s <u>without</u> auxiliary fuel tank. Includes items 32 [1], 33 [1], 35 [1], 38 [1], and 39 [1].)	O	1

NOTES * Install using item 41.

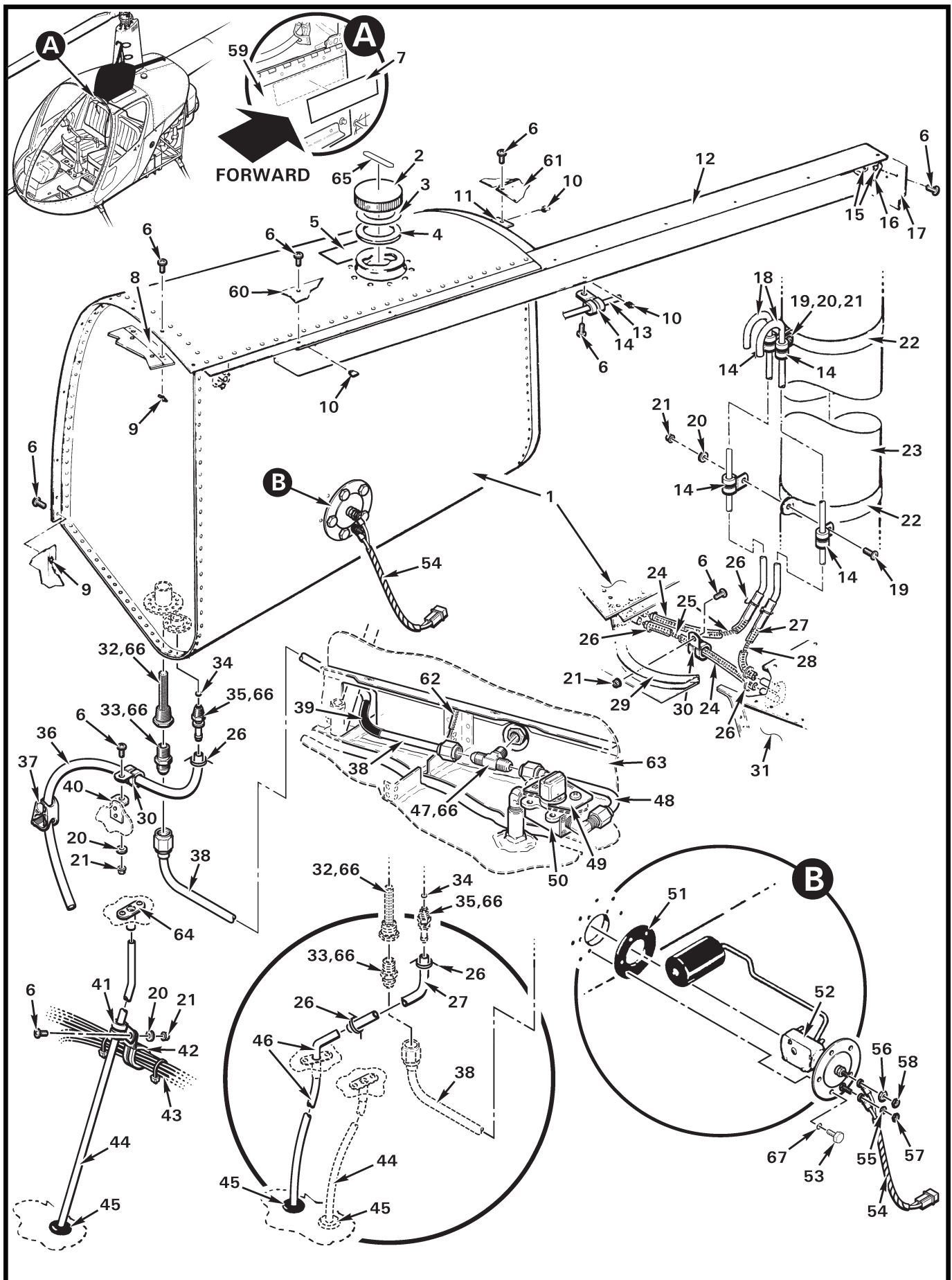


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		AUXILIARY TANK ASSEMBLY (ALL-ALUMINUM TANKS)		
28-27-1	B043-2*	Aux Fuel Tank Assembly (Incl items 11, 12, 24 [1], 25, 32, 33, 35, and 52 thru 55)	O	1
2	A689-6**	Cap Assembly (primered; includes items 3 and 4. Order item 65 as required.)	X	1
	A689-6.PT**	Cap Assembly (painted white; includes items 3, 4, and 65) . .	X	1
3	A141-38	Washer ([1] or [2] as required)	X	A/R
4	A689-7	Gasket	X	1
5	A654-57	Decal – Fuel Fill (black letters)	O	1
	A654-77	Decal – Fuel Fill (white letters; for dark-colored ships)	O	1
6	MS27039C0806	Screw	X	A/R
7	A654-93	Decal (fuel drain instructions)	X	1
8	A015-14	Strip	X	1
9	MS21069L08	Nutplate	X	9
10	B162-3	Clipnut	X	16
11	B143-2	Angle (Ref)		
12	B321-8	Channel (Ref)		
13	A729-6	Tube – Static Pressure (Ref, see Figure 95-61)		
14	MS21919WDG4	Clamp	X	5
15	MS21086L08	Nutplate	X	2
16	B143-1	Angle	X	1
17	B429-5	Frame – Cowling (Ref, see Figure 53-5)		
18	A731-3	Vent Tube	X	2
19	MS27039C0807	Screw	X	2
20	NAS1149FN816P	Washer	X	4
21	MS21042L08	Nut	X	4
22	A695-1	Clamp	X	2
23	A283	Mast Assembly (Ref)		
24	A729-17	Tube – Vent (long)	X	2
25	B408-1	Spring (long)	O	2
26	MS20995C32	0.032-inch dia Safety Wire	X	2
27	A729-7	Tube – Vent (short)	O	1
28	B408-2	Spring (short)	O	1
29	B423-1	Channel (Ref, see Figure 53-5)		
30	MS21919WDG6	Clamp	X	2
31	A010-2	Main Fuel Tank (Ref, see Figure 28-23)		

NOTES * Ship S/N 0457 and subsequent. Fuel tank painted white.
 ** Revision J or subsequent. Refer to MM § 12.130.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
AUXILIARY TANK ASSEMBLY (ALL-ALUMINUM TANKS, Cont'd)				
28-27-32	B254-1*	Strainer	X	1
33	AN816-6D***	Nipple	X	1
34	A215-006	O-Ring	X	1
35	A761-1***	Drain Valve (Incl item 34)	X	1
36	A729-37	Drain Tube	O	1
37	D663-1	Clamp	X	1
38	B141-1	Fuel Line Assembly	O	1
39	B158-8	Heat Shrink	X	A/R
40	C365-9	Clip	X	1
41	MS21919WDG5	Clamp (around drain tube)	X	1
42	MS21919WDG10	Clamp (around wire harness)	X	1
43	A059	Wire Harness (Ref)		
44	B128-1	Drain Tube	X	1
45	MS35489-9	Grommet ([2] required when item 46 is installed)	X	1
46	B128-2	Drain Tube Assembly	O	1
47	MS20825-6D***	Tee Fitting	O	1
48	A726-2	Line Assembly	X	1
49	A798-3	Plate (mounts <u>above</u> A465-1 panel)	X	1
	A798-1	Plate (mounts <u>below</u> A465-1 panel)	X	1
50	A670-1	Valve – Fuel Shut-Off	X	1
51	0015-00423	Gasket (alternate part no. 15-423)	X	1
52	B122-1	Sender Assembly (Incl items 51, 55, and 56)	O	1
53	B289-1	Bolt (includes washer and item 67)	X	5
54	B049-7	Harness Assembly	X	1
55	—	Nut (#6)	O	1
56	—	Nut (#8)	O	1
57	B330-5	Palnut	X	1
58	B330-6	Palnut	X	1
59	B153-6***	Door Assembly (Ref, see Figure 53-5)		
60	B429-3***	Skin (Ref, see Figure 53-5)		
61	B430-4	Skin (Ref, see Figure 53-5)		
62	MS21266-1N	Grommet (12-inch length, install using B270-8qt adhesive)	X	A/R
63	A259	Bulkhead (Ref)		
64	A456-1**	Drain (install using MS20615-4M rivets [2])	X	1
65	D682-44	Decal – "Caution: Align Stripes"	X	1

NOTES * Ship S/N 0457 and subsequent. Fuel tank painted white.
 ** Apply B270-1 sealant between drain and firewall and around joint between items 44 and 64.
 *** Install using item 66.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
<p>AUXILIARY TANK ASSEMBLY (ALL-ALUMINUM TANKS, Cont'd)</p>				
28-27-66	B270-6	Sealant (4-oz tube)	X	A/R
67	5-108	O-ring (5-108 N674-70, Parker P/N)	X	1
<p>* * *</p>				
68	KI-118-2	Fuel Tank Vent Upgrade Kit (For R22s with auxiliary fuel tank. Includes items 18, 19 [1], 20 [1], 22, 24 [1], and 27 [1].)	O	1

NOTES

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FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		MAIN ROTOR GEARBOX AND MAST ASSEMBLY		
63-1-1	A006-1 *	Main Rotor Gearbox and Mast Assembly (Ref, no longer available. Upgrade to A006-6 or A006-6R requires R8245 kit.)		
	A006-6	Main Rotor Gearbox and Mast Assembly (Ship S/N 3540 and subsequent. Includes items 2 thru 4, 6 thru 25, 28 thru 30, 32, 34, 36, 38 thru 41, 46, 48, 49, 55 and 65. Does not include rotor brake, senders or yoke assemblies.)	X	1
	A006-6R	Main Rotor Gearbox and Mast Assembly (Overhaul exchange. Includes items 2 thru 4, 6, 9 thru 25, 28 thru 30, 32, 34, 38, 40, 41, 46, 48, 49, 55 and 65.)	X	1
	R8245	A283-5 Mast Tube Upgrade Kit (Ref, see also Figure 67-29) . .	X	1
2	A251-1	Shaft – Main Rotor	O	1
3	A647-1	Bearing – Mast Tube	O	1
4	A280-1	Sleeve	O	1
5	C648-2	Bearing	X	2
6	A283-5	Mast Assembly (Incl item 5)	O	1
7	B407-1	Tape	X	1
8	MS20995C32	0.032-in. dia Safety Wire (see R22 SL-61)	X	A/R
9	B563-2	Sight Gage	X	1
10	A215-020	O-Ring	X	1
11	F110-4	Telatemp (temperature recorder, 220° – 270°F)	X	1
12	A654-56	Decal	X	1
13	D210-4	Nut	X	8
14	A141-11	Washer	X	8
15	B049-4	Harness Assembly – Ground	X	1
16	B049-3**	Harness Assembly – Ground Test	X	1
17	A653-1	Mount	X	4
18	A880-1208***	Filler Plug (safety wire not required)	X	1
19	A215-017	O-Ring	X	2
20	A215-024	O-Ring (install using item 58)	X	1
21	A266-1	Spacer	X	1
22	A966-3	Seal	X	1
23	A215-152	O-Ring (install using item 58)	X	1
24	A270-1	End Cover	X	1
25	A058-2	Over-Temp Switch Assembly (Includes items 26, 27, 31, and wires)	X	1
26	A688-1	Over-Temp Switch (switch only)	X	1

NOTES * A006-1 gearboxes returned to RHC will be upgraded to A006-6R main rotor gearbox and mast assembly.
 ** Ship S/N 0501 and subsequent.
 *** See *Introduction* for allowable part numbers.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		MAIN ROTOR GEARBOX AND MAST ASSEMBLY (Cont'd)		
63-1-27	A141-21	Washer	X	1
28	A244-1	Bracket	X	1
29	NAS1149FN432P	Washer	X	6
30	MS20074-04-06	Bolt	X	6
31	B263-12	Housing – Pin	X	2
	B263-1	Pin ([2] per housing)	X	4
	B158-3	Heat Shrink (for each connector)	X	A/R
32	A263-2	Sump (requires item 46)	O	1
33	A263-1	Sump (requires item 47)	O	1
34	B566-1	Drain Plug and Chip Detector (“Quick-release”, includes items 35 and 37. Requires MT054-1 tool to drain gearbox. See also Figure 99-35.)	X	1
35	O12C	O-Ring	X	2
36	A130-14	Spacer	X	1
37	—	Nut (see item 34)	O	1
38	B049-2	Harness Assembly – Chip Detector (to warning light)	X	1
39	B049-2*	Harness Assembly – Chip Detector (to test switch)	X	1
40	NAS1149F0463P	Washer	X	10
41	MS20074-04-10	Bolt (drilled head, located under input shaft)	X	2
42	A139-1	Bearing – Plastic (use only with item 43)	X	2
43	A283-2	Mast Assembly (Ref, superseded by item 6)		
44	A7260	Chip Detector (Ref; no longer available. Requires MT053-1 tool to drain gearbox. See Figure 99-35.)		
45	AS111	O-Ring (used only with item 44)	X	1
46	A215-373	O-Ring (use only with item 32, install using item 58)	X	1
47	A215-271	O-Ring (use only with item 33, install using item 58)	X	1
48	—	Shims (Ref, adjusted at RHC as required for proper backlash)		
49	AN4-13A	Bolt	X	8
50	B263-14	Housing	X	1
	B263-1	Pin	X	3
51	—	Nut (see item 52)	O	2
52	B320-2	Hall Effect Sender Assembly (Includes items 50 and 51, wires and heat shrink.)	X	2
53	A284-1	Bracket	X	2
54	A006-4	Yoke Assembly (Ref, no longer available. Order item 59 for replacement.)		

NOTES * Ship S/N 0457 and subsequent.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		MAIN ROTOR GEARBOX AND MAST ASSEMBLY (Cont'd)		
63-1-55	A257-2*	Oil – Gear (1 gallon)	X	A/R
	A257-2LT*	Oil – Gear (1 liter)	X	A/R
	A257-22*	Oil – Gear (1 gallon)	X	A/R
	A257-22QT*	Oil – Gear (1 quart)	X	A/R
56	A283-4	Mast Assembly (Ref, superseded by item 6)		
57	B115-1	Bearing – Spherical	X	2
58	A257-19	Lubricant (5.3-oz tube)	X	A/R
59	KI-60B	A908-4 Yoke Conversion Kit (For non-rotor brake equipped R22s. Order items 60 thru 64.)	O	1
60	A908-4**	Yoke Assembly (includes magnets)	X	1
61	B252-6**	Bracket	X	1
62	A130-43**	Spacer	X	2
63	MS20074-04-15**	Bolt	X	2
64	MS24665-210**	Cotter Pin	X	1
65	A146-1	Pinion – Main Rotor Gearbox (not shown)	O	1

NOTES * Use correct gearbox oil per R22 MM § 22-10 Part C.
 ** Not shown; see Figure 63-7.

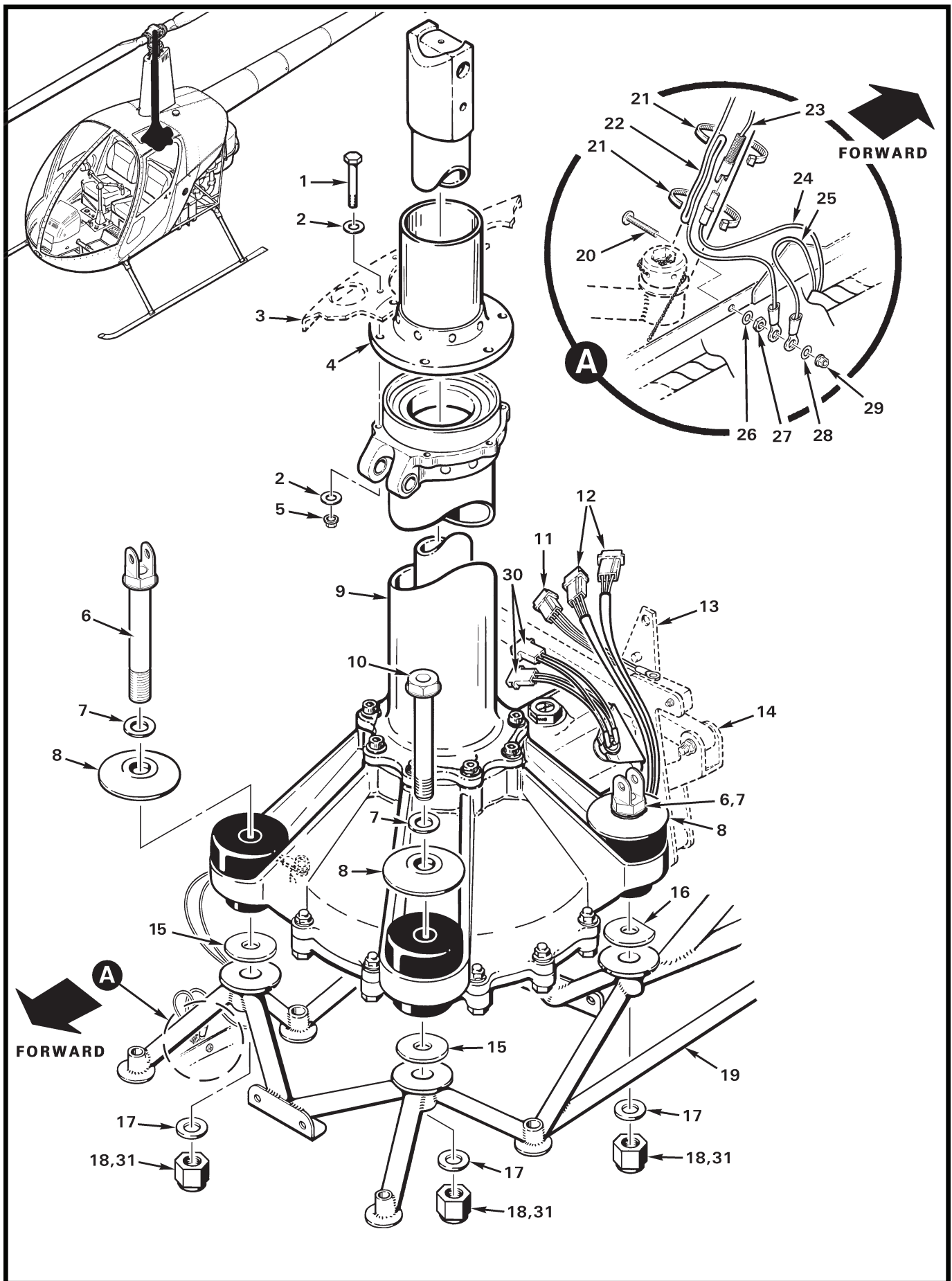


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
ROTOR BRAKE ASSEMBLY (Cont'd)				
63-7-65	A141-10	Washer	X	1
66	AN320-8	Nut	X	1
67	MS24665-210	Cotter Pin	X	1
68	A006-5*	Yoke Assembly (Ref; magnets spaced 3.65 inches apart)		
69	B114-1	Bracket (available for spares)	X	2
70	B114-2	Bracket (available for spares)	X	2
71	A006	Main Rotor Gearbox (Ref)		
72	B270-9	Adhesive	X	A/R
* * *				
73	KI-60A	A908-4 Yoke Conversion Kit (For rotor-brake equipped R22s; includes items 57, 64, and 67.)	X	1

NOTES * No longer available. Order item 73 for replacement.

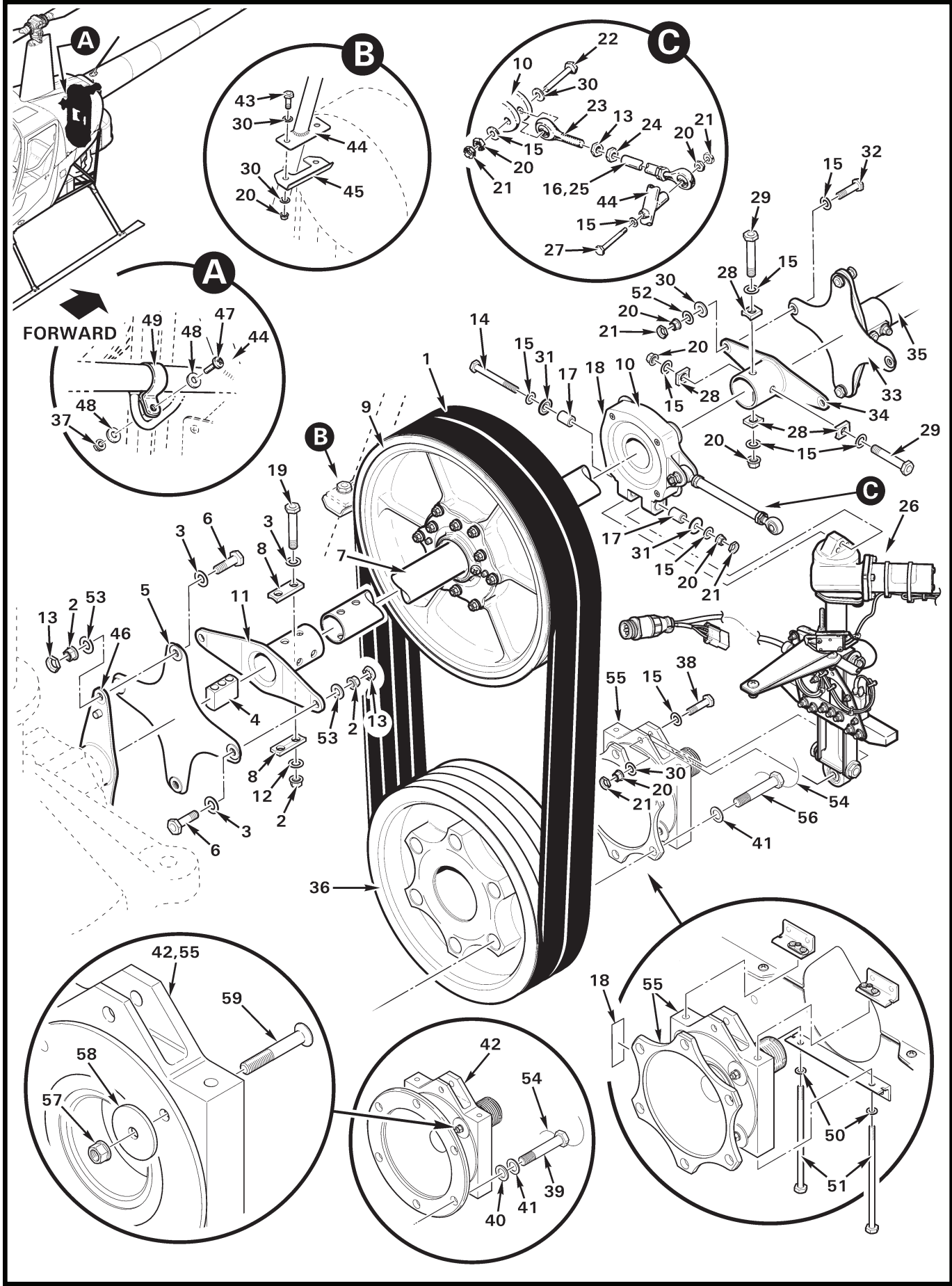


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
DRIVE SYSTEM				
63-11-1	A190-2	V-Belts (matched set of two)	X	1
2	D210-5	Nut	X	6
3	NAS1149F0532P	Washer	X	6
4	A553-1	Block	X	1
5	A947-1	Flex Plate	X	1
6	NAS6605-6	Bolt	X	4
7	A166-1	Shaft – Clutch	O	1
8	A191-1	Block	X	2
9	A018-1	Clutch Assembly (includes items 4, 7, and 10; anodized)	X	1
	A018-2	Clutch Assembly (includes items 4, 7, and 10; metalized) . . .	X	1
10	A184-3*	Bearing Assembly	X	1
11	A907-4	Yoke (replaces A907-1 and -2)	X	A/R
	A907-5	Yoke (replaces A907-3)	X	A/R
12	NAS1149F0563P	Washer	X	2
13	B330-16	Palnut	X	6
14	NAS6604-30	Bolt	X	1
15	NAS1149F0432P	Washer	X	11
16	A007-4	Strut Assembly (Incl items 13, and 23 thru 25)	X	1
17	A105-1	Journal – Bearing (0.58-inch length)	X	2
18	F110-2	Telatemp (temperature recorder, 140° – 190°F)	X	2
19	NAS6605-26	Bolt	X	2
20	D210-4	Nut	X	10
21	B330-13	Palnut	X	6
22	NAS6604-10	Bolt	X	1
23	A101-4	Rod End	X	2
24	AN316-5R	Nut	X	2
25	A344-1	Strut	X	1
26	A051-1	Belt Tension Actuator Assembly (Ref, see Figure 63-19)		
27	NAS6604-27	Bolt	X	1
28	A207-3	Block	X	4
29	NAS6604-21	Bolt	X	2
30	NAS1149F0463P	Washer	X	8
31	D214-1	Washer (counterbore toward journal)	X	2
32	NAS6604-3	Bolt (or NAS6604-4; select bolt length which, after correct torque is applied, exposes 2 to 4 threads beyond nut)	X	2

NOTES * Bearing has modified internal clearance by RHC, do not substitute.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
DRIVE SYSTEM (Cont'd)				
63-11-33	A947-2	Flex Plate	X	1
34	A195-1	Yoke	X	1
35	B224-1	Tail Rotor Drive Shaft (Ref)		
36	A493-1	Sheave – Lower	X	1
37	D210-3	Nut	X	1
38	NAS6604-12	Bolt	X	1
39	NAS6606H24	Bolt	X	6
40	NAS1149F0663P*	Washer	X	6
41	NAS1149F0632P*	Washer	X	6
42	A007-5	Shaft and Bearing Assembly (includes A181-4 bearing assembly, A642-2 shaft, and item 18)	X	1
	A181-4	Bearing Assembly	O	1
	A642-2	Shaft	O	1
43	NAS6604-2	Bolt	X	2
44	A020	Upper Frame (Ref)		
45	A992-2	Guide – V-Belt	X	1
46	A908-4	Yoke Assembly	X	1
47	MS27039C1-07	Screw	X	1
48	NAS1149F0363P	Washer	X	7
49	AN742D12	Clamp	X	1
50	NAS620-10L	Washer	X	2
51	AN3-41A	Bolt	X	2
52	NAS1149F0432P	Washer (or NAS1149F0463P as required which, after correct torque is applied, exposes 2 to 4 threads beyond nut)	X	4
53	NAS1149F0563P	Washer (or NAS1149F0532P as required which, after correct torque is applied, exposes 2 to 4 threads beyond nut)	X	4
54	MS20995C41	0.041-inch dia Safety Wire	X	A/R
55	A007-6	Shaft and Bearing Assembly (includes A181-4 bearing assembly, A642-3 shaft, and item 18)	X	1
	A181-4	Bearing Assembly	O	1
	A642-3	Shaft	O	1
56	NAS6606H23	Bolt (Items 39 thru 41 securing A007-5 shaft and bearing assembly [item 42] to lower sheave [item 36] may be used to secure A007-6 shaft and bearing assembly [item 55] to lower sheave.)	X	6

NOTES * Position is optional when installed with item 39.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
DRIVE SYSTEM (Cont'd)				
63-11-57	MS21042L3	Nut	X	4
58	AN970-3	Washer	X	4
59	MS24694-S61	Screw	X	4
* * *				
60	A007-3	Fanshaft and Bearing Assembly (Ref, not shown. No longer available; refer to Figure 71-19.)		
NOTES				

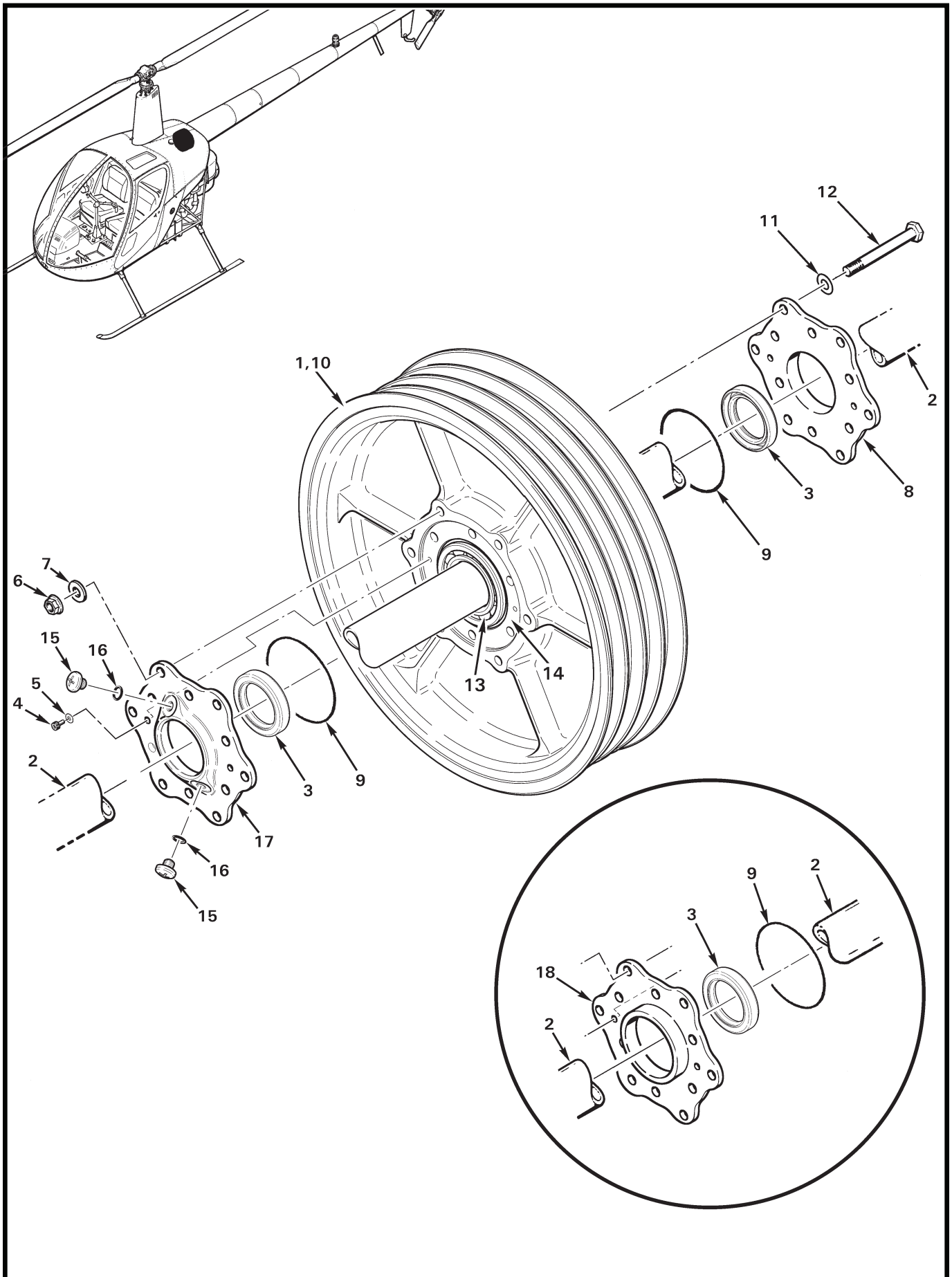


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
CLUTCH ASSEMBLY				
63-17-1	A018-1	Clutch Assembly (Includes items 2 thru 14, 16 and 18; anodized sheave.)	X	1
	A018-2	Clutch Assembly (Includes items 2 thru 14, 16 and 18; metalized sheave.)	X	1
2	A168-2*	Retainer (Ref; use only with item 17. A168-1 and -2 retainers originally installed on ship S/N 3376 and prior.)	O	2
3	NAS1149F0432P	Washer	X	12
4	NAS6604-30	Bolt	X	8
5	NAS6604-28	Bolt	X	4
6	A966-1	Seal	X	2
7	A215-035	O-Ring	X	2
8	A141-14	Washer	X	4
9	NAS1149F0463P	Washer	X	8
10	D210-4	Nut	X	12
11	A166-1	Shaft – Clutch	O	1
12	A967-1	Plug	O	2
13	A170-1	Sheave – Upper (anodized)	O	1
	A170-2	Sheave – Upper (metalized, optional)	O	1
14	A184-3**	Bearing Assembly – Upper (also order item 15)	X	1
15	F110-2	Telatemp (temperature recorder, 140° – 190°F)	X	1
16	A257-4	Lubricant – Oil (sprag and bearing cavity)	X	A/R
17	A167-1*	Housing (Ref; use only with item 2)	O	1
18	A188-2	Sprag clutch (not shown)	O	1

NOTES * No longer available. Contact RHC for replacement.
 ** Bearing has modified internal clearance by RHC. Do not substitute.

