

# **N955DK**

RV-8A

David B. Kumhyr

**Operating Speeds**

<b>VREF</b>	<b>Flight Regime</b>	<b>Kts</b>	<b>Mph</b>
V <sub>so</sub> .....	Stall, dirty (gross) .....		
	Stall, dirty (solo) .....	50	58
V <sub>s</sub> .....	Stall, clean (gross) .....		
	Stall, clean (solo) .....	55	63
V <sub>r</sub> .....	Rotation .....		
V <sub>1</sub> .....	Take-of decision .....		
V <sub>2</sub> .....	Take-off safety .....		
V <sub>ref</sub> .....	1.3 V <sub>so</sub> .....	65	76
V <sub>x</sub> .....	Best angle .....	69	80
V <sub>bg</sub> .....	Best glide .....	74	85
V <sub>z</sub> .....	Normal climb .....	87	100
V <sub>y</sub> .....	Best rate .....	91	105
V <sub>fe</sub> .....	Flaps extend .....	87	100
V <sub>a</sub> .....	Maneuvering .....	123	142
V <sub>no</sub> .....	Max structural cruise .....	168	193
V <sub>ne</sub> .....	Never exceed .....	200	230

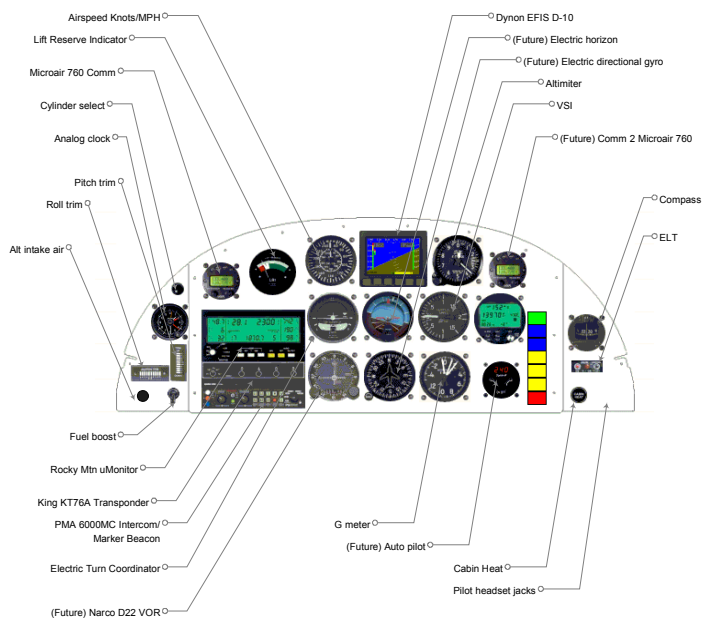
**Aerobatics Entry Speeds – Max. Wt. 1600lbs.****Limits +6 -3 Gs**

<b>Flight Regime</b>	<b>Kts</b>	<b>Mph</b>
Loop / Horizontal 8	122-165	140-190
Immelman	130-165	150-190
Aileron rolls / barrel rolls	104-156	120-180
Snap rolls	70-96	80-110
Vertical rolls	156-165	180-190
Split S	87-96	100-110

## Flight operations

Cruise @ 75% power	175 Kts	135 hp	Approx. fuel 10 Gal./Hr
Cruise @ 65% power		117 hp	Approx. fuel 8.8 Gal./Hr
Cruise @ 55% power	155 Kts	99 hp	Approx. fuel 7.4 Gal./Hr
Approach flaps up	72 Kts		
Approach flaps down	65 Kts		

