

	COMMUNICATIONS INTERCOMMUNICATION SYSTEM		1.23.20	P 1
			SEQ 100	REV 09

GENERAL

The intercommunication systems are divided into two main systems:

- the audio management system.
- the cabin intercommunication data system.

AUDIO MANAGEMENT SYSTEM

The audio management system

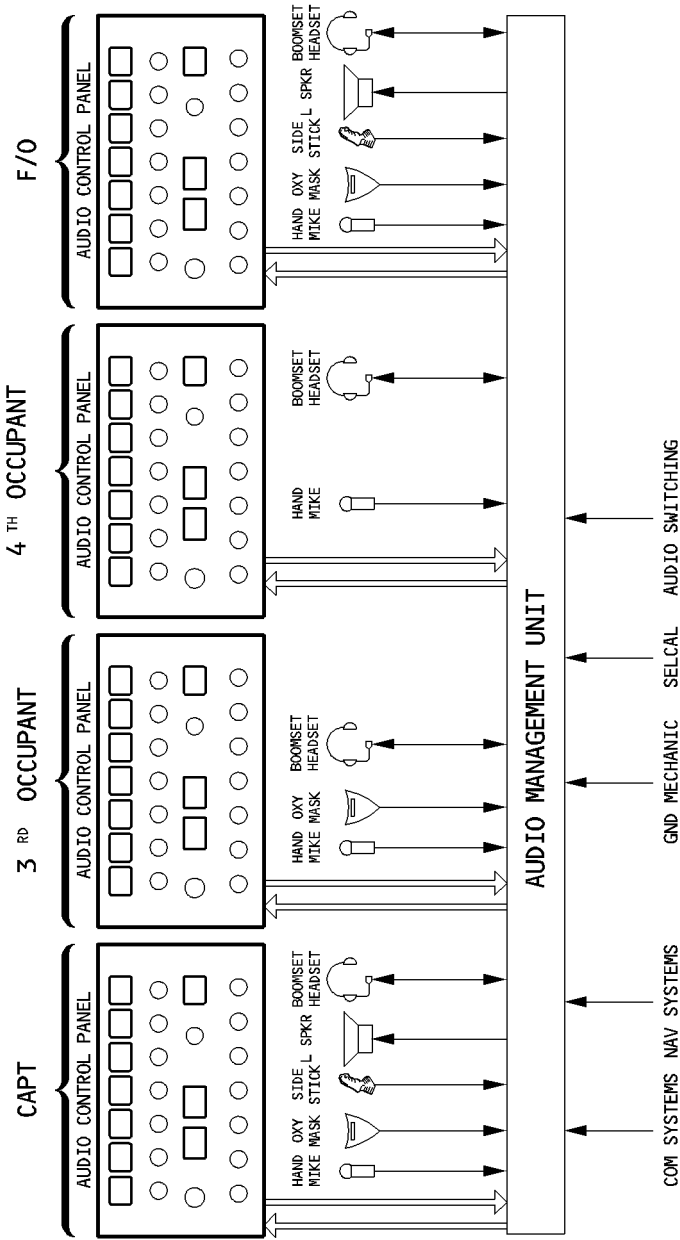
- all the radio communication and radio navigation facilities installed on the aircraft in transmission and reception mode.
- the interphone systems
- the call systems
- the passenger address system

The audio management system includes:

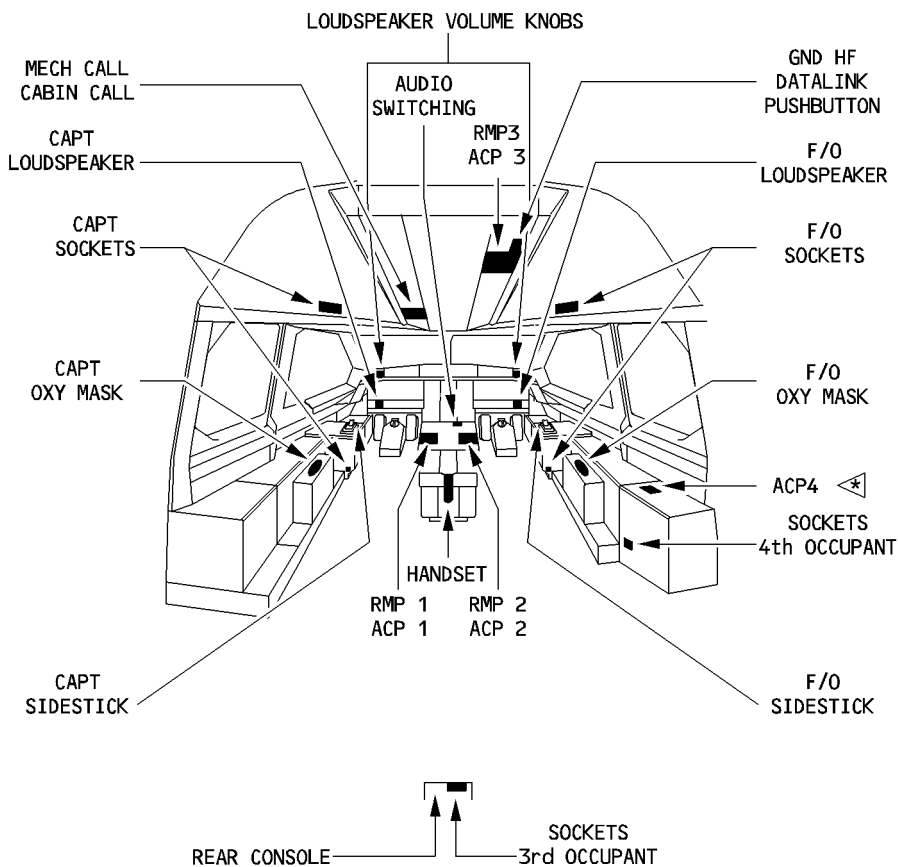
- an audio management unit (AMU)
- four audio control panels (ACPs)
- sockets at each pilot's station
 - headset jack, boomset connector and hand microphone connector for pilot, copilot, third and fourth occupant
 - headset jack for the fourth occupant
- one interphone jack socket at the ground power receptacle
- boomsets for the pilot, copilot, third and fourth occupant and four hand microphones
- three cockpit oxygen mask microphones
- one radio press-to-talk switch on each sidestick
- one SELCAL code selection panel
- two cockpit loudspeakers with separate volume controls
- an audio switching facility

If audio channel 1 or 2 fails due to a failure either in an ACP or the corresponding AMU, the crew can use the AUDIO SWITCHING selector to select the third audio channel.

FFCS-01-2320-002-A100AA



COMPONENTS' LOCATION



FFCS-01-2320-003-A100AA

CABIN INTERCOMMUNICATION DATA SYSTEM

The Cabin Intercommunication Data System (CIDS) provides signal transmission, control and processing for the following cabin systems:

- Cabin and service interphone
- Passenger address
- Passenger signs
- Reading lights (LED technology)
- General cabin illumination
- Emergency evacuation signalling
- Lavatory smoke indication
- Passenger entertainment music and video

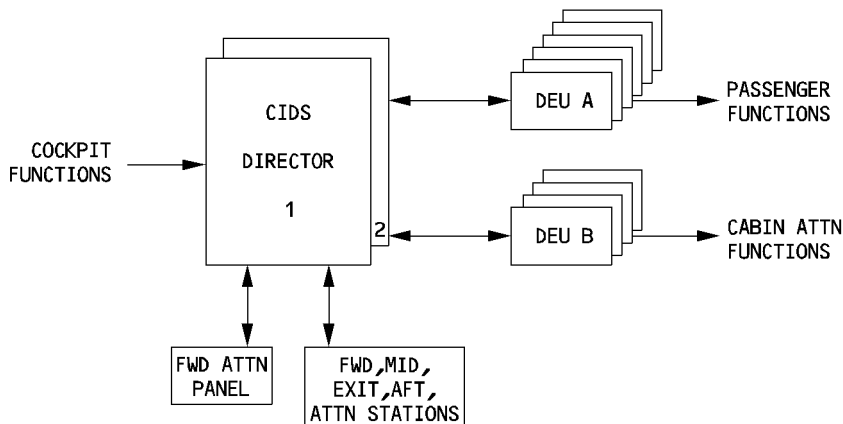
The CIDS includes the following main components:

- Two CIDS directors connected in parallel, one active and the other on standby.
- Forward Attendant Panel (FAP) to monitor and control the cabin systems.
- Attendant Indication Panels (AIP), Additional Attendant Panels (AAP), and Area Call Panels (ACP)
- Decoder / Encoder Units (DEUs) linked to the two directors.

- Type A units (for passengers) installed along the cabin.

The loudspeakers, lighted signs, call buttons, call lights and general illumination ballast units are divided into small groups, each connected to a type A DEU.

