



LOOK FOR THE RED AND BLUE CESSNA
PENNANTS FOR THAT EXTRA SERVICE
WHERE IT COUNTS WHEN YOU NEED IT.

1960

C E S S N A

210
OWNER'S
MANUAL

210

1960

Description

Residual pressure in the hydraulic accumulator is sufficient to operate the flaps through several cycles, even though the engine is stopped.

NOTE

Do not use external locks between the flaps and ailerons, because accidental operation of the flaps could cause structural damage to both flaps and ailerons.

FLIGHT INSTRUMENTS

The flight and navigation instruments - airspeed, altimeter, rate-of-climb, and optional electric turn-and-bank and vacuum directional and attitude gyros - are mounted on the shock-mounted instrument panel, directly in front of the pilot. The shock-mounted panel has provisions for mounting additional instruments such as ADF, omni and ILS indicators. The magnetic compass is located on the windshield center strip and an outside air temperature gage is incorporated in the right overhead cold air vent. For accurate outside air temperature readings, the ventilator should be open slightly.

Pressures for the airspeed, altimeter and rate-of-climb indicator are picked up by a pitot mast under the left wing and a static port on each side of the fuselage just forward of the baggage door. An electrically-heated pitot tube is optional.

STALL WARNING SYSTEM

Warning of an impending stall, 5 to 10 mph ahead of the stall, is given

by an electric horn triggered by a sensing switch on the leading edge of the left wing. The unit has no silencing switch which might be left off by mistake, and since it is triggered by changes in air flow over the leading edge of the wing, it is equally effective at any gross weight, attitude or altitude. This system is in operation whenever the master switch is turned on.

Under safe flight conditions, you should hear the warning horn only briefly on landing; and usually there will be no signal on a properly-executed landing, due to ground effect. The unit will signal on the ground only occasionally when you are taxiing in high surface winds.

A heated sensing switch is included when the heated pitot head is installed as optional equipment. Both the stall warning and pitot heaters are controlled by the pitot heat switch.

LANDING GEAR

The retractable tricycle landing gear of the Cessna 210 is essentially the familiar LAND-O-MATIC spring gear. It is extended and retracted by hydraulic actuators, powered by an engine-driven hydraulic pump and a pressure accumulator. The nose gear retracts forward and up and the main gear rotates aft and up, into wells under the fuselage.

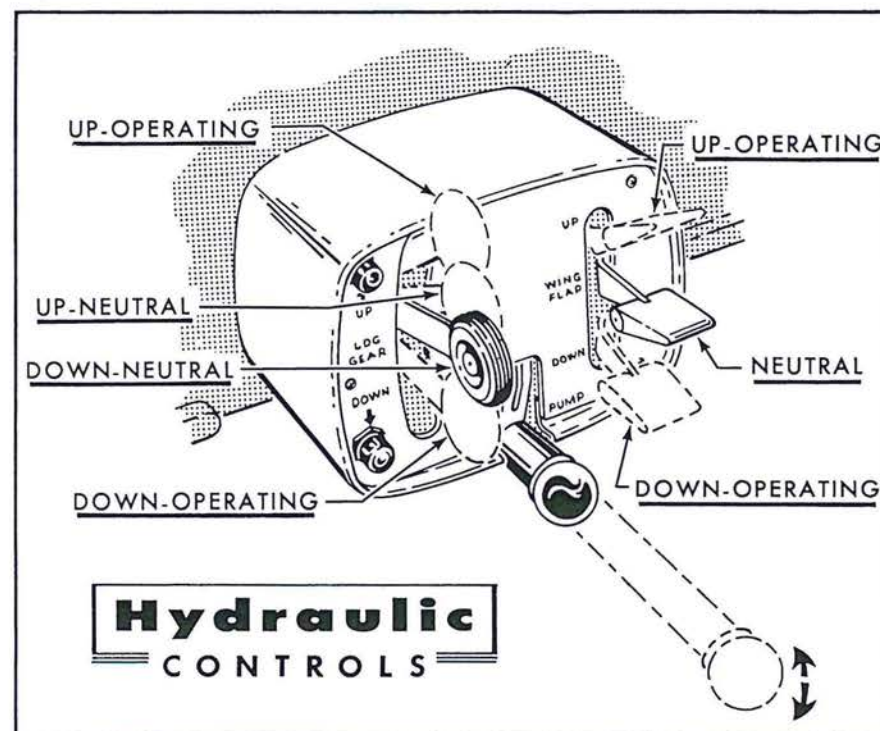
Both the main and nose gear have positive mechanical up and down locks, operated by separate hydraulic actuators. Limit switches control two position - indicator lights which show that the gear is either

up or down and locked. The limit switches are connected in series, so that all three gears must be locked before either indicator light comes on. The indicator lights are the press-to-test type. The gear down indicator light (green) has two test positions; with the light pushed in approximately half-way (throttle pulled out) the gear warning horn should sound intermittently, and with the light pushed full in, the light should illuminate. The gear up indicator light (red) has only one test position; with the light pushed full

in, it should illuminate. These tests assure proper operation of gear position indicator lights and warning horn. The indicator lights also contain dimming shutters for night operation. To dim the lights, turn the lens holder on the lights clockwise. For daytime operation, the lights should be full bright.

