



**Digital Passenger Briefing System  
Model PBS400  
User Manual**

**Approvals**

Prepared by *Ken Richardson* Date 11-30-01

Engineering *David C. [unclear]* Date 11-30-01

Quality Assurance *[Signature]* Date 11/30/01

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## **INTRODUCTION**

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### **WHAT THE PBS400 DOES**

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The PBS400 Digital Passenger Briefing System provides an easy way for the crew to inform their passengers of important messages. Included are messages required by the Federal Aviation Administration (FAA) such as:

- **TAKEOFF**
- **LANDING**
- **OVERWATER**

Additionally, since custom messages are possible, the passengers can be instructed about other events or aircraft features such as:

- **TURBULENCE**
- **FASTEN SEATBELT/NO SMOKING SIGNS**
- **CABIN CONVENIENCES**

The system benefits the crew by reducing the workload, while at the same time, fulfilling all of the FAA requirements concerning passenger briefings. The PBS400 can provide these messages in up to four languages. Well-written scripts along with professional voices and studio-quality recording processes can increase the efficiency and professionalism of the flight operation.

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### **WHAT MAKES THE PBS400 DIFFERENT**

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The PBS400 does not use cassette or continuous-loop magnetic tapes. In fact, it has no moving parts at all. The high-quality passenger briefing message is produced in a recording studio using the latest state-of-the-art digital techniques. The PBS400 computer memory is programmed to store this digital information. To play the message, the PBS400 computer recalls the message from memory, translates the digital information into “recorder-type” electrical signals, and sends these signals to your audio system. In principle, it works like the compact disk player, except that the information is stored in memory, rather than on a spinning disk.

Since the PBS400 is based upon the recording of a human voice, foreign languages are also possible. It is simply a matter of producing the original recording in the desired languages in the same manner that a radio commercial is produced.

## **PBS400 BENEFITS**

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The solid-state design eliminates all moving parts resulting in a lightweight, rugged device with the following benefits:

- **High-quality Sound**, Even After Years of Use
- **No Tapes to Break**, Wear Out, or Replace
- **No Tape Heads** to Clean
- **Instantly** Start and Stop Messages
- **Easy Installation**

As a stand-alone unit, the PBS400 is superior to tape-driven machines and first generation digital devices. It can be interfaced to other aircraft systems for even greater utility.

## **AUTOBRIEF FUNCTIONS**

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If a Heads Up Technologies' Checklist Management System is installed, the PBS400 can give passenger briefings automatically. When the AUTOBRIEF function is selected, the checklist computer can trigger the PBS400 to give the appropriate message whenever the checklist refers to passenger briefings. The result is:

- **Easy Selection** Between Manual and Automatic Modes
- **Reduced Work Load** During the Busiest Times of the Flight
- **Addition of up to Four Autobrief** Messages Beyond the Manual Briefings

Only the computerization of the passenger briefing system can provide all these benefits. The remainder of this manual will explain the operation of the PBS400.

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## PBS400 CONTROL FACE

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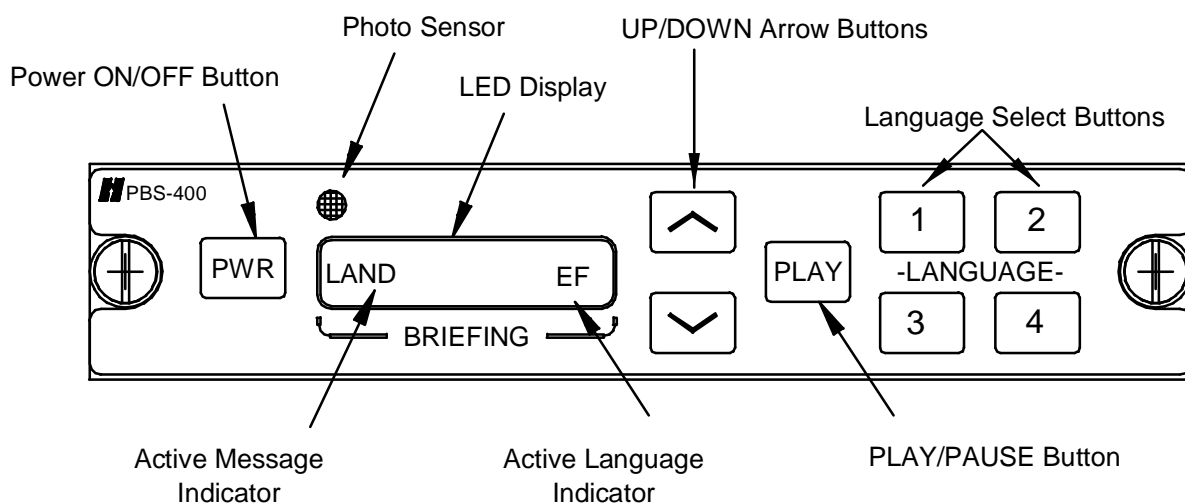
### WHAT MAKES THE PBS400 DIFFERENT

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**FIGURE 1-ILLUSTRATION OF PBS400**

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### POWER ON/OFF

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The button labeled “PWR” is a momentary action switch. Pressing and releasing the PWR Button turns the PBS400 on; pressing and releasing the PWR Button again turns the PBS400 off.

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### LED DISPLAY

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The 10-character LED display is used to present information to the user. This information includes the titles of the available safety messages, active languages, and whether or not the unit is currently speaking. Other diagnostic messages are also presented using the LED display. The intensity of the LED display is automatically controlled by the photosensor on the control face.