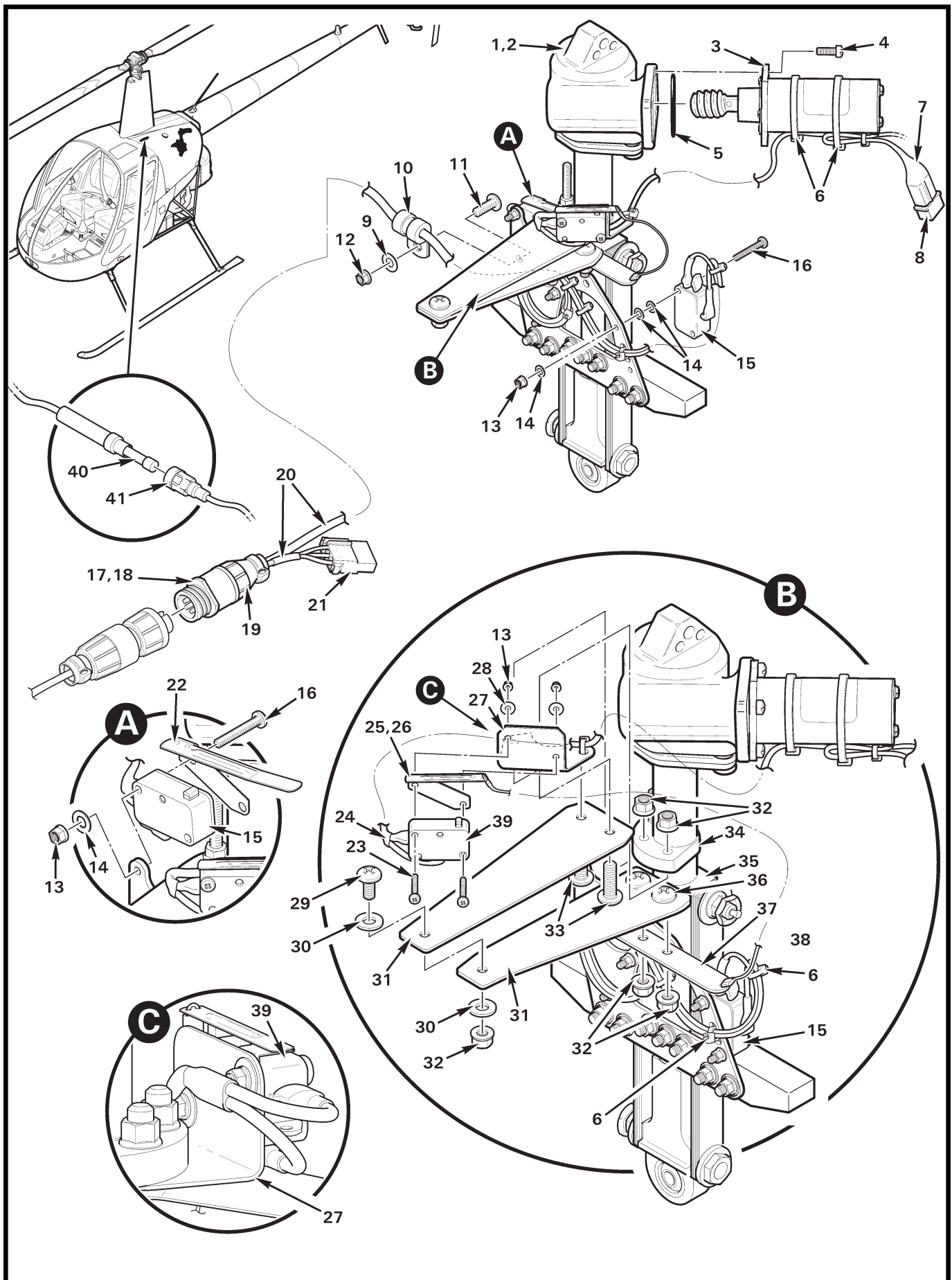


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
B021 TAIL ROTOR GEARBOX & INSTALLATION				
65-7-1	MS20995C32	0.032-inch dia Safety Wire	X	A/R
2	MS20074-04-06*	Bolt (Ref)		
3	NAS1149F0463P*	Washer (Ref)		
4	A610-1	Filler – Vent Plug	X	1
5	MS28778-5	Packing (o-ring)	X	1
6	B021-1**	Tail Rotor Gearbox Assembly (Incl items 1, 4, 5, 7 thru 9, 12, 13, 18 thru 23, 27 thru 40, and 42)	X	1
	B021-1R	Tail Rotor Gearbox Assembly (overhaul exchange)	X	1
7	A654-23	Decal (gearbox fill and oil specification)	X	1
8	MS28775-014	Packing (o-ring)	X	1
9	B563-1	Sight Gage	X	1
10	NAS6604-25*	Bolt (Ref)		
11	B330-13*	Palnut (Ref)		
12	D210-4	Nut	X	2
13	NAS1149F0432P	Washer	X	4
14	NAS6604-4*	Bolt (Ref)		
15	B224-3*	Tail Rotor Drive Shaft (Ref)		
16	A559-1*	Spacer (Ref)		
17	A947-3*	Flex Plate (Ref)		
18	NAS6604-7	Bolt	X	2
19	MS28778-4	Packing (o-ring)	X	1
20	B566-2	Chip Detector (includes nut)	X	1
21	B049-1	Wire Harness	X	2
22	F110-2	Telatemp (temperature recorder, 140° – 190°F)	X	1
23	B554-1	Output Shaft	O	1
24	A031-1*	Pitch Control (Ref)		
25	MS20002-4*	Washer	X	2
26	A120-1*	Bellcrank (Ref)		
27	D210-8	Nut (install using item 41)	X	1
28	NAS1149F0832P	Washer	X	1
29	B546-1	Yoke	X	1
30	B549-1	Retainer (install using item 31)	X	1
31	A257-9	Lubricant (anti-seize)	X	A/R
32	MS28775-131	Packing (o-ring)	X	1
33	A966-2	Seal (input)	X	1

NOTES * See Figure 65-11 for tail rotor gearbox installation.
 ** Ship S/N 3100 and subsequent.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
B021 TAIL ROTOR GEARBOX & INSTALLATION (Cont'd)				
65-7-34	A266-2	Spacer	X	1
35	MS28775-018	Packing (o-ring)	X	1
36	A117-44	Shim (Ref)		
37	A966-4	Seal (output)	X	1
38	B552-1	Retainer	X	1
39	MS20074-04-06	Bolt (drilled head)	X	12
40	A257-2*	Oil – Gear (1 gallon)	X	A/R
	A257-2LT*	Oil – Gear (1 liter)	X	A/R
	A257-22*	Oil – Gear (1 gallon)	X	A/R
	A257-22QT*	Oil – Gear (1 quart)	X	A/R
41	B270-11	Adhesive	X	A/R
42	B545-1	Gear Set (not shown)	O	1
	B545-2	Pinion (Ref, not shown)		

NOTES * Use correct gearbox oil per R22 MM § 22-10 Part C.

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
A021 TAIL ROTOR GEARBOX & INSTALLATION				
65-11-1	A021-1 *	Tail Rotor Gearbox Assembly (Ref, no longer available; superseded by B021-1 Tail Rotor Gearbox Assembly)	O	1
2	MS20995C32	0.032 in. dia Safety Wire	X	A/R
3	B563-1	Sight Gage	X	1
4	MS35769-11	Gasket	X	1
5	A610-1	Filler – Vent Plug	X	1
6	MS35769-9	Gasket	X	1
7	A654-23	Decal (gearbox fill and oil specification)	X	1
8	F110-2	Telatemp (temperature recorder, 140° – 190°F)	X	1
9	A116-3	Input Shaft	O	1
10	A966-2	Seal	X	2
11	NAS1149F0432P	Washer	X	10
12	MS20074-04-06	Bolt (drilled head)	X	11
13	MS35769-8	Gasket	X	1
14	T102A	Chip Detector	X	1
15	B049-1	Wire Harness	X	2
16	A107-2	Output Shaft	O	1
17	D210-4	Nut	X	4
18	A141-11	Washer	X	1
19	NAS1149FN816P	Washer	X	2
20	MS27039C0806	Screw	X	2
21	A558-1	Cover – Transparent	X	1
22	A118-4	Spacer – Shim (0.020-inch thick)	X	A/R
	A118-5	Spacer – Shim (0.025-inch thick)	X	A/R
	A118-6	Spacer – Shim (0.032-inch thick)	X	A/R
23	NAS1149F0463P	Washer	X	5
24	NAS6604-8	Bolt	X	1
25	NAS6604-25	Bolt	X	1
26	NAS6604-10	Bolt	X	1
27	A120-1	Bellcrank	X	1
28	MS20002-4	Washer	X	2
29	A031-1 **	Pitch Control Assembly (Incl items 30, 31, and 36)	X	1
30	A104-4 **	Tail Rotor Pitch Bearing	O	1
31	A125-1 **	Stud	O	1

NOTES * Ship S/N 0002 thru 3099.
 ** Must be returned to RHC as an assembly for replacement.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
A021 TAIL ROTOR GEARBOX & INSTALLATION (Cont'd)				
65-11-32	NAS1149D0416J	Shim – Washer (0.016-inch thick)	X	A/R
	A117-21	Shim – Washer (0.020-inch thick)	X	A/R
	A117-22	Shim – Washer (0.025-inch thick)	X	A/R
33	A214-3	Washer	X	1
34	B330-13	Palnut	X	3
35	A257-2*	Oil – Gear (1 gallon)	X	A/R
	A257-2LT*	Oil – Gear (1 liter)	X	A/R
	A257-22*	Oil – Gear (1 gallon)	X	A/R
	A257-22QT*	Oil – Gear (1 quart)	X	A/R
36	A647-6	Bearing – Tail Rotor Pitch Control (not shown)	O	2

NOTES * Use correct gearbox oil per R22 MM § 22-10 Part C.

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
A121-7 PUSH-PULL TUBE GUIDE INSTALLATION				
67-27-1	NAS6603-7	Bolt	X	6
2	NAS1149F0332P	Washer	X	6
3	C439-8	Retainer	X	2
4	MS20470AD3	Rivet (forward, at A259 bulkhead assembly)	X	3
5	A259	Bulkhead Assembly (Ref)		
6	C439-9	Bushing	X	2
7	B439-1	Guide Assembly – Push-Pull Tube (Incl items 1 thru 3, 6, 9, and 10 thru 13)	X	1
8	MS20470AD4	Rivet	X	4
9	C439-3	Spacer	X	6
10	C439-4	Roller	X	6
11	C439-5	Pin	X	6
12	NAS1149F0363P	Washer	X	6
13	D210-3	Nut	X	6
14	A230-2	Bushing	X	2
15	A432-1*	Guide Assembly – Push-Pull Tube (Ref, superseded by item 7)		
16	A141-17	Washer	X	3
17	AN3-4A	Bolt	X	3
18	KI-130*	Guide Installation Kit (Incl items 4 [3], 7, and 8 [6])	X	1

NOTES * Ship S/N 0002 thru 2799.

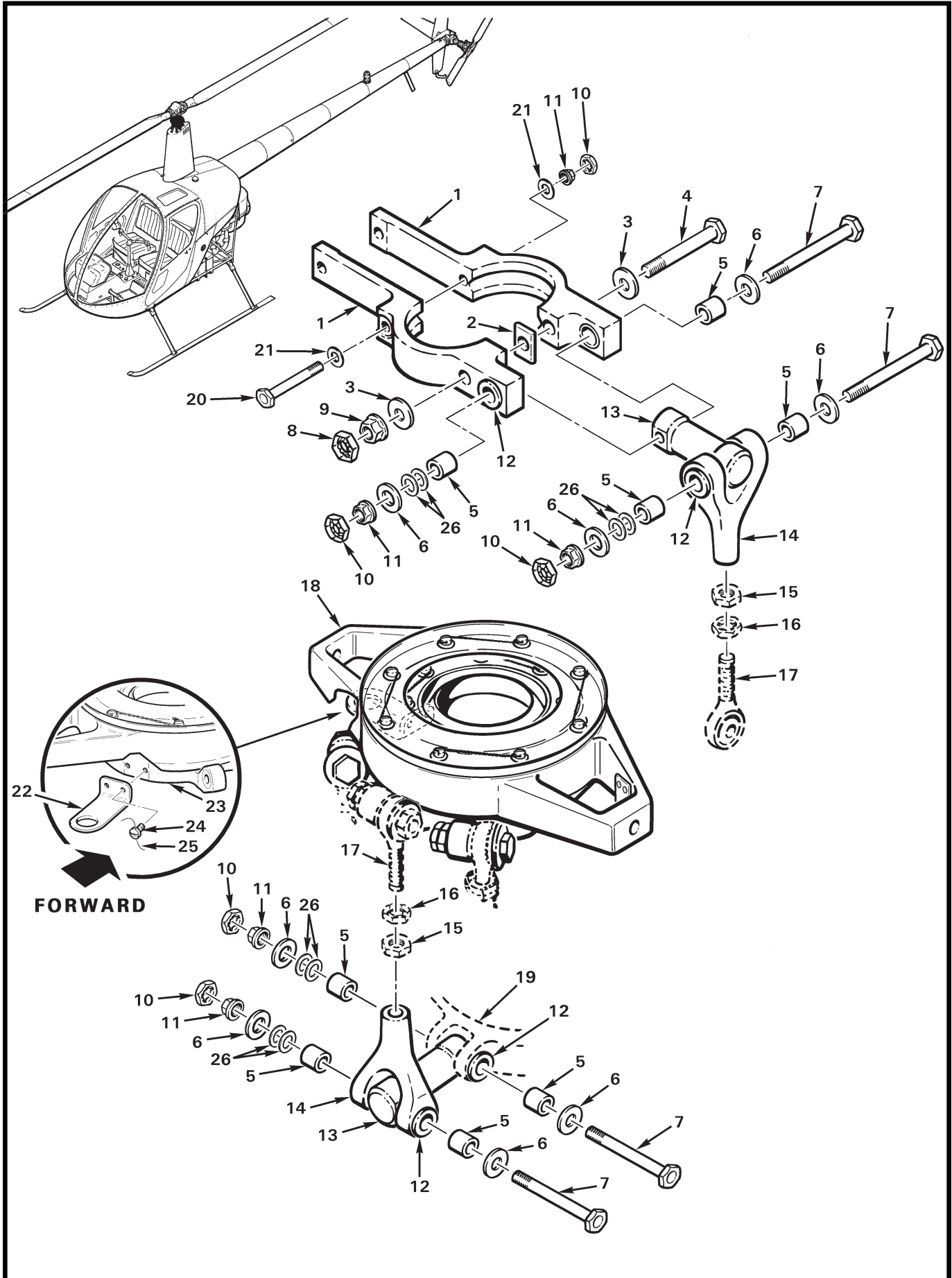


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
SWASHPLATE INSTALLATION*				
67-29-1	A203-8	Yoke Half Assembly (includes A203-9 yoke and item 12) . . .	X	2
	A203-9	Yoke Half (Ref)	O	1
2	A210-1	Key	X	1
3	NAS1149F0532P	Washer	X	2
4	NAS6605-28	Bolt	X	1
5	A105-17	Journal (0.436-inch O.D. x 0.526-inch length)	X	8
6	A141-43	Washer	X	8
7	NAS6604-31	Bolt	X	4
8	B330-16	Palnut	X	1
9	D210-5	Nut	X	1
10	B330-13	Palnut	X	5
11	D210-4	Nut	X	5
12	C648-2	Bearing	X	8
13	A204-1	Arm (Ref, see Figure 67-33)	X	2
14	A205-9	Fork Assembly (includes A205-10 fork and item 12)	X	2
	A205-10	Fork (Ref)	O	1
15	AN316-5R	Nut (Ref, see Figure 67-33)		
16	B330-16	Palnut (Ref, see Figure 67-33)		
17	B163-1	Rod End (Ref, see Figure 67-33)		
18	A017-2	Swashplate Assembly (Ref, see Figure 67-33)		
19	A283-5	Mast Assembly (Ref; see Figure 63-1)		
20	NAS6604-24	Bolt	X	1
21	NAS1149F0432P	Washer	X	2
22	B769-1	Bracket – Magnetic Pickup (subsequent ship S/Ns)	X	1
23	A198-4	Swashplate – Lower (Ref)		
24	NAS1352N08-6	Screw (apply A257-9 anti-seize to threads)	X	2
25	MS20995C20	0.020-inch dia Safety Wire	X	A/R
26	A117-45**	Shim (thickness = 0.016-inch)	X	A/R
	A117-46**	Shim (thickness = 0.020-inch)	X	A/R
	A117-47**	Shim (thickness = 0.025-inch)	X	A/R
* * *				
27	KI-2207	R22-series A017-1 Swashplate Installation Kit Instructions (see www.robinsonheli.com for complete kit contents)	X	1
28	R8245	A283-5 Mast Tube Upgrade Kit (For A006-1 to -6 upgrades. Includes items 5 thru 7, 10, 11, and 26.)	X	A/R

NOTES * Original equipment on ship S/N 3540 and subsequent.
 ** Select a combination of [4] shims to provide 0.001–0.005-inch maximum axial play in joint.

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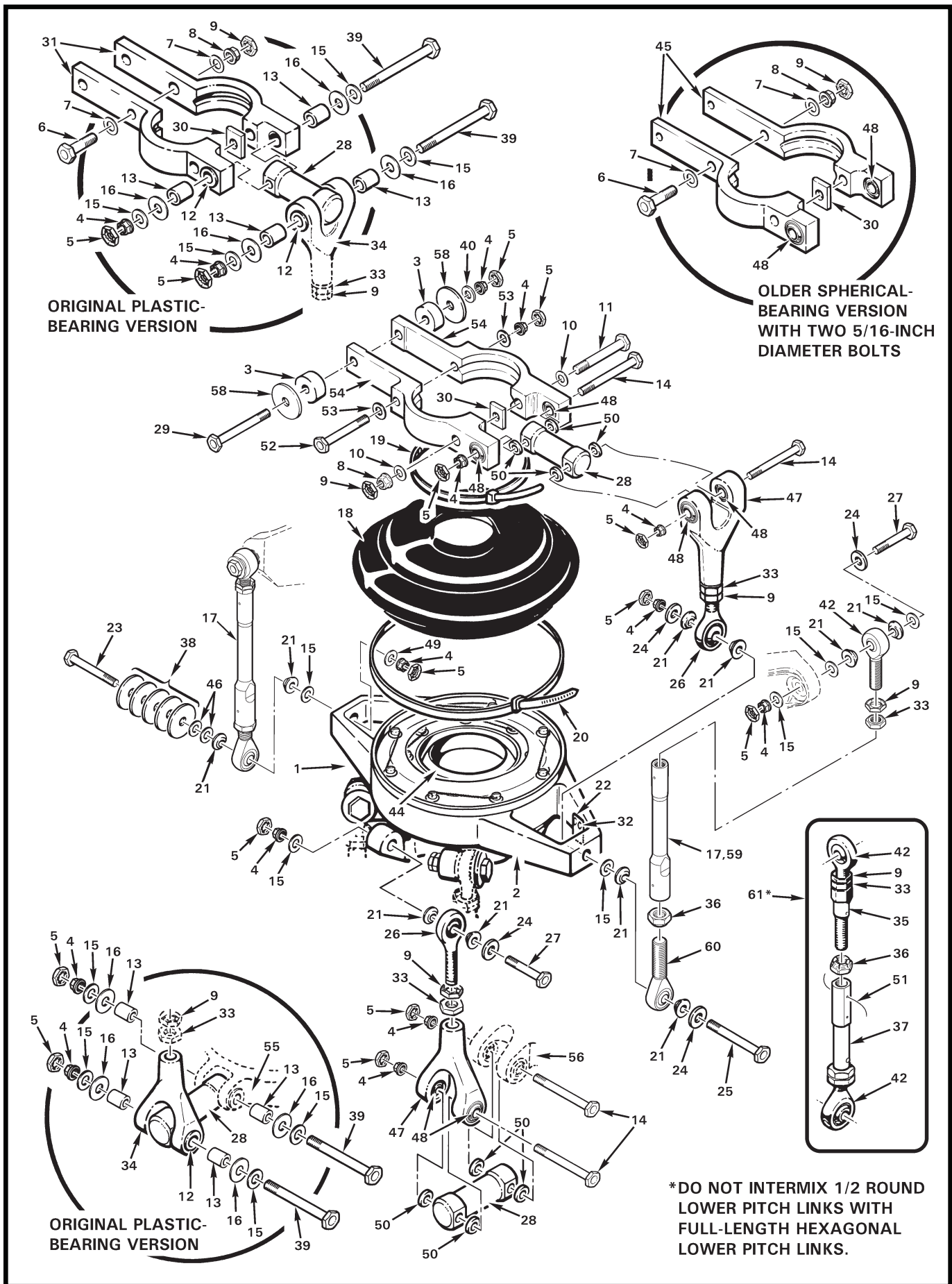


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		SWASHPLATE INSTALLATION*		
67-33-1	KI-2207	R22-series A017-1 Swashplate Installation Kit Instructions (See www.robinsonheli.com for complete kit contents. Also, see Figure 67-29.)	X	1
2	A017-2	Swashplate Assembly (Includes items 22 and 32, upper and lower swashplates, item 44, and all internal components.)	X	1
3	A255-1	Counter Weight (1.10-inch O.D.)	X	A/R
	A255-2	Counter Weight (1.90-inch O.D.)	X	A/R
4	D210-4	Nut	X	14
5	B330-13	Palnut	X	12
6	NAS6605-8	Bolt	X	1
7	NAS1149F0532P	Washer	X	2
8	D210-5	Nut	X	2
9	B330-16	Palnut	X	4
10	NAS1149F0532P**	Washer (or NAS1149F0563P)	X	2
11	NAS6605-28	Bolt	X	1
12	A139-1	Bearing	X	4
13	A105-11	Journal (0.374-inch O.D. x 0.547-inch length)	X	4
14	NAS1304-28	Bolt	X	4
15	NAS1149F0432P	Washer	X	A/R
16	A141-3	Washer	X	8
17	A258-5	Pitch Link Assembly (Incl items 9, 33, 36, 42, 59, and 60) . .	X	2
18	A480-1	Boot	X	1
19	MS3367-7-9	Ty-Rap	X	1
20	MS3367-6-0	Ty-Rap	X	1
21	A115-1	Spacer	X	18
22	A769-3	Interrupter – Magnetic Pickup	X	1
23	NAS6604-22	Bolt	X	1
24	A214-3	Washer	X	8
25	NAS6604-27	Bolt	X	1
26	B163-1	Rod End	X	2
27	NAS6604-17	Bolt	X	6
28	A204-1	Arm – Scissor	X	2
29	NAS6604-15 to -31	Bolt**	X	1
30	A210-1	Key	X	1
31	A203-1	Yoke Half Assembly (with A139-1 bearing, Ref; superseded by item 45)		

NOTES * Original equipment on Ship S/N 3539 and prior.
 ** Select hardware which, after correct torque is applied, exposes 2 to 4 threads beyond nut.

