

Data Sheet: Adaptive Remote Controls

One true test of a sound system is how easily end-users can control it to suit their needs. With that in mind, Symetrix has developed the Adaptive Remote Control (ARC) series of wall panels for easy user interaction with Symetrix DSP systems. These modular controls handle a including source selection, level control, paging, room combining, and much more. Flexible, modular, and truly adaptive, they can be mixed and matched within a venue to provide each room with an appropriate command set, tailored specifically to that environment.

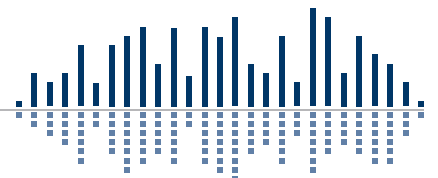
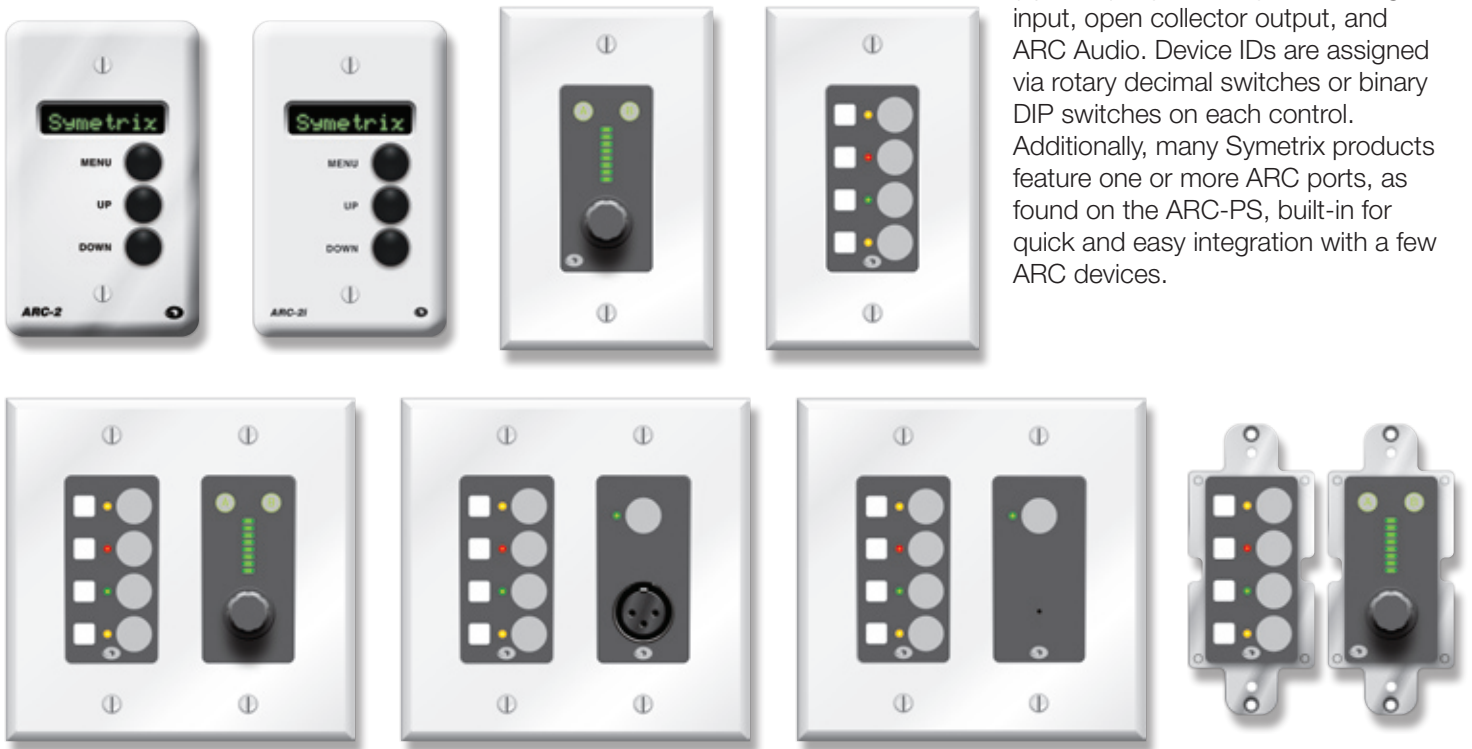
An important consideration when evaluating external control options is their ease of integration with the DSP. With most projects, time and money are key factors. Third-party control systems add expense and can require extensive expertise to implement. The ARC series of control panels are all programmed by the system designer from within the same software applications used to configure the DSP hardware. All control parameters are stored in the DSP hardware as part of the “site” file so they can be easily accessed and modified should the user’s needs change.

