

PILOT USA PA-400ST Stereo Intercom Operational Guide

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1.0 Welcome to the World of Clear Communications.

The stereo version PA-400ST intercom is a portable design that has been used successfully in general aviation for over 18 years. No other intercom on the market has the features and capabilities of the PA-400ST intercom.

This particular series has been recently modified to include a cell phone jack for your safety and convenience. Before using in an aircraft we recommend that you take a check-ride in your living room and become familiar with all the features of your new intercom. A hook-up diagram is included in this guide along with brief description of each function and each control setting.

Before going on and reading this guide, we would recommend that you register your purchase by completion of the warranty card provided with the intercom. We hope that our intercom will enhance your flying experience for many years to come. If you have any questions after reading this manual, please do not hesitate to contact us on 1-714-731-0790.

1.1 PILOT PA-400ST Intercom Features

Completely Portable	Back-Lit Control Panel w/ On-Off Button
Four Station Capability	Fail-Sage Feature
3-Way Operation Control (Pilot-All -Crew)	Music In / Cell Phone Jack
Separate Mic Circuits for Front and Back	Record Out Jack (ST)
Superior SQL Circuitry	Push-To--Talk Jacks (2)
Dual Volume Control	Battery Powered by 2 9V Alkaline Batteries
On/Off Power Switch	Auxiliary Power Jack & Cigarette Power Cord
3-Year Warranty	Adapter with inline fuse for protection.
	Disengage Power Feature

2.0 Off/On Power

The intercom is turned on by turning the Pilot's volume control clockwise. The control has a definite "click" when it is turned On or Off.

Your intercom is also equipped with a Power Off Circuit. If the Pilot's microphone plug is disengaged from the jack, the unit will cut power to the entire unit.

Many pilot's in order to remember to turning the intercom off, add a "Power Off Intercom" instruction to their aircraft checklist.

2.1 Squelch(SQL) Setting

The sensitivity of the squelch is controlled by turning the control clockwise (increasing sensitivity) or by turning the control counter-clockwise (decreasing sensitivity). The squelch can be adjusted to meet even the most extreme noise levels of aircraft noise. Setting the squelch properly allows the intercom to be active only when someone speaks into their headset microphone. The intercom will become inactive as soon as they stop speaking. In this manner all extraneous noise in the cockpit is not heard over the microphone.

2.2 Three-Way Operation Control

Your intercom is equipped with a 3-way operation control. The three settings allow the intercom to be used in three of the most common situations encountered in an aircraft. The 3 modes are PILOT—CREW—ALL.

PILOT—This setting is commonly referred to as the Pilot Isolate feature. In this setting the pilot can isolate themselves from the co-pilot and passengers in the aircraft. The other stations can still hear the pilot's transmission to ATC but they will not be able to distract or interfere with the pilot. In this setting, the co-pilot and passengers can communicate with one another.

ALL—This setting allows all individuals plugged into the intercom to communicate with one another. All persons can hear and be heard in this setting. All persons will hear ATC transmissions and can listen to music if an input source is connected.

CREW—This setting allows the Crew (pilot & co-pilot) to communicate with one another without any interference from the passengers. This allows the Crew to not be subjected to any chit-chat or distractions from passengers. In essence, in this setting, the intercom functions as two separate intercoms allowing the pilot/co-pilot to be on once channel and the passengers on another.

2.4 Music-In Jack for PA-400ST

The PA-400ST stereo version intercom you will be able to listen to music in true stereo. The intercom comes with a cord labeled Music In. Plug the end of the cord labeled Music-In directly into the jack labeled Music-In/Cell Phone. Plug the other end of the cord with the 3.5mm plug into your music source (IPOD, MP3, CD Player etc.).

3.0 Cell Phone

Our latest modification to our proven intercom is the addition of a cell phone jack. This will allow the pilot to use their cell phone through the intercom while still wearing a headset. Some cell phones may require an adapter which can be purchased at most electronic stores. This feature also provides the pilot with a back-up for the aircraft radio should the radio have a malfunction.

