3.5mm Plug Adapter

There are two types of adapters available for 3.5mm (also known as 1/8-inch) audio connectors. The share type is the most common and it is used for sharing the audio from one source with two stereo headphones – think of two people watching a video on an iPad with two sets of stereo headphones.

The split type is required for separating the left and right channel for use with Tapio™

Q: Why are the connectors referred to as stereo and mono?
A: These connectors were originally developed for use with audio.

Q: What is the difference between a mono and stereo connector?
A: A mono connector has two contacts and a stereo connector has three. Looking at a connector you can see the silver metallic contacts and the black plastic insulators that separate the contacts.

Q: Why do I need three contacts for two switches?
A: One switch needs two contacts to close. One contact is the signal and one is the common (usually ground). The common can be shared with multiple switches. Therefore, the minimum number of contacts is the number of switches plus one.

Swifty™ Tapio™ and HeadMouse®
These adapters "split" the stereo signal, and send the left channel to one connector and the right channel to the other. Most people refer to both types as splitters. The best way to distinguish the two is by the types of connectors used. The split type has one stereo plug (male connector) and two mono jacks (female connectors). The share type has three stereo connectors.

You cannot determine which type you have by outward appearance – you can see the stereo male connector, but you cannot see whether the two female connectors are mono or stereo. Either the cable specification tells you which type it is, or it must be tested.

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How to Test your Adapter

1. Plug your adapter into a phone or other audio source.
2. Plug your stereo headphones into one of the female jacks.
3. Play some music.
4. If sound comes out of ONLY one earphone then you have the split type adapter needed for use with Tapio and Swifty.
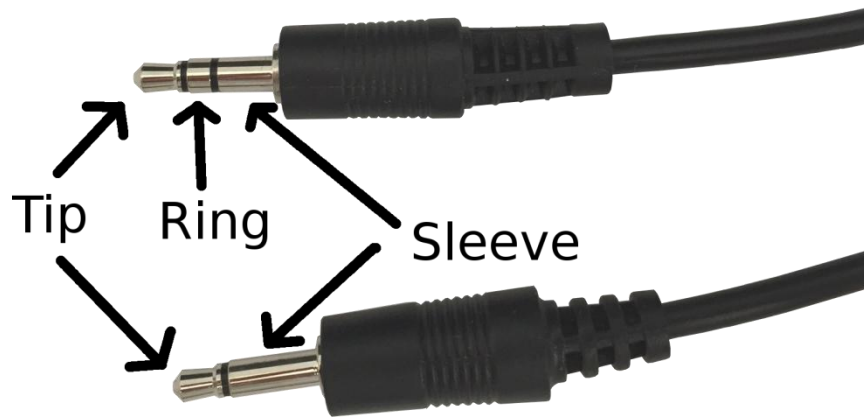
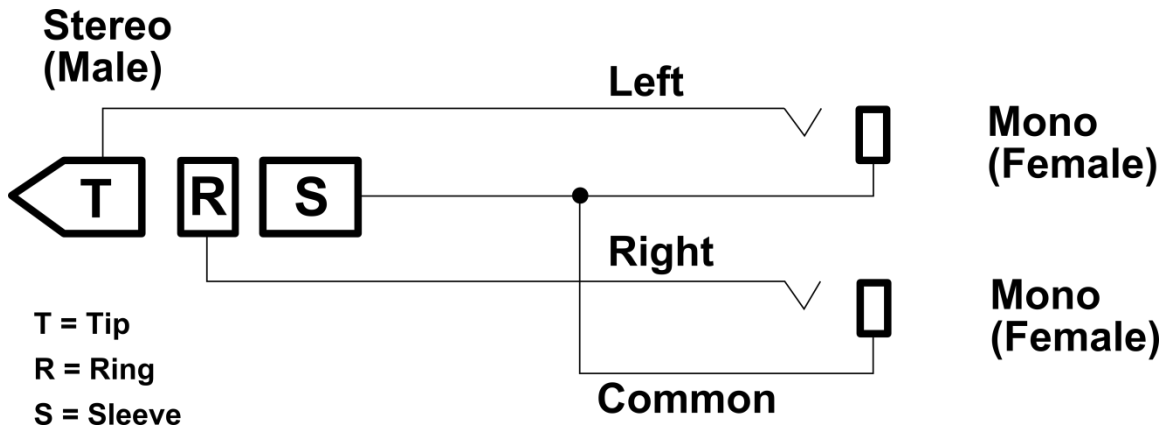*Figure 1: 3.5mm, Stereo (top) and Mono (bottom) headphone connectors.*

Figure 2: "Split" type adapter schematic (REQUIRED FOR TAPIO, SWIFTY and HeadMouse).

In the schematic, the tip of the plug is connected to the tip of Left jack, the ring is connected to the tip of the Right jack, and the sleeve is connected to the sleeve of both jacks.