

Pilatus PC-12 Legacy (Series 10) | 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 FOCA/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 Pilot's Information Manual, Report No. 02211 (MSN 401-544 and 546-888; issued March 30, 2001; revisions through Revision 18, October 14, 2022) — Section 2, LIMITATIONS (pages 2-1 through 2-48). Source is a scanned copy; a small number of interior-placard fine-print digits (Service Bulletin and part numbers) were not cleanly legible and are noted where applicable — confirm against the aircraft's own placards and AFM.

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1. GENERAL

SCOPE AND CIRCUIT BREAKER RESET LIMITATION

POH 2-1

Section 2 of the POH contains the FOCA Approved operating limitations, instrument markings, color coding, and basic placards necessary for the 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 Battery Bus, Avionic 1 Bus and 26V AC Bus, and unless detailed otherwise in procedures, all tripped open circuit breakers are not allowed to be reset in flight. Circuit breakers on the Battery Bus, Avionic 1 Bus and 26V AC 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

POH 2-2

SPEED	KCAS	KIAS	SIGNIFICANCE
Maximum Operating Speed V_{mo}	240	236	Do not exceed this speed in any operations. Refer to the V _{mo} schedule for maximum speed above 15,200 ft.
Maximum Operating Mach M_{mo}	0.48 M	—	Governs above 15,200 ft — see the V _{mo} Schedule (POH Figure 2-1).
Maximum Flap Extended Speed V_{fe} — flaps 15°	165	163	Do not exceed this speed with flaps extended.
Maximum Flap Extended Speed V_{fe} — flaps 40° (above 15°)	130	130	Do not exceed this speed with flaps extended.
Maximum Landing Gear Operating Speed V_{lo}	180	177	Do not retract or extend the landing gear above this speed.
Maximum Landing Gear Extended Speed V_{le}	240	236	Do not exceed this speed with the landing gear extended.

NOTE

V_{mo} Schedule (POH Figure 2-1, page 2-3): V_{mo} is 236 KIAS from sea level to 15,200 ft. Above 15,200 ft, M_{mo} 0.48 governs and the indicated limit decreases with altitude — refer to the POH figure.

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	KCAS	KIAS	WEIGHT	KCAS	KIAS
9921 lb (4500 kg)	161	158	7060 lb (3200 kg)	136	133
9480 lb (4300 kg)	158	155	6610 lb (3000 kg)	132	129
9039 lb (4100 kg)	154	151	6170 lb (2800 kg)	127	124
8380 lb (3800 kg)	148	145	5730 lb (2600 kg)	123	120
7940 lb (3600 kg)	144	141			
7500 lb (3400 kg)	140	137			

AIRSPEED INDICATOR MARKINGS

POH 2-4

MARKING	KIAS VALUE / RANGE	REMARKS
Red Line or Red/White Needle	236 or 0.48 M, whichever is lower	Maximum operating limit (V _{mo} /M _{mo}).
Green Arc	91 to 236	Normal operating range. Lower limit is maximum weight stall speed in the clean configuration (V _s). Upper limit is the maximum operating speed (V _{mo} /M _{mo}).
White Arc	64 to 130	Full flap operating range. Lower limit is maximum weight stall speed in landing configuration (V _{so}). Upper limit is maximum speed with full flaps extended (V _{fe}).

3. POWER PLANT

ENGINE

POH 2-5

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

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 OIL QTY 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	800	104	1700 (10)	90 to 135	10 to 110
MAX. CONT. / MAX. CLIMB / CRUISE	1000	36.95	760	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 a 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 (Np) 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

ITEM	LIMITATION
Propeller Manufacturer	Hartzell
Propeller Model Number	HC-E4A-3D/E10477K or HC-E4A-3D/E10477SK
Number of Propellers / Blades	1 propeller, 4 blades
Propeller Diameter	Minimum 104 in (2.642 m) — Maximum 105 in (2.667 m)
Maximum Normal Operation (Np)	1,700 rpm
Maximum Transient (20 sec)	1,870 rpm
Maximum Reverse	1,650 rpm
Blade Angles at Station 42	Fine Pitch $19^{\circ} \pm 0.2^{\circ}$ Maximum Reverse Pitch $-17.5^{\circ} \pm 0.5^{\circ}$ Feather $79.6^{\circ} \pm 0.5^{\circ}$ Minimum pitch in flight 6°

CAUTION

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

STARTER

POH 2-9

The engine automatic 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 2-10

GENERATOR	MAX CONTINUOUS LOAD	MAX LOAD FOR 2 MINUTES *
Starter / Generator	300 AMP	450 AMP
Second Generator	115 AMP	N/A

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

POWER CONTROL LEVER OPERATION

POH 2-10

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.
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 2-10

Takeoff is not approved with the CHIP annunciator illuminated.

