



Vans RV-12iS Normal Checklist PSM (Aug 2025)

V Speeds

Vs0.....	41 KIAS
Vs.....	45 KIAS
Vr.....	55 KIAS
Vx.....	60 KIAS
Vy.....	75 KIAS
VFE.....	82 KIAS
VA.....	90 KIAS
Vno.....	108 KIAS
Vne.....	136 KIAS

Local Airport Freqs

KDAW

ASOS.....	135.275
Unicom.....	122.70

KSFM

AWOS.....	120.025
Unicom.....	123.075

B19

AWOS.....	120.025 (SFM)
Unicom.....	123.000

Transponder Codes

Hijacking.....	7500
Lost Comms.....	7600
Emergency.....	7700

Light Gun Signals

Steady Green.....Cld rdkoff/ldg
Flashing green.....Cld taxi/Return to land
Steady Red on GND.....Stop
Steady Red AIR.....Give way and Circle
Flashing red GND.....Taxi clr of rwy in use
Flashing Red Air.....Do not land
Flashing White GND.....Return to starting point
Alternating Red/Green.....Exercise EXT Caution

Short + Soft-Field Proc

Short Field LDG

Aiming Point.....	Establish
TDZ.....	Establish
Appch Speed.....	55-60 KIAS

Short Field Tk-Off

Brakes.....	HOLD
ENG Inst.....	Check
Brakes.....	Release
Rotate.....	55 KIAS
Climb.....	Vx until Obst Clear

Soft Field LDG

Appch Speed.....	55-60 KIAS
Over Aim Point.....	Set Pitch/Power
Land.....	Nose slightly High
Nose-wheel.....	Keep Weight Off

Soft Field Tk-Off

Nose-wheel.....	Keep Weight Off
Flaps.....	10
Brakes.....	Minimize use
Rotate.....	ASAP
Ground Effect.....	Achieve
Vx or Vy.....	Achieve
Obst Clr.....	Flaps 0

IFR Lost Comms

Route to Fly

A.....	Assigned
V.....	Vectored
E.....	Expected
F.....	Filed

Altitude

M.....	MEA
E.....	Expected
A.....	Assigned



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Cabin

Canopy Open.....	Check Condition
Fuel Tank QTY.....	Check
Seat belt Control Lock.....	Remove
Rudder gust Lock.....	Remove
Spar Pins.....	Check
Fire Extinguisher.....	Check
Baggage Area.....	Check
ELT Light.....	Check Off
Documents (AROW).....	Check
Master/Avionics.....	ON
Stall Vane/Horn.....	Actuate/listen
Avionics.....	Off
Fuel Shutoff/Valve.....	Down/Open
Gascolator.....	Sump/Check
Lights/Strobes.....	On/check
Trim.....	Takeoff Position
Hobbs/Tach.....	Record
Master.....	Off
Baggage.....	Restrained
FOD.....	Check
Canopy.....	Down

Left Wing

Canopy.....	Check Down
Leading edge.....	Inspect
Wing Hand Hold.....	Shake Laterally
Flaperon.....	Free
Flaperon Hinge Brackets.....	Secure

Left Main Landing Gear

Tire.....	Check Condition
Brake Assembly.....	Check
Brake Line.....	Check
Axle Nut Cotter Pin.....	Check
Landing Gear Rlvets.....	Check

Empennage

L Static Port.....	Clear/Open
Vertical Stab.....	Check
Stabilator.....	Check Free/Correct

Anti Servo Tab.....	Check
Rudder.....	Check
VOR Antenna.....	Check
R Static Port.....	Clear/Open
Comm Antenna.....	Check
ADS-B Antenna	Check
Fuel Vent Lines.....	Check
Fuel Cap.....	Check

Right Main Landing Gear

Tire.....	Check Condition
Brake Assembly.....	Check
Brake Line.....	Check
Axle Nut Cotter Pin.....	Check
Landing Gear Rivets.....	Check

Right Wing

Flaperon Hinge Brackets.....	Secure
Flaperon.....	Free
Wing Hand Hold.....	Shake Laterally
Leading Edge.....	Inspect

Nose Section

XPDR Antenna.....	Check
Muffler.....	Check
Coolant.....	Check Level
WARNING: CONFIRM MASTER/LANE A+B OFF	
Oil Level.....	Check Level
Nose Landing Gear.....	Check
Tire.....	Condition
Cowling.....	Check Screws
Pitot Tube.....	Check Clear
Prop.....	Check Condition

