

Pilatus PC-12 NG | Limitations

TRAINING REFERENCE ONLY — NOT A SUBSTITUTE FOR THE AFM

This document is a training summary compiled from the aircraft's POH/AFM. In any conflict, the EASA/FAA Approved Airplane Flight Manual for the specific airplane, including all applicable Supplements and Temporary Revisions, is the governing authority. Verify limitations against the AFM for the serial number being flown.

Source: Pilatus PC-12/47E Pilot's Operating Handbook and EASA Approved Airplane Flight Manual, Report No. 02277 (MSN 545, 1001-1719, 1721-1942; issued September 15, 2006; Revision 24, February 02, 2026) — Section 2, LIMITATIONS (pages 2-1 through 2-56), including Temporary Revision 38 (VGP Approach Deviation Drift, Apex Builds 10 / 10.9; issued February 08, 2017, EASA Approved). Some limits differ by MSN block or optional equipment (4- vs 5-bladed propeller, brakes, interior code); both values are shown where the POH publishes them — confirm the applicable value for the specific serial number.

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1. GENERAL

SCOPE AND CIRCUIT BREAKER RESET LIMITATION

POH 2-1

Section 2 of the POH contains the EASA Approved operating limitations, instrument markings, color coding, and basic placards necessary for operation of the airplane, its engine, systems, and equipment. Compliance with approved limitations is mandatory. Limitations associated with systems or equipment requiring POH Supplements are in Section 9, Supplements.

With the exception of circuit breakers on the Essential Bus, and if not detailed otherwise in procedures, tripped open circuit breakers are not allowed to be reset in flight. Circuit breakers on the Essential Bus, if tripped, may be reset once only in flight providing:

1. At least one minute has elapsed from the time of the circuit breaker trip.
2. There is no remaining smoke or burning smell.

2. AIRSPEED

AIRSPEED LIMITATIONS (KIAS)

POH 2-2

SPEED	KIAS	SIGNIFICANCE
Maximum Operating Speed V_{mo}	240	Do not exceed this speed in any operations. Maximum speed at or below 15,200 ft.
Maximum Operating Mach M_{mo}	0.48 M	Do not exceed this speed in any operations. Governs above 15,200 ft — see the V _{mo} /M _{mo} Schedule below (POH Figure 2-1).
Maximum Flap Extended Speed V_{fe} — flaps 15° or less	165	Do not exceed this speed with flaps extended.
Maximum Flap Extended Speed V_{fe} — flaps more than 15°	130	Do not exceed this speed with flaps extended.
Maximum Landing Gear Operating Speed V_{lo}	180	Do not retract or extend the landing gear above this speed.
Maximum Landing Gear Extended Speed V_{le}	240	Do not exceed this speed with the landing gear extended.

NOTE

V_{mo}/M_{mo} Schedule (POH Figure 2-1, page 2-3): V_{mo} is 240 KIAS from sea level to 15,200 ft. Above 15,200 ft, M_{mo} 0.48 governs and the indicated limit decreases approximately linearly to about 177 KIAS at 30,000 ft.

MAXIMUM OPERATING MANEUVERING SPEED **V_o**

POH 2-2

Do not make full or abrupt control movements above this speed. V_o varies with weight:

WEIGHT	V _o (KIAS)	WEIGHT	V _o (KIAS)
10450 lb (4740 kg)	166	7060 lb (3200 kg)	136
9921 lb (4500 kg)	161	6610 lb (3000 kg)	132
9480 lb (4300 kg)	158	6170 lb (2800 kg)	127
9039 lb (4100 kg)	154	5730 lb (2600 kg)	123
8380 lb (3800 kg)	148		
7940 lb (3600 kg)	144		
7500 lb (3400 kg)	140		

AIRSPEED INDICATION MARKINGS (SPEED TAPE)

POH 2-4

INDICATION	KIAS VALUE / RANGE	REMARKS
Red/White Barber Pole — across and upwards on right side of tape	240 or 0.48 M, whichever is lower	Maximum operating limit (V _{mo} /M _{mo}).
Red (high speed) strip on right side of tape	180 V _{lo} 165 V _{fe} 15° 130 V _{fe} 30/40°	Extends downwards from V _{mo} /M _{mo} to the valid V _{lo} or V _{fe} as applicable. Not shown in clean configuration or with gear extended only.
Labeled placards on right side of tape	180 V _{lo} 165 V _{fe} 15° 130 V _{fe} 30/40°	Maximum flap operating and extended speed (V _{fe} 15/30/40°) and maximum landing gear operating speed (V _{lo}).
Red low speed awareness tape — overlaid on right side of tape	Shaker speed	Extends upwards from bottom of tape to the shaker speed in the current configuration. Not shown on ground.

3. POWER PLANT

ENGINE

POH 2-5

ITEM	LIMITATION
Number of Engines	1
Engine Manufacturer	Pratt & Whitney Canada
Engine Model Number	PT6A-67P

OIL

POH 2-5

ITEM	LIMITATION
Oil Grade or Specification	Any oil specified by brand name in the latest revision of Pratt & Whitney Service Bulletin 14001 is approved.
Total Oil Capacity	3.6 US gal (13.6 liters)
Drain and Refill Quantity	2.0 US gal (7.6 liters)
Oil Quantity Operating Range	1.0 US gal (3.8 liters)

NOTE

An oil quantity check is required for takeoff. Takeoff is not approved with the ENGINE OIL LEVEL warning annunciator illuminated.

ENGINE OPERATING LIMITS

POH 2-6 / 2-7

The limits presented in each column shall be observed. The limits presented do not necessarily occur simultaneously. Refer to the Pratt & Whitney Engine Maintenance Manual for specific action if limits are exceeded.

OPERATING CONDITION	SHp	TORQUE PSI (1)	MAX ITT °C	Ng % (8)	Np RPM (8)	OIL PRESS PSI (2)	OIL TEMP °C (6)(7)
Takeoff (9)	1200	44.34	850	104	1700 (10)	90 to 135	10 to 110
Max. Continuous / Max. Climb	1200	44.34	820	104	1700 (10)	90 to 135	10 to 105
Cruise	1000	36.95	820	104	1700 (10)	90 to 135	10 to 105
Min. Idle	—	—	750 (5)	50.7 (G.I.) 64 (F.I.)	—	60 min.	-40 to 110
Starting	—	—	1000 (3)	—	—	200 max.	-40 min.
Transient	—	61.00 (4)	870 (4)	104	1870 (4)	40 to 200 (4)	-40 to 110
Max. Reverse	900	34.25	760	—	1650	90 to 135	10 to 105

(1) Torque limit applies within a range of 1000 to 1700 propeller rpm. Torque is limited to 23.9 psi below 1000 propeller rpm.