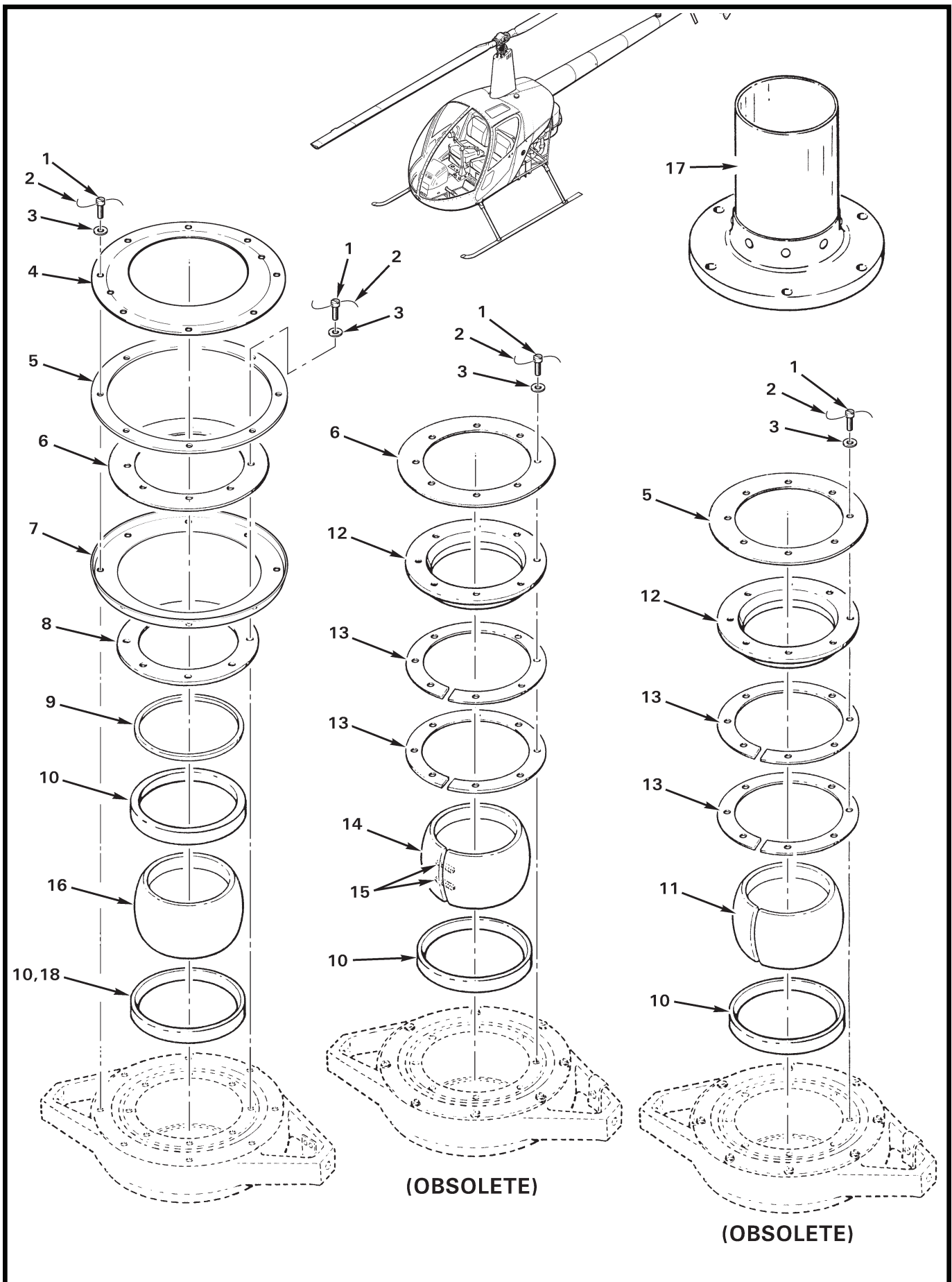
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FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
SWASHPLATE INSTALLATION (Cont'd)				
67-33-32	MS20470AD3-8	Rivet	X	2
33	AN316-5R	Nut	X	2
34	A205-1	Fork Assembly (includes A205-2 fork and item 12)	X	2
	A205-2	Fork (Ref)		
35	A258-2	Fitting	X	1
36	21FKF-616	Nut	X	1
37	A258-3	Link (Ref, to replace order item 41)		
38	AN970-4	Washer ([5] required at this location)	X	5
39	NAS6604-30	Bolt	X	4
40	NAS1149F0432P	Washer (or NAS1149F0463P)	X	A/R
41	A258-4	Pitch Link Sub-Assembly (Includes items 9 [1], 33 [1], 37, 42 [1], and rivet.)	X	1
42	B163-1	Rod End	X	1
43	A769-2	Interrupter (Optional; for use with Strobex Model 135M-10 series, not shown.)	X	1
44	B149-1	Swashplate Ball Assembly (Ref, see Figure 67-37)		
45	A203-5	Yoke Half Assembly (Ref, includes A203-4 yoke half and item 48. Superseded by item 54.)		
	A203-4	Yoke Half (Ref)		
46	NAS1149F0432P	Washer ([2] required at this location)	X	2
47	A205-3	Fork Assembly (includes A205-4 fork and item 48)	X	1
	A205-4	Fork (Ref, fork only)	O	1
48	B115-1	Bearing	X	2
49	NAS1149F0432P	Washer (select washer(s) which, after correct torque is applied, exposes 2 to 4 threads beyond nut; [1] minimum)	X	A/R
50	A130-47	Spacer (0.438-inch OD x 0.097-inch length)	X	8
51	MS20995C32	0.032-inch dia Safety Wire	X	A/R
52	NAS6604-24	Bolt	X	1
53	NAS1149F0432P	Washer	X	2
54	A203-7	Yoke Half Assembly (includes A203-6 yoke half and item 48)	X	2
	A203-6	Yoke Half (Ref, yoke half only)	O	1
55	A283-2	Mast Assembly (Ref, earlier R22s)		
56	A283-4	Mast Assembly (Ref, see Figure 63-1)		
57	NAS1149F0432P	Washer (select washer(s) which, after correct torque is applied, provides proper thread engagement; [1] minimum)	X	A/R
58	AN970-4	Washer	X	A/R

NOTES

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
SWASHPLATE INSTALLATION (Cont'd)				
67-33-59	A258-6	Barrel Assembly	X	1
60	D173-5	Rod End	X	1
61	A258-1	Pitch Link Assembly (Ref, no longer available. A258-5 pitch link assembly [item 17] directly replaces A258-1 pitch link assembly, and may be installed singly or in pairs; there is no weight change.)		
NOTES				



**CHAPTER 71
POWERPLANT**

<i>Figure</i>	<i>Title</i>	<i>Page</i>
71-1	Engine Installation	71.0
71-5	Air Induction System	71.4
71-9	Air Induction System	71.8
71-13	Air Induction System	71.12
71-17	Exhaust Muffler Assembly	71.16
71-19	Cooling System	71.18
71-21B	B174 Fanwheel Assembly	71.21A
71-23	Alternator and Starter Installation	71.22
71-27	Kelly Aerospace Starter Installation	71.26
71-29	Sky-Tec Starter Installation	71.28

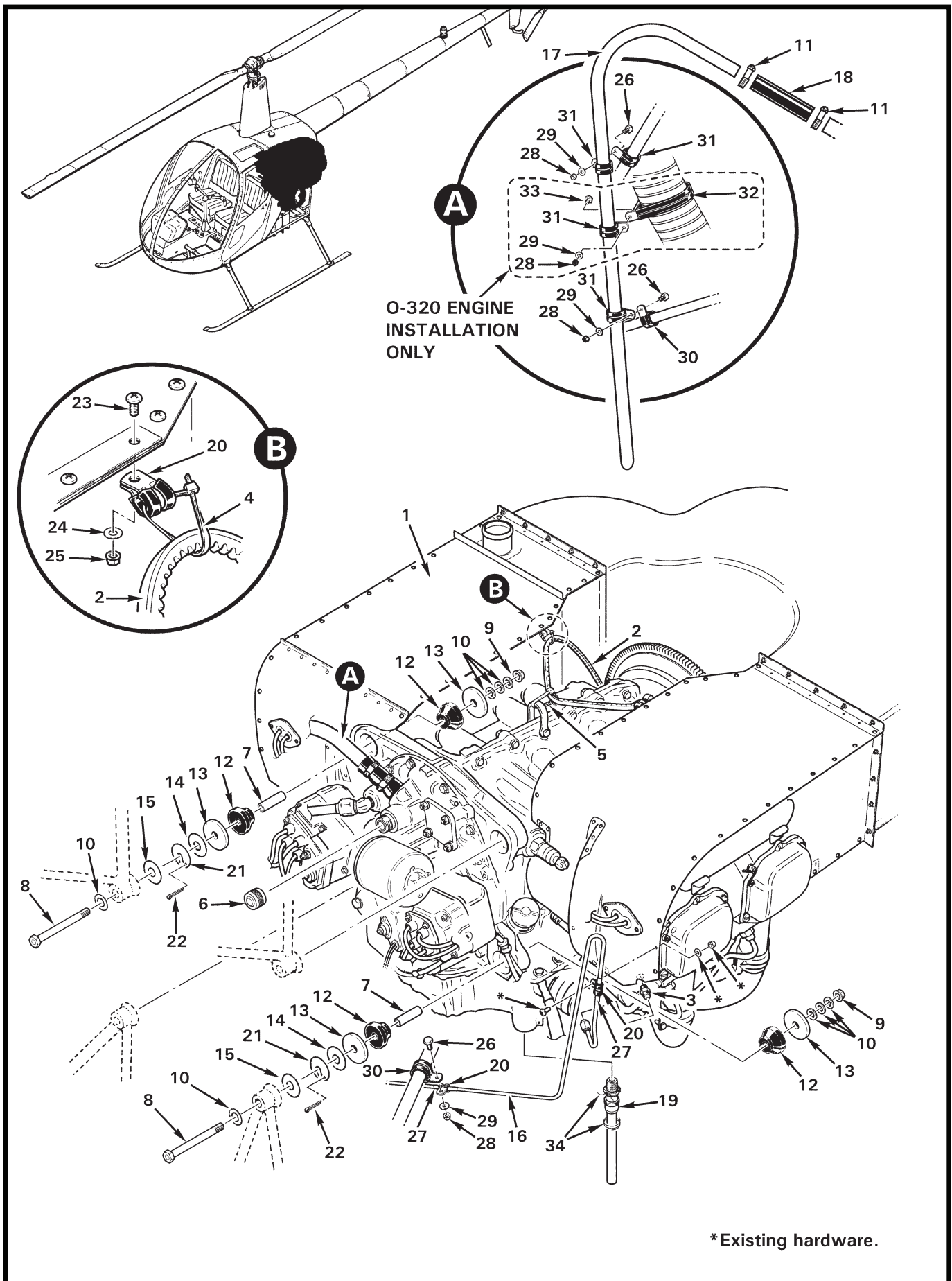


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
EXHAUST MUFFLER ASSEMBLY				
71-17-1	77611*	Gasket	X	4
2	A169-23	Riser	X	4
3	NAS1149F0532P	Washer	X	8
4	21FKF-518	Nut	X	8
5	MS21043-3	Nut (or MS21042L3)	X	16
6	NAS1149F0332P	Washer	X	16
7	A169-14	Bead Clamp	X	8
8	A701-10	Tape (stainless steel; not required for use with bead clamps having integral liners)	X	A/R
9	AN3-4A	Bolt (or AN3C4A)	X	16
10	A169-6**	Muffler Assembly (for O-320 engine; includes items 2, 6 thru 9, and 11)	X	1
11	A169-8**	Muffler Assembly (for O-320 engine; welded muffler assembly only)	X	1
12	A169-24**	Muffler Assembly (for O-360 engine; includes items 2, 7 thru 9, and 13)	X	1
13	A169-25**	Muffler Assembly (for O-360 engine; welded muffler assembly only)	X	1

NOTES * Lycoming part no.
 ** Does not include heater shroud. For heater shroud see Figures 21-3 and 21-9.

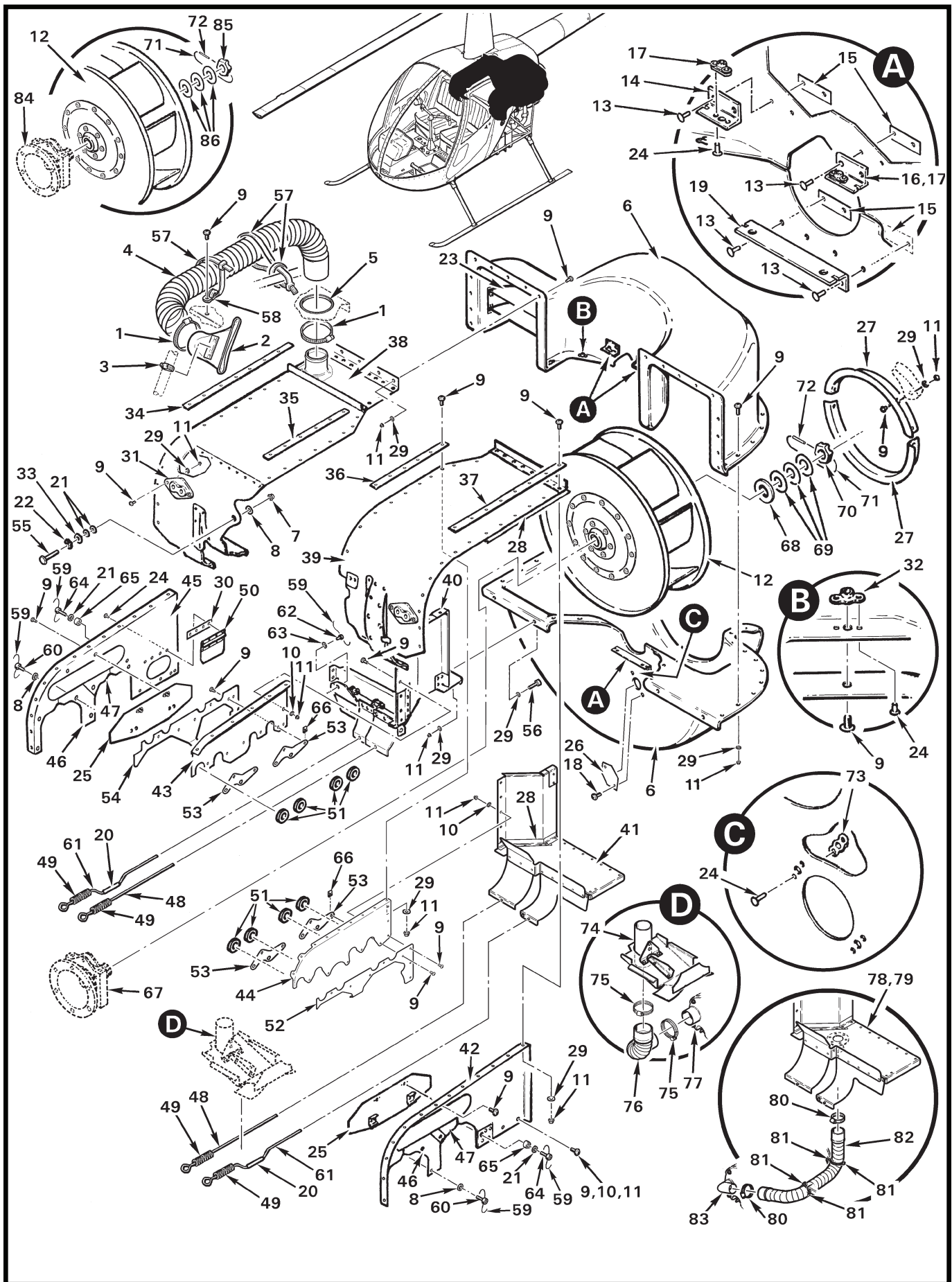


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
COOLING SYSTEM (Cont'd)				
71-19-61	A487-2	Retainer	X	2
62	NAS1352-3H6P	Screw (thru A309 panel to cylinder head)	X	1
63	B332-43	Lockwasher (or AN935-10L)	X	A/R
64	NAS1352-4H14P	Screw	X	2
65	C130-9	Spacer	X	2
66	B162-2	Clipnut	X	8
67	A007-5*	Fanshaft and Bearing Assembly (Ref)		
68	MS20002-18*	Washer (against fanwheel hub)	X	1
69	NAS1149F1832P*	Washer	X	A/R
70	AN320-18*	Nut	X	1
71	MS20995C41	0.041-inch dia Safety Wire	X	A/R
72	B350-2*	Spring Pin (or MS9048-112)	X	1
73	MS21069L06	Nutplate	X	2
74	D754-4	Baffle Assembly	X	1
75	B277-24	Clamp	X	2
76	A785-32	Hose (1.5-inch diameter)	X	1
77	D747-5	Shroud – Alternator Cooling (Ref, see Figure 71-23)		
78	A313-1	Panel Assembly (LH, ship S/N 2570 and prior)	X	1
79	A313-7	Panel Assembly (LH, ship S/N 2571 thru 3688)	X	1
80	B277-12	Clamp	X	2
81	MS3367-4-9	Ty-Rap (alternator cooling hose)	X	4
82	A785-7	Hose – Alternator Cooling (1.0-inch diameter)	X	1
83	ALU-1062A**	Shroud – Alternator Cooling (Ref; used only with item 82)		
* * *				
84	A007-3	Fanshaft and Bearing Assembly (Ref, ship S/N 2570 and prior. No longer available. Contact RHC for replacement.)		
85	AN320-15	Nut (spares)	X	A/R
86	AN960-1616L	Washer (spares)	X	A/R

NOTES * Ship S/N 2571 and subsequent. See also Figure 63-11.
 ** Kelly Aerospace part no.

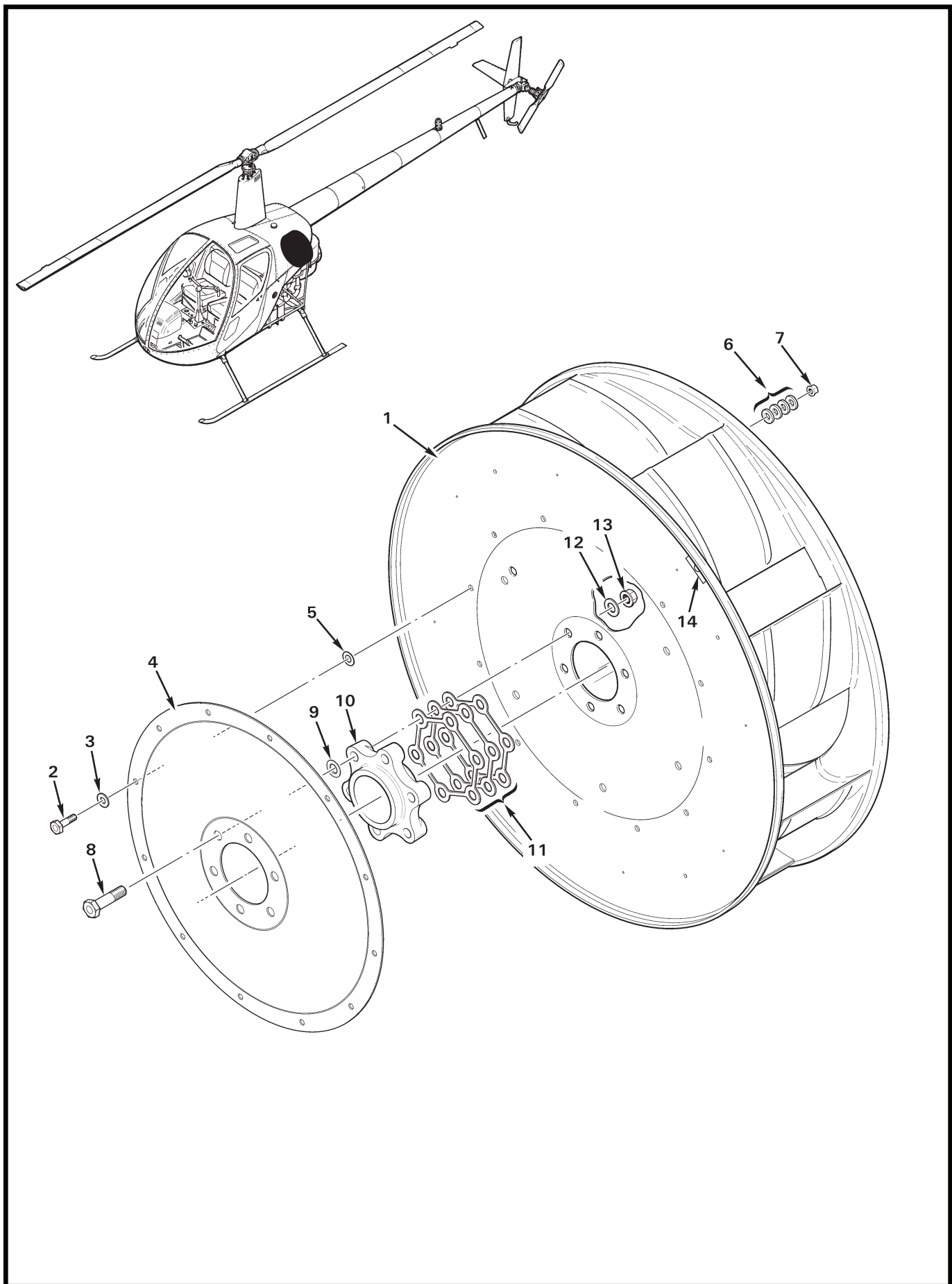


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
B174 FANWHEEL ASSEMBLY				
71-21B-1	B174-1 *	Fanwheel Assembly (Incl A524-3 Fanwheel, and items 2 thru 14)	X	1
	A524-3	Fanwheel (Ref)		
2	NAS6603-6	Bolt	X	12
3	NAS1149F0332P	Washer	X	12
4	A187-4	Cone Assembly	O	1
5	NAS1149F0316P	Washer	X	12
6	NAS1149D0363J	Washer (wet prime between washer and fanwheel)	X	48
7	D210-3	Nut	X	12
8	NAS6605-12	Bolt (or NAS6605-13 or -14 as required for 2-4 threads exposed beyond nut)	X	6
9	NAS1149C0516R	Washer	X	6
10	A186-2	Hub (wet prime between hub and adjacent components and in bolt hole)	X	1
11	A178-2	Spacer (1-3 as required for shimming; wet prime between spacer and fanwheel)	X	A/R
12	NAS1149F0532P	Washer (wet prime between washer and fanwheel)	X	6
13	D210-5	Nut	X	6
14	B171	Weight (Ref; B171-1 thru B171-6 as required for balance)		
	NAS620-5	Washer (Ref; as required for balance, not shown.)		
15	MS20470AD4	Rivet (Ref)		

NOTES * See R22 MM § 6.240 for dynamic balance procedure.

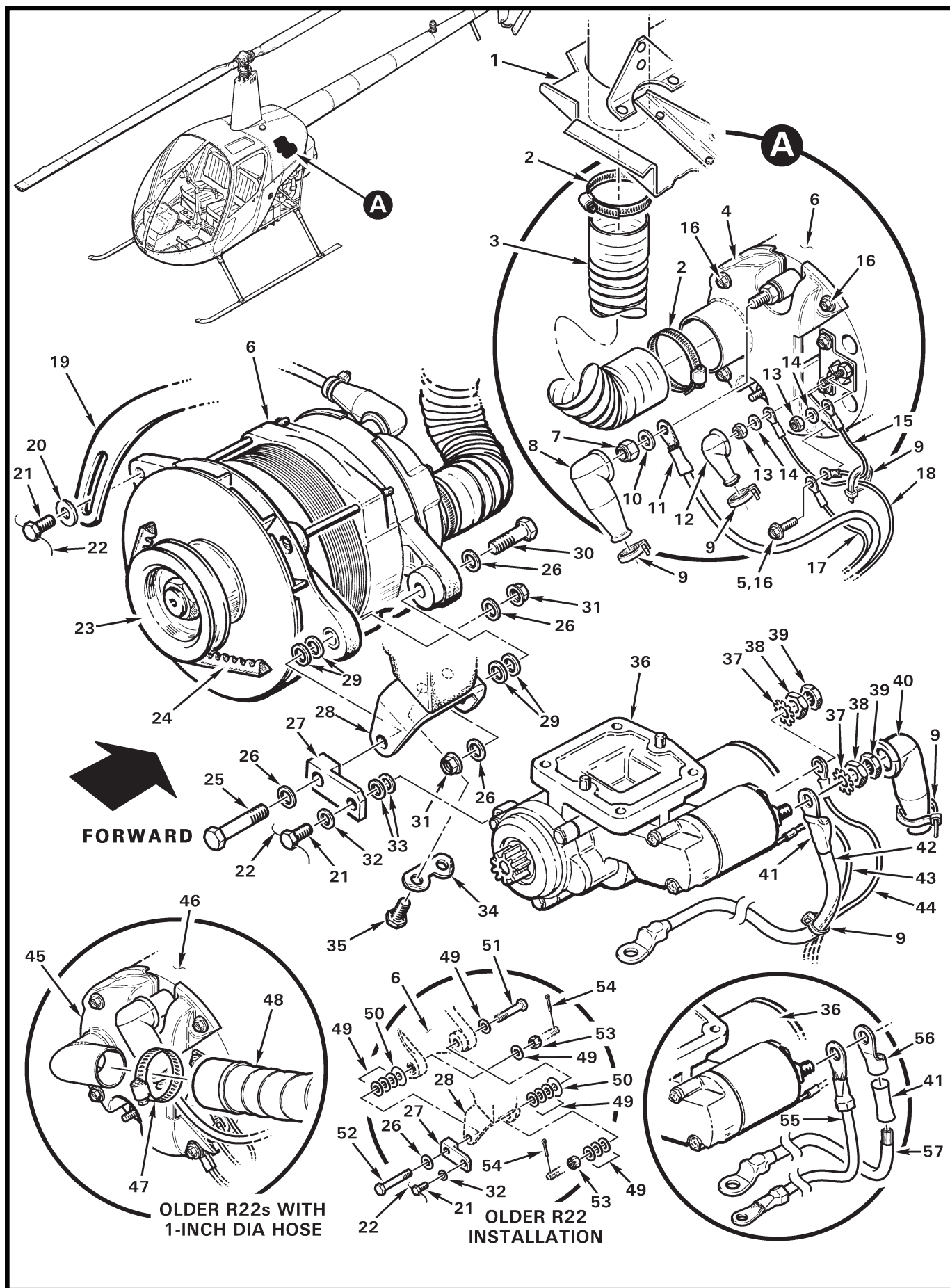


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
ENGINE CONTROLS (Cont'd)				
76-1-73	A130-14	Spacer	X	2
74	V3-1	Switch (Incl item 71)	X	1
75	JV-5	Actuator	X	1
76	MS35206-220	Screw	X	2
77	A015-3	Skin (Ref)		
78	A522-12	Mixture Control (Incl items 79 thru 82, 87, and 88)	X	1
79	A-641R12	Inner Wire (includes knob)	X	1
	A702A*	Knob (red)	O	1
80	R5190*	1/8" Ball	X	1
81	A642A*	Plunger	O	1
82	LC042E7*	Spring	O	1
83	A950-1	Guard – Mixture Control (Incl item 84)	X	1
84	A654-45	Decal (guard instructions)	X	1
85	A444	Panel Assembly (Ref)		
86	A518-2	Cover	X	1
87	—	Washer	O	1
88	—	Nut	O	1
89	MS21919WDG6	Clamp	X	1
90	B161-4	Spirap	X	A/R
91	D334-5	Bellcrank Assembly (Ref, see Figures 76-9 and 76-17)		
92	MS27039C1-14	Screw	X	1
93	A293-2	Keel Panel (RH, Ref)		
94	A292-2	Keel Panel (RH, Ref)		
95	A130-35	Spacer	O	1
96	MS27039C1-20	Screw	X	1
97	A130-26	Spacer	X	1
98	A130-21	Spacer	X	2
99	B270-5	Sealant (one quart)	X	A/R
100	MS27039C1-09	Screw	X	2
101	A606-1**	Cover (clear polycarbonate)	X	1
102	B340-4	Nut	X	2
103	AN525-832R16	Screw	X	1
104	C342-1	Arm	X	1
105	MS20995C32	0.032-inch dia. Safety Wire	X	A/R
106	MS35489-4	Grommet	X	1
107	B340-8	Nut	X	1

NOTES * ACS Products part no.
 ** Revision I and prior were fiberglass.

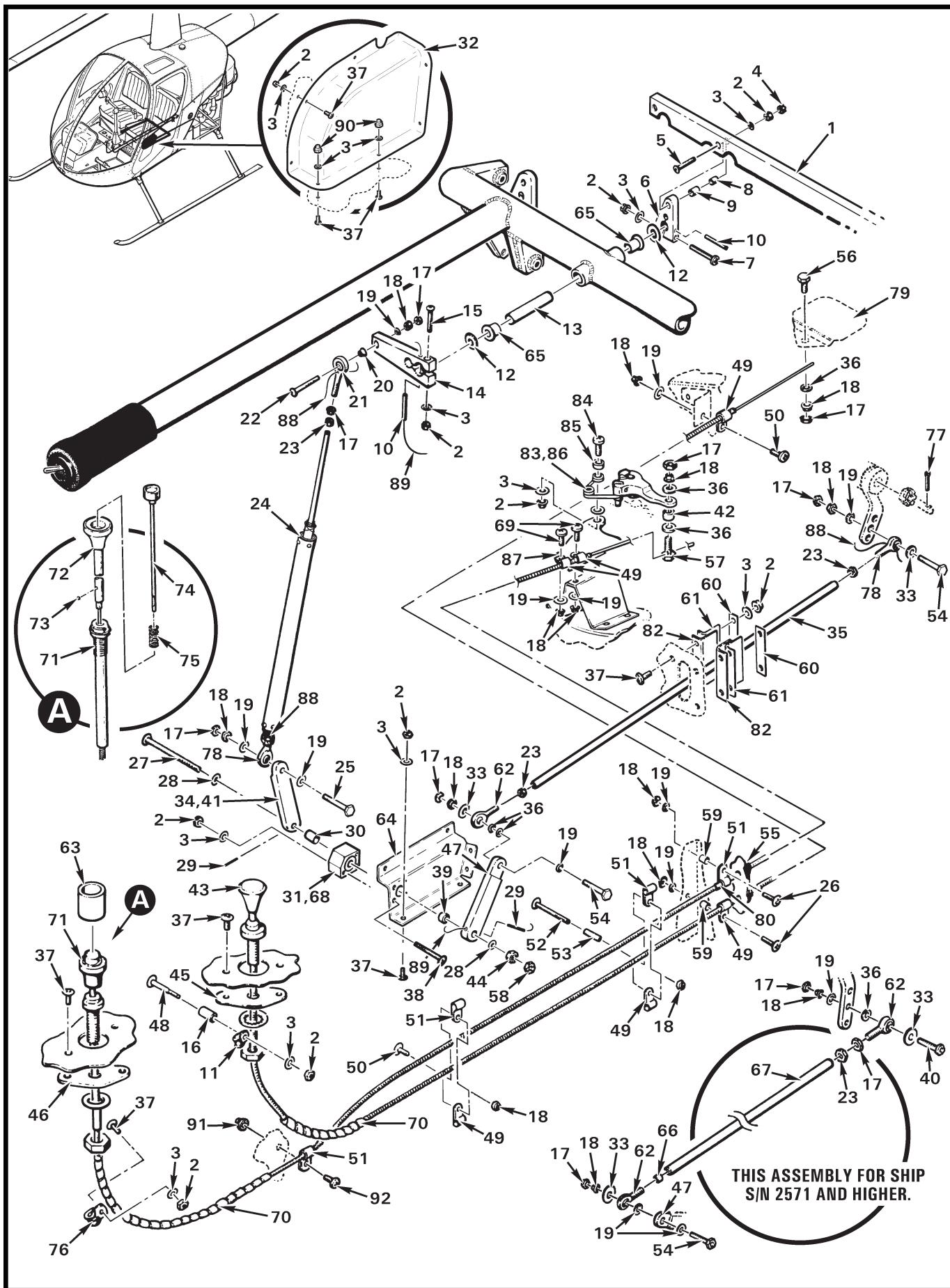


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
CARB HEAT ASSIST AND MIXTURE CONTROL*				
76-9-1	MS27039C1-11	Screw	X	1
2	D774-3	Spring	X	1
3	B208-1	Ball	X	1
4	D333-7	Catch	X	1
5	D333-8	Block	X	1
6	MS16562-23	Spring Pin	X	1
7	A444	Cover – Cyclic (Ref)		
8	NAS1149F0332P	Washer	X	7
9	D210-3	Nut	X	9
10	2010	Bushing	X	1
11	3704-SE	Knob	X	1
12	D333-5	Collar	X	1
13	NAS6603-6	Bolt	X	1
14	A758	Collective Stick (Ref)		
15	A057	Air Box Assembly (Ref)		
16	AN742-3	Clamp	X	4
17	MS27039C1-06	Screw	X	1
18	A462-1	Bolt	X	2
19	A562-1	Valve (Ref)		
20	A696-3	Plate	X	1
21	NAS1149F0316P	Washer	X	1
22	A292	Keel Panel (RH, Ref)		
23	A142-4	Screw	X	2
24	NAS1149F0363P	Washer	X	3
25	B340-4	Nut	X	A/R
26	NAS1149FN816P	Washer	X	A/R
27	MS21042L08	Nut	X	A/R
28	B368-3	Stiffener (cabin heater installed, Ref)		
29	B368-4	Stiffener (cabin heater <u>not</u> installed, Ref; not shown)		
30	MS27039C0806	Screw	X	A/R
31	A587-4	Stem	X	1
32	NAS6603-7	Bolt	X	1
33	AN960PD10L	Washer	X	1
34	A933-3	Rod End	X	2
35	B330-7	Palnut	X	2

NOTES * Ship S/N 2665 and subsequent.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
CARB HEAT ASSIST AND MIXTURE CONTROL* (Cont'd)				
76-9-36	AN315-3R	Nut	X	2
37	A336-1	Push-Pull Tube	X	1
38	MS20995C20	0.020-inch dia Safety Wire	X	A/R
39	MS16562-4	Spring Pin	X	2
40	D333-3	Fitting (install using A257-1 grease)	X	2
41	NAS1149F0432P	Washer	X	2
42	MS24665-210	Cotter Pin	X	2
43	D334-5	Bell Crank Assembly – Carb Heat Assist (Ref)		
44	C522-8	Control – Carb Heat	X	1
45	MS27039C1-14	Screw	X	1
46	A130-35	Spacer	X	1
47	MS27039C1-20	Screw	X	1
48	A130-26	Spacer	X	1
49	B161-4	Spirap	X	A/R
50	AN742-4	Clamp	X	3
51	A130-21	Spacer	X	2
52	B270-5	Sealant	X	A/R
53	MS27039C1-09	Screw	X	2
54	A950-1	Guard (Incl item 55)	X	1
55	A654-45	Decal	X	1
56	A522-12	Control – Fuel Mixture (Incl items 57, 59, and 60)	X	1
57	A-641R	Inner Wire (O-320 engine)	X	1
	A-641R1	Inner Wire (O-360 engine)	X	1
58	A518-2	Cover	X	1
59	—	Lockwasher (Ref)		
60	—	Nut (Ref)		
61	MS21919WDG6	Clamp	X	1
62	MS27039C1-05	Screw	X	1
63	A701-1	Tape – Foil	X	A/R

NOTES * Ship S/N 2665 and subsequent.

