

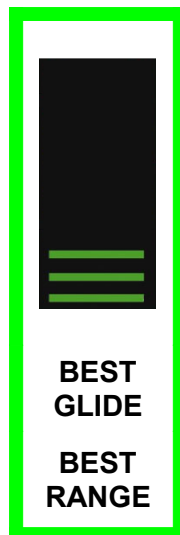
AIRSPEEDS

KIAS EXCEPT AS NOTED

BEST GLIDE 90



Stall – Full Flaps (Bottom White).....	52
Stall – No Flaps (Bottom Green).....	60
Best Glide.....	90
Rotate.....	55
Best Angle.....	80
Best Rate.....	95
Climb.....	105
Cruise-Climb.....	115
Maneuvering Speed (Blue Line).....	125
Max Cruise (Top Green).....	155
Never Exceed (Red Line).....	200 KTAS
Pattern Speed	90
Flap Extension (Top White).....	FULL 87
.....	HALF 96
.....	APPROACH 120
Landing Approach w/ flaps.....	70
No Flaps.....	80
Go Around	80
Max Crosswind.....	25



**BEST
GLIDE**

**BEST
RANGE**



**IMMINENT
STALL**



STALL

PREFLIGHT

Conduct a routine preflight inspection. Consider:

RECENT MAINTENANCE
UPCOMING MAINTENANCE
OPEN DISCREPANCIES

LEFT LANDING GEAR

Tire Inflation.....45 PSI COLD
Fairing.....SECURE
Fuel Sump.....DRAIN
Fuel Vent Line.....UNOBSTRUCTED

LEFT WING LEADING EDGE

Fuel Tank.....CHECK QUANTITY
Pitot Tube.....CLEAN
Tie Down.....REMOVE

LEFT WING TRAILING EDGE

Aileron.....BUMP STOPS
Flap.....SECURE

LEFT FUSELAGE

Step.....SECURE
Baggage.....SECURE
Baggage Door.....LOCKED

EMPENNAGE

Elevator.....BUMP STOPS
Trim Tabs.....SECURE
Rudder.....BUMP STOPS
Rudder Trim.....SECURE
Tail Tie Down.....SECURE

RIGHT FUSELAGE

Antennas.....SECURE
Step.....SECURE

RIGHT WING TRAILING EDGE

Aileron.....BUMP STOPS
Flap.....SECURE

RIGHT WING LEADING EDGE

Tie Down.....REMOVE
Fuel Tank.....CHECK QUANTITY

RIGHT LANDING GEAR

Tire Inflation.....45 PSI
Fairing.....SECURE
Fuel Sump.....DRAIN
Fuel Vent Line.....UNOBSTRUCTED

NOSE SECTION

Induction Air Intake.....CLEAR
Propeller.....CHECK
Tire Inflation.....55 PSI
Wheel Fairing.....SECURE
Tow Bar.....STOWED
Engine Oil.....CHECK
EPU.....SEE **USING AN EPU**

FIRST START

▶ SUBSEQUENT STARTS, SAME DAY

START

BEFORE STARTING

▶ Baggage Key.....STOWED
PFD SD Card.....AS REQUIRED
▶ Main Battery.....ON
▶ Bus Tie.....ON
▶ Aux Battery.....ON
Aircraft Log.....COMPLETE
Passengers.....BRIEFED
Seats.....POSITION AND LOCK
Seat Belts.....LOW & TIGHT
▶ Panel SwitchesOFF
▶ Circuit Breakers.....IN
Alternate Static.....OFF
▶ Strobes.....ON
Flaps.....UP
▶ Alternator Warning.....ON
▶ Fuel Level.....VERIFY
Fuel Calc Page.....RESET AS REQ'D
▶ Fuel Selector.....BEST TANK
Oxygen.....MAIN VALVE OFF (CCW)

