

ELIMINATING WHISTLE / LARSEN EFFECT

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CAUSES

- ∞ excessive internal amplification (Volume requires adjustment) and / or
- ∞ excessive external amplification (Volume requires adjustment) and / or
- ∞ power supply too high (Check for 6volts to + terminal on amplifier) and / or
- ∞ poor alignment of microphone to hole in entrance panel plate and / or
- ∞ incorrect cable used on long cable run (telephone cable - solid core twisted pairs should be used for all installations)

The sound detected by the microphone in the entrance panel is amplified and sent to the earpiece in the telephone. Assuming that the correct power supply, speaker unit and telephones are used, then either :

The microphone in the telephone handset then picks up the sound and sends it to the speaker amplifier, where it is amplified once again.

and / or

The cable from the microphone in the telephone picks up interference and introduces the interference to the loop.

In either case above the phone and speaker unit emit a loud high pitched whistle "feedback".

THE CURE

The correct cable for telephone installations is CW1308, twisted paired, solid core cable. You should run :

the speaker (phone terminal 1) with the negative (phone terminal 6) as a pair

the microphone (phone terminal 2) with the negative (phone terminal 6) as a pair.

This effectively puts a negative screen around the sensitive audio wires and helps separate the audio wires from interference.

The practise of using stranded (alarm) cable often makes the situation worse and should be avoided.