Their simple, straightforward appearance belies the sophisticated control the ARCs offer. They communicate over RS-485, a fast and flexible communications protocol. Using this powerful technology, command sets are assigned to specific ARCs. The range of form factors and hardware combinations allows simple, intuitive operation that can control multiple parameters at once. If so desired, a single button press can recall a preset that reconfigures the whole system for an alternate application.

Security features such as button lock or user-provided key lock assure that only qualified users make adjustments to the system.

The preferred method for connecting ARCs to a DSP system is over CAT5. Power and control can be daisy-chained to multiple devices via the dual RJ-45 connectors. The tool for this job is the ARC-PS, a rack-mounted power supply powers up to 10 ARCs. It can also handle eight channels of ARC Audio (see below). If preferred, bare wire connection of RS-485 and local power directly to the ARC are possible via an onboard terminal strip.

Rear panel connectivity includes (optional) key lock, dry closure logic input, open collector output, and ARC Audio. Device IDs are assigned via rotary decimal switches or binary DIP switches on each control. Additionally, many Symetrix products feature one or more ARC ports, as found on the ARC-PS, built-in for quick and easy integration with a few ARC devices.

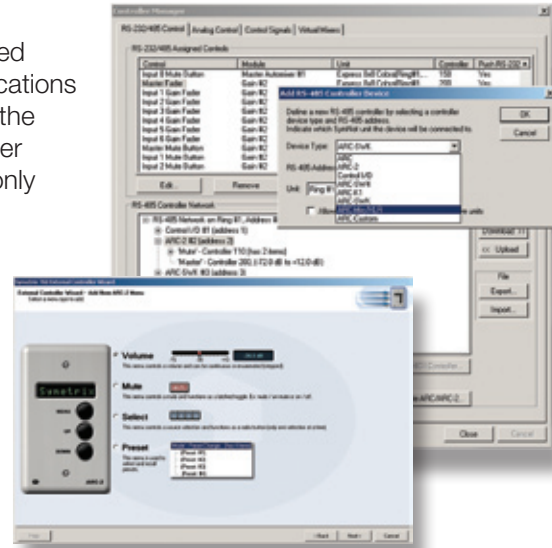


ARC Audio

What is ARC Audio? A single channel of balanced analog audio routed over the CAT5 cable between an ARC and the DSP hardware. Applications include paging, local system inputs, and confidence feeds. To avoid the possible grounding, mixing or shorting of ARC Audio lines, the installer should home run any ARCs making use of ARC Audio lines so that only one ARC device is in the chain.

No special tools are required

to program any of the Symetrix remotes because they are programmed directly from **SymNet Designer** or your **Symetrix software**. Configure and test your system's remote control devices in minutes rather than days. Your DSP and control hardware all come from the same vendor.



Pictured: the **ARC-2** (above) and the **Integrator Series ARC-2i** (right).



