

## SECTION 6-10

### LIGHTING

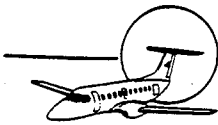
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16 OCTOBER 1987

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← EMBRAER  
EMB120 *Brasilia*  
**OPERATIONS MANUAL**

SYSTEMS DESCRIPTION  
LIGHTING

## GENERAL DESCRIPTION

Cockpit is provided with dome lights, panel flood lights and spot lights as well as with instrument panel lights. All instruments are integrally white lighted. The instruments and panel lights are electronically dimmable by means of potentiometers located on the glareshield, overhead and aft panels. Fluorescent-type lights are distributed in the passenger cabin and are controlled by the PAX CABIN switch installed on the attendant's panel.

A built-in switch allows each passenger to switch his reading light on and off.

The baggage compartment, the toilet, the entry and cargo doors, the nose and tail cone compartments are provided with individual lights.

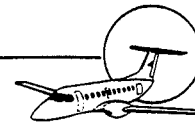
The external lighting system consists of landing, taxi, position, anticollision, inspection, and logotype lights. Each one of them is controlled by its respective switch located on the overhead panel.

Advisory lights for passengers and attendant are controlled by the PAX SIGNS switch, on the overhead panel. Individual reading lights and control switches are installed in the passenger service units, located above each seat. An attendant call system provides aural call and visual means of locating its origin.

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## COCKPIT LIGHTING

The cockpit is provided with two dome lights. A two-position switch (ON/OFF) on the overhead panel commands the 28 V DC power supply.

In addition, a fluorescent lighting system (flood light) is installed under the glareshield panel and on the cockpit bulkhead, which provides illumination of the pilot's, co-pilot's, center and aft panels even under electrical emergency condition.

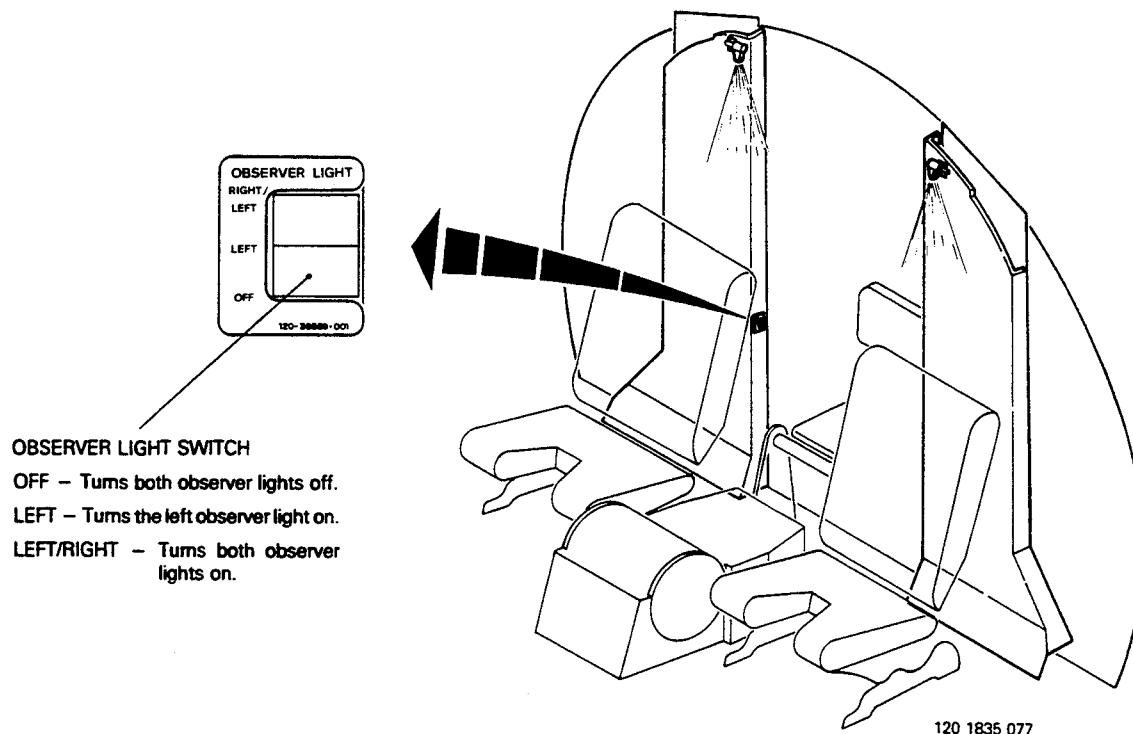
Two spot lights mounted on the ceiling enable reading of charts placed on the pilot's lap.