- Type B units (for attendants) installed near the exit doors. The Area Call panels, attendant handsets, slide/door pressure sensors, attendant indicator panels, are connected to type B DEUs.

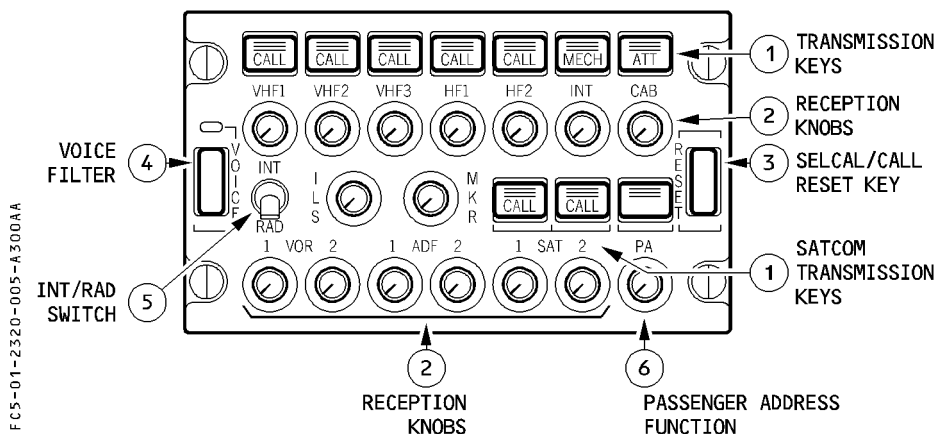


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	COMMUNICATIONS INTERCOMMUNICATION SYSTEM	1.23.20	P 5
		SEQ 300	REV 14

CONTROLS

AUDIO CONTROL PANEL



① Transmission keys

- Pressed : The associated channel is selected for transmission.
The three green lines come on.
The pilot deselects the channel by pressing the pushbutton again, or by selecting another channel.
- CALL It. : The legend flashes amber (and buzzer sounds) when the SELCAL system detects a call.
- MECH It. : The legend flashes amber (and buzzer sounds) for a call from the nose gear bay. The MECH light goes off after 60 seconds, if it is not reset.
- ATT It. : The legend flashes amber (and buzzer sounds) for a call from a cabin attendant. The ATT light goes off after 60 seconds, if it is not reset.
- SAT CALL It. : The legend flashes amber, when the SATCOM system detects a call.
The three green lines flash during the establishment of air to ground calls or when SATCOM calls are on hold.
After call establishment, the three green lines remain steady.

② Reception knobs

- Pressing and releasing the knob (knob out) selects the associated audio reception channel and the integral white light comes on.
- Rotating the knob adjusts the volume.
- The ANN LT sel controls the brightness.
- Pressing the knob (knob stays in) disconnects the associated audio reception channel.

	COMMUNICATIONS INTERCOMMUNICATION SYSTEM	1.23.20	P 6
		SEQ 001	REV 09

③ RESET key

Pressing this key extinguishes CALL, MECH and ATT lights and cancels the buzzers.

④ VOICE key

This key allows the flight crew to inhibit the audio navigation signals (VOR, ADF).

Pressing this key filters out ident signals and turns on the green ON light.

⑤ INT / RAD sw

This switch operates as a push-to-talk switch for boom mike or oxygen mask mike.

INT : Boom and mask mikes transmit on interphone regardless of which transmission key is selected. For reception on interphone, the crew member must have the INT selected (INT reception knob out).

Neutral : Reception is normal. Boom and mask mikes do not transmit.

RAD(press and hold) : Boom and mask mikes transmit on the radio selected on the audio control panel.

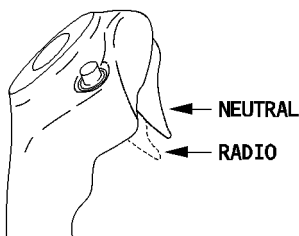
⑥ Passenger address (PA) function

PA transmission key and reception knob.

(Refer to 1.23.20)

SIDE STICK RADIO SELECTOR

FFCS-01-2320-006-A001AA



This selector has the same function as the INT/RAD switch on the ACP.

NEUTRAL (spring-loaded) : Boom and mask mikes are dead. Reception is normal.

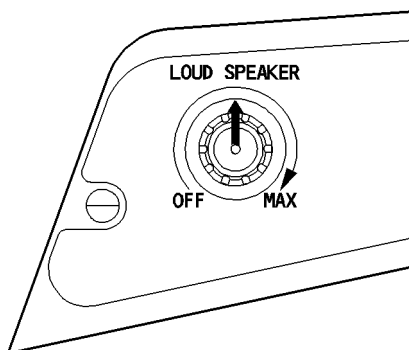
RADIO (aft position) : Boom and mask mikes transmit the equipment selected by the transmission key on the ACP.

