



***LEARJET 35A
PILOT MANUAL***



LEARJET 35A PILOT MANUAL



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For detailed instructions on how to fly similar aircraft, see the Aircraft Information articles in the Learning Center. For standard procedures, see the Checklists tab. For suggested speeds, see the Reference page of the Knee-board. More functions can be performed using the control panel and aircraft options panel. (Shift + 1) or (Shift + 2)

VISIT FLYSIMWARE.COM AND CHECK THE PRODUCT PAGE FOR THE LATEST UPDATES!

DXT10 PREVIEW ON:
INTERIOR MODEL CAST SHADOWS
DXT10 PREVIEW OFF:
INTERIOR MODEL DOES NOT CAST SHADOWS

THIS MANUAL IS FOR FSX AND P3D.
NOT TO BE USED FOR ANY REAL WORLD LEARJET 35A SERIES AIRCRAFT
DOES NOT, AND IS NOT INTENDED TO COMPLY WITH SFAR 108



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I. GENERAL INFORMATION

The Learjet Model 35 and Model 36 are a series of American multi-role business jets and military transport aircraft manufactured by Learjet.

The aircraft is powered by two Garrett TFE731-2 turbofan engines. Its cabin can be arranged for 6-8 passengers. The longer-range Model 36 has a shortened passenger area to provide more space in the aft fuselage for fuel tanks.

The engines are mounted nacelles on the sides of the aft fuselage. The wings are equipped with single-slotted flaps. The wingtip fuel tanks distinguish the design from other aircraft having similar functions.

The Model 35A is an upgraded Model 35 with TFE731-2-2B engines and a range of 2,789 miles, with a fuel capacity of 931 US gallons (3,524 L) with refueling accomplished at ground level through each wingtip tank. It was introduced in 1976, replacing the 35. Over 600 35As were built, with a production line that ended in 1993.

GENERAL

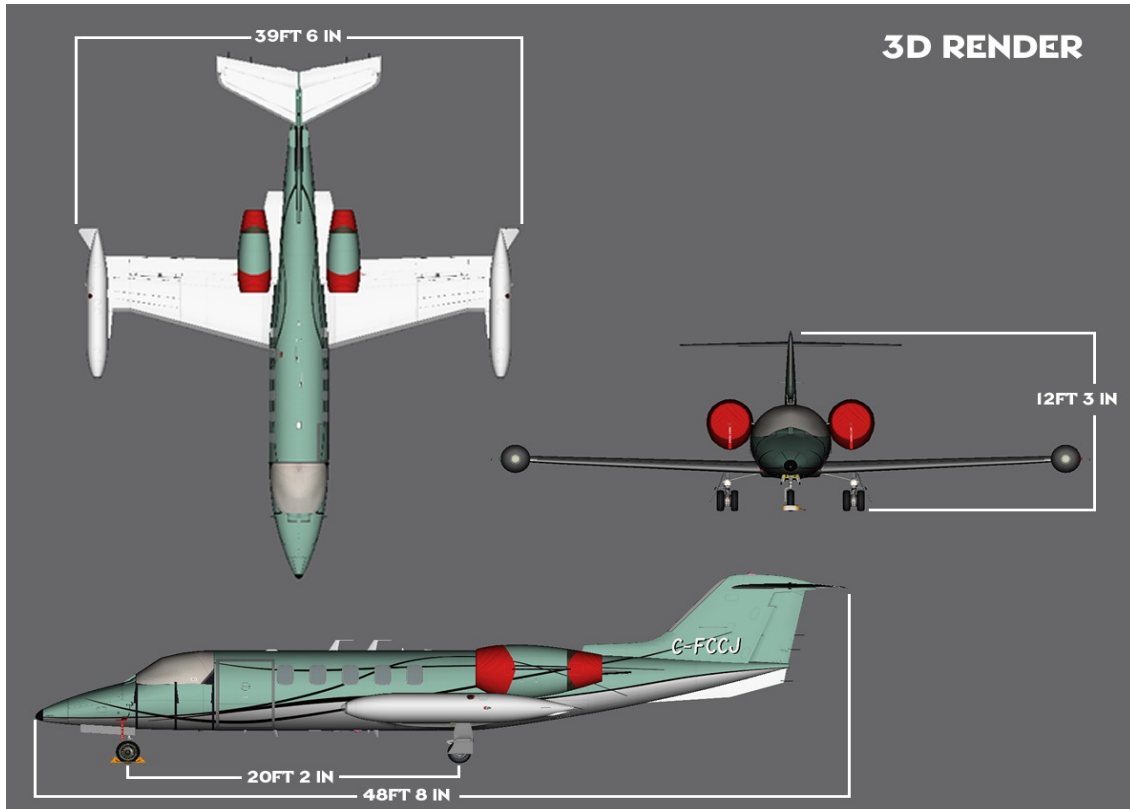
The cockpit of the Flysimware Learjet 35A is designed to represent a fairly typical layout. Includes the GTN 530 GPS layout and a second layout if you own the GTN 750 GPS unit. Both layouts include Reality XP's weather radar but you must own this product to bring it to life.

FEATURES:

- ✓ **-Collins primary flight instruments**
- ✓ **-Honeywell altimeter indicator**
- ✓ **-Garmin GNS 530**
- ✓ **-Flight1 GTN750 integration (for owners of the product)**
- ✓ **-Rex-Milviz Advantage Radar integration (for owners of the product)**
- ✓ **-Collins NAV2/COM2/ADF**
- ✓ **-Collins ADF UNIT**



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FLYSIMWARE DESCRIPTION

We have animated almost every function throughout the cabin and virtual cockpit. With custom coding we have accurate systems down to the smallest details. We have included 2 models for users who use the payware **Flight1 GTN750** GPS unit or **Rex-Milviz Advantage Radar** weather radar unit. 1 model uses Flysimware's **GNS 530** GPS with working VNAV system and the payware weather radar. If you do not own the radar it will be a static model. If you do own the weather radar it will come to life. The second model uses the **Flight1 GTN750** with the same weather radar option.