The ARC-2 is a menu-driven remote control for Symetrix DSPs. Tap into the full power of your system with twenty-four (24) menus with up to sixteen (16) items each that can be used to address multiple basic functions or initiate complex logic-based control events: gain, preset triggering, source selection, room combining and more. The 8-character backlit display supports up to thirty-one (31) scrolling characters, providing instant user feedback for control assignments, default settings, and actions. The three buttons help you navigate menus, raise or lower values, and enable or disable the remote control. All control assignments, including item labeling, parameter limits and firmware version upgrades are handled by software included with Symetrix DSP hardware. Power, control, and a single channel of ARC Audio are connected via RJ-45 inputs or screw-type barrier strips. **Intuitive**

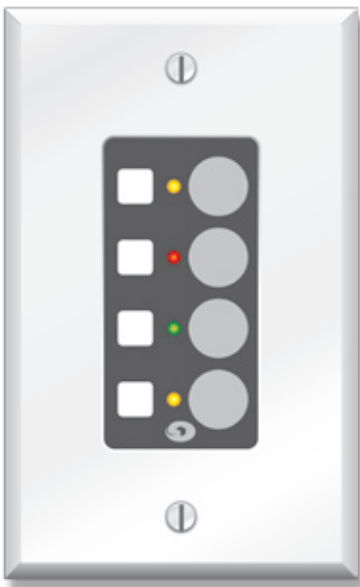
Navigation: Pressing the menu button

navigates through the menu names. The menu button also acts as a preset trigger when a preset list is scrolled. The up/down arrow buttons adjust parameter settings and scroll through preset lists. Holding the menu button and using the up/down arrow keys moves you forward or backward through the menus. **Programmable Setup:** The wall panel's behavior is programmable as well. Menu brightness in "active" and "inactive" states can be set independently, so the display will "sleep" in light-sensitive environments like theaters. If the ARC-2 goes idle, it can scroll a message and return to the top of its menu tree. Upper and lower parameter limits help contain the range of adjustment and a button press lockout will prevent tampering by curious but unauthorized fingers. The ARC-2 features an aluminum faceplate and includes a power supply while the ARC-2i features a white plastic faceplate and is powered directly by its host device, power supply not included. Both mount into a single gang electrical box (US).



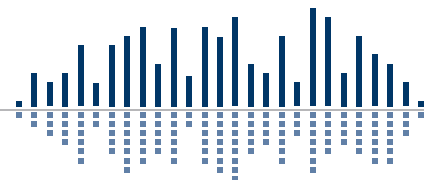
The ARC-K1 is a modular remote control for Symetrix DSPs featuring a push-button rotary encoder that provides the client with simple control of two (2) parameters in the system. The 8-segment LED stack provides instant user feedback, clearly showing relative volume level. Two additional LEDs, labeled “A” and “B”, illuminate to indicate which of the two available controls is active. All control assignments, including parameter limits and firmware version upgrades are handled by the software included with Symetrix DSP hardware. Power, control, and a single channel of ARC Audio are connected via RJ-45 inputs or screw-type barrier strips. The ARC-K1 also

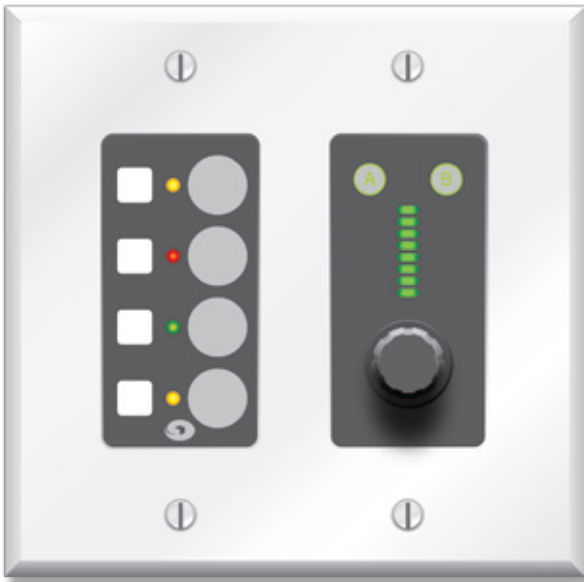
supports “sleep” mode for light-sensitive environments like theaters. Hardware lockout pins are provided to accommodate an installer-supplied key switch and software and hardware lockout functions can be independently programmed. Upper and lower parameter limits help contain the range of adjustment. The ARC-K1 is splash-resistant and mounts into a single gang electrical box (US), finished with a standard Decora® faceplate (supplied in white).