Note : If RADIO is selected on the side stick when the INT/RAD switch is on INT, the radio function has priority over the interphone function.

	COMMUNICATIONS INTERCOMMUNICATION SYSTEM		1.23.20	P 7	
		SEQ 001	REV 09		

LOUDSPEAKER VOLUME KNOB

FFCS-01-2320-007-A001AA



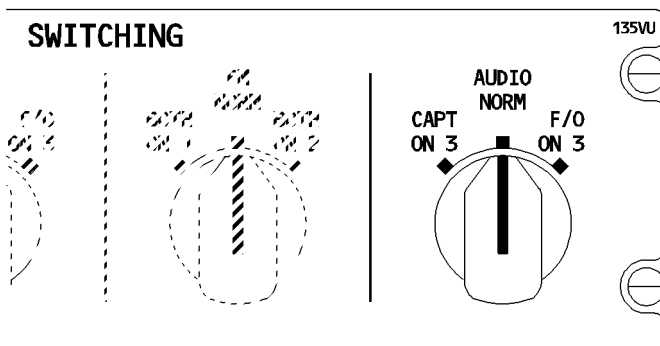
This knob adjusts the volume of the loudspeaker for radio communication.

- OFF : Loudspeaker does not respond to signals from the aircraft's radio equipment.
Clockwise rotation : Loudspeaker broadcasts signals from the aircraft's radio equipment at increasing volume.

Note : This knob does not control the loudness of aural alert and voice message.

AUDIO SWITCHING

FFCS-01-2320-007-B001AA



The crew can switch to the third audio channel if ACP1 or ACP2 fails.

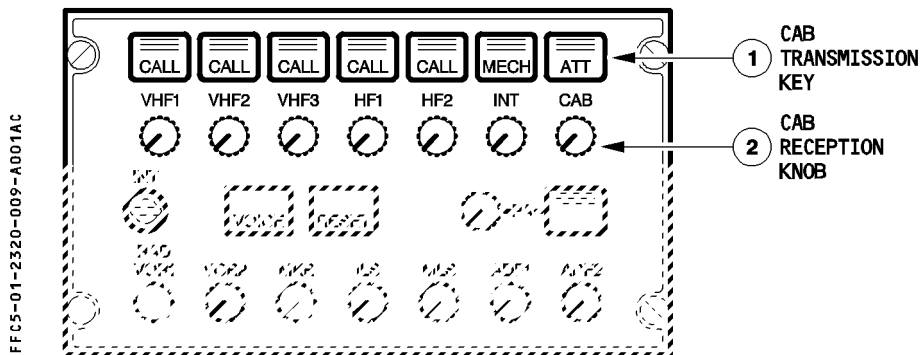
When the crew does this, it takes away the third occupant's access to the acoustic equipment.

- NORM : Each crew member uses his dedicated communication equipment.
CAPT ON 3 : The pilot uses his acoustic equipment and the third occupant's ACP.
F/O ON 3 : The copilot uses his acoustic equipment and the third occupant's ACP.

CABIN INTERPHONE SYSTEM

The system provides communication and call facilities between:

- flight crew and attendant stations
- two attendant stations



① CAB transmission key

Depressed : Three green lines come on.
Boomset, mask mikes and hand mike may be used for cabin interphone.

② CAB reception knob

Depressed and released(knob out) : The integrated white light comes on.
Audio signal from cabin is received.
Rotate knob to adjust volume.

Depressed(knob in) : The white light goes off.
Cabin interphone is disconnected.

COCKPIT OPERATION

	CAB TRANSMISSION KEY ON ACP	CAB RECEPTION KNOB ON ACP	INT/RAD SW ON ACP	PUSH TO TALK ON HAND MIKE
BOOMSET OR OXYGEN MASK	DEPRESSED	OUT	RAD	—
HANDMIKE	DEPRESSED	OUT	—	PRESSED

SERVICE INTERPHONE SYSTEM

The system allows for communication between:

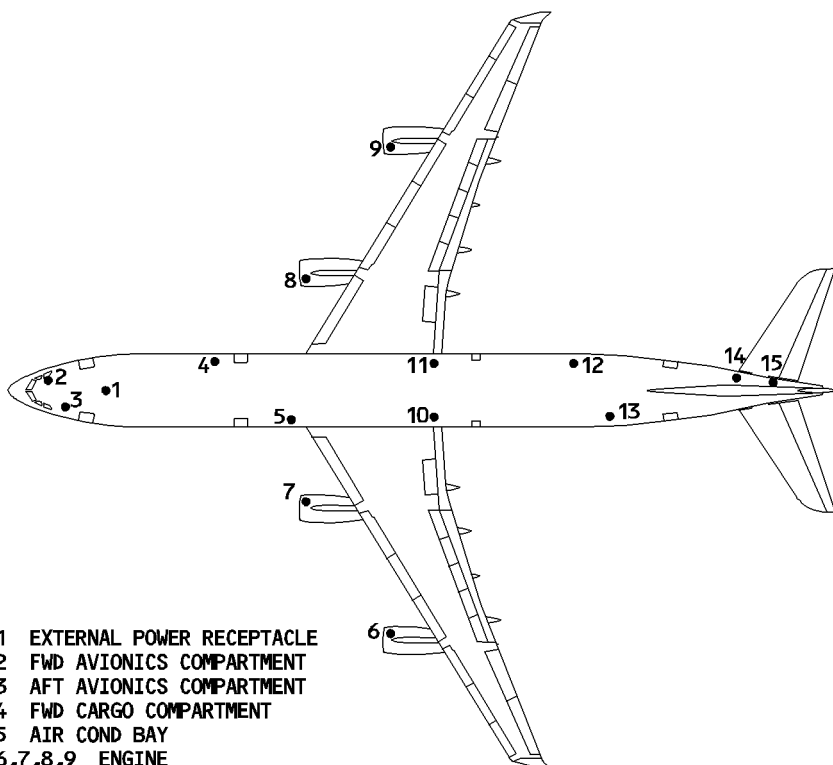
- the flight crew and the service interphone jacks
- the flight attendant stations and the service interphone jacks
- the different service interphone jacks.

The Service Interphone system has :

- fifteen interphone jacks
- an OVRD switch located on the overhead panel.

The audio lines from the interphone jacks are connected to both CIDS directors.

LOCATION OF INTERPHONE JACKS

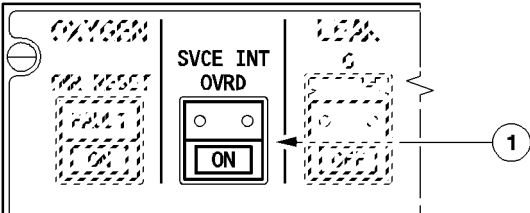


- 1 EXTERNAL POWER RECEPTACLE
- 2 FWD AVIONICS COMPARTMENT
- 3 AFT AVIONICS COMPARTMENT
- 4 FWD CARGO COMPARTMENT
- 5 AIR COND BAY
- 6,7,8,9 ENGINE
- 10,11 HYDRAULIC COMPARTMENT
- 12 AFT CARGO COMPARTMENT
- 13 DIGITAL FLIGHT DATA RECORDER
- 14 TRIM ACTUATOR
- 15 APU COMPARTMENT

CONTROLS AND INDICATORS AT OVERHEAD PANEL

For maintenance purpose only.

FFC5-01-2320-011-A001AA



①SVCE INT OVRD.pb sw

- Auto : Ground personnel can communicate with the flight crew by means of the service interphone jacks after the aircraft has landed. The landing gear must be compressed.
- ON : Communication is possible when the landing gear is not compressed. The ON light is white.

COCKPIT OPERATION

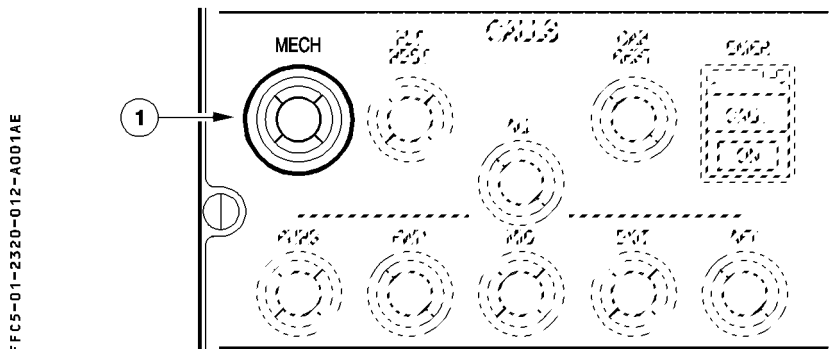
	CAB TRANSMISSION KEY ON ACP	CAB RECEPTION KNOB ON ACP	INT/RAD SW ON ACP	PUSH TO TALK ON HANDMIKE	SVCE INT OVRD PB SW
BOOMSET	PRESSED	OUT	RAD (maintained)		ON IF L/G NOT COMPRESSED
HANDMIKE	PRESSED	OUT		PRESSED	

CALL SYSTEMS

GROUND MECHANIC CALL

The system allows the flight crew and ground mechanics to communicate each other.