(2) Normal oil pressure is 90 to 135 psi at gas generator speeds above 72%. With engine torque below 35.87 psi, minimum oil pressure is 85 psi at normal oil temperature (60 to 70°C). Oil pressures under 90 psi are undesirable. Under emergency conditions, to complete a flight, a lower oil pressure of 60 psi is permissible at reduced power level not exceeding 23.9 psi torque. Oil pressures below 60 psi are unsafe and require that either the engine be shut down or a landing be made as soon as possible using the minimum power required to sustain flight.

(3) These values are time limited to 5 seconds maximum.

(4) These values are time limited to 20 seconds maximum.

(5) Applies over a speed range of 50.7% to 61.4% Ng rpm.

(6) For increased service life of the engine oil, an oil temperature of between 60 to 70°C is recommended.

(7) Oil temperature limits are -40°C to 105°C with limited periods of 10 minutes at 105 to 110°C.

(8) 100% gas generator speed corresponds to 37,468 rpm. 100% power turbine speed (N1) corresponds to 29,894 rpm, which also corresponds to 1700 rpm propeller speed.

(9) Takeoff power is time limited to 5 minutes.

(10) During steady state operation, operation from 1670 rpm up to 1730 rpm is permitted to allow for governing accuracy.

PROPELLER

POH 2-9 / 2-10

ITEM	4-BLADED PROPELLER	5-BLADED PROPELLER
Propeller Manufacturer	Hartzell	Hartzell
Propeller Model Number	HC-E4A-3D/E10477SK	HC-E5A-3A/NC10245B
Number of Propellers / Blades	1 / 4	1 / 5
Propeller Diameter	Min 104 in (2.642 m) Max 105 in (2.667 m)	Min 104 in (2.642 m) Max 105 in (2.667 m)
Max Normal Operation (Np)	1,700 rpm $\pm$ 30 rpm	1,700 rpm $\pm$ 30 rpm
Max Transient (20 sec)	1,870 rpm	1,870 rpm
Max Reverse	1,650 rpm	1,650 rpm
Blade Angle at Sta. 42 — Fine Pitch	19° $\pm$ 0.2°	14.7° $\pm$ 0.2°
Blade Angle — Max Reverse Pitch	-17.5° $\pm$ 0.5°	-17.5° $\pm$ 0.5°
Blade Angle — Feather	79.6° $\pm$ 0.5°	80.0° $\pm$ 0.5°
Minimum Pitch in Flight	6°	6°

CAUTION

Stabilized operation on the ground between 350 and 950 rpm is not permitted.

STARTER

POH 2-10

The engine starting cycle shall be limited to the following intervals:

1. Sequence, 60 seconds OFF
2. Sequence, 60 seconds OFF
3. Sequence, 30 minutes OFF

GENERATOR

POH 2-11

GENERATOR	MAX CONTINUOUS LOAD	MAX LOAD FOR 2 MINUTES *
Generator 1	300 AMP	450 AMP
Starter/Generator 2	300 AMP	450 AMP

* Maximum load permitted for a 2 minute period per each one hour of operation.

POWER CONTROL LEVER OPERATION

POH 2-11

Power Control Lever operation aft of the idle detent is prohibited:

1. When engine is not running.
2. During flight. Such operation may lead to loss of airplane control and total power loss.
3. When engine is controlled by the Manual Override System. Such operation may lead to loss of airplane control or may result in an engine/propeller overspeed condition and consequent loss of engine power.

CHIP DETECTOR

POH 2-11

Takeoff is not approved with the ENGINE CHIP caution annunciator illuminated.

4. FUEL

APPROVED FUEL GRADES

POH 2-8

APPROVED FUEL	SPECIFICATION
Jet A	ASTM D1655 (1); CAN/CGSB-3.23
Jet A-1 (AVTUR, NATO F-35)	ASTM D1655 (1); CAN/CGSB-3.23; DEF STAN 91-091; MIL-DTL-83133; GOST R 52050-2006
Jet B	ASTM D6615; CAN/CGSB-3.22
JP-4 (AVTAG/FSII, NATO F-40)	DEF STAN 91-88; MIL-DTL-5624
JP-5 (AVCAT/FSII, NATO F-44)	CAN/CGSB-3.24; DEF STAN 91-86; MIL-DTL-5624
JP-8 (AVTUR/FSII, NATO F-34)	CAN/CGSB-3.24; DEF STAN 91-87; MIL-DTL-83133
JP-8+100 (NATO F-37)	CAN/CGSB-3.24; MIL-DTL-83133 (2)
TS-1 (TC-1)	GOST 10227-86 incl. Amendments 1 through 6 (3)
RT (PT)	GOST 10227-86 (3)
No. 3 Jet Fuel	GB 6537-2018 (4)
QAV-1	RANP 37-2009

- (1) Including ASTM D7566 produced fuels recertified to ASTM D1655.
- (2) The point of injection of the JP-8+100 additive should consider the potential of deactivating any downstream water coalescer system; treated fuel offloaded from aircraft must be stored separately and not passed through filter/water coalescer units not fitted with EI-1581 category M100 or equivalent filter/separators.
- (3) Must be premium category of quality. Must not contain antistatic additive SIGBOL or any other additive not listed under Approved Fuel Additives.
- (4) Must not contain antistatic agent T1502, antiwear agent T1602 or deicing agent ethylene glycol methyl ether (EGME).

APPROVED FUEL ADDITIVES (MAXIMUM DOSAGE)

POH 2-8A / 2-8B

ADDITIVE	MAX. DOSAGE
Antioxidant — phenol types per the POH list (2,6 ditertiary-butyl phenol; 2,6 ditertiary-butyl-4-methyl-phenol; 2,4 dimethyl-6-tertiary-butyl phenol; and listed mixtures)	0.0002 lb/gal (24.0 mg/L)
Metal Deactivator (MDA) — N,N'-disalicylidene 1,2-propane diamine	0.0000475 lb/gal (5.7 mg/L)
Fuel System Icing Inhibitor (FSII) — DiEGME per ASTM D4171 Type III, MIL-DTL-85470 or DEF STAN 68-252	0.15% by volume
Thermal Stability Improver — Spec-Aid 8Q462 / 8Q462W	0.00250 lb/gal (300 mg/L)
Electrical Conductivity Improver — AvGuard SDA / Stadis 450	0.000025 lb/gal (3.0 mg/L) initial blending 0.000041 lb/gal (5.0 mg/L) after field re-blending; 0.000016 lb/gal (2 mg/L) if concentration unknown
Leak Detection Additive — Tracer A (LDTA-A), intermittent use only	0.000001 lb/lb (1.0 mg/kg)
Biocidal Additive — Biobor JF, intermittent use only	0.000199 gal/gal (0.199 ml/L)
Biocidal Additive — Kathon FP 1.5, intermittent use only	0.000100 gal/gal (0.100 ml/L)
Corrosion Inhibitor / Lubricity Improver — HiTEC 580 / Nalco 5403 / Innospec DCI-4A	0.00019 lb/gal (23 mg/L)

ANTI-ICING ADDITIVE

POH 2-8C

Anti-icing additive must be used for all flight operations in ambient temperatures below 0°C. For approved anti-icing additives and their concentration, refer to the Approved Fuel Additives table. Refer to POH Section 8, Handling, Servicing and Maintenance, for blending instructions.