The Lear 35A includes a sound set from Turbine Sound Studios for an intense feeling of being in the real jet. Our Lear 35A uses the FC-530 autopilot system with Honeywell and Collins flight instruments. We also included 2 popup windows for on the fly instructions to give you startup procedures and the cabin door procedures. This is Flysimware's first model that includes 4 dimmer lights to get the exact amount of light you desire from the panel, flood, EL lights and the HSI DME lcd screen. **Visit our product page to download the full version.** With help from a texture artist we have improved our aging effects in the VC as Flysimware keeps improving the quality and



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overall product each project.

To learn more about our model please visit our product page for the latest manuals and detailed tutorial videos on standard walk around to engine start up or shut down procedures.

TIPS:

Autopilot:

Autopilot will be inoperative if the Primary / Secondary trim switch is set to off.

Autopilot will be inoperative if the main master autopilot switch on the pilot's lower panel is off.

FSX default keyboard and joystick assignments will not work for our complex system and high realism. Go to page 7 for key assignments that will work for the autopilot and other important



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functions.

Battery:

Battery power must be enabled by either battery switch on the pilot's lower panel. Keyboard and joystick assignments will not work for our complex system and high realism.

Lights:

Taxi and landing lights must be controlled by the switches in the VC. All other lights can be commanded from the VC or keyboard / joystick commands.

Steer Lock:

Steer lock switch can be assigned to the keyboard / joystick by using the "G1000_MFD_SOFTKEYS" assignment.

G1000_MFD_SOFTKEY2 = ON
G1000_MFD_SOFTKEY3 = OFF

NAVIGATION:

Pilot navigation instruments comes from the NAV 1 signal.

Co-Pilot navigation instruments comes from the NAV 2 signal.

Both Pilot and Co-Pilot navigation instruments will receive a signal through the GPS units.

AUTOPILOT:

The FC-530 autopilot unit will respond to NAV 1 if NAV 1 signal is active.

The FC-530 autopilot unit will respond to NAV 1 if NAV1 and NAV 2 signal is active.

The FC-530 autopilot unit will respond to NAV 2 if NAV 2 signal is active and no NAV 1 signal.

II. KEY ASSIGNMENTS

Autopilot modes can be assigned to the keyboard / joystick by using the "G1000_PFD_SOFTKEYS" & "G1000_MFD_SOFTKEYS" assignments.

Full list:

G1000_PFD_SOFTKEY1 = HDG
G1000_PFD_SOFTKEY2 = 1/2 BNK
G1000_PFD_SOFTKEY3 = NAV
G1000_PFD_SOFTKEY4 = BC
G1000_PFD_SOFTKEY5 = LVL
G1000_PFD_SOFTKEY6 = TST
G1000_PFD_SOFTKEY7 = ENG



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G1000_PFD_SOFTKEY8 = SFT
G1000_PFD_SOFTKEY9 = SPD
G1000_PFD_SOFTKEY10 = V/S
G1000_PFD_SOFTKEY11 = GS
G1000_PFD_SOFTKEY12 = ALTSEL

G1000_MFD_SOFTKEY1 = ALTHLD
G1000_MFD_SOFTKEY2 = Steer Lock On
G1000_MFD_SOFTKEY3 = Steer Lock Off
G1000_MFD_SOFTKEY4 = Yaw Damper Primary (Power mode must be on.)
G1000_MFD_SOFTKEY5 = Yaw Damper Secondary (Power mode must be on.)
G1000_MFD_SOFTKEY6 = Spoiler Switch (Default switch is disabled. There is no arming as well.)
G1000_MFD_SOFTKEY7 = Go Around



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III. INSTALLATION

Double Click the (Aircraft logo) installer.

Have your registration code copied into your mouse(clipboard). This will auto type your registration code for you. Type any name in the name box and leave the business name blank and click next.

This installer will auto find your FSX game no matter where it is! If it does not find your game, just go to our help page at Flysimware.com

Once you start FSX you will find our models located under Flysimware as the manufacturer in the FSX select aircraft page.

WEIGHT DISTRUBUTION

Passengers and luggage are set to "LIGHT LOAD" as default. Under aircraft fuel and payload you can change loads and save your flight. For example "LEARJET 35A Loaded".

FUEL AND PAYLOAD

- Center Main Fuel Tank = 1340 LBS
- Left Fuel Tank = 1254 LBS
- Right Fuel Tank = 1254 LBS
- Left Tip Fuel Tank = 1215 LBS
- Right Tip Fuel Tank = 1215 LBS

- TOTAL FUEL = 6238 LBS

- Pilot = 170 LBS
- Co-Pilot = 170 LBS
- Pass1 Row 1 = 170 LBS
- Pass2 Row1 = 170 LBS
- Pass3 Row 2 = 170 LBS
- Pass4 Row 2 = 170 LBS
- Pass5 Row 3 = 170 LBS
- Pass6 Row 3 = 170 LBS
- Pass7 Row 4 = 170 LBS