CONTROLS AND INDICATORS ON OVERHEAD PANEL

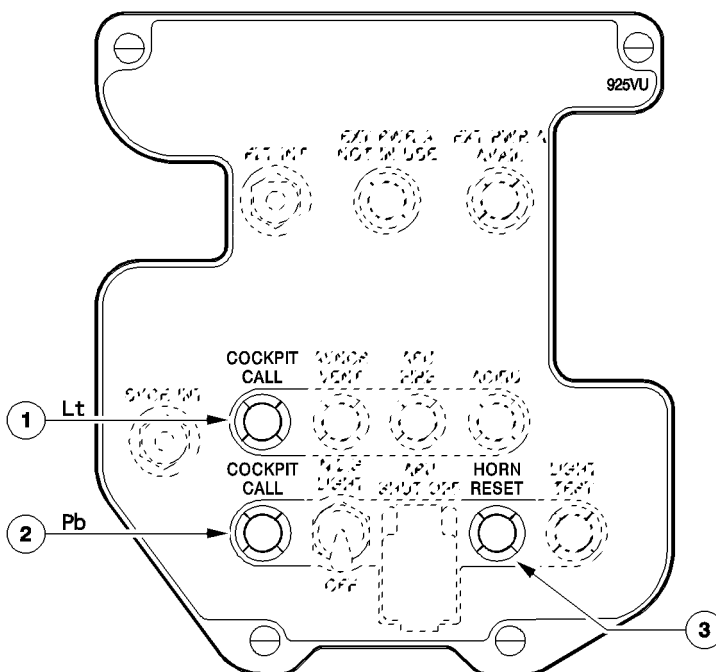


① MECH pb

- | | | |
|--------------------|---|---|
| Pressed (and held) | : | COCKPIT CALL lights up blue on the external power panel.
An external horn sounds. |
| Released | : | COCKPIT CALL remains lighted.
The ground mechanic can extinguish it by pressing the
HORN RESET pushbutton on the external power panel.
The external horn stops sounding. |

Note : To communicate with the ground mechanic, the flight crew must select the MECH key and the INT reception knob on the ACP must be selected.

CONTROLS AND INDICATORS ON EXTERNAL POWER PANEL



FFCS-01-2320-013-A001AB

① COCKPIT CALL Lt

The blue light appears when cockpit calls the ground mechanic. An external horn also sounds.

② COCKPIT CALL pb

Pressed : This calls the cockpit.
The MECH lights flash amber on the ACPs and a buzzer sounds.

Released : The MECH lights go out after 60 seconds if they are not reset on the ACPs. The buzzer stops.

③ HORN RESET pb

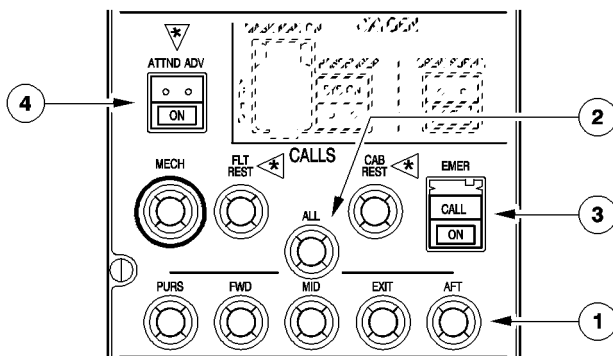
Pressed : The COCKPIT CALL light goes out.
The external horn stops sounding.

CABIN CALL SYSTEM

This system is for communication between the cockpit and the cabin.

CALL FROM THE COCKPIT

FFCS-01-2320-014-A001AA



① FLT REST / CAB REST / PURS / FWD / MID / EXIT / AFT pb

Pressed : A steady pink light comes on at the corresponding area call panel.
CAPTAIN CALL appears at the corresponding attendant indication panel
and a green light comes on.
A high-low chime sounds through corresponding loudspeaker.

