TV Opto-Islolator

The problem of how to connect a TV's sound to an amplifier or tape recorder is basically one of safety — TV sets use very high voltage. One approach is to pick up the IF from the set, but this requires that you strap a coil onto the back.

One way of getting an audio signal out without the risk of high voltage outside the set is to use an opto-isolator.

This uses circuitry which converts the audio into a changing light level, and then detects this modulated light using another stage — electrically isolated from the first.

Two types of light modulator are shown here — the one with the neon attaches to the anode of the sound output tube and the other attaches to the loudspeaker terminals of the set.

The photocell has to be very close to the light producing part of te circuitry (it's a good idea to tape the cell to the neon or LED — but be careful that you preserve the electrical isolation) and preserve the electrical isolation) and shielded from outside light sources. The output of the detector is probably best fed to the most sensitive amplifier input you have, as the amplitude will be small.