STARTING, HOT or COLD

Mixture.....FULL RICH
Throttle.....FULL OPEN
Fuel Boost.....ON UNTIL PSI PEAKS
Mixture.....IDLE CUT-OFF
Throttle.....MIDDLE of "E"
Left Ignition.....FLY
Right Ignition.....FLY
Propeller Area.....**CLEAR!**

Start Switch.....PUSH, 10 SEC MAX
Starter must cool for 20 sec before next attempt

Mixture.....FULL RICH ON START
Throttle.....IDLE SPEED

Oil Pressure.....POSITIVE in 30 seconds
Instruments.....GREEN
Alternator Warning.....OFF
Intercom.....ON, FRONT & BACK

Flooded Engine

Mixture.....IDLE CUT-OFF
Mags.....OFF
Starter Switch.....ENGAGE 12 BLADES
Throttle.....OPEN ¼ INCH or more
Left Mag **ONLY**.....ON
Start Switch.....PUSH
Mixture.....FULL RICH ON START
THEN **RIGHT MAG ON**

Repeat or return to Oil Pressure

FIRST TAXI & RUN-UP

▶ SUBSEQUENT EVENTS, SAME DAY

BEFORE TAXI

- ▶ Mixture.....LEAN FOR GROUND OPS
- ▶ Trim Master.....ON & SET TAKEOFF X3
- ▶ Flaps.....FULL UP
- Brakes.....RELEASE & CHECK

BEFORE TAKEOFF

- ▶ Fuel Level.....VERIFY ADEQUATE
- Fuel Calc Page.....SET USED & REM
- ▶ DoorsSECURE
- ▶ Seat Belts.....CHECK
- ▶ Autopilot.....HDG/ALT/VS SET
- Weather.....CHECKED
- Comm 1.....ACTIVE & STANDBY
- ▶ Bluetooth.....G3X & GTX
- ▶ Avionics.....FRQS/FLT PLNS
- ▶ Pitot Heat.....ON BELOW 10°C
- PFD.....EFIS/ENGINE PAGE
- SFD.....COMPARE
- HORIZON.....LEVEL
- HEADING.....VERIFY
- ALTIMETER.....BARO
- AIRSPEED.....ZERO
- VSI.....ZERO
- ▶ BUGS.....AS REQUIRED
- Mechanical Altimeter.....BARO
- Clock.....WIND & SET
- ▶ Mixture.....FULL RICH (or as required)
- ▶ Throttle.....1500 RPM
- L Ignition TEST.....NO CHANGE
- L Ignition OFF.....<175 RPM DROP
- L Ignition FLY.....NORMAL OPS
- R Ignition.....REPEAT TEST/OFF/FLY
- Prop.....CHECK
- ▶ Engine Instruments.....GREEN
- ▶ Throttle.....IDLE
- ▶ AP.....OFF
- ▶ YD.....OFF
- ▶ Flight Director.....VS or OFF
- Flight Controls.....FREE & CORRECT
- ▶ Boost Pump.....ON
- ▶ Transponder.....ALT
- ▶ Lights.....AS REQ'D
- ▶ NAV.....ON FOR DEPARTURES
- Passengers.....READY

IN FLIGHT

TAKEOFF

Takeoff & CLIMB.....Full Throttle
Rotate55
Climb100-110
 Best Angle.....80
 Best Rate.....95
Fuel Pump.....OFF above 2,000 AGL
CHT.....GREEN
Oil Temp.....GREEN

ENGAGE AUTOPILOT

HDG.....PUSH TO SYNC
ALT.....PUSH TO SYNC
Mode Controller.....PRESS 

HOLDS ATTITUDE AND HEADING

Lateral mode.....SELECT HDG or NAV
FOLLOWS HDG BUG or FLT PLAN

Vertical Mode.....SELECT MODE
Altitude bug.....AS DESIRED
Select VS.....WHEEL TO DESIRED VS
NO VS MEMORY. RESET EACH TIME.

