

Piper PA34-200T Seneca II

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Cockpit Interior

Maintenance Status/Weight & Balance	CHK
Pitot Tube Cover.....	REMOVE
Aircraft Paper/POH.....	CHK
Hobbs Hour.....	NOTE
Control Wheel Lock	REMOVE
Parking Brake	as required
Mags/All Switches.....	OFF
Gear Selector.....	DOWN
<i>Alternate Static Source (if installed)</i>	<i>OFF/Right</i>
Alternate Air	OFF
Cowl Flaps	PUSH OPEN
Circuit breakers.....	CHK
Master Switch	ON
Fuel Quantity.....	CHK
Gear Indication.....	3 GREEN
<i>Stall Warning Light (if installed)</i>	<i>ON</i>
Annunciator Panel.....	TEST
• if flight takes place at night	
Exterior & Interior Lights.....	CHK
Flashlight.....	CHK
• if Icing in flight suspected	
Pitot Tube/Windshield Heat.....	CHK, then OFF
	Warm to touch within 30 second
Master Switch	OFF
Flaps	EXTEND
Fuel Selector.....	ON
All Articles, Survival Kit, Fire Extinguisher	CHK
Pitot and Static.....	DRAIN
Crossfeed	DRAIN

Exterior Check

Right Wing

Crossfeed Drain	CLOSED
*Aileron/Flap	CHK
*Gear Strut/Tire	CHK/NO LEAKS
	Strut min. 2½ inches exposed
*Wing Tie-down.....	DISCONNECT
*Fuel Qty/Filler Cap.....	CHK/SECURED
*Engine Oil/Filler Cap.....	CHK/SECURE
*Cowl Flaps.....	CHK
*Fuel Drain (3).....	SAMPLE

Nose

Gear Strut/Tire	CHK
Landing Lights.....	CHK
Forward Baggage Door.....	LOCKED

Left Wing (see Right Wing * as applicable)

Pitot Head	CHK
Stall Warning.....	CHK
Dorsal Fin Air Scoop	CLEAR

Rear Fuselage/Tail Section

Static Vent.....	CHK
Tail Tie-down	DISCONNECT
Control Surfaces/Trim Tab.....	CHK

Before Start

Seats/Seat Belts	ADJUST & LOCKED
Parking Brake	as required
Elec. Equipment/Avionics Master	ALL OFF
Master Switch	ON
Beacon.....	ON

Engine Start

Primer	Standard	<i>Optional</i>
<input type="checkbox"/> Magnetos		ON
<input type="checkbox"/> Mixture		FULL RICH
<input type="checkbox"/> Prop		FULL FORWARD
<input type="checkbox"/> Throttle	HALF OPEN	<i>FULL OPEN</i>
<input type="checkbox"/> <i>Aux Fuel Pump</i>		<i>OFF</i>
<input type="checkbox"/> <i>Primer</i>		<i>3-5 sec ON</i>
<input type="checkbox"/> <i>Throttle</i>		<i>CLOSE</i>
<input type="checkbox"/> Propeller Area.....		"CLEAR"
<input type="checkbox"/> Starter		ON
<input type="checkbox"/> Primer Button.....		TAP as required
• if Engine fires		& >500 RPM
<input type="checkbox"/> Starter		RELEASE
<input type="checkbox"/> Throttle		1000 RPM
<input type="checkbox"/> <i>Aux Fuel Pump</i>		<i>as required</i>
<input type="checkbox"/> Oil Pressure		CHK
<input type="checkbox"/> Alternator		ON
<input type="checkbox"/> Mixture		LEAN

RICH | DA>3.000 ft: Lean as required

• Repeat for other Engine

If Temp <20°F/-7°C wait 5 min for charging before other Engine

ENG Cold Start (Standard Primer)