Pre-Start

Passenger Brief.....	S.A.F.E.T.Y
Master.....	On
Nav/Strobe.....	On
Canopy.....	Down
Safety Belts.....	Fastened
Fuel Valve.....	Down
Brakes.....	Test
Lane A+B.....	On



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Engine Start

Brakes.....Hold
Fuel Pump Switch 1.....On
Fuel Pump Switch 2.....Off
Fuel Pressure.....Check >0
Oil Temperature.....Check
Cold start (oil less than 90).....TPS on Tach 50
Warm Start.....TPS on Tach 30
Prop.....Clear
Key.....Engage
Throttle.....2000 RPM
Oil PSI.....12 PSI MIN w/in 10 seconds
Throttle.....2500 for 5 sec for Bat Charging
Ammeter.....Check Charging
Fuel Pump Switch 2.....On
note: If fault light B on turn off then on

After Start

Avionics Master.....On
Headset.....On
COMMS.....As Req.
KPSM ATIS: 132.05 // KPSM Ground: 120.95
Altimeter.....Set
Transponder.....Check
Flight Instruments.....Set
Flight Plan.....Load/Brief (As Req.)

Before Taxi

Airport Diagram.....Review
Landing Light.....As Req
Taxi Area.....Clear
Brakes.....Test
If using RW16.....Runup Checklist
KPSM Ground: 120.95
Taxi Clearance.....Obtain
During Taxi.....Check Instruments/XWind Cor

CLIMB INTO/DIVE AWAY

Runup

Brakes.....Hold
Seat/Safety Belts.....Check Secure
Canopy.....Latched
Flight Controls.....Free & Correct
Trim.....Set Takeoff
Flight Instruments.....Set
Radios.....Set

KPSM Tower: 128.4 // BOS Appr: 125.05

Fuel Valve.....Down
Run Up Area.....Clear
Oil Temp.....>120F
Throttle.....MAX for 5 Sec
Throttle.....4000
Wait for Lane Fault Light Off before cont. with each LANE
Lanes.....Cycle A+B

MAX DROP 180/115 DIFF

Ammeter.....Check charging
Engine Instruments.....In Limits
Throttle.....Check Idle
Throttle.....2000 RPM
Fuel Pumps.....Cycle 1+2
Throttle Friction.....Adjust
Fuses.....Check
Seat Belts.....Fastened

Pretakeoff Brief

Engine Fail/Abnormality on T/O Roll

- Throttle IDLE / Stop St-Ahead

**Engine Fail on
Liftoff w/ RWY remain**

**-- Airspeed.....65 KIAS
-- Throttle.....IDLE
-- Land.....MAX BRAKING
-- Flaps.....RETRACT**

Engine Fail Airborne: Insufficient Runway

**-- Airspeed.....65 KIAS
-- Landing Area.....SELECT
-- Flaps.....Once Landing Assured
-- Fuel Shutoff Valve.....OFF
-- Magnetos.....OFF
-- Master.....OFF
-- Touchdown.....55-65kts
-- 180° Turn Min Alt/Dir of Turn?**



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Before Takeoff

KPSM Tower: 128.4 // BOS Appr: 125.05
Pre-Takeoff Brief.....Complete
Elevator Trim.....Takeoff
Flaps.....As Req. - 0 for normal Tk-off
Transponder.....Set
Radios.....Confirm Set
Landing Light.....As Req

Takeoff Procedures.....Review

-Stab.....Raise Nose Slightly
-Rotate.....50-55 KIAS
-Climb.....60 Vx-75 Vy
-Flaps 0.....Clear of Obs

Enroute Climb

Airspeed.....80-85 KIAS
Throttle.....Full
Flaps.....Check Up
Engine Instruments.....Monitor

Cruise

Level Off.....Accelerate
Power.....Set 5000-5400.
Trim.....As Req
Landing Light.....Pulse
Engine Instruments.....Monitor
Fuel.....Monitor

In Range/Descent

KPSM ATIS: 132.05 Tower: 128.4
ATIS/ASOS/AWOS.....Obtain
Altimeter.....Set
Arrival/Pattern Entry.....Brief
**Runway Review/Field Elevation/Pattern Altitude/Winds
Landing Type/Turnoff Side/Taxi Route/Parking Location**
Flight/Nav Instruments.....Set
Fuel Quantity.....Check
Landing Light.....Pulse
Descend.....As Req
Engine Instruments.....Monitor

