AudioChiemgau

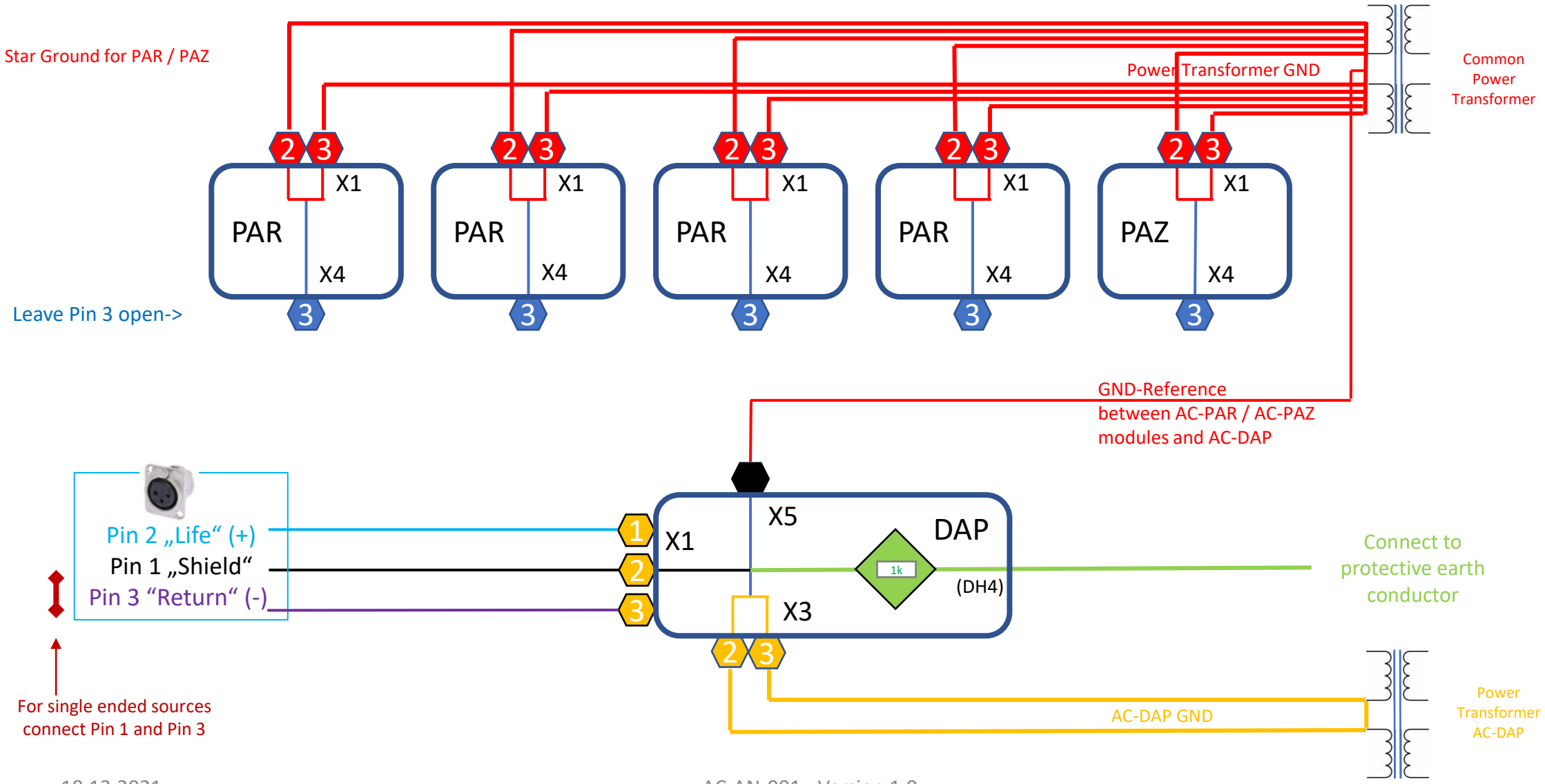
**Application note** **AC-AN-001**

# Recommended Grounding Solutions

- **Grounding Schemes for the connection of the AC-PAR / AC-PAZ modules to the AC-DAP**
- **Solution for a common power transformer for all AC-PAR / AC-PAZ modules**
- **Solution for dedicated power transformers per AC-PAR / AC-PAZ module**

# Grounding Scheme in case several PAR /PAZ modules share a common power transformer

*Only GND connections are shown*



## Grounding Scheme in case several PAR /PAZ modules share a power transformer

The shown Grounding Scheme avoids any ground (GND) loops.

A star connection scheme (opposite to a daisy chain) is recommended for all AC-PAR / AC-PAZ modules

In order to make sure that the balanced audio input signals for the AC-PAR / AC-PAZ modules are referenced to the AC-DAP module GND, connect the center tap of the power transformer to X5 of the AC-DAP module as shown.