4. FUEL

APPROVED FUEL GRADES

POH 2-8

JET A, JET A-1, JET B, JP-4 — or any other fuel which complies with the latest revision of Pratt & Whitney Service Bulletin 14004.

ANTI-ICING ADDITIVE

POH 2-8

Anti-icing additive must be used for all flight operations in ambient temperatures below 0°C. Use additive conforming to MIL-DTL-27686 or MIL-DTL-85470, in compliance with Pratt & Whitney SB 14004. Additive concentration must be between a minimum of 0.06% and a maximum of 0.15% by volume. Refer to Section 8 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 (0.15% by volume) will cause damage to the protective primer and sealants of the fuel tanks. Damage will occur in the fuel system and engine components.

FUEL QUANTITY

POH 2-22

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 LCD segments on the indicator

NOTE

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

5. INSTRUMENT MARKINGS

POWER PLANT INSTRUMENT MARKINGS

POH 2-11

INSTRUMENT	RED DIA/RAD MIN. LIMIT	YELLOW ARC CAUTION	GREEN ARC NORM OPS.	YELLOW ARC CAUTION	RED RAD/DIA MAX. LIMIT
Engine Speed (Ng) %	N/A	N/A	60 to 104	N/A	104
ITT °C	N/A	N/A	400 to 760	760 to 800	800 / 1,000
Oil Temperature °C	N/A	N/A	10 to 105	105 to 110	110
Oil Pressure (psi)	40/60	60 to 90	90 to 135	N/A	135/200
Torque (psi)	N/A	N/A	0 to 36.9	36.9 to 44.3	44.3/61.0

MISCELLANEOUS INSTRUMENT MARKINGS

POH 2-11

INSTRUMENT	GREEN ARC NORM OPS.	YELLOW ARC CAUTION *	RED RAD/DIA MAX. LIMIT
Oxygen Pressure (psi)	N/A	N/A	1850 to 2000
Cabin Differential (psi)	0 to 5.75	5.75 to 6.50	6.50

* Cabin Differential Pressure Caution Range is Amber.

6. WEIGHT AND BALANCE

WEIGHT LIMITS

POH 2-12

ITEM	LIMITATION
Maximum Ramp Weight	9,965 lb (4,520 kg)
Maximum Takeoff Weight	9,921 lb (4,500 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 2-13

WEIGHT — LB (KG)	FORWARD LIMIT — A.O.D. IN / M	AFT LIMIT — A.O.D. IN / M
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 Section 6, Weight and Balance, for proper loading instructions.

7. FLIGHT AND OPERATING LIMITS

MANEUVER LIMITS

POH 2-14

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 2-14

CONDITION	LIMIT
Flight load limits with flaps up	+3.3 g / -1.32 g
Flight load limits with flaps down	+2.0 g / -0.0 g

FLIGHT CREW LIMITS

POH 2-14

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

ALTITUDE, TEMPERATURE AND PRESSURIZATION

POH 2-22

ITEM	LIMITATION
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	Not approved

MAXIMUM PASSENGER SEATING LIMITS

POH 2-23

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. Refer to Section 6 for seat locations.

Approved interior configurations (Pilatus must be contacted to determine the modification work required before any change to an interior configuration is made):

- Corporate Commuter STD-9S — nine standard seats.
- Corporate Commuter STD-6S-3B — six standard seats and three seat bench.
- Executive EX-6S-2 — six executive seats.
- Executive 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 EX-4S-3B — four executive seats and three seat bench.
- Executive EX-6S-STD-2S — six executive seats and two standard seats. Same seats 5-8 vacancy rule as EX-8S.
- Executive EX-4S-STD-4S — four executive seats and four standard seats.

