

CHAPTER 16**DIMENSIONS AND DESCRIPTIONS**

<i>Section</i>	<i>Title</i>	<i>Page</i>
16-10	Version Description	16.1
16-20	Datum	16.2
16-30	Method of Measurement	16.2
16-40	External Dimensions	16.3
16-50	Station Locations	16.7
16-60	Access and Inspection Panels	16.7
16-61	B526 Screws and B527-08 Washers	16.7
16-70	Antenna Locations	16.8

Intentionally Blank

CHAPTER 16

DIMENSIONS AND DESCRIPTIONS

16-10 Version Description

Type Certificate Data Sheet (TCDS) H111NM is available at FAA Dynamic Regulatory System website: <https://drs.faa.gov>.

WARNING

Refer to R44 Illustrated Parts Catalog (IPC) for specific part number differences between versions.

- R44, "Astro": 4-digit serial numbers 0002, 0004 thru 0760. Lycoming O-540-F1B5 carbureted engine derated to 205 horsepower maximum continuous power with 225 horsepower 5-minute takeoff rating. Required hydraulic cyclic & collective controls replace manual controls in year 2020. Gross weight 2400 pounds. 14-volt electrical system standard; 28-volt optional.
- R44 "Clipper": Fixed or pop-out float landing gear. Additional corrosion protection. Auxiliary horizontal stabilizer installed at base of lower vertical stabilizer. Drain valves installed in chin. Additional navigation lights atop mast fairing on fixed float versions. Marine radio package optional. Optional hydraulic cyclic & collective controls replace manual controls.
- R44, "Raven",
"Raven I",
"Clipper I": Hydraulic cyclic & collective controls standard. Adjustable pilot-side pedals. Serial number 0761 and subsequent. 28-volt electrical system became standard at S/N 2421.
- R44 II, "Raven II": 5-digit serial numbers 10001 and subsequent. Lycoming IO-540-AE1A5 fuel-injected engine derated to 205 horsepower maximum continuous power with 245 horsepower 5-minute takeoff rating. Gross weight 2500 pounds. 28-volt electrical system. Solid-state start booster for retard magneto. Second engine-oil cooler.
- R44 II, "Clipper II": Based on "Raven II." Fixed or pop-out float landing gear.
- Instrument Trainer: R44 or R44 II configuration with 10-hole instrument panel. VMC operations only.
- E.N.G. (Electronic News Gathering): R44 or R44 II configuration. 28-volt electrical system. Nose-mounted gyro-stabilized camera with tailcone-mounted battery. Standard microwave capability.

16-10 Version Description (continued)

Police: R44 or R44 II configuration. 28-volt electrical system. Includes searchlight, police radio package, and nose-mounted gyro-stabilized infrared-capable camera with tailcone-mounted battery. Optional microwave capability.

R44, "Cadet": 5-digit serial numbers 30001 thru 39999. Based on "Raven I". Lycoming O-540-F1B5 carbureted engine derated to 185 horsepower maximum continuous power with 210 horsepower 5-minute takeoff rating. Gross weight 2200 pounds. 28-volt electrical system standard. Two-place helicopter; aft seats removed. Fatigue life-limited part service lives extended to 2400/4800 hours (refer to § 3.300). Air conditioning optional.

16-20 Datum

The datum is located 100 inches forward of main rotor centerline.

16-30 Method of Measurement

Fuselage station, tailcone station, water line station, and butt line station values are measured in inches, rounded to the nearest hundredth.