- Luggage 600 LBS MAX = 600 LBS



IV. MOUSE CONTROL & TOOL TIPS

TOOL TIPS

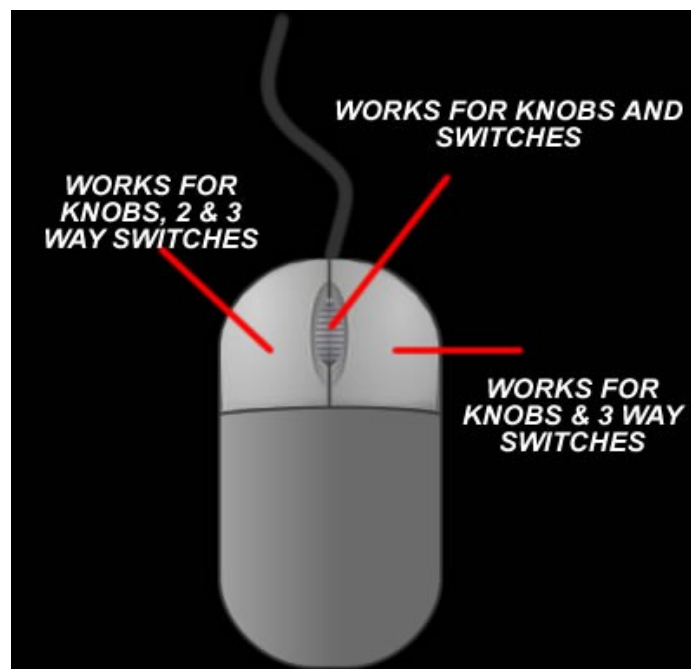
Almost all switches and levers are mouse controlled. Tool tips are added to a few switches, knobs and levers, for information that helps to tune or position with accuracy. Tool tips can be turned "ON" or "OFF"! Located in FSX aircraft settings page.

MOUSE CONTROL

The Radios and GPS knobs can be tuned by rolling mouse wheel. Left clicking is for pushing a knob.

The power knob for the GNS 530 requires that you roll your mouse up to turn on and increase brightness controls.

If nothing happens when clicking a switch or knob try right clicking or using the mouse wheel. Here is a chart showing all functions.





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V. 2D PANELS

- **SERVICE HANGER PANEL = (Shift + 1)**
- **AIRCRAFT OPTIONS PANEL = (Shift + 2)**
- **GPS PANEL = (Shift + 3)**
- **RADAR PANEL = (Shift + 4)**
- **ENGINE START INSTRUCTIONS PANEL = (Shift + 5)**
- **DOOR INSTRUCTIONS PANEL = (Shift + 6)**



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VI. AIRCRAFT MODES

Using the Learjet 35A hanger control panel or aircraft options panel you can change aircraft modes remove pilot or change pilot options and check that your using the fuel system correctly. All modes listed below.

AIRCRAFT OPTIONS

LUGGAGE / WHEEL CHOCKS / ENGINE PLUGS & FLAGS / WINDSHIELD SHADES / OPEN MAIN EXIT / ADD AND REMOVE PILOTS / OPEN ENGINE START INSTRUCTIONS

LEARJET HANGER

CABIN-DOOR STEP-LUGGAGE LIGHTS / ALL SYSTEM OFF OR READY TO START / REFUEL / MAP / ATC / 2D GPS / KNEE-BOARD / AIRCRAFT SPECS



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VII. LEARJET 35A SYSTEM

For videos and detailed instructions on how to fly this aircraft please visit the product page at Flysimware.com

For suggested speeds, see the reference page of the Knee-board. The knee-board has step by step checklist procedures.

Open your knee-board located in our service hanger control panel. **(Shift + 1)** Then look for the logo located near the bottom right. Or use the games option to open knee-board window.

PRESSURIZATION SYSTEM



1. Cabin Climb / Decent Rate Knob.
2. Cabin Pressure Setting.
3. Cabin Altitude / Differential Pressure Indicator.
4. Cabin Climb / Decent Rate Indicator.
5. Cabin Air System Power Switch.



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6. **Manual / Auto:** NOT SIMULATED!
7. **Manual Cabin Pressure Valve:** NOT SIMULATED!

MAIN PANEL



- 1) **Anti-Skid Light Indicators**
- 2) **Clock / Flight Timer**



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- 3) **Airspeed / Mach Indicator**
 - 4) **Collins RMI Indicator**
 - 5) **Engine Sync Indicator**
 - 6) **Angle Of Attack Indicator**
 - 7) **Collins Attitude Indicator**
 - 8) **Collins Horizontal Situation Indicator**
 - 9) **Backup Attitude Indicator**
 - 10) **Honeywell Altimeter Indicator (RVSM) (Includes the new TARGET ALTITUDE SELECTOR)**
(Now is digital. L/R Click for 1,000's and hold to repeat. Mouse wheel for 100's)
 - 11) **Vertical Speed Indicator**
 - 12) **Collins DME Unit**
- C. ENGINE GAUGES:**



1. **Turbine N2 Percent Indicators**



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2. Turbine Temperature
3. Fan N1 Percent Indicators
4. Outside Air Temperature Indicator
5. Engine Oil Temperature L & R Indicators
6. Fuel Flow L & R Indicators
7. N1 Pilot Reminder
8. Left annunciator is no used. Right annunciator is for ADC 1 or ADC 2. (Air Data Computer...Not simulated)
9. Hydraulic Pressure Indicator
10. Emergency Air Indicator
11. Backup Altimeter Indicator
12. Electrical Indicators

UPPER PANEL LAYOUT



1. Master Warning Switch / Light: Indicates a red annunciator if the glareshield is illuminated.
2. Engine Fire Bottle Switches (See caution alerts section)
3. Engine Fire T-Handles (See caution alerts section)
4. Reverser Panel:



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ARM: Normal indication that the isolation valves are open and sufficient hydraulic pressure is available for the thrust reversers.

DEPLOY: Reversers are engaged.

5. **Main Annunciator Panel:** (See caution alerts section)

6. **Autopilot Mode Selector:** (See autopilot panel section below)

AUTOPILOT PANEL: (Must have master autopilot switch on located on pilot's panel)

Autopilot Lateral

HDG: The HDG mode is used to maintain the heading selected by the heading bug on the pilot's or Co-pilot's HSI. Typical maximum bank angle is 25°F in response to the heading bug rotation.