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.
- Activate the wing and tail boots at the first sign of ice formation anywhere on the aircraft, or upon annunciation from an ice detector system (if installed), whichever occurs first.
- Deactivate only after leaving icing conditions and after the aircraft is determined to be clear of ice.

ICING LIMITATIONS

POH 2-15 / 2-16

Icing conditions can exist when: OAT on the ground and for takeoff, or TAT 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 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 at OAT 10°C or colder; 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.
- If any ice protection system or either generator fails in icing conditions — exit icing conditions; contact ATC for priority assistance if required.
- Prolonged flight in severe icing should be avoided — it may exceed the capabilities of the ice protection systems.
- Flap limits in icing conditions or with any visible ice accretion: operational airframe boots — 15° flap; after boot failure — 0° flap.
- Balked landing go-around with residual ice: do not retract flaps from the 15° position; the landing gear and flaps may not fully retract after selection.
- Flight in freezing rain, freezing fog, freezing drizzle and mixed conditions causing ice accretion beyond the protected areas of the boots is not approved.
- The aircraft must be clear of all snow, ice and frost adhering to the lifting and control surfaces immediately prior to takeoff.
- The left wing inspection light must be operative prior to flight into known or forecast icing conditions at night.

SEVERE ICING CONDITIONS

POH 2-16

Severe icing may result from conditions outside those for which the airplane is certificated (freezing rain, freezing drizzle, mixed supercooled liquid water and ice crystals). Ice may build beyond the capability of the ice protection system or form aft of the protected surfaces and may seriously degrade performance and controllability. If one or more of the following visual cues 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 2-14

The Pilatus PC-12 is approved for the following types of operation when the required equipment is installed and operational as defined within the Kinds of Operation Equipment List:

#	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 2-17 to 2-21

A zero (0) means the system/equipment was not required for type certification for that kind of operation; AR = As Required. The list is predicated on a crew of one pilot and 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
Flight Instruments					
Airspeed Indicator	1	1	1	1	1
Sensitive Altimeter	1	1	2	2	2
Magnetic Compass	1	1	1	1	1
Attitude Indicator (EADI)	0	0	1	1	1
Attitude Indicator (Self contained)	0	0	1	1	1
Rate of Turn Indicator (EADI)	0	0	1	1	1
Slip-Skid Indicator (Inclinometer)	1	1	1	1	1
Directional Indicator (EHSI)	0	0	1	1	1
AHRS	0	0	1	1	1
Vertical Speed Indicator	0	0	1	1	1
Clock	0	0	1	1	1
Engine Instruments (EIS)					
Torquemeter	1	1	1	1	1
Propeller Tachometer (Np)	1	1	1	1	1
Inter Turbine Temperature Gauge (ITT)	1	1	1	1	1
Gas Generator Tachometer (Ng)	1	1	1	1	1
Oil Pressure Gauge	1	1	1	1	1
Oil Temperature Gauge	1	1	1	1	1
Miscellaneous Instruments (EIS)					
Fuel Quantity Indicators	2	2	2	2	2
L FUEL LOW Annunciator	1	1	1	1	1
R FUEL LOW Annunciator	1	1	1	1	1
DC Voltmeter	1	1	1	1	1
DC Ammeter	1	1	1	1	1
Outside Air Temperature Gauge	1	1	1	1	1
Engine					
Starter Generator	1	1	1	1	1