The chart holder is provided with a lighting system, and its brightness controls are located in the glareshield panels.

The instrument and panel lighting control is achieved through four potentiometers: one installed on the overhead panel to control the overhead panel lighting, two installed on the glareshield panel to control the left and right panels lighting, and one installed on the aft panel to control the pedestal panel lighting. The brightness increases in the clockwise direction until reaching the detent, and in the extreme counterclockwise position the light is turned off.

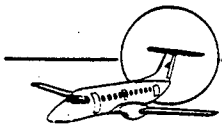
On airplanes Post-Mod. SB 120-033-0020 or S/N 120.036, 120.042 thru 120.047, 120.049 and on, two spot lights, mounted on the cockpit bulkhead, provide lighting to the central console and observer's seat. The observer left and right lights are turned on when the respective FLOODLIGHT switch, located on pilot's and copilot's glareshield panels, are set out of OFF position.

When the FLOODLIGHT switch is in OFF position, the observer spot light may be controlled through the OBSERVER LIGHT switch, at the right side of the observer seat.



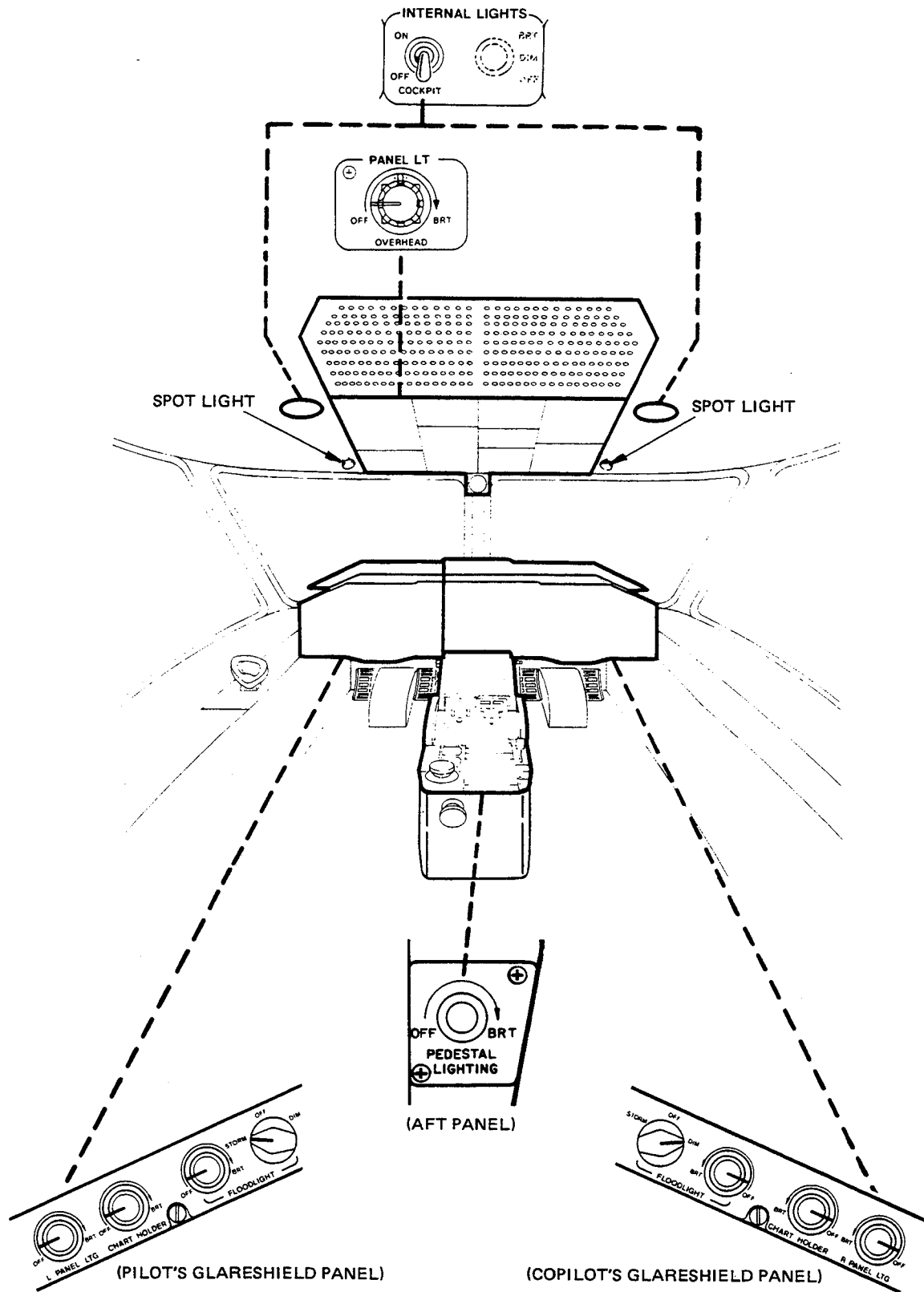
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# EMBRAER EMB120 *Brasilia* OPERATIONS MANUAL

