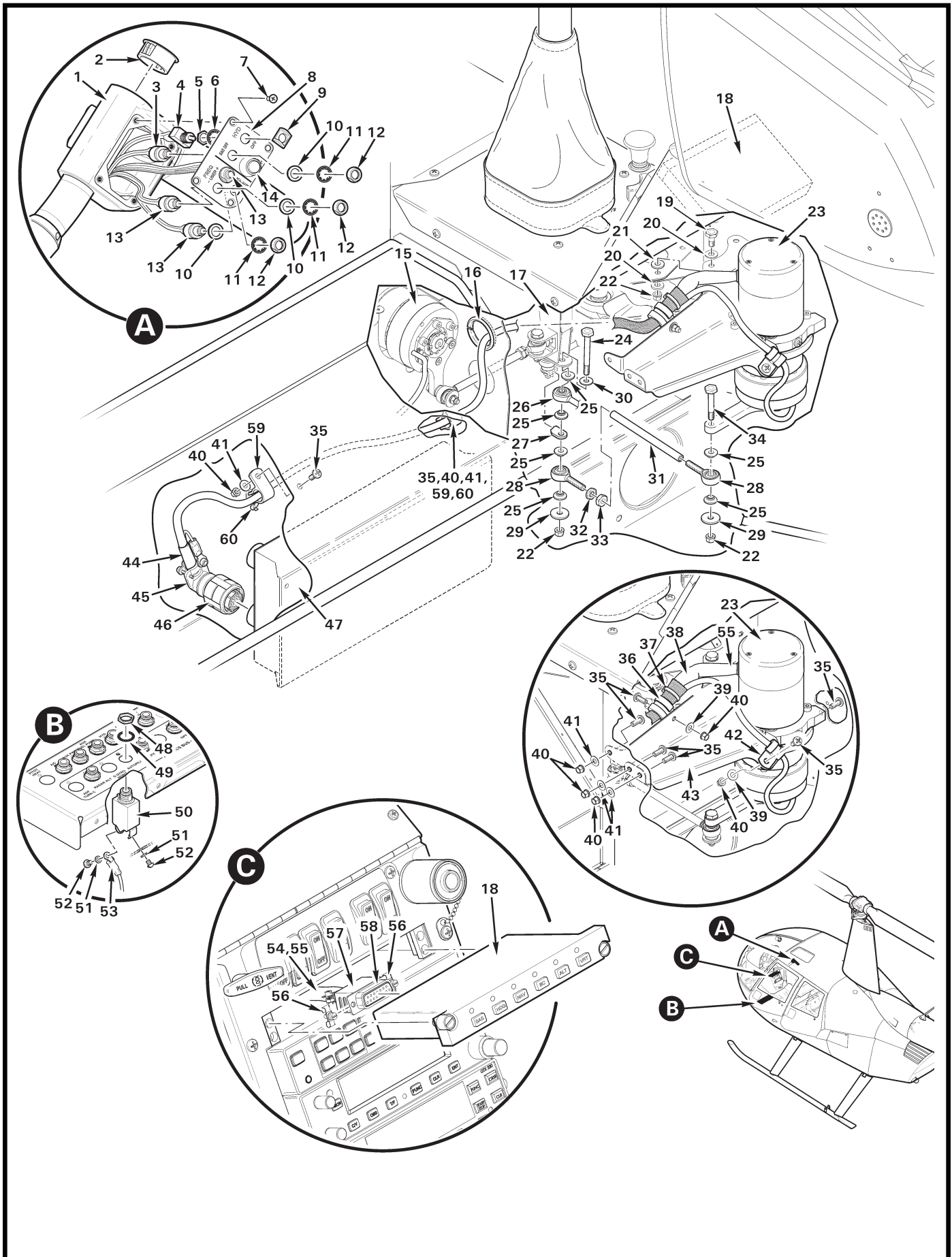


CHAPTER 22

AUTOPILOT

| <i>Figure</i> | <i>Title</i>   | <i>Page</i> |
|---------------|--|-------------|
| 22-1          | (Pitch) Servo Assembly Installation and Components . . . . . | 22.0        |
| 22-5          | (Roll) Servo Assembly Installation . . . . .                 | 22.4        |
| 22-7          | Flight Control Computer Installation . . . . .               | 22.6        |



| FIGURE AND INDEX NUMBER | PART NUMBER   | DESCRIPTION   | PARTS AVAIL | QTY PER ASSY |
|-------------------------|---------------|---|-------------|--------------|
|                         |               | (PITCH) SERVO ASSEMBLY INSTALLATION AND COMPONENTS  |             |              |
| 22-1-1                  | C058-15*      | Grip Assembly (Incl items 2 thru 14, and 17) . . . . .                                      | X           | 1            |
|                         | C058-14**     | Grip Assembly (Incl items 2 thru 14, and 17) . . . . .                                      | X           | 1            |
| 2                       | 2703          | Hole Plug (install using B270-15 adhesive) . . . . .  | X           | 1            |
| 3                       | B227-7        | Switch Assembly – “AP OFF” (Incl items 10 thru 12) . . . . .                                | X           | 1            |
| 4                       | B300-3        | Switch Assembly – “HYD OFF” (Incl items 5 and 6) . . . . .                                  | X           | 1            |
