

DIAMOND DA40 NORMAL PROCEDURES CHECKLIST

SAFETY CHECK

MAINTENANCE STATUS CHECKED
 WEATHER & DENSITY ALT..... CHECKED
 WEIGHT & BALANCE COMPLETE
 FLIGHT PLAN COMPLETE
 AIRPLANE DOCUMENTS (A.R.O.W.) CHECKED
 FIRE EXTINGUISHER..... CHECKED
 CIRCUIT BREAKERS..... CHECKED
 DOORS (CONDITION)..... CHECKED
 FLIGHT CONTROLS..... FREE & CORRECT
 MASTER SWITCH (BAT)..... ON
 RUDDER PEDALS..... ADJUSTED
 FUEL QUANTITY..... CHECKED
 HOBBS/TACH TIME..... RECORDED
 LIGHTS/PITOT HEAT ON/CHECK/OFF
 MASTER SWITCH (BAT) OFF

EXTERNAL INSPECTION

WALK AROUND CHECK COMPLETE
 (See AFM Page 4A-5 et seq)

PRE-START CHECK

PASSENGER BRIEF COMPLETE
 SEAT BELTS..... ON
 REAR DOOR..... CLOSED, SECURE, UNLOCKED
 FRONT CANOPY..... UNLOCKED, POS 1 OR 2
 PARKING BRAKE..... SET
 TRIM WHEEL..... T/O
 THROTTLE..... IDLE
 RPM LEVER..... HIGH RPM
 MIXTURE LEAN
 ALTERNATE AIR..... CLOSED
 ALTERNATE STATIC..... CLOSED
 MASTER SWITCH (ALT/BAT) OFF
 AVIONICS MASTER..... OFF
 ESSENTIAL BUS..... OFF

ENGINE START

(engage starter for 10 seconds max; cool 20 seconds)

MASTER SWITCH (BAT)..... ON
 G1000..... ACKNOWLEDGE
 STROBES..... ON
 FUEL SELECTOR..... LOWEST TANK
 THROTTLE 2" OPEN
 FUEL PUMP..... ON (verify noise)
 MIXTURE..... FULL RICH 3-5 SEC, LEAN
 THROTTLE..... ½ INCH OPEN
 PROP..... "CLEAR"
 IGNITION SWITCH..... START
 MIXTURE..... RICH (as engine fires)
 OIL PRESSURE..... IN GREEN
 FUEL PRESSURE..... IN GREEN
 FUEL PUMP..... OFF
 MIXTURE..... LEAN FOR TAXI
 MASTER SWITCH (ALT) ON
 AVIONICS MASTER..... ON
 ELECTRICAL..... CHECK

TAXI CHECK

FLAPS.....(Cycle) UP - T/O – LDG – T/O – UP
 FLIGHT CONTROLS..... FREE & CORRECT
 ATIS OBTAIN
 ALTIMETERS SET/COMPARE
 XPDR SET
 AUTOPILOT..... TEST
 STROBES..... ON
 POSITION LIGHTS..... AS REQUIRED

When start moving:

TAXI LIGHT..... ON WHEN START TAXI
 BRAKE..... RELEASE AND TEST
 FLIGHT INSTRUMENTS..... TEST

RUN-UP

PARKING BRAKE..... SET
 DOORS..... CLOSED & SECURE, UNLOCKED
 DOOR WARNING LIGHT..... OFF
 FUEL SELECTOR..... SWITCH TANK
 ENGINE INSTRUMENTS..... IN GREEN
 CIRCUIT BREAKERS..... IN
 MIXTURE..... RICH (<5000' DA)
 THROTTLE..... 2000 RPM
 RPM LEVER..... QUICKLY CYCLE 3 TIMES
 MAGNETO CHECK..... L, BOTH, R, BOTH (<175 / <50)
 ENGINE INSTRUMENTS..... IN GREEN
 CIRCUIT BREAKERS..... IN
 THROTTLE IDLE, SMOOTH RUNNING
 MIXTURE LEAN FOR TAXI

BEFORE TAKEOFF CHECK

FLAPS TAKEOFF
 TRIM..... T/O
 RPM LEVER..... HIGH RPM
 PITOT HEAT..... AS REQUIRED
 DEPARTURE BRIEF COMPLETE
 PARKING BRAKE..... RELEASED

Upon entering runway:

CANOPY..... CLOSED
 FUEL PUMP..... ON
 MIXTURE..... RICH
 LANDING LIGHT ON

AFTER TAKEOFF CHECK

FLAPS UP
 RPM 2400 RPM
 THROTTLE MAX POWER
 FUEL PUMP..... OFF
 ENGINE INSTRUMENTS IN GREEN

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CRUISE CHECK

THROTTLE SET
 RPM SET
 MIXTURE LEAN AS REQUIRED
 FUEL TANK SELECTOR AS REQUIRED
 ENGINE INSTRUMENTS IN GREEN
 CHT <400°F (if higher, enrich mixture)

P Alt	45%			55%			65%			75%		
	MP	RPM	TAS	MP	RPM	TAS	MP	RPM	TAS	MP	RPM	TAS
2000	22.1	1800	101	23.3	2000	113	24.2	2200	123	25.2	2400	132
3000	21.8	1800	102	23.0	2000	114	23.8	2200	125	24.8	2400	134
4000	21.5	1800	103	22.7	2000	116	23.5	2200	127	24.5	2400	135
5000	21.2	1800	104	22.3	2000	117	23.1	2200	128	24.1	2400	137
6000	20.9	1800	105	22.0	2000	118	22.8	2200	129	-----	-----	-----
7000	20.5	1800	106	21.7	2000	119	21.1	2400	130	-----	-----	-----
8000	20.2	1800	107	21.3	2000	120	21.0	2400	131	-----	-----	-----
9000	19.9	1800	108	21.1	2000	121	20.7	2400	131	-----	-----	-----
10000	19.6	1800	109	19.4	2200	121	-----	-----	-----	-----	-----	-----
Econ	5.8 G/h			7.0 G/h			8.2 G/h			9.5 G/h		
Best Pwr	-----			-----			9.6 G/h			11 G/h		

DESCENT CHECK

ATIS/ASOS RECEIVED
 ALTIMETERS SET
 FUEL SELECTOR FULLEST TANK
 MIXTURE ADJUST AS REQUIRED

BEFORE LANDING CHECK (final approach)

MIXTURE (Red) RICH
 PROP (Blue) HIGH RPM
 FUEL PUMP & LANDING LIGHT (White) ON

AFTER LANDING CHECK

FUEL PUMP OFF
 MIXTURE LEAN FOR TAXI
 FLAPS UP
 LIGHTS AS REQUIRED

SHUTDOWN CHECK

PARKING BRAKE SET
 THROTTLE 1000 RPM
 AVIONICS MASTER OFF
 IGNITION CHECK GROUND
 MIXTURE FULL LEAN
 IGNITION OFF (remove key)
 LIGHTS (EXCEPT STROBE) OFF
 HOBBS/TACH TIME RECORD
 MASTER (ALT/BAT) OFF
 OVERHEAD (Dome) LIGHTS OFF

POST FLIGHT INSPECTION

CHECKS IN
 PARKING BRAKE RELEASED
 CONTROL LOCK ON (as appropriate)
 EXTERNAL WALK AROUND COMPLETE