CRUISE

Fuel Pump.....CHECK OFF
Flaps.....UP
Power.....SET
Mixture.....LEAN
Tank.....SWITCH EVERY 5 GALLONS
Passengers.....HAPPY
Weather.....CHECK DESTINATION
121.5.....MONITOR AS ABLE

APPROACH

DESCENT

Altimeter.....SET
Power.....AS REQUIRED
Mixture.....RICHEN AS REQUIRED
Fuel Selector.....SELECT FULLEST TANK

IFR APPROACH

Approach Level.....15x2200
Avionics.....PER PLATE
Align Course.....ILS or LOC
ATIS.....RECORD
Altimeter.....SET
Approach Brief.....How Low?
How Long?
Which Way?
GPS/VLOC Annunciator.....CONFIRM

Approach Level, Holds	110 KIAS LEVEL	15x2200 Flaps 1
Precision Approach	100 KIAS ▼ 500 FPM ▼	10x2200 Flaps 1
Non-precision Approach	100 KIAS ▼ 800 FPM ▼	8xFULL Flaps 1

BEFORE LANDING G-M-P-P-F-Y

GAS-MIXTURE-PROP-PUMP-FLAPS-YAW

Seat Belts.....SECURE
Fuel Selector.....FULLEST TANK
Mixture.....FULL RICH (as required)
Prop.....FORWARD
Yaw Damper.....OFF
Fuel Pump.....ON
Flaps.....120/96/87
Landing and Taxi Lights.....AS REQUIRED
Airspeed.....70 – 80

GO-AROUND

Power.....FULL THROTTLE
Airspeed.....90
Flaps.....UP

SHUTDOWN

AFTER LANDING

Fuel Pump.....OFF
Flaps.....UP
Lights.....AS REQUIRED
Pitot Heat.....OFF
Trim Tab.....NEUTRAL

SHUTDOWN

Engine.....IDLE UNTIL CHT DROPS
Lights.....OFF EXCEPT STROBE
Throttle.....1000 RPM
Mixture.....IDLE CUT-OFF
Mags.....OFF
Aux Battery.....OFF
Bus Tie.....OFF
Main Battery.....OFF
All Switches.....OFF
Oxygen.....MAIN VALVE OFF (CCW)
Control Lock.....INSTALL
Flight Log.....RECORD

EMERGENCY NEXT PAGE

FIRE



FIRE



FIRE

EMERGENCY

FIRE IN FLIGHT

CABIN FIRE IN FLIGHT

Oxygen.....MAIN VALVE OFF (CCW)
All Switches OFF EXCEPT MAIN BATTERY
Fuel Selector.....OFF
Mixture.....OFF
ELT.....ON
Doors.....OPEN

CALL MAYDAY. SQUAWK 7700

Airspeed.....85
Flaps.....FULL
BATTERY.....OFF

STEEP BANK FOR MAX DESCENT

ENGINE FIRE IN FLIGHT

Fuel Selector.....OFF
Mixture.....OFF
Throttle.....IDLE
Defroster.....PUSH OFF
Cabin Heat.....PUSH OFF
All Switches.....OFF
Doors.....OPEN ON LANDING

EXECUTE FORCED LANDING

GROUND FIRE

CABIN GROUND FIRE

All switches.....OFF
Fuel.....OFF
Oxygen.....MAIN VALVE OFF (CCW)

STOP AIRCRAFT

GET OUT

ENGINE GROUND FIRE

Starter.....PUSH AND HOLD
Boost Pump.....OFF
Throttle.....PUSH FULL
Fuel Selector.....OFF
Mixture.....PULL OFF

GET OUT

A vertical bar chart consisting of 12 red bars of equal height. Each bar has the word "FAILURE" written in black, bold, uppercase letters at its base. The bars are arranged in a single column, with a small gap between each bar.

SCREEN



SCREEN



SCREEN

EMERGENCY PFD FAILURE



**HORIZON FAILURE
RED X**

IN IMC

LVL on Autopilot.....ENGAGE
Maintain Airspeed.....USE EFIS 2
Course.....AVOID TERRAIN
CONSTANTLY SCAN EFIS 2
Pitot Heat.....ON
Static Source.....ALTERNATE
Expect a minor altitude change
ATC.....MAYDAY 121.5
SEEK VMC

IN VMC

Use visual references. Land as soon as practical.