## Panel Layout

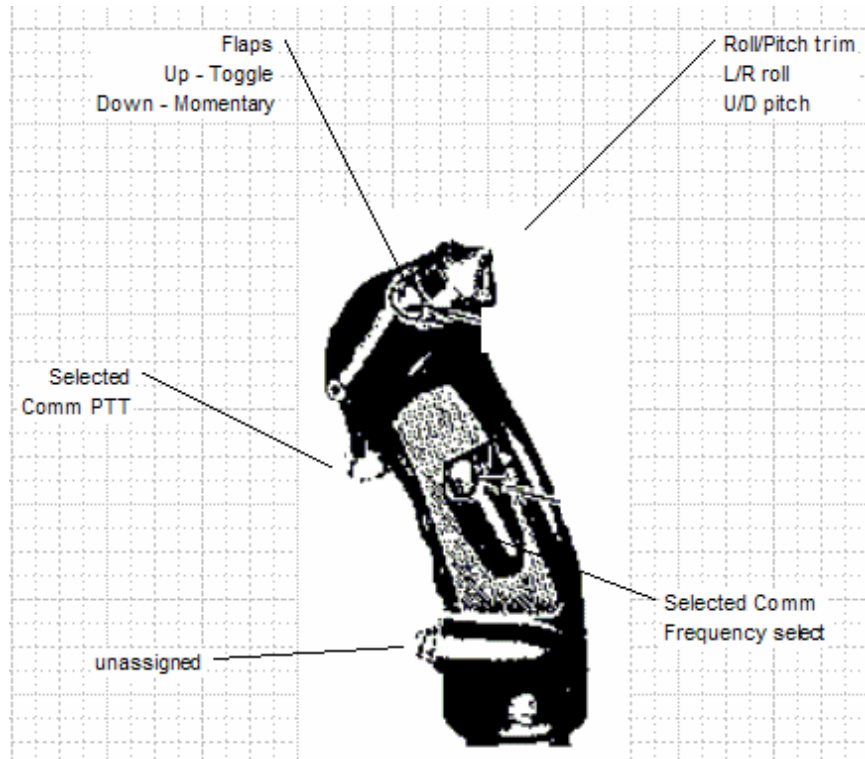


N955DK

Version 05Nov04

RV-8A

## ***Infinity Grip Controls – Same front and rear***



## **Controls for Rear Position**

***Stick (duplicates all functions of pilot stick)***

***Throttle***

***Rudder pedals***

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## **Preflight**

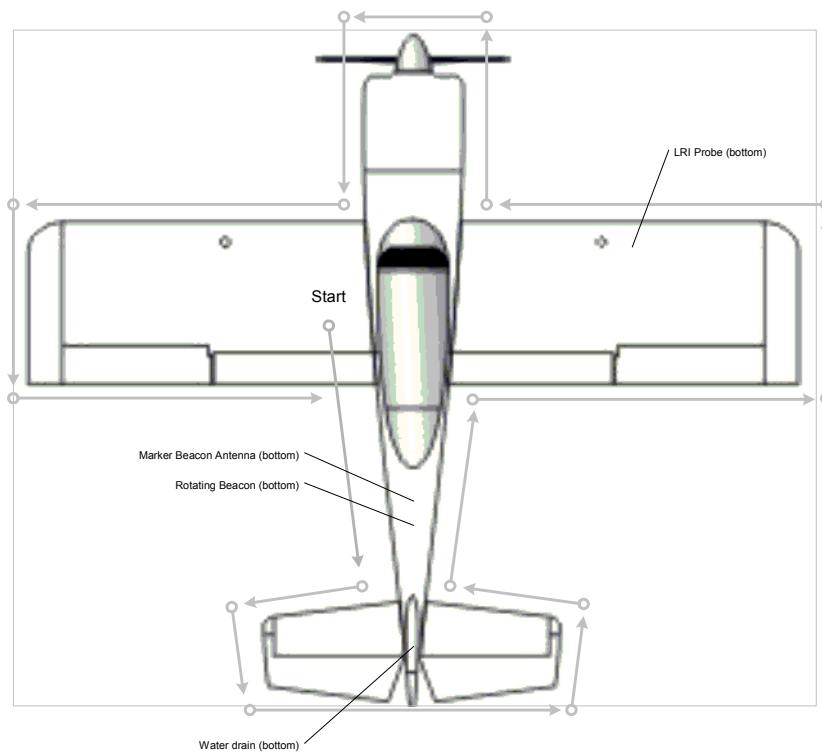
### **Documents**

Aircraft Documents  
(ARROW)