| 5                       | —             | Nut . . . . .   | X           | 1            |
| 6                       | —             | Lockwasher . . . . .  | X           | 1            |
| 7                       | MS24693-S1    | Screw . . . . .   | X           | 4            |
| 8                       | C214-27       | Plate . . . . .   | X           | 1            |
| 9                       | D443-7        | Guard . . . . .   | X           | 1            |
| 10                      | 94773A770***  | Washer . . . . .  | X           | 1            |
| 11                      | B227-3        | Lockwasher . . . . .  | X           | 1            |
| 12                      | B227-4        | Dress Nut . . . . .   | X           | 1            |
| 13                      | B227-2        | Switch Assembly (Incl items 10 thru 12) . . . . .   | X           | 3            |
| 14                      | B227-8        | Switch – Trim (Includes 801801000 cap, 702501201 dress nut, and items 10 and 11.) . . . . . | X           | 1            |
|                         | 801801000***  | Cap . . . . .   | X           | 1            |
|                         | 702501201***  | Dress Nut . . . . .   | X           | 1            |
| 15                      | D354-1        | Servo Assembly (Roll, Ref; see Figure 22-5)   |             |              |
| 16                      | NAS557-16A    | Grommet . . . . .   | X           | 1            |
| 17                      | D320-1        | Cyclic Stick Assembly (Ref)   |             |              |
| 18                      | O1309-01-01   | Control Panel . . . . .   | X           | 1            |
| 19                      | NAS6603-3     | Bolt . . . . .  | X           | 2            |
| 20                      | NAS1149F0332P | Washer . . . . .  | X           | 4            |
| 21                      | NAS1149F0363P | Washer . . . . .  | X           | 2            |
| 22                      | D210-3        | Nut . . . . .   | X           | 2            |
| 23                      | D354-2        | Servo Assembly (Pitch; includes items 35 thru 40, 42 thru 46, and 55.) . . . . .            | X           | 1            |
| 24                      | NAS6603-22    | Bolt . . . . .  | X           | 1            |
| 25                      | A341-1        | Spacer . . . . .  | X           | 4            |
| 26                      | B564-1        | Link (Ref, see Figure 67-17)  |             |              |
| 27                      | D353-2        | Link . . . . .  | X           | 1            |
| 28                      | A127-3        | Rod End . . . . .   | X           | 2            |
| 29                      | A141-17       | Washer . . . . .  | X           | 2            |
| 30                      | NAS620-10L    | Washer . . . . .  | X           | 1            |

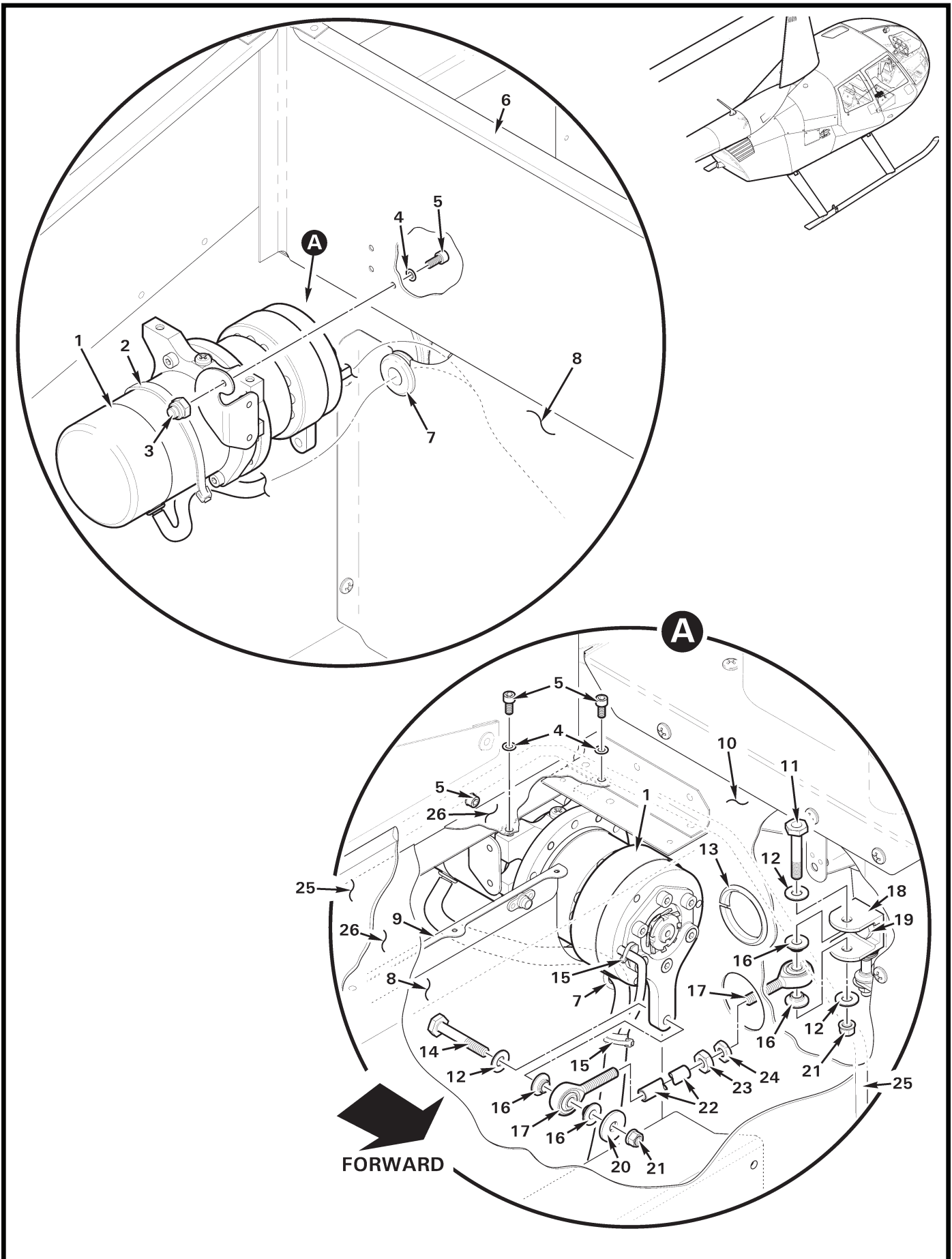
NOTES \* Ship S/N 10001 and subsequent.  
 \*\* Ship S/N 0001 thru 9999.  
 \*\*\* C&K Components part no.