- BOTH Throttles CLOSE
 BOTH Mixtures CUT-OFF
 BOTH Props FULL FORWARD
 Master/Starter/BOTH Magnetos OFF
 BOTH Props TURN THROUGH BY HAND 3x
 BOTH Throttles FULL FORWARD
 BOTH Fuel Selectors ON
 BOTH Mixtures FULL RICH
 Master Switch ON
 ___ Magnetos Switch ON
 ___ Aux Fuel Pump ON LOW BOOST
 ___ Propeller Area "CLEAR"
 ___ Starter ON
 ___ Primer 3 sec ON
 ___ Throttle FULL FORWARD to FULL AFT
 ___ Primer 3 sec ON, 3 sec OFF, 3 sec ON
- if Engine fires (leave Starter ON)
 - ___ Primer TAP until rhythmic firing
 - ___ Starter RELEASE
 - ___ Throttle HALF TRAVEL
 - ___ Mixture ADVANCE SLOWLY
 - ___ Oil Pressure CHK
 - if Engine begins to falter
 - ___ Primer TAP
 - ___ Throttle 1000 RPM
 - ___ Alternator ON
 - ___ Aux Fuel Pump OFF
 - Repeat for other Engine (as required)

If Temp <20°F/-7°C wait 5 min for charging before other Engine

ENG Start with External Power

Normal Checklist integrated

Master Switch/all electrical equipment OFF
 Terminals CONNECT
 External Power Plug INSERT in fuselage

Primer	Standard	<i>Optional</i>
<input type="checkbox"/> Magnetos		ON
<input type="checkbox"/> Mixture		FULL RICH
<input type="checkbox"/> Prop		FULL FORWARD
<input type="checkbox"/> Throttle	HALF OPEN	<i>FULL OPEN</i>
<input type="checkbox"/> <i>Aux Fuel Pump</i>		<i>OFF</i>
<input type="checkbox"/> <i>Primer</i>		<i>3-5 sec ON</i>
<input type="checkbox"/> <i>Throttle</i>		<i>CLOSE</i>
<input type="checkbox"/> Propeller Area		"CLEAR"
<input type="checkbox"/> Starter		ON
<input type="checkbox"/> Primer Button	TAP as required	
• if Engine fires		<i>& >500 RPM</i>
<input type="checkbox"/> Starter		RELEASE
<input type="checkbox"/> Throttle		1000 RPM
<input type="checkbox"/> <i>Aux Fuel Pump</i>		<i>as required</i>
<input type="checkbox"/> Oil Pressure		CHK
• Repeat for other Engine		
If Temp <20°F/-7°C wait 5 min for charging before other Engine		
BOTH Throttles		Lowest possible RPM
External Power Plug		DISCONNECT
Master Switch		ON
BOTH Alternators		ON
Oil Pressure		CHK
Mixtures		LEAN

RICH | DA>3.000 ft: Lean as required

ENG Flooded Start

- Throttle..... FULL OPEN
 Mixture..... CUT-OFF
 Prop..... FULL FORWARD
 Magnetos..... ON
 Aux Fuel Pump..... OFF
 Propeller Area..... "CLEAR"
 Starter..... ON
- if Engine fires
 - Throttle..... RETARD 1000 RPM
 - Mixture..... ADVANCE SLOWLY
 - Oil Pressure.....CHK
 - Alternator..... ON
 - Mixture..... LEAN
 - Repeat for other Engine (as required)
 - If Temp <20°F/-7°C wait 5 min for charging before other Engine

After Start

- Throttle..... 1000-1200 RPM
 Alternator..... one at a time OFF/CHK/ON
 Check Alt. Undervoltage Light On, other Loadmeter picks up load
 Avionics Master & Radios..... ON
 Transponder..... TEST/ALT
 VFR US: 1200, Europe: 7000
 Altimeters..... SET
 Circuit Breakers.....CHK
 Fuel Selectors..... X-FEED

 Lights..... as required
 Flight Controls.....CHK
Autopilot (if installed)..... CHK, then OFF
 Heater/Defroster.....CHK