WARNING

Operating in ambient temperatures less than 0°C without following the procedure to add anti-icing additives may lead to ice in the fuel system which may eventually block the delivery lines and components of the fuel system, including the fuel filter, subsequently restricting or stopping the flow of fuel to the engine.

CAUTION

The correct mix of anti-icing additive with the fuel is important. Concentrations of more than the maximum will cause damage to the protective primer and sealants of the fuel tanks. Damage will occur in the fuel system and engine components.

FUEL LIMITATIONS

POH 2-21

ITEM	LIMITATION
Total Fuel Capacity	406.8 US gal, 2,736.5 lb (1,540 liters, 1,241.3 kg)
Total Usable Fuel	402 US gal, 2,703.6 lb (1,521.5 liters, 1,226.4 kg)
Total Unusable Fuel	4.8 US gal, 32.9 lb (18.5 liters, 14.9 kg)
Maximum Fuel Imbalance	26.4 US gal, 178 lb (100 liters, 80.6 kg) — maximum 3 segments on indicator

NOTE

Usable fuel can be safely used during all Normal Category airplane maneuvers.

5. INSTRUMENT MARKINGS

POWER PLANT WINDOW MARKINGS

POH 2-12

	RED MARK MIN. LIMIT	AMBER MARK CAUTION	GREEN ARC NORM OPS.	AMBER ARC CAUTION	RED MARK MAX. LIMIT
Torque (psi)	N/A	N/A	0 to 36.95 psi	36.95 psi	44.34 psi
ITT (°C)	N/A	N/A	400°C to 820°C	820°C	850°C
Engine Speed Ng (%)	N/A	60%	60% to 103.5%	103.5%	104%
Oil Temperature (°C)	N/A	10°C	10°C to 105°C	105°C	110°C
Oil Pressure (psi)	60 psi	90 psi	90 to 135 psi	N/A	135 psi

MISCELLANEOUS INSTRUMENT MARKINGS

POH 2-12

INSTRUMENT	RED RADIAL MIN. LIMIT	YELLOW ARC CAUTION	GREEN ARC NORM OPS.	YELLOW ARC CAUTION	RED RAD/DIA MAX. LIMIT
Oxygen Pressure (psi)	N/A	N/A	N/A	N/A	1850 to 2000

6. WEIGHT AND BALANCE

WEIGHT LIMITS

POH 2-13

LIMIT	VALUE
Maximum Ramp Weight	10,495 lb (4,760 kg)
Maximum Takeoff Weight	10,450 lb (4,740 kg)
Maximum Landing Weight	9,921 lb (4,500 kg)
Maximum Zero Fuel Weight	9,039 lb (4,100 kg)
Maximum Baggage Weight	400 lb (180 kg)
Maximum Floor Loading — On Seat Rails	205 lb/ft ² (1,000 kg/m ²)
Maximum Floor Loading — On Cabin Floor	125 lb/ft ² (600 kg/m ²)

CENTER OF GRAVITY LIMITS

POH 2-14

WEIGHT — LB (KG)	FORWARD LIMIT A.O.D.: IN. / M	AFT LIMIT A.O.D.: IN. / M
10450 (4740)	232.20 / 5.898	240.43 / 6.107
9921 (4500)	232.20 / 5.898	240.94 / 6.120
8158 (3700)	224.13 / 5.693	—
7938 (3600)	—	242.99 / 6.172
6615 (3000)	—	242.99 / 6.172
5733 (2600)	220.75 / 5.607	225.47 / 5.727

NOTE

Straight line variation between points given. The datum is 118 in (3.0 m) forward of the firewall. It is the responsibility of the pilot to ensure that the airplane is loaded properly. See POH Section 6, Weight and Balance, for proper loading instructions.

7. FLIGHT AND OPERATING LIMITS

MANEUVER LIMITS

POH 2-15

This airplane is certificated in the Normal Category — non-aerobatic operations only. These include any maneuvers incidental to normal flying, stalls (except whip stalls), lazy eights, chandelles, and turns in which the bank angle does not exceed 60°. Aerobatic maneuvers, including spins, are not approved.

FLIGHT LOAD FACTOR LIMITS

POH 2-15

CONFIGURATION	LOAD FACTOR
Flaps Up	+3.3 g / -1.32 g
Flaps Down	+2.0 g / -0.0 g

FLIGHT CREW LIMITS

POH 2-15

Minimum required flight crew is one pilot in the left hand seat.

OPERATING ENVELOPE

POH 2-21 / 2-22

LIMIT	VALUE
Maximum Operating Altitude	30,000 ft (9,144 m)
Minimum Outside Air Temperature	-55°C (-67°F)
Maximum Outside Air Temperature	+50°C (122°F)
Maximum Cabin Pressure Differential	5.75 psi (400 mbar)
Pressurized Landing	Approved, up to 0.7 psid
Maximum Occupants	9 passengers plus pilot(s)

MAXIMUM PASSENGER SEATING LIMITS

POH 2-22

Maximum number of occupants is 9 passengers plus pilot(s). During single pilot operation, the pilot occupies the left hand cockpit seat and an additional passenger may occupy the right hand cockpit seat. The PC-12 is certified with two basic cabin interior configurations (Corporate Commuter and Executive) and the following approved variations:

- Corporate Commuter Interior Code STD-9S — nine standard seats.
- Executive Interior Code EX-6S-2 — six executive seats.
- Executive Interior Code EX-8S — eight executive seats. Leave seats 5, 6, 7 and 8 vacant during takeoff and landing unless the seat in front is occupied.
- Executive Interior Code EX-4S-3B — four executive seats and three seat bench.
- Executive Interior Code EX-6S-STD-2S — six executive seats and two standard seats. Leave seats 5, 6, 7 and 8 vacant during takeoff and landing unless the seat in front is occupied.
- Executive Interior Code EX-4S-STD-4S — four executive seats and four standard seats.

Pilatus must be contacted to determine the modification work required to the aircraft before any change to an interior configuration is made.

8. ICE AND RAIN PROTECTION

PNEUMATIC DEICING BOOT SYSTEM

POH 2-15

- The pneumatic deice system boots are required to be installed for all flights.
- Preflight function test required before takeoff and flight into known icing conditions.
- The system is required to function properly for flight into known icing conditions.
- Operation of the boots in ambient temperatures below -40°C and above +40°C may cause permanent damage to the boots.
- The wing and tail leading edge boots must be activated at the first sign of ice formation anywhere on the aircraft.
- The boots may be deactivated only after leaving icing conditions and after the aircraft is determined to be clear of ice.