16-40 External Dimensions

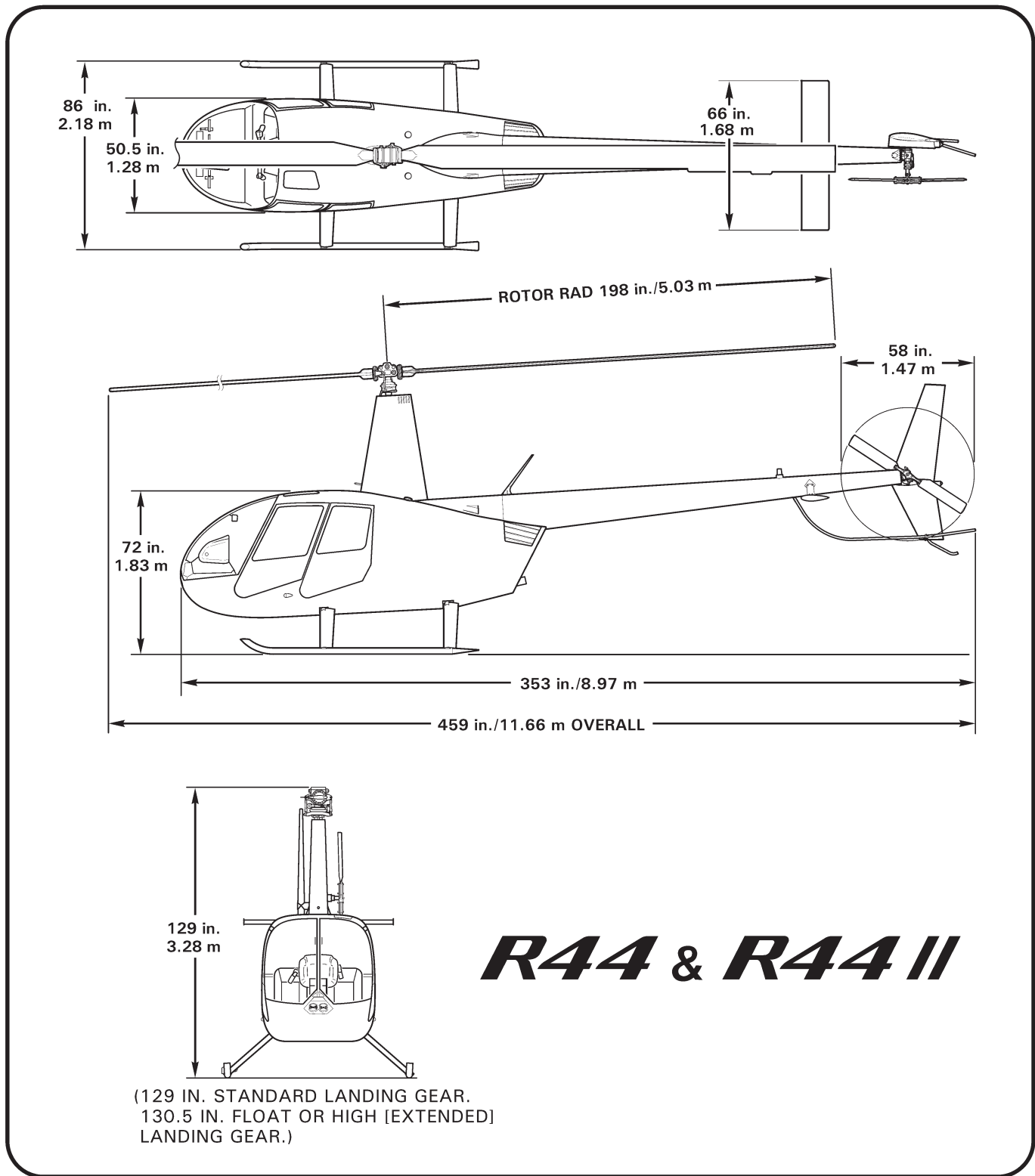


FIGURE 16-1 EXTERNAL DIMENSIONS
(F004-2 empennage installed)

16-40 External Dimensions (continued)