SYSTEM / EQUIPMENT	VFR DAY	VFR NIGHT	IFR DAY	IFR NIGHT	ICING
Second Generator	0	0	1	1	1
Inertial Separator	1	1	1	1	1
INERT SEP Annunciator	1	1	1	1	1
Engine Driven Low Pressure Fuel Pump	1	1	1	1	1
FUEL PRESS Annunciator	1	1	1	1	1
Electric Wing Tank Fuel Boost Pump	2	2	2	2	2
L FUEL PUMP Annunciator	1	1	1	1	1
R FUEL PUMP Annunciator	1	1	1	1	1
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
PROP LOW P Annunciator	1	1	1	1	1
Ignition System	1	1	1	1	1
Fire Detect System	1	1	1	1	1
ENG FIRE Annunciator	1	1	1	1	1
FIRE DETECT Annunciator	1	1	1	1	1
OIL QTY Annunciator	1	1	1	1	1
CHIP Annunciator	1	1	1	1	1
Electrical					
Battery	1	1	1	1	1
2nd Battery (if installed)	1	1	1	1	1
BAT OFF Annunciator	1	1	1	1	1
BAT HOT Annunciator (nicad battery)	1	1	1	1	1
BATTERY Annunciator	1	1	1	1	1
Stall Warning/Stick Pusher System	1	1	1	1	1
AOA Probes	2	2	2	2	2
PUSHER Annunciator	1	1	1	1	1
AIR / GND Annunciator	1	1	1	1	1
Vmo Overspeed Aural Warning	1	1	1	1	1
CAWS	1	1	1	— †	1
CAWS FAIL Annunciator	1	1	1	1	1
GEN 1 LED	1	1	1	1	1
GEN 2 LED	1	1	1	1	1
AV 1 LED	1	1	1	1	1
AV 2 LED	1	1	1	1	1
BAT 1 LED	1	1	1	1	1
BAT 1 HOT LED	1	1	1	1	1
BAT 2 LED (if installed)	1	1	1	1	1
BAT 2 HOT LED (if installed)	1	1	1	1	1
Longitudinal (Stab) Trim System	1	1	1	1	1
Alternate Stab Trim System	1	1	1	1	1
STAB TRIM Annunciator	1	1	1	1	1
Lateral Trim System	1	1	1	1	1
Directional Trim System	1	1	1	1	1
Triple Trim Indicator	1	1	1	1	1
Trim Interrupt System	1	1	1	1	1
Windshield Heat	2	2	1*	1*	2
WSHLD HT Annunciator	1	1	1	1	1
INVERTER Annunciator	0	0	1	1	1

SYSTEM / EQUIPMENT	VFR DAY	VFR NIGHT	IFR DAY	IFR NIGHT	ICING
GEN 1 OFF Annunciator	1	1	1	1	1
GEN 2 OFF Annunciator	0	0	1	1	1
ESNTL BUS Annunciator	1	1	1	1	1
AV BUS Annunciator	1	1	1	1	1
N ESNTL B Annunciator	1	1	1	1	1
BUS TIE Annunciator	1	1	1	1	1
Position Lights	0	3	3	3	3
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
PUSHER ICE MODE Annunciator	0	0	0	0	1
DE ICE BOOTS Annunciator	0	0	0	0	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
AOA DE ICE Annunciator	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	4
Propeller Deice OAT Sensor	0	0	0	0	2
PROP DE ICE Annunciator	0	0	0	0	1
Left Wing Inspection Light	0	0	0	0	1
A/P TRIM Annunciator	1	1	1	1	1
A/P DISENG Annunciator	1	1	1	1	1
PITOT 1 Annunciator	1	1	1	1	1
PITOT 2 Annunciator	1	1	1	1	1
STATIC Annunciator	1	1	1	1	1
Mechanical Systems					
Landing Gear Actuating System	1	1	1	1	1
HYDR Annunciator	1	1	1	1	1
Gear Position Indications/Warning	3	3	3	3	3
Emergency Gear Extension System	1	1	1	1	1
Flap Control & Indication	1	1	1	1	1
Flap Interrupt System	1	1	1	1	1
FLAPS Annunciator	1	1	1	1	1
Seat Restraints (each occupant)	AR	AR	AR	AR	AR
PASS DOOR Annunciator	1	1	1	1	1
CAR DOOR Annunciator	1	1	1	1	1
Firewall ECS Shutoff Valve	1	1	1	1	1
Emergency Ram Air Scoop	1	1	1	1	1
Oxygen System	1	1	1	1	1
PASS OXY Annunciator	1	1	1	1	1
Deice Boot PRV	1	1	1	1	1

SYSTEM / EQUIPMENT	VFR DAY	VFR NIGHT	IFR DAY	IFR NIGHT	ICING
Deice Boot EFCVs	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
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
For Pressurized Flight					
Pressurization Control System (CPCS)	1	1	1	1	1
Cabin Altimeter	1	1	1	1	1
Cabin Vertical Speed Indicator	1	1	1	1	1
Cabin Differential Pressure Indicator	1	1	1	1	1
Maximum Cabin Altitude Warning	1	1	1	1	1
CAB PRESS Annunciator	1	1	1	1	1
ECS	1	1	1	1	1
ECS Annunciator	1	1	1	1	1

* Refer to Section 2 Systems and Equipment Limits — Heated Windshield for the actual limitation.