ICING LIMITATIONS

POH 2-16

Icing conditions can exist when: OAT on the ground and for takeoff, or SAT in flight, is 10°C or colder and visible moisture in any form is present (clouds, fog or mist with visibility of one mile or less, rain, snow, sleet, ice crystals); when operating at 10°C or colder on ramps, taxiways or runways where surface snow, ice, standing water or slush may be ingested by the engine or freeze on the engine or nacelle; or when there are visible signs of ice accretion on the aircraft.

- Flight in icing conditions is only approved with all ice protection systems, generator 1 and generator 2 serviceable.
- Flight in icing conditions is prohibited when the Propeller De Ice caution is active.
- If any ice protection system fails during flight in icing conditions, exit icing conditions. Immediately request priority handling from ATC to facilitate a route or altitude change.
- Flight in freezing rain, freezing fog, freezing drizzle and mixed conditions causing ice accretion beyond the protected areas of the pneumatic boots is not approved.
- The aircraft must be clear of all deposits of snow, ice and frost adhering to the lifting and control surfaces immediately prior to takeoff.
- In the event of a balked landing (go-around) with residual ice on the airframe, the flaps should not be retracted from the 15° position, and the landing gear and flaps may not fully retract after selection.
- The left wing inspection light must be operative prior to flight into forecast icing conditions at night.

WARNING

During flight in icing conditions or flight with any visible ice accretion on the airframe, the following flap maximum extension limits apply — with operational airframe pneumatic de-ice boots: 15° flap; after failure of the airframe pneumatic de-ice boots: 0° flap.

SEVERE ICING CONDITIONS

POH 2-17

Severe icing may result from environmental conditions outside of those for which the airplane is certificated. Flight in freezing rain, freezing drizzle, or mixed icing conditions (supercooled liquid water and ice crystals) may result in ice build-up on protected surfaces exceeding the capability of the ice protection system, or ice forming aft of the protected surfaces, seriously degrading performance and controllability.

Severe icing conditions that exceed certification shall be determined by the following visual cues. If one or more exists, immediately request priority handling from ATC to exit the icing conditions:

- Unusually extensive ice accumulation on the airframe and windshield in areas not normally observed to collect ice.
- Accumulation of ice beyond the active portions of the wing pneumatic boots.

CAUTION

When using the autopilot, tactile cues such as increased aileron forces may be masked by the autopilot function. Periodically disengage the autopilot to check for abnormal forces.

9. KINDS OF OPERATION AND EQUIPMENT LIST

APPROVED KINDS OF OPERATION

POH 2-15

The Pilatus PC-12 is approved for the following types of operation when the required equipment is installed and operational:

#	KIND OF OPERATION
1	VFR Day
2	VFR Night
3	IFR Day, including CAT 1 approaches, single pilot
4	IFR Night, including CAT 1 approaches, single pilot
5	Flight into Known Icing Conditions

KINDS OF OPERATION EQUIPMENT LIST (KOEL)

POH 2-18 to 2-20

A zero (0) means the system/equipment was not required for type certification for that kind of operation; AR = As Required. The list does not include flight and radio/navigation equipment required by a particular country's operating regulations. Deviations may be approved for a specific aircraft under an authorized MEL. The pilot in command is responsible for determining airworthiness and regulatory compliance for each intended flight.

SYSTEM / EQUIPMENT	VFR DAY	VFR NIGHT	IFR DAY	IFR NIGHT	ICING
Primus Apex					
Pilot PFD	1	1	1	1	1
MFD	1	1	1	1	1
MAU (Channel A & B)	1	1	1	1	1
PFD Controller	2	2	2	2	2
MF Controller	0	0	1	1	1
Audio Marker Panel	1	1	1	1	1
ADAHRS (Channel A & B)	1	1	1	1	1
Magnetometer	0	0	1	1	1
MMDR (COM/NAV)	0	1	1	1	1
Mode S Transponder	0	0	1	1	1
GPS	0	0	1	1	1
DME	0	0	1	1	1
Miscellaneous Instruments					
Clock (not required with Apex Build 10 and up)	0	0	1	1	1
Electronic Standby Instrument (ESIS)	1	1	1	1	1
Standby Magnetic Direction Indicator (ESIS Heading, MSN 1271-1942 / SB 34-042, OR Magnetic Compass E2B)	1	1	1	1	1
Engine					
No. 1 Generator	1	1	1	1	1
No. 2 Generator	1	1	1	1	1
Inertial Separator	1	1	1	1	1
Engine Driven Low Pressure Fuel Pump	1	1	1	1	1
Electric Wing Tank Fuel Boost Pump	2	2	2	2	2
Firewall Fuel Shutoff Valve	1	1	1	1	1
FCU Manual Override System	1	1	1	1	1
Torque Limiter	1	1	1	1	1
Ignition System	1	1	1	1	1

SYSTEM / EQUIPMENT	VFR DAY	VFR NIGHT	IFR DAY	IFR NIGHT	ICING
Fire Detect System	1	1	1	1	1
Electrical					
No. 1 Battery	1	1	1	1	1
No. 2 Battery	1	1	1	1	1
Stall Warning/Stick Pusher System	1	1	1	1	1
AOA Probes	2	2	2	2	2
CAS	1	1	1	1	1
Longitudinal (Stab) Trim System	1	1	1	1	1
Alternate Stab Trim System	1	1	1	1	1
Lateral Trim System	1	1	1	1	1
Directional Trim System	1	1	1	1	1
Trim Interrupt System	1	1	1	1	1
Windshield Heat	2*	2*	2*	2*	2*
Position Lights (MSN 1001 thru 1450)	0	3	3	3	3
Position Lights (MSN 1451-1942)	0	4	4	4	4
Strobe Lights	0	2	2	2	2
Landing Lights	0	2	2	2	2
Taxi Light	0	1	1	1	1
Instrument and Panel Lighting	0	AR	AR	AR	AR
Audio System	1	1	1	1	1
Cockpit Speaker	1	1	1	1	1
Cabin Speaker	1	1	1	1	1
Deice Boot Timer	0	0	0	0	1
AOA Heater LH	1	1	1	1	1
AOA Heater RH	1	1	1	1	1
Probe Current Monitor	1	1	1	1	1
Propeller Deice Timer	0	0	0	0	1
Propeller Deice Brush	0	0	0	0	1
Propeller Deice MOV	0	0	0	0	1
Propeller Deice Boots	0	0	0	0	**
Propeller Deice OAT Sensor	0	0	0	0	2
Left Wing Inspection Light	0	0	0	0	1
Emergency Power Supply	0	1	1	1	1
Mechanical Systems					
Landing Gear Actuating System	1	1	1	1	1
Emergency Gear Extension System	1	1	1	1	1
Flap Control	1	1	1	1	1
Flap Interrupt System	1	1	1	1	1
Seat Restraints (each occupant)	AR	AR	AR	AR	AR
Firewall ACS Shutoff Valve	1	1	1	1	1
Emergency Ram Air Scoop	1	1	1	1	1
Negative Pressure Relief Valve	2	2	2	2	2
Oxygen System	1	1	1	1	1
Deice Boot PRV	1	1	1	1	1
Deice Boot EFCV's	1	1	1	1	5
Deice Boot Pressure Switches	0	0	0	0	5
Deice Boot, Inner Wing LH	1	1	1	1	1
Deice Boot, Outer Wing LH	1	1	1	1	1
Deice Boot, Inner Wing RH	1	1	1	1	1