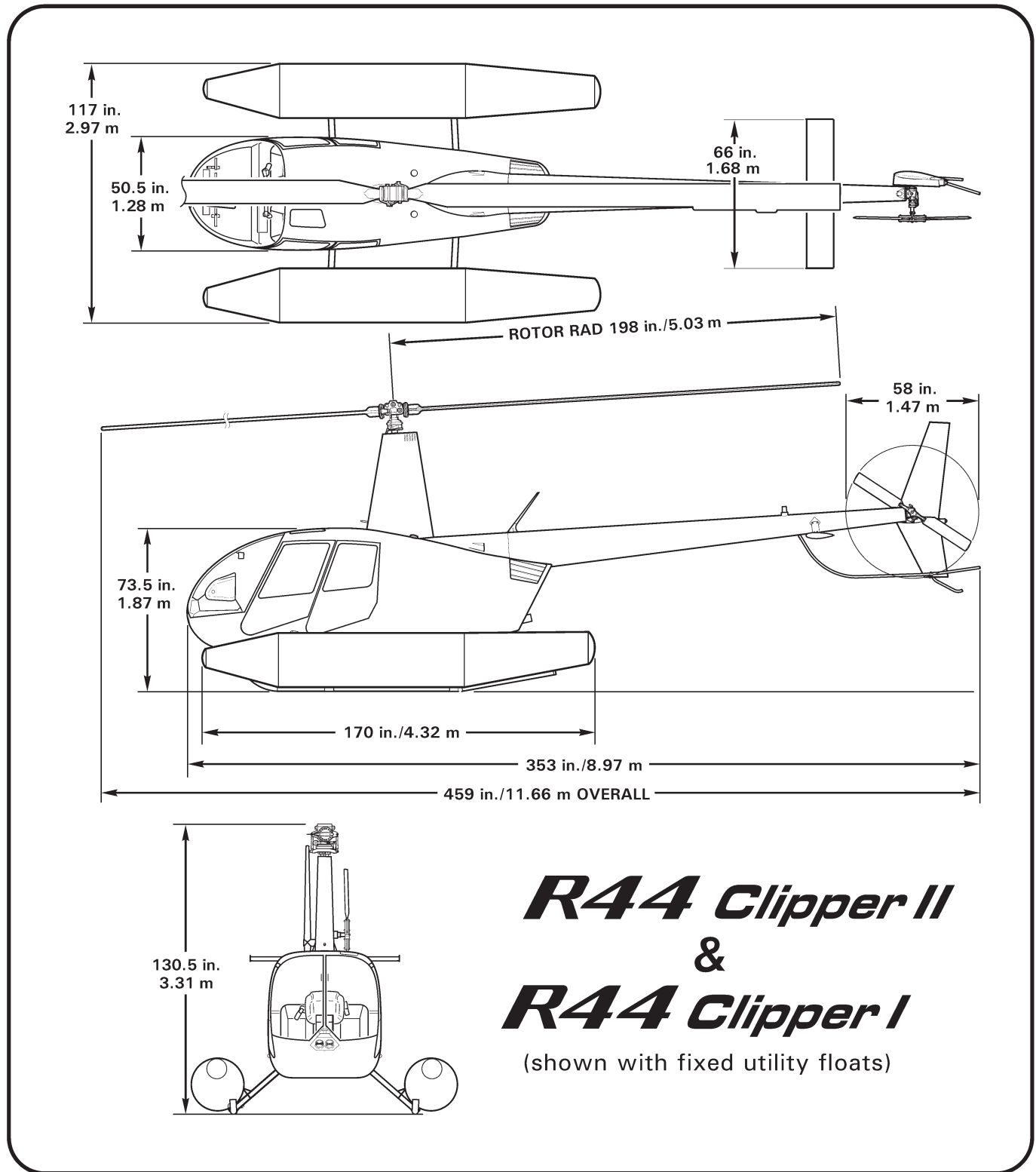


FIGURE 16-2 EXTERNAL DIMENSIONS
(F004-2 empennage installed)

16-40 External Dimensions (continued)