Run-Up

Brakes.....	SET
Mixture.....	FULL RICH
	DA>3.000 ft: Lean as required
Engine Instruments.....	CHK
Fuel Selector.....	ON
Throttle.....	1000 RPM
Manifold Pressure Line	DRAIN
	Press for min. 5 seconds (below/Behind Manifold Press. Gauge)
Prop Governor (1.).....	CHK FEATHER
	RPM drop \leq 300
Throttle.....	1900 RPM
Prop Governor (2.).....	CHK/FULL FORWARD
	RPM drop 100-200
Alternate Air	CHK/OFF
Mags/Ignition.....	CHK/BOTH
	RPM drop \leq 150, differential \leq 50
Alternator/Ammeter.....	CHK
Gyro Pressure Gauge	CHK
	4,5 - 5,2 inch
Engine Instruments	CHK
Throttle.....	IDLE, then 800-1000 RPM

Takeoff Distance Correction

Short grass (<5 inch): +20% TOD | Tall grass (5-10 inch): +25% TOD

Wet short grass: +25% TOD | Wet tall grass: +30% TOD

2% Upslope: +20% TOD | Soft ground, snow, standing water: +25% TOD

Tailwind (<10 kts): +20%

+ Before Takeoff +

Cabin/Doors & Windows.....	READY/CLOSED
Fuel Selectors & Quantity	ON/___ USG
Aux Fuel Pumps	OFF
HDG/Radios/ <i>VOR-Check</i>	CHK/SET
<i>Autopilot (if installed)</i>	OFF
Annunciator Panel	CHK
Cowl Flaps	OPEN
Trim.....	Set T/O
Flaps	UP
Props	FULL FORWARD
Mixtures	SET
DA>3.000 ft: Run up with 40", then LEAN according Alt-Mark on FF-Ind.	
<i>Air Condition (if installed)</i>	OFF
Tracking/Timing	START

Pitot Heat.....	as required
Landing & Strobe Lights	ON
T/O Power.....	Max. 40" / 2575 RPM
V _R	66 kts
Speed (Best Rate)	89 kts

Short Field Takeoff

Throttle Full OPEN before releasing Brakes

Flaps	UP	25°
V _R	66	<u>61 kts</u>
<u>CAUTION:</u> V _{MC} is 66 kts		
Speed until 50 ft.....	71	69 kts
Speed (Best Angle)/V _{SSE}		76 kts
Speed (Best Rate)		89 kts

+ Climb +

Gear (V_{LR} 107 kts)	UP
Flaps	UP
Speed (V_Y)	89 kts
	Cruise: 102 kts
Climb Power (500 ft)	31,5" / 2450 RPM
Cowl Flaps	as required
Engine Instruments	CHK
Aux Fuel Pumps (if hot weather)	LO as required
Taxi/Landing Lights	OFF

+ Cruise +

Synchronizer	ON
Mixture	LEAN
Cowl Flaps	as required
Climb Power (500 ft)	31,5" / 2450 RPM
Climb Speed	102 kts

+ Descent +

Cowl Flaps	PULL CLOSE
Mixture	SET
	DA>3.000 ft: Lean as required (Cruise setting)
Speed	129 kts
Altimeter	SET
Fuel Selectors	ON
Cabin	READY

Approach Review

Flaps 10°/25° (V_{FE} 138/121 kts)	91 kts
<i>Downwind (1/2 - 1 NM)</i>	98 kts
<i>Abeam</i>	2250 RPM
<i>Base Turn</i>	Flaps 25°/97 kts

+ Landing +

Air Condition (if installed).....	OFF
Synchronizer.....	OFF
Aux Fuel Pumps.....	OFF
Mixture.....	RICH
	DA>3.000 ft: Lean as required
Gear (V _{LO} 129 kts).....	DOWN/3 GREEN
Landing Lights.....	ON
Flaps 10°/25° (V _{FE} 138/121 kts).....	91 kts
Flaps 40°/Full (V _{FE} 107 kts).....	83 kts
	79 kts if lightly loaded; High Crosswind Flaps 0° or 25° approved
• if Short Field Landing	
Speed.....	78 kts
Props.....	FULL FORWARD

