



Diamond Star DA-40-180 Checklist

BEFORE START

Rudder Pedals	Adjusted
Passengers	Briefed
Seatbelts	Secure
Doors	Closed & Latched
Circuit Breakers	Check
Parking Brake	On
Trim	T/O
Throttle	Idle
Propeller	Forward
Mixture	Cut-off
Throttle Friction	Adjust
Alternate Air	Closed
Alternate Static Valve	Handle Aft
Avionics Master Switch	Off
Essential Bus Switch	Off

STARTING

(Read through, do by flow pattern)

BAT Master Switch	On
Strobe Light	On
Throttle	1" Open

COLD START	
Fuel pump	On
Mixture	Rich, 3-5 secs
Mixture	Cut-off
Starter	Engage
Mixture	Rich
Oil pressure	Check

WARM START	
Mixture	Cut-off
Starter	Engage*
Mixture	Rich
Oil pressure	Check

*If no start, refer to cold start procedure for priming.

*Starter Duty cycle: 6 attempts then cool for 30 sec.

FLOODED START

Strobe light	On
Fuel pump	OFF
Mixture	Cut-off
Throttle	Mid Position
Ignition Switch	Start
Throttle	1000 RPM
Mixture	Full Rich

AFTER START

Electric Fuel Pump	Off
ALT Master Switch	On
Ammeter	Check
Fuel Pressure	Check
Avionics Master	On
Annunciator/Engine Inst.	Check (PFD)

FMS SETUP

Initialize Profile	AUX 4
.....	MAP
.....	MFD FPL
.....	PFD FPL
Fuel Quantity	Reset
Flight Plan	Input
Radios	COMM, NAV
.....	CDI, BRG ½
Performance	Speed Bugs

Auto Pilot Test*	COMPLETED
Position Lights	ON as Required
Fuel Selectors (2).....	ON/FUEL RST
Altimeters (3)	SET
Standby Horizon	CHECKED
Transponder	ON/CHECKED
Parking Brake	RELEASED

* Auto Pilot Trim Test AS NECESSARY

BEFORE TAXI

Lights	As required
Flight Instruments	Check
Radios	Check
Parking brake	Off
Flaps	Cycle
Brakes	Test

BEFORE TAKE OFF

Parking brake	Set
Flight Controls	Free
Fuel Tank Selector	Switch tank
Fuel Pressure	Check
Flaps	T/O
Mixture	Rich
Throttle 2000 RPM	
Prop	Cycle 3 times
Magnetos	Check
Gauges	Green
Throttle	Idle
Flight Instruments	Check
Radios/NAVAIDS	Set
Fuel pump	On
Canopy	Close/Lock
Annunciator Panel	Check
Auto pilot	Off
Departure plan	Complete
Parking Brake	Off

Flaps	TO
Mixture	Rich
Prop	Full FWD
Lights	As required

CLIMB (500' AGL)

Flaps	Up
Throttle	Full
Prop	2400 RPM
*Fuel Pump	Off
Cruise Climb	90 KIAS
Lights	As Required
Engine Gauges	Green

*Fuel pump on high Alt.

CRUISE

Throttle	Set
Prop	2200 to 2400 RPM
Mixture	lean -100°
CHT	150° – 400° F

PRE-MANEUVER CHECK

Mixture	Fwd
Prop	Fwd
Fuel pump	On

SWITCHING FUEL TANKS

Fuel pump	On
Fuel selector	Switch
Fuel pressure	Check
Fuel pump	Off
Fuel pressure	Check

DESCENT

Mixture	Slowly Enrich
Fuel	Fullest Tank
Seatbelts	Fastened
Altimeter	Set
Instruments/Radios	Set

LANDING

Mixture	Rich
Prop	Full Fwd
Fuel Pump	On
Flaps	As required
Lights	As required

BALKED LANDING (GO AROUND)

Throttle	Full
Flaps	T/O
Climb speed	66 KIAS

AFTER LANDING

Throttle	1000 RPM
Fuel Pump	Off
Lights	As Required
Flaps	Up

SHUT DOWN

Throttle	1000 RPM
Avionics master	Off
Electric Equip	Off
Mixture	Cut-off
Ignition Switch	Off
Master switch	Off

AFTER ALL FLIGHTS

Hobbs meter	Note time
Tie-downs	Secure
Pitot cover	Install
Stall opening	Plug
Air Inlets	Plug

RESTART IN FLIGHT

PROP WINDMILLING	
Airspeed	80KIAS
Fuel selector	Fullest tank
Ignition Switch	Both
Mixture	Rich
Fuel pump	On
Alternate Air	Open
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If Req.	
Mixture	Lean
Mixture	Adv. Slow

PROP STOPPED	
Airspeed	80KIAS
Electrical Equip	Off
Avionics master	Off
Master switch	On
Mixture	Rich
Fuel selector	Left or Right
Fuel pump	On
Alternate air	Open
Ignition	Start

EMERGENCY LANDING

Airspeed	73 KIAS
Radio	Call
Fuel Tank Selector	Off
Flaps (<i>field assured</i>)	LDG
Ignition Switch	Off
Master Switch	Off

ENGINE FIRE

Cabin Heat	Off
Fuel Tank Selector	Off
Throttle	Max Power
Fuel Pump	Off
BAT Master Switch	On
Canopy	Open

ELECTRIC FIRE/SMOKE

Emergency Switch	On
Master Switch (BAT)	Off
Cabin Heat	Off
Emergency windows	Open

SPEEDS REFERENCE

<u>Check Speeds</u>	
Vr	59 KIAS
Vy	66 KIAS
Vy Flaps up	73 KIAS
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<u>Landing</u>	
Normal	71 KIAS
Short Field	67 KIAS