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
OIL COOLER INSTALLATION				
79-1-1	NAS1352-08-8P	Screw	X	2
2	NAS1149FN816P	Washer	X	4
3	A236	Lower Scroll Half (Ref; see also Figure 71-19.)		
4	A309-15	Panel Assembly (Ref; O-320 engine. See also Figure 71-19.)		
	C309-4	Panel Assembly (Ref; O-360 engine)		
5	MS21042L08	Nut	X	6
6	MS27039C0806	Screw	X	4
7	C636-2	Support (C649-1 oil cooler on O-360 engine)	X	1
8	A668-1	Doubler – Oil Cooler	X	4
9	NAS620-8L	Washer	X	4
10	A130-49	Spacer	X	4
11	NAS1149F0363P	Washer	X	4
12	C649-1	Oil Cooler (large)	X	1
13	—	Engine (Ref, see Fig. 71-1)		
14	A571-1	Fitting Assembly – Oil Pressure Hose	X	1
15	B283-1	Hose Assembly – Oil Pressure	X	1
16	A880-503*	Nipple – Oil Pressure Hose (install using item 17)	X	1
17	B270-6	Sealant/Lubricant (4-oz tube)	X	A/R
18	AN3-3A	Bolt	X	5
19	A058-3	Sender and Line Assembly (Incl items 15 thru 17, 20, 22, and 23)	X	1
20	B308-1	Oil Pressure Sender (replaced part no. 1521003066; install using item 17)	X	1
21	MS21919WDG9	Clamp – Tee Fitting	X	2
22	AN917-1D	Tee – Oil Pressure Hose (install using item 17)	X	1
23	B426-1	Oil Pressure Switch (install using item 17)	X	1
24	MS21919WDG12	Clamp – Frame	X	2
25	NAS1149F0332P	Washer	X	6
26	D210-3	Nut	X	6
27	A636-2	Support (C649-1 oil cooler on O-320 engine)	X	A/R
28	A880-668*	90° Elbow (install using item 17)	X	2
29	NAS1149F0316P	Washer	X	4
30	AN3-41A	Bolt	X	2
31	AN3-44A	Bolt	X	2
32	LW-16783-13**	Dip Stick – 6 quarts marking (O-320 engine)	X	1
	LW-16783-22P**	Dip Stick – 6 quarts marking (O-360 engine)	X	1

NOTES * See *Introduction* for allowable part numbers.

** Lycoming part no.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
OIL COOLER INSTALLATION (Cont'd)				
79-1-33	A723-5	Oil Line – Out (Incl item 35)	X	1
34	A723-6	Oil Line – Return (Incl item 35)	X	1
35	B158-212	Heat Shrink	X	A/R
36	MS21919WCH8	Clamp – Oil Line	X	6
37	MS35650-302	Nut	X	1
38	MS21919WDG24	Clamp – Intake Pipe (for O-320 engine)	X	2
	MS21919WDG28	Clamp – Intake Pipe (for O-360 engine, aft location)	X	1
39	MS20823-8	45° Elbow (install using item 17)	X	1
40	NAS428-3A6	Bolt	X	1
41	MS21919WDG8	Clamp – Ignition Harness (use with TCM magnetos)	X	1

NOTES

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
OIL FILTER INSTALLATION				
79-7-1	MS3367-4-9	Ty-rap	X	1
2	MS25171-1S	Nipple	X	1
3	—	Nut (Ref, supplied with item 6)		
4	C049-8	Harness Assembly	X	1
5	MS20995C32	0.032-inch dia Safety Wire	X	A/R
6	A760-3	Oil Temperature Sender (Ref, dual)		
	A760-1	Oil Temperature Sender (Ref, single; earlier aircraft)		
7	06E19769-0.63	Gasket	X	1
8	61173*	Gasket – Oil Filter Adapter	X	1
9	D723-1	Adapter – Oil Filter (revision "H" and subsequent)	X	1
10	STD-8*	Washer	X	4
11	STD-160*	Lockwasher	X	4
12	STD-1856*	Screw	X	4
13	76510*	Gasket	X	1
14	53E22144*	Thermostatic Oil Cooler Bypass Valve	X	1
15	—	Accessory Housing (Ref)		
16	B123-2	Oil Filter	X	1
17	D723-1	Adapter – Oil Filter (Revision "G" and prior, provision for safety wire. Ref; no longer available.)		
18	B123-1	Oil Filter (Ref, provision for safety wire; no longer available.)		
19	B161-102	Spirap	X	A/R
* * *				
20	KI-160	Full Flow Oil Filter Kit (for all R22s; includes items 7 thru 9, 11, 13, 16, and 21)	X	1
21	A257-19.25oz	Lubricant (0.25-oz tube)	X	1

NOTES * Lycoming part no.

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FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
PA/SIREN INSTALLATION				
90-11-1	B330-19	Palnut	X	1
2	MS21042L6	Nut	X	1
3	NAS1149F0632P	Washer	X	1
4	A663-1	Plate	X	1
5	MS3367-4-9	Ty-Rap	X	A/R
6	A278-1	Spacer	X	1
7	A663-2	Plate	X	1
8	A214-1	Washer	X	1
9	A141-23	Washer	X	2
10	NAS6606-42	Bolt	X	1
11	NAS6603-36	Bolt	X	2
12	NAS6604-34	Bolt	X	1
13	NAS1149F0432P	Washer	X	5
14	MS21042L4	Nut	X	1
15	NAS1149F0363P	Washer	X	8
16	MS21042L3	Nut	X	8
17	A644-2	Support	O	1
18	MS20995C32	0.032-inch dia Safety Wire	X	A/R
19	MS20074-04-03	Bolt	X	3
20	B264-12	Receptacle	X	1
	B264-3	Pin (for use with item 20)	X	2
21	B264-13	Plug	X	1
	B264-4	Socket (for use with item 21)	X	2
22	SA340TS	Siren Speaker	X	1
23	A662-1 *	Bracket (use with 4.34-inch wide speaker cone)	O	1
	A662-3	Bracket (use with 5.20-inch wide speaker cone)	O	1
24	MS27039C0806	Screw	X	2
25	MS21042L08	Nut	X	2
26	NAS1149FN832P	Washer	X	2
27	A662-2 *	Bracket (use with 4.34-inch wide speaker cone)	O	1
	A662-4	Bracket (use with 5.20-inch wide speaker cone)	O	1
28	MS27039C1-06	Screw	X	2
29	B297-10	Circuit Breaker (10 amp)	X	1
30	A448-1	Bus Bar (Ref)		
31	MS35206-228	Screw	X	2

NOTES * Earlier R22s.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
PA/SIREN INSTALLATION (Cont'd)				
90-11-32	A687-3	PA/Siren Control (use only with item 43)	X	1
33	MS35206-215	Screw	X	2
34	—	Radio Tray (Ref)		
35	FW-1111-D00	Relay (if equipped)	X	1
36	D275-102	Diode	X	1
37	B158-3	Heat Shrink	X	A/R
38	NAS1149FN416P	Washer	X	2
39	MS21042L04	Nut	X	2
40	A239-1	Strut (Ref)		
41	B263-20	Housing	X	1
	B263-1	Pin	X	6
42	B263-18	Housing	X	1
	B263-1	Pin	X	4
43	BETA112R	Amplifier (use only with item 32)	X	1
44	A701-1	Foil Tape	X	A/R
45	AN525-10R9	Screw	X	4

NOTES

CHAPTER 95

INSTRUMENT SYSTEM

<i>Figure</i>	<i>Title</i>	<i>Page</i>
95-1	Six-Instrument Console Assembly	95.0
95-5	Six-Instrument Console Assembly	95.4
95-9	Eight-Instrument Console Assembly	95.8
95-13	Six-Instrument Console Assembly – Lower Panel, High Console	95.12
95-15	Six-Instrument Console Assembly – Lower Panel, High & Low Console	95.14
95-18A	Eight-Instrument Console Assembly – Lower Panel	95.18
95-18C	Six-Instrument Console Assembly – Components, High Console	95.18B
95-18G	Eight-Instrument Console Assembly – Components	95.18F
95-21	Aspen PFD Installation	95.20
95-23	Aspen PFD Installation – Pitot/Static Lines	95.22
95-25	Upper Console – Seven-Instrument	95.24
95-29	Lower Panel – Seven-Instrument	95.28
95-33	Upper Console – Nine-Instrument	95.32
95-35	Upper Console – Ten-Instrument/IFR Trainer	95.34
95-39	Upper Panel – Ten-Instrument/IFR Trainer	95.38
95-43	Upper Console – Five-Instrument	95.42
95-47	Lower Instrument Panel	95.46
95-51	Tachometer and Low RPM Warning Unit	95.50
95-53	Pictorial Navigation System (HSI)	95.52
95-55	Digital Clock Installation	95.54
95-57	Engine Instrument Senders and Test Switches	95.56
95-61	Pitot/Static Lines Installation	95.60
95-65	Compass Installation	95.64

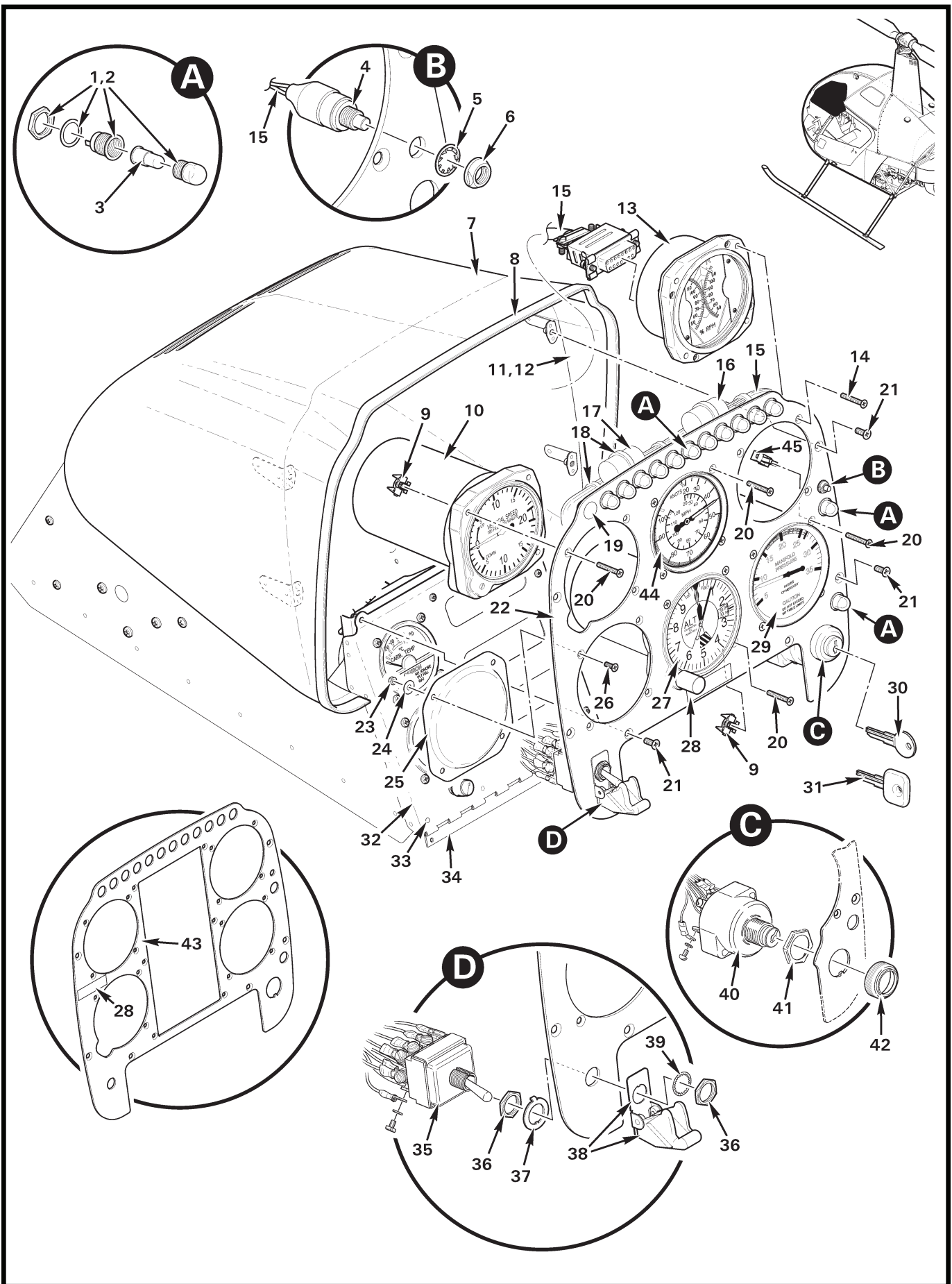


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		SIX-INSTRUMENT CONSOLE ASSEMBLY		
95-1-1	B198-1 *	Light (amber; includes washer, nut, and amber lens as shown)	X	12
2	B198-2 *	Light (red; includes washer, nut, and red lens as shown)	X	1
3	B196-1	Lamp	X	13
4	B227-6	Switch Assembly (test; includes items 6 and 7)	X	1
5	B227-3	Lockwasher	X	1
6	B227-4	Dress Nut	X	1
7	G051-19	Shell Assembly (Incl items 8, 11, 12, and 32)	X	1
8	A226-11	Trim	X	A/R
9	MS33737-13C	Nut – Instrument	X	6
10	A602-1	Rate-of-Climb Indicator	X	1
11	G051-13	Visor Liner (install using item 12)	X	A/R
12	B270-8qt	Adhesive	X	A/R
13	A792-5	Engine/Rotor Tachometer	X	1
14	MS24693-S29	Screw	X	4
15	B716-03	Harness Assembly – Console (Ref, includes items 16 thru 18, 35, and 40)	X	1
16	B280-4	Relay Assembly (governor off lamp)	X	1
17	A655-1	Time Delay – Low Fuel Warning	X	1
18	MS3367-5-9	Ty-Rap	X	A/R
19	2633	Hole Plug (additional plug installed in “Carbon Monoxide” hole if no CO detector is installed)	X	1
20	MS24693-S32	Screw	X	18
21	MS24694-S4	Screw	X	6
22	G055-15	Face (standard)	X	1
23	MS21042L06	Nut	X	4
24	NAS1149FN616P	Washer	X	4
25	B190-6	Cover	X	1
26	MS24693-S27	Screw	X	4
27	A613-1	Altimeter	X	1
28	A743-1	Call Letters Plate (please specify call letters)	X	1
	A701-7	Tape (double-sided)	X	A/R
29	A600-5	Manifold Pressure Gage	X	1

NOTES * Order item 3 when replacing.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
SIX-INSTRUMENT CONSOLE ASSEMBLY (Cont'd)				
95-1-30	R8096	Key – Duplicate (small brass key; specify ship S/N and “PK” number when ordering)	X	1
	R8426	Key – Duplicate (black plastic and brass; specify ship S/N and “PK” number when ordering)	X	1
31	D768-6	Key (blank; black plastic-coated “R22” logo)	X	1
32	G054-1	Face Assembly (Incl items 33 and 34)	X	1
33	MS20426AD3	Rivet	X	4
34	A356-2	Hinge (install using item 33)	X	1
35	MS25068-23	Switch – Clutch (Incl items 36, 37, and 39)	X	1
36	–	Nut	O	2
37	–	Keywasher	O	1
38	MS25224-1	Guard	X	1
39	–	Lockwasher	O	1
40	A661-1	Switch – Ignition (includes items 41, 42, and [2] keys)	X	1
41	–	Nut	O	1
42	–	Nut	O	1
43	G055-11	Face (optional)	X	1
44	A599-1	Airspeed Indicator (Knots, MPH)	X	1
	A599-2	Airspeed Indicator (KM/H, Knots)	X	1
45	MS33737-15C	Nut – Instrument	X	8

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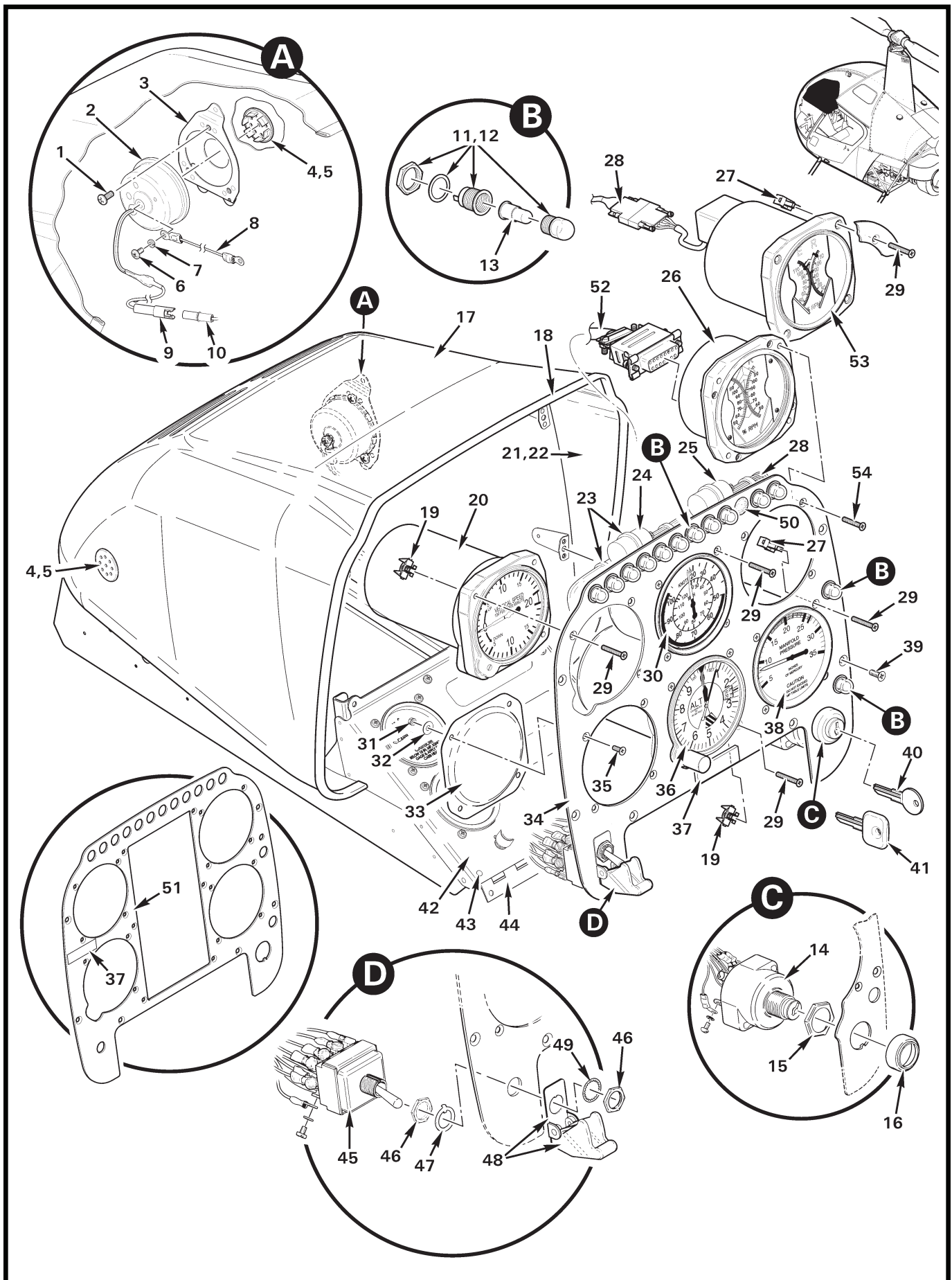


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
SIX-INSTRUMENT CONSOLE ASSEMBLY				
95-5-1	MS27039C0806	Screw	X	3
2	B320-1	Horn Assembly – Low RPM (RH; includes items 6 thru 9)	X	1
3	C479-1	Mount Assembly (Ref)	O	1
4	9688K643	Hole Plug (install using item 5)	X	2
5	B270-18	Adhesive	X	A/R
6	MS35206-241	Screw	X	1
7	B332-42	Lockwasher	X	1
8	B320-79	Wire (to ground)	X	1
9	B263-10	Housing	X	1
	B263-1	Pin	X	1
10	B263-11	Housing (Ref)		
	B263-2	Socket (Ref)		
11	B198-1*	Light (amber; includes washer, nut, and amber lens as shown)	X	12
12	B198-2*	Light (red; includes washer, nut, and red lens as shown)	X	1
13	B196-1	Lamp	X	13
14	A661-1	Switch – Ignition (includes items 15, 16, and [2] keys)	X	1
15	—	Nut	O	1
16	—	Nut	O	1
17	G051-11	Shell Assembly (Incl items 18, 21, 22, and 42)	X	1
18	A226-11	Trim	X	A/R
19	MS33737-13C	Nut – Instrument	X	6
20	A602-1	Rate-of-Climb Indicator	X	1
21	G051-13	Visor Liner (install using item 22)	X	A/R
22	B270-8qt	Adhesive	X	A/R
23	MS3367-5-9	Ty-Rap	X	A/R
24	A655-1	Time Delay – Low Fuel Warning	X	1
25	B280-4	Relay Assembly (governor off lamp)	X	1
26	A792-5	Engine/Rotor Tachometer	X	1
27	MS33737-15C	Nut – Instrument	X	12
28	B716-02	Harness Assembly – Console (Ref, includes items 14, 23 thru 25, and 45)	X	1
29	MS24693-S32	Screw	X	18
30	A599-1	Airspeed Indicator (Knots, MPH)	X	1
	A599-2	Airspeed Indicator (KM/H, Knots)	X	1

NOTES * Order item 13 when replacing.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
SIX-INSTRUMENT CONSOLE ASSEMBLY (Cont'd)				
95-5-31	MS21042L06	Nut	X	4
32	NAS1149FN616P	Washer	X	4
33	B190-6	Cover	X	1
34	G055-10	Face (standard)	X	1
35	MS24693-S27	Screw	X	4
36	A613-1	Altimeter	X	1
37	A743-1	Call Letters Plate (please specify call letters)	X	1
	A701-7	Tape (double-sided)	X	A/R
38	A600-5	Manifold Pressure Gage	X	1
39	MS24694-S4	Screw	X	6
40	R8096	Key – Duplicate (small brass key; specify ship S/N and “PK” number when ordering)	X	1
	R8426	Key – Duplicate (black plastic and brass; specify ship S/N and “PK” number when ordering)	X	1
41	D768-6	Key (blank; black plastic-coated “R22” logo)	X	1
42	G054-5	Face Assembly (Incl items 43 and 44)	X	1
43	MS20426AD3	Rivet	X	4
44	A356-2	Hinge (install using item 43)	X	1
45	MS25068-23	Switch – Clutch (Incl items 46, 47, and 49)	X	1
46	—	Nut	O	2
47	—	Keywasher	O	1
48	MS25224-1	Guard	X	1
49	—	Lockwasher	O	1
50	2633	Hole Plug (additional plug installed in “Carbon Monoxide” hole if no CO detector is installed)	X	1
51	G055-11	Face (optional)	X	1
52	B792-1	Harness Assembly (required when replacing A729-4 with A729-5)	X	1
53	A792-4	Engine/Rotor Tachometer (Earlier aircraft, no longer available. Order items 26 and 52.)	O	1
54	MS24693-S29	Screw	X	4

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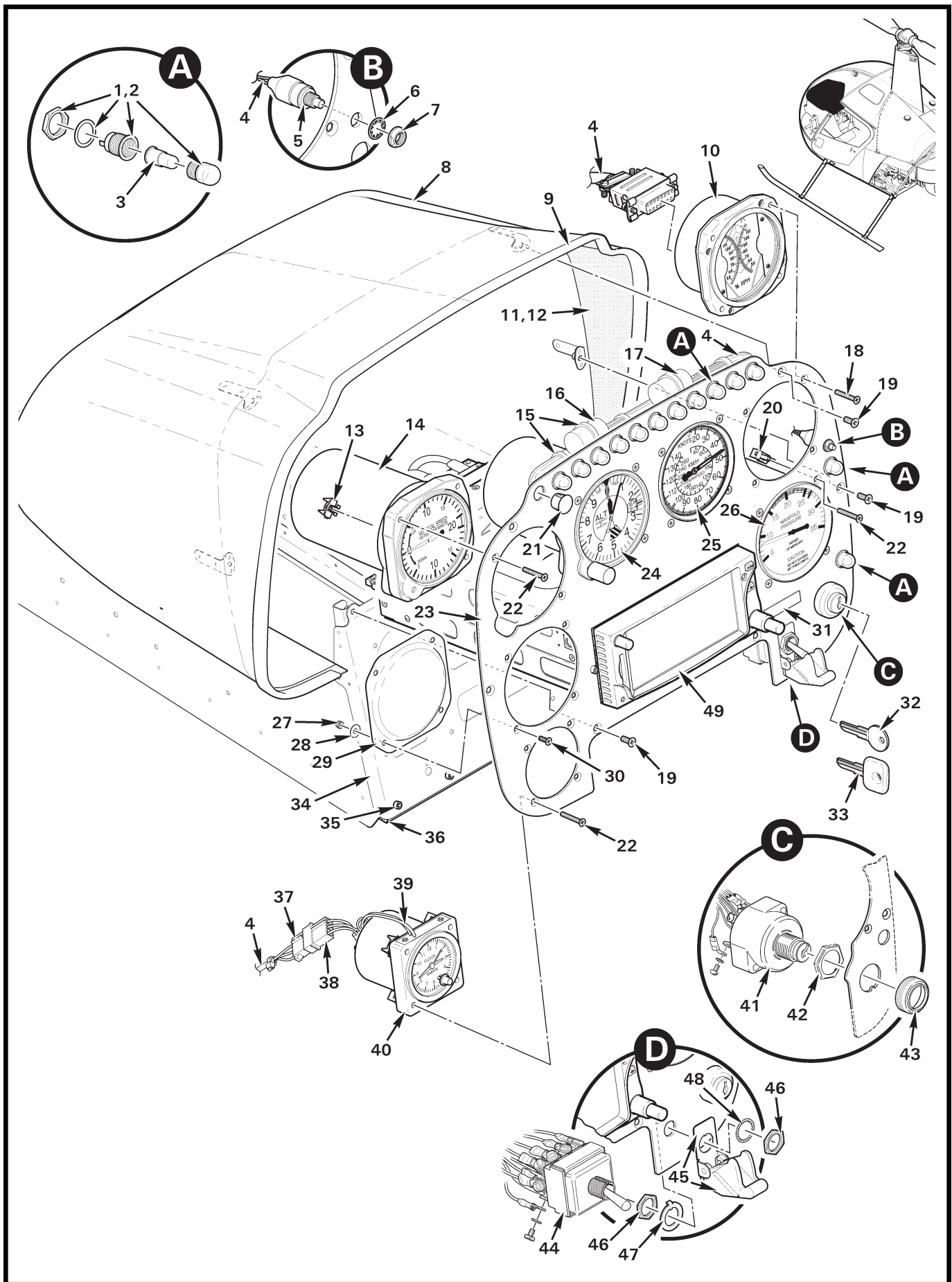


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
EIGHT-INSTRUMENT CONSOLE ASSEMBLY				
95-9-1	B198-1 *	Light (amber; includes washer, nut, and amber lens as shown)	X	12
2	B198-2*	Light (red; includes washer, nut, and red lens as shown)	X	1
3	B196-1	Lamp	X	13
4	B716-02	Harness Assembly – Console (Ref, includes items 15 thru 17, 37, 41, and 44)	X	1
5	B227-6	Switch Assembly (test; includes items 6 and 7)	X	1
6	B227-3	Lockwasher	X	1
7	B227-4	Dress Nut	X	1
8	G071-5	Shell Assembly (Incl items 9, 11, 12, and 34)	X	1
9	A226-11	Trim	X	A/R
10	A792-5	Engine/Rotor Tachometer	X	1
11	G051-10	Visor Liner (install using item 12)	X	1
12	B270-8qt	Adhesive	X	A/R
13	MS33737-13C	Nut – Instrument	X	6
14	A602-1	Rate-of-Climb Indicator	X	1
15	MS3367-5-9	Ty-Rap	X	A/R
16	B280-4	Relay Assembly (governor off lamp)	X	1
17	A655-1	Time Delay – Low Fuel Warning	X	1
18	MS24693-S29	Screw	X	4
19	MS24694-S4	Screw	X	6
20	MS33737-15C	Nut – Instrument	X	12
21	2633	Hole Plug (additional plug installed in “Carbon Monoxide” hole if no CO detector is installed)	X	1
22	MS24693-S32	Screw	X	18
23	G075-17	Face	X	1
24	A613-1	Altimeter	X	1
25	A599-1	Airspeed Indicator (Knots, MPH)	X	1
	A599-2	Airspeed Indicator (KM/H, Knots)	X	1
26	A600-5	Manifold Pressure Gage	X	1
27	MS21042L06	Nut	X	4
28	NAS1149FN616P	Washer	X	4
29	B190-6	Cover	X	1
30	MS24693-S27	Screw	X	4
31	A743-1	Call Letters Plate (please specify call letters)	X	1
	A701-7	Tape (double-sided)	X	A/R

NOTES * Order item 3 when replacing.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
EIGHT-INSTRUMENT CONSOLE ASSEMBLY (Cont'd)				
95-9-32	R8096	Key – Duplicate (small brass key; specify ship S/N and “PK” number when ordering)	X	1
	R8426	Key – Duplicate (black plastic and brass; specify ship S/N and “PK” number when ordering)	X	1
33	D768-6	Key (blank; black plastic-coated “R22” logo)	X	1
34	G074-1	Face	X	1
35	NAS1352-06-06	Screw	X	4
36	A356-8	Angle	X	1
37	B263-15	Housing	X	1
	B263-2	Socket	X	3
38	B263-14	Housing	X	1
	B263-1	Pin	X	3
39	A072-9	Light Tray Assembly (14-volt)	X	1
40	A072-12	Clock Assembly (includes items 38, 39, instrument nuts and wires)	X	1
41	A661-1	Switch – Ignition (includes items 42, 43, and [2] keys)	X	1
42	—	Nut	O	1
43	—	Nut	O	1
44	MS25068-23	Switch – Clutch (Incl items 46, 47, and 48)	X	1
45	MS25224-1	Guard	X	1
46	—	Nut	O	2
47	—	Keywasher	O	1
48	—	Lockwasher	O	1
49	GTN 625Xi*	GPS (Ref)		
	GTN 635Xi*	GPS/COM (Ref)		
	GTN 650Xi*	GPS/NAV/COM (Ref)		

NOTES * Garmin part no.