½ BNK: The ½ BNK mode is used to limit maximum bank angle to 15°F in HDG or VOR NAV mode.

NAV: The NAV mode is used to intercept and/or track the VOR or localizer approach course selected on the pilot's or co-pilot's HSI when valid data is available from the active navigation receiver. Typical maximum bank angle is 25°F in response to heading bug rotation.

BC: The BC mode is used to track a localizer back course inbound (or localizer front course outbound) when valid data is available from the active navigation receiver. This mode is functional only when NAV mode is selected.

LVL: The LVL mode is used to maintain wings level roll attitude only when the autopilot is engaged.

Other Modes

TST: Tests all bulbs and disengages all autopilot modes.

ENG: Master autopilot mode. (Must have master autopilot switch on located on pilots main panel)

SFT: The SFT mode is used to soften autopilot pitch and roll response during flight in turbulent air. This mode is locked out when a selected altitude or NAV localizer/VOR approach course is captured. This mode is not available during flight director only operation. (This function is not included on our model)

Autopilot Pilot Vertical

SPD: The SPD mode is used to maintain the airspeed existing at the moment of mode engagement by commanding pitch attitude changes.

VS: The V/S mode is used to maintain the rate of climb or decent existing at the moment of mode



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engagement by commanding pitch attitude changes.

GS: The GS mode is used to intercept and track an ILS glideslope inbound when valid data is available from the active navigation receiver. This mode is functional only when NAV mode is selected.

ALT/SEL: The ALT/SEL mode is used to level off at the altitude preselected on the altitude set control unit when the autopilot is engaged in any pitch mode. When the preselected altitude is reached, the ALT/SEL mode is disengaged and the ALT/HLD mode is engaged.

ALT HLD: The ALT/HLD mode is used to maintain the barometric altitude existing at the moment of mode engagement.

GPS / RADAR UNITS

GTN 750 & GNS 530 Mode Selector Instructions:

GPS Radio

To capture a GPS course you must be within 2 NM of the flight plan course.

When approaching a GPS LNAV approach select the AP NAV mode since the Glide slope is a visual only and this mode will only hold lateral. The GTN 750 warns you when you select this type of approach and it's for visual only.

When approaching a GPS VNAV approach select the AP NAV mode and the GS mode since the Glide slope is active on this type of approach.

When approaching a GPS LPV approach select the AP NAV mode and the GS mode since the Glide slope is active on this type of approach.

NAV 1 Radio

When in AP NAV mode tune in the navigation frequency to the next VOR. When ready to approach an airport select AP NAV mode and GS mode for an ILS approach or just the NAV mode for lateral approach only. These modes will capture when the CDI needle becomes active and will disengage the altitude lock mode once the glide slope is centered.



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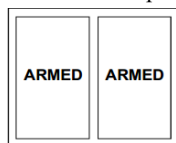


ANNUNCIATOR WARNING PANEL



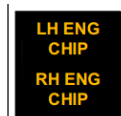
Illuminates upon:

- Nacelle temperatures exceed approximately 410°F in the areas of the pylon firewall or accessory gearbox.
- Nacelle temperatures exceed 890°F in the area of the turbine section.

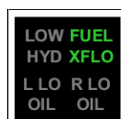


ARMED:

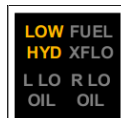
Illuminates when corresponding [ENG FIRE PULL] handle is pulled and extinguishing agent is available from the associated bottle.



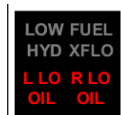
Metal particle contamination detected within corresponding engine's oil pump assembly. (NOT SIMULATED!)



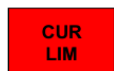
Illuminates when crossflow valve is open.



- Illuminates when hydraulic pressure falls below 1125 (+/- 25) PSI.
- Extinguishes when hydraulic pressure rises above 1250 (+/- 40) PSI.



- Illuminates when oil pressure of either engine falls below approximately 23 PSI.
- Extinguishes when oil pressure rises above 30 PSI.



Indicates 275-amp current limiter failure. (NOT SIMULATED!)



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LOW FUEL

Fuel level in either wing tank is between 400 and 500 LBS.

L FUEL PRESS

R FUEL PRESS

- Illuminates when output pressure of corresponding jet pump is below approximately .25 PSI.
- Extinguishes when output pressure of corresponding jet pump is above 1.0 PSI or the standby pumps are operating.

DOOR

With electrical power applied to the airplane, annunciator illuminates when:

- Passenger/crew door latching hooks not disengaged.
- Passenger/crew door not closed or properly secured, microswitch(es) closed due to malfunction, or locking pin disengaged.

L STALL

R STALL

Flashing: (Angle-of-attack increased to approximately 7% above stall.)

Steady Illumination: (Airspeed approximately 2 knots above stall.)

MACH TRIM

Mach trim system malfunction detected and system disengaged.

PRI INV

SEC INV

- Loss of DC power to corresponding inverter.
- Loss of or insufficient AC power output to the corresponding 115 VAC bus and/or
- IPCB equalizing circuit malfunction.
- Main battery switches set to "on and associated INVERTER switch set to "OFF".

LO OIL PRESS

- Illuminates when oil pressure of either engine falls below approximately 23 PSI.
- Extinguishes when oil pressure rises above 30 PSI.

STAB OV HT

Illuminates when temperature of horizontal stabilizer reaches 215°F.

WSHLD OV HT

(NOT SIMULATED!)

- Illuminates when low-limit thermostat detects temperature of 215°F in bleed air windshield anti-ice discharge nozzle.
- Illuminates when high-limit thermostat detects temperature of 290°F in bleed air windshield anti-ice discharge nozzle.