† CAWS / IFR NIGHT: this cell prints blank in the source scan copy (every adjacent kind of operation requires 1). Confirm against the AFM for the specific serial number.

10. SYSTEMS AND EQUIPMENT LIMITS

STALL WARNING / STICK PUSHER SYSTEM

POH 2-24

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.

TRIM SYSTEMS

POH 2-24

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

HEATED WINDSHIELD

POH 2-24

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 2-24

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

ENGINE ICE PROTECTION

POH 2-24

Preflight function test is required for takeoff.

OXYGEN SYSTEM

POH 2-25

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

EFIS

POH 2-25

- During EFS 40/50 operation, the Bendix/King EFS 40/50 Pilot's Guide must be on board and immediately available to the pilot.
- Standby artificial horizon must be operational for departure (IFR operation only).
- No SG or DU flag may be visible prior to departure (IFR operation only).

PROBE HEAT

POH 2-26

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

ENGINE INSTRUMENT SYSTEM (EIS)

POH 2-26

EIS must function properly for all flights. EIS system test required before takeoff. Takeoff is not approved with the red EIS warning light illuminated after a system test.

FLAP SYSTEM CYCLE LIMITS

POH 2-26

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:

CONDITION	MAX CYCLES PER HOUR
Up to 25°C OAT	10
25°C to 50°C OAT	8

AUTOPILOT

POH 2-27

- During autopilot operation, the Bendix/King KFC 325 Pilot's Guide must be on board and immediately available to the pilot.
- If the autopilot is to be used in flight, the entire preflight test must be successfully completed prior to each flight.
- During autopilot operation, a pilot must be seated in a pilot position with seat belt fastened.
- The autopilot (A/P) and yaw damper (YD) must be OFF during takeoff and landing.
- Altitude Select captures below 1000 ft AGL are prohibited.
- The autopilot must be disengaged below 1000 ft AGL, except: for airplanes equipped with a functioning Pilatus-option radar altimeter, the autopilot must be disengaged below 200 ft AGL during ILS approach operations provided the autopilot is coupled to glideslope vertical guidance of 6° or less. The system is approved for Category 1 operation (Approach mode selected) and autopilot-coupled go-arounds initiated at decision altitude.
- In normal operation do not override the autopilot to change pitch or roll attitude.
- Continued autopilot operation is prohibited following abnormal operation or malfunction, prior to corrective maintenance.

NOTE

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

AHRS

POH 2-27

Fly straight and level for 1 minute after each 15 minutes of continuous orbiting maneuvering (not applicable to LCR-93 AHRS).

WEATHER RADAR

POH 2-27

When operating the weather radar on the ground, direct the nose of the aircraft so that the antenna scan sector is free of large metallic objects (hangars, other aircraft) for a minimum distance of 15 feet (5 meters), and tilt the antenna fully upwards. Do not operate during refueling or refueling operations within 15 feet (5 meters). Do not operate when personnel are standing within 15 feet (5 meters) of the 270° forward sector of the aircraft.

11. OTHER LIMITATIONS

PASSENGER SEAT LAP BELT EXTENSION

POH 2-28

Lap belt extension P/N 959.30.01.588 (used only with restraint system P/N 959.30.01.232, .233, .584 or .585) or lap belt extension P/N 959.30.01.590 (used only with restraint system P/N 959.30.01.259) can be used on all standard passenger seats P/N 959.30.01.501-520 and 525.22.12.011/012. Its use is limited to those who need it and it shall be handed out by the pilot on a case-by-case basis before flight. The lap belt extension must not be used for strapping small children sitting on a person's lap.

STANDARD PASSENGER SEAT TYPES

POH 2-28

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.

