# MRC44 KEYPAD

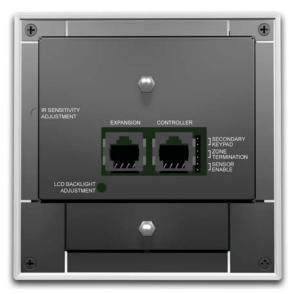
The MRC44 Keypad is a flush-mount wall unit that snaps into a universal wall mounting plate. Its slim profile and mounting bracket make it cosmetically appealing and a snap to install, eliminating the requirements for J-boxes or back-boxes.

Twin RJ45 connectors allow easy connection to CAT5 cable and expansion to two Keypads per zone.

The sophisticated MRC44 System is intuitive and easy to operate. Approximately the size of a two-gang light switch plate, with backlit LCD and rubber membrane buttons, it is elegant on the wall and always ready for use.

With so many devices today having more buttons than you can shake an owner's manual at, the MRC44 Keypad's 16 buttons allow instant ease of use to even a first-time user. Automatically backlit when pushed, standard functions such as Power, Volume Up/Down, Mute, Channel Up/Down and Source selection are laid out in large, easy to read buttons. For additional control, the center of the Keypad is a multifunction cursor array for controlling CD, VCR and DVD functions as well as navigating Satellite receiver functions.

The large, easy to read backlit LCD, gives room status of source, volume, mute and "Link" mode. The Keypad display is configurable in Dragon Drop-IR to allow programming the particular sources in a system.



The back view of a MRC44 Keypad.



The backlight function "times out" so the display and buttons go dark to not be a distraction when not in use (the backlight duration is variable based on user preference).

The Keypad also features an infrared receiver, so hand-held remotes can be used to control the system and source components from across the room for convenient "easy chair" control. The MRC44 Keypad display tracks IR commands such as source and volume.

A multi-colored LED on the Keypad face indicates ON/OFF, System Busy, IR output and other system functions.

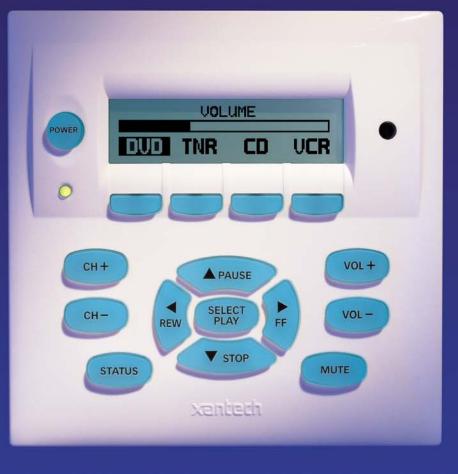
Just as the MRC44 Keypads can be set for simple operation, they can also be programmed for sophisticated sequences, or "macros", to send out strings of commands to turn the system on, select a source, and play that device all from a single button press. See the MRC44 Controller/ Amplifier for other macro capabilities.

When a source is selected, the LCD on that Keypad highlights the source selected, and the Keypad sends a message to the Controller/Amplifier telling it what source is selected in that zone. If multiple zones are linked, these messages will be transmitted to the other linked Keypads and switch the display to indicate the selected source. A hand-held controller such as the Xantech URC2P can generate the "bank track" codes so that when a source is selected from the remote, the Keypad stays in sync.



# MRC44 FOUR ZONE – FOUR SOURCE AUDIO/VIDEO CONTROLLER/AMPLIFIER SYSTEM

the new word in cost-effective multi-room systems... complete







### MRC44 SPECIFICATIONS

### **CONTROLLER/AMPLIFIER**

#### **Four Audio/Video Source Inputs**

- Video sensing (NTSC & PAL) on each input for power management of common source components
- Current sensing (>20mA-<10A) for each input for power management of common source components and future control modules

#### **Four Independent Zones**

- Each zone has 1 RJ45 connector for MRC44 keypad, 1 composite video output, 1 speaker pair terminal, 12VDC status output
- Multiple zones can be linked to behave as one zone
- 25 Watts per channel
- Frequency response: 12 Hz to 55KHz (±3dB)
- THD: < 0.08%
- Signal-to-noise ratio: > 96dB A-weighted

#### **Central Processor**

- Internal memory (32 Kbytes E<sup>2</sup> PROM) for storing IR codes
- Programmable only with Dragon Drop-IR Programming Software