② ALL pb

Pressed : All stations respond as above simultaneously CALL ALL CAPT appears on
the attendant indication panels.

③ EMER pb sw (guarded)

ON : Pink light illuminates at all area call panels.
CALL PRIO CAPT appears at all attendant indication panel and a red light
comes on.
High-low chime (repeated 3 times) sounds through all loudspeakers.
ATT amber lights flash on Audio Control Panels.

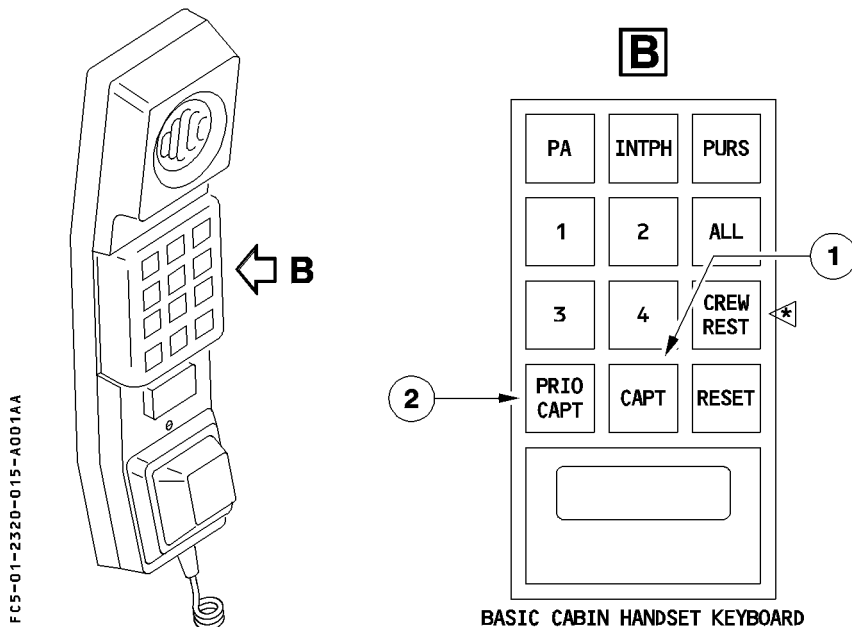
ON lt : This light flashes white for an emergency call from the cockpit to the cabin.

CALL lt : This light flashes amber for an emergency call from the cockpit or cabin.
For an emergency call from the cabin to the cockpit:

- The white ON light and amber CALL light flash.
- The amber ATT lights flash on the audio control panels.
- Three long buzzers sound in the cockpit.

The system reset when the attendant hangs up the relevant handset.

CALL FROM THE CABIN



①CAPT key

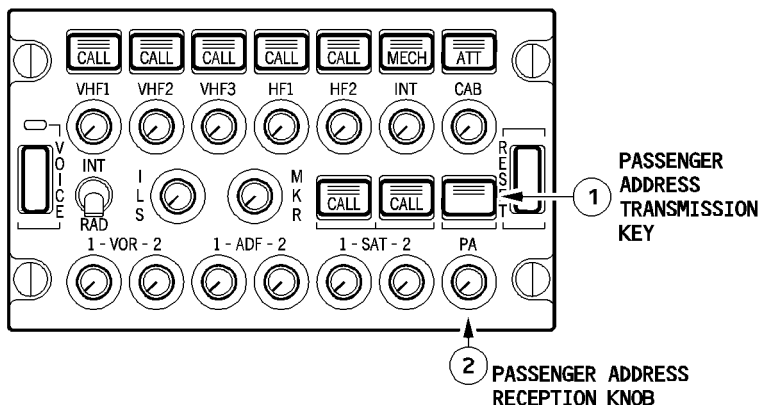
Pressed : In the cockpit, the “ATT” lights up on the ACP and a buzzer sounds. In the cabin, “CAPTAIN” appears at the AIP where the CAPT button was pressed. The buzzer is inhibited during takeoff and landing.

②PRIO CAPT key

Pressed : This key is used for emergency calls. In the cockpit, the “ATT” lights up on the ACP and three buzzers sound. In the cabin, “PRIO CAPTAIN” appears at the AIP where the PRIO CAPT button was pressed. The buzzer is inhibited during takeoff and landing.

PASSENGER ADDRESS

The passenger address system allows flight personnel to make passenger announcements in the cabin via the loudspeakers. It can be operated from the cockpit (with ACP, or handset), or from the cabin (attendant stations).



① PA transmission key

Pressed and held : The flight crew may use a boom, mask, or hand mike to make an announcement. Three green lines come on.