Landing with Flaps Up

Approach Speed.....	87 kts
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- Go Around -

G/A Power.....	Max. 40" / 2575 RPM
Cowl Flaps.....	as required
Flaps.....	25°
Gear (V _{LO} 129 kts).....	UP

After Landing

Flaps.....	UP
Pitot Heat.....	OFF
Strobe/Landing Lights.....	OFF
Trim.....	Set T/O
Cabin Heater (if previously used).....	FAN
	<i>Minimum 2 minutes</i>
Cowl Flaps.....	PUSH OPEN
Alternate Air.....	OFF

Shutdown

Parking Brake	as required
Cabin Heater.....	OFF
Transponder/Avionics Master.....	SBY/OFF
Props	FULL FORWARD
Mixtures	CUT-OFF
Mags.....	OFF
All Light and Heat Switches.....	OFF
Alternators	OFF
Master Switch	OFF
Tracking/Timing	STOP
Hobbs Hours.....	NOTE

Securing the Airplane

Control Lock.....	INSTALL
• if Hot and Parking \leq 2 hours	
Parking Position.....	A/C INTO THE WIND
Oil Filler Door	OPEN
	To assist cooling
Headset/Ext. GPS.....	Remove
Tablet/Kneeboard/Camera(s).....	Remove
Charts/Checklists.....	Remove
Windows (Storm/Rear)	CLOSE
Pitot Tube Cover.....	INSTALL
Airplane.....	TIE DOWN, CHOCK, SECURE

ENG Failure/Fire (In Flight)

Speed (V_{MCA} 66 kts) V_{YSE} 89 kts

Power MAX
 Mixtures – Props – Throttle (max. 40 inch) FORWARD

Gear UP

Flaps UP

- if Restart required (No Fire)

Aux Fuel Pump UNLATCH, HI

OFF if power is not immediately restored

___ Fuel Selector CHK

___ Alternate Air ON

___ Mags CHK

Eng Restart (9) CONSIDER

- if Engine **Fire** or **No Restart**

___ Throttle IDLE

___ Prop FEATHER
 Min. 800 RPM

___ Mixture CUT-OFF

___ Fuel Selector OFF

___ Aux Fuel Pump OFF

___ Mags OFF

___ Alternator OFF

___ Cowl Flap PULL CLOSE

- if Engine Fire

Heater OFF

Defroster OFF

Land as soon as possible

Electrical Load MONITOR

Max. 50 Amps on remaining alternator

Land as soon as possible

ENG Fire (Ground/Starting)

- Cranking CONTINUE
- ___ Aux Fuel Pump OFF
- if Engine running
 - ___ Throttle 2000 RPM
Try pulling fire into Engine
 - if Engine has not started or Fire continues
 - Mixture CUT-OFF
 - ___ Throttle Full OPEN
 - Cranking CONTINUE
 - Fuel Selectors OFF
 - Magnetos OFF
 - Master Switch & Alternators OFF
 - Brakes OFF
 - Fire Extinguisher OBTAIN/ACTIVATE

Evacuate Airplane

ENG Propeller Overspeed

- ___ Throttle RETARD
- ___ Prop PULL/LOW RPM
- Speed REDUCE
- Reduce RPM below red line (2575 RPM)