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| FIGURE AND INDEX NUMBER                                     | PART NUMBER     | DESCRIPTION  | PARTS AVAIL | QTY PER ASSY |
|---|-----------------|--|-------------|--------------|
| (PITCH) SERVO ASSEMBLY INSTALLATION AND COMPONENTS (Cont'd) |                 |  |             |              |
| 22-1-31   | A336-7          | Tube . . . . .   | X           | 1            |
| 32  | B330-7          | Palnut . . . . .   | X           | 2            |
| 33  | AN315-3R        | Nut . . . . .  | X           | 2            |
| 34  | NAS6603-14      | Bolt . . . . .   | X           | 1            |
| 35  | MS27039C0806    | Screw . . . . .  | X           | 3            |
| 36  | MS21919WDG6     | Clamp . . . . .  | X           | 1            |
| 37  | MS3367-4-9      | Ty-Rap . . . . .   | X           | A/R          |
|   | MS3367-5-9      | Ty-Rap . . . . .   | X           | A/R          |
| 38  | B266-8          | Sleeving . . . . .   | X           | A/R          |
| 39  | NAS1149FN816P   | Washer . . . . .   | X           | 2            |
| 40  | MS21042L08      | Nut . . . . .  | X           | 3            |
| 41  | NAS1149FN832P   | Washer . . . . .   | X           | 3            |
| 42  | MS21919WDG3     | Clamp . . . . .  | X           | 1            |
| 43  | D353-3          | Brace . . . . .  | X           | 1            |
| 44  | B158-8          | Heat Shrink . . . . .  | X           | A/R          |
| 45  | M85049/39-13W   | Strain Relief . . . . .  | X           | 1            |
| 46  | D38999/26FC35SA | Plug . . . . .   | X           | 1            |
|   | B267-3          | Terminator (not shown) . . . . .                                     | X           | 1            |
|   | B267-4          | Terminator (not shown) . . . . .                                     | X           | 1            |
| 47  | 01311-03-01     | Computer (Ref)   |             |              |
| 48  | —               | Nut . . . . .  | O           | 1            |
| 49  | —               | Lockwasher . . . . .   | O           | 1            |
| 50  | B297-5          | Circuit Breaker (5 amp; includes items 48, 49, 51, and 52) . . . . . | X           | 1            |
| 51  | —               | Washer . . . . .   | O           | 1            |
| 52  | —               | Screw . . . . .  | O           | 1            |
| 53  | -2103           | Wire (Ref)   |             |              |
| 54  | D323-2          | Harness Assembly (Incl items 55 thru 58) . . . . .                   | X           | 1            |
| 55  | B158-6          | Heat Shrink . . . . .  | X           | A/R          |
| 56  | B269-31         | Screw Lock (male) . . . . .  | X           | 2            |
| 57  | B269-22         | Backshell . . . . .  | X           | 1            |
| 58  | B269-8          | Receptacle . . . . .   | X           | 1            |
| 59  | M23190/1-2      | Clamp . . . . .  | X           | 1            |
| 60  | MS3367-5-9      | Ty-Rap . . . . .   | X           | A/R          |

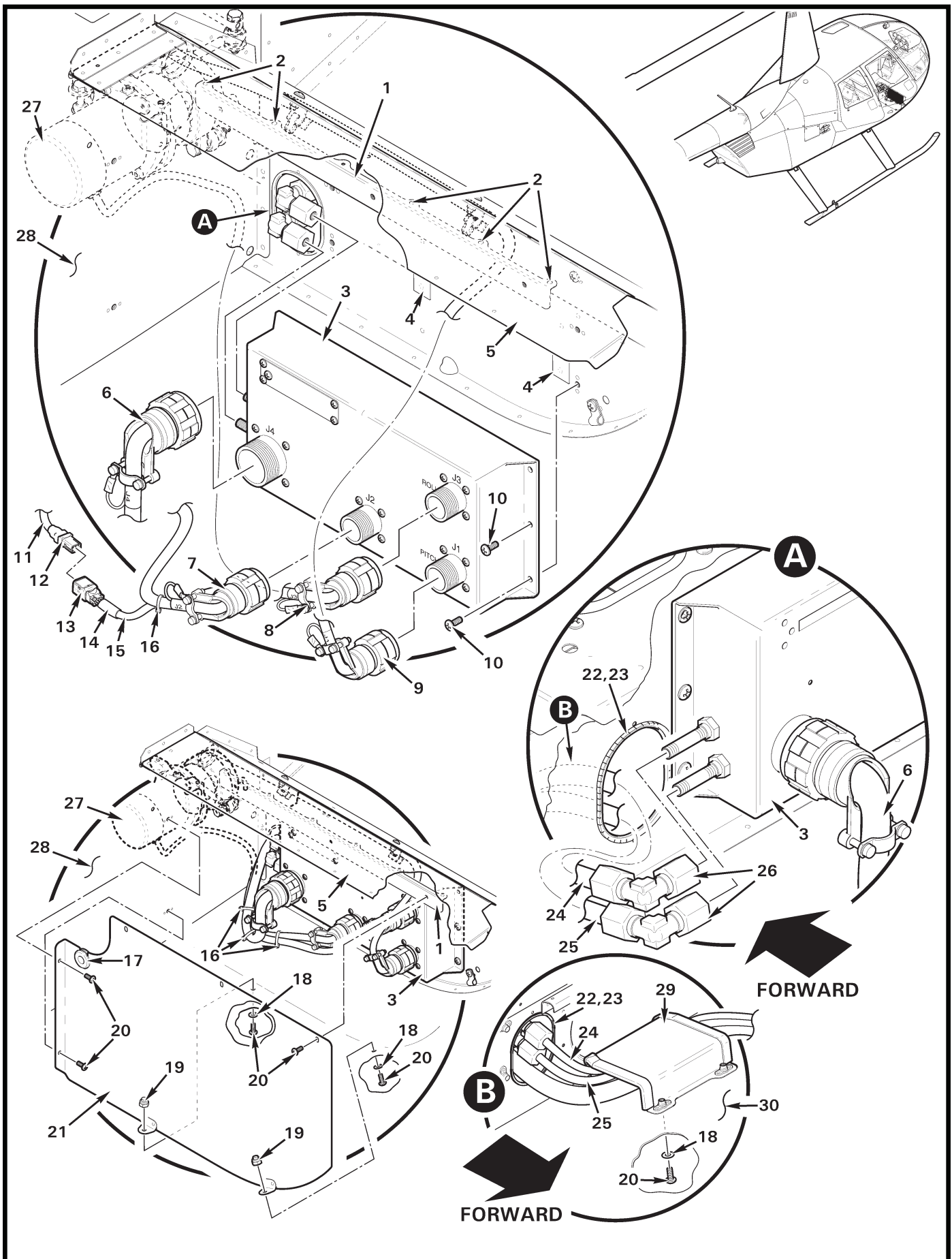
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| FIGURE AND INDEX NUMBER            | PART NUMBER   | DESCRIPTION   | PARTS AVAIL | QTY PER ASSY |
|------------------------------------|---------------|---|-------------|--------------|
