

ZELLO

ULTIMATE GUIDE

# Push-to-talk headsets

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## ULTIMATE GUIDE

# Push-to-talk headsets

Over-the-ear headsets can significantly improve the experience of using push-to-talk on a smartphone, especially for workers who need their hands free for tasks or for safety purposes. Built-in mics ensure communication is heard even in noisy environments, while in-line push-to-talk buttons are easier and safer to access when engaging in hazardous activities, such as driving or operating other heavy machinery, than stopping work to navigate a screen or hold up a smartphone.

However, most run-of-the-mill headsets either do not come with push-to-talk functionality or come with functionality that is too basic to suit the needs of the workplace. That's why we recommend specific headsets that were designed with push-to-talk in mind, including the Klein [Triumph](#), [Victory](#), and [Curl](#), the [BlueParrot](#) line of headsets, and the Pryme [Pico](#). We discuss these push-to-talk headsets in detail below, along with all of the key features to look for.

# What makes a good headset?

## Dedicated push-to-talk button

On push-to-talk headsets, dedicated push-to-talk buttons are located directly next to the earpiece, or on a connected wire or handset. They are tactile, which means that even with gloves on, they are easy for workers to depress with a tap.

Many of our customers ask us if they can use the standard earbuds that come with a consumer smartphone to push-to-talk. The answer is yes, but doing so is not ideal, as they only offer simple play/pause buttons. While play/pause buttons can be programmed to toggle a Zello channel on or off, all they can do is play the most recent audio source. There are no issues when the user is tuned into Zello, but problems arise when a user is, for example, listening to music on another app when they hear a Zello notification. In this scenario the play/pause PTT button will play the music, since it can only trigger the most recent audio, rather than the Zello channel.



That's why we recommend choosing a headset with a dedicated push-to-talk button. Rather than sending simple play and pause commands, headsets with dedicated PTT buttons have microprocessors onboard that can better process more complex demands. The higher price tag is worth the ease and accuracy of triggering a Zello channel specifically rather than the previous audio source.

## Bluetooth or wired?

Push-to-talk headsets come in both wired and wireless versions. While individual workers will have their own preferences, in some industries wireless headsets are mandatory. For instance, in use cases where workers handle complex heavy machinery, tangled wires can lead to serious injury.

In other industries, where employees frequently share devices, there is a strong preference for wired headsets to avoid continually having to repeat a headset pairing with a rugged device. This is often the case in hospitality settings, where housekeeping, maintenance, and security turn in their accessories and devices at the end of a shift. The same is true for retail workers.

Some key differences between Bluetooth and wired headsets follow in the sections below.



## Batteries

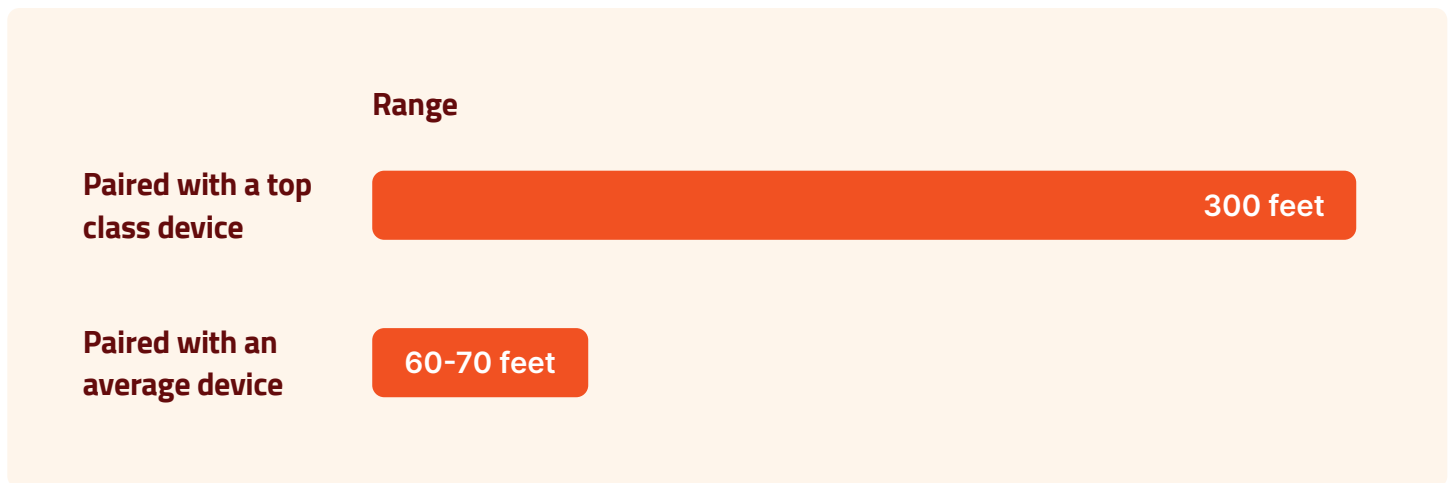
Bluetooth devices need to be charged regularly, since they are separate from the device. As such, a long battery life is a central requirement. Nearly a full day of charge (about 20 hours) and 3-4 hours of talk time is a minimum standard to expect.

