HARMONY™

User's Guide

Contents

General

Thank you for purchasing the UFlyMike™ HARMONY™!

HARMONY is a headset system designed to use your favorite pair of headphones *(sold separately)* as a full headset with a variety of devices.

HARMONY LIGHT is fixed setup made to be used with a single headphone and a single application. It has all the same features as HARMONY Pro, but without the modularity.

HARMONY PRO is modular and consists of separate components that can be mixed and matched to create different headset configurations for use with multiple headphones and devices.

The modular design of HARMONY Pro makes it the most versatile, upgradeable, and user repairable headset available.

- **Versatility** - A single component can be added to the HARMONY PRO headset to make it compatible with additional headphones and devices. New Headphones Cables and Application Cables will be added regularly.
- **Upgradeability** - Only a single component needs to be replaced in order to make the HARMONY PRO headset compatible with a new headphone or device. There is no need to re-purchase the entire headset.
- **User Repairable** - Damaged or broken components of HARMONY PRO can be easily replaced without requiring service of the entire headset. Simply re-purchase the damaged or broken component and install it yourself.

Microphone Boom

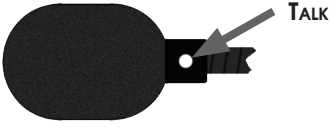
The noise canceling Microphone Boom provides clear communications in noisy environments with 360 degrees of rotation and disconnects for easy replacement or upgrade.

Basic Positioning of the Noise Canceling Microphone

The Microphone Boom should be placed between the corner and center of the mouth. If placed directly in front of the mouth, wind noise from the mouth and nostrils may occur. Too far away, and the microphone output will lose volume. Proper placement requires a little trial and error to find the "sweet spot" of high output volume with low noise.

For best performance:

1. Position the microphone so that the 'Talk' side *(marked with a solid white dot)* is pointed directly toward your mouth. If the 'Talk' side of the microphone points up or down, it will begin to cancel your voice resulting in weak transmissions.



2. Position the microphone so that the windscreen barely touches your lips when pursed. Moving the microphone farther from the mouth will reduce wind noise from breathing, but will also lower output volume and increase environmental noise. Louder noise environments may require positioning the microphone closer to the mouth to acheive proper output volume. Proper placement should balance between loud output volume and low environmental noise and wind noise.

Caution: *The Microphone Boom is not designed to be repeatedly removed and reattached to the Headphone Cable. The Microphone Boom should remain attached to the Headphone Cable for all normal use and during storage.*

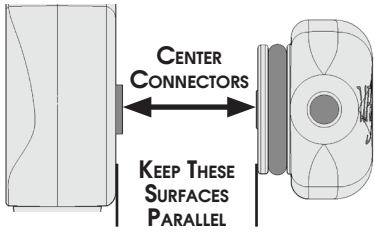
Disconnecting the Microphone Boom

Firmly grasp the plastic housing of the Microphone Boom. Gently swivel the microphone boom back and forth while applying pressure away from the Headphone Cable housing. The microphone should work it's way loose and disconnect.

Connecting the Microphone Boom to the Headphone Cable

When attaching the Microphone Boom to the Headphone Cable, care must be taken to ensure the components are correctly aligned to avoid parts being damaged.

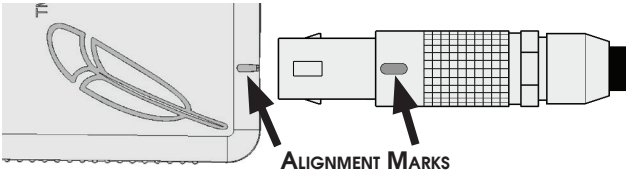
1. Center the tip of the gold plug in the Microphone Boom with the gold jack inside the Headphone Cable.
2. Keep the Microphone Boom and Headphone Cable parallel to each other and gently press the two components together while swiveling the microphone 10 degrees back and forth.
3. The two components will *pop* together with no gap between, swivel the Microphone Boom around the pivot axis about 90 degrees in both directions to fully seat it. The microphone should swivel freely but hold position when untouched.



Headphone Cable (Pro only)

Connecting to the Application Cable

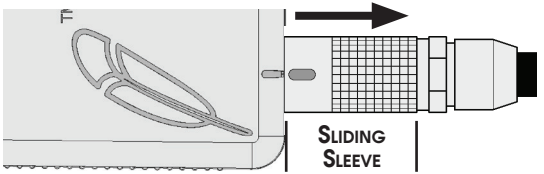
The LEMO plug is a keyed connector, meaning it will only insert into the mating jack when properly aligned. To connect, align the red mark on the Headphone Cable's plug with the red mark on the Application Cable's jack. The LEMO plug should insert easily and lock securely into place with a *click*.



Caution: Do not attach the Headphone Cable to anything other than a Harmony Application Cable or insert anything into the open end of the LEMO plug, damage can occur.