SYSTEMS DESCRIPTION  
LIGHTING



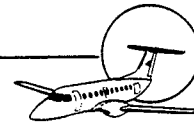
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## COCKPIT LIGHTING

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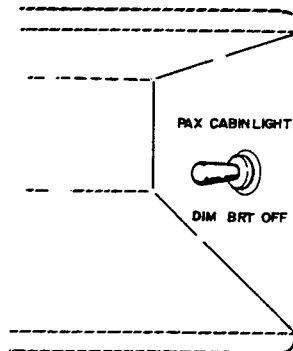
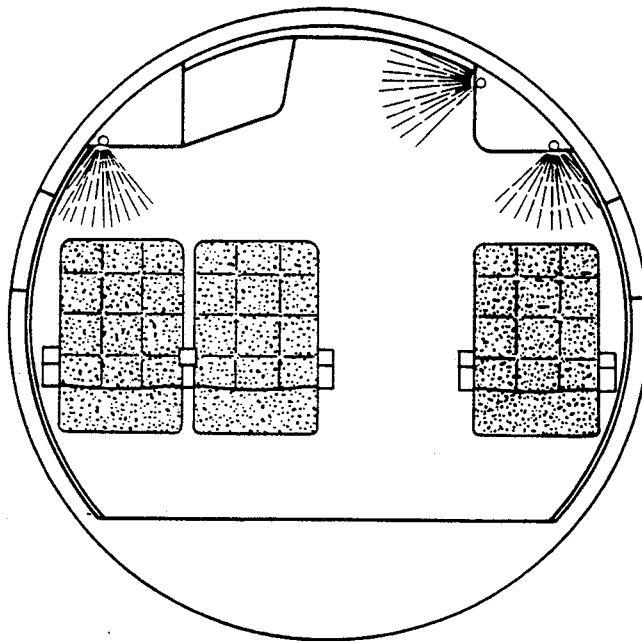
## PASSENGER CABIN LIGHTING

Passenger cabin lighting is provided by three continuous strips of lights, of which two in each side of the cabin to provide direct lighting to the side lining and the third strip, to illuminate the ceiling.