SYSTEM / EQUIPMENT	VFR DAY	VFR NIGHT	IFR DAY	IFR NIGHT	ICING
Deice Boot, Outer Wing RH	1	1	1	1	1
Deice Boot, Tail LH	1	1	1	1	1
Deice Boot, Tail RH	1	1	1	1	1
Fuel Control & Monitoring System	1	1	1	1	1
For Pressurized Flight					
ACS	1	1	1	1	1
Cabin Pressure Control Unit	1	1	1	1	1
Outflow Valve	1	1	1	1	1
Safety Valve	1	1	1	1	1

* Refer to Systems and Equipment Limits — Heated Windshield for the actual limitation.

** Flight into known icing conditions is prohibited if the Propeller De Ice caution is active.

10. SYSTEMS AND EQUIPMENT LIMITS

STALL WARNING / STICK PUSHER SYSTEM

POH 2-22

Preflight function test required before takeoff. The system is required to function properly in normal mode for all flights and in ice mode for flight into known icing conditions.

BRAKES (MSN 1231 - 1942)

POH 2-22

To allow adequate cooling of the wheels and brakes, the aircraft must remain on the ground for at least 45 minutes following either of the two events:

- Rejected takeoff with brake-on speed greater than VR -20 kt and heavy brake usage.
- 0° flap full stop landing and heavy brake usage.

TRIM SYSTEMS

POH 2-23

Stabilizer normal and alternate, and rudder trim systems must function properly for all flights.

HEATED WINDSHIELD

POH 2-23

Left hand and right hand heated windshields must function properly for all flights. Exception: for IFR flights conducted into no known or forecast icing conditions, at least one heating zone of the windshield on the side of the pilot in command must function properly.

FIRE DETECTION SYSTEM

POH 2-23

Preflight function test is required for takeoff. The system must function properly for all flights.

ENGINE ICE PROTECTION

POH 2-23

Preflight function test is required for takeoff.

OXYGEN SYSTEM

POH 2-23

- A minimum oxygen supply of 10 minutes duration for each occupant is required for dispatch for pressurized flight above FL250 (national operating requirements may require more).
- The oxygen system shut-off valve handle in the cockpit must be selected ON prior to engine start and throughout the duration of flight.
- The oxygen masks for the crew must be connected for all flights.
- With Corporate Commuter side wall paneling, passenger oxygen masks must be connected and properly stowed prior to takeoff when operating above 10,000 ft (in executive interiors the masks are permanently connected).

PROBE HEAT

POH 2-24

Preflight function test required before takeoff. The system is required to function properly for IFR flight and flight into known icing conditions.

FLAP SYSTEM CYCLE LIMITS

POH 2-24

A flap cycle is defined as movement from 0° to 15° to 0°, and from 0° to 15° to 40° to 0°. Maximum number of cycles per hour: 10 up to 25°C OAT; 8 from 25°C to 50°C OAT.

PRIMUS APEX — GENERAL

POH 2-24

The Honeywell Primus Apex Integrated Avionics System for the Pilatus PC-12E — Pilot's Guide must always be on board the aircraft.

PRIMUS APEX — AUTOMATIC FLIGHT CONTROL SYSTEM

POH 2-24 / 2-25

- During autopilot operation, a pilot must be seated in a pilot position with seat belt fastened.
- The autopilot (AP) and yaw damper (YD) must be OFF during takeoff and landing.
- Minimum engagement height after takeoff is 400 ft AGL.
- The autopilot must be disengaged below 1,000 ft AGL, except: non-precision approaches (airspeed below 150 KIAS and VS below 1,500 ft/min) — below 400 ft AGL; approaches with vertical guidance in VGP mode — below 200 ft AGL; coupled ILS approaches up to 4° — below 200 ft AGL.
- The system is approved for Category 1 operation (Approach mode selected) and autopilot coupled go-arounds initiated at decision altitude or minimum descent altitude.
- Maximum approved glideslope angle for all coupled approaches is 4°.
- During normal operation do not overpower the autopilot to change pitch and roll attitude.
- Apex Builds 6 and 7 — do not use SPD mode with the pre-selected altitude (PSA) set at the current aircraft altitude; the aircraft would maintain PSA and may deviate from the target speed with SPD mode annunciated as active in the FMA. In case of total loss of engine power (Ng below 60%), the system will ignore the PSA and descend at the target speed.

CAUTION

In accordance with FAA recommendation (AC 00-24C), the use of PITCH ATTITUDE HOLD mode is recommended during operation in severe turbulence.

VGP APPROACH SOURCED ON BARO VNAV — APEX BUILDS 10 / 10.9 (TEMPORARY REVISION 38)

TR 38

Temporary Revision 38 to the POH/AFM (Section 2 — Limitations; issued February 08, 2017, EASA Approved) applies to aircraft with Apex Build 10 or Build 10.9 installed: the use of VGP Approach mode sourced on Baro VNAV is limited to day VMC only. An FMS issue may lead the autopilot/flight director to deviate from the correctly calculated Baro VNAV glidepath in the final approach segment (APR mode engaged, VGP captured on Baro VNAV); the vertical deviation pointer continues to indicate the actual excursion. Approaches to space-based augmented LPV minima and ILS approaches are not affected.

If VGP deviation drift occurs, do ONE of the following before exceeding 1 dot on the vertical deviation scale:

1. Perform a go-around and use an alternative approach procedure; OR
2. Disconnect the autopilot and flight director, correct the flight path and continue the approach using raw data; OR
3. Disengage APR mode and re-engage NAV mode; use any appropriate vertical mode (PIT / VS / VPTH) to correct and maintain the published approach profile.

The PC-12/47E with Apex FMS holds airworthiness certification for GNSS, B-RNAV (RNAV 5), P-RNAV, BARO-VNAV, RNP 1, RNP APCH, MNPS, and (Build 7 or higher) RNP 4 & RNP 10 per the AMC/AC references listed in the POH. Airworthiness certification does not constitute operational approval — the operator must apply to the local authorities.

