

Using ARC on the DMS-AV

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This article reviews the **ARC (Audio Return Channel)** feature on the **DMS-AV**. This is more of information than a procedure and should be reviewed by in-house tech support.

Firstly, because the selection is "automatic" by the **DMS-AV**, it does not play well with **Accelerator**. This is because **Accelerator** likes to keep track of the inputs selected in the system.

CEC should have nothing to do with **ARC**. The **source device** is what you need to be concerned with when using **ARC**. The **source** needs to be setup correctly, which frequently involves diving through layers of sub menus. Also, no two **ARC source devices** are the same, in regards to menu structure.

Here are the suggestions when using **ARC**:

1. When creating the user interfaces in **Accelerator**, make them intuitive enough to expect an **"Auto-Detect" ARC** input Switch by the **DMS-AV**
 - For example, if the customer wanted the TV's Netflix to be an **ARC Input**, my **Accelerator** macro would be something like this.
 - Select an empty input on the **DMS-AV**. This causes the remote control to display the **ARC** source commands. If you do not have an empty input, syncing the remote controls may not work.
 - Select the Sources service widget on the TV (this should trigger the **ARC** signal to be present, going into the **DMS-AV**, causing auto-detection (once again there is no standard for **ARC** source)).
 - If the TV does not have specific commands for their service widgets (example: Pandora, Netflix, YouTube), there may be a command like **"Vera Link"** or **"Smart Hub"** or even **"Menu"** that takes the TV to the available service widgets. The user will then have to use Up/Down/Left/Right/Select to start a TV widget service. This would start the **ARC** signal from the TV, causing it to be played out of the **DMS-AV** zone.

Note: The key is trying to make **Accelerator** think that it has selected an input on the **DMS-AV** for the **ARC** input. This way, **Accelerator** Input tracking still works, and the programmer can create a custom button layout for the **ARC** device selected automatically.

The programmer may also have to edit all other source selection macros in the system, because it needs to be sure that a TV's services is not playing an **ARC** source when "Roku" is selected for example. So a macro for a regular input in the system may need a few commands that make sure the TV is not playing an **ARC** source (maybe a few "Exit" commands will archive this)

2. If **CEC** or **TV Power Sync**, are not being used, disable them both in the **DMS-AV**, Input Source, and the Display Monitor.
3. Many **ARC** standards are not followed by Display manufactures. So, sometimes "trial and error" is the only way to make **ARC** work reliably.
4. Verify what type of bitstream the display monitor is outputting for **ARC**, if like expecting to have full multi-channel surround from **ARC** sources.

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If you require any additional information or have any questions, please do not hesitate to contact our **technical support** team at **914-835-4484**.