CARGO LIMITATIONS

POH 2-28

- 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 secured by approved cargo restraints per Section 6; tie-down straps with a breaking strength of at least 1,800 lb per strap.
- All cargo/containers must be located against a retaining bar secured laterally to the seat rails.
- Items up to a total of 66 lb (30 kg) may be stowed unstrapped provided a cargo net is installed in front of them. Cargo nets may only be installed on the attachments at Frames 24 and 27. No passengers 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.

EXECUTIVE CABIN FLOODLIGHTS

POH 2-28

Cabin floodlights that are Pre SB 33-008 in MSN 321 and 401 thru 416 with executive interiors shall not be operated on the ground for more than 2 hours in any 4 hour period if the outside air temperature is greater than 25°C.

ALL PASSENGER SEATS

POH 2-28

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.

LUGGAGE LIMITATIONS

POH 2-29

The luggage area maximum load depends on the interior configuration and the P/N of the luggage net installed. A luggage net must be installed at Frame 34 when luggage is stowed.

INTERIOR CONFIGURATION	NET 950.10.00.071 / 950.10.00.314	NET 525.25.12.011	NET 525.25.12.037	NET 525.25.12.043
STD-9S	154 lb (70 kg)	154 lb (70 kg)	154 lb (70 kg)	265 lb (120 kg)
EX-6S-STD-2S	154 lb (70 kg)	154 lb (70 kg)	154 lb (70 kg)	265 lb (120 kg)
EX-4S-STD-4S	154 lb (70 kg)	154 lb (70 kg)	154 lb (70 kg)	265 lb (120 kg)
EX-6S-1	400 lb (180 kg)	220 lb (100 kg)	400 lb (180 kg)	400 lb (180 kg)
EX-6S-2	400 lb (180 kg)	220 lb (100 kg)	400 lb (180 kg)	400 lb (180 kg)
EX-8S	400 lb (180 kg)	220 lb (100 kg)	400 lb (180 kg)	400 lb (180 kg)

- With an extendable luggage net installed the luggage area maximum load is 500 lb (225 kg). The net and/or luggage may not extend in front of frame 32. Without a three seat bench, keep a clear area of at least 280 mm forward of frame 32 (net attachments at frame 32) or at least 340 mm forward of frame 34 (net attachments at frame 34).

- Optional wardrobe: maximum 35 lb (15.9 kg) of luggage in the bottom, secured with the safety net.

STRUCTURAL LIMITATIONS

POH 2-29

Refer to Chapter 4 of the PC-12 Aircraft Maintenance Manual, Pilatus Report Number 02049.

SMOKING

POH 2-29

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

12. PLACARDS

The placards below restate limitations from the sections above as they appear on the airplane. Values shown were transcribed from POH pages 2-30 through 2-48; a few Service Bulletin and part-number digits in the interior placard fine print are not cleanly legible in the source scan copy and are omitted here — always defer to the placards installed on the aircraft.

EXTERIOR PLACARDS

POH 2-30 to 2-34

- Passenger and cargo doors: DO NOT OPEN DOOR WHEN ENGINE IS RUNNING UNLESS IN EMERGENCY (with door opening instructions).
- Near static ports: STATIC PRESSURE — KEEP CLEAR.
- On rudder (each side), aileron top surfaces and three places on each flap: DO NOT PUSH.
- Emergency exit: EMERGENCY EXIT — PUSH — PUSH IN AFTER RELEASE.
- 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 — DO NOT MIX OIL TYPES.
- Near each 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 — SEE PILOT'S OPERATING HANDBOOK FOR APPROVED FUELS AND QUANTITY; and ANTI-ICE ADDITIVE MUST BE USED FOR ALL FLIGHT OPERATIONS IN AMBIENT TEMPERATURES BELOW 0°C.
- Nose landing gear: DO NOT TURN BEYOND RED MARKS; A/C GND grounding point; REFUELING BONDING POINT.
- Main and nose landing gear doors: TYRE PRESSURE 60 psi (4,1 bar).