1. Airworthiness certificate
2. Registration
3. Radio station license (International flights)
4. Operating Limitations
5. Weight and balance

### **Cockpit**

- |     |                     |           |
|-----|---------------------|-----------|
| 1.  | Control lock .....  | REMOVE    |
| 2.  | Ignition .....      | OFF       |
| 3.  | Master .....        | ON        |
| 4.  | Flaps .....         | FULL DOWN |
| 5.  | Fuel quantity ..... | CHECK     |
| 6.  | Landing light ..... | CHECK     |
| 7.  | Taxi light .....    | CHECK     |
| 8.  | Nav lights .....    | CHECK     |
| 9.  | Pitot heat .....    | CHECK     |
| 10. | Beacon .....        | CHECK     |
| 10. | Strobes .....       | CHECK     |
| 11. | Lights .....        | OFF       |
| 13. | Master .....        | OFF       |



***Left fuselage***

- |    |                             |       |
|----|-----------------------------|-------|
| 1. | Brakes .....                | CHECK |
| 2. | Main wheel .....            | CHECK |
| 3. | Marker beacon antenna ..... | CHECK |
| 4. | Beacon .....                | CHECK |

### ***Empennage***

- |     |                            |       |
|-----|----------------------------|-------|
| 1.  | Left stabilizer .....      | CHECK |
| 2.  | Left elevator .....        | CHECK |
| 3.  | Trim tab .....             | CHECK |
| 4.  | Water drain .....          | CHECK |
| 5.  | Rudder cables .....        | CHECK |
| 6.  | Rudder .....               | CHECK |
| 7.  | VOR antenna .....          | CHECK |
| 8.  | Right elevator cable ..... | CHECK |
| 9.  | Right elevator .....       | CHECK |
| 10. | Right stabilizer .....     | CHECK |

### ***Right fuselage***

- |    |                  |       |
|----|------------------|-------|
| 1. | Brakes .....     | CHECK |
| 2. | Main wheel ..... | CHECK |

### ***Right wing***

- |    |                    |                |
|----|--------------------|----------------|
| 1. | Flap .....         | CHECK          |
| 2. | Aileron .....      | CHECK          |
| 3. | Tip .....          | CHECK          |
| 4. | Leading edge ..... | CHECK          |
| 5. | Fuel level .....   | REQUIRED LEVEL |
| 6. | Fuel cap .....     | SECURE         |
| 7. | Fuel sump .....    | DRAIN          |

## **Engine**

- |     |                             |          |
|-----|-----------------------------|----------|
| 1.  | Right fuel vent cover ..... | REMOVE   |
| 2.  | Right fuel vent .....       | CHECK    |
| 3.  | Battery space .....         | CHECK    |
| 4.  | Baggage door .....          | SECURE   |
| 5.  | Oil level .....             | 8 QUARTS |
| 6.  | Oil overflow .....          | EMPTY    |
| 7.  | Nose gear .....             | CHECK    |
| 8.  | Cowl plugs .....            | REMOVE   |
| 9.  | Propeller .....             | CHECK    |
| 10. | Cooling intakes .....       | CLEAR    |
| 11. | Generator belt .....        | CHECK    |
| 12. | Air filter .....            | CLEAR    |
| 13. | Gas collator .....          | DRAIN    |
| 14. | Left fuel vent cover .....  | REMOVE   |
| 15. | Left fuel vent .....        | CHECK    |

## **Left wing**

- |     |                    |                |
|-----|--------------------|----------------|
| 1.  | Fuel level .....   | REQUIRED LEVEL |
| 2.  | Fuel cap .....     | SECURE         |
| 3.  | Fuel sump .....    | DRAIN          |
| 3.  | Pitot cover .....  | REMOVE         |
| 4.  | Pitot tube .....   | CLEAR          |
| 5.  | Static air .....   | CHECK          |
| 6.  | Pitot heat .....   | CHECK          |
| 7.  | Leading edge ..... | CHECK          |
| 8.  | Tip .....          | CHECK          |
| 9.  | Aileron .....      | CHECK          |
| 10. | Flap .....         | CHECK          |