BLEED AIR L

BLEED AIR R

- Illuminates when corresponding duct temperature exceeds approximately 645°F.
- Extinguishes when corresponding duct temperature falls below approximately 590°F.
- Illuminates when bleed air pressure exceeds approximately 45 PSI.



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**BAT
140**

**BAT
160**

d. Extinguishes when bleed air pressure falls below 38 PSI. Provides indication of a NiCad main battery overheat condition when one or both batteries reach 140°F or 160°F. Illuminated by the low-limit temperature switches. (NOT SIMULATED!)

SPOILER

Steady Illumination:

- SPOILER switch set to "EXT".
- Either spoiler extended beyond 1°.

Flashing:

- Flaps are extended beyond 13° with SPOILER switch set to EXT or flaps extended beyond 13° with ailerons beyond 10°.

**AUG
AIL**

Malfunction detected in the aileron augmentation system in spoiler and spoileron modes. To simulate you must:

- Flaps full
- Hold the spoileron test switch up and move the ailerons above 45 degrees.

**PITOT
HT**

- One or both PITOT HEAT switch(es) set to "OFF".
- One or both heating element(s) inoperative or malfunction detected.

**FUEL
FILTER**

Illuminates when pressure differential between the inlet and outlet ports of either filter reaches 1.25 PSID (Dynamic) or .95 to 1.3 PSID (Purulator) indicating filter element obstruction and the existence of a bypass condition. (NOT SIMULATED!)

**L ENG
ICE**

**R ENG
ICE**

Illuminates when bleed air pressure is below 2 PSI.

**L FUEL
CMPTR**

**R FUEL
CMPTR**

- Either or both FUEL CMPTR switches set to "OFF".
- Fault detected or power loss in Electronic engine control system (EEC).

**L VG
MON**

**R VG
MON**

Failure of a single rotor in either vertical gyro.

DH

Illuminates at or below "decision height".

**AUX
INV**

- Loss of DC power to auxiliary inverter.
- Loss of or insufficient AC power output to the corresponding 115 VAC bus and/or
- IPCB equalizing circuit malfunction.
- Main battery switches set to "on" and associated INVERTER switch set to "OFF".



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**L
GEN**

**R
GEN**

- a. Corresponding generator is inoperative or off-line.
- b. Corresponding starter/gen switch is set to "START" or "OFF" with at least one BAT switch set to "on".

**CAB
ALT**

Illuminates when cabin altitude exceeds 9,000 feet.

**ALC
AI**

Illuminates when the alcohol reservoir, for windshield and radome anti-ice, is empty. Depending upon airplane serial number, illuminates if pressure pump fails. (NOT SIMULATED!)

**ENG
SYNC**

Illuminates when the system is operating and the nose gear is down and locked to alert the crew that engine sync should not be used during takeoff or landing.

**T. O.
TRIM**

Horizontal stabilizer not positioned within takeoff trim range during ground operations.

**STEER
ON**

Nosewheel steering system engaged.

**WSHLD
HT**

Normal indication when WSHLD HT switch set to "ON" or "HOLD".

FUEL VALVES AND TANK SELECTORS



1. Fuel Quantity Indicator
2. Fuel Quantity Selector



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3. **Fuel Burn Counter:** You must push the reset counter 1 time to start counting fuel burn.

4. **Primary and Secondary Fuel Pumps:**

The left or right motive-flow control valves closes when the corresponding standby pump is activated during engine start sequence. When the start sequence is terminated by the fuel computer at 42% N2, the standby pump is deactivated and the motive flow valve open. Make sure you always have the jet pumps on during operations. To prevent flame out of engines above 24,000 feet you can use the standby pumps to ensure enough fuel pressure. To shut down engines switch off all pumps or move the thrust levers to cutoff position..

5. **Fuel Jettison:** Empties tip tanks only.

6. **Cross Flow Valve:** Use when you have 1 engine failure to prevent a fuel imbalance. If you have a fuel imbalance and you want to move fuel from the left wing tank to the right wing tank switch on the cross flow and switch on the left standby pump. Right standby pump to move fuel to the left wing tank.

7. **Transfer Valve:** Transfers fuel between wing tanks and center tank.

The Learjet 35A engines only burn fuel from wing tanks. Fuel from the tip tanks are transferred to the wing tank by gravity. The center tank is only a reserve tank.

Using the transfer valve you can transfer fuel to the center tank from the wing tank when refueling since you can only refuel tip tanks and wing tanks. During flight operation as fuel gets low in the wing tank you can transfer fuel from the center tank to the wing tanks.

Opening the aircraft options panel (Shift + 2) allows you to see what fuel valves are open as illustrated fuel paths will appear. This will allow you to learn the fuel system as your using the fuel functions.



START PANEL



1. AIR IGN switch
2. Start switch
3. Generator reset switch
4. Primary and secondary inverter switches
5. Battery switches

Start instructions are located in section 6. "ENGINE START INSTRUCTIONS"



ENG SYNC



1. Sync power switch
2. Turbine (N2) / Fan (N1) switch

The ENG SYNC switches are located on the center pedestal and control engine synchronizer system operation. When the left switch is set to the upper “SYNC” position, the system is activated and the engines are synchronized relative to the turbine speed (N2) or fan speed (N1) as determined by the upper “TURB” or lower “FAN” position of the right switch. When the left switch is set to the lower “OFF” position, the system is deactivated.