The ARC-SW4 is a modular remote control for Symetrix DSPs featuring four momentary pushbutton switches that provide the client with simple control over source selection, preset triggering and more. Each of the four pushbuttons have corresponding tri-color LEDs which can provide user feedback in a number of ways. LEDs may follow buttons or LEDs and buttons may be programmed independently. All control assignments, including button and LED functionality, parameter limits and firmware version upgrades are handled by the software included with Symetrix DSP hardware. Power, control, and a single channel of ARC Audio are connected via RJ-45

inputs or screw-type barrier strips. The ARC-SW4 also supports “sleep” mode for light-sensitive environments like theaters. Hardware lockout pins are provided to accommodate an installer-supplied key switch. The ARC-SW4 is splash-resistant and mounts into a single gang electrical box (US), finished with a standard Decora® faceplate (supplied in white).

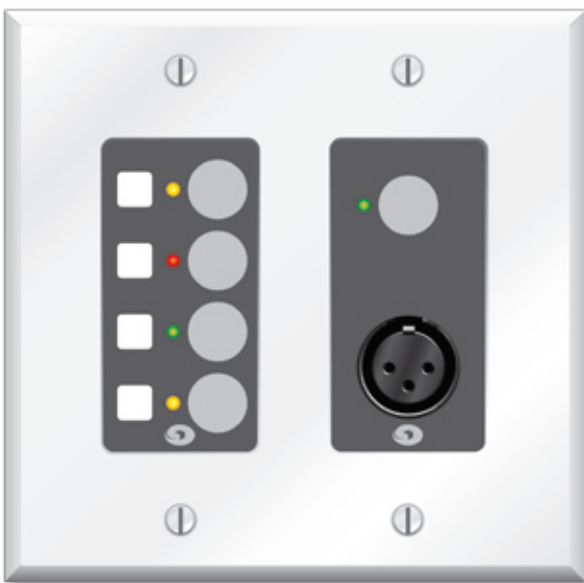




The ARC-SWK is a modular remote control for Symetrix DSPs that combines the functional attributes of the ARC-K1 and ARC-SW4 into a single product featuring a push-button rotary encoder and four momentary pushbutton switches that provide the client with simple control over source selection with volume, room combining and more. In addition to the programming modes supported by the ARC-K1 and ARC-SW4, the ARC-SWK integrates directly with the BGM Room Combiner modules in SymNet providing an elegant room combining solution where all wall panels update according

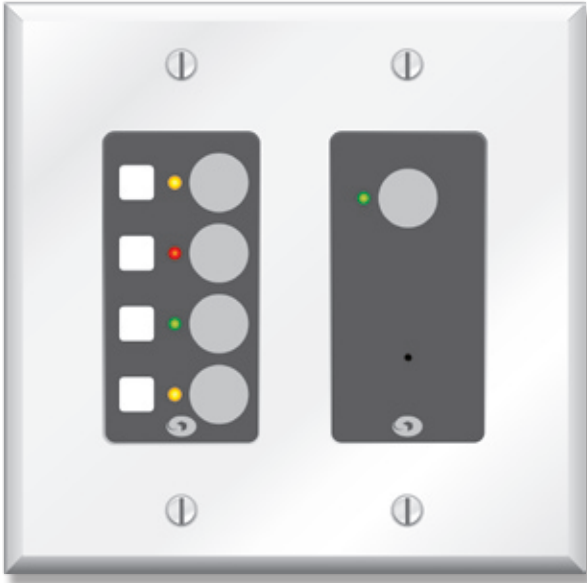
to the room combine status. The ARC-SWK also supports a “Select and Set” mode that allows the buttons to select a parameter after which the knob can adjust the selected parameter.