## Cockpit Check

1.	Charts, approach plates, computer, log	CHECK
2.	Weight & balance .....	CORRECT
3.	T/O reject distance .....	CALCULATED
4.	Parachutes .....	ADJUST & SECURE
5.	Seat belts .....	SECURE
6.	Canopy stop (for solo) .....	CHECK
7.	Rudder .....	FREE
8.	Front stick .....	FREE & FULL MOVE
9.	Front stick pin & connector .....	SECURE
10.	Rear stick (if installed) .....	FREE
11.	Rear stick pin & connector .....	SECURE
12.	Alternate air .....	CLOSED
13.	Throttle .....	FREE & CLOSED
14.	Mixture .....	FREE & FULL LEAN
15.	Friction lock .....	FREE
16.	Oil cooler door .....	OPEN
17.	Fuel selector .....	OFF
18.	Switches .....	OFF
19.	Clocks .....	SET
20.	uMonitor audio silence .....	IN
21.	uMonitor .....	ON
22.	uMonitor fuel quantity .....	ADJUST
20.	uMonitor voltage .....	CHECK
23.	Avionics .....	OFF
24.	ELT .....	ARMED
25.	Breakers .....	IN
26.	Brakes .....	ON
27.	Master battery .....	ON
28.	Flaps .....	UP
29.	Flap annunciator .....	LIT
30.	Trim annunciator .....	LIT
31.	Oil and low-volt annunciators .....	LIT

### **Pre-Start**

1. Master ..... ON
2. Beacon ..... ON

### **Engine Start**

1. Mixture ..... RICH
2. Throttle ..... ¼ INCH OPEN
3. Fuel boost ..... ON TO PRESSURIZE
4. Fuel boost ..... OFF
5. Clear ..... CLEAR PROP
6. Ignition ..... BOTH
7. Starter ..... ENGAGE AND START
8. Throttle ..... IDLE 900 RPM
9. Alternator ..... ON

### **Engine Hot Start**

1. Mixture ..... IDLE CUT-OFF
2. Fuel boost ..... OFF
3. Throttle ..... FULL
4. Mixture ..... IDLE CUT-OFF
5. Clear ..... CLEAR PROP
6. Ignition ..... BOTH
7. Starter ..... ENGAGE AND START
8. Throttle ..... RETARD
9. Mixture ..... ADVANCE TO RICH
10. Throttle ..... IDLE 900 RPM
11. Alternator ..... ON

## **Post Start**

- |     |                       |             |
|-----|-----------------------|-------------|
| 1.  | Fuel pressure .....   | 30 PSI      |
| 2.  | Oil pressure .....    | MIN 25 PSI  |
| 3.  | Oil temperature ..... | RISING      |
| 18. | Transponder .....     | STBY & 1200 |
| 19. | Avionics .....        | ON          |
| 20. | Com 1 & 2 .....       | SET FREQ    |
| 21. | Com 1 .....           | CHECK 122.5 |
| 22. | Altimeter .....       | SET BARO    |
| 23. | uMonitor .....        | CHECK TIME  |
| 24. | uEncoder .....        | SET         |
| 25. | uEncoder .....        | CHECK DALT  |
| 26. | Dynon .....           | SET BARO    |
| 27. | Dynon .....           | SET BRIGHT  |
| 28. | Dynon .....           | CHECK TIME  |

## **Taxi**

- |    |                                 |              |
|----|---------------------------------|--------------|
| 1. | ATIS / Clearance .....          | CHECK/OBTAIN |
| 2. | Radio .....                     | ANNOUNCE     |
| 3. | uMonitor audio silence .....    | OUT          |
| 4. | Taxi, Landing, Nav Lights ..... | ON           |
| 5. | Flight instruments .....        | CHECK TAXI   |

