

Invention Title:

Device for determining presence of cable service on a jack

High Level Invention Summary (Abstract):

Our device makes it easy for customers to tell whether a particular jack in their house has cable service.

Differences over Prior Art:

Existing devices either require an attached toner or include expensive analyzers. Our idea is far simpler, and only detects the presence of a signal (more specifically, low voltage on a cable indicative of a signal). We don't try to analyze the signal.

Invention Description:

Our device makes it easy for a customer to tell whether cable service is available on a jack. We attach a cable line to an amplifier (e.g., op-amp, log-amp, or similar) and a 3-5 V battery. This apparatus is then attached to an LED. If signal is present, the LED lights. In the absence of signal, the LED is dark. See the attached circuit diagram and photo.

This could also be attached to a cell phone via the USB port, and the signal could be interpreted by a phone app, rather than the LED. We expect that this invention could also use an Arduino or Raspberry Pi instead of the amp. Other signaling devices are also possible.

Invention Commercial Value/Customers:

Produced in volume, these could retail for less than \$1. They could be included in self-install kits for our members, reducing truck rolls. Also, they could be sold directly to consumers at home centers.