All control assignments, including button and LED functionality, parameter limits and firmware version upgrades are handled by the software included with Symetrix DSP hardware. Power, control, and a single channel of ARC Audio are connected via RJ-45 inputs or screw-type barrier strips. The ARC-SWK also supports “sleep” mode for light-sensitive environments like theaters. Hardware lockout pins are provided to accommodate an installer-supplied key switch and software and hardware lockout functions can be independently programmed. Upper and lower parameter limits help contain the range of adjustment. The ARC-SWK is splash-resistant and mounts into a single gang electrical box (US), finished with a standard Decora® faceplate (supplied in white).



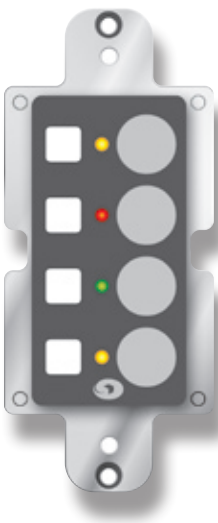
The ARC-XLR is a modular remote control for Symetrix DSPs that combines an XLR audio connection and push-to-talk button with the ARC-SW4’s four momentary pushbutton switches that provide the client with simple control over zone selection plus paging and more. Each of the five pushbuttons have corresponding tri-color LEDs which can provide user feedback in a number of ways. LEDs may follow buttons or LEDs and buttons may be programmed independently. The XLR audio connection may be used to provide a remote input or output for the system to create a paging station or remote monitoring device. There is an onboard microphone preamp. All control assignments, including button and LED functionality,

parameter limits and firmware version upgrades are handled by the software included with Symetrix DSP hardware. Power, control, and a single channel of ARC Audio (for the onboard mic) are connected via RJ-45 inputs or screw-type barrier strips. The ARC-MIC also supports “sleep” mode for light-sensitive environments like theaters. Hardware lockout pins are provided to accommodate an installer-supplied key switch. The ARC-XLR is splash-resistant and mounts into a single gang electrical box (US), finished with a standard Decora® faceplate (supplied in white).



The ARC-MIC is a modular remote control for Symetrix DSPs that combines an onboard electret condenser microphone and push-to-talk button with the ARC-SW4's four momentary pushbutton switches that provide the client with simple control over zone selection plus paging and more. Each of the five pushbuttons have corresponding tri-color LEDs which can provide user feedback in a number of ways. LEDs may follow buttons or LEDs and buttons may be programmed independently. The onboard mic may be used not only for an integrated paging station but also as a sense mic for an SPL Computer DSP module. All control assignments, including button and LED

functionality, parameter limits and firmware version upgrades are handled by the software included with Symetrix DSP hardware. Power, control, and a single channel of ARC Audio (for the onboard mic) are connected via RJ-45 inputs or screw-type barrier strips. The ARC-MIC also supports "sleep" mode for light-sensitive environments like theaters. Hardware lockout pins are provided to accommodate an installer-supplied key switch. The ARC-MIC is splash-resistant and mounts into a single gang electrical box (US), finished with a standard Decora® faceplate (supplied in white).

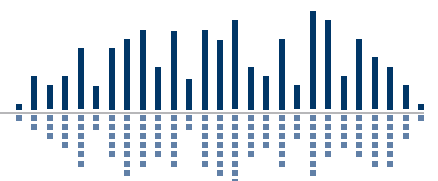


The ARC-EX4 is the expander version of the ARC-SW4. Identical in form and function to the ARC-SW4, it expands the capabilities of a Modular ARC Wall Panel. The ARC-EX4 cannot be used stand-alone nor can it be attached to an ARC-2. A single RS-485 device address may have a total of four EX4 boards. The ARC-EX4 is splash-resistant and mounts into a Decora® faceplate (not provided) alongside its Modular ARC host.



The ARC-EXK is the expander version of the ARC-K1. Identical in form and function to the ARC-K1, it expands the capabilities of a Modular ARC Wall Panel. The ARC-EXK cannot be used stand-alone nor can it be attached to an ARC-2. A single RS-485 device address may have a total of two EXK boards. The ARC-EXK is splash-resistant and mounts into a Decora® faceplate (not provided) alongside its Modular ARC host.