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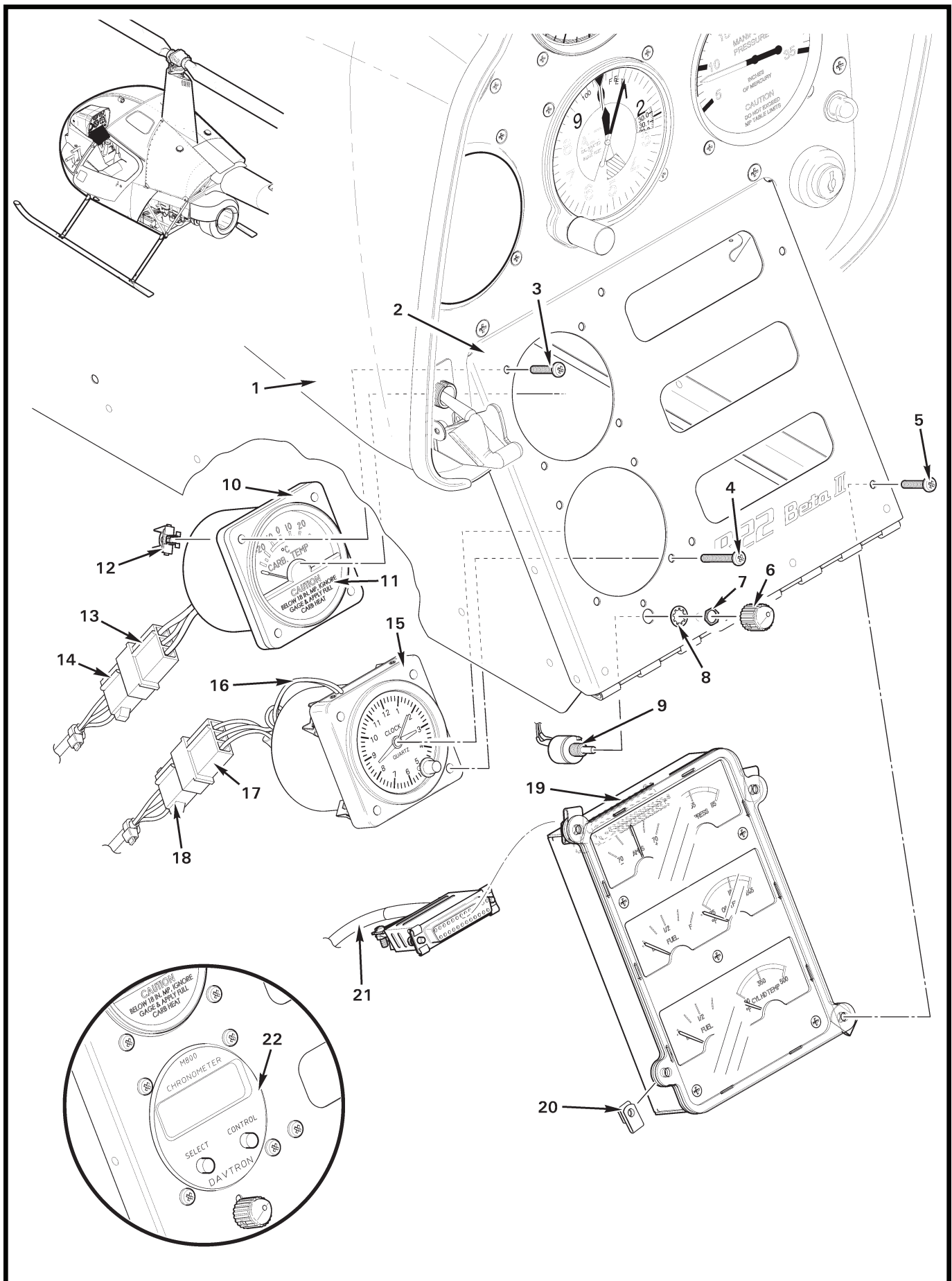


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		SIX-INSTRUMENT CONSOLE ASSEMBLY – LOWER PANEL, HIGH CONSOLE		
95-13-1	G051-19	Shell Assembly – Upper Console (High)	X	1
2	G054-1	Face Assembly – Cluster Panel (High)	X	1
3	MS35206-232	Screw	X	4
4	MS35206-234	Screw	X	4
5	MS35206-230	Screw	X	4
6	MS91528-0C1B	Knob	X	1
7	—	Nut	O	1
8	—	Lockwasher	O	1
9	B398-1	Potentiometer (Incl items 7 and 8)	X	1
10	A604-2	Carb Air Temp Gage (Incl items 11 and 13)	X	1
11	A654-66	Decal (carb heat instructions)	X	1
12	MS33737-12C	Nut – Instrument	X	4
13	B263-14	Housing	X	1
	B263-1	Pin	X	3
14	B263-15	Housing (Ref)		
	B263-2	Socket (Ref)		
15	A072-12	Clock Assembly (includes items 16, 17, instrument nuts, and wires)	X	1
16	A072-9	Light Tray Assembly (14-volt)	X	1
17	B263-14	Housing	X	1
	B263-1	Pin	X	3
18	B263-15	Housing (Ref)		
	B263-2	Socket (Ref)		
19	B144-5	Instrument Cluster (Incl item 20)	X	1
20	B162-1	Clipnut	X	4
21	B716	Wire Harness (Ref)		
22	A064-3	Digital Clock Assembly (Ref; see Figure 95-55)		
NOTES				

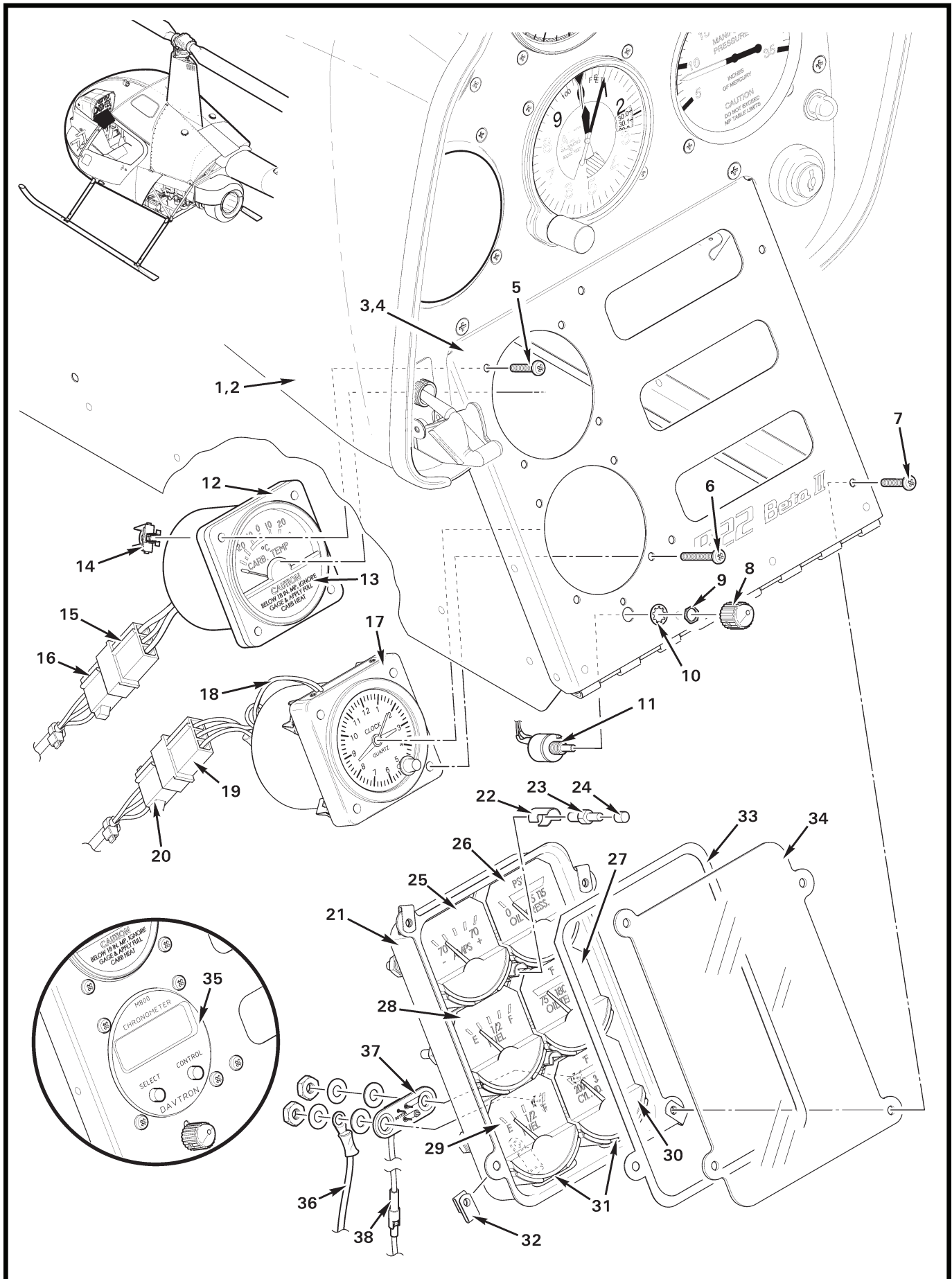


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		SIX-INSTRUMENT CONSOLE ASSEMBLY – LOWER PANEL, HIGH & LOW CONSOLE		
95-15-1	G051-14	Shell Assembly – Upper Console (High)	X	1
2	G051-11	Shell Assembly – Upper Console (Low)	X	1
3	G054-1	Face Assembly – Cluster Panel (High)	X	1
4	G054-5	Face Assembly – Cluster Panel (Low)	X	1
5	MS35206-232	Screw	X	4
6	MS35206-234	Screw	X	4
7	MS35206-230	Screw	X	4
8	MS91528-0C1B	Knob	X	1
9	—	Nut	O	1
10	—	Lockwasher	O	1
11	B398-1	Potentiometer (Incl items 9 and 10)	X	1
12	A604-2	Carb Air Temp Gage (Incl item 13)	X	1
13	A654-66	Decal (carb heat instructions)	X	1
14	MS33737-12C	Nut – Instrument	X	4
15	B263-14	Housing	X	1
	B263-1	Pin	X	3
16	B263-15	Housing (Ref)		
	B263-2	Socket (Ref)		
17	A072-12	Clock Assembly (includes items 18, 19, instrument nuts, and wires)	X	1
18	A072-9	Light Tray Assembly (14-volt)	X	1
19	B263-14	Housing	X	1
	B263-1	Pin	X	3
20	B263-15	Housing (Ref)		
	B263-2	Socket (Ref)		
21	B144-3	Instrument Cluster (Incl items 22 thru 34)	X	1
22	A700-1	Barrier	X	2
23	100057017	Lamp (gray base)	X	2
24	6P47	Cap (for red lighting requirement)	X	2
	17P47	Cap (for white lighting requirement)	X	2
25	6246-00468	Ammeter	X	1
26	6246-00647	Oil Pressure Meter	X	1
27	6246-00090	Oil Temperature Meter	X	1
28	6246-00473	Fuel Quantity Meter (main tank)	X	1
29	6246-00473	Fuel Quantity Meter (aux tank)	X	1

NOTES

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
SIX-INSTRUMENT CONSOLE ASSEMBLY – LOWER PANEL, HIGH & LOW CONSOLE (Cont'd)				
95-15-30	6246-00088	Cylinder Head Temp Meter	X	1
31	—	Desiccant Bag (1-gram bag, Ref)	O	2
32	B162-1	Clipnut	X	3
33	0015-00723	Gasket	X	1
34	0003-00434	Window Crystal (clear plastic)	X	1
35	A064-3	Digital Clock Assembly (Ref; see Figure 95-55)		
36	C691-34	Wire	X	1
37	C691-1*	Circuit Board Assembly (includes items 36 and 38; installed on instrument cluster used in item 1 only)	X	1
38	B263-10	Housing	X	1
	B263-1	Pin	X	1

NOTES * For earlier helicopters, order and install KI-249 CHT Gage Calibration Kit, as required (ref. R22 SL-73).

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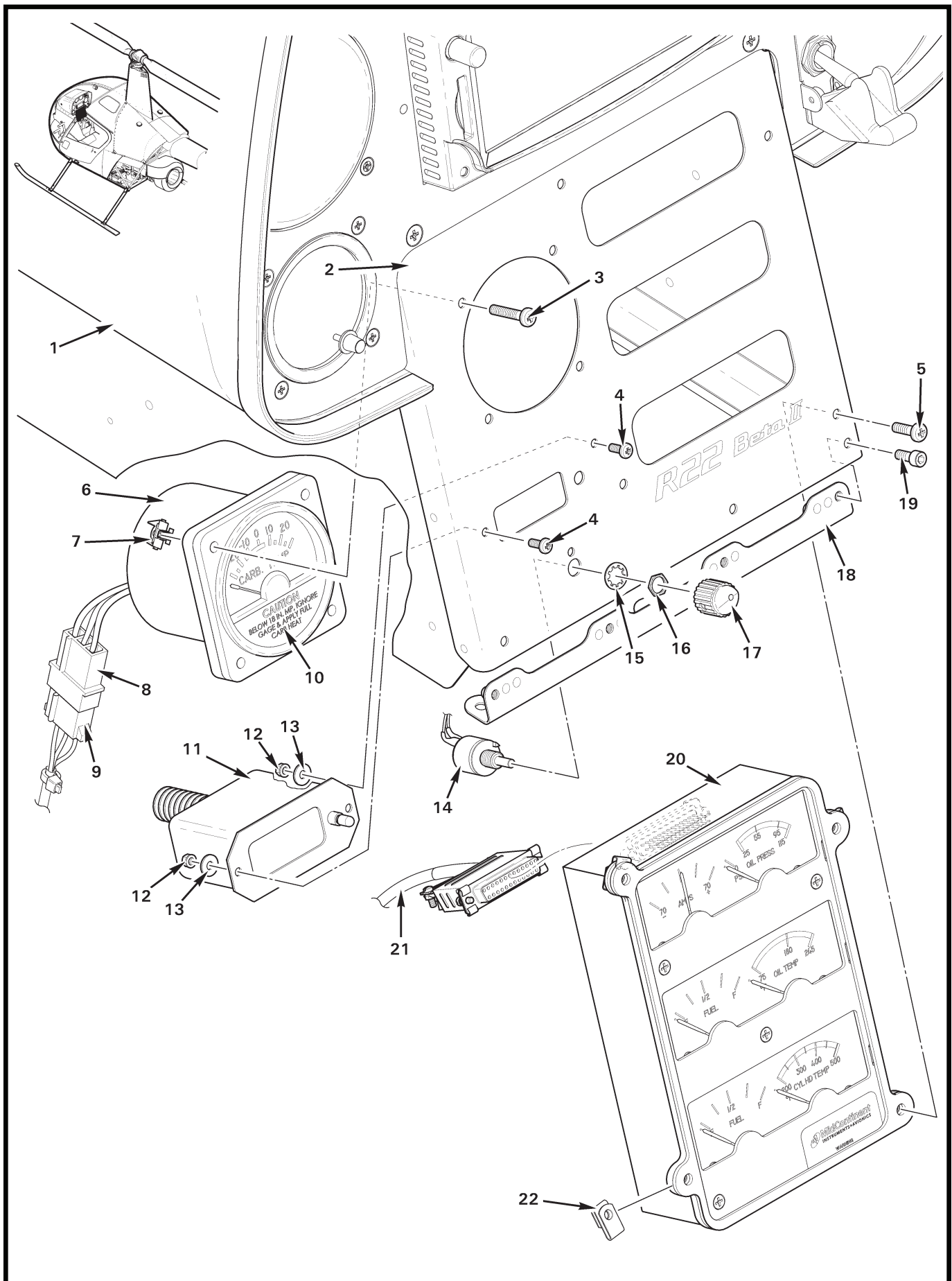


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
EIGHT-INSTRUMENT CONSOLE ASSEMBLY – LOWER PANEL				
95-18A-1	G071-5	Shell Assembly – Upper Console	X	1
2	G074-1	Face Assembly – Cluster Panel	X	1
3	MS35206-232	Screw	X	4
4	MS35206-214	Screw	X	2
5	MS35206-230	Screw	X	4
6	A604-2	Carb Air Temp Gage (Incl items 8 and 10)	X	1
7	MS33737-12C	Nut – Instrument	X	4
8	B263-14	Housing	X	1
	B263-1	Pin	X	3
9	B263-15	Housing (Ref)		
	B263-2	Socket (Ref)		
10	A654-66	Decal (carb heat instructions)	X	1
11	B341-1	Outside Air Temperature Gage	X	1
12	MS21042L04	Nut	X	2
13	NAS1149FN432P	Washer	X	2
14	B398-1	Potentiometer (Incl items 15 and 16)	X	1
15	—	Lockwasher	O	1
16	—	Nut	O	1
17	MS91528-0C1B	Knob	X	1
18	A356-8	Angle	X	1
19	NAS1352-06-6	Screw	X	1
20	B144-5	Instrument Cluster (Incl item 22).	X	1
21	B715-01	Harness Assembly (Ref)		
22	B162-1	Clipnut	X	4

NOTES

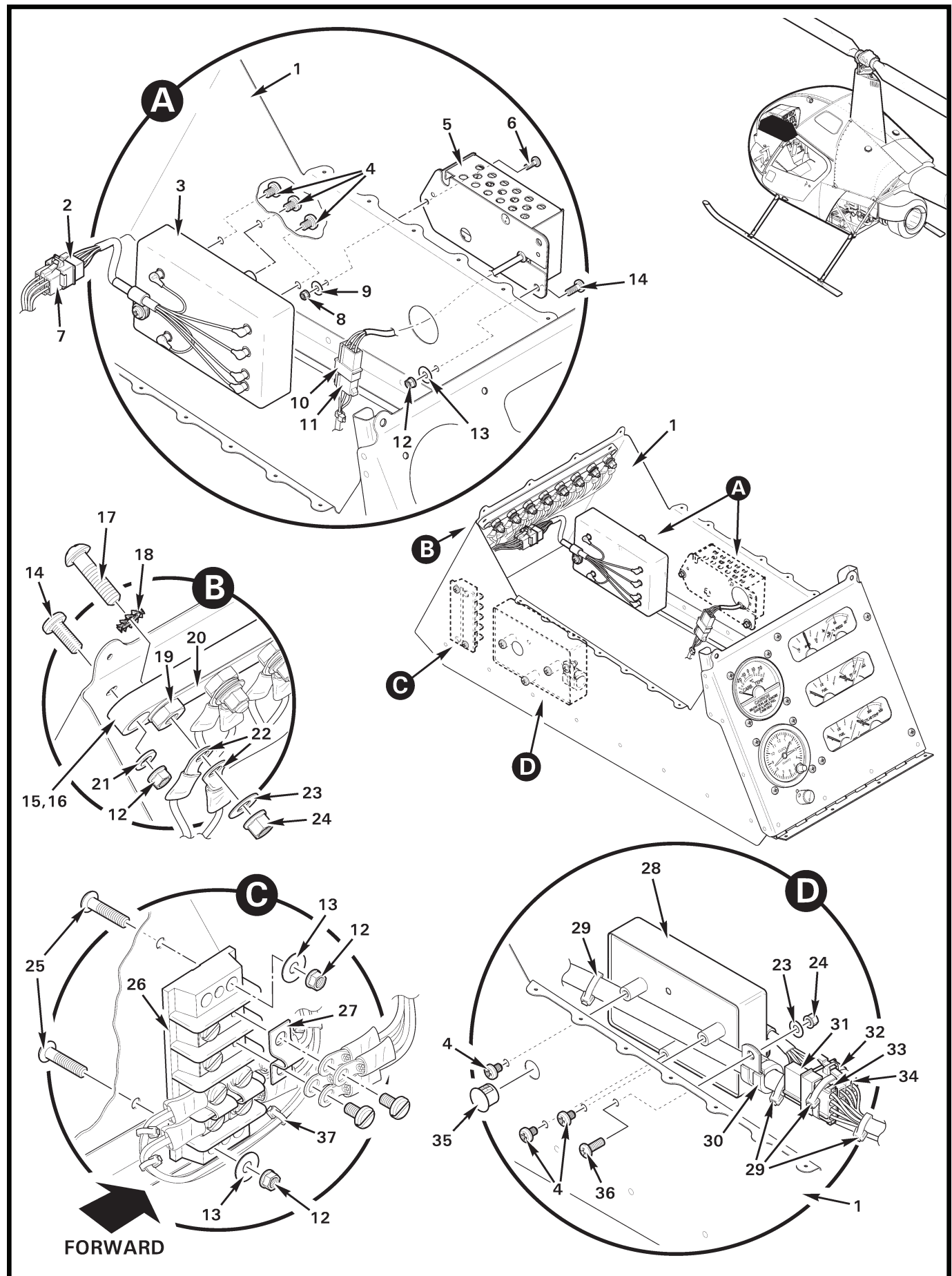


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		SIX-INSTRUMENT CONSOLE ASSEMBLY – COMPONENTS, HIGH CONSOLE		
95-18C-1	G053-9	Upper Console Support (Ref)		
2	B263-18	Housing	X	1
	B263-1	Pin	X	6
3	B395-1	Dimmer Assembly (Incl item 2)	X	1
4	MS35206-241	Screw	X	6
5	C696-7	CO Detector Assembly (Incl item 10)	X	1
	C696-1	CO Detector Assembly (Incl item 10)	O	1
6	MS35206-214	Screw	X	1
7	B263-19	Housing	X	1
	B263-2	Socket	X	6
8	MS21042L04	Nut	X	1
9	NAS1149FN416P	Washer	X	1
10	B263-14	Housing	X	1
	B263-1	Pin	X	3
11	B263-15	Housing	X	1
	B263-2	Socket	X	3
12	MS21042L06	Nut	X	3
13	NAS1149FN616P	Washer	X	3
14	MS35206-228	Screw	X	3
15	C448-3	Block Assembly (Incl items 16 thru 20)	X	1
16	C448-6	Block	X	1
17	B567-43	Screw	X	8
18	91120A130	Washer	X	8
19	B301-8	Nut	X	8
20	A448-14	Bus Bar	X	1
21	NAS620-6	Washer	X	2
22	B260-2	Terminal	X	A/R
23	NAS1149FN816P	Washer	X	9
24	MS21042L08	Nut	X	9
25	MS35206-231	Screw	X	2
26	38TB04F	Terminal Block	X	1
27	J601	Jumper Tab	X	3
28	A569-5	Low RPM Warning Unit (Incl items 26 and 27)	X	1
29	MS3367-5-9	Ty-Rap	X	A/R
30	MS21919WDG*	Clamp	X	1

NOTES * Select and install appropriate-size clamp (MS21919WDG4 thru MS21919WDG10) to eliminate play in harness.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
SIX-INSTRUMENT CONSOLE ASSEMBLY – COMPONENTS, HIGH CONSOLE (Cont'd)				
95-18C-31	B263-16	Housing	X	1
	B263-1	Pin	X	4
32	B263-20	Housing	X	1
	B263-1	Pin	X	8
33	B263-17	Housing	X	1
	B263-2	Socket	X	4
34	B263-21	Housing	X	1
	B263-2	Socket	X	8
	B263-3	Terminator	X	1
35	2633	Hole Plug	X	1
36	MS27039C0806	Screw	X	1
37	MS3357-4-9	Ty-Rap	X	A/R
NOTES				

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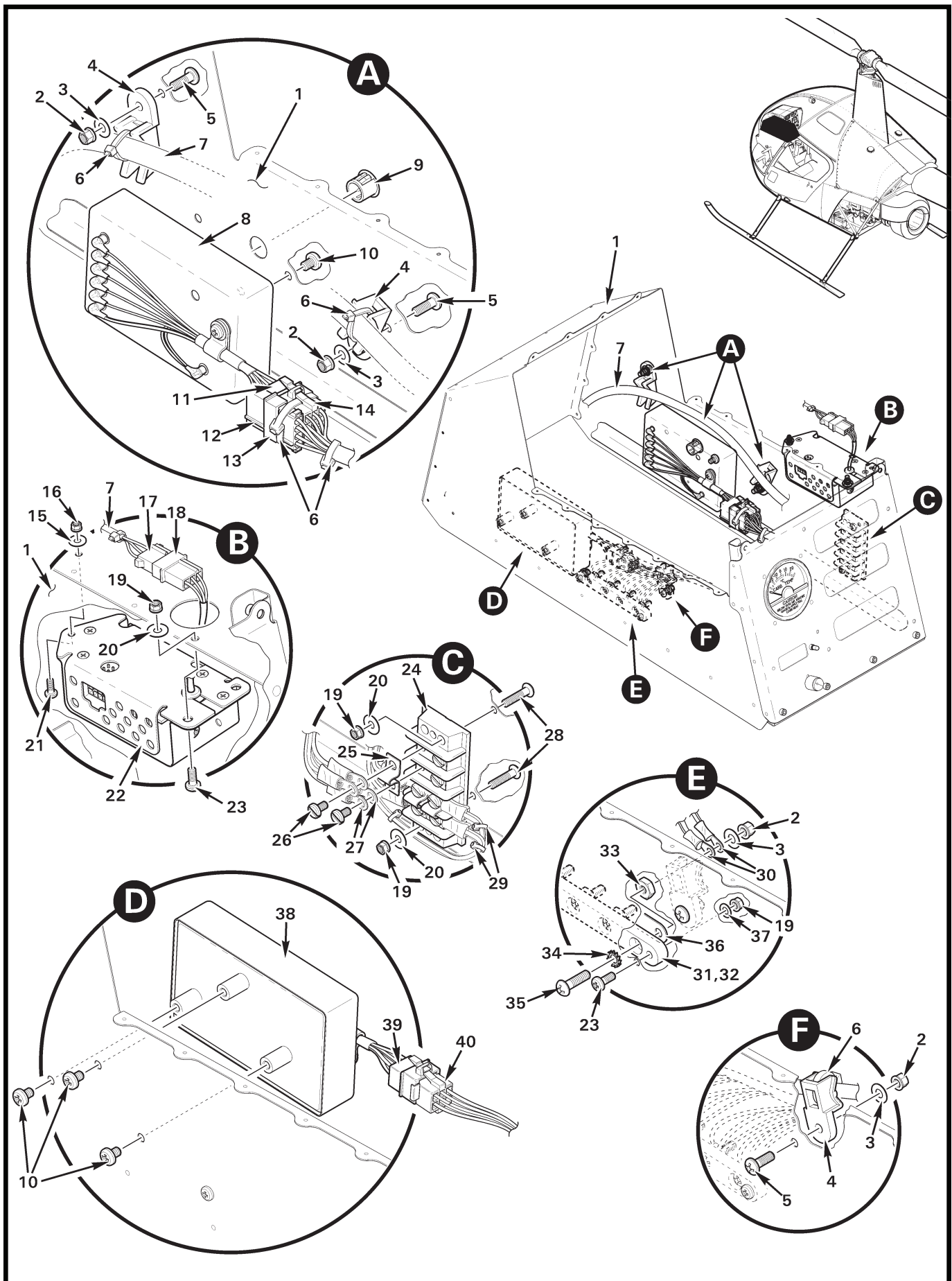


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		EIGHT-INSTRUMENT CONSOLE ASSEMBLY – COMPONENTS		
95-18G-1	G073-4	Upper Console Support (Ref)		
2	MS21042L08	Nut	X	9
3	NAS1149FN816P	Washer	X	9
4	D268-1	Support	X	3
5	MS27039C0807	Screw	X	3
6	MS3367-7-9	Ty-Rap	X	A/R
7	B715-01	Harness Assembly – Console (Ref)		
8	A569-5	Low RPM Warning Unit (Incl items 11 and 12)	X	1
9	2633	Hole Plug	X	1
10	MS35206-241	Screw	X	6
11	B263-20	Housing	X	1
	B263-1	Pin	X	8
12	B263-16	Housing	X	1
	B263-1	Pin	X	4
13	B263-17	Housing	X	1
	B263-2	Socket	X	4
14	B263-21	Housing	X	1
	B263-2	Socket	X	8
	B263-3	Terminator	X	1
15	NAS1149FN416P	Washer	X	1
16	MS21042L04	Nut	X	1
17	B263-15	Housing	X	1
	B263-2	Socket	X	3
18	B263-14	Housing	X	1
	B263-1	Pin	X	3
19	MS21042L06	Nut	X	3
20	NAS1149FN616P	Washer	X	3
21	MS35206-214	Screw	X	1
22	C696-1	CO Detector Assembly (Incl item 18)	X	1
23	MS35206-228	Screw	X	3
24	38TB04F	Terminal Block (Incl item 27)	X	1
25	J601	Jumper Tab	X	3
26	—	Nut (supplied with item 24)	O	8
27	B260-2	Terminal	X	11
28	MS35206-231	Screw	X	2

NOTES

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
EIGHT-INSTRUMENT CONSOLE ASSEMBLY – COMPONENTS (Cont'd)				
95-18G-29	MS3367-4-9	Ty-Rap	X	A/R
30	B260-3	Terminal	X	10
31	C448-2	Block Assembly (Incl items 32 thru 36)	X	1
32	C448-5	Block	X	1
33	B301-8	Nut	X	4
34	91120A130	Washer	X	4
35	B567-43	Screw	X	4
36	A448-10	Bus Bar	X	1
37	NAS620-6	Washer	X	2
38	B395-1	Dimmer Assembly (Incl item 39)	X	1
39	B263-18	Housing	X	1
	B263-1	Pin	X	6
40	B263-19	Housing	X	1
	B263-2	Socket	X	6
NOTES				

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
LOWER INSTRUMENT PANEL * (Cont'd)				
95-47-62	100057017	Lamp (gray base)	X	2
63	A700-1	Barrier	X	2
64	B195-10**	Post Light (Incl items 24 and 49)	X	1
65	A130-34**	Spacer	X	1
66	A654-66	Decal (carb heat instructions)	X	1
67	MS33737-13C	Instrument Nut	X	4
68	A072-7**	Clock – Analog (Includes items 70, 71, and connector, assembled)	X	1
69	MS35206-234**	Screw	X	4
70	MS33737-12C	Instrument Nut	X	4
71	A072-9	Light Tray Assembly (not shown)	X	1

NOTES * Ship S/N 0002 thru 0500.
 ** If installed.