- MNPS and RNP 4 & RNP 10: full redundancy for the GPS navigation system is only provided if a second FMS, second GPS and Cursor Control Device (CCD) are installed. This does not constitute an operational approval.
- The FMS database must incorporate the current update cycle for IFR operation.
- FMS instrument approaches must be retrieved from the FMS database and conducted in FMS approach mode, with GPS integrity monitoring available at the FAF and APP mode displayed on the PFD at the FAF.
- Accomplishment of ILS, LOC, LOC-BC, LDA, SDF and MLS approaches using the FMS is prohibited.
- RNAV approaches are prohibited in non-WGS-84 airspace. Radio-based (VOR, NDB, etc.) approaches using GPS updating require the underlying NAVAID tuned and monitored; if GPS position does not match the radio-based data, use the radio-based data.
- European RNAV: with 23 satellites or less projected operational (22 or less with automatic pressure altitude aiding), RAIM availability must be confirmed for the intended flight; do not dispatch with predicted continuous RAIM loss of more than 5 minutes (Honeywell Preflight or equivalent approved software).
- Traditional approved navigation equipment (VOR, DME, ADF) adequate for the route must be installed and serviceable per the operational approval.
- Dead reckoning based on AHRS is not available north/south of approximately 82° latitude.
- When using VNAV, the altimeter is the primary altitude reference for all operations. On approach the LNAV/VNAV minimums apply; below minimums fly by visual references — do not rely on the VNAV deviation indicator.
- Flying an LNAV approach with FMS vertical guidance, never descend below the published LNAV MDA unless required visibility of the runway is provided.
- Build 6 or higher: baro-VNAV approach guidance (transition, final and missed approach) is NOT temperature compensated — uncompensated minimum IFR altitudes will not provide expected terrain/obstacle clearance below ISA unless a temperature limitation is charted. Build 10 or higher: guidance can be temperature compensated by entering the destination OAT and crosschecking corrected altitudes before activating changes.

PRIMUS APEX — TCAS I

POH 2-29

The flight crew must not use a TA on the PFD traffic display to initiate evasive maneuvering. ATC procedures and visual acquisition of the intruder must continue to be the primary means of ensuring aircraft separation.

PRIMUS APEX — TRANSPONDER

POH 2-29

The transponder complies with ICAO Doc 7030/4 Regional Supplementary Procedures for operations where enhanced surveillance is required. The FL ID should never be cleared without entering a legal FL ID or recycling power to the XPDR; on power-up an invalid FL ID defaults to the tail number.

PRIMUS APEX — ADAHRS

POH 2-29

If CAS message HSI IS MAG TRK or HSI IS TRU TRK is displayed, system accuracy does not allow VOR, VOR/DME and NDB non-precision approaches — use (GPS) overlay, LNAV or LNAV/VNAV, RNAV (GPS), RNAV (RNP), LPV or ILS approaches instead. The message appears when operating north/south of approximately 82° latitude, in Northern Canadian Domestic Airspace (north of ~73°N between 80°W and 130°W), and south of ~60°S between 120°E and 160°E.

YAW DAMPER

POH 2-30

Above FL200, when the yaw damper is not operating, the aircraft must be flown only in balanced flight (slip ball centered ± 1 ball).

PRIMUS APEX — ELECTRONIC CHECKLIST

POH 2-30

The AFM remains the primary reference for checklists. Use of the Electronic Checklist function is prohibited in the event of a lower MFD failure (operating on upper MFD only). Implementation and operational approval are the operator's responsibility.

PRIMUS APEX — ELECTRONIC CHARTS

POH 2-30

The Apex Electronic Charts provide supplemental situational awareness only — no blind-taxi procedures or flight navigation by these charts. The pilot remains responsible for taxiing by external visual references and flying by primary navigation instruments. Approved published paper or approved electronic charts must remain available as backup. The position accuracy of the aircraft symbol can decrease with insufficient GPS signal reception or GPS sensor failure, and the symbol is not in-scale with the charts. Operational approval to use external electronic charts (EFB Class 1 and 2) instead of paper charts is the operator's responsibility; Class 3 EFBs require an STC or certification design approval.

PRIMUS APEX — VIDEO INPUT / XM WEATHER / INAV / VSD

POH 2-30 / 2-31

- Video Input: the operator must ensure no interference with installed avionics from a connected camera device.
- XM SAT Weather: does not work in PDC mode (STBY bus); re-select the required XM layers once the aircraft is powered by batteries, external power, or the engine.
- INAV Map: the topographical map shall not be used for navigation; the airspace display shall not be the sole means of reference.
- Vertical Situation Display: situational awareness only — shall not be used for navigation purposes.

PRIMUS APEX — WEATHER RADAR

POH 2-31

- Ground operation: direct the nose so the antenna scan sector is free of large metallic objects (hangars, other aircraft) for a minimum of 15 ft (5 m), and tilt the antenna fully upwards.
- Do not operate during aircraft refueling or refueling operations within 15 ft (5 m).
- Do not operate when personnel are standing within 15 ft (5 m) of the 270° forward sector of the aircraft.

11. OTHER LIMITATIONS

PASSENGER SEATS

POH 2-31

- All passenger seats: for takeoff and landing the seat lap and shoulder belts must be fastened, the lap belt tightened, and the seat headrest positioned to support the head.
- Lap belt extension P/N 959.30.01.590 (used with restraint system P/N 959.30.01.259) can be used on standard passenger seats P/N 525.22.12.011/012. Its use is limited to those who need it, handed out by the pilot case by case before flight. It must not be used for strapping small children sitting on a person's lap.
- There are two different types of standard seats (TYPE I and II). It is not allowed to install TYPE I and II seats behind each other.

LUGGAGE LIMITATIONS

POH 2-32

INTERIOR CONFIGURATION	MAX LUGGAGE LOAD (NET P/N 525.25.12.043)
STD-9S	265 lb (120 kg)
EX-6S-STD-2S	265 lb (120 kg)
EX-4S-STD-4S	265 lb (120 kg)
EX-6S-2	400 lb (180 kg)
EX-8S	400 lb (180 kg)

- A luggage net must be installed at Frame 34 when luggage is stowed.
- The luggage area maximum load is 500 lb (225 kg) with an extendable luggage net (P/N 525.25.12.026) installed. The net and/or any luggage may not extend in front of frame 32. Without a three-seat bench installed, keep a clear area of at least 280 mm forward of frame 32 (net attached at frame 32) or at least 340 mm forward of frame 34 (net attached at frame 34).