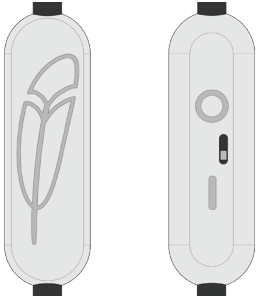
Disconnecting from the Application Cable

To disconnect, grasp the LEMO plug by the knurled Sliding Sleeve and gently pull the plug directly away from the jack. The Sliding Sleeve will move first, disengaging the locking teeth inside the jack. The plug should easily slide out of the jack.



Using the In-line Controller

The In-line Controller is a single button remote control activated by squeezing the middle of the In-line Controller.

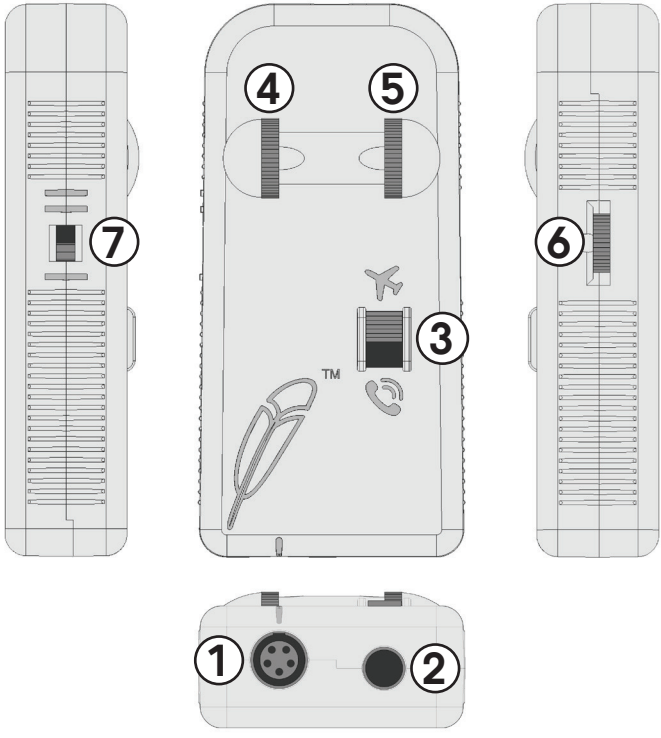


The function of this single button remote can be changed by the switch located on the back of the controller.

- **I** - The standard setting for most applications. This setting keeps the microphone connected continuously. Squeezing the controller sends basic commands recognized by most phones. *(For a full list of commands, see the "Smart Phone Application Cable" section on page 12)*
- **O** - This setting is intended for push-to-talk systems compatible with external PTT switches like Walkie-Talkies and other hand-held devices. In this setting, the microphone is normally disconnected and only connects while the In-line Controller button is held.

> ***Note:*** *Do not use the* **O** *setting on headsets communicating with ATC in an aircraft with a PTT switch, the microphone will not transmit unless the In-line button is held. This setting may be safely used in all other positions in the aircraft.*

Aviation Application



1. Headphone Cable Jack *(Pro Only)*
2. Auxiliary Jack
3. Aviation/Auxiliary Audio Microphone Routing Switch
4. Left Ear Volume
5. Right Ear Volume
6. Microphone Gain
7. Mono/Stereo Switch

Left & Right Ear Volume Controls

Adjusts the audio volume coming from the aircraft radio and/or intercom into the headphones. Use together to change overall volume or independently as a left and right balance.

Adjusting Microphone Sensitivity

In radio systems with voice activation *(VOX)*, adjust the Microphone Gain to a point low enough that cockpit noise does not activate the comm but high enough that the comm does not cut off the beginning or end of your words.

In radio systems without voice activation, adjust the Microphone Gain to balance between loud microphone transmission volume and low background noise.

Setting the Mono/Stereo Switch

The Mono/Stereo Switch splits a single audio channel *(mono)* to go to both earphones or routes discrete left and right audio channels *(stereo)* to go to the corresponding earphones.

Place the switch in the one bar ❙ position for use with mono comm panels or two bars ❙❙ with stereo comm panels.

Note: *Mono panels are the most common type, used in all Commercial Aviation and most General Aviation aircraft. If you are unsure which kind you are using, it's probably mono.*

Sidetone Volume

Sidetone is a function of the radio, not the headset. Check your radio documentation for instructions on adjusting sidetone.

Connecting a Device to the Auxiliary Jack

You can use any standard 3.5mm Stereo *(3-conductor)* male-to-male cord to listen to audio from an attached device.

In order to use the microphone with the attached device, you will need to use a 3.5mm *(4-conductor)* cord wired properly for your device. Unless otherwise requested, our products are wired in the AHJ / CTIA standard. Check your device documentation for details on the type you need.

WIRING	DEVICE	PART #
AHJ / CTIA	Apple / Android / Windows	AC-CORD-AHJ
OMTP	Android / Windows	AC-CORD-OMTP

Selecting Microphone Routing

The microphone cannot be output to both the aircraft radio and an attached device simultaneously. Use the Microphone Routing Switch to direct the microphone output to either to route to the aircraft or to route to the Auxiliary Jack.