The control of the system is achieved by means of a three-position switch (DIM, BRT, OFF) located on the attendant's panel.

In the DIM position all lights provide lower brightness level, allowing lights to be dimmed as suited to night flying.

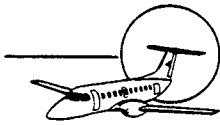
Brightness is improved when the switch is selected to the BRT position and all lamps are turned off when the switch is selected to the OFF position.



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(ATTENDANT'S PANEL)

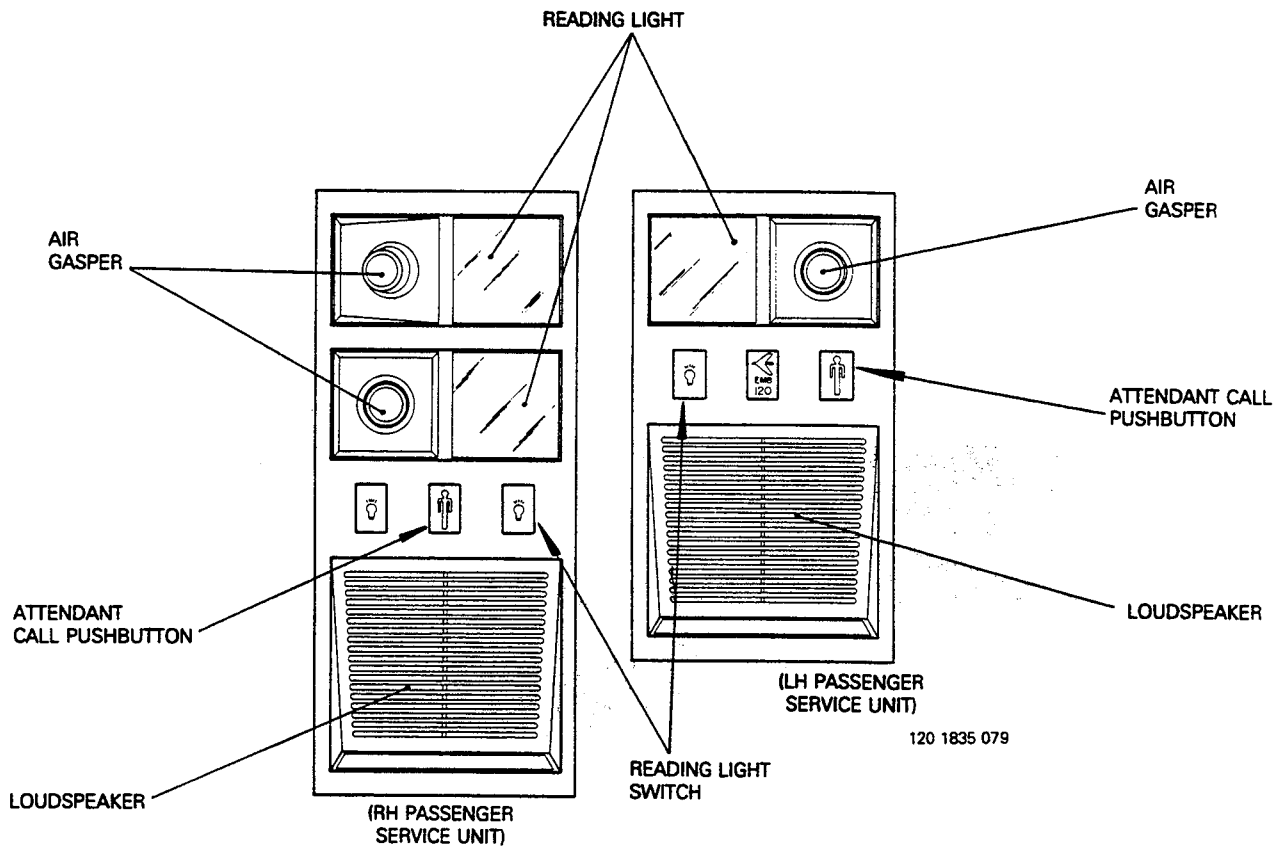
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## PASSENGER SERVICE UNIT

The unit provides the following services:

- Reading light at each passenger seat.
- Passenger information sign to inform the passengers on NO SMOKING and FASTEN BELTS instructions.
- Air gasper for each individual passenger seat.
- Individual pushbuttons for the reading lights and attendant call.