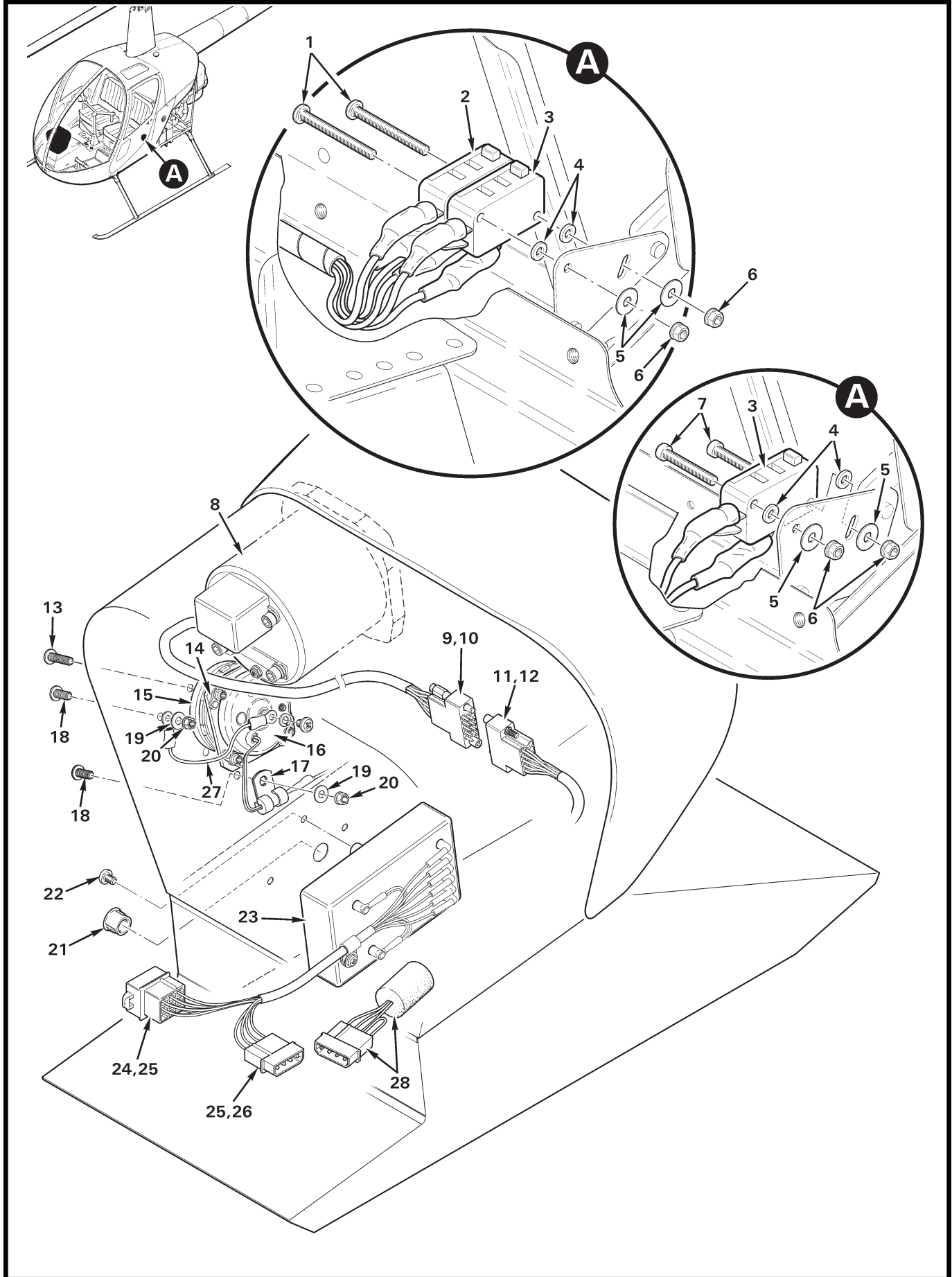
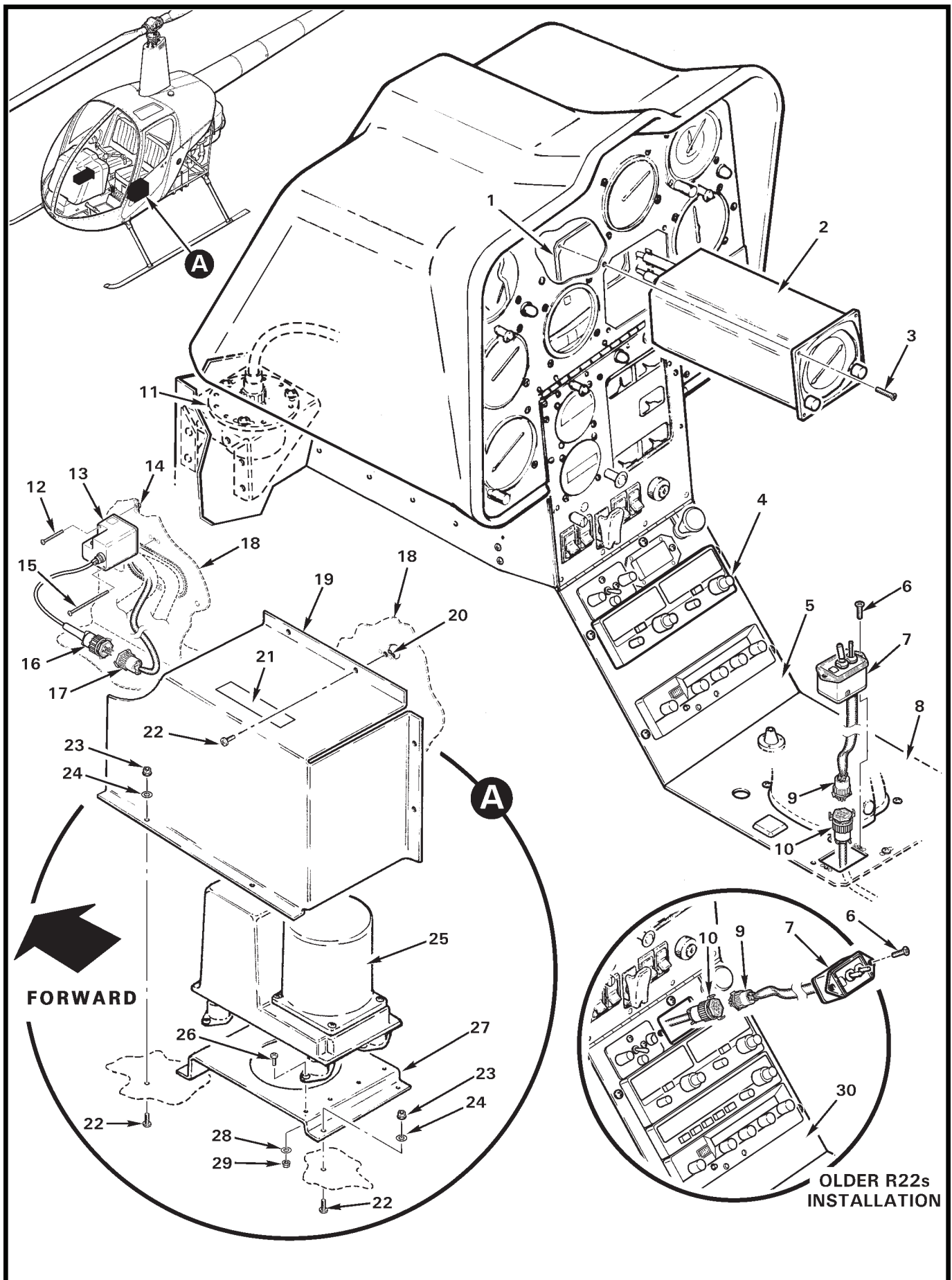


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
TACHOMETER AND LOW RPM WARNING UNIT				
95-51-1	MS35206-324	Screw	X	2
2	V3-1	Switch – Micro (hourmeter)	X	1
3	V3-1	Switch – Micro (low RPM warning)	X	1
4	NAS620-4	Washer	X	2
5	NAS1149FN416P	Washer	X	2
6	MS21042L04	Nut	X	2
7	AN500-4-12	Screw	X	2
8	A792-2*	Dual Tachometer Assembly (Incl items 9 and 10)	O	1
9	201298-1	Block (tachometer side)	X	1
10	B264-1	Pin	X	9
11	201355-1	Connector (ship side)	X	1
12	B264-2	Socket	X	9
13	MS27039C0810	Screw	X	4
14	A479-1	Plate	X	1
15	A479-2	Ring	X	1
16	B320-5	Horn Assembly (Incl item 27)	X	1
17	MS21919WDG2	Clamp	X	1
18	MS27039C0806	Screw	X	2
19	NAS1149FN816P	Washer	X	2
20	MS21042L08	Nut	X	2
21	2633	Hole Plug	X	1
22	MS35206-241	Screw	X	3
23	A569-5**	Warning Unit – Low RPM (Incl items 24 thru 26)	X	1
24	B263-20	Housing	X	1
25	B263-1	Pin (used in items 24 and 26)	X	12
26	B263-16	Housing	X	1
27	B320-79	Wire (Ref; supplied with item 16)	O	1
28	B140-1***	Relay Assembly – Low RPM Horn (Ref)		
* * *				
29	KI-69-7	Low RPM Warning Unit Conversion Kit (For ship S/N 0002 thru 2114. Replaces A569-1 warning unit and B140-1 relay. Includes items 22, 23, and 30 thru 33.)	X	1
30	B263-21	Plug (dummy)	X	1
31	KI-69-5	Plug	O	1
32	MS3367-5-9	Ty-Rap	X	1
33	KI-69-6	Template	O	1

NOTES * No longer available; order A792-2R (overhaul exchange) or A792-4.
 ** Ship S/N 2115 and subsequent.
 *** No longer available. To replace, order item 29.



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

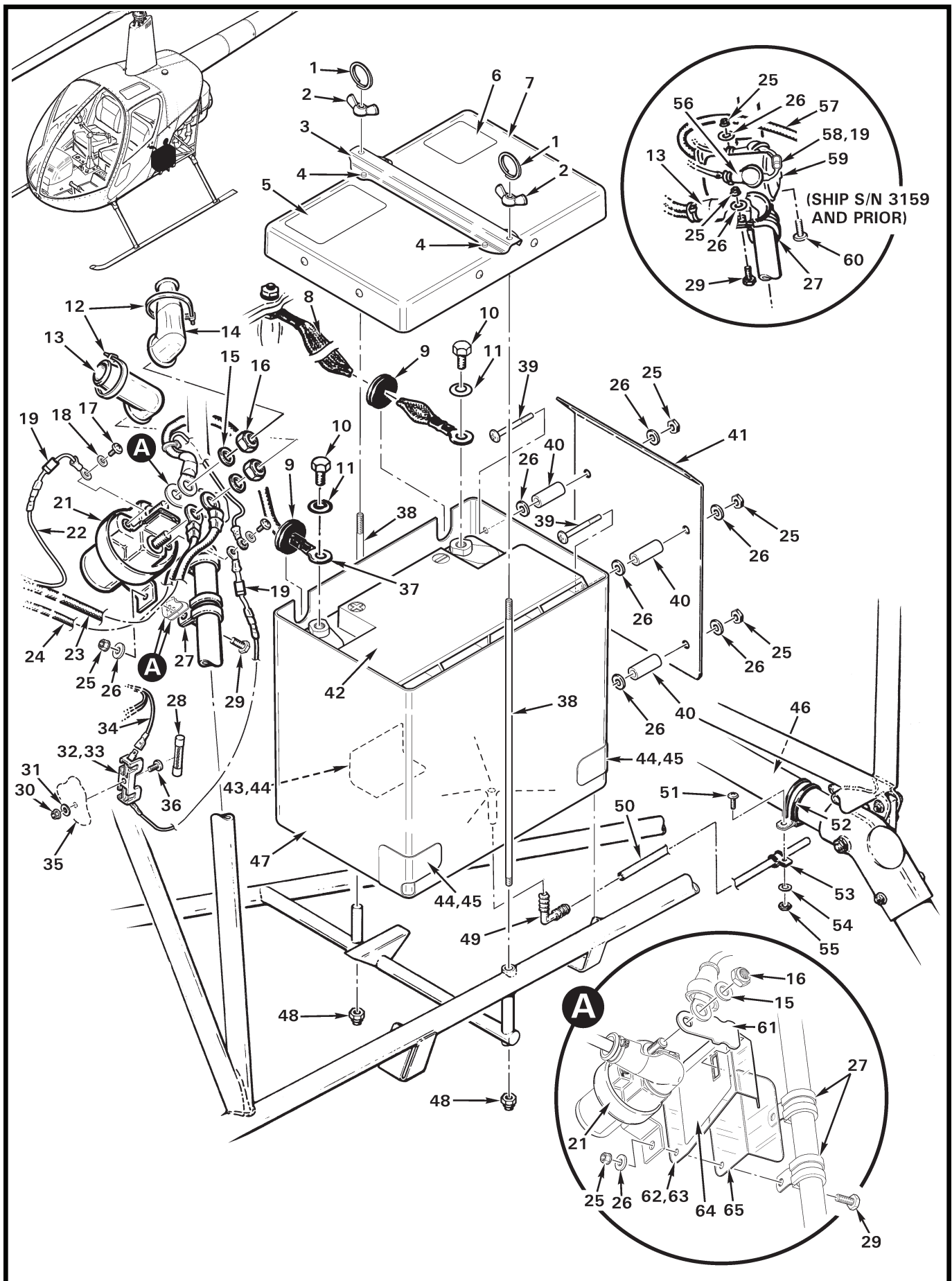


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
AFT BATTERY INSTALLATION*				
96-1-1	95390A317	Circle Cotter	X	2
2	94924A009	Wingnut	X	2
3	A922-2	Channel (attach using item 4)	X	1
4	MS20470AD3	Rivet	X	4
5	C654-44	Decal – "12V"	X	1
6	C654-45	Decal – "—"	X	1
7	A955-7	Cover Assembly (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				

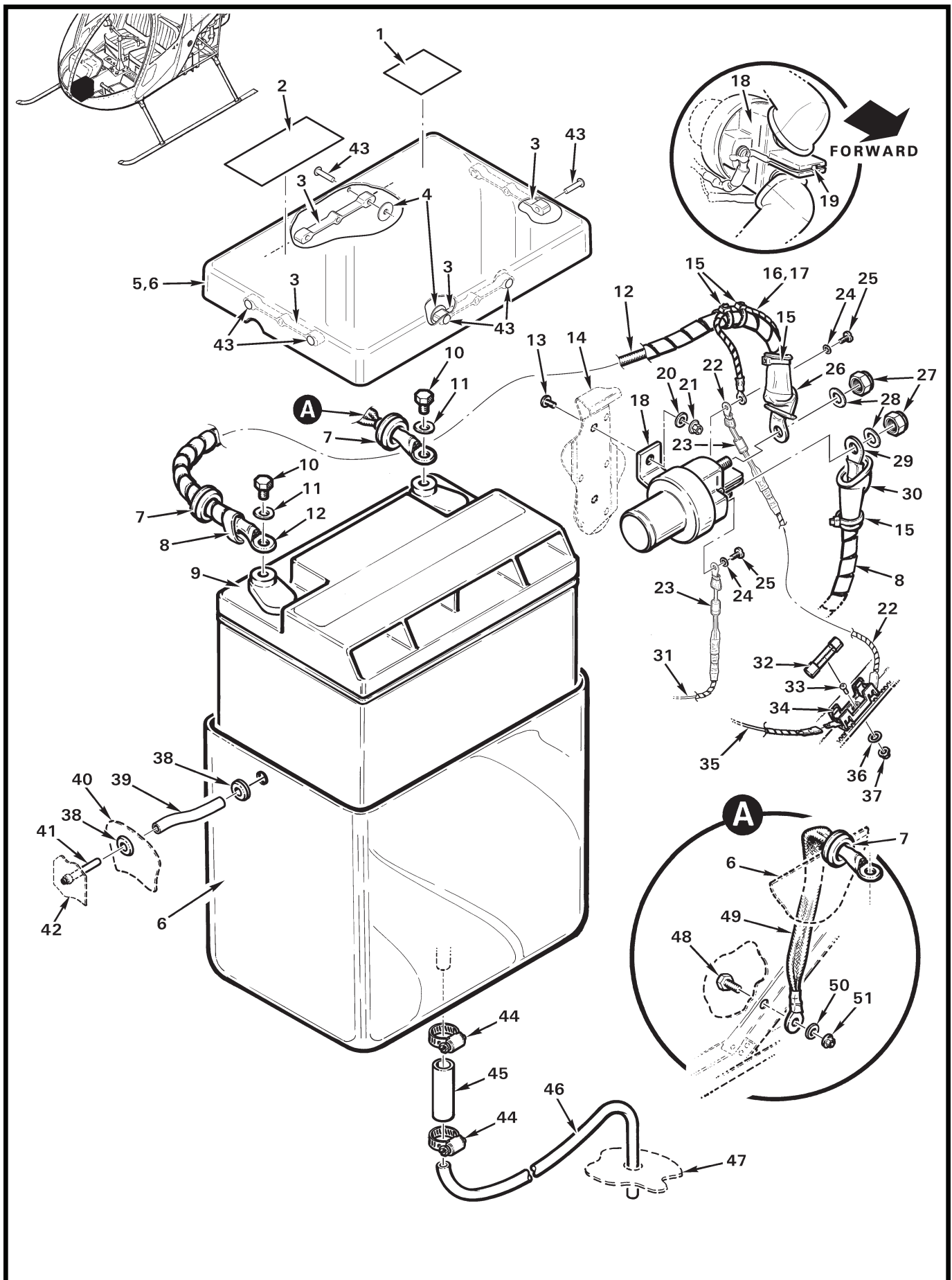


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
NOSE BATTERY INSTALLATION				
96-5-1	C654-45	Decal – “—”	X	1
2	C654-44	Decal – “12V +”	X	1
3	A902-1	Spacer	X	4
4	A141-44	Washer (under bucked end)	X	4
5	A955-9	Cover Assembly (Incl items 1 thru 4)	X	1
6	A540-13	Battery Box	X	1
7	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

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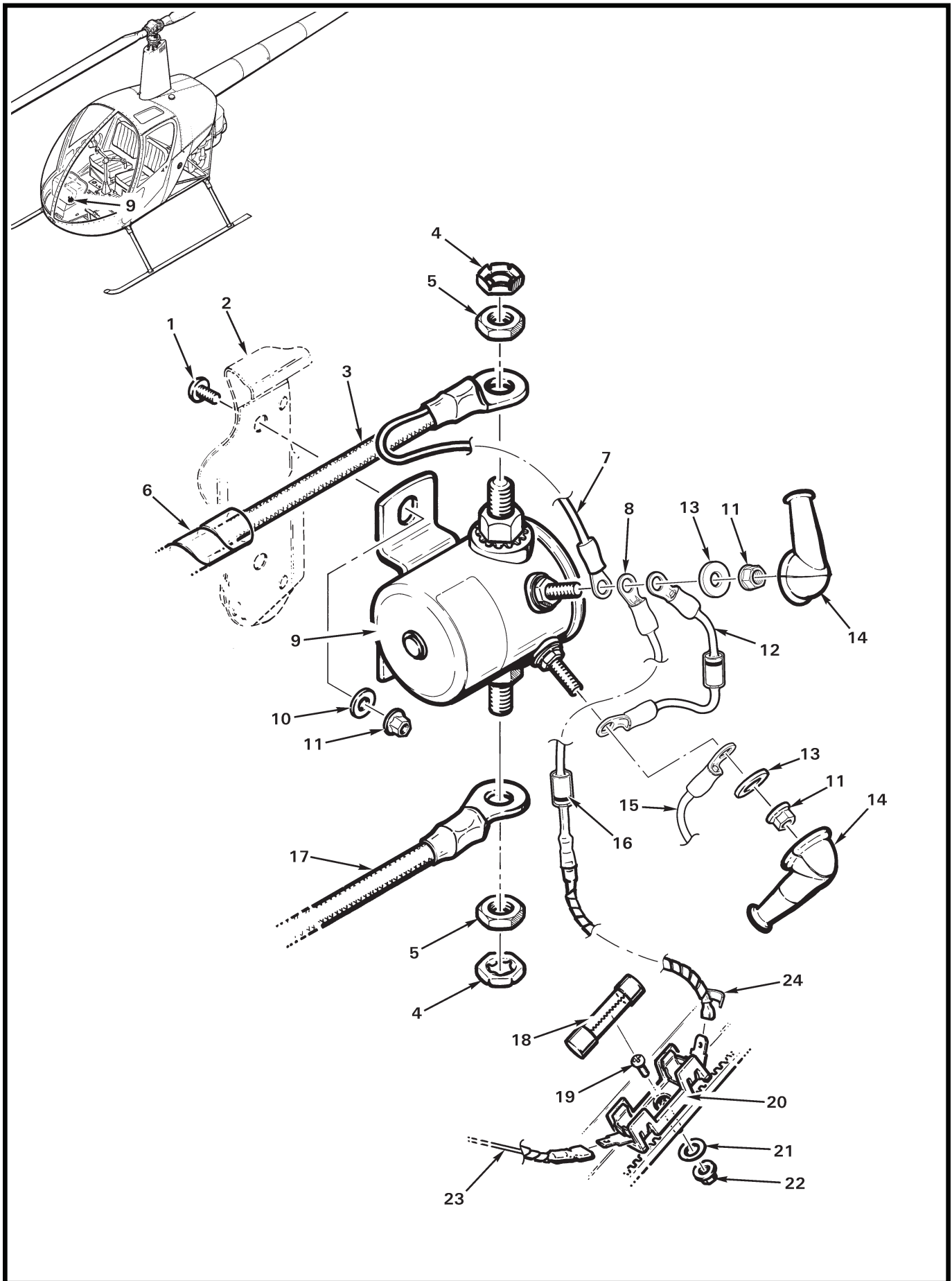


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		CIRCUIT BREAKER PANEL		
96-11-1	B195-6	Light – Panel (white lighting)	X	1
	B196-1	Lamp	X	1
2	A444-1	Cover – Cyclic Control (Ref)		
3	NAS1352-08-10P	Screw	X	1
4	MS27039C0806	Screw	X	12
5	—	Nut (included with circuit breaker)	O	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

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.