Your intercom comes with three cords labeled Cell Phone, Music In and Record Out. The end of the cord labeled Cell Phone plugs directly into the jack on the intercom labeled Music In/Cell Phone. To use a cell phone with the intercom, you will need to set the 3-way control setting to CREW or ALL modes. The PILOT isolate mode will not work with a cell phone as its function is still maintained to “isolate” the pilot from anything other than ATC. In CREW mode, with the cell phone plugged in, the co-pilot will hear the pilot-in-command talking on the phone.

If the pilot does not want the co-pilot to hear their conversation, the squelch needs to be turned all the way counterclockwise. The same rule applies in ALL mode. If the pilot is in ALL mode and wants privacy, the squelch should be turned all the way counterclockwise. The pilot can then talk in a low voice and their passengers will not hear them because their headsets will block out any noise or conversation. Of course when the squelch is fully turned counterclockwise while the phone is engaged, nobody except the pilot will have a functioning microphone.

Air Traffic Control will always be more intelligible (louder) than music or incoming cell phone conversation allowing the pilot to always hear ATC transmissions.

3.1 Battery Power

We recommend using two 9V alkaline batteries to operate your intercom. The intercom can operate on one 9V battery, but the installation of two will provide you with 40-50 hours of maintenance free use. We recommend that you keep a log of when your batteries were installed so that you have a good idea when they should be changed.

3.2 Auxiliary Power Cord (Cigarette Lighter Adapter)

The adapter is recommended to be used as a back-up power source, all aircraft manufacturers recommend not using the cigarette lighter adapter as a power source for portable accessories. The adapter supplied with the unit has been UL approved and has a built-in fuse in the body of the adapter to prevent damage to the intercom or the aircraft. Replace the fuse only with the same type 2A-125V or 250V fuse.

3.3 Back-lighting with On/Off Button

Your intercom is equipped with a chrome button that enables you to illuminate the intercom’s control panel for night flying or if the intercom is placed in a position where it is dark in the cockpit. The back-lighting does use more power from the 9V battery so if you are using the intercom and the back-lighting is not required, we suggest turning the control panel lighting off.

3.4 Pilot’s Volume Control

The Pilot’s volume control also serves as the Off/On Switch. You increase the volume by turning the control clockwise. Decrease the volume by turning the control counter-clockwise

4.0 Co-Pilot / Passenger's Volume Control

This control regulates the volume heard by the co-pilot and the two passengers. It operates independently of the pilot's volume control.

4.1 Fail-Safe Feature

The PILOT 400ST intercom is equipped with a Fail-Safe feature. This means if your batteries fail, you will still be able to hear ATC transmission but the level of volume will be reduced. If this should occur, you can connect our auxiliary power cord, supplied with your intercom, to the cigarette lighter jack in the aircraft.

4.2 PTT / Y-Adapter Set-up

Up to 2 Portable PTT switches can be used with the unit, The Pilot and Co-Pilot can connect a portable PTT switch by connecting the PTT's microphone plug to it's Y-adapter. The Y-adapter would plug directly into the aircraft.

4.3 Warranty Service

If your unit requires service we recommend you send it directly to Pilot USA Inc. so that repair or replacement can be expedited. Please remember you are sending us an electronic component and package the unit appropriately. We recommend UPS or US Priority Mail. Please ship prepaid and enclose \$12.00 for shipping & handling.

4.4 Technical Specifications

Power: 2 alkaline 9V Batteries or Auxiliary Power Cord

Current Drain: Leakage 0 mA standby; 10 mA in use

Dynamic Response: 500mS (VOX controlled) off
12mS (VOX controlled) on

Volume Control: 35 dB

Battery Lifetime: 40-50 Hours of use

Headphone Interface: PJ-055B, (M642/4-1_MIL-P-642

Microphone Interface: PJ-068 (M642/5-1) MIL-P-642

Cell Phone Interface: 2.5mm Plug

Auxiliary Power Cord: UL Approved, Fuse 2A-125V or 250V Fuse

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