| (ROLL) SERVO ASSEMBLY INSTALLATION |               |   |             |              |
| 22-5-1                             | D354-1        | Servo Assembly – Roll (Incl items 2 and 15) . . . . . | X           | 1            |
| 2                                  | MS3367-7-9    | Ty-Rap . . . . .                                      | X           | 1            |
| 3                                  | B340-4        | Nut . . . . .   | X           | 3            |
| 4                                  | NAS620-8L     | Washer . . . . .                                      | X           | 3            |
| 5                                  | NAS1352-08-6P | Screw . . . . .                                       | X           | 3            |
| 6                                  | C290-1        | Seat Support Assembly – RH FWD (Ref)                  |             |              |
| 7                                  | MS35489-11    | Grommet . . . . .                                     | X           | 1            |
| 8                                  | C748-6        | Cover Assembly (Ref)                                  |             |              |
| 9                                  | D357-1        | Angle Assembly (Ref)                                  |             |              |
| 10                                 | C293-4        | Forward Keel Panel – RH (Ref)                         |             |              |
| 11                                 | NAS6603-12    | Bolt . . . . .  | X           | 1            |
| 12                                 | NAS1149F0332P | Washer . . . . .                                      | X           | 3            |
| 13                                 | NAS557-16A    | Grommet (Ref)   |             |              |
| 14                                 | NAS6603-14    | Bolt . . . . .  | X           | 1            |
| 15                                 | MS3367-4-9    | Ty-Rap . . . . .                                      | X           | A/R          |
| 16                                 | A341-1        | Spacer . . . . .                                      | X           | 4            |
| 17                                 | A127-3        | Rod End . . . . .                                     | X           | 2            |
| 18                                 | D352-6        | Clevis . . . . .                                      | X           | 1            |
| 19                                 | NAS6604-10    | Bolt (Ref; existing hardware, see Figure 67-29)       |             |              |
| 20                                 | A141-17       | Washer . . . . .                                      | X           | 1            |
| 21                                 | D210-3        | Nut . . . . .   | X           | 2            |
| 22                                 | A336-8        | Tube . . . . .  | X           | 1            |
| 23                                 | AN315-3R      | Nut . . . . .   | X           | 1            |
| 24                                 | B330-7        | Palnut . . . . .                                      | X           | 1            |
| 25                                 | C469-4        | Carpet (Ref)  |             |              |
| 26                                 | C391-6        | Cover (Ref)   |             |              |