Approach (Instrument Training)

Approach.....Briefed/Activated As Req.
CDI.....Confirm NAV/LOC
Landing Light.....Pulse
Altimeter/Nav Inst.....Set
Engine Instruments.....Monitor
Go Around/Missed.....Review

Before Landing

Flaps.....Confirm Set
Engine Instruments.....Check
Fuel Valve.....Down
Lane A+B/Pumps 1+2.....On
Seat Belts.....Fastened
Landing Light.....As required

After Landing

KPSM Ground: 120.95

Flaps.....Retract
Trim.....Set to Takeoff
Landing Light.....As Req
Transponder.....1200/VFR
Clearance.....Obtain

Shutdown

Throttle.....2000 RPM
Avionics Master.....Off
Lights.....Off
Lane A+B.....Off
Fuel Pumps 1+2.....Off
Hobbs.....Record
Master Switch.....Off
Key.....Remove
Hobbs/Tach.....Record
Aircraft.....Chock, gust lock, pitot cover



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Lane Malfunctions

LANE A	LANE B	Action on Ground	Action in Flight
OFF	FLASHING	Flight only to maintenance facility	Fly to destination at own discretion
FLASHING	OFF	Flight only to maintenance facility	Fly to destination at own discretion
OFF	ON	Do not fly aircraft	Precautionary Landing
FLASHING	FLASHING	Do not fly aircraft	Precautionary Landing
FLASHING	ON	Do not fly aircraft	Precautionary Landing
ON	OFF	Do not fly aircraft	Precautionary Landing
ON	FLASHING	Do not fly aircraft	Precautionary Landing
ON	ON	Do not fly aircraft	Precautionary Landing



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Engine

Engine Failure - Reject

Throttle.....Idle
 Brakes.....Apply
 Flaps.....Retract
 Fuel Valve.....UP Off
 Fuel Pumps.....Off
 LANE A+B.....Off

Engine Failure - After Takeoff

Airspeed.....65 (Up) / 60 (10-Full)

Engine Fail: Liftoff w/RWY Remain

Airspeed.....65 (Up) / 60 (10-Full)
 Throttle.....Idle
 Land.....Max Braking

Airborne: Insufficient Runway

Airspeed.....65 (Up) / 60 (10-Full)
 Landing Area.....Select
 Fuel Shutoff Valve.....UP OFF
 Fuel Pumps.....OFF
 Lanes A+B.....OFF
 Flaps.....As Req.
 Master.....OFF
 Land.....Min Airspeed
 180 Min Alt / Direction of Turn?

Engine Fail / Restart In Flight

Airspeed.....65 KTS
 Best Place to Land.....Choose
 EMS and EFIS Backup Batt.....On
 Fuel Valve.....Down
 Fuel Pumps 1+2.....Confirm ON
 Ignition Switches.....Both / Start

If Engine Does Not Start

Forced Landing.....Perform

Partial Power / Run Rough

Lane malfunctionLanes L or R

Abnormal Oil Pressure / Temp

RPM.....Reduce Min Necessary
 Precautionary Landing.....Perform

Electrical

Excessive Rate of Charge

Non Essential Electrical Equipment.....Off
 Land.....As Soon As Practical
Insuff Rate of Charge (WARN ENGINE WILL DIE IF PRIMARY+ BACKUP BATT DIE)

Non Essential Equip.....Off
 LAND.....ASAP

G3X Attitude Failure

(Red X and Yellow "Attitude Fail")
 VFR Condition.....REMAIN
 Land.....As Soon As Practical

G3X HDG / Magnetometer Fail

(Red X and Yellow "HDG")
 GPS Heading.....Use

GPS Failure

If Alt Nav Available..(VFR, Foreflight,VOR)
 Fuses.....Check
 VFR Condition.....Remain

Radio Failure (on ground)

Transponder.....7600
 Light Gun signals.....Comply
 Tower.....Call PSM Tower (603) 334-6120
Radio Failure (Air in E,G no Flt Following)
 Land at Untwrdr Apt using extreme caution
 Or

Transponder.....7600
 Light Gun Signals.....comply

Radio Failure under Radar Control

Transponder.....7600
 Light gun signals...Comply



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Engine (Cont)