CARGO LIMITATIONS

POH 2-32

- Maximum freight load 3,300 lb (1,500 kg).
- Cargo must be arranged to permit free access to the passenger door and the right hand emergency overwing exit. No cargo on the seats.
- All cargo must be secured by approved cargo restraints as described in POH Section 6. Tie down straps with a breaking strength of at least 1,800 lb per strap must be used.
- All cargo/containers must be located against a retaining bar secured laterally to the seat rails.
- Items up to a total weight of 66 lb (30 kg) can be stowed in the cabin area without being strapped down providing a cargo net is installed in front of the items. Cargo nets may only be installed on the attachments at Frames 24 and 27.
- No passengers may be seated rearward of a cargo net.
- If an extendable baggage net is used, the tie down fittings and cargo strap fittings must have a minimum space of 5 inches between the fittings.

STRUCTURAL LIMITATIONS

POH 2-33

Refer to Chapter 4 of the PC-12/47E Aircraft Maintenance Manual, Pilatus Report Number 02300.

SMOKING

POH 2-33

Smoking is not permitted in the cabin of aircraft equipped with a standard interior unless ashtrays are installed.

PORTABLE ELECTRONIC DEVICES

POH 2-33

The aircraft is Wi-Fi and Bluetooth frequency tolerant, tested to RTCA/DO-307 (front and back door coupling per DO-307 incl. Change 1). No restrictions result from DO-307 testing; the operator defines during which phases of flight PED usage is allowed. No test has been performed for GSM frequency tolerance. If electromagnetic interference is suspected, PED use should be discontinued or terminated.

REDUCED LANDING DISTANCES

POH 2-33

The PC-12/47E is eligible for application of the reduced required landing distance operations per CAT.POL.A.255. The operator must apply for and obtain prior operational approval of the competent authority.

12. PLACARDS

Key limitation-bearing placards installed in the airplane, transcribed from POH Section 2. Some placards vary by MSN block or interior code — the applicable variant is noted.

COCKPIT — OPERATIONAL LIMITATIONS (LH AND RH SIDE PANELS)

POH 2-43

This airplane must be operated as a normal category airplane in compliance with the operating limitations stated in the form of placards, markings and manuals. No acrobatic maneuvers including spins are approved. This airplane approved for VFR, IFR, day & night operation & icing conditions.

COCKPIT — EMERGENCY GEAR EXTENSION (RED PLACARD)

POH 2-43

- Airspeed 110 KIAS. Ensure landing gear handle DOWN.
- If 3 greens not illuminated after 30 seconds: extend the emergency gear pump handle (aft end of centre pedestal) and pump (up/down) until 3 greens are obtained.
- If 3 greens still not illuminated: yaw aircraft to lock LH & RH gear; reduce airspeed to lock nose gear.

COCKPIT — ICING FLAP LIMITS (RED WARNING STRIP)

POH 2-43

WARNING: During flight in icing conditions or flight with any visible ice accretion on the airframe the following flap maximum extension limits apply — with operational airframe pneumatic de-ice boots 15° flap; after failure of the airframe pneumatic de-ice boots 0° flap.

COCKPIT — AIRSPEED PLACARD (LH AND RH INSTRUMENT PANEL)

POH 2-44

AIRSPEED LIMITATION	VALUE
Vo (4740 kg)	166 KIAS
Vo (2600 kg)	123 KIAS
Vmo	240 KIAS
Mmo	0.48 M
Vfe up to 15°	165 KIAS
Vfe above 15°	130 KIAS
Vlo (near landing gear selector handle)	180 KIAS
Vle (near landing gear selector handle)	240 KIAS

COCKPIT — OTHER PLACARDS

POH 2-42 to 2-47

- Near MF controller: TOTAL USABLE CAPACITY 1521 LTR / 402 US GAL / 2704 LBS JET-A1.
- Near pressurization controls: ENSURE CABIN ΔP MAX. 0.7 PSI BEFORE LANDING; MAXIMUM CABIN DIFF. PRESS. = 5.75 PSID.
- Center console quadrant: MOR (MAX/OFF), POWER (FLIGHT/GROUND/REVERSE), CONDITION (FLIGHT IDLE / GROUND IDLE / CUT-OFF FEATHER), FLAP (0°/15°/30°/40°); below it: STABILIZED PROPELLER OPERATION ON GROUND (NOT FEATHERED) BETWEEN 350 AND 950 RPM IS PROHIBITED.
- Aft end of center console: CAUTION — PCL OPERATION AFT OF IDLE DETENT IS PROHIBITED WHEN: ENGINE NOT RUNNING, IN FLIGHT, WITH MOR OPERATION.
- Center console: FIRE EXTINGUISHER LOCATED BEHIND THE CO-PILOT SEAT (arrow placard on right cockpit bulkhead).
- Near DV window: DV WINDOW — PRESS BUTTON AND PULL INWARDS.
- Near optional standby magnetic compass: STANDBY COMPASS — for correct reading switch: generators & batteries ON, avionics ON, NAV & instrument lights as required, windshield de-ice LH & RH OFF, probes de-ice OFF, electrical heat/cool switch INHIBIT, foot warmer OFF (if installed).
- LH side panel near oxygen controls: PASSENGER OXYGEN — OFF / AUTO / ON.

- LH and RH side panels: WARNING — DO NOT SMOKE WHILE OXYGEN IS IN USE; OXYGEN; MASK MIC.

EXTERIOR PLACARDS

POH 2-34 to 2-41

- Passenger door (MSN 1000-1575): PULL HANDLE AND TURN TO OPEN — DO NOT OPEN DOOR WHEN ENGINE IS RUNNING UNLESS IN EMERGENCY. (MSN 1576-1942): PRESS HERE TO OPEN, PULL HANDLE AND PULL DOOR OUT — same engine warning.
- Cargo door: PRESS HERE TO OPEN, PULL HANDLE AND PULL DOOR OUT — DO NOT OPEN DOOR WHEN ENGINE IS RUNNING UNLESS IN EMERGENCY — PULL TO OPEN.
- Emergency exit: EMERGENCY EXIT — PUSH — PUSH IN AFTER RELEASE.
- Near static ports: STATIC PRESSURE KEEP CLEAR. Rudder (each side), aileron and flap top surfaces: DO NOT PUSH.
- Inside left engine cowling: TURBINE OIL — acceptable oils see P&W SB 14001 — TOTAL SYSTEM CAPACITY 14.5 QRT / 13.6 LTR; ENGINE OIL TYPE USED (pre-SB 11-006 aircraft add: DO NOT MIX OIL TYPES).
- Near fuel filler: FUEL — Jet A, Jet A-1 and Jet B — TOTAL CAPACITY 770 LTR / 203 US GAL — USABLE CAPACITY 761 LTR / 201 US GAL; ANTI-ICE ADDITIVE MUST BE USED FOR ALL FLIGHT OPERATIONS IN AMBIENT TEMPERATURES BELOW 0°C; REFUELING BONDING POINT.
- Main and nose landing gear doors: TYRE PRESSURE 60 psi (4.1 bar).
- Nose landing gear: DO NOT TURN BEYOND RED MARKS; A/C GND grounding point.
- Nose gear doors: NOSE LANDING GEAR SHOCK STRUT N2 CHARGE PRESSURE — 1st stage 50 psi (3.5 bar), 2nd stage 834 psi (57.5 bar).
- Main gear doors: MAIN LANDING GEAR SHOCK STRUT N2 CHARGE PRESSURE — 1st stage 141 psi (9.7 bar), 2nd stage 1668 psi (115 bar).
- Engine lower front cowling (each side): VERY HOT AREA — DO NOT TOUCH.
- Forward fuselage access doors: FUEL COMPARTMENT — FUEL SYSTEM MAINTENANCE VALVE INSIDE — FUEL FILTER INSIDE (LH); OXYGEN SERVICE POINT — USE NO LUBRICANTS (RH).
- Rear fuselage: BATTERY COMPARTMENT; ELT INSTALLED INSIDE; 28 VOLT DC EXTERNAL POWER POINT.