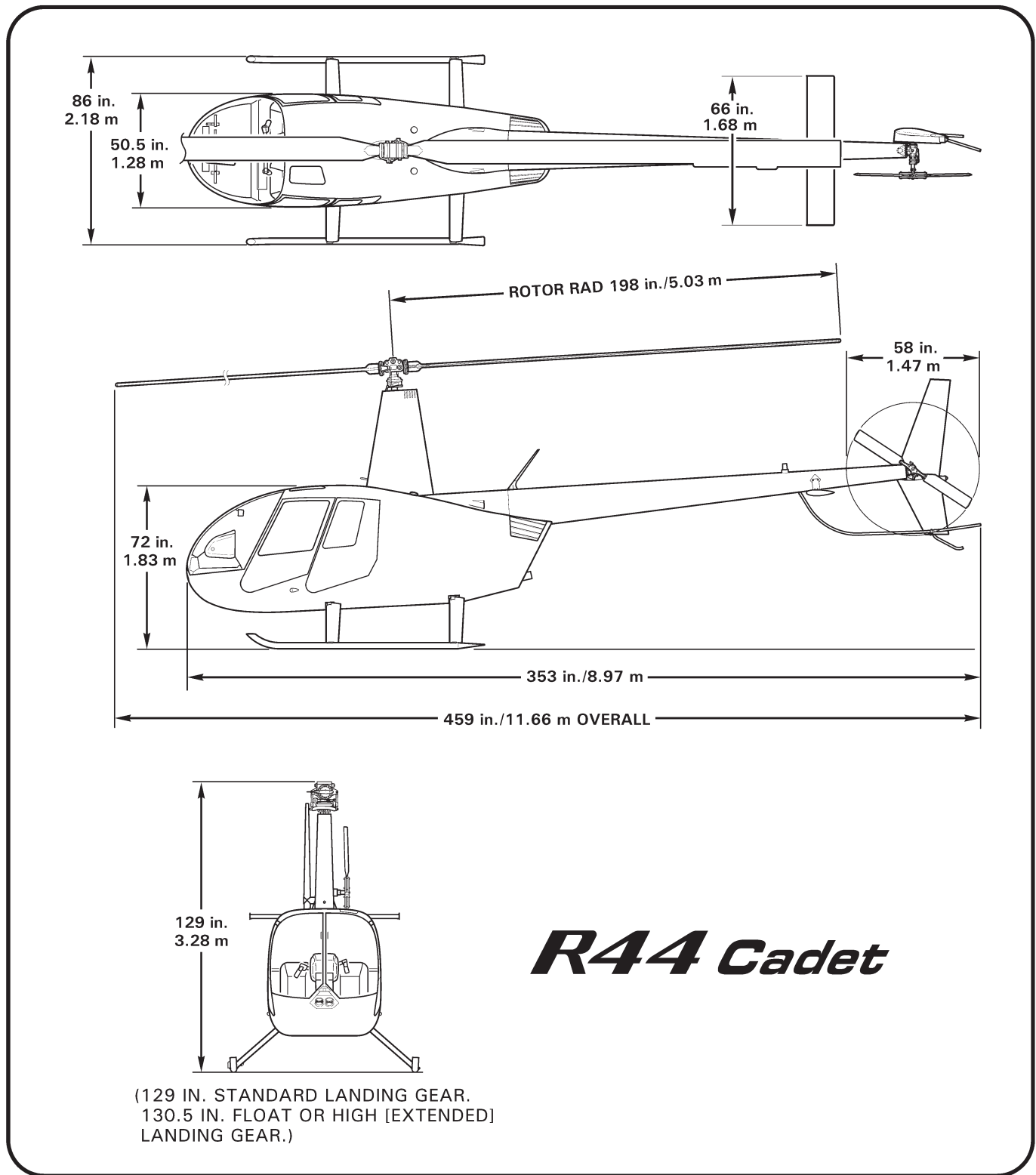


FIGURE 16-3 EXTERNAL DIMENSIONS
(F004-2 empennage installed)

16-40 External Dimensions (continued)