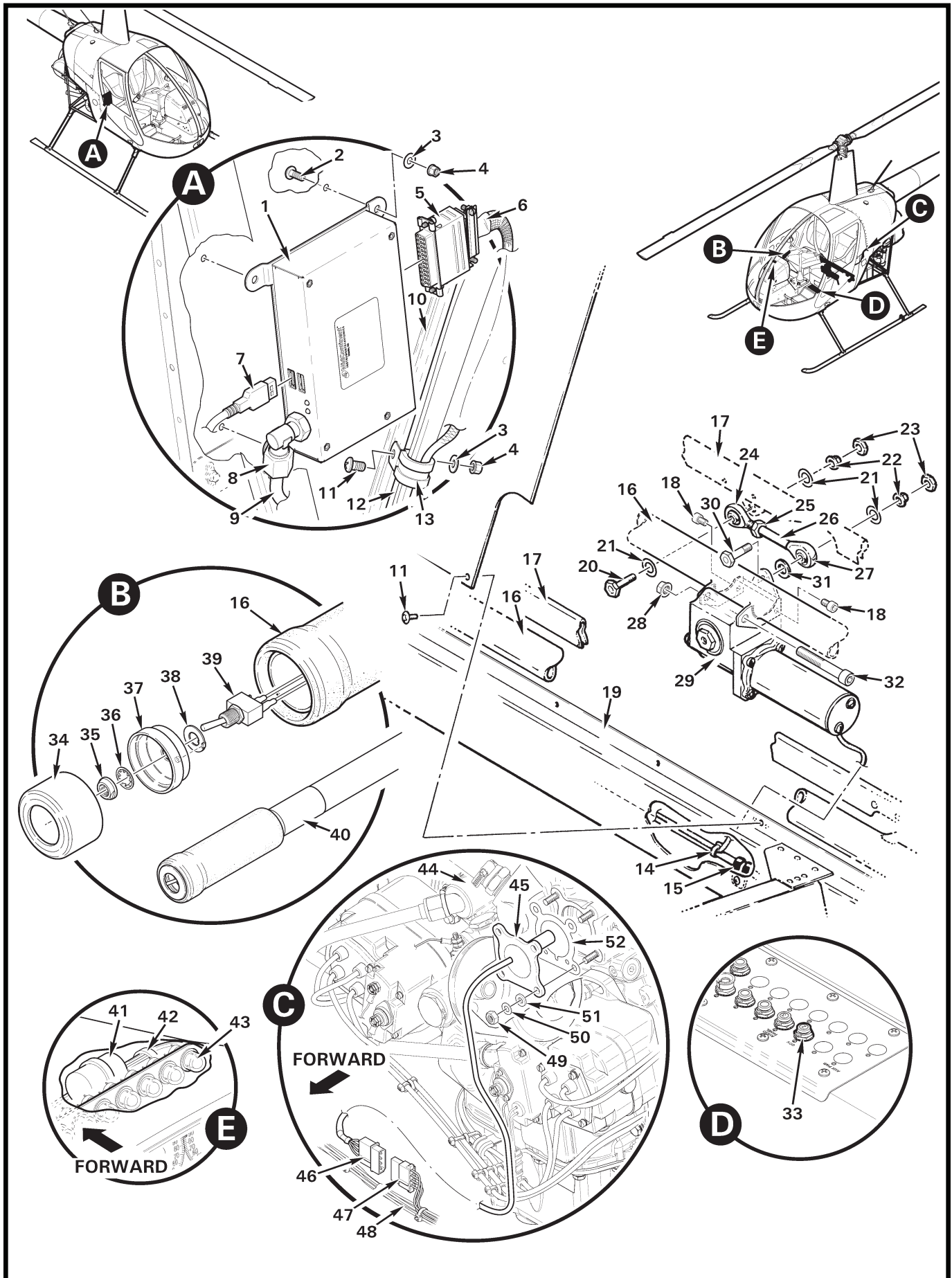


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
RPM GOVERNOR INSTALLATION				
96-23B-1	D270-1.CS	Controller – Governor	X	1
2	MS27039C0805	Screw	X	4
3	NAS1149FN816P	Washer	X	6
4	MS21042L08	Nut	X	6
5	B269-82	Receptacle (Ref; 44-pin connector)		
6	B158-8	Heat Shrink (Ref)		
7	1598-01C	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

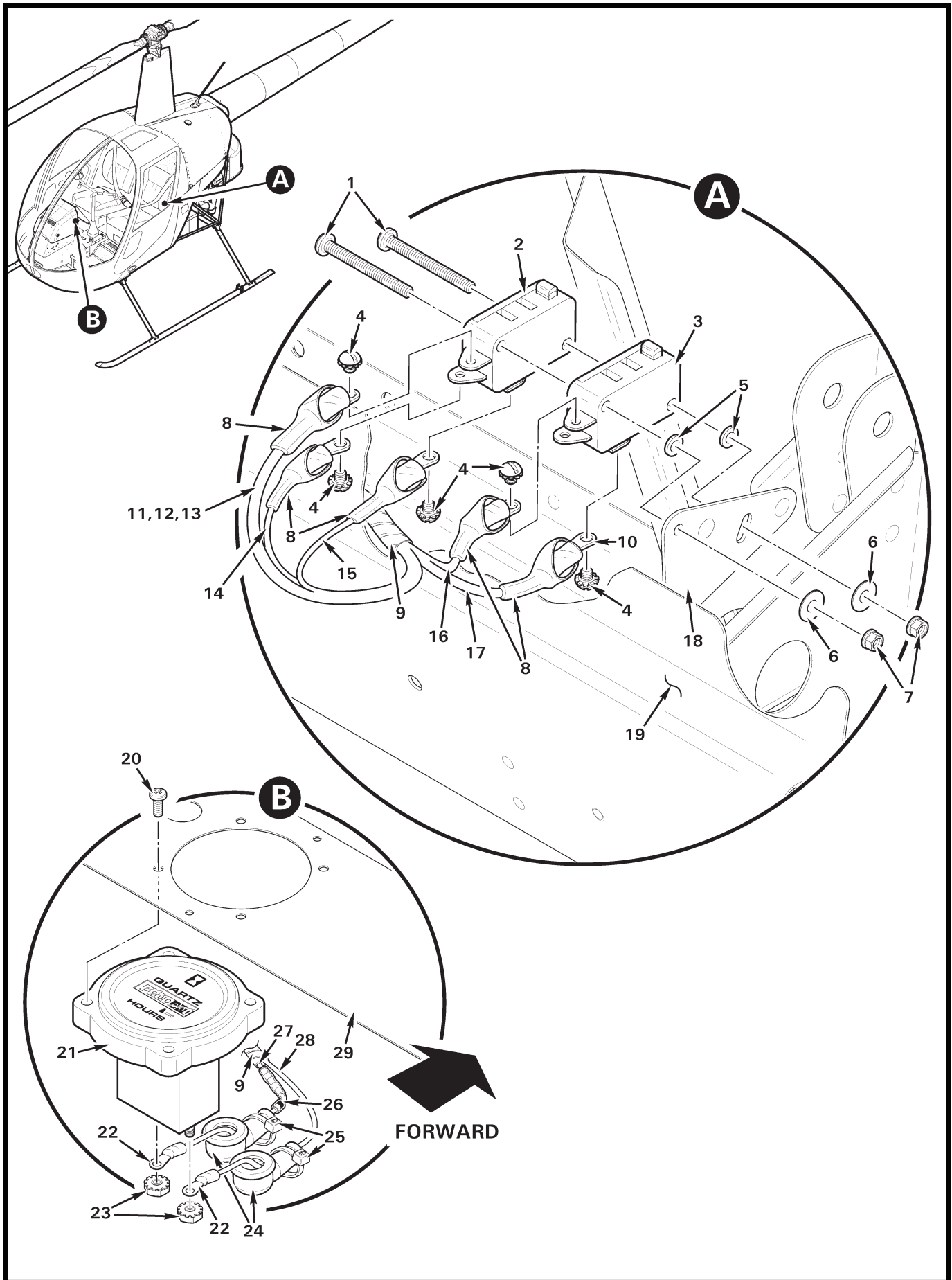
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FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
RPM GOVERNOR INSTALLATION (Cont'd)				
96-23B-34	A959-2	End Cap (install using B270-15 adhesive)	X	1
35	B227-4	Dress Nut	X	1
36	B227-3	Lock Washer	X	1
37	B252-4	Mount (install 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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CHAPTER 97

AVIONICS

<i>Figure</i>	<i>Title</i>	<i>Page</i>
97-1	Avionics Options for R22	97.0
97-5	C831 GPS Installation – Garmin GTN 600 Series	97.4
97-9	Lower Console and Radio Installation	97.8
97-13	Transponder and Blind Encoder Installation	97.12
97-17	Solid-State Blind Encoder Installation	97.16
97-19	Flux Gate Installations	97.18
97-21	Intercom Control Installation	97.20
97-25	Garmin GTX 335 and 345 & Blind Encoder	97.24

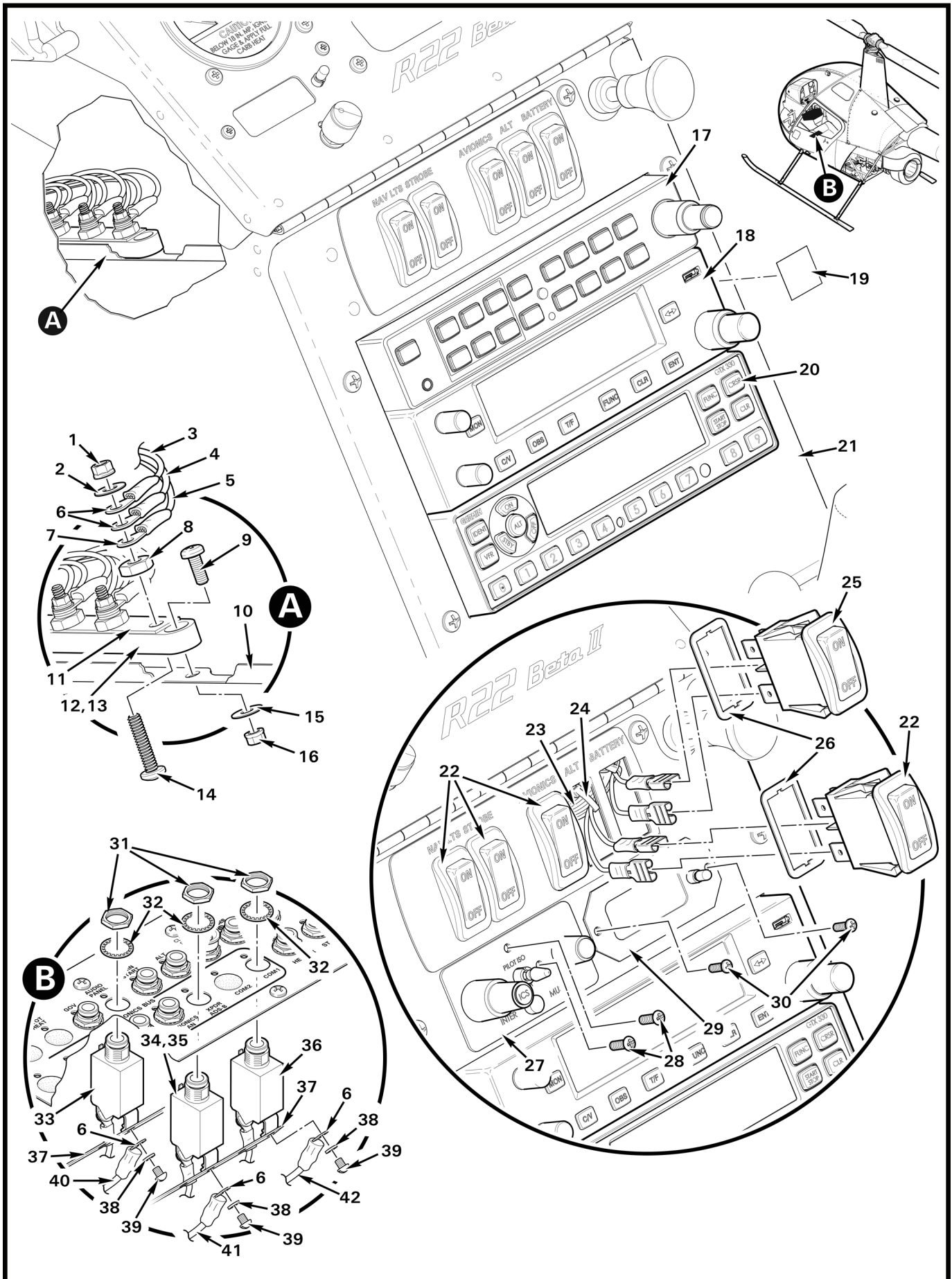


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
AVIONICS OPTIONS FOR R22*				
97-1-1	MS21042L08	Nut	X	4
2	NAS1149FN816P	Washer	X	1
3	A859-643	Wire – Ground (Ref, audio control)		
4	-201	Wire – Ground (Ref, transceiver)		
5	-260	Wire – Ground (Ref, transponder)		
6	B260-2	Terminal	X	5
7	B260-3	Terminal	X	1
8	B301-8	Nut	X	4
9	MS35206-228	Screw	X	2
10	A365-1	Angle – Console (Ref)		
11	A448-10	Bus Bar	X	1
12	C448-2	Terminal Block Assembly (Incl items 8, 11, 13, and 14)	X	1
13	C448-5	Block	X	1
14	B567-43	Screw	X	1
15	NAS1149FN616P	Washer	X	2
16	MS21042L06	Nut	X	1
17	GMA350HC**	Audio Control	X	1
18	GTR 225B**	Transceiver	X	1
	KY 197A***	Transceiver (older R22s, not shown)	X	1
19	F654-38	Decal – “No. 1 COM, No. 2 COM, No. 3 COM”	X	A/R
20	GTX 330ES*	Transponder	X	1
	GTX 328**	Transponder (older R22s, mode “S”)	X	1
	GTX 327**	Transponder (older R22s, mode “C”)	X	1
21	A641	Face Assembly (Ref)		
22	G184-1	Switch Assembly (white-colored)	X	4
23	D049-6	Harness Assembly (Incl item 24)	X	1
24	MS3367-4-9	Ty-Rap	X	A/R
25	G184-2	Switch Assembly (red-colored)	X	1
26	G184-5	Gasket	X	5
27	B338-2	Intercom System Unit (Incl item 28)	X	1
28	—	Screw	O	3
29	B341-1	Outside Air Temperature Gage (Incl item 30)	X	1
30	—	Screw (UNC 4-40)	O	2
31	—	Nut	O	1
32	—	Lockwasher	O	1

NOTES * Exact panel configuration may vary with optional equipment.
 ** Garmin part no.
 *** Bendix-King part no.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
AVIONICS OPTIONS FOR R22 (Cont'd)				
97-1-33	B297-5	Circuit Breaker (5 amp, for use with item 17; includes items 31, 32, 38, and 39)	X	1
34	B297-3	Circuit Breaker (3 amp, for use with item 20 [GTX 327*]; includes items 31, 32, 38, and 39)	X	A/R
35	B297-5	Circuit Breaker (5 amp, for use with item 20 [GTX 328* and GTX 330ES*]; includes items 31, 32, 38, and 39)	X	A/R
36	B297-10	Circuit Breaker (10 amp, for use with item 18; includes items 31, 32, 38, and 39)	X	A/R
37	A448	Bus Bar (Ref)		
38	—	Washer	O	2
39	—	Screw	O	2
40	A859-644	Wire – Power (Ref, audio panel)		
41	A859-263	Wire – Power (Ref, transponder)		
42	A859-200	Wire – Power (Ref, COM)		

NOTES * Garmin part no.

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
FLUX GATE INSTALLATION				
97-19-1	MS27039C0806	Screw	X	6
2	A990-3	Cover	X	1
3	MS21919WDG4	Clamp	X	A/R
4	NAS1352C08-6	Screw	X	1
5	C988-9	Decal	X	1
6	C988-10	Mu-Metal (if installed)	X	1
7	KMT 112	Magnetic Azimuth Transmitter (Flux Gate; Bendix/King. Includes items 20 thru 22. Subsequent installations are mounted under RH floor [view A]. Earlier R22s have aft RH bulkhead mount [view B], or console mount, [view C].)	O	1
8	MS35214-27	Screw	X	3
9	NAS1149BN616H	Washer	X	3
10	A469-23	Carpet Assembly (Ref; scuff plate not shown for clarity)		
11	NAS1919B04S01	Rivet	X	4
12	A990-1	Bracket Assembly	X	1
13	089-7009-0010*	Screw (non-magnetic)	O	3
14	089-8036-0019*	Washer (non-magnetic)	O	6
15	A259-1	Bulkhead Assembly (Ref)		
16	NAS1291C08M	Nut	X	2
17	B129-1	Channel (Ref)		
18	089-2157-0015*	Nut (non-magnetic)	O	3
19	A987-3	Bracket (earlier R22s)	X	1
20	MS20470AD4	Rivet	X	6
21	MS27039C0808	Screw	X	1
22	A130-36	Spacer	X	1
23	MS21043-08	Nut	X	1
24	MS20470AD3-3.5	Rivet	X	6
25	A987-2	Bracket (earlier R22s)	X	1

NOTES * Bendix-King part no.

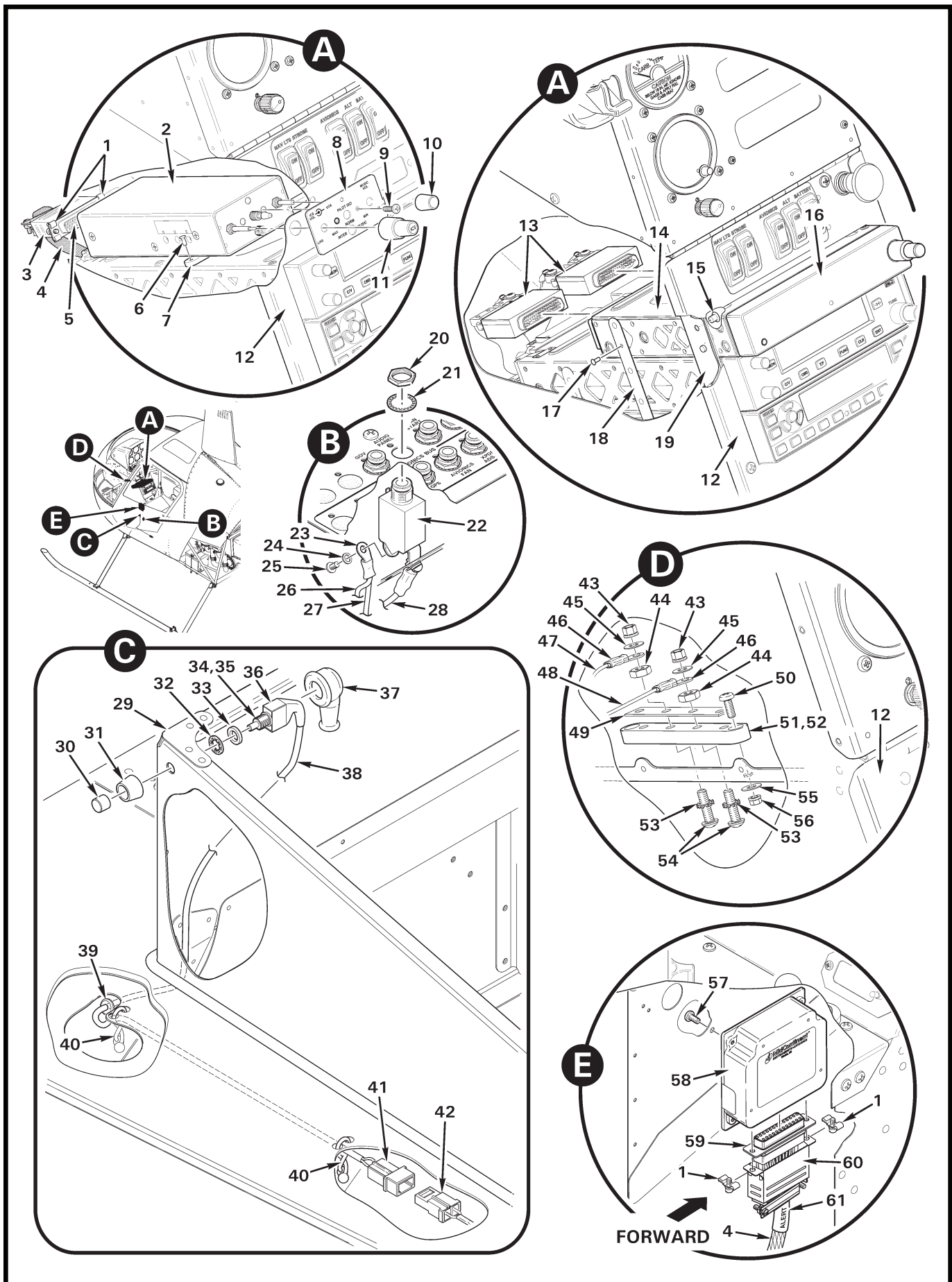


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
INTERCOM CONTROL INSTALLATION				
97-21-1	B269-31	Male Screw Lock	X	2
2	B338-2	Intercom System Unit (Includes items 8 thru 11. Contact RHC Technical Support to replace B338-1 ICS control. B338-2 control not compatible with old-revision C049 harness assembly.)	X	1
3	B269-23	Backshell	X	1
4	B266-8	Sleeving	X	A/R
5	B269-82	Receptacle (44-socket)	X	1
	B267-5	Splice	X	1
	B267-2	Terminator (not shown)	X	7
	B267-3	Terminator (not shown)	X	5
6	MS20426AD3	Rivet	X	2
7	A736-1	Support (install using item 6)	X	1
8	50-04-832*	Faceplate	X	1
9	25-11-427	Screw	X	3
10	40-18-MUS2	Knob (small)	X	1
11	40-21-ICS3	Knob (large)	X	1
12	B640	Panel – Avionics (Ref)		
13	011-02302-00**	Connector Kit (Ref)		
14	115-01452-00**	Install Rack (Ref)		
15	MS20426AD5	Rivet	X	4
16	GMA350HC**	Audio Control (Incl items 13 and 14)	X	1
17	NAS1097AD3	Rivet	X	4
18	A684-1	Strap	X	2
19	A905-3	Angle	X	2
20	—	Nut	O	1
21	—	Washer	O	1
22	B297-3	Circuit Breaker (3 amp; used with item 2. Includes items 20, 21, 24, and 25.)	X	1
	B297-5	Circuit Breaker (5 amp; used with item 16. Includes items 20, 21, 24, and 25.)	X	1
23	B260-2	Terminal	X	2
24	—	Washer	O	2
25	—	Screw	O	2
26	A859-2916	Wire (Ref; power, item 58)		
27	A859-644	Wire (Ref; power, items 2 and 16)		

NOTES * N.A.T. part number.
 ** Garmin part number.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
INTERCOM CONTROL INSTALLATION (Cont'd)				
97-21-28	A859-3078	Wire (Ref)		
29	A291	Aft Seat Support Assembly (LH shown; Ref)		
30	801801000	Cap (white)	X	1
31	702501201	Dress Nut	X	1
32	B227-3	Lockwasher	X	1
33	94773A770	Washer	X	1
34	C049-10	Harness Assembly (LH and RH, includes items 35 thru 39) . . .	X	2
35	B227-8	Switch Assembly (Incl items 30 thru 33)	X	1
36	B158-8	Heat Shrink (around item 35)	X	A/R
37	MS25171-1S	Nipple	X	1
38	B158-2	Heat Shrink (around wires)	X	A/R
39	MS35489-4	Grommet	X	1
40	232-35359-03	Tie	X	2
41	B263-12	Housing	X	1
	B263-1	Pin	X	2
42	B263-13	Housing (Ref)		
43	MS21042L08	Nut	X	2
44	B301-8	Nut	X	4
45	NAS1149FN816P	Washer	X	2
46	B260-3	Terminal	X	2
47	A859-2917	Wire (Ref; ground, item 58)		
48	A859-643	Wire (Ref; ground, items 2 and 16)		
49	A448-10	Bus Bar	X	1
50	MS35206-228	Screw	X	2
51	C448-2	Terminal Block Assembly (Incl items 44, 49, and 52 thru 54) .	X	1
52	C448-5	Block (Ref)		
53	91120A130	Washer	X	4
54	B567-43	Screw	X	4
55	NAS1149FN616P	Washer	X	2
56	MS21042L06	Nut	X	2
57	MS35206-227	Screw	X	2
58	F793-1	Alert Box	X	1
59	B269-12	Receptacle (25-socket)	X	1
60	B269-23	Backshell	X	1
61	B158-8	Heat Shrink (labeled "ALERT")	X	A/R

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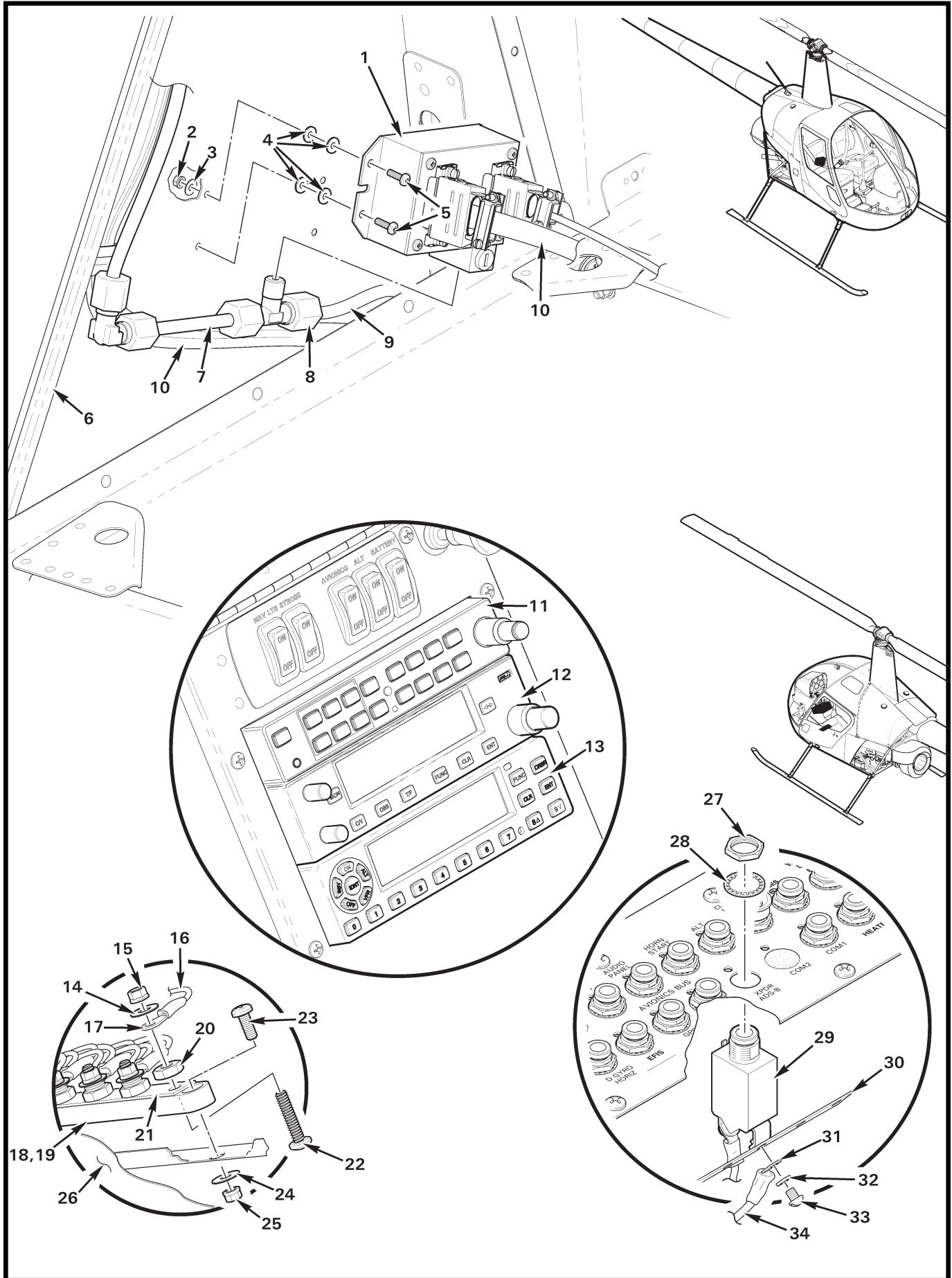


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		GARMIN GTX 335 AND 345 TRANSPONDER & BLIND ENCODER		
97-25-1	B240-3	Blind Encoder	X	1
2	MS21042L04	Nut	X	4
3	NAS1149FN416P	Washer	X	4
4	NAS1149CN432R	Washer	X	8
5	MS35206-215	Screw	X	4
6	A8384-3	Stiffener (Ref)		
7	A729-26	Tube (Ref)		
8	60-4-2-N-0	Tee	X	1
9	A729-22	Tube (Ref)		
10	A859	Harness Assembly (Ref)		
11	GMA350HC*	Audio Control (Ref)		
12	GTR 225B*	Transceiver (Ref)		
13	GTX 335*	Transponder (Mode "S" and ADS-B Out)	X	1
	GTX 345*	Transponder (Mode "S" and ADS-B In/Out)	X	1
14	NAS1149FN816P	Washer	X	1
15	MS21042L08	Nut	X	1
16	-260	Wire (Ref)		
17	B260-3	Terminal	X	1
18	C448-2	Terminal Block Assembly (Incl items 19 thru 22)	X	1
19	C448-5	Block	X	1
20	B301-8	Nut	X	1
21	A448-10	Bus Bar	X	1
22	B567-43	Screw	X	1
23	MS35206-228	Screw	X	2
24	NAS1149FN616P	Washer	X	2
25	MS21042L06	Nut	X	2
26	A033	Console Assembly – Lower (Ref)		
27	—	Nut	O	1
28	—	Lockwasher	O	1
29	B297-3	Circuit Breaker (3 amp; includes 27, 28, 32, and 33)	X	1
30	A448	Bus Bar (Ref)		
31	B260-2	Terminal	X	1

NOTES * Garmin part no.

Continues

FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
<p>97-25-32</p> <p>33</p> <p>34</p>	<p>—</p> <p>—</p> <p>A859-263</p>	<p>GARMIN GTX 335 AND 345 TRANSPONDER & BLIND ENCODER (Cont'd)</p> <p>Washer (Ref)</p> <p>Screw (Ref)</p> <p>Wire (Ref; power, item 13)</p>		
<p>NOTES</p>				

CHAPTER 99

SPECIAL TOOLS

<i>Figure</i>	<i>Title</i>	<i>Page</i>
—	Special Tools	99.1
99-3	Shipping Crates	99.2
99-5	Shipping Crates	99.4
99-7	KI-18 Vertical Firewall Doubler Installation	99.6
99-9	KI-40 Dual Tachometer Installation Kit	99.8
99-11	KI-65 Altitude Indicator and KI-66 Directional Gyro Installation Kits	99.10

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FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
		<p style="text-align: center;">SPECIAL TOOLS</p> <p>See R22 Maintenance Manual for Special Tools.</p> <p>See R22 Kit Instructions, online at www.robinsonheli.com, for Kits.</p> <p>See R22 Price List, online at www.robinsonheli.com, for Technical Publications part numbers.</p>		
NOTES				

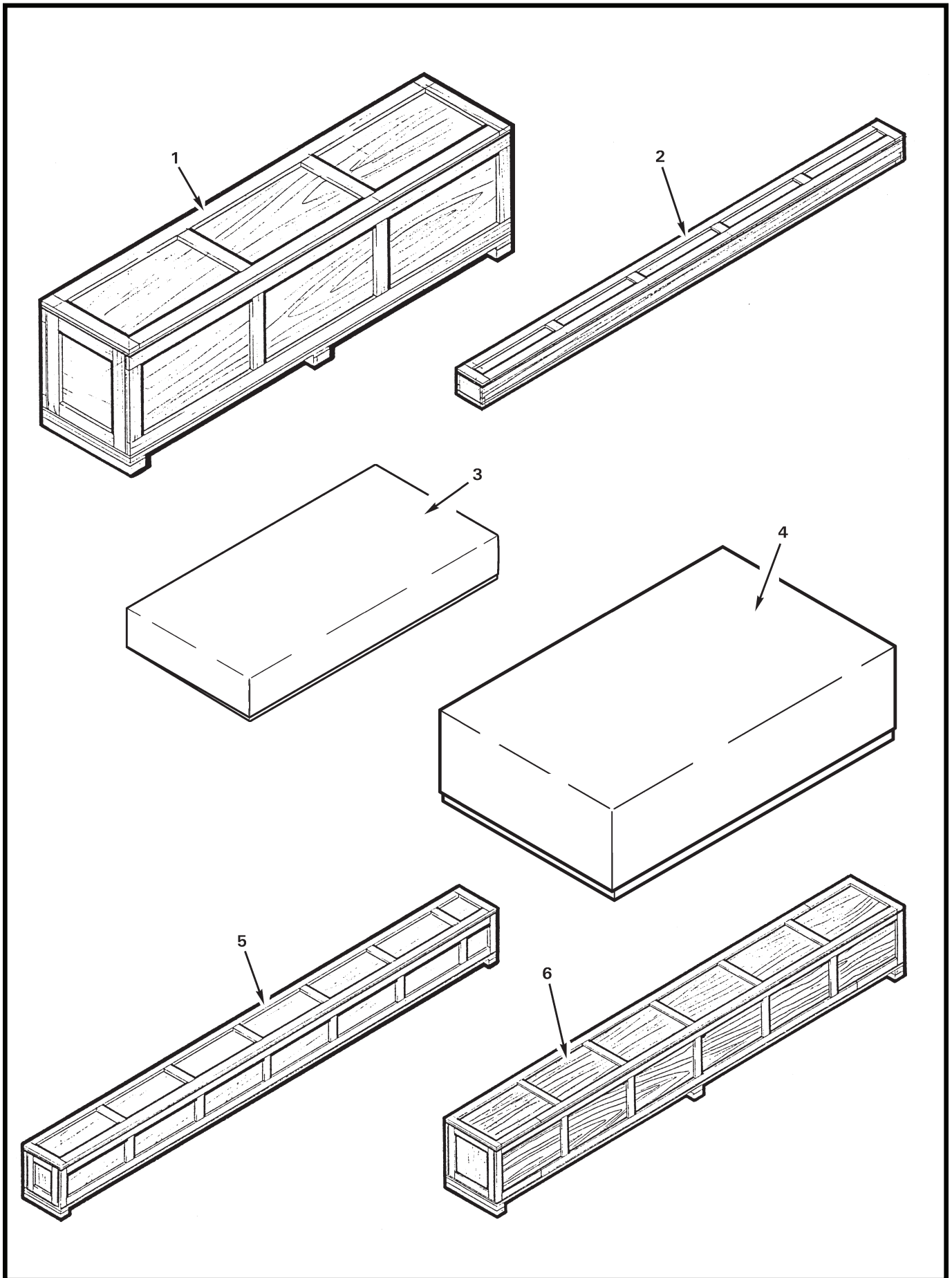


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
SHIPPING CRATES*				
99-3-1	R5167	Main Rotor Gearbox Crate (69 x 19 x 22, ~ 160 lbs.)	X	1
2	R5168	Push-Pull Tube/Tail Rotor Drive Shaft Crate (161 x 12 x 12, ~ 103 lbs.)	X	1
3	R5169**	Cabin Door Crate (60 x 29 x 10, ~ 25 lbs.; holds 2 doors) . . .	X	1
4	R5170**	Windshield Crate (63 x 40 x 17, ~45 lbs.; holds 4 windshields)	X	1
5	R5171	Main Rotor Blade Crate (165 x 15 x 18, ~ 230 lbs; holds 2 blades)	X	1
6	R5172	Tailcone Crate (153 x 19 x 22, ~ 190 lbs.)	X	1

NOTES * All weights and dimensions are approximations and subject to variation. Dimensions given are in inches, and describe length, width, and height, respectively.
 ** Cardboard box.