Emergency Descent

Throttle.....Idle
Yoke.....Bank 30-45°
Speed.....Increase
Do not exceed VNE (136 KTS)
Throttle.....(Every 1000 ft) Clear
Forced Landing - No Power
Airspeed.....65 (Up) / 60 (10-Full)
Fuel Pumps 1+2.....Off
Fuel Shutoff.....Off
Lanes.....Off
Flaps.....As Req.
Radio.....Mayday on 121.5
Transponder.....7700

Final Approach

Airspeed.....65 KTS
Flaps.....Down (Once Landing Assured)
Master Switch.....Off
Doors.....Unlatch
Seats/Harness.....Check Secure

Precaution Approach / Land

Airspeed.....65 KTS
Flaps.....10°
Landing Area.....Overfly/inspect
Avionics + Electrics.....Off
Flaps.....22°
Master Switch.....Off
Doors.....Unlatch
Seats/Harness.....Check Secure
Touchdown.....Tail Low
Ignition Switches.....Off
Brakes.....Apply Heavily

Fires

Engine Fire During Start

Cranking.....Continue
If Engine Starts
Power.....3000 RPM for 5 minutes
Engine.....Shutdown and Inspect

If Engine Fails To Start

Throttle.....;.....Full Open
Fuel Valve.....Up OFF
Fuel Pumps 1+2.....OFF
Cranking.....Continue
Fire Extinguisher.....Obtain
Engine.....Secure
Master Switch.....Off
Ignition Switches.....Off
Fire.....Extinguish

Engine Fire In Flight

Throttle.....Idle
Fuel Valve.....UP/OFF
Fuel Pumps.....1+2 OFF
Ignition Switches.....OFF
EFIS Backup Battery.....ON
Air Vents.....Closed
Cabin Heat.....Closed
Airspeed.....VNO
Radio.....Mayday on 121.5
Transponder.....7700
Forced Landing.....Perform

Electric Fire In Flight

ALL SWITCHES EXCEPT IGNITIONS.....Off
MAIN GEN 30 AMP FUSE.....PULL
Leave Ignitions On
Air Vents/Cabin Heat.....Closed
Fire Extinguisher.....Activate & Vent Cabin
Land.....As Soon As Possible

If Elec Power Essential

Master Switch.....Leave On
FUSES.....Check to Isolate
Air Vents.....Open w/Fire Out

Cabin Fire

Master.....Off
Vents/Cabin Heat.....Closed
Extinguisher.....Activate & Vent Cabin
Land.....As Soon As Possible

Wing Fire

Lights/Strobes.....Off
Side Slip.....Perform
Land.....As Soon As Possible



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Flight Controls

Loss Of Stabilator Control

Horizontal Flight.....Trim
Airspeed.....65-70KTS OR AS REQ
Flaps.....10°

In Landing Flare

Trim.....Trim Nose Up
Throttle.....Reduce Slowly / Idle at Touchdown

Spins

Power.....Idle
Ailerons.....Neutral
Rudder.....Full Opposite
Elevator.....Briskly Forward

Hold inputs until spin stops

Rudder.....Neutral
Elevator.....Raise Nose

In Flight Overstress

Throttle.....Reduce
Airspeed.....65-75 KTS
Flaps.....Up
Land.....As Soon As Practical

Loss of Brake

Landing Spot.....Select Adequate Runway
Xwind From INOP Brake Side:
Touchdown.....Min Airspeed
When Stopped.....Shutdown Engine

Flat Main Tire

Approach.....Normal
Touchdown.....Min Airspeed

Flat Nose Wheel Tire

Perform Soft Field Technique for landing

Weather

Unintentional Flight Into Icing

Icing Area.....Leave ASAP 180 turn recommended

RPM.....Increase
Flaps.....Leave Retracted
ATC.....Advise
Landing:

Airspeed.....65-75 KTS
Touchdown.....Level

Severe Turbulence

Speed.....Reduce to VA or below
Attitude.....Maintain Level Flight
(if in mountains maneuver away from leeward side)

Water Ditching

**AVOID WATER DITCHING DUE TO
TENDENCY TO FLIP UPSIDE DOWN ON TO
CANOPY**

**IF NO OPTION BUT WATER, TOUCHDOWN
PERPENDICULAR TO SWELL
AVOID SHALLOW WATER >3FT DUE TO THE
RISK OF BEING UPSIDE DOWN WITH
CANOPY RESTING ON SEA FLOOR
TRAPPING YOU**