Incoming audio from the aircraft radio and the auxiliary jack will always be heard simultaneously regardless of the switch position.

Pro Tip: *When setting by feel, move the switch towards the cord of the device you want the microphone to route to.*

Auxiliary Jack Volume

The volume of audio coming through the Auxiliary Jack is controlled by the volume output of the attached device. HARMONY does not have an “auto-muting” feature, keep audio at a reasonable volume to avoid missing radio calls.

AVIATION TROUBLESHOOTING	
No Incoming Audio or Audio in Only One Ear	» Verify both Left & Right Ear Volume Controls are turned up. » Verify the Mono/Stereo Switch is in the proper position. *(page 9)* » Verify all plugs are clean and fully seated into the appropriate jacks. » Replace headphone battery. *(if applicable)* » Test headphone functionality separately from HARMONY.
Weak or No Transmission Volume	» Verify that the Microphone Boom is positioned properly. *(page 4)* » Increase the Microphone Gain. » Verify the Microphone Routing Switch is in the ✈ position. *(page 10)* » Verify the ❙ / O switch on the In-line Controller is in the ❙ position. *(Pro Only, page 7)*
Excess Noise in the Microphone Output	» Verify that the Microphone Boom is positioned properly. *(page 4)* » Reduce the Microphone Gain.
Can Not Hear Audio from the Auxiliary Jack	» Verify that audio is currently playing on the attached device. » Turn the volume up using the controls on the attached device. » Verify all plugs are clean and fully seated into the appropriate jacks.

Smart Phone Application

The Smart Phone Application Cable allows you to use your Harmony Headset with most modern smart phones.

List of commands using the In-line Controller: *(Pro Only, page 7)*

Apple Commands	
Single Fast Press	» Receive/Hang Up Phone Call » Play/Pause Audio/Video Playback » Receive 2nd Call *(while currently on a call)*
Single Long Press	» Activate Voice Control » Ignore Call *(while ringing)* » Hang Up 2nd Call *(with two calls active)*
Double Fast Press	» Skip to Next Track
Double Fast Press *(Hold Second Press)*	» Fast-Forward Current Track
Triple Fast Press	» Skip to Previous Track
Triple Fast Press (Hold Third Press)	» Rewind Current Track

Android Commands*	
Single Fast Press	» Receive/Hang Up Phone Call » Play/Pause Audio/Video Playback
Single Long Press	» Activate Voice Control
Double Fast Press	» Skip to Next Track
Triple Fast Press	» Skip to Previous Track

**Commands may vary depending upon manufacturer and application*

USB Computer Application

The USB Computer Application Cable allows you to use your Harmony Headset with most modern computer systems. In most circumstances, the USB Computer Application Cable only needs to be plugged in and it will be automatically configured. If not, follow the instructions below for your operating system.

Macintosh Setup (Mac OS X / macOS)

1. Connect the USB Computer Application Cable to a USB port on your Macintosh.
2. Open *System Preferences...* from the menu.
3. Open the *Sound* section.
4. Select the *Output* tab and select *USB Audio Codec*.
    - Use the slider to adjust the output volume.
5. Select the *Input* tab and select *USB Audio Codec*.
    - Use the slider to adjust the input volume.

Windows Setup (Windows Vista / 7 / 8.1 / 10)

1. Connect the USB Computer Application Cable to a USB port on your PC. The drivers will install automatically.
2. Open *Control Panel* from the *Start* menu.
3. Open the *Sound* group.
4. Select the *Playback* tab and select *USB Audio Codec*.
    - Open *Properties* and use the sliders to adjust the output volume, balance, and sidetone volume.
5. Select the *Recording* tab and select *USB Audio Codec*.
    - Open *Properties* and use the slider to adjust input volume.

Care and Maintenance

Cable Wrapping

Proper cable wrapping is key to increasing the longevity of your headset. To properly wrap the cable, hold either end between your thumb and fingers and gently create loose 4-inch (10cm) diameter loops. As you create each loop, you will feel the cable want to twist. Allow the cable to twist, following the natural flow of the wires. A properly wrapped cable will lay flat on a surface.

> ***Caution:*** *Do not* wrap the cable around the palm of your hand, this *will* destroy the cable internally, *guaranteed!*

Storage

Store the HARMONY headset in a cool, dry location inside the headphone case. The pocket in the lid of the case is made to hold the assembled HARMONY. Do not store HARMONY in the case attached to the headphones, this will damage the cable.

We recommend leaving the Microphone Boom and Headphone Cable assembled for storage to minimize the potential for damage. Disconnecting the Application Cable is optional.

Warranty & Repair

UFlyMike guarantees all of our products to be free of factory defects for a period of two years. Warranty does not cover failures due to normal wear and tear, misuse or abuse.

To arrange Warranty or Repair service, please contact us at:

(719) 531-7226

support@uflymike.com

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