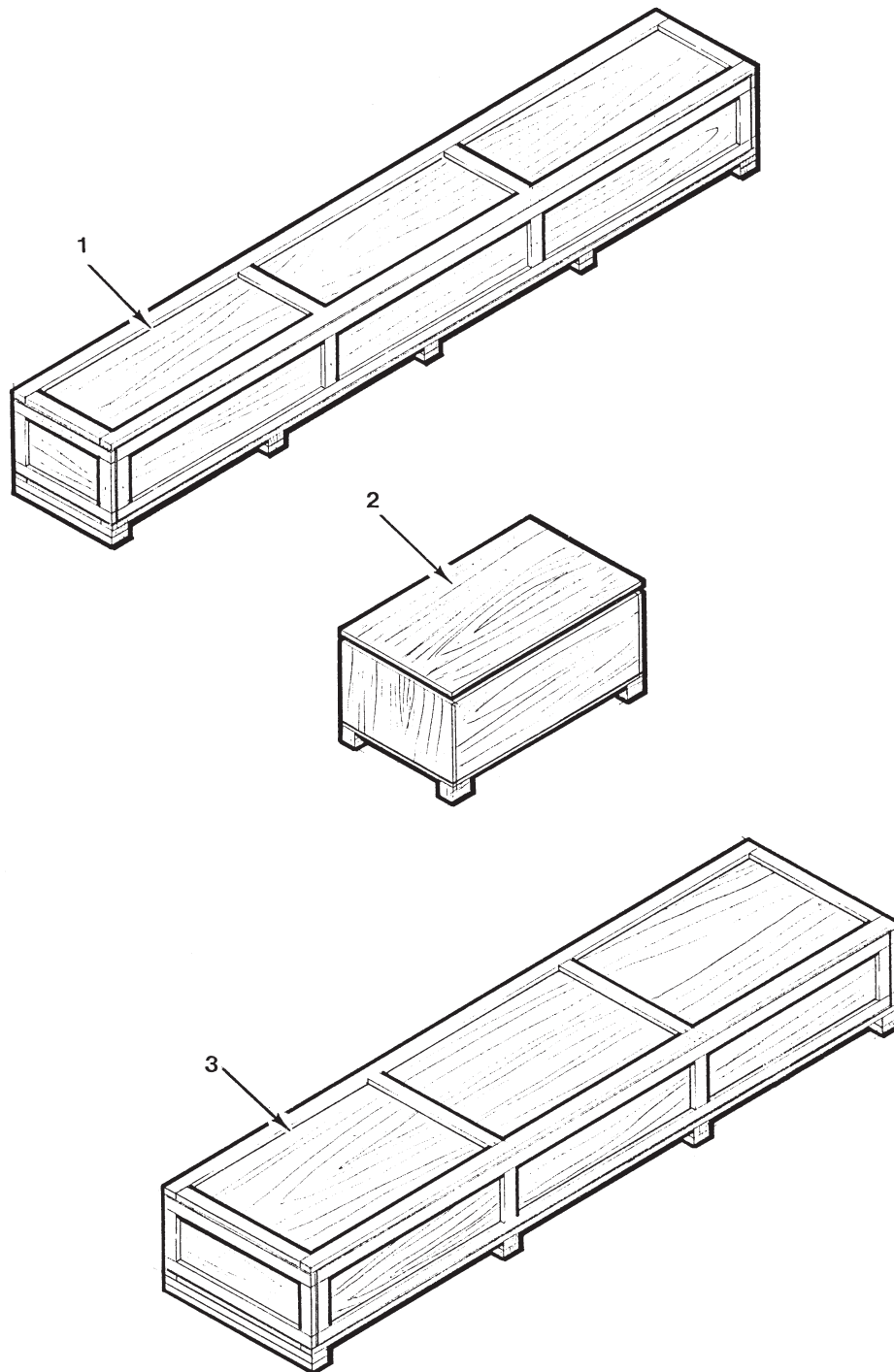


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
SHIPPING CRATES*				
99-5-1	R5519	Main Rotor Blade/Tailcone Crate (159 x 25 x 22)	X	1
2	MT899-1	Tow Cart Crate (67 x 38 x 31, ~572 lbs.)	X	1
3	R7422	Float Crate (144 x 36 x 21)	X	1

NOTES * All weights and dimensions are approximations and subject to variation. Dimensions given are in inches, and describe length, width, and height, respectively.

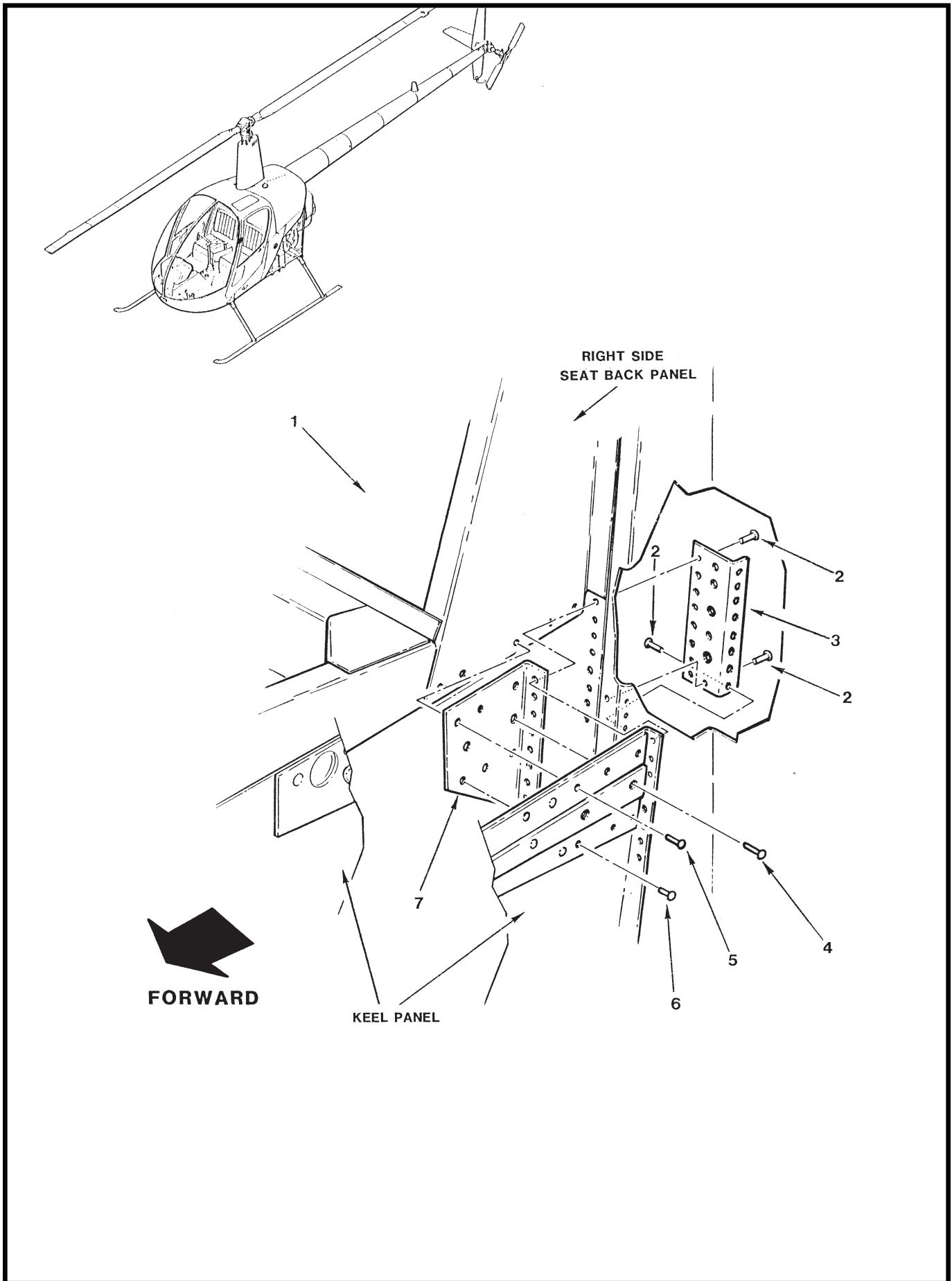


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
KI-18 VERTICAL FIREWALL DOUBLER INSTALLATION				
99-7-1	KI-18	Vertical Firewall Doubler Installation Kit (Incl items 2 thru 9) . .	X	1
2	MS20615-3M3	Rivet	X	22
3	B809-2	Doubler	X	1
4	MS20470AD4-7	Rivet	X	4
5	MS20470AD4-6	Rivet	X	5
6	MS20470AD4-4	Rivet	X	9
7	B809-1	Doubler	X	1
8	—	Drill Bit (#30, not shown)	X	1
9	—	Drill Bit (#40, not shown)	X	1

NOTES

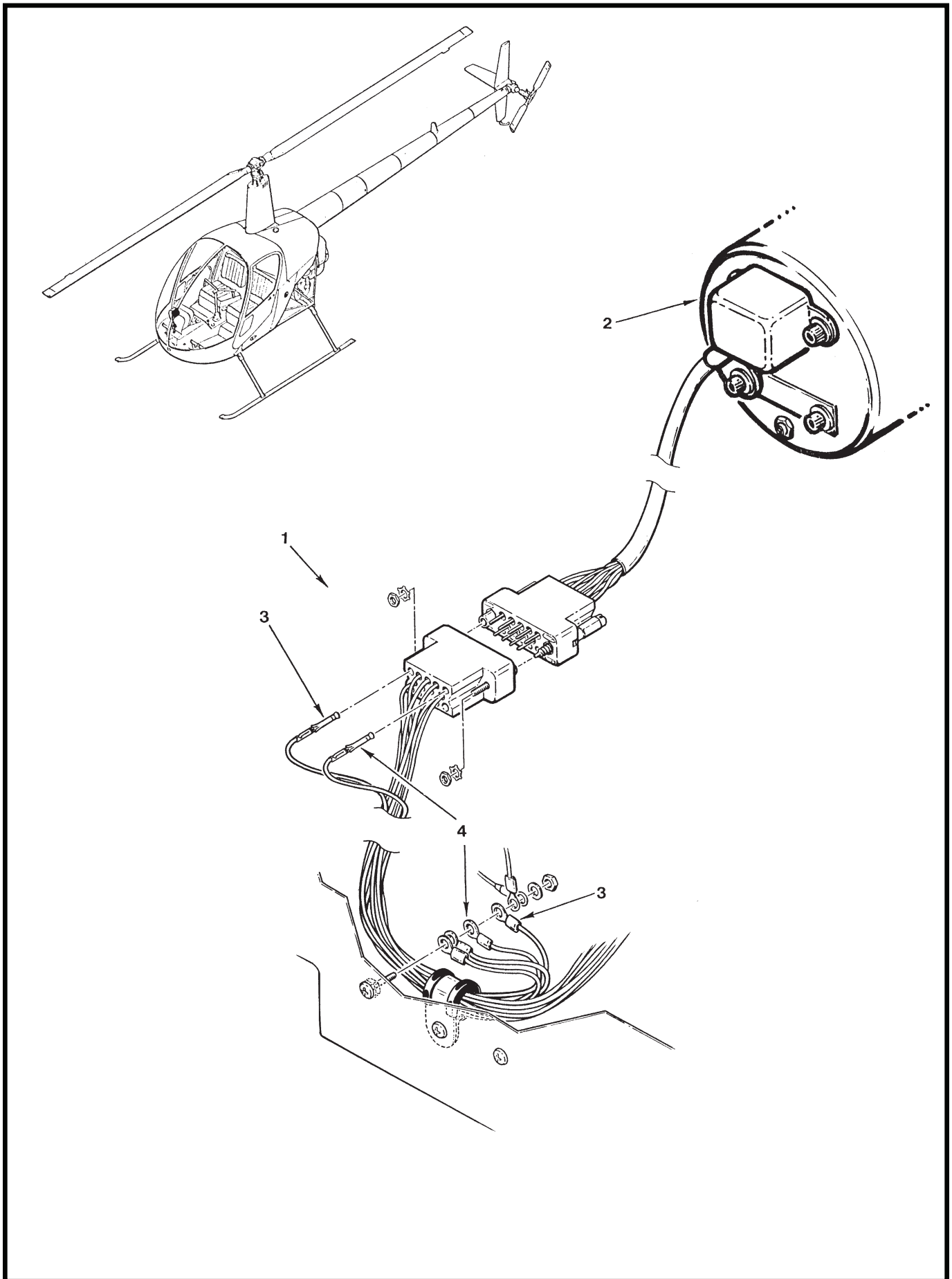


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
KI-40 DUAL TACHOMETER INSTALLATION KIT				
99-9-1	KI-40-1	Dual Tach Installation Kit (ship S/N 0002 thru 0470; includes items 3 and 4)	O	1
2	A792-2	Dual Tachometer (Ref, no longer available)		
	A792-4	Dual Tachometer (Ref, no longer available)		
3	KI-40-2	Wire Assembly	O	1
4	KI-40-3	Wire Assembly	O	1
* * *				
5	B817-1	Tachometer Filter Assembly (Not shown; required for Rev "F" and earlier A792 tachometers. See Figure 96-21.)	X	1

NOTES

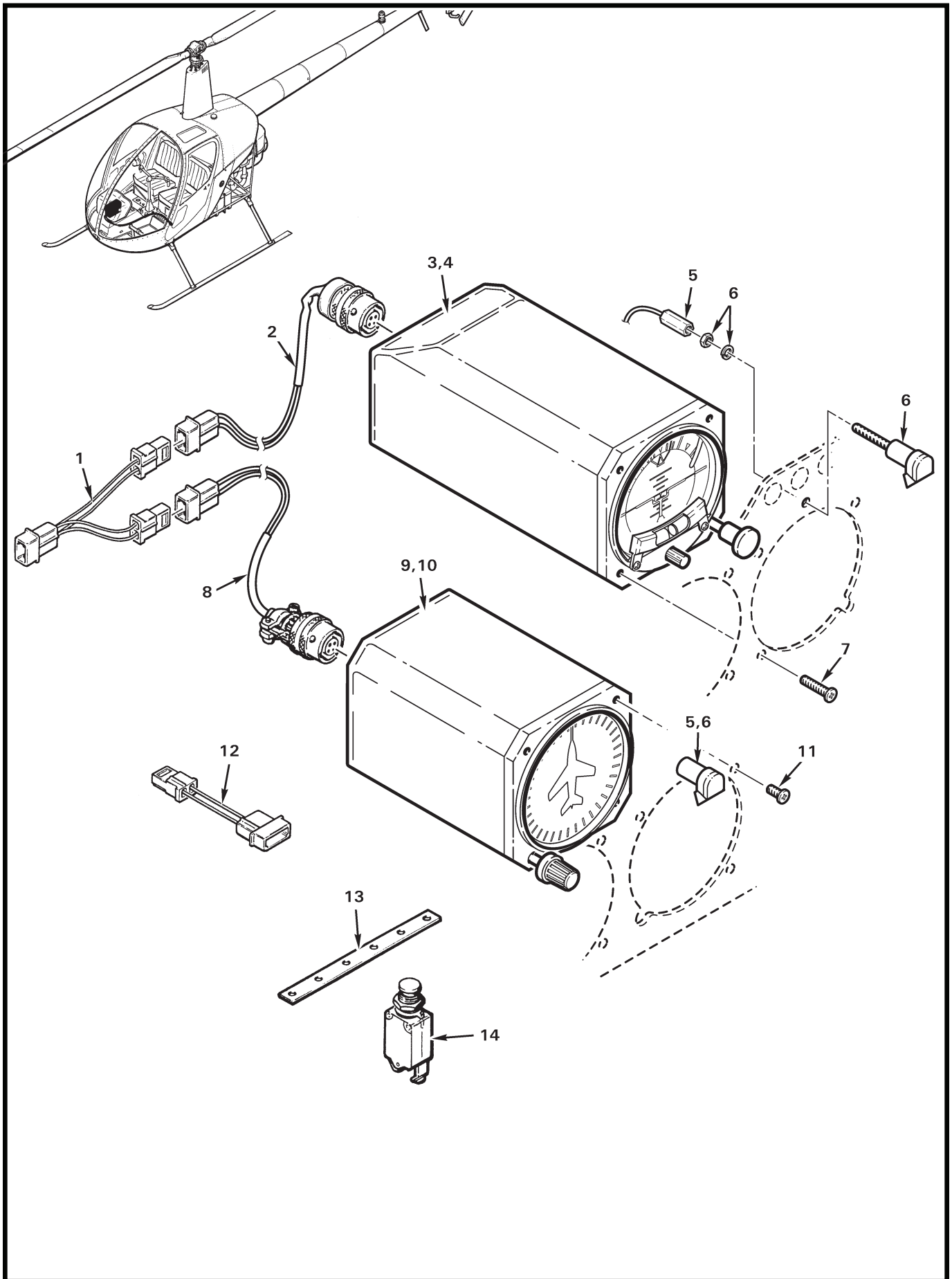


FIGURE AND INDEX NUMBER	PART NUMBER	DESCRIPTION	PARTS AVAIL	QTY PER ASSY
KI-65 ALTITUDE INDICATOR AND KI-66 DIRECTIONAL GYRO INSTALLATION KITS				
99-11-1	B802-3	Harness Assembly (splitter)	X	1
2	B802-1	Harness Assembly	X	1
3	KI-65	Attitude Indicator with Inclinator Installation Kit (Incl items 1, 2, 4 thru 7, 12 thru 15, and 17)	X	1
4	B823-12	Attitude Indicator with Inclinator	X	1
5	B195-9	Connector Nut	X	1
6	B195-10	Post Light (includes B196-1 lamp)	X	1
	B196-1	Lamp	X	1
7	MS24693-S30	Screw	X	3
8	B802-2	Harness Assembly	X	1
9	KI-66	Directional Gyro Installation Kit (Incl items 1, 5, 6, 8, 10 thru 15, and 17)	X	1
10	B823-11	Directional Gyro	X	1
11	MS24693-S26	Screw	X	3
12	B802-4	Harness Assembly (adapter)	X	1
13	A448-1	Bus Bar	X	1
14	B297-5	Circuit Breaker (5-amp)	X	1
15	B260-2	Terminal (not shown)	X	1
16	B263-14	Housing (not shown)	X	1
17	MS3367-4-9	Ty-Rap (not shown)	X	10

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CHAPTER 100

REVISION LOG

<i>Figure</i>	<i>Title</i>	<i>Page</i>
—	Revision Log	100.1

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REVISION LOG

MAY 2021

The R22 Illustrated Parts Catalog (IPC) list of effective pages and effective dates are given below. If a previously issued page is not listed below, it is no longer an effective page and must be discarded. The issue or revision date is in bold at the top of each revision log page.

Please visit www.robinsonheli.com to verify the issue or revision date is current.

<i>Page</i>	<i>Date</i>	<i>Page</i>	<i>Date</i>	<i>Page</i>	<i>Date</i>
i	MAY 2021	6.9	SEP 2014	9.6	SEP 2014
ii	MAY 2021	6.10	SEP 2014		
iii	MAY 2021	6.11	SEP 2014	10.i	SEP 2014
iv	MAY 2021	6.12	SEP 2014	10.0	SEP 2014
v	MAY 2021	6.13	MAY 2021	10.1	SEP 2014
vi	MAY 2021	6.14	MAY 2021	10.2	SEP 2014
vii	MAY 2021	6.15	MAY 2021	10.3	SEP 2014
viii	MAY 2021	6.16	MAY 2021	10.4	SEP 2014
ix	MAY 2021	6.17	MAY 2021	10.5	FEB 2017
x	MAY 2021	6.18	MAY 2021	10.6	FEB 2017
xi	MAY 2021	6.19	SEP 2014	10.7	FEB 2017
xii	MAY 2021	6.20	SEP 2014	10.8	FEB 2017
xiii	MAY 2021	6.21	SEP 2014	10.9	SEP 2014
xiv	MAY 2021	6.22	SEP 2014	10.10	SEP 2014
xv	MAY 2021	6.23	SEP 2014		
xvi	MAY 2021	6.24	SEP 2014	11.i	FEB 2017
xvii	MAY 2021	6.25	SEP 2014	11.0	FEB 2017
xviii	MAY 2021	6.26	SEP 2014	11.1	FEB 2017
xix	MAY 2021			11.2	FEB 2017
xx	MAY 2021	8.i	SEP 2014	11.3	MAY 2021
		8.0	SEP 2014	11.4	MAY 2021
6.i	SEP 2014	8.1	SEP 2014	11.5	FEB 2017
6.0	SEP 2014	8.2	SEP 2014	11.6	FEB 2017
6.1	SEP 2014			11.7	FEB 2017
6.2	SEP 2014	9.i	SEP 2014	11.8	FEB 2017
6.3	SEP 2014	9.0	SEP 2014		
6.4	SEP 2014	9.1	SEP 2014	12.i	FEB 2017
6.5	SEP 2014	9.2	SEP 2014	12.0	FEB 2017
6.6	SEP 2014	9.3	SEP 2014	12.1	FEB 2017
6.7	SEP 2014	9.4	SEP 2014	12.2	FEB 2017
6.8	SEP 2014	9.5	SEP 2014		

REVISION LOG

MAY 2021

<u>Page</u>	<u>Date</u>	<u>Page</u>	<u>Date</u>	<u>Page</u>	<u>Date</u>
18.i	SEP 2014	25.13	MAY 2021	28.20	MAY 2021
18.0	SEP 2014	25.14	MAY 2021	28.21	MAY 2021
18.1	SEP 2014	25.15	MAY 2021	28.22	MAY 2021
18.2	SEP 2014	25.16	MAY 2021	28.23	MAY 2021
18.3	SEP 2014	25.17	MAY 2021	28.24	MAY 2021
18.4	SEP 2014	25.18	MAY 2021	28.25	MAY 2021
18.5	FEB 2017	25.19	FEB 2017	28.26	MAY 2021
18.6	FEB 2017	25.20	FEB 2017	28.27	MAY 2021
		25.21	FEB 2017	28.28	MAY 2021
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21.1	FEB 2017	25.24	FEB 2017		
21.2	FEB 2017	25.25	FEB 2017	32.i	FEB 2017
21.3	FEB 2017	25.26	FEB 2017	32.0	FEB 2017
21.4	FEB 2017			32.1	FEB 2017
21.5	SEP 2014	28.i	MAY 2021	32.2	FEB 2017
21.6	SEP 2014	28.0	MAY 2021	32.3	FEB 2017
21.7	SEP 2014	28.1	MAY 2021	32.4	FEB 2017
21.8	SEP 2014	28.2	MAY 2021	32.5	FEB 2017
21.9	FEB 2017	28.3	FEB 2017	32.6	FEB 2017
21.10	FEB 2017	28.4	FEB 2017	32.7	FEB 2017
		28.5	MAY 2021	32.8	FEB 2017
25.i	FEB 2017	28.6	MAY 2021	32.9	FEB 2017
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25.1	FEB 2017	28.8	MAY 2021		
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25.12	FEB 2017	28.19	MAY 2021	33.9	FEB 2017

REVISION LOG

MAY 2021

<u>Page</u>	<u>Date</u>	<u>Page</u>	<u>Date</u>	<u>Page</u>	<u>Date</u>
33.10	FEB 2017	53.16	FEB 2017	63.10	MAY 2021
33.11	FEB 2017	53.17	FEB 2017	63.11	MAY 2021
33.12	FEB 2017	53.18	FEB 2017	63.12	MAY 2021
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53.13	SEP 2014	63.7	FEB 2017		
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53.15	FEB 2017	63.9	MAY 2021	67.0	FEB 2017

REVISION LOG

MAY 2021

<u>Page</u>	<u>Date</u>	<u>Page</u>	<u>Date</u>	<u>Page</u>	<u>Date</u>
67.1	SEP 2014	67.37	SEP 2014	71.26	SEP 2014
67.2	SEP 2014	67.38	SEP 2014	71.27	SEP 2014
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67.12	FEB 2017	71.3	SEP 2014	76.4	MAY 2021
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67.35	MAY 2021	71.24	FEB 2017	79.6	FEB 2017
67.36	MAY 2021	71.25	SEP 2014	79.7	MAY 2021

REVISION LOG

MAY 2021

<u>Page</u>	<u>Date</u>	<u>Page</u>	<u>Date</u>	<u>Page</u>	<u>Date</u>
79.8	MAY 2021	95.18	MAY 2021	95.46	FEB 2017
		95.18A	MAY 2021	95.47	FEB 2017
90.i	SEP 2014	95.18B	MAY 2021	95.48	FEB 2017
90.0	SEP 2014	95.18C	MAY 2021	95.49	MAY 2021
90.1	SEP 2014	95.18D	MAY 2021	95.50	MAY 2021
90.2	SEP 2014	95.18E	MAY 2021	95.51	MAY 2021
90.3	SEP 2014	95.18F	MAY 2021	95.52	MAY 2021
90.4	SEP 2014	95.18G	MAY 2021	95.53	FEB 2017
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90.12	MAY 2021	95.25	FEB 2017	95.61	FEB 2017
		95.26	FEB 2017	95.62	FEB 2017
95.i	MAY 2021	95.27	FEB 2017	95.63	FEB 2017
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95.6	MAY 2021	95.34	FEB 2017	96.1	MAY 2021
95.7	MAY 2021	95.35	FEB 2017	96.2	MAY 2021
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95.9	MAY 2021	95.37	FEB 2017	96.4	MAY 2021
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95.11	MAY 2021	95.39	FEB 2017	96.6	MAY 2021
95.12	MAY 2021	95.40	FEB 2017	96.7	MAY 2021
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95.16	MAY 2021	95.44	FEB 2017	96.11	MAY 2021
95.17	MAY 2021	95.45	FEB 2017	96.12	MAY 2021

REVISION LOG

MAY 2021

<u>Page</u>	<u>Date</u>	<u>Page</u>	<u>Date</u>	<u>Page</u>	<u>Date</u>
96.13	FEB 2017	97.8	SEP 2014	100.ii	MAY 2021
96.14	FEB 2017	97.9	FEB 2017	100.1	MAY 2021
96.15	FEB 2017	97.10	FEB 2017	100.2	MAY 2021
96.16	FEB 2017	97.11	SEP 2014	100.3	MAY 2021
96.17	FEB 2017	97.12	SEP 2014	100.4	MAY 2021
96.18	FEB 2017	97.13	SEP 2014	100.5	MAY 2021
96.19	FEB 2017	97.14	SEP 2014	100.6	MAY 2021
96.20	FEB 2017	97.15	SEP 2014		
96.21	FEB 2017	97.16	SEP 2014		
96.22	FEB 2017	97.17	SEP 2014		
96.23	MAY 2021	97.18	SEP 2014		
96.23A	MAY 2021	97.19	MAY 2021		
96.23B	MAY 2021	97.20	MAY 2021		
96.23C	MAY 2021	97.21	MAY 2021		
96.23D	MAY 2021	97.22	MAY 2021		
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96.25	FEB 2017	97.24	MAY 2021		
96.26	FEB 2017	97.25	MAY 2021		
96.27	FEB 2017	97.26	MAY 2021		
96.28	FEB 2017				
96.29	FEB 2017	99.i	MAY 2021		
96.30	FEB 2017	99.ii	MAY 2021		
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96.32	FEB 2017	99.2	MAY 2021		
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97.i	MAY 2021	99.6	MAY 2021		
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97.2	MAY 2021	99.9	MAY 2021		
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