CABIN PLACARDS

POH 2-48 to 2-50

- Interior passenger door: EXIT — DO NOT OPERATE IN FLIGHT; DO NOT OPEN DOOR WHEN ENGINE IS RUNNING UNLESS IN EMERGENCY; ONLY ONE PERSON ON STAIRS AT ANY TIME; TO OPEN LIFT LATCH ROTATE HANDLE.
- Interior emergency exit / handle: EXIT; PULL.
- Interior cargo door: DO NOT REMOVE COVER IN FLIGHT; LIFT LOCKING LEVER AND PULL HANDLE PUSH DOOR OUT; DO NOT OPEN DOOR WHEN ENGINE IS RUNNING UNLESS IN EMERGENCY.
- Cabin to baggage area step: KEEP GRILL CLEAR.
- Forward and rear cargo door frame: MAX FREIGHT LOAD = 1500 kg / 3300 lb; max load on seat rails 1000 kg/m² (205 lb/ft²); max load on floor panels 600 kg/m² (125 lb/ft²); CARGO MUST NOT OBSTRUCT ACCESS TO CABIN DOOR AND EMERGENCY EXIT.
- Lower cargo door frame: INSTALL TAIL SUPPORT STAND BEFORE LOADING CARGO.
- Above baggage area: MAX BAGGAGE LOAD = 120 kg / 265 lb, or 180 kg / 400 lb, or 225 kg / 500 lb (only if baggage net 525.25.12.026 is installed). Cargo net attachment points: FR 24 / FR 27 / FR 34.

SEATING-VARIATION PLACARDS

POH 2-51 to 2-56

Pages 2-51 to 2-56 carry the per-interior placard sets (STD-9S, STD-6S-3B, EX-6S-2, EX-8S / EX-6S-STD-2S, EX-4S-STD-4S, EX-4S-3B): seat-back takeoff/landing placards (fasten lap and shoulder belt, seat back fully upright, adjust headrest, executive seats fully to the rear of cabin and fully outboard, table stowed), oxygen mask location placards, LEFT PART OF BENCH SEAT MUST BE FULLY AFT DURING THE ENTIRE FLIGHT (bench interiors), LEAVE THIS SEAT VACANT DURING TAKEOFF AND LANDING UNLESS SEAT IN FRONT IS OCCUPIED (seats 5-8, EX-8S / EX-6S-STD-2S), cabinet weight limits (right cabinet 5 lb upper / 7 lb lower; left cabinet 10 lb upper / 25 lb lower), NO SMOKING and lavatory placards, MAX COAT RAIL 5 kg / 11 lb, and the INTERIOR CODE placard on the forward cargo door frame.

13. V-SPEED DEFINITIONS (GENERAL REFERENCE)

Takeoff and Initial Climb

V-SPEED	NAME	MEANING
V1	Takeoff decision speed	Maximum speed at which a reject may be initiated; at or above it the takeoff must be continued.
Vr	Rotation speed	Speed at which the pilot rotates to raise the nose.
Vlof	Lift-off speed	Speed at which the aircraft first becomes airborne.
V2	Takeoff safety speed	Target climb speed with the critical engine inoperative.
Vmu	Minimum unstick speed	Slowest speed at which the aircraft can safely lift off.

Climb Performance

V-SPEED	NAME	MEANING
Vx	Best angle of climb	Most altitude gained per distance over the ground.
Vy	Best rate of climb	Most altitude gained per unit of time.
Vxse	Best angle, single-engine	Vx with one engine inoperative (multiengine).
Vyse	Best rate, single-engine	Vy with one engine inoperative — the blue line.

Stall Speeds

V-SPEED	NAME	MEANING
Vs	Stall speed	Minimum steady flight speed at which the aircraft is controllable.
Vs0	Stall speed, landing configuration	Stall with full flaps and gear down — bottom of the white arc.
Vs1	Stall speed, clean configuration	Stall in a specified (usually clean) configuration — bottom of the green arc.
Vsse	Safe single-engine speed	Minimum speed for intentionally cutting one engine.

Airspeed Indicator Limit Speeds

V-SPEED	NAME	MEANING
Va	Design maneuvering speed	Maximum speed for full or abrupt control inputs without overstress.
Vo	Operating maneuvering speed	Maximum speed for full or abrupt control movement at the given weight.
Vno	Maximum structural cruising speed	Normal operating limit — top of the green arc.
Vne	Never-exceed speed	The red line — never exceed.
Vfe	Maximum flap-extended speed	Top of the white arc.
Vle	Maximum landing-gear-extended speed	Maximum speed flying with the gear down.
Vlo	Maximum landing-gear-operating speed	Maximum speed to extend or retract the gear.
Vmo / Mmo	Maximum operating limit speed / Mach	Maximum operating airspeed and Mach number.

Multiengine Control

V-SPEED	NAME	MEANING
Vmc / Vmca	Minimum control speed (airborne)	Minimum speed to maintain control with the critical engine inoperative — red radial line.
VmCG	Minimum control speed (ground)	Minimum control speed on the takeoff roll.
Vmcl	Minimum control speed (landing)	Minimum control speed in the landing configuration.

Approach and Landing

V-SPEED	NAME	MEANING
Vref	Landing reference speed	Threshold-crossing speed, typically $1.3 \times V_{s0}$.
Vapp	Approach speed	Target speed on final approach.
Vbg	Best glide speed	Speed for maximum glide distance (best lift-to-drag ratio).

NOTE

The airspeed limit speeds above define the PC-12 NG speed-tape markings: the barber pole sits at Vmo/Mmo, the red high-speed strip extends down to the valid Vlo/Vfe, and the low-speed awareness tape rises to the shaker speed for the current configuration.