## **Runup**

1.	Canopy .....	CLOSE / LOCK
2.	Flight controls .....	CHECK
3.	Flight instruments .....	CHECK
4.	Altimeter .....	FIELD ELEV
5.	Density altitude .....	CHECK
5.	Fuel selector .....	FULL TANK
6.	Roll trim .....	TAKE-OFF
7.	Pitch trim .....	NEUTRAL
8.	Mixture .....	RICH
9.	Throttle .....	1800 RPM
10.	Magnetos / ignition .....	L/R CHECK
11.	Ammeter .....	CHECK
12.	Oil temperature .....	CHECK
13.	Oil pressure .....	CHECK
14.	Fuel pressure .....	CHECK
15.	Flaps .....	SET
16.	Transponder .....	ALT
17.	Strobes .....	ON

## **Normal Take-Off**

1.	Compass / DG .....	RUNWAY HEADING
2.	Fuel boost .....	ON
3.	Throttle .....	MAX POWER
4.	V1 .....	CALLOUT
5.	Rotate .....	Vr 65 KTS
6.	Runway T/O distance .....	REJECT & BRAKE
7.	Climb .....	Vx, Vy, or Vz

### **Short Field Take-Off**

- |     |                    |                |
|-----|--------------------|----------------|
| 1.  | Compass / DG ..... | RUNWAY HEADING |
| 2.  | Flaps .....        | 10 DEGREES     |
| 3.  | Brakes .....       | ON             |
| 4.  | Fuel boost .....   | ON             |
| 5.  | Throttle .....     | MAX POWER      |
| 6.  | Brakes .....       | RELEASE        |
| 7.  | Throttle .....     | MAX POWER      |
| 8.  | Rotate .....       | STICK BACK     |
| 9.  | Climb .....        | Vx 69 KTS      |
| 10. | Flaps .....        | RETRACT        |

### **Departure / Climb**

- |    |                  |                 |
|----|------------------|-----------------|
| 1. | Level .....      | PUSH OVER       |
| 2. | Trim .....       | SET LEVEL FLT   |
| 3. | Power .....      | CRUISE 2250 RPM |
| 4. | Mixture .....    | ADJUST          |
| 5. | Fuel boost ..... | OFF             |
| 6. | Fuel timer ..... | SET 20 MINUTES  |

### **Cruise**

Switch tanks at 20 minute intervals

- |    |                              |             |
|----|------------------------------|-------------|
| 1. | Barometric pressure .....    | RESET 50 NM |
| 2. | Fuel status match plan ..... | CHECK       |
| 3. |                              |             |

### **Aerobatics**

Switch tanks at 20 minute intervals, min altitude 3000 ft. AGL

- |    |                      |            |
|----|----------------------|------------|
| 1. | Weight .....         | ACCEPTABLE |
| 2. | Loose articles ..... | SECURE     |
| 3. | Seat belts .....     | SECURE     |
| 4. | Parachutes .....     | SECURE     |

### ***Descent***

1. Fuel boost ..... ON
2. Mixture ..... RICH
3. Throttle ..... RESET
4. Fuel ..... FULLEST

### ***Approach***

1. ATIS / Clearance ..... OBTAIN
2. Seat belts ..... SECURE
3. Taxi / landing lights ..... ON

### ***Normal Landing***

1. Radio call ..... ANNOUNCE
2. Pattern entry ..... 80 KTS
3. Throttle ..... 1400 RPM
4. Decelerate ..... 70 KTS
5. Flaps downwind ..... 10° - 3 SECONDS
6. Flaps base ..... 20° - 3 SECONDS
7. Flaps final ..... FULL - 3 SECONDS
8. Throttle ..... IDLE

### ***Teardrop Entry Landing***

1. Radio call ..... ANNOUNCE
2. Pattern entry ..... 80 KTS
3. Abeam midfield ..... 80 KTS 60° BANK
4. Flaps final ..... FULL - 9 SECONDS
5. Throttle ..... IDLE

### ***Balked Landing***

1. Throttle ..... FULL
2. Flaps ..... RETRACT HALF
3. Climb ..... Vx 69 KTS
4. Positive rate of climb ..... CHECK
5. Flaps ..... RETRACT

### ***After Landing***

1. Flaps ..... RETRACT
2. Fuel boost ..... OFF
3. Strobes ..... OFF
4. Transponder ..... SBY
5. uMonitor audio silence ..... IN
6. Radio ..... ANNOUNCE