**COMPLETE FAILURE
BLACK SCREENS**

IN IMC

Autopilot.....PUSH **LVL**
Maintain Airspeed.....A/S INDICATOR
iPad.....PANEL SCREEN
Course.....AVOID TERRAIN
Aux Battery.....VERIFY ON
Bus Tie.....OFF
Main Battery.....CYCLE FOR 1 SECOND
Field Breaker.....IN
All Breakers.....IN
Electric Load.....REDUCE
ATC.....MAYDAY 121.5
Transponder.....7700
Transmit.....MINIMUM
to conserve available power

SEEK VMC

LAND AS SOON AS POSSIBLE

IN VMC

Use visual references. Land as soon as practical.

BATTERY STATUS

"Slow Flashing" is about 5 second intervals. "Fast Flashing" is about 2 second intervals.

Flash	Voltage	Possible Cause	Action required in flight
Off	Any Voltage	Normal operation	None
Slow, constant	Below 12.8V	Battery over-discharged	Turn off the BUS TIE.
Slow, < 30 min	13.2V to 14.8V	Unbalanced cells	Continue normal flight.
Slow, > 30 min	13.2V to 14.8V	Weak or failing cell	Continue normal flight. Pull the FIELD circuit breaker above 15.0V for more than 5 seconds. Turn off the BUS TIE.
Slow	Above 14.9V	Over-charging	Pull the alternator circuit breaker. Turn off the BUS TIE. Continue normal flight with reduced electrical capacity. Plan accordingly.
Solid	Any Voltage	Internal battery failure	Main Battery: OFF, Bus Tie ON Aux Battery: OFF, Bus Tie OFF
Solid, < 3 min	Any Voltage	Short circuit protection was activated.	Continue normal flight.
Fast	Any Voltage	Battery temperature exceeded 170F	Continue normal flight.

Fuel & Power Chart -- Lycoming IO-540-D (260 HP)

Press Alt	Std. Alt.	143 HP – 55% Rated				169 HP – 65% Rated				195 HP – 75% Rated				
		Approx. Fuel 10-12 GPH				Approx. Fuel 12-14 GPH				Approx. Fuel 14-16 GPH				
1000 Ft	Temp Deg F	2100	2200	2300	2400	2100	2200	2300	2400	2200	2300	2400	2500	
SL	59	22.3	21.5	20.7	19.8	25.3	24.1	23.2	22.2	26.9	25.8	24.8	24.0	
1	55	22.1	21.3	20.5	19.6	25.1	23.9	22.9	22.0	26.6	25.5	24.5	23.7	
2	52	21.9	21.0	20.3	19.4	24.8	23.6	22.7	21.8	26.3	25.3	24.3	23.5	
3	48	21.7	20.8	20.0	19.2	24.5	23.4	22.5	21.6	26.0	25.0	24.0	23.2	
4	45	21.4	20.6	19.8	19.0	24.2	23.1	22.2	21.4	FT	24.7	23.8	22.9	
5	41	21.2	20.3	19.6	18.8	24.0	22.9	22.0	21.1	--	FT	23.5	22.7	
6	38	21.0	20.1	19.4	18.6	FT	22.6	21.7	20.9	--	--	FT	22.4	
7	34	20.7	19.9	19.1	18.4	--	22.4	21.5	20.7	--	--	--	FT	
8	31	20.5	19.6	18.9	18.2	--	FT	21.2	20.5					
9	27	20.3	19.4	18.7	18.0	--	--	FT	20.3					
10	23	20.0	19.2	18.5	17.7	--	--	--	FT					
11	19	FT	18.9	18.2	17.5									
12	16	--	FT	18.0	17.3									
13	12	--	--	17.8	17.1									
14	9	--	--	FT	16.9									
15	5	--	--	--	FT									

To maintain constant power, correct manifold pressure approximately 0.17" Hg for each 10 Deg F variation in carburetor air temperature from standard altitude temperature. Add manifold pressure for air temperature above standard, subtract for temperatures below standard.

