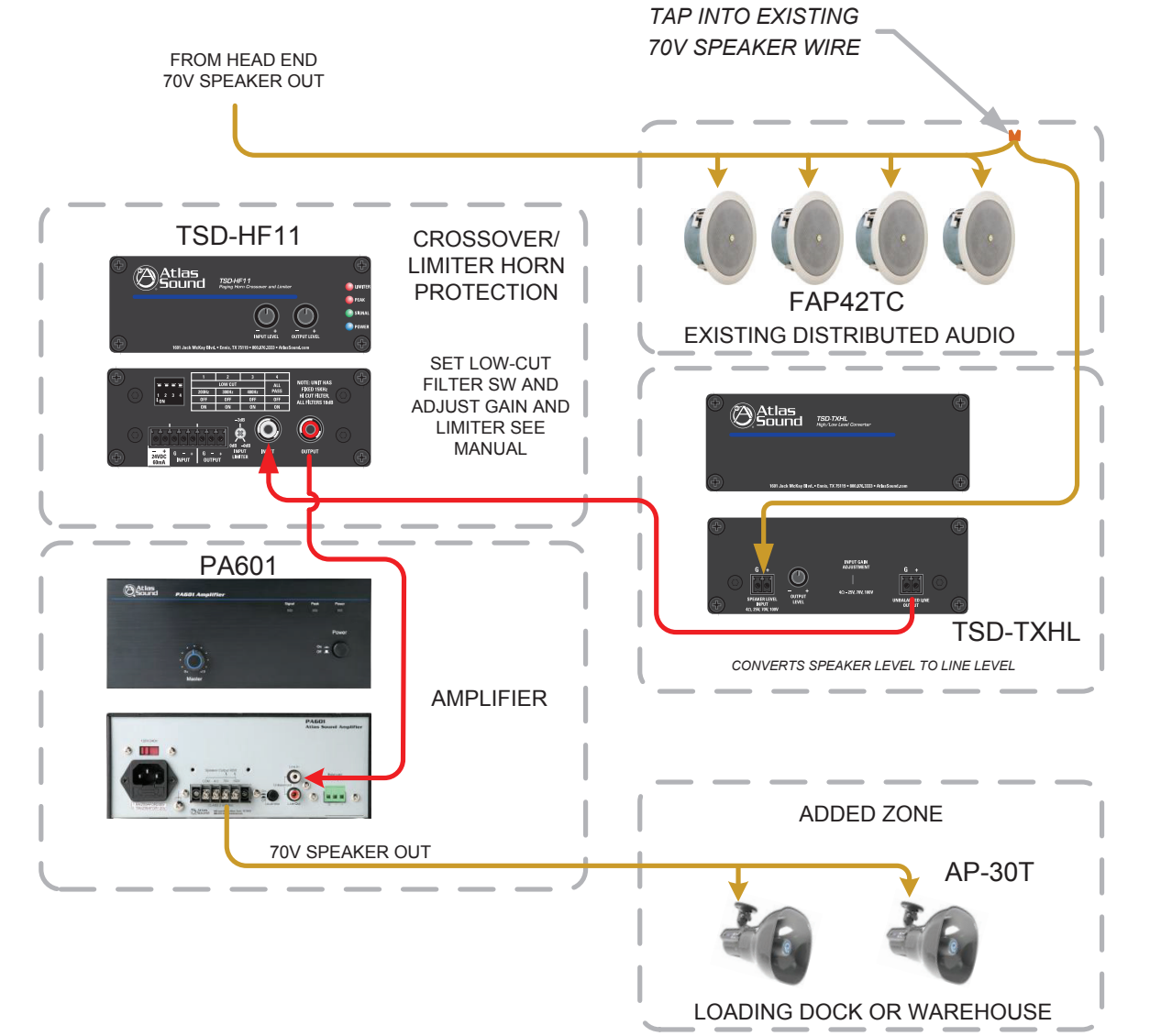
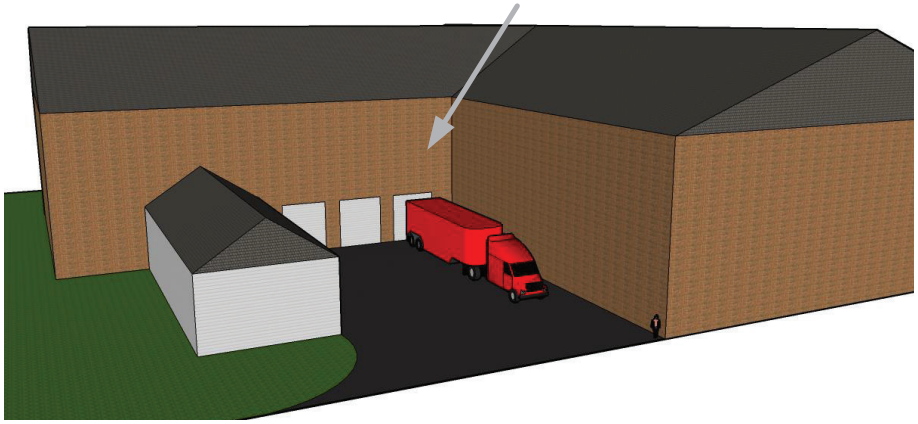
Example of Horn Protection in a Zone 2 When Tapping Off an Existing 70V Line





LINE COLOR KEY
- LINE LEVEL AUDIO SIGNAL
- LOUDSPEAKER LEVEL
- CONTROL SIGNAL
- MIC LEVEL AUDIO SIGNAL
- VIDEO
- GROUND
- 120V

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Overview:

This example illustrates how to use a TSD-HF11 as a preamp/limiter to feed a secondary horn paging system in an existing 70V system using a TSD-TXHL speaker level to line level converter.

Application Example Description:

This example will illustrate how to use an existing 70V speaker line in conjunction with a TSD-HF11 and TSD-TXHL to create a secondary paging zone when the head end is too far away or not easily accessible to economically run pre-amp lines. The TSD-TXHL is used to convert the 70V speaker line to line-level. This unit can be connected to the TSD-HF11 for separate filtering and horn protection. An additional amplifier can then be used to set the desired horn level.

Benefits:

- Cost effective Problem Solver
- Excellent Horn Protection
- Easy to Install and Configure

Application Example Notes:

1. Any paging system with 70V speakers can be used for this simple add-on. The TSD-TXHL does not add a resistive load to the existing speaker system when connected.

2. The following diagram incorporates an Atlas Sound PA601, but any amplifier can be used as long as the total power of the amplifier does not exceed the maximum power of the attached speakers/horns needed to complete the design. A good rule of thumb is to allow 30% amplifier head room in the amplifier power.

3. Ensure an AC power location is accessible near the location of the TSD components and amplifier such as a shelf or rack.

4. Before installing the TSD-HF11 and TSD-TXHL read the manuals for a complete understanding of the benefits and use.
   - Select the 70V option on the TSD-TXHL.
   - Ensure the pre-amp output level of the TSD-TXHL is set so as to not overdrive the input of the TSD-HF11.
   - Find the frequency bandwidth of the speakers being connected to the TSD-TXHL. Select the appropriate Low Cut filter on the TSD-HF11 that corresponds to the frequency range of the speakers.
   - Set the maximum input level to the amplifier via the TSD-HF11 output limiter in order to not overdrive the input.
   - Adjust the amplifier level to the desired level. Fine-tune the limiter so the speakers are not overpowered.

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