ANTI-ICE / FUEL COMPUTER



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1. **Windshield Anti-Icing**
2. **Pitot Static Ice Protection**
3. **Wing and Stabilizer Anti-Icing** (See test panel section for details.)
4. **Engine Anti-Icing**
5. **Altitude Encoder**
6. **Marker Brightness Control**
7. **Radio Altimeter Control:** When this switch is in the upper position power is supplied to the transceiver, indicator(s), and RAD/BAR converter.
8. **Master Autopilot Switch:** This switch must be on for the FC 530 unit.
9. **VG Erect Switch:** When pressed a fast erection cycle for the corresponding gyro. When pressing when autopilot is engaged will cause disengagement.
10. **Slaving Controls Pilot:** The FREE/SLAVE is positioned to "SLAVE" for slaved operation, and "FREE" for unslaved operation. In slaved operation, heading displacement errors are corrected automatically through the gyro slaving circuit. In unslaved operation, heading displacement errors are corrected using the L/R SLAVE switch to rotate the compass cards left or right to agree with the magnetic heading.
11. **AC Bus Primary / Secondary:** When the AC BUS switch is set to the upper "PRI" position, left 115 VAC bus power is supplied to the gauge through the .25-amp PRI AC VM circuit breaker on the pilot's CB panel. When the AC BUS switch is set to the lower "SEC" position, left 115 VAC bus power is supplied to the gauge through the .25-amp PRI AC VM circuit breaker on the co-pilot's CB panel.
12. **Emergency Battery:** To test the emergency battery before flight the EMER PWR switch should be positioned to STBY before the battery switches are turned on. The EMER Pwr annunciator should be illuminated. Turn a battery switch ON and the EMER PWR annunciator light should extinguish as the



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standby indicator is then powered by a main battery. The emergency battery must be turned off after flight or the emergency battery will drain.

13. Fuel Computers: With fuel computers on, when turbine N2 reaches 45% RPM the starter will automatically disengage. With the fuel computers off, the starter/generator switch must be moved to the OFF when turbine N2 reaches 45% RPM.

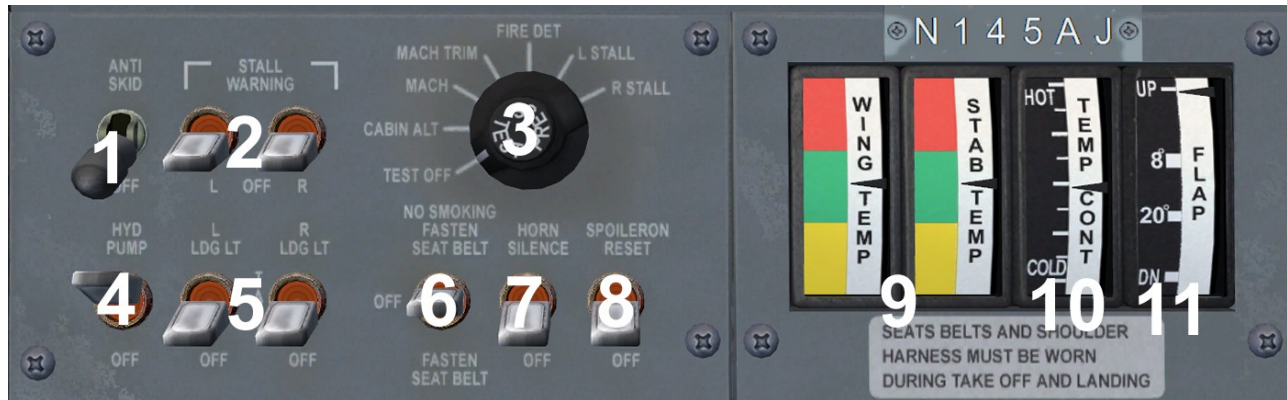
14. Starting Pressure Ratio: When positioned L or R the switch commands the fuel computer to provide increased fuel scheduling for engines starting. An increase in the fuel flow gauge can be seen. Do not energize the SPR switch at any time than engine start,



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TEST PANEL



1. **Anti-Skid Switch:** Use this to prevent lockup of brake calipers. Indication on the anti-skid panel will light for any brake that locks when the anti-skid switch is off.

2. **Stall Warning Switch:** The stall warning lights on the readout panel will light when the battery switches are turned on, and the stall warning switches are in the OFF position. With the stall warning switches ON and the control column shaker actuated, the light will flash until the AOA diminishes to a safe point. When the AOA is in the yellow margin a sound warning and stick shaker will occur, when in the red margin the stick pusher is pushed forward to prevent a stall.

3. **Warning System Check:** L/R CLICK to tune or Mouse Wheel to tune knob on outer area (Left click inner area to use test button!)

[A.] **Cabin Altitude Check:** Cabin altitude warning shall sound.

[B.] **Mach Check :** Must have PRI or SEC INV on, have pitch within T.O. Segment, L STALL switch on. Control column shall move aft with 18 pounds of force and the aural overspeed warning shall sound.

[C.] **Mach Trim Check:** The stabilizer trim will trim slowly in the nose up direction for 1 to 3 seconds and then stop. The MACH TRIM warning light shall illuminate and the stall warning horn shall sound.

[D.] **Fire Detection Check:** Both ENG FIRE PULL t-handles and the MASTER WARN will flash.

[E.] **L R Stall:** The pilot's AOA indicator will sweep from the green segment to the red segment. As the needle passes through the yellow margin, the shaker will actuate and the L or R STALL warning light shall flash. As the needle advances to the red segment, the pusher will actuate. L or R STALL warning light will illuminate steady just prior to or at the pusher actuation.

4. **Hydraulic Pump:** This switch is been locked to the on position as FSX always has the hydraulic system on for jet engines.

5. **L R Landing / Taxi Lights:** With the L or R switch in the down position both landing and taxi lights are



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set OFF. With the L or R switch in the middle position only the taxi corresponding light is ON. With the L or R switch in the upper position both landing and taxi corresponding lights are ON.

6. No Smoking /Fasten Seat Belt: With the switch located in the down position the seat belt light in the cabin is ON. With the switch positioned in the middle position both no smoking and fasten belt lights in the cabin are OFF. With the switch positioned in the upper position both no smoking and seatbelt lights in the cabin are ON.