Oil Pressure & Temperature CHK

- if Loss of Oil cause of Overspeed

ENG Failure/Fire (In Flight) (7) APPLY

Land as soon as possible

ENG Manifold Pressure Low

Low Manifold Pressure may indicate an exhaust gas leak/Turbocharger Failure

___ Throttle RETARD to Minimum Required Pwr

Land as soon as possible

ENG Failure/Fire (In Flight) (7) APPLY

Shut down Engine unless another emergency exists

ENG Rough

Aux Fuel PumpCHK
 OFF or LO (for vapor suppression)
 Mixture RESET

ENG Overboost Light

Manifold Pressure at or above 40 inch

ENG Fuel Flow Low

Throttle RETARD
 Aux Fuel Pump UNLATCH, HI
 Throttle RESET
 Max. 75% Power

- if Engine Power Abnormal

Aux Fuel Pump OFF

- if Fuel Flow Abnormal

Fuel Leak CONSIDER

ENG Restart

Fuel Selector ON
 Aux Fuel Pump OFF
 Throttle OPEN 1/4 -1/2 inch
 Prop FORWARD
 To Cruise RPM (Midrange)
 Mixture RICH
 Mags ON
 Speed (min. 78 kts) 100 kts

- if Speed below 100 kts

Starter ENGAGE until Prop Windmills

- if Engine does not start

Primer as required

- if Engine starts

Alternator ON

ENG OUT Cruise

Mixture	LEAN
Cowl Flap	as required
Fuel Selector	ON
• if Crossfeed required	
Fuel Selector	X-FEED
Use only in Level Flight - Do not use if tank on operative side is full	

ENG OUT Landing

<i>Air Condition (if installed)</i>	OFF
Fuel Selector	ON
Mixture	RICH
	DA>3.000 ft: Lean as required
Flaps 10° (V _{FE} 138 kts)	110 kts
Flaps 25° (V _{FE} 121 kts)	91 kts
Gear (V _{LO} 129 kts)	DOWN/3 GREEN
Prop	FULL FORWARD

ENG OUT Go Around

Throttle	OPEN SLOWLY
G/A Power	40" / 2575 RPM
Speed	89 kts
Cowl Flap	as required

ENG Fuel Pressure/Flow High

Fuel Nozzles may be restricted

ENG RPM control sluggish

Check Prop Nitrogen pressure after landing

Smoke/Fire

- if Fire in Cabin or Electrical Fire suspected
 - Master Switch OFF
 - Alternators..... OFF
 - Electrical EquipmentALL OFF
 - Leave Mags On
 - Vents, Cabin Heater & Air..... CLOSE/OFF
 - Fire extinguisher (if installed)*.....ACTIVATE

Land as soon as possible

- if Smoke/Fire is OUT
 - Vents, Cabin Air OPEN
 - Battery..... ON
 - Alternators..... ON
 - Circuit breakersCHK
 - Do NOT reset
 - Essential Electrical Equipment..... ON
 - One at a time; turn off all radios prior turning on Avionics Master switch
 - Defective Equipment..... ISOLATE
 - Cabin Heater & Air as required

- if Wing/External Fire
 - External Lights & Pitot Heat..... OFF
 - Sideslip PERFORM

Land as soon as possible

ELEC Alternator Failure

Load Meter.....CHK
Normal Load per Alternator: < 65 Amps

- if BOTH Alternator failed

AlternatorOFF, then ON
One at a time

- if BOTH Alternator failed

Alternators..... OFF

Electrical Load..... REDUCE to Minimum

Land as soon as possible

Battery Capacity..... DETERMINE

With 1 each XDPR, COM, NAV, DME max. 115 min
above plus Instrument Panel Lights, Position Lights: max. 35 min

GEAR Manual Extension (11).....APPLY

- if ONE Alternator failed

Overvoltage RelayCHK/RESET

CBsCHK/RESET

- if Load Meter shows NO load

Affected Alternator OFF

Electric Windshield..... OFF

Electrical Load..... REDUCE

Reduce to 65 Amps or below (<50 Amps recommended)