### ***Shutdown***

1. Lights ..... OFF
2. uMonitor record flight time ..... RESET TO 0
3. uMonitor fuel quantity ..... ADJUST
4. Avionics ..... OFF
5. Throttle ..... CLOSED
6. Mixture ..... LEAN
7. Fuel selector ..... OFF
8. Ignition ..... OFF
9. Ignition breaker ..... PULL

# **Emergency Procedures**

## **Rejected Take-Off**

- |    |                  |         |
|----|------------------|---------|
| 1. | Throttle .....   | CLOSED  |
| 2. | Brakes .....     | MAXIMUM |
| 3. | Fuel boost ..... | OFF     |

## **Engine Failure at Take-Off**

- |    |                             |             |
|----|-----------------------------|-------------|
| 1. | Airspeed (best glide) ..... | Vbg 74 KTS  |
| 2. | Throttle .....              | CLOSE       |
| 3. | Mixture .....               | LEAN        |
| 4. | Fuel boost .....            | OFF         |
| 5. | Fuel selector .....         | OFF         |
| 6. | Ignition .....              | OFF         |
| 7. | Flaps .....                 | AS REQUIRED |
| 8. | Master .....                | OFF         |
| 9. | Canopy .....                | UNLATCH     |

## **Engine Failure in Flight**

- |    |                                      |            |
|----|--------------------------------------|------------|
| 1. | Airspeed (best glide) .....          | Vbg 74 KTS |
| 2. | Select landing site or bailout ..... | DECISION   |
| 3. | Fuel boost .....                     | ON         |
| 4. | Mixture .....                        | RICH       |
| 5. | Fuel selector .....                  | FULL       |
| 6. | Ignition .....                       | BOTH       |
| 7. | Engine .....                         | RESTART    |
| 8. | ELT .....                            | ACTIVATE   |
| 9. | Transponder .....                    | 7700       |



## **Engine Fire During Startup**

- |    |               |                |
|----|---------------|----------------|
| 1. | Starter       | CONTINUE CRANK |
| 2. | Fuel Boost    | OFF            |
| 3. | Mixture       | IDLE CUT OFF   |
| 4. | Throttle      | CLOSED         |
| 5. | Fuel selector | OFF            |

## **Bail out**

- |     |                             |               |
|-----|-----------------------------|---------------|
| 1.  | Altitude                    | MIN SAFE      |
| 2.  | Airspeed (best glide) ..... | Vbg 74 KTS    |
| 3.  | Passenger                   | STATIC SECURE |
| 4.  | Throttle                    | CLOSED        |
| 5.  | Mixture                     | IDLE CUT OFF  |
| 6.  | Fuel boost                  | OFF           |
| 7.  | Fuel selector               | OFF           |
| 8.  | Ignition                    | OFF           |
| 9.  | Master                      | OFF           |
| 10. | Passenger seat belt         | RELEASE       |
| 10. | Canopy                      | JETTISON      |
| 11. | Attitude                    | ROLL          |

...

**Emergency Frequency**

**122.5**

**Transponder Codes**

7500 Hijack

7600 Lost communications

7700 Emergency

**VFR Cruise Altitudes**

East (0°-179° magnetic) Odd + 500 feet

West (180°-359° magnetic) Even + 500 feet

**IFR Cruise Altitudes**

East (0°-179° magnetic) Odd

West (180°-359° magnetic) Even

## **Specifications**

Empty weight / gross weight		1080/1800 lbs.
Payload full fuel		468 lbs.
Useful load		720 lbs.
Engine	Lycoming	IO-360-A1D6
RPM max.		2700
CHT max.		475°F
Oil capacity		8 qts. 50 wt.
Oil pressure range		55-85 psi
Oil temperature max.		245°F
Fuel pressure range		14-44 psi
Induction	Bendix Fuel Injection	RSA-5
Propeller	Sensenich	72FM85-S1
Tires		5.00x5/11x4.00x5
Airfoil		NACA 2300 Series
Wingspan		23 feet
Wing area		111.2 feet <sup>2</sup>
Wing loading		16.2 lbs feet <sup>2</sup>
Power loading		9 lbs / hp
Length		20 feet 11 inches
Height		87.5 inches
Wheelbase		76 x 61 inches
Acceleration limits		+3.8g @ 1800 lbs + 6g @ 1550 lbs