Note : The flight crew may use a cockpit handset to make PA announcements without action on the ACPs.

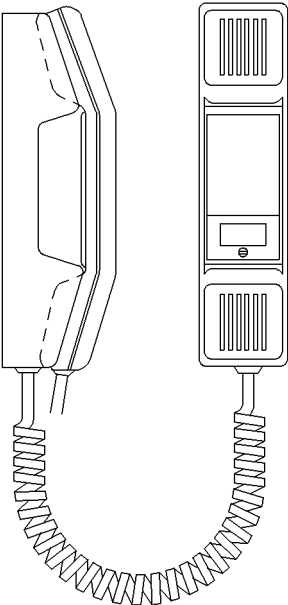
② PA reception knob

Pressed and released(knob out) : The message goes to the loudspeakers and the integral white light comes on. The flight crew can rotate the knob to adjust the volume.

Pressed(knob in) : The PA system is disconnected. The white light goes out.

Cockpit handset

The cockpit handset at the bottom of the pedestal is for PA announcements.

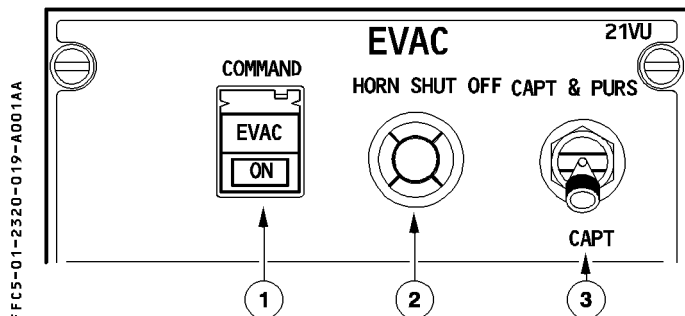


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PA from cockpit

	PA TRANSMISSION KEY ON ACP	PA RECEPTION KNOB ON ACP	PUSH TO TALK ON HANDMIKE	PUSH TO TALK ON HANDSET
BOOMSET OR OXYGEN MASK	PRESSED (held)	OUT		
HANDMIKE	PRESSED (held)	OUT	PRESSED	
HANDSET				PRESSED

EMER EVAC



① COMMAND pb

ON : In the cockpit :
In the cabin :

- EVAC light flashes red.
- EVAC RESET lights flash at all attendant panels.
- “EVACUATION ALERT” appears on all attendant indication panels and a red light flashes.
- Specific evacuation tone sounds.

Off : The alert is stopped.
The EVAC light flashes red when the alert is activated.

② HORN SHUT OFF pb

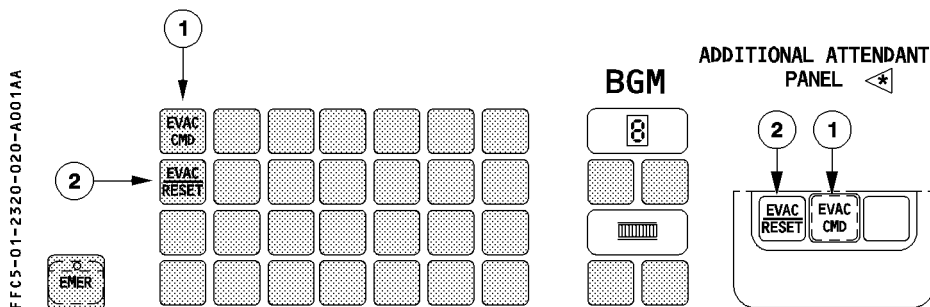
This button silences the cockpit horn (generated when evacuation is activated from the cabin).

③ CAPT and PURS / CAPT sw

CAPT and PURS : The alert may either be activated from the cockpit or the cabin.

CAPT : The alert may only be activated from the cockpit.
If one of the cabin EVAC CMD keys is pressed, only the cockpit horn sounds for 3 seconds.

PURSER STATION



① EVAC CMD key

When this key is pressed :

- | | | |
|----------------|---|---|
| In the cockpit | : | <ul style="list-style-type: none"> – The cockpit horn sounds. – EVAC It flashes red. |
| In the cabin | : | <ul style="list-style-type: none"> – EVAC RESET lights flash red at all attendant stations. – EVAC CMD light comes on green on the forward attendant panel. – “EVACUATION ALERT” is displayed on all attendant indication panels. – The EVAC tone sounds. |

② EVAC RESET key

Pressing this key silences the EVAC tone.