## **UP/DOWN ARROWS**

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The UP/DOWN arrow buttons, located just to the right of the LED display are used to scroll through the list of available messages. The message titles are displayed on the LED display. In the example of Figure 1, the selected message is the “T/O” or Takeoff message.

## **PLAY**

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Pressing the PLAY button causes the PBS400 to begin reading the message to the passengers. Pressing “PLAY” while a message is in progress will pause the message.

## **BACKLIGHTING**

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The letters on the buttons are backlit for night viewing. The backlight intensity (not to be confused with the LED Display brightness) is controlled externally by the aircraft’s panel lighting rheostat.

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## **PBS400 OPERATION**

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### **POWER UP**

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The PBS400 may be turned on by depressing and releasing the “PWR” button. The LED display momentarily displays the message “TESTING” to indicate that the self-test has been initiated.

*Note: The backlighting may remain on even through the PBS400 is not powered, depending upon the aircraft wiring.*

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### **SELF TEST**

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During the power up process, the computer performs a self-test. It also flashes several messages in succession at approximately two-second intervals:

- Filename (a unique name determined by Heads Up Technologies)
- Revision Date
- Version Number
- Aircraft Type

A successful self-test is indicated by a message title appearing on the LED display.

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## **MANUAL BRIEFINGS**

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### **SELECTING LANGUAGES**

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The Language key buttons, labeled 1, 2, 3 and 4 are used to select and deselect the required languages. The PBS400 can hold up to four selected languages and will play only those languages.

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### **ACTIVE LANGUAGES**

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Languages that are playing are called “active” languages. Pressing a language key button causes that language to be active or inactive. Active languages are indicated by a character appearing in the right side of the LED display. For example, pressing the “1” button once causes the “E” (for English) symbol to appear, then pressing it again causes the “E” to disappear.

## **LANGUAGE ORDER**

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It is polite to speak the native language first, then any other languages. In figure 1 above, the “EF” indicates that English will be spoken first, then French. The left-most active language symbol always indicates the language that will be spoken first. The right-most symbol is the language that will be spoken last. Languages are spoken in the order that they are entered, with the most recently activated language (last to be spoken) on the right.

The PBS400 allows the language order to be changed in a simple fashion. To exchange the order of the languages in Figure 1 press “1” to deselect English then press “1” again to reselect English. The active languages will now be displayed as FE.

## **SELECTING A BRIEFING**

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Use the UP/DOWN arrow button to scroll through the list of available message titles. Note that since the LED display is only 10 characters wide, abbreviation of the message titles may be required. For example, TAKE OFF is abbreviated as T/O.

## **STARTING A BRIEFING**

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Verify that at least one language is selected. Press the PLAY button to start a briefing. The active language indications will be replaced by the message “PLAY.” The voiced messages should be heard at this time.

## **STOPPING A BRIEFING IN PROGRESS**

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If you desire to interrupt a message in progress, press the PLAY button. The “PLAY” indication will extinguish. The PBS400 will return to the beginning of the sentence (it was speaking when interrupted) and wait. Pressing the PLAY button again will restart the message from the beginning of that sentence.

If so specified during installation, the Pilot and Copilot P.A. microphone keys will automatically interrupt the PBS400. When the microphone key is pressed while playing, the active message will pause and reset to the beginning of the sentence of its message position, and will display “MIC KEYED.” When the key is released, the PBS400 will continue playing from the beginning of the sentence at which it was interrupted. There will be a two-second delay after releasing the microphone key before the unit resumes the message. See the installation manual for further details.

## **REPLAYING A MESSAGE**

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Once a manual message has been completed, the computer will not allow the message to be given again simply by pressing the PLAY button. This feature prevents accidental sending of a message once it has been given. However, some messages can be configured to repeat allowing for turbulence announcements or other in-flight messages.

To repeat a non-repeatable message, select a different message using the UP/DOWN key buttons, then reselect the desired message. This process initializes the message. Press “PLAY” button to start the briefing.

## **AUTOMATIC BRIEFINGS WITH AUTOBRIEF**

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The PBS400 computer can be interfaced to the Heads Up Checklist-Gold Edition (HUC-G) or CMS400 computer to allow passenger briefings to be automatically triggered by specified checklist items.

To operate the PBS400 in AUTOBRIEF mode follow these steps:

- Use the UP/DOWN arrow buttons to select the AUTOBRIEF message title.
- Use the checklist computer as normal. When the checklist speaks the item that is programmed to trigger the PBS400, press “GO” (or “ADV” on CMS400 series) and the PBS400 will give the appropriate briefing.

*Note: If for any reason you do not want the PBS400 to give the AUTOBRIEF message, then you must deselect the autobriefs message title.*

*Note: The checklist computer must be programmed at the factory to provide the appropriate commands to trigger the AUTOBRIEF function. This programming requires knowledge of which checklist items are to interact with the PBS400. Checklist computers are not delivered with such features unless specifically requested by the user.*

## **MUSIC OPTION**

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If your PBS400 is equipped with the available music option, up to 20 minutes of pre-recorded music can be played in the cabin by selecting the MUSIC message title and pressing “PLAY.”

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## **MORE INFORMATION**

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Refer to the Installation Manual for more information on:

- VOLUME CONTROL
- P.A. INTERFACE
- DISCRETE INPUT MESSAGE ACTIVATION

Please submit comments regarding this manual to the document control department at the following address:

Heads Up Technologies, Inc.  
2033 Chennault, Suite 100  
Carrollton, TX 75006-5097  
Telephone: 972.980-4890  
Fax: 972.980-4843  
e-mail: [www.heads-up.com](http://www.heads-up.com)



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**NOTES**

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