

## Cessna M2 Limitations (for STUDY PURPOSES ONLY)

### WEIGHTS/ SPEEDS

MRAMP	10800
MTOW	10700
MLND	9900
MZFW	8400
Min/ Max weight in RVSM airspace	7800/ 10400
Nose Baggage	400
Tail Baggage	325
MMO	M .71
VMO	263 KIAS
VFE flaps 15	200 KIAS
VFE flaps 35	161
VFE flaps 60	140 (emergency/ failure only)
VLO Extending; VLE	186 KIAS
VLO Retracting	175 KIAS
Max Tire GS	165 knots
VA (MTOW, SL)	202 KIAS
Min speed for sustained flight in icing	160 KIAS
Min airspeed in RVSM airspace	135 KIAS

### ENGINE

Takeoff ITT	855
Continuous ITT	835
Transient ITT	870
Start ITT	835, 900 (30 sec), 1000 (15 sec)
Takeoff Thrust Time Limit	5 min; 10 min for OEI
Min N2 Idle	46.1% ground; 57.4% flight
N2 Limit	100%
N1 Limit	104.7%
Max N1 with tailwind >10 knots	60%
Tailwind/ X-wind Start	10/ 12 knots
Max Time to Light Off	10 sec
Max N2 for zero N1 during start	25%
Min Oil Temp for Start	-30C
Min Oil Temp for >80% N2	10 C
Min Battery Temp for Start (Lead Acid or NiCad)	-18C
Min Voltage for Battery Start	24V
Min/ Max GPU Current Capacity for Start	800/1100 A
Starter Limitation	3 per 30 min, 60 sec rest between
Cold soak start limit	If cold soaked <-40C, must warm FADEC with electrical power for 3 min, followed by batt switch cycle
Approved Oil	Mobil Jet II, Mobil 254 (mixing OK)
Maximum oil consumption	1 qt per 11 hours
Max time of zero or negative-G flight	10 seconds

### MISC SYSTEM LIMITS

Battery Start Limits	3 per hour (cross gen= 1/3 of a start)
Max Gen Output, ground	210 A
Max Gen Output, Flight	300 A; 250 A above FL350
Max Battery Charge for TO	20A
BATTERY OVERTEMP message	TO prohibited if displayed, even if self-clears

## Cessna M2 Limitations (for STUDY PURPOSES ONLY)

Ground operation of pitot/ static heat	2 minutes
Ground operation of engine/ wing/ windshield AI	2 min if N2 >75%
Ground operation of Wing AI	Max 1 min after WING A/I COLD message extinguishes
Minimum N2 for effective wing AI	75%
Min Temp for operation of tail boots	-35 C RAT
Max flaps with ice and inop tail boots	15 degrees
Engine AI ON after start	Must wait 1 min
Cabin Cold Soak Limit	If >2 hrs at <-9C, must warm above 0C for min 20 minutes prior to operations above FL240 if passengers are in cabin
Tire Pressure	Nose 125 (loaded)/ 120 (unloaded), Main 107 loaded, 103 unloaded, all +/- 5
Max Gear/ Flap extension altitude	18,000'
Max altitude with inop AP and YD	FL280
Load Factor, Flaps Up	-1.44 to 3.6G
Load Factor, Flaps Extended	0 to 2 G
Cabin Pressure Limits	-.5 to 8.6 Delta PSI
Max TO/L Tailwind	10 knots
CAS Messages Precluding TO	Any Red, ENGINE CNTRL FAULT, any amber unless MEL-able
Runway Surface Limit	Paved
Speedbrakes must be retracted by -- on landing	50' AGL
Ground flaps restriction on landing	May not be extended for touch and goes
Max Altitude for TO/L	10,000'
Max normal fuel imbalance	200 lbs
Max emergency fuel imbalance	600 lbs
Jet A Fuel Temp Limits	-35C to 57C
Pulse Lights	Must be on LANDING before 300' AGL at night
AP Min use heights	TO 450' AFL; Enroute 1000'; Approach 160' AFL