Some Bluetooth headsets are recharged by plugging into a wall, others via USB. Many also come with a 12-volt cigarette lighter plug, which is convenient for on the go in-car or in-cab charging.

For large teams sharing devices, remembering to charge Bluetooth headsets can be inconvenient. This can be mitigated by using powered charging bays to store devices. However, it is a factor to consider when team members consistently forget to charge headsets and are unable to communicate due to depleted batteries. In this case, a wired headset may be more convenient, as they can be powered by a smartphone or tablet while plugged in.

## Noise cancellation and sound clarity

Because they're not plugged directly into the device, Bluetooth headsets allow workers to roam away from their devices. This can be convenient in use cases such as delivery, enabling a driver to leave behind a smartphone or tablet, which is likely mounted in their truck, as they leave the cab to make a dropoff while still maintaining communication with dispatch. Some even claim a range distance of 300 feet, as long as the headset is paired with a top class device and there is a clear line of sight, while a more average device will provide about 60 to 70 feet of range.



## Number of possible pairings

With the right jack, wired headsets can be plugged into nearly any device. As such, there are almost an infinite number of pairings available. Bluetooth headsets are limited in how many devices they can pair to. In situations such as ones where employees share devices and headsets, seek out a headset that can be paired with 8-10 devices at minimum.

However, to avoid headaches, we still strongly suggest labeling each headset and device as a pair and keeping them together to avoid having to re-pair each time a new employee starts a shift.



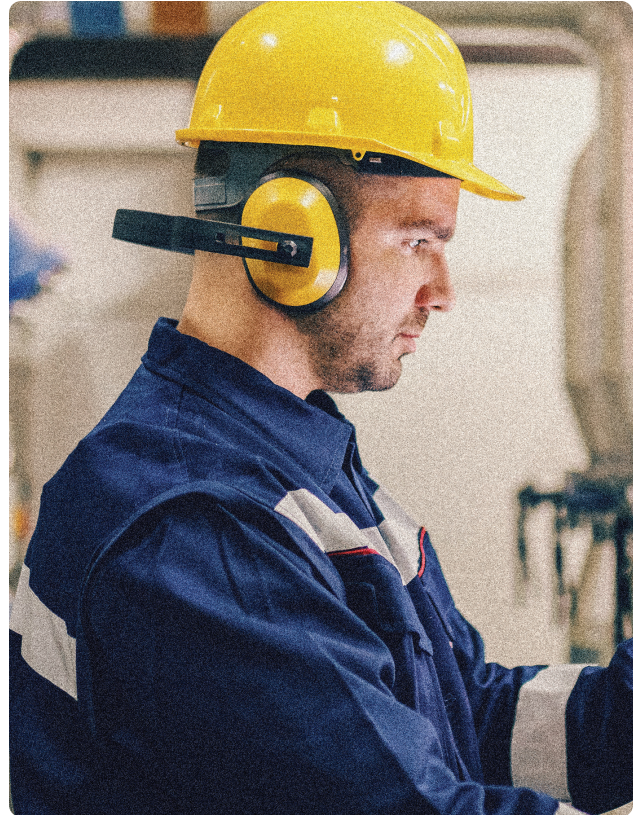
## Wireless range distance

Noise cancellation is crucial for workers operating in loud environments, such as in the cab of a truck, in an ambulance or fire truck, on a manufacturing floor, or on a construction site.