## **Fuel Quantity Data (U.S. Gallons)**

Tanks	Usable Fuel	Unusable fuel	Total fuel
Left wing	18.5	.5	19
Right wing	18.5	.5	19

## **Performance**

Ground Performance - Solo Weight	
Takeoff Distance	275 ft
Landing Distance	350 ft
Ground Performance - Gross Weight	
Takeoff Distance	575 ft
Landing Distance	500 ft
Climb/Ceiling - Solo Weight	
Rate of Climb	2,200 fpm
Ceiling	22,000 ft
Climb/Ceiling - Gross Weight	
Rate of Climb	1,600 fpm
Ceiling	19,500 ft
Range	
Range [75% @ 8000 ft]	780 sm
Range [55% @ 8000 ft]	945 sm

## POWER

Formula: **MAP + RPM/100 = X**

**X = 48 = 75%**

**X = 45 = 65%**

**X = 42 = 55%**

MAP	RPM	POWER
<b>24"</b>	2300	<b>72%</b>
<b>23"</b>	2300	<b>69%</b>
<b>22"</b>	2300	<b>65%</b>
<b>21"</b>	2300	<b>62%</b>
<b>20"</b>	2300	<b>59%</b>
<b>19"</b>	2300	<b>55%</b>
<b>18"</b>	2300	<b>53%</b>
<b>17"</b>	2300	

MAP	RPM	POWER
<b>24"</b>	2400	<b>75%</b>
<b>23"</b>	2400	<b>72%</b>
<b>22"</b>	2400	<b>69%</b>
<b>21"</b>	2400	<b>65%</b>
<b>20"</b>	2400	<b>62%</b>
<b>19"</b>	2400	<b>59%</b>
<b>18"</b>	2400	<b>55%</b>
<b>17"</b>	2400	<b>53%</b>

MAP	RPM	POWER
<b>24"</b>	2500	<b>79%</b>
<b>23"</b>	2500	<b>75%</b>
<b>22"</b>	2500	<b>72%</b>
<b>21"</b>	2500	<b>69%</b>
<b>20"</b>	2500	<b>65%</b>
<b>19"</b>	2500	<b>62%</b>
<b>18"</b>	2500	<b>59%</b>
<b>17"</b>	2500	<b>55%</b>

## **Weight & Balance Data**

Empty weight	1080 lbs.
Gross weight	1800 lbs.
Aerobatic Gross weight	1600 lbs.
Datum	70" fwd leading edge
Fwd CG	78.70" aft of datum
Rear CG	86.82" aft of datum
Aerobatic rear CG	85.30" aft of datum
Total normal CG range	8.12"
Total aerobatic CG range	6.6"
Fwd baggage arm	85.51" aft of datum
Fuel arm	80.00" aft of datum
Pilot arm	91.78" aft of datum
Passenger arm	119.12" aft of datum
Aft baggage floor arm	138.00" aft of datum
Aft baggage floor	152.91" aft of datum

## **Weight & Balance Examples**

Note: 2-gallon plastic container of water used for ballast. 8.33 lbs per gallon, 16.66 lbs. total.

## **Weight & Balance Loading Examples**

### **Solo Pilot Full Fuel**

Component	Weight	Arm	Moment
Empty aircraft	1080	76.22	82313.6
Fwd. baggage (50 lbs max)	0	58.51	0
Fuel (42 US gallons max)	242	80.00	19360
Pilot	180	91.78	26520.4
Passenger	0	119.12	0
Aft baggage floor (75 lb max)	0	138.0	0
Aft baggage shelf	0	152.91	0
Total	1502		118198
CG (out of CG fwd by .01")	78.69		