FT = Full Throttle

Cruise Climb 115 KIAS 500 FPM ↑	22 x 2200
Cruise 140 KIAS Level	22 x 2200
Cruise Descent 150 KIAS 500 FPM ↓	20 x 2200
Approach Level 110 KIAS Level	14-16 x 2200 Flaps 1
Precision Approach 100 KIAS 500 FPM ↓	10 x 2200 Flaps 1
Non-precision Approach 100 KIAS 800 FPM ↓	8 x FULL Flaps 1

ALTERNATE STARTS

USING AN EPU

EPU switch.....OFF
Main Battery.....OFF
Bus Tie.....**CAUTION**
Aux Battery.....**CAUTION**
**BUS TIE AND AUX BATTERY MUST
REMAIN OFF WITH EPU ENGAGED**
EPU plug.....ENGAGE
EPU switch.....ON
EPU.....USE AS DESIRED
INCLUDING NORMAL START PROCEDURE

DISENGAGING EPU WITH ENGINE OFF

EPU switch.....OFF
EPU plug.....DISENGAGE

WITH ENGINE RUNNING

MAIN BATTERY.....ON
EPU switch.....**OFF WITHIN 3 SEC**
EPU plug.....DISENGAGE

AUX BATTERY START

Normal starts use the main battery for starting and the aux battery for avionics. The aux battery can also be used for starting.

Main Battery.....ON
Bus Tie.....ON
Aux Battery.....ON
Mixture.....FULL RICH
Throttle.....FULL OPEN
Fuel Boost.....ON UNTIL PSI PEAKS
Main Battery.....OFF
Bus Tie.....REMAINS ON
Aux BatteryOFF
Mixture.....IDLE CUT-OFF
Throttle.....MIDDLE of "E"
Left Mag.....ON
Propeller Area.....**CLEAR!**
Start Switch.....PUSH, 10 SEC MAX
Starter must cool for 20 sec before next attempt
Mixture.....FULL RICH ON START
THEN **RIGHT MAG ON**
Throttle.....IDLE SPEED
Oil Pressure.....POSITIVE in 30 seconds
Instruments.....GREEN
Alternator Warning.....OFF
Main Battery.....ON
Aux Battery.....ON

NOTES

Aircraft type for FAA Flight Plans: RV-10/G

Lycoming IO-540-D4A5
Hartzell C2YR-1BFP/F8068D

Use Aeroshell 15W-50 oil whenever possible.

Brake Fluid: Use MIL-H-83282 or MIL-H-87257
(preferred) or MIL-H-5606 Hydraulic Oil

Weight and Balance Data as of 10 SEP 2020

Empty Weight.....	1689
Datum.....	Leading Edge
Empty C.G.....	8.4
C.G. Range.....	8.4 to 16.8
Fuel.....	9.5
Front Seats.....	15.2
Back Seats.....	51.9
Baggage.....	74.1

To **alternate the landing and taxi lights** for increased visibility, turn on FLASH, but leave LAND and TAXI off. LAND and/or TAXI “on” overrides FLASH. LAND and TAXI function normally when FLASH is off.

NOTE

The FLASH system initially turns both lights on steady for 30-60 seconds to warm the bulbs before flashing.

Tire Pressure, PSI

Nose	55
Mains	45

Flap Speeds:

- **120 KIAS** The flaps can be lowered to the first position. Visually the trailing edge appears down about 1 inch.
- **96 KIAS** The second position is approximately ½ flap travel.
- **87 KIAS** Full flap limit.

Fuel tank tabs indicate approximately 17 gallons at the mid tab. The upper tab indicates approximately 29 gallons. See flight manual for calibrated quantities.

BLANK