To these base Modular ARC devices, one can add a maximum of:	EXK	EX4
ARC-K1	1	4
ARC-SW4	2	3
ARC-SWK	1	3
ARC-MIC	2	3
ARC-XLR	2	3



RC Series: Standard Remote Controls

Many systems require a more cost-effective single point of control. For these situations, Symetrix offers the standard RC series of remote controls. These wall panels provide familiar tactile controls in attractive packages. The RC series of wall panels interface with Symetrix devices' analog control inputs to quickly provide volume control and source or preset selection with minimal programming. Being analog devices, they lack the sophisticated intelligence of the ARC series making them better suited to single points of control.



The RC-3 Single remote volume control mounted in a Decora® wall plate.

The RC-3 is compatible with many Symetrix, SymNet and AirTools processors: any device with a remote volume port that accepts standard potentiometers.

Other Wall Panel Accessories



The MS-1 Sense Microphone Wall Panel from Symetrix is a panel mounted microphone used with Symetrix and SymNet products which feature SPL Computer functions.

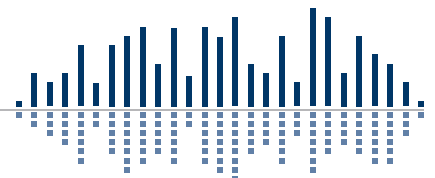
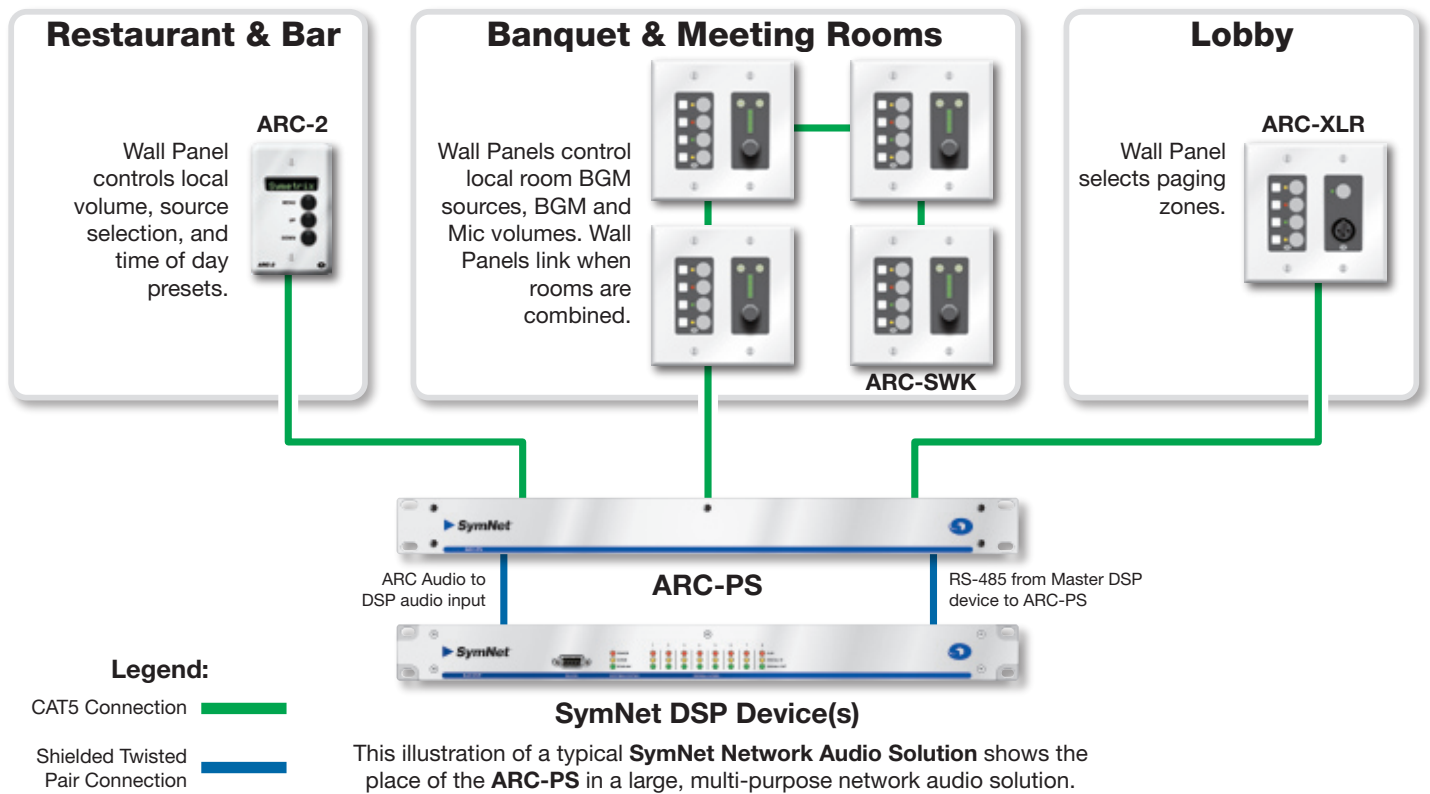
The MS-1 is compatible with many Symetrix and SymNet products: any device including SPL Computer functions such as the 371, 722, 760 and entire SymNet line. It fits easily into new and old construction mounted into walls or ceilings. A louvered white metal plate offers excellent protection while blending in with most décor.