**Solo Pilot 10 Gallons (Min) Fuel**

Component	Weight	Arm	Moment
Empty aircraft	1080	76.22	82313.6
Fwd. baggage (50 lbs max)	0	58.51	0
Fuel (42 US gallons max)	60	80.00	4800
Pilot	180	91.78	26520.4
Passenger	0	119.12	0
Aft baggage floor (75 lb max)	0	138.0	0
Aft baggage shelf	0	152.91	0
Total	1320		103638
CG (out of CG fwd by .19")	78.51		

**Solo Pilot Full Fuel & 2 Gallons Water Ballast**

Component	Weight	Arm	Moment
Empty aircraft	1080	76.22	82313.6
Fwd. baggage (50 lbs max)	0	58.51	0
Fuel (42 US gallons max)	242	80.00	19360
Pilot	180	91.78	26520.4
Passenger	0	119.12	0
Aft baggage floor (75 lb max)	0	138.0	0
Aft baggage shelf	0	152.91	0
Total	1502		118198
CG (out of CG fwd by .01")	78.69		

**Solo Pilot 10 Gallons (Min) Fuel & 2 Gallons Water Ballast**

Component	Weight	Arm	Moment
Empty aircraft	1080	76.22	82313.6
Fwd. baggage (50 lbs max)	0	58.51	0
Fuel (42 US gallons max)	60	80.00	4800
Pilot	180	91.78	26520.4
Passenger	0	119.12	0
Aft baggage floor (75 lb max)	16.66	138.0	2299.08
Aft baggage shelf	0	152.91	0
Total	1518.66		120497.1
CG (within CG by .63)	79.33		

**Pilot & 140 Lb. Passenger, Full Fuel, Max Baggage**

Component	Weight	Arm	Moment
Empty aircraft	1080	76.22	82313.6
Fwd. baggage (50 lbs max)	50	58.51	2925.5
Fuel (42 US gallons max)	242	80.00	19360
Pilot	180	91.78	26520.4
Passenger	140	119.12	16676.8
Aft baggage floor (75 lb max)	50	138.0	6900
Aft baggage shelf	25	152.91	3822.75
Total	1767		148523.1
CG (within CG)	84.06		

**Pilot & 140 Lb. Passenger, Min Fuel, Max Baggage**

Component	Weight	Arm	Moment
Empty aircraft	1080	76.22	82313.6
Fwd. baggage (50 lbs max)	50	58.51	2925.5
Fuel (42 US gallons max)	60	80.00	4800
Pilot	180	91.78	26520.4
Passenger	140	119.12	16676.8
Aft baggage floor (75 lb max)	50	138.0	6900
Aft baggage shelf	25	152.91	3822.75
Total	1585		133963.1
CG (within CG)	84.51		

**Pilot & Passenger, Max Fuel, No Baggage**

Component	Weight	Arm	Moment
Empty aircraft	1080	76.22	82313.6
Fwd. baggage (50 lbs max)	0	58.51	0
Fuel (42 US gallons max)	242	80.00	19360
Pilot	180	91.78	26520.4
Passenger	180	119.12	21441.6
Aft baggage floor (75 lb max)	0	138.0	0
Aft baggage shelf	0	152.91	0
Total (over aerobatic wt)	1682		139639.6
CG (within CG)	83.12		



### **Pilot & Passenger, Min Fuel, No Baggage**

Note: Aerobatic weight is achieved at ½ fuel load with pilot and passenger.

Component	Weight	Arm	Moment
Empty aircraft	1080	76.22	82313.6
Fwd. baggage (50 lbs max)	0	58.51	0
Fuel (42 US gallons max)	60	80.00	4800
Pilot	180	91.78	26520.4
Passenger	180	119.12	21441.6
Aft baggage floor (75 lb max)	0	138.0	0
Aft baggage shelf	0	152.91	0
Total (within aerobatic wt)	1500		125079.6
CG (within CG)	83.39		

### **Weight & Balance Form**

Component	Weight	Arm	Moment
Empty aircraft	1080	76.22	82313.6
Fwd. baggage (50 lbs max)		58.51	
Fuel (42 US gallons max)		80.00	
Pilot		91.78	
Passenger		119.12	
Aft baggage floor (75 lb max)		138.0	
Aft baggage shelf		152.91	
Total (sum column)			
CG (CG=moment/weight)			