

# Diamond DA40 XLS (GFC700, A.C.)

<b>Initial</b> Check performance: Weather and Density Altitude Weight and Balance Flight Plan — File as req. Papers (AROW, VOR) — Check Fire Extinguisher — Check Control Lock — Remove Master — On Flaps — Set to T/O, then LDG Pilot Pedals — Adjust Hobbs & Tach — Check vs. log Lights — Check Int./Ext. Fuel Gauges — Check level Master — Off	<b>Pre-Engine Start</b> Electrical — Check all off Propeller — Set to high RPM Mixture — Set to idle cutoff Master — On Flaps — Up XPDR — Select VFR MFD — Select “Engine” Page Fuel Totalizer — Set Beacon — On Prop — Clear	<b>Run-up</b> Brakes — Set Trim — Set to T/O Flight Controls — Free & Correct Alternate Air — Test, Close Annunciations — None Fuel Tank — Switch Fuel Pump — On Mixture — Set to best power Throttle — Set to 2000 RPM Propeller — Cycle 3 times: RPM Decrease Manifold Pressure Increase Oil Pressure Decrease Ignition — Test L & R Magnetos Alternator Load — Check Fuel/Oil Pressure — Check Oil Temperature — Check Throttle — Test Idle Throttle Friction — Check/Set
<b>Exterior</b> Check quantity and quality: Fuel — Sump and measure Oil — Check (4-8 qt, ideal 6 qt) Remove and stow: Pitot cover Cowl plugs Tie-downs Chocks Check for damage and debris: Caps/Drains/Vents Propeller and Spinner Air Intakes Exhaust Canopy Stall Orifice Surfaces and Controls Pitot and Static Ports Gear/Tires/Brakes Antennas Final walk around — Complete	<b>Engine Start</b> <i>Cold Start</i> Throttle — Open halfway Fuel Pump — On Mixture — Set to rich for 3-5 sec. Throttle — Open slightly <i>Hot Start</i> Throttle — Open slightly Fuel Pump — On Mixture — Set to rich for 3 sec. <i>Once Engine Starts</i> Ignition — Turn to start Mixture — Set to rich Throttle — Set to 1000 RPM Oil Pressure — Check Voltage — Check Annunciators — Check Fuel Pump — Off Mixture — Lean for ground ops	<b>Pre-takeoff</b> FMS Flight Plan — Activated CDI Nav Source — Set as req. Transponder — Check code Flaps — Set to T/O Fuel Pump — On Front Canopy — Locked Rear Door — Locked Air Conditioning — Off as req. Lights — On as req. Radio — Ready for departure
<b>Interior</b> Passengers: Briefing — Complete Headsets — Connect Seatbelts — On ELT — Set to ARM Circuit Breakers — Check Front Canopy — Close Rear Door — Close Pedals — Adjust Fuel — Set to fullest tank Brakes — Check	<b>Pre-Taxi / Taxi</b> Avionics Master — On Intercom — Test w/ passengers Radio — Test at un-towered field Pitot Heat — On Autopilot — Test Lights — On as req. ATIS / AWOS — Listen and note Altimeters — Set and check Clearance — Request as req. Transponder — Set code as req. Mixture — Richen slightly for taxi Radio — Ready to taxi Brakes — Test Check instruments: Altimeters — Correct HSI and Compass — Correct Airspeeds — Zero	<b>In-flight checklists →</b>  <b>Securing</b> Transponder — Set to VFR ELT — Verify silent Throttle — Set to 1000 RPM Hobbs/Tach & Fuel — Note Ignition — Check ground as req. Lights — Off Avionics Master — Off Mixture — Lean to cutoff Ignition — Off Pedals — Adjust for control lock Master — Off Control Lock, Covers — Install Tie-downs — Install

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<b>Takeoff</b> Time — Note Landing Light — On Mixture — Set as req. for alt. Throttle — Set to full RPM — Check <= 2700 RPM Oil Pressure — Check Brakes — Release Rotate at 60 KIAS Initial climb at 67 KIAS Flaps — Up at safe altitude Fuel Pump — Off >1,000' AGL Continue climb at 76 KIAS	<b>Descent</b> Fuel Tank — Set to fullest tank Fuel Pump — Off <10,000' MSL Mixture — Set richer as req. ATIS / AWOS — Listen and note Altimeters — Set for destination Radio — Call as req.  <i>Constant Airspeed Descent</i> AS — Maintain ~130 KIAS VS — Maintain ~500 fpm Propeller — Set to 2200 RPM Throttle — Set to 15" or as req.  <i>Low Airspeed, Steep Descent</i> AS — Maintain ~80 KIAS VS — Maintain ~500 fpm Propeller — Set to 1800 RPM Throttle — Set to 10" or as req.  <i>High Airspeed, Shallow Descent</i> AS — Maintain <178 KIAS VS — Maintain as req. Propeller — Set to 2450 RPM Throttle — Set to full	<b>Pre-landing</b> Seatbelts — On Landing Light — On Fuel Pump — On Mixture — Set for alt. Flaps — Set to T/O at 108 KIAS Air Conditioning — Off as req.
<b>Climb</b> Cruise climb at 76 KIAS Landing Light — Off Mixture — Lean as req. for alt. Oil Temperature — Check CHT — Check Fuel Pump — On >10,000' MSL	<b>Cruise</b> Propeller — Set to 2450 RPM Fuel Pump — On >10,000' MSL Mixture — Lean for alt. Fuel Tank — Switch as req.	<b>Landing</b> Flaps — Set to LDG at 91 KIAS Approach at 73 KIAS
		<b>Go Around</b> Mixture — Set richer as req. Propeller — Set to high RPM Throttle — Set to full Flaps — Set to T/O Initial climb at 67 KIAS
		<b>After Landing</b> Flaps — Up Pitot Heat — Off Fuel Pump — Off Lights — Set as req. Mixture — Lean for ground ops Trim — Set to T/O Air Conditioning — On as req.