7. Horn Silence: With the HORN SILENCE in the OFF position warning of excessive cabin altitude warning will actuate an aural sound when the cabin altitude reaches 10,500 ft. With the HORN SILENCE in the ON position will mute the cabin altitude warning. Warning of excessive cabin altitude is provided by an amber [CAB ALT] annunciator light, located on the glare shield panel, should the cabin reach 9,000 ft.

8. Spoileron Reset: To simulate you must: 1. Flaps full 2. Hold the spoileron test switch up and move the ailerons above 45 degrees.

9. Wing / Stabilizer Temperature:

[RED] Indicates a freezing condition will occur on surfaces below 35°F or a system failure has occurred.

[GREEN] Indicates that above 35°F moisture will not freeze to surface and the system is functioning properly.

[YELLOW] Indicates an overheating condition and possible system failure or malfunction has occurred.

10. Temperature Condition: Indicates the cabin room temperature.

11. Flaps: Indicates the flaps position.



CLIMATE / LIGHTS PANELS



1. **Auto / Manual:** Auto controls the bleed air for the cabin room temperature. Manual requires COOL or FAN switch ON to allow manual control of cabin room temperature.
2. **Cold / Hot:** Manually controls cabin room temperature when manual is ON and either COOL or FAN switch is ON.
3. **Cool / Fan:** In the down FAN position hot air can be controlled by adjusting the COLD / HOT knob. In the middle OFF position only AUTO temperature system will be enabled. In the upper COOL position cold air can be controlled by adjusting the COLD / HOT knob.
4. **Recognition Lights:** Turns on the recognition lights located on both tip tanks.
5. **Strobe Lights:** Turns on strobe lights located on both navigation light fixtures on each tip tank and one on the tail light fixture.
6. **Navigation Lights:** Turns on both navigation lights located on the side of both tip tanks and one white navigation on the tail light fixture.
7. **Beacon Lights:** Turns on both beacon lights located on the top of the vertical stabilizer and the bottom of the fuselage.
8. **Bleed Air:** With the switch in the bottom position the bleed air system is off. With the switch in the middle position the bleed air system is on. With the switch in the upper position the bleed air emergency



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system is on.

9. Auxiliary Heat: NOT SIMULATED!

10. VG Erect Switch: When pressed a fast erection cycle for the corresponding gyro. When pressing when autopilot is engaged will cause disengagement.

11. Slaving Controls Co-Pilot: The FREE/SLAVE is positioned to “SLAVE” for slaved operation, and “FREE” for unslaved operation. In slaved operation, heading displacement errors are corrected automatically through the gyro slaving circuit. In unslaved operation, heading displacement errors are corrected using the L/R SLAVE switch to rotate the compass cards left or right to agree with the magnetic heading.



PEDESTAL PANEL



1. Elevator Trim Indicator

2. Aileron Trim Indicator

3. Rudder Trim Indicator

4. **Steer Lock:** When steer lock switch is pressed the steer lock is disabled allowing full range steering for the front gear. When the STEER LOCK switch is pressed a [STEER ON] light will show on the main annunciator panel. To disable the steer lock you must press the orange MSW switch located on the pilot's or co-pilot's yoke. When the aircraft speed increases the steering will reduce range until 45 knots. At 45 knots the steer lock system will disable.

Steer lock switch can be assigned to the keyboard / joystick by using the "G1000 key" assignment. Go to the tips section near the start of the manual for all the G1000 key assignments.



5. Primary / Secondary Pitch Trim Switch: When this switch is set to the upper “PRI” position, the pitch trim system operates in the primary mode and pitch trim commands are made using the control wheel (YOKE) trim switches. When set to the lower “SEC” position, the pitch system operates in the secondary mode and pitch commands are made using the secondary pitch trim switch. When set to the center “OFF” position, the primary and secondary motors, pitch trim control circuits, and the autopilot will be inoperative.

6. Secondary Pitch Trim Switch

7. Rudder Trim Switch

8. Avionics Master Switch

9. GPS / NAV Switch

10. Yaw Damper: On the FC-530 equipped airplanes, the primary or secondary yaw damper system is selected for operation or testing by pressing the corresponding PWR switch. When this switch is pressed and power is available to the selected system, the green [ON] annunciator above each switch will be illuminated. With power available to both systems and both [ON] annunciators illuminated, pressing and holding the TST switch initiates simultaneous testing of both systems. During this test, the [PRI] and [SEC] annunciators should illuminate and both effort indicator pointers should swing to the right, then slowly to the left.

With the [ON] annunciators illuminated, the selected system is engaged by pressing the corresponding ENG switch. ENG switch logic is such that only one system may be engaged at a time. Selection of either system will disengage the other. The engaged system is indicated by illumination of the green [ENG] annunciator above the corresponding PRI or SEC ENG switch. The direction of the rudder deflection is indicated by the corresponding PRI or SEC effort indicator.

Key assignments:

G1000_MFD_SOFTKEY4 = Yaw Damper Primary (Power mode must be on.)

G1000_MFD_SOFTKEY5 = Yaw Damper Secondary (Power mode must be on.)

11. COMM 2 / NAV 2 / ADF 1 / ADF 2 Radios

Aileron and primary pitch trim commands are located on the pilot's and co-pilot's yoke!