COCKPIT PLACARDS

POH 2-35 to 2-39

LOCATION	PLACARD
Instrument panel — flaps	VFE UP TO 15° — 163 KIAS VFE ABOVE 15° — 130 KIAS
Instrument panel — maneuvering / max operating	VO (4500 KG) — 158 KIAS VO (2600 KG) — 120 KIAS VMO — 236 KIAS MMO — 0.48 M
Center panel below Display Unit	STABILIZED PROPELLER OPERATION ON GROUND (NOT FEATHERED) BETWEEN 350 AND 950 RPM IS PROHIBITED
Near fuel quantity indicator	TOTAL USABLE CAPACITY 1521 LTR / 402 US GAL / 2704 LBS JET-A1
Near landing gear selector handle	VLO — 177 KIAS VLE — 236 KIAS
Near pressurization controls	ENSURE CABIN DEPRESSURIZED BEFORE LANDING MAXIMUM CABIN DIFF. PRESS. = 5.75 PSID
Center console (fwd of trim indicators)	WARNING — During flight in icing conditions or with any visible ice accretion, flap maximum extension limits: operational airframe pneumatic de-ice boots 15° FLAP; after boot failure 0° FLAP.
Aft end of center console	CAUTION — PCL OPERATION AFT OF IDLE DETENT IS PROHIBITED WHEN: ENGINE NOT RUNNING / IN FLIGHT / WITH MOR OPERATION

LOCATION	PLACARD
Cockpit side panels	OPERATIONAL LIMITATIONS — 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 and night operation and icing conditions.
Side panel — emergency gear	EMERGENCY GEAR EXTENSION — AIRSPEED 110 KIAS; ensure landing gear handle down; if 3 greens not illuminated after 30 seconds, use the emergency gear pump handle and pump until 3 greens obtained; if still not illuminated, yaw aircraft to lock LH and RH gear and reduce airspeed to lock nose gear. (Two placard versions; both 110 KIAS.)
Near standby magnetic compass	STANDBY COMPASS — FOR CORRECT READING SWITCH: avionics ON, nav and instrument lighting as required, windshield de-ice LH and RH OFF, cabin heating system OFF, UP HEATER CB pull, footwarmer system OFF (if installed), auxiliary cooling systems OFF (if installed), cabin power system OFF (if installed). (Two versions by MSN group / DC-DC converter fit.)
Near oxygen controls / DV window	PASSENGER OXYGEN — OFF / AUTO / ON DV WINDOW — PRESS BUTTON AND PULL INWARDS WARNING — DO NOT SMOKE WHILE OXYGEN IS IN USE

CABIN AND CARGO PLACARDS

POH 2-40 to 2-42

- Interior passenger door: EXIT — DO NOT OPERATE IN FLIGHT; ONLY ONE PERSON ON STAIRS AT ANY TIME; TO OPEN LIFT LATCH ROTATE HANDLE.
- Interior emergency exit: 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 step: KEEP GRILL CLEAR.
- 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; INSTALL TAIL SUPPORT STAND BEFORE LOADING CARGO.
- Above baggage area (per configuration): MAX BAGGAGE LOAD = 75 kg / 165 lb, or 100 kg / 220 lb, or 120 kg / 265 lb, or 180 kg / 400 lb; post-SB replacement placard MAX BAGGAGE LOAD = 225 kg / 500 lb (only if the specified baggage net is installed). Cargo net attachment points: FR 24 / FR 27 / FR 34.

SEATING-VARIATION PLACARDS

POH 2-43 to 2-48

Pages 2-43 to 2-48 carry the per-interior placard sets (STD-9S, STD-6S-3B, EX-6S-1/-2, EX-8S, EX-6S-STD-2S, EX-4S-STD-4S, EX-4S-3B): seat-back takeoff/landing placards (fasten lap and shoulder belt, adjust headrest, seat back fully upright, executive seats fully to the rear of cabin and fully outboard, table stowed, armrest lowered), 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), wardrobe WEIGHT LIMIT 35 LB / 15.9 KG, MAX COAT RAIL 5 kg / 11 lb, cabinet drawer weight limits, NO SMOKING and lavatory placards (toilet compartment not occupied during takeoff/landing and turbulence), fire extinguisher location, and the INTERIOR CODE placard on the forward cargo door frame (SEE AFM/POH SECTION 6).

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

On the PC-12 Legacy (Series 10) round-dial airspeed indicator, the red line (or red/white needle) sits at Vmo/Mmo (236 KIAS or 0.48 M, whichever is lower), the green arc spans 91 to 236 KIAS, and the white arc spans 64 to 130 KIAS.