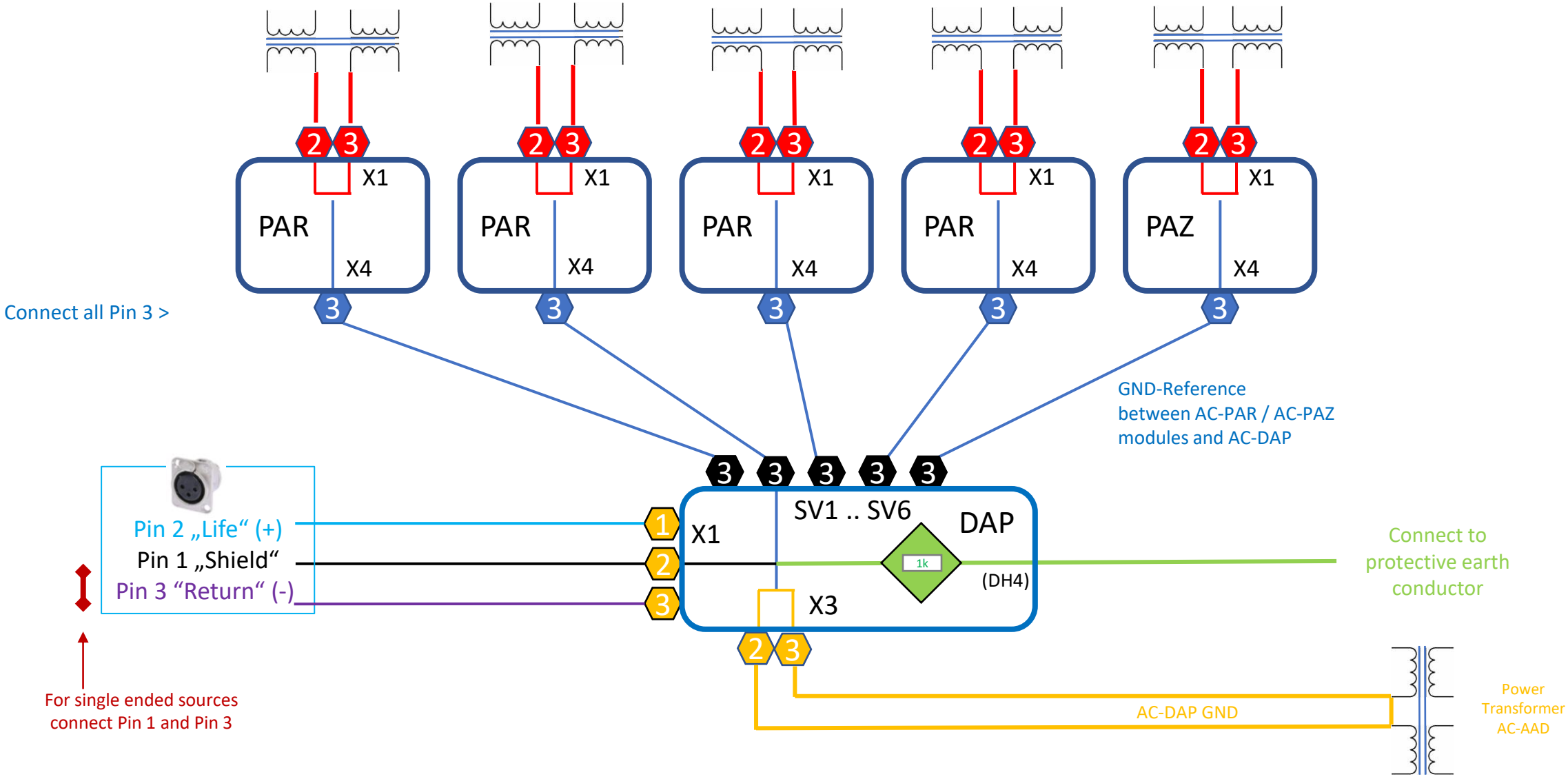
The AC-DAP module has its dedicated low power transformer.

It is recommended to connect the screws of the AC-DAP (Mounting Hole DH4) to protective earth.
In case none of the audio equipment is connected to protective earth, the above connection allows a deviation of GND from the protective earth of ±1.4 V only and links above that threshold GND with protective earth via a 1 kOhm resistor.

In case the audio source feeding the AC-DAP is single ended, a balanced cable should be used with Pin 1 and Pin 3 connected at the source side

# Grounding Scheme in case each PAR /PAZ module has got its dedicated power transformer

*Only GND connections are shown*



## Grounding Scheme in case each PAR /PAZ modules has got its dedicated power transformer

The shown Grounding Scheme avoids any ground (GND) loops.

Each AC-PAR / AC-PAZ module is connected to its dedicated power transformer

In order to make sure that the balanced audio input signals for the AC-PAR / AC-PAZ modules are referenced to the AC-DAP module GND, all Pin 3 of the AC-PAR / AC-PAZ modules need to be connected to the respective Pin 3 of the AC-DAP outputs SV1 .. SV6

The AC-DAP module has its dedicated low power transformer.

It is recommended to connect the screws of the AC-DAP (Mounting Hole DH4) to protective earth.
In case none of the audio equipment is connected to protective earth, the above connection allows a deviation of GND from the protective earth of ±1.4 V only and links above that threshold GND with protective earth via a 1 kOhm resistor.

In case the audio source feeding the AC-DAP is single ended, a balanced cable should be used with Pin 1 and Pin 3 connected at the source side