GEAR Manual Extension (11).....APPLY

ELEC Avionics Failure

Radio Power AUXILIARY/Emergency Bus

INST Gyro Pressure Low

Gyro Press Warning Light and/or Gyro Pressure below 4,5 inch

RPM..... INCREASE to 2575 RPM

Altitude..... DESCENT

Descent to maintain 4,5 inch Gyro Pressure

Elec. Turn Indicator..... USE

To monitor Directional and Attitude Indicator

Icing

- Windshield Defroster ON
- Pitot Heat ON
- Alternate Air ON
- When entering Icing conditions
 - Windshield Heat (if installed)* ON
Max. 30 sec if on ground or ice exists on heated panel
 - Prop Deice (if installed)* ON
 - if Ice on Prop
 - Engines INCREASE POWER
 - Props CHANGE RPM
 - if ¼ to ½ inch Ice on wing
Wing Deice (if installed) ON
 - if Ice on unprotected surfaces
Approach Speed increase by 10-15 kts

Wing-Tail Deicer Panel Light

- if light illuminated for more than 20 sec
Surface Deice CB PULL

HEATER Overheat

Unit will automatically cut-off - Do not attempt a restart

Door Open

- Speed 85 - 94 kts
- Storm Window OPEN
- Door PULL CLOSE
- Door Upper Latch LATCH
- if door cannot be closed
Speed min. 85/max. 107 kts

Emergency Descent

Throttles	CLOSE
Props	FULL FORWARD
Mixtures	as required
Flaps (V_{FE} 138 kts)	10°
Gear (V_{LO} 129 kts)	DOWN/3 GREEN
Speed	129 kts

GEAR Disagree / Unsafe Warning

Red Transit Light remains on and/or Gear Horn sounds

With Hydraulic Failure Gear will freefall down

Gear Selector (V_{LR} 107 kts)	RECYCLE
• if Red Gear Transit Light On or Gear Horn sounds	
Gear Lever (V_{LO} 129 kts)	DOWN
Gear Indication	CHK
Check Bulbs and turn Nav Lights Off	
Ldg Gear CB	CHK
Master Switch & Alternators	CHK ON
Gear Indication	CHK/3 GREEN
Check Gear Transit Light and Gear Horn	
• if Gear is not down	
<u>GEAR Manual Extension</u>	APPLY

GEAR Manual Extension

Speed	max. 84 kts
Ldg Gear CB.....	PULL as required
Gear Lever.....	CHK DOWN
Emer. Gear Extend Knob.....	PULL
Gear Indication	3 GREEN
	Inop without Electric power
Emer. Gear Extend Knob.....	LEAVE OUT

GEAR Partial/Up Landing

Normal Checklist Integrated

GEAR Manual Extension (11)APPLY

- Descent/Approach

Cowl Flaps	CLOSE
Mixtures	ENRICH
Altimeter.....	SET
Lights	ON as required
Fuel Selector & Quantity.....	CHK/ON
Cabin.....	READY
Windshield Defroster.....	as required
Flaps	UP
Speed.....	87 kts
Doors	UNLOCK

- if landing is assured

Props.....	PULL/LOW RPM
Aux Fuel Pumps.....	OFF
Throttles	CLOSE
Mixtures	CUT-OFF
Magnetos	OFF
Fuel Selectors.....	OFF
Alternators.....	OFF
Master Switch	OFF

Speeds

Stall		
V_{S0}		63 kts
V_{S1}		61 kts
Takeoff & Climb		E/O
V_Y (Best Rate)	88	89 kts
V_X (Best Angle)		78 kts
V_R		66 kts
Enroute		102 kts
Maneuvering		
V_A (4560 lbs)		136 kts
V_A (3068 lbs)		121 kts
V_{SSE}		71 kts
V_{MCA}		66 kts
Operating		
V_{NE}		195 kts
V_{NO}		163 kts
V_{FE} (Flaps 10°)		138 kts
V_{FE} (Flaps 25°)		121 kts
V_{FE} (Flaps 40°)		107 kts
$V_{LE/LO}$		129 kts
V_{LR}		107 kts
Descent		E/O
Approach	83	89 kts
Flaps Up Approach		87 kts
Emergency Descent		129 kts
Max. CWC (demonstrated)		17 kts