As an additional reminder that the landing gear is retracted, a warning horn sounds intermittently whenever the throttle is retarded with the gear up.

The landing gear wheels are fully



enclosed by doors which open to permit the gear to pass, then close once more, on both the extension and retraction cycles. The nose gear strut doors remain open when the nose gear is extended; all other doors close after the gear extends. Except for the nose gear strut doors, which are linked mechanically to the strut, all the landing gear doors are operated by hydraulic actuators. The gear operating sequence, including opening and closing the doors, is completely automatic.

NOTE

It is possible for the landing gear doors to creep open slightly after you shut down and leave the airplane if the master switch is turned off within three minutes after actuating the landing gear. Usually, however, the time required for landing, taxiing to the tie-down location, and engine shut-down will eliminate the pressure build-up which causes this occurrence.

GEAR POSITION HANDLE

The gear position handle has two neutral positions, slightly above center for gear-up and slightly below center for gear-down, which give a mechanical indication of the gear position. From either position, the handle must be pulled out to clear a detent before it can be repositioned. Pulling the handle out sets the door opening circuit; however, operation of the gear and doors will not begin until the handle has been re-

positioned. To reposition the gear, the handle is pulled out and moved to the desired position, then released. A detent holds the handle in the operating position until the cycle is completed, then the handle automatically returns to neutral.

A safety switch, actuated by the nose gear strut, restricts the gear position handle to prevent inadvertent retraction, whenever the nose strut is compressed by the weight of the airplane.

EMERGENCY HAND PUMP

For emergency use if the hydraulic system fails, the hydraulic control unit contains a manual pump which may be used to extend the gear and operate the flaps. The system fluid reservoir is arranged to retain sufficient fluid to extend the gear and flaps with the hand pump if a failure between the engine-driven pump and the reservoir results in fluid loss. See Section III, Page 3-9 for operating instructions.

BRAKES

Standard single-disc brakes on the main wheels are operated by conventional toe brakes on the rudder pedals. The brakes may be set for parking by turning the parking brake handle straight down and pulling it out. If desired, additional pressure may be applied with the brake pedals as the handle is pulled out.

To release the parking brake, turn the parking brake handle to the right 1/4 turn and return it to its stowed position.

STEERING

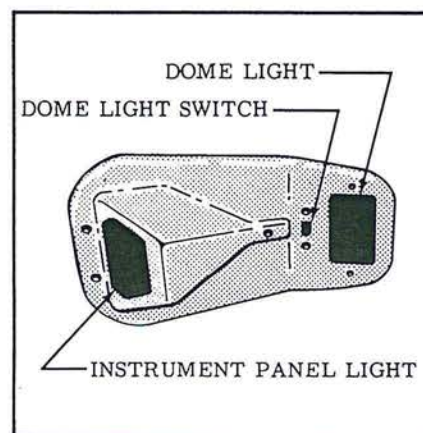
The Cessna 210's nose wheel is steerable through the rudder pedals in an arc of 12 degrees, after which it becomes free-swiveling up to 30 degrees, on each side of center.

The steering linkage is arranged to straighten the nose wheel as the gear retracts, even though some rudder is being carried. You need not neutralize the rudder to retract the gear.

INTERIOR LIGHTS

The instrument panel is lighted by a red overhead floodlight controlled by a rheostat switch. The compass is lighted individually, but controlled by the instrument light rheostat. Radio dial lights in some radio installations are controlled by a rheostat switch similar to the instrument light control.

A white dome light in the cabin



ceiling, controlled by a slide switch on the light fixture, provides general cabin illumination. Since there is no partition between the cabin and baggage compartment, the dome light will light that area also.

A map light is available as optional equipment. Mounted on the left front doorpost, the map light may be turned to any desired direction and its white beam is adjustable from flood to spot. It is controlled by a switch on the doorpost.

EXTERIOR LIGHTS

Conventional wing and tail position lights are controlled by a three-position push-pull switch and a flasher. The full-in position of the switch is off, the intermediate position is steady-on and full-out is the flashing position. To comply with Civil Air Regulations, only the steady position should be used when the optional rotating beacon is operating. The two wing tip lights are equipped with plastic detectors which glow when the lights are on.

An optional rotating beacon may be installed on the tip of the vertical stabilizer, to serve as an anti-collision light.

NOTE

The rotating beacon should be turned off in clouds or haze to avoid a distracting glare.

Two sealed-beam landing lights are mounted behind a plastic window in the leading edge of the left wing. One light is aimed for proper il-