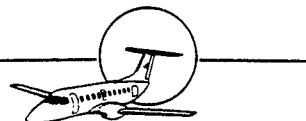


(OVERHEAD PANEL)

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## PASSENGER CABIN SIGNS

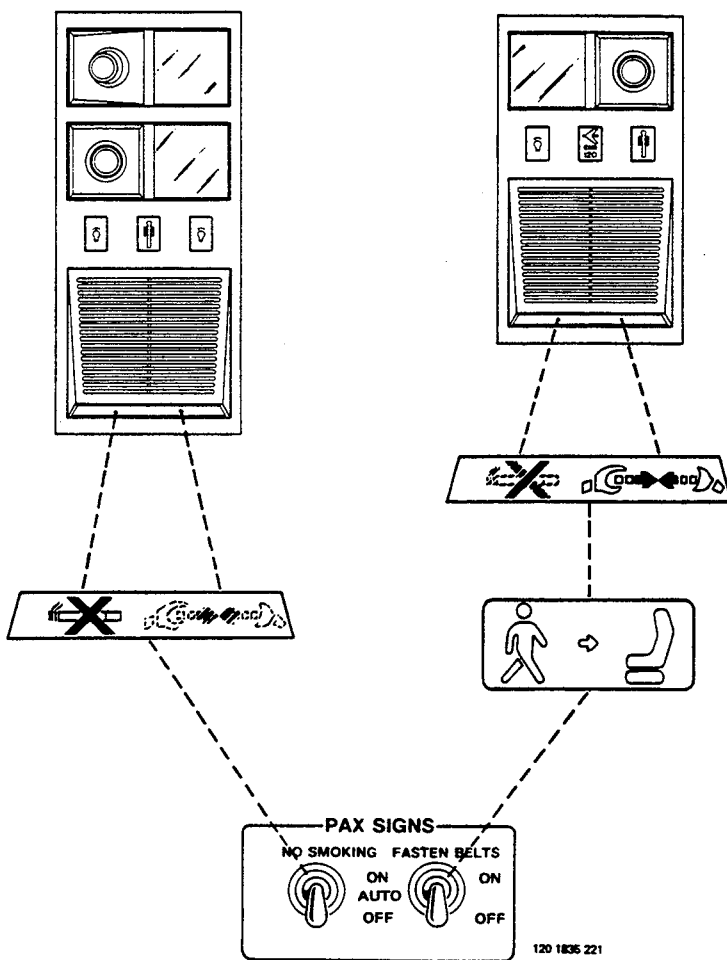
### NO SMOKING

The NO SMOKING signs, provided in the passenger cabin, are controlled by the NO SMOKING switch. Positioning the switch to AUTO, the NO SMOKING signs will automatically illuminate when the landing gear is downlocked or when the oxygen system dispensing units are actuated. ON and OFF positions manually controls the illumination of those signs.

**NOTE:** Some airplanes do not have the AUTO position.

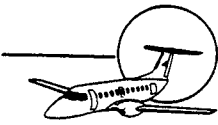
### FASTEN BELTS

The FASTEN BELTS switch controls the activation of the FASTEN BELTS signs, provided in the passenger cabin and the "RETURN TO SEAT" sign provided in the toilet.