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| FIGURE AND INDEX NUMBER                     | PART NUMBER  | DESCRIPTION  | PARTS AVAIL | QTY PER ASSY |
|---|--------------|--|-------------|--------------|
| <b>FLIGHT CONTROL COMPUTER INSTALLATION</b> |              |  |             |              |
| 22-7-1                                      | D357-1       | Angle Assembly . . . . .   | X           | 1            |
| 2   | MS20470AD3   | Rivet . . . . .  | X           | 6            |
| 3   | 01311-03-01  | Computer . . . . .   | X           | 1            |
| 4   | A701-3       | Tape . . . . .   | X           | A/R          |
| 5   | C391-6       | Cover (Ref)  |             |              |
| 6   | D323-12      | Harness Assembly – G500H . . . . .   | X           | 1            |
|   | D323-13      | Harness Assembly – Aspen . . . . .   | X           | 1            |
| 7   | D323-2       | Harness Assembly – Autopilot (Std; Incl items 13 thru 15) . . . .                              | X           | 1            |
|   | D323-14      | Harness Assembly – Autopilot (Long; Incl items 13 thru 15) . . .                               | X           | 1            |
| 8   | D354-1       | Servo Wire Harness Assembly (Roll) . . . . .   | X           | 1            |
| 9   | D354-2       | Servo Wire Harness Assembly (Pitch) . . . . .  | X           | 1            |
| 10  | MS27039C0806 | Screw . . . . .  | X           | 4            |
| 11  | D323-10      | Harness Assembly – EFIS G500H (Incl items 12, 14, 15, B268-3 Lacing Tape, and wires) . . . . . | X           | 1            |
|   | D323-11      | Harness Assembly – EFIS Aspen (Incl items 12, 14, 15, B268-3 Lacing Tape, and wires) . . . . . | X           | 1            |
| 12  | D269-12      | Receptacle (9-pin) . . . . .   | X           | 1            |
| 13  | D269-11      | Plug (9-socket) . . . . .  | X           | 1            |
| 14  | B158-6       | Heat Shrink . . . . .  | X           | A/R          |
| 15  | B266-4       | Sleeving . . . . .   | X           | A/R          |
| 16  | MS3367-5-0   | Ty-Rap . . . . .   | X           | A/R          |
| 17  | MS35489-11   | Grommet . . . . .  | X           | 1            |
| 18  | B527-08      | Washer . . . . .   | X           | 6            |
| 19  | B340-4       | Nut . . . . .  | X           | 2            |
| 20  | B526-6       | Screw . . . . .  | X           | 8            |
| 21  | C748-6       | Cover Assembly (Incl A748-3 Angle [2] and MS20470AD3 Rivet [4]) . . . . .                      | X           | 1            |
| 22  | MS21266-1N   | Grommet (install using item 23) . . . . .  | X           | A/R          |
| 23  | B270-8qt     | Adhesive . . . . .   | X           | A/R          |
| 24  | A729-23      | Static Tube (Ref)  |             |              |
| 25  | A729-23      | Pitot Tube (Ref)   |             |              |
| 26  | 50-4-N-0     | Elbow . . . . .  | X           | 2            |
| 27  | D354-1       | Servo Assembly – Roll (Ref)  |             |              |
| 28  | C293-4       | Keel Panel – RH (Ref)  |             |              |
| 29  | D555-4       | Shield Assembly . . . . .  | X           | 8            |
| 30  | C272-1       | Chin (Ref)   |             |              |

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