Just as crucial to the cancellation of outside noise is the clarity of the sound signal, for which balanced armature style speakers can be more effective than traditional dynamic speakers.

Traditional dynamic speakers convert the electronic signal that's input into them into the kinetic movement of the speaker diaphragm, which pushes air into the ears. It is the traditional way that headset speakers have worked, and in its time was revolutionary.

Balanced armature speakers, on the other hand, vibrate a tiny reed balanced between magnets. The reed's motion is transferred into a stiff aluminum diaphragm. The diaphragm is free from resonance, which serves to dramatically increase the clarity and accuracy of the sound signal.





## Microphone

Likewise, in order to ensure a worker operating in a loud environment is heard, a noise cancellation feature is also critical in a push-to-talk headset's microphone.

While there are several different techniques for reducing noise, the general explanation for how this feature works is that the microphone has two ports through which sound enters; alternatively, a headset might have two microphones. This ensures there are two different ways that the sound signal can enter the device. One port or microphone is placed closer to the desired sound stream, the user's mouth, while the other is placed further away. Both will receive speech sound signal and that of the incoming noise but at different relative intensities, allowing the device to subtract one signal from the other, so that it can transmit only the desired speech signal cleanly without outside noise.



The final other main feature to concentrate on in terms of a good headset microphone is the placement of the push-to-talk button. In some use cases, such as that of security personnel looking to talk discreetly, it is most convenient to quickly tap to talk with a micro-button that is inline with the microphone. In other use cases, such as that of a driver who needs something more tactile and is used to CB radio, a larger PTT button on a separate handset makes more sense.



# Our top selections

## BlueParrot Headsets

The BlueParrot [B350-XT](#) and [B450-XT](#) both cancel out 96% of background noise, while the [S450-XT](#) cancels up to 82%, making these headsets ideal for noisy environments. BlueParrot headsets are compatible with Android and iOS, feature Bluetooth technology, and fit over the head and ears, so they're a good match for those who do not like in-ear pods and who need to work without the tangle of wires. They can pair with up to 8 devices and 2 at the same time via Multi-point Mode, which makes them a good fit in situations where workers will be turning in communications equipment at the end of each shift.

All three offer over 24-hours of talk time and 500 hours of standby time. The [B350-XT](#) can roam up to 66 feet from the paired device, while the [B450-XT](#) and [S450-XT](#) can both go as far as 300 feet. They charge via a micro USB compatible charger and have 128-bit data encryption, so your team can talk privately and securely.



BlueParrot [B350-XT](#)



BlueParrot [B450-XT](#)



BlueParrot [S450-XT](#)

### Why we recommend these devices:

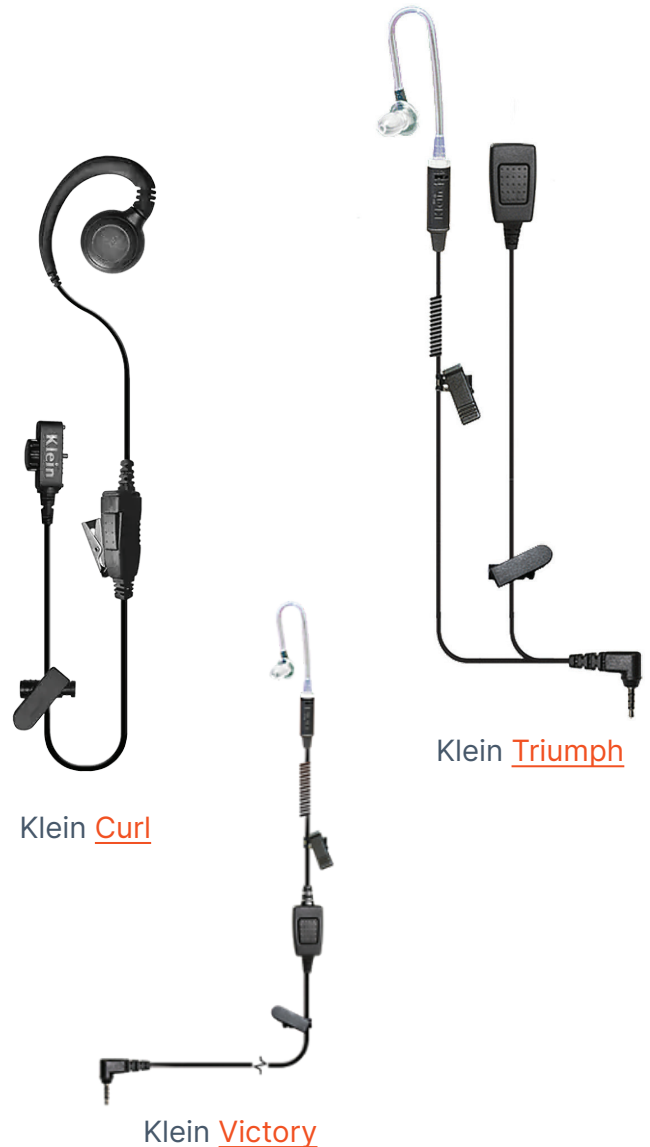
Wireless technology and noise cancellation make these headsets a good fit for drivers, dispatchers, and those working in call centers and other noisy environments.