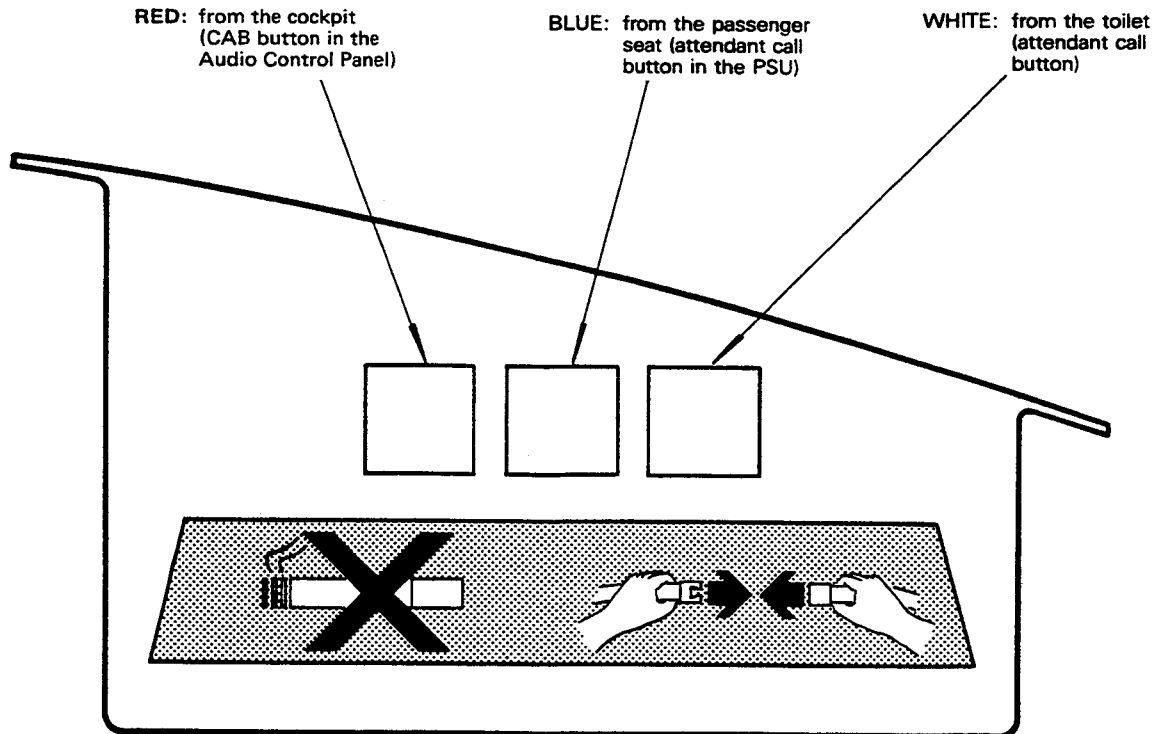
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## ATTENDANT CALL

Attendant call is performed through pushbuttons and annunciated through a set of indicating lights and aural signal. Pressing the attendant call pushbutton generates a HI-LO signal in the audio system and illuminates the button cap and the relevant light on the attendant call lights set.



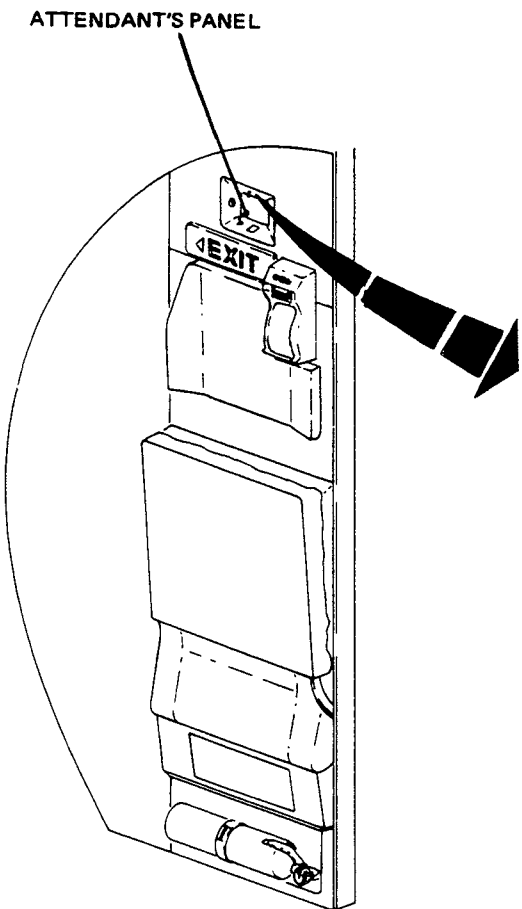
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ATTENDANT CALL LIGHTS  
(CABIN REAR BULKHEAD)