AUDIO PANEL



1. **NAV 1 SWITCH:** Turns on / off the audio VOR 1 IDENT
2. **NAV 2 SWITCH:** Turns on / off the audio VOR 2 IDENT
3. **ADF1/ADF2 SWITCH:** Turns on / off both audio ADF1/ADF2 IDENT (This function works as 1 switch)
4. **DME SWITCH:** Turns on / off both audio DME1/DME2 IDENT
5. **MKR SWITCH:** Turns on / off the audio MARKER IDENT



VIII. ENGINE START INSTRUCTIONS

ENGINE START INSTRUCTIONS

1. Turn on both fuel computer switches. (With fuel computers on the start light will distinguish when engine starts. If fuel computers are off the start light will remain on until the start switch is off or on L GEN.)
2. Move thrust lever below idle.
3. Turn on fuel pump.
4. Right click L GEN switch down to the start position. Wait for N1 RPM to reach 20% then move thrust lever back up to idle.

AIRSTART: (Windmilling or airstarts may be attempted for emergency procedures.)

To shutdown 1 engine left click thrust lever lock. To shutdown both engines middle click mouse wheel.



SHUTDOWN / START:

Left click thrust lever lock to move thrust lever below idle for starting engines or shutting engines off.

THRUST LEVERS:

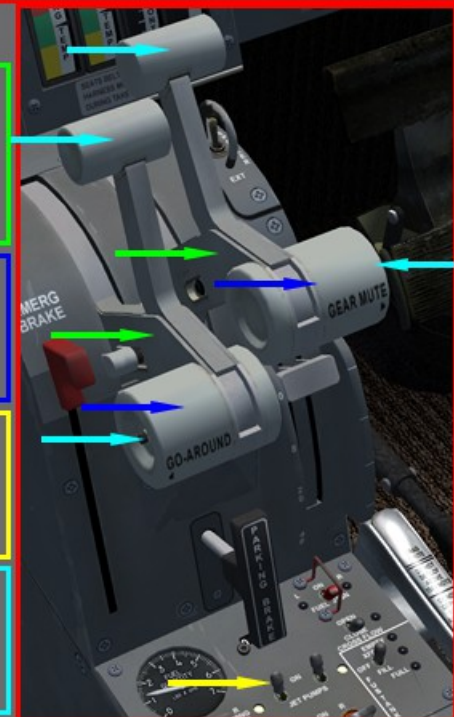
To enable reversers pull thrust lever down. Reversers must be armed.

PRIMARY FUEL PUMP:

Primary or secondary fuel pump must be on for engine operation.

GO AROUND / GEAR MUTE:

You can also use the reverser handles to enable functions.



These instructions can be loaded from the aircraft option panel so you can get help in the sim.

Go around:



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Remember NOT to use the shortcut “CTRL+SHIFT+G” key. You must use the VC click spot on the left reverser handle or go around button.

Go around engaged turns on LVL and turns off autopilot. Once the attitude indicator pitches up to 9 degrees then turn on autopilot. The pitch will hold without SPD or VS mode since the GA is active. Now press VS or SPD to continue to hold pitch and this will disengage the GA mode. If you do not click VS or SPD after GA is active the attitude indicator will remain stuck at 9 degrees. You do not have to turn on the autopilot to disengage the GA mode. So remember to always click SPD or VS after GA is engaged as the FSX forces this action.



IX. CABIN DOOR INSTRUCTIONS

CABIN DOOR INSTRUCTIONS

DOOR OPERATION BY VIRTUAL CABIN:

1. Make sure the motor hook switch is un-hooked. Un-latch the upper door latch. Un-latch the lower door latch.
2. Left click anywhere on the upper door area to open or close door.
3. TO SECURE DOOR: Latch the bottom door latch, then use the motor hook to pull the door tight. Next latch the upper door latch and then un-hook the motor hook for quick exit during an emergency.

DOOR OPERATION AIRCRAFT OPTIONS PANEL:

1. Click the door lock logo to un-lock door.
2. Click the door cabin logo to open / close door.
3. Click the door lock logo to lock door.

DOOR OPERATION BY KEYBOARD:

Open / Close door (SHIFT + E)

You must open the aircraft options panel (SHIFT + 2) to re-latch the cabin door.

UPPER DOOR LATCH:

The upper handle will un-latch the upper section of the door. To un-latch the motor hook must be un-hooked. To latch / lock the upper handle the motor hook must be hooked.

MOTOR HOOK SWITCH:

The motor hook will pull the door tight to allow the upper handle to latch. When the switch is in the right position the motor hook is latched. When the switch is in the left position the motor hook is released.

LOWER DOOR LATCH:

The lower handle will un-latch the lower section of the door. To un-latch move handle to the right. To latch / lock move handle to the left.



These instructions can be loaded from the aircraft option panel so you can get help in the sim.



X. STEER LOCK PROCEDURE



Center pedestal



Annunciator Panel



Pilot Yoke

STEER LOCK

When steer lock switch located on the center pedestal is pressed the steer lock is disabled allowing



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full range steering for the front gear. When the STEER LOCK switch is pressed a [STEER ON] light will show on the main annunciator panel.

To momentarily disable the steer lock you must press and hold the orange MSW switch located on the pilot's or co-pilot's yoke.

When the aircraft speed increases the steering will reduce range until 45 knots. At 45 knots the steer lock system will disable.

Joystick assignment:

Steer lock switch can be assigned to the keyboard / joystick by using the "G1000_MFD_SOFTKEYS" assignment.

G1000_MFD_SOFTKEY2 = ON

G1000_MFD_SOFTKEY3 = OFF



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XI. UN-INSTALL PRODUCT

Go to start, all programs and look for the folder called "Flysimware". Inside is your uninstall exe called "Flysimware's LEARJET 35A". Or go to the add and remove programs from windows control panel.

Installing and removing this product has "NO EFFECT" on your game!



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XII. TESTING

Tested on Microsoft Flight Simulator FSX Acceleration and requires SP2 Update or Acceleration update to work properly with all the newest features included for Microsoft Flight Simulator X.

Installs for FSX / FSX:SE / Prepar3D V1 - V2

Developer: Flysimware.com