Weights

MTOW	4570 lbs
MLAW	4342 lbs
MZFW	4000 lbs
Empty Weight (Standard).....	2823 lbs
Useful Load (Standard).....	1747 lbs
Fuel Capacity	Total Usable
Both Tanks (total usable).....	98 93 USG
Both Optional Tanks (total usable)...	128 123 USG

Airwork

Cabin READY
Air Condition (if installed) OFF
 Fuel Selector BOTH ON
 Mixture RICH
 Clearing turn Perform
 Power 20"/2300 RPM

Steep Turns

Power 19"/2300 RPM
 add 1" while rolling in
 Speed 110 kts
 Bank 45°
 Rollout appr. 25° prior Hdg

Clean Stall (A/P on)

Power 12"/FULL FWD

Departure Stall

Power 17"/FULL FWD
 Flaps 25° (V_{FE} 121 kts) 85 kts
 Bank 20°
 Power 30"/FULL FWD

Landing Stall

Power 17"/FULL FWD
 Gear (V_{LO} 129 kts) DOWN/3 GREEN
 Flaps 40° (V_{FE} 138/121/107 kts) 71 kts

Airwork [Cont]

VMC Demo

Power 20"/2300 RPM
 LH Engine IDLE
 Slow Down 1 kts/sec
 At first indication of Stall or VMC
 Pitch Nose Down
 Power REDUCE

Slow Flight (Clean)

Power 17"/2300 RPM
 Speed 70 kts
 Power 19"/2300 RPM

Slow Flight (Dirty)

Power 17"/2300 RPM
 Gear (V_{LO} 129 kts) DOWN/3 GREEN
 Flaps 10°/25° (V_{FE} 138/121 kts) 91 kts
 Flaps 40°/Full (V_{FE} 107 kts) 87 kts
 Power 19"/2300 RPM
 Speed 60 kts

Before Takeoff

Cabin/Doors & Windows.....	READY/CLOSED
Fuel Selectors & Quantity	ON/___ USG
HDG/Radios/ <i>VOR-Check</i>	CHK/SET
<i>Autopilot (if installed)</i>	OFF
Annunciator Panel	TEST/CHK
Alternate Air	OFF
Cowl Flaps	OPEN
Trim.....	Set T/O
Flaps	UP
Props	FULL FORWARD
Mixtures	SET
DA>3.000 ft: Run up with 40", then LEAN according Alt-Mark on FF-Ind.	
<i>Air Condition (if installed)</i>	OFF
Tracking/Timing	START

Aux Fuel Pumps	OFF
Pitot Heat.....	as required
Landing & Strobe Lights	ON
T/O Power.....	40" / 2575 RPM
V _R	66 kts
Speed (Best Rate)	89 kts

Climb

Gear (V _{LR} 107 kts)	UP
Flaps	UP
Speed (V _Y)	89 kts
Climb Power (500 ft)	31,5" / 2450 RPM
Cowl Flaps	as required
Engine Instruments.....	CHK
Aux Fuel Pumps (if hot weather)	LO as required
Landing Lights	OFF

Cruise

Synchronizer	ON
Mixtures	LEAN
Cowl Flaps	as required
Climb Power	31,5" / 2450 RPM
Climb Speed	102 kts

Descent

Cowl Flaps	PULL CLOSE
Mixture	SET
	DA>3.000 ft: Lean as required (Cruise setting)
Speed	129 kts
Altimeter	SET
Fuel Selectors	ON
Cabin	READY

Landing

<i>Air Condition (if installed)</i>	OFF
Synchronizer	OFF
Mixtures	RICH
	DA>3.000 ft: Lean as required
Gear (V_{LO} 129 kts)	DOWN/3 GREEN
Landing Lights	OFF
Flaps 10°/25° (V_{FE} 138/121 kts)	91 kts
Flaps 40°/Full (V_{FE} 107 kts)	83 kts
	79 kts if lightly loaded; High Crosswind Flaps 0° or 25° approved
• if Short Field Landing	
Speed	78 kts
Props	FULL FORWARD

Go Around

Flaps	25°
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