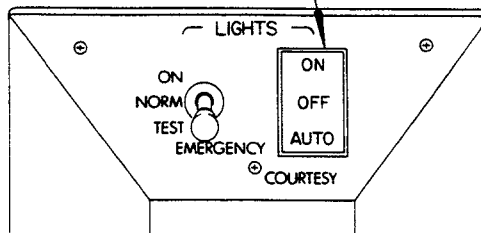
## COURTESY LIGHT

To provide lighting for the first crew member to enter the aircraft safely at night, one overdoor light illuminates the stairs and the aisle towards the cockpit. This light is commanded through a three-position switch (AUTO/OFF/ON) located at the attendant's panel.



### COURTESY SWITCH

- ON - The light will be on, provided the PWR SELECT switch is positioned to BATT, and the battery is tied to the central bus.
- OFF - The system will be off in any condition.
- AUTO - The lights will be on if the door is open.



120 01 215 C

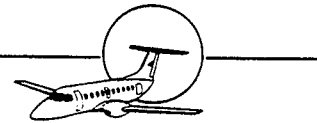


## COMPARTMENT LIGHTS

An incandescent lamp is installed in the nose and tail compartments to permit quick inspection and accomplishment of simple tasks.

Fluorescent lamps are used in the toilet and in the cargo compartment. All compartment lights can be switched on or off in the compartment itself. On airplanes post-mod. S.B. 120-033-0009 or S/N 120.028 and on, the cargo door automatically turns the cargo compartment light on or off.

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## EXTERNAL LIGHTING SYSTEM

Two landing lights are installed in the wing leading edges, beside the nacelles, so as to prevent any glare effect upon the pilot's vision. The lights are independently commanded by means of two separated switches with three cat's-eye luminous levers, located on the overhead panel.

Two taxi lights are installed in the nose landing gear. One has a wide beam and the other one a narrow beam providing wide and long range. When the nose landing gear is retracted, the taxi lights are automatically turned off.

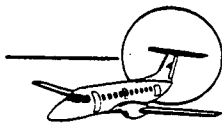
Navigation lighting consists of two wing tip lights (red and green) and the tail light (white).

The main anticollision light system comprises three white strobe lights, installed in each wing tip and in the tail. The auxiliary anticollision light system consists of two red rotating beacons, that permit a lower intensity light to be used on the ground in order to avoid any dazzling effect upon anyone close to the airplane.

An inspection light is installed in each side of the aircraft nose, to illuminate the wing leading edge and engine air inlet, allowing the crew to check for ice formation in these parts during night flying.

