

## Lear 35A SER# 234 & 590 Limitations with FC-530 Autopilot Sorted by Subject

Limitation	Associated Number
Approved for VFR, IFR, day, night, icing conditions.	
Aux Hydraulic Pump	3 min on 20 min off
Both Stall Warning Switches must be on	
Certified under part 25	
Crew and Pax O2 Not Approved Above	40,000 ft. Cabin Alt
Do not extend or operate spoilers above Mmo Vmo	
Do not extend spoilers or operate with spoilers deployed at speeds above Vmo Mmo	
Do not extend spoilers with flaps extended while airborne	
Do not take off with Cabin Pressurized	
Engine Sync off for TO, LDG, SE Opns	
Flight Loads Flaps Up / Flaps Down	+3.0 to -1 g (70 degree bank) +2.0 to 0 g (60 degree bank) Pullups, overspeeds, push-overs limited to these values
Freon Air Cond (No FCN 89-1) / (FCN 89-1) Off Above	18,000 / 35,000
Generator Output Flight / Ground	400 / 320
Hydraulic fluid	MIL - H-5606
Intentional stalls above 18,000 ft. prohibited with flaps and gear extended	
Max GPU Output	1,100 Amps
Max Landing Weight	15,300 lbs.
Max Nosewheel Steering Speed	45 Kts GS
Max Operating Altitude	45,000 ft
Max Pressure Altitude for TO	10,000 ft. MSL
Max Ramp most Aircraft	18,500 lbs
Max Tailwind	10 KTS
Max Takeoff most aircraft	18,300 lbs.
Max Tip Landing WT	925 lbs.
Max Tire Limit	182 Kts GS
Max Water/Slush	¾" 19mm
Max Zero Wing and Tip Fuel Weight	13,500 lbs.
Minimum flight crew is (2) two.	
Minimum Fuel each wing TO or G/A	600 Lbs.
Mmo	.81 Mach
Mmo with any BLE missing	.77 Mach
Mmo with Mach Trim and Autopilot Disengaged	.74
Mmo with Stick Puller Inoperative (left S.W. switch off)	.74
No Aerobatics including spins are approved	
One yaw damper must be on for all flight conditions except TO, LDG, and rudder trimming	
Pitch Trim runaway training prohibited in flight	
Seat Belts and Shoulder Harness worn TO & Ldg	
Va (Stall speed with 3.0 g's/ gross wt or highest speed that full rudder & aileron can be applied without overstress.	
Vfe 1-8 / 9-20 / 21-40	200/ 185-200 / 150 KIAS
Vle	260 KIAS
Vlo	200 KIAS
Vmca Sea Level -18c (0 f)	110 KIAS
Vmcg	103 KIAS
Vmo: Up to 8000 ft. / 8000 and above	300 KIAS / 350 KIAS
With no CUR LIM or Start Disengage Check every start	
Yaw Damp checks must be completed before each flt.	

Pax Mask intended for use during	Emerg Descent
Pax Mask will not provide sufficient O2 Above	34,000 ft Cabin Alt
Pax Mask not intended for prolonged use above	25,000 ft Cabin Alt
Without Emerg Press Valves Wear Masks Abv	41,000 MSL
O2 Masks must be quick donning above	25,000 ft
Max Diff Press	10 psi
Windshield and Radome Alcohol grade	0-M-232 Grade A
N1 or N2 Overspeed 5 Sec / 1 Minute is	103-105% / 100-103%
Max Oil Temp	140 C
Oil Type	EMS 53110, Type II
ITT Limits Start/Takeoff/Max Cont/Max Transient	860/860 (5 Min) / 832 / 870
Fuel Temp for Takeoff other than JP4 or equiv	-29c (-20f)
Fuel Temp	-54c (-65f)
Any fuel in the tanks that does not register on the fuel quantity indicator is considered unusable	
Fuel Anti-Icing either	MIL-I-27686 or MIL-I-85470
EFC must be adjusted to the Specific Gravity of Fuel	
Mixing of fuel types is allowed	
AV Fuel in the mix no Takeoff with Fuel Temp Lower than -54c Restricted below 15,000 feet	
Both Jet and Standby Pumps must be on and operating	
AvGas may not be use din excess of	500 Gal per 100 Hrs
Airspeed Red Line /Barber Pole 67-670 and 018-063	300 KIAS /350/.81
Airspeed Red Line /Barber Pole 671- and 064 -	350 KIAS /350/.81
Trim Takeoff Range	5 - 7.6 degrees
Cabin Altimeter Green/Yellow/Red 67-112 / 107, 133 -	0-8.9/9.2/10 / 0-9.4/9.7/10
Turbine Speed Green/Yellow/Red	48-100/103 1 Minute/103%
Turbine ITT Green/Yellow/Red	230-832/860/860c
N1 Fan Green/Yellow/Red	24-100/103 1 Minute/103%
Oil Pressure Red/Yellow/Green/Yellow/Red	25/25-38/38-46/46-55/55 3 Min. Max
Oil Temperature Green/Yellow/Red	30-127/140/140
Ammeter Yellow/Red	320-400/400
DC Voltmeter Red	32
AC Voltmeter Green	110-130
Hydraulic Pressure 067-646 Yellow/Green/Red	0-155/1,250-1,500/1,750 PSI
Emergency Air Green/Red - Yellow/Green/Red	1,800-3,000 - 1,800/3,000/3,000 PSI
O2 Pressure Green/Yellow/Red	1,550-1,850/0-300/2000PSI
AUTOPILOT FLIGHT DIRECTOR LIMITATIONS	
AP/FD are approved for CAT I ILS Approaches	
Max Operating Speed is Vmo.Mmo	
In Seat, Belt Fastened	
Pitch and Roll Axis NOT during TO & LDG	
Minimum Altitudes Cruise/Approach	1,000 agl/200 agl
Fuel Imbalance	200 lbs
If Severe Turbulence use Alt Hold and Soft Mode	
No use any axis if fails AP Monitor Check	
Disengage before switching static sources	
For VOR Approaches lower flaps 8 or more	
DRAGE CHUTE	
No Deploy in Flight	
Max Speed 150 Kts	
Max Demo XW 20 Kts	
DEE HOWARD T/R	
Ground Deployment only	
Engine Starts with T/R Prohibited	
No Use for Backing	
Disarm Immediately after T/O remain until Final Appch	
Full Reverse is 50 Kts	
Maximum Fan Speed in Reverse is 75%	
Simultaneous T/R and Drag Chute Prohibited	