GENERAL

The airplane is equipped with a conventional tricycle gear system. The nose gear consists of two wheels attached to a steerable shock strut. Each main gear consists of two wheels and brakes mounted on a shock strut.
When retracted, all gears are fully enclosed into the fuselage. All three gears are equipped with “spray deflectors”, which limit water and mud ingestion by engines during takeoff and landing. Gears and doors position can be monitored by a light and acoustic warning system. Each main gear is equipped with disk brakes (four disks for each brake), which work through hydraulic pressure coming from the hydraulic system. There are also pressure accumulators which provide a braking pressure reserve in case of loss of hydraulic pressure. The braking system is electronically aided by an anti-skid system which controls each gear brake.

LANDING GEAR SYSTEM

Gear doors are moved through the right hydraulic system. Gear extension and retraction and respective door opening and closing, is operated by the gear lever placed in the center of the main panel.

VISUAL/AURAL INDICATORS AND WARNING SYSTEM

LEFT NOSE and RIGHT gear lights are green when the gears are extended and locked. When they are red indicate gear operating and in an intermediate position. Gear acoustic warning system, with red LEFT NOSE RIGHT gear lights, starts operating when the aircraft is flying at or below 210KIAS and one or both throttles are in idle position or ½ inch from idle all gears are not extended and locked. The sound warning system can be inhibited with the gear horn off button near the left throttle.
The amber GEAR DOOR OPEN light is illuminated when the main gear doors are not completely closed.

GROUND SENSING CONTROL MECHANISM

The ground sensing control mechanism (GSCM) is connected to the nose gear and works through the shock absorber compression and extension, it’s used to give the flight condition to many aircraft systems. When the shock absorber is compressed the system is in ground condition, when the nose gear shock absorber is extended the GSCM will establish flight mode operation.

WHEIGHT ON WHEELS SWITCHES

On each main gear there is a sensor that works like GSCM, providing the ground condition for ground spoiler operation and stall warning inhibit. The main aim indeed is only to allow ground spoiler operation when aircraft is on ground.

BRAKE SYSTEM

Each main gear is equipped with disk brakes. Each brake is operated by a double set of independent cylinders (four for each set) and also receives hydraulics pressure from both right and left systems. There are two pressure accumulators to ensure hydraulic pressure reserve in case of loss of hydraulic power during normal hydraulic system operation.

ANTI SKID SYSTEM

Anti-skid is a system that works through a computer linked by switches and tachometric generators installed on each main gear, preventing wheels skidding due to braking operation. If the computer reads a differential speed between two paired wheels (1-4 or 2-3 *) the anti-skid system releases the hydraulic pressure to skidding wheel's brake, until the computer doesn't read relevant differential speed, applying normal braking pressure again. At lower speeds (about 15kts) anti-skid system is inhibited.

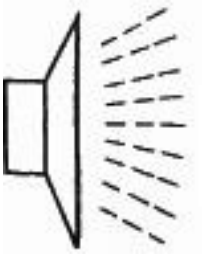
***Standard gear numbering conversion.**

LANDING GEAR

GEAR DOOR OPEN Light:
ON: When main gear doors are not completely closed.

Gear (LEFT NOSE RIGHT) Light:
GREEN: Gear lever down, all gears extended and locked.
RED: When gear lever is up, gears not completely retracted, or gear lever down and gears not completely extended and locked. In general, when a non-security condition exists related to gear, gear in the moving phase or in disagree with the gear lever position.
OFF: With gear lever up and gear retracted and locked.

Landing Gear Lever:
UP: Retracts landing gear and actuates the up locks.
DOWN: Releases up locks, extends gears and activates down locks.



"Landing Gear"

Landing Gear Warning Horn:
SOUNDING AND AURAL WARNING:
If flying at or below 210 KIAS and gear lever is not down and locked and one or both throttles are idle, or flaps are extended at or above 26°.

GEAR HORN OFF Button:
Pushing the button will inhibit the "landing gear warning horn" except when flaps are extended at or above 26°.

BRAKE SYSTEM

BRAKE PRESS. Indicator:
The gauge consists of two hands that show the respective left and right brake hydraulic pressure. The scale is PSI X 1000.

PARKING BRAKES ON Light:
ON: Parking brakes are on.

ANTI-SKID Switch
OFF: EOAP warning lights on and anti-skid testing system inoperative.
ARM: EOAP warnings are off and anti-skid system is armed for normal operation if gear lever is down and parking brakes are off.
TEST: Temporary position. that anti skid warning messages will be displayed in the EOAP.
NOTE: Anti-skid system executes a test each time the gear lever is moved from up to down position.

L/R INBD/OUTBD ANTI-SKID Light:
ON: Indicates anti-skid failure for a specific wheel.
NOTE: All warnings will light all together during anti-skid test. All lights are on if the anti-skid system is in OFF position.

BRAKE TEMP OVHT Light
Comes on when brake temperature exceeds 400° C and goes off when cools below 360° C.

BRAKE TEMP Indicator
Indicates selected hottest brake temperature.

BRAKE TEMP Test Button
Test brake electrical circuit and OVHT light.

BRAKE TEMP Selector
Selects individual brake for temperature reading. When at ALL, indicator will display temperature of the hottest brake.

AUTOBRAKE SYSTEM

ARM/DISARM Switch
ARM: ABS armed for automatic braking when spoilers are deployed during takeoff or landing.
DISARM: ABS inoperative, manual braking available.

LOWER PEDESTAL

AUTO BRAKE Selector
T.O.: Provide maximum braking pressure when spoilers are deployed during rejected takeoff.
OFF: ABS inoperative, manual braking available.
LAND MIN: When spoilers are deployed after landing brakes are automatically applied with a minimum force defined as MIN.
LAND MED: When spoilers are deployed after landing brakes are automatically applied to give deceleration level defined as MED.
LAND MAX: When spoilers are deployed after landing, brakes are automatically applied with maximum force.

GLEARSHIELD

ABS Disarm Light
MASTER CAUTION will also come ON.
- Comes on anytime the landing gear handle is down and automating braking is selected without arming the system.
- Comes on anytime ABS is automatically disarmed.

The system will automatically disarm when:

- Brake pedals are depressed beyond 25% of travel.
- Either or both throttles are advanced.
- The AUTO BRAKE ARM/DISARM switch is moved to the disarm position.
- L DC BUS is deenergized.