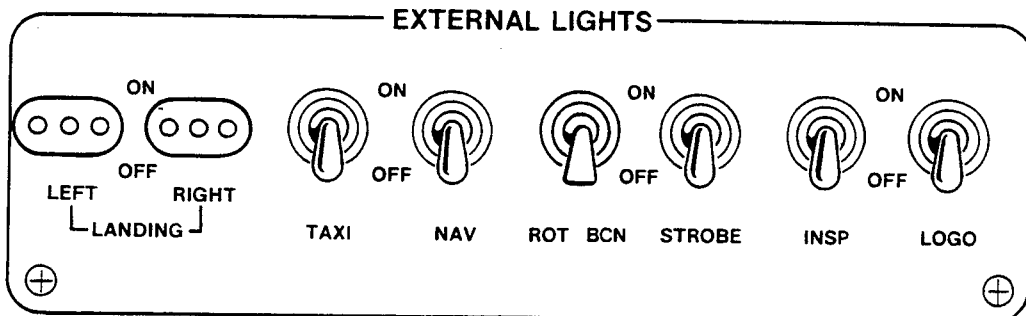
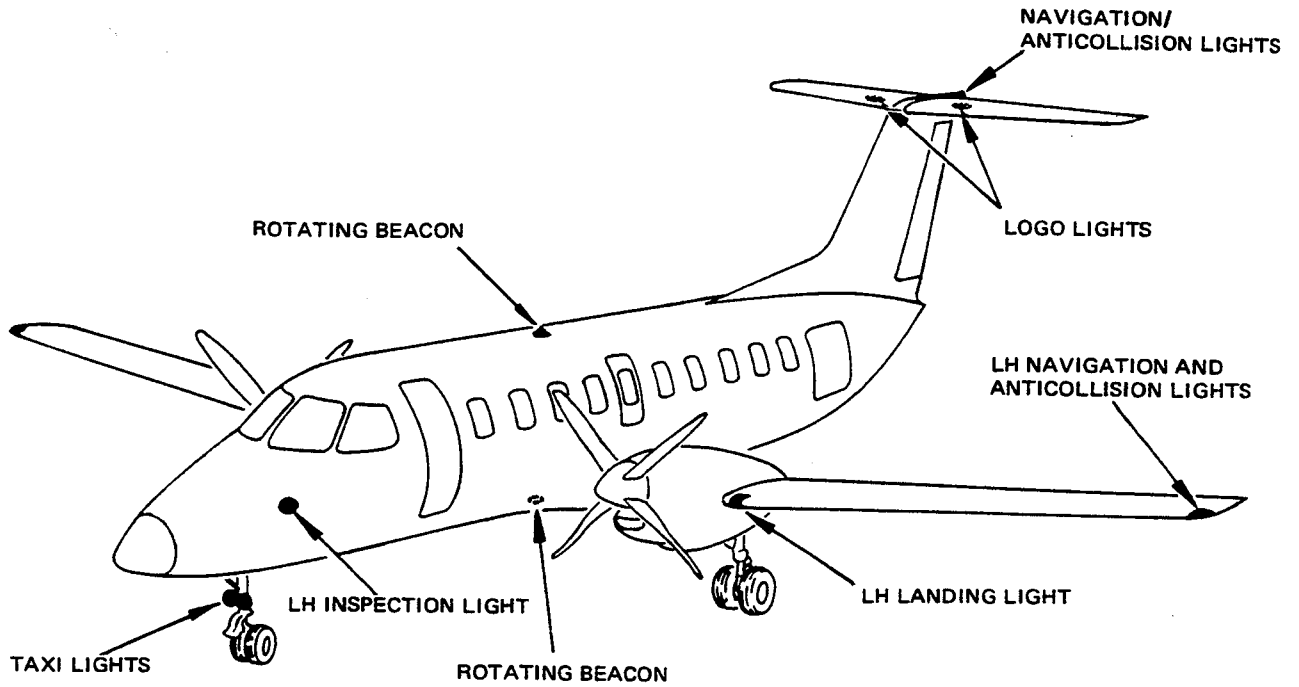
To illuminate the operator's logotype located on the vertical fin, a lighting system is provided, consisting of one light installed on each side of the horizontal stabilizer.

The TAXI, NAV, ROT BCN, STROBE, INSP, and LOGO switches, located on the overhead panel, control taxi (under landing gear downlocked condition), navigation, rotating beacon, strobe, inspection, and logotype lights, having two positions: ON and OFF.



**EMBRAER**  
**EMB120 Brasília**  
**OPERATIONS MANUAL**

SYSTEMS DESCRIPTION  
LIGHTING



(OVERHEAD PANEL)

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**EXTERNAL LIGHTING SYSTEM**

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