Architect and Engineer Specifications: Symetrix Wall Panel Accessories.

The series of wall panel accessories shall be designated in two groups – Adaptive Remote Controls (ARC) and standard Remote Controls (RCs). ARCs may be divided by functionality into the Menu and Modular ARCs. The Menu ARCs (ARC-2 and ARC-2i) shall include one 8-character backlit alpha-numeric display, one momentary button for menu selection, and two momentary buttons for value increment/decrement. The Menu ARCs shall mount in a standard U.S. single-gang box. Power and control shall be connected via two RJ-45 connectors, or screw-type barrier-strip. Modular ARC wall panels shall consist of multiple models that mount in standard U.S. single- or dual-gang boxes, and shall be compatible with standard Decora® faceplates. ARC-K1 shall include one push-button rotary encoder, one eight-segment LED stack, and two status LED indicators; ARC-SW4 shall include four momentary buttons with four corresponding status LED indicators; ARC-EXK shall include one push-button rotary encoder, one eight-segment LED stack, and two status LED indicators, ARC-EX4 shall include four momentary buttons with four corresponding status LED indicators; ARC-SWK shall consist of one ARC-K1 tied to one ARC-EX4. ARC-MIC shall include one onboard electret condenser microphone and one momentary push-to-talk button, tied to one ARC-EX4; ARC-XLR shall include one 3-pin female XLR connector and one momentary push-to-talk button, tied to one ARC-EX4. All Remote Controls shall function as user interfaces for Symetrix DSP systems. All shall be configured by software provided with the hosting device to assign control within DSP system components. RS-485 communications shall be utilized for software control and configuration. The series of wall panels shall be CE marked, CSA tested to UL 60065. The series of wall panels shall be Adaptive Remote Controls (ARCs).

RC wall panels shall consist of multiple models that mount in standard U.S. or Euro single-gang boxes, and the RC-3 shall be compatible with standard Decora® faceplates. RC-3 shall include one rotary potentiometer; RC-4 (and RC-4e) shall include one rotary potentiometer plus one six-position selector. Both shall connect to a Symetrix device's analog control inputs via screw-type barrier strips utilizing standard shielded twisted pair wiring with two conductors plus ground for the RC-3 and four conductors plus ground for the RC-4. MS-1 shall include an one onboard electret condenser microphone and connect to a Symetrix device's analog audio input via screw-type barrier strips utilizing standard microphone cable. All shall be configured by software provided with the hosting device to assign control within DSP system components. The series of wall panels shall be CE marked, CSA tested to UL 60065. The series of wall panels shall be standard Remote Controls (RCs).

SymNet Hotel Application



Symetrix Integrator Series Restaurant Application