## Klein Headsets

For workers who are more comfortable with a wired experience, the Klein [Victory](#), [Triumph](#), and [Curl](#) are all excellent solutions for talking hands-free. Each offers one version for Android and another for iOS. They are high output, with a balance armature style speaker. The microphone is from a top manufacturer, Knowles, and offers crisp noise reduction technology. These headsets were designed for heavy usage, as evidenced in the cables, which are kevlar-reinforced. A battery-supported micro-controller offers PTT, which is lightweight and inline with the microphone for maximum convenience.

Because these are wired, each line comes with an Android- and iOS specific jack (3.5mm headphone jack for Android devices vs. a lightning port for Apple devices). The [Triumph](#) and the [Curl](#) both have a single earpiece and wire, whereas the [Victory](#) has a 2-wire design, which can be better when performing surveillance and security tasks. The [Curl](#) has a c-loop and can be placed in either the left or the right ear.

Klein offers a final earpiece called the [Drift](#), which was also designed specifically with Zello and PTT in mind. It offers much the same features as the other Klein earpieces with a single left or right earpiece that fits more deeply into the ear than the previous earpieces.



### Why we recommend these devices:

The lightweight, discreet profile of these headsets makes them a great fit for those working in the hospitality, retail, and security industries.

## Pryme Pico Headsets

Pryme [Pico](#) headsets are in-ear and lightweight. The earpieces easily snap in and out to account for different ear sizes. They provide a large PTT button and a small side button for additional functions, such as making phone calls and taking photos. The PTT buttons are located on a small attached handset, which more closely emulates a walkie talkie or CB radio experience than the micro in-line option for those who prefer it. These headsets are powered by a battery that can last from 1 to 2 years, so they can be relied upon for a lengthy period of time before requiring a charge. The braided fiber that connects its parts is both sturdy and tangle resistant. Pryme [Pico](#) headsets were designed with Zello in mind, and are therefore compatible with Zello.



Pryme [Pico](#)

While the Pryme [Pico](#) is compatible with Android and iOS, there is an additional option for a model compatible with a lightning port for iOS. This version offers many of the same features, with the added benefit of being powered by the attached phone or tablet rather than a battery. It can be plugged into 4 different types of speakers.

### Why we recommend these devices:

These headsets make a particularly good fit for drivers and other workers used to the CB radio experience, given the usage of a large, handheld PTT handset.

# In Short

Being able to hear and communicate critical commands is key to most essential workers, and it is not always possible to navigate a smartphone screen while doing so. Zello offers unparalleled digital clarity of the voice stream, which is why we recommend investing in a good line of headsets to help your team get the absolute most of the experience. Ultimately, picking the push-to-talk headset that's right for your workforce depends on the kind of work at hand, how it's being done, and budget. If you're just getting started with Zello, check out our setup guide [here](#).

Alternatively, if you're a long time user and are ready to take your experience with Zello to the next level, [contact](#) one of our in-house experts so that we can help you build the best solutions for your needs.

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