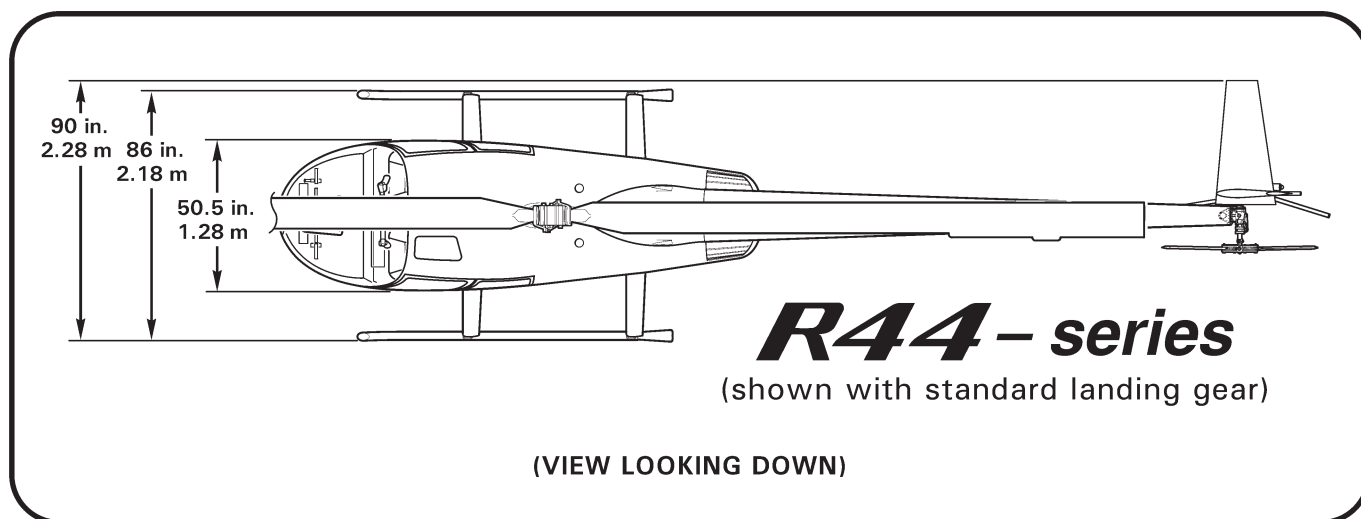


FIGURE 16-4 EXTERNAL DIMENSIONS
(C004-2 empennage installed)

16-50 Station Locations

Reserved.

16-60 Access and Inspection Panels

Refer to R44 Illustrated Parts Catalog Chapter 6 for access and inspection panel locations.

16-61 B526 Screws and B527-08 Washers

B526 (TORX Plus®) truss head screws may be used to secure cowlings and access panels. A B527-08 nylon washer may be used under a B526 screw head to further protect thin or painted surfaces.

Following B526 screws are interchangeable with MS27039C080_ screws used to secure cowlings and access panels:

<u>PART:</u>	<u>INTERCHANGEABLE WITH:</u>
MS27039C0806 screw	B526-6 screw
MS27039C0807 screw	B526-8 screw
MS27039C0808 screw	B526-8 screw

Following B526 screws are interchangeable with AN525-832R_ & AN526C832R_ screws:

<u>PART:</u>	<u>INTERCHANGEABLE WITH:</u>
AN525-832R6 or AN526C832R6 screw	B526-6 screw
AN525-832R7 or AN526C832R7 screw	B526-8 screw
AN525-832R8 or AN526C832R8 screw	B526-8 screw

B526-66 screws (used to secure F952-3 plates to F050-2 stabilizer) are not interchangeable with other screws.

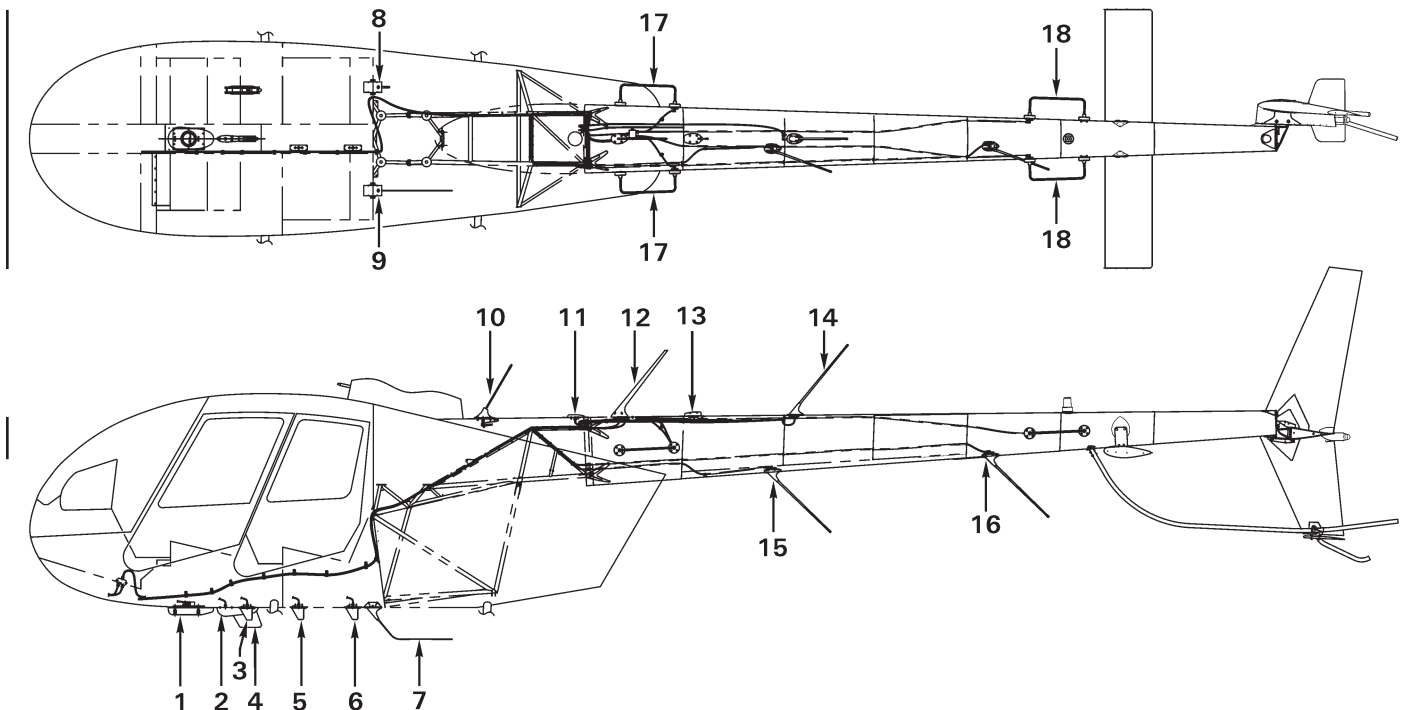
NOTE

B526 screws are compatible with T20 or 20IP drivers.

16-70 Antenna Locations

NO. ANTENNA	MHz	PART NO.	NO. ANTENNA	MHz	PART NO.
1 ADF	—	KA44B	12 Upper Fwd FM	800-870	CI 306
2 Marker Beacon	—	CI 102	Upper Fwd COM/GPS	—	CI 2580-200
3 Transponder/ADS-B/DME	—	CI 105-16, KA60	Upper Fwd GPS	—	GA 35
4 RH Belly UHF	400-960	CI 285	13 Upper Mid RSM/GPS . . .	—	910-00003-004 (Ant)
5 Transponder/ADS-B/DME	—	CI 105-16, KA60	Upper Mid RSM/GPS . . .	—	921-00003-001 (Kit)
6 Transponder/ADS-B/DME	—	CI 105-16, KA60	Upper Mid GPS	—	GA 35
7 LH/RH Belly (Ref)	—	See no.s 8 and 9	Upper Mid COM/GPS . . .	—	Provisions
8 RH Belly FM	138-174	CI 292-3 or DM C63-3/A*	14 Upper Aft COM	—	CI 121, CI 248-5
RH Belly FM	450-470	CI 177-20	Upper Aft FM	—	CI 177
RH Belly AM/FM (ENG) ..	—	CI 222	Upper Aft COM/GPS . . .	—	CI 2580-200
RH Belly FM	403-512	CI 273, CI 272-1, CI 271	Upper Aft FM	403-512	CI 273, CI 272-1, CI 271
9 LH Belly FM	138-174	CI 292-3 or DM C63-3/A*	Upper Aft COM/GPS . . .	—	Provisions
LH Belly FM	—	CI 177-20	15 Lower Fwd FM	—	CI 177
LH Belly FM	220-225	D721-1	Lower Fwd FM	403-512	CI 273, CI 272-1, CI 271
LH Belly FM	403-512	CI 273, CI 272-1, CI 271	Lower Fwd FM	800-870	CI 306
LH Belly COM	118-136	CI 122	16 Lower Aft FM	—	CI 177
10 ELT	—	AV-300	Lower Aft VHF	118-136	CI 122
11 Cowling GPS	—	GA 35	Lower Aft FM	403-512	CI 273, CI 272-1, CI 271
Cowling XM	—	GA 55	Lower Aft FM	800-870	CI 306
12 Upper Fwd COM	—	CI 121, CI 248-5	17 NAV	108-118	D20543 (VOR &
Upper Fwd FM	—	CI 177	& 18	& 329-335	LOCALIZER)
Upper Fwd FM	403-512	CI 273, CI 272-1, CI 271	NAV	108-118	D20543 (VOR &
				& 329-335	LOCALIZER W/DIPLEXER)

* For FT900R FM Receiver



C850 REV AP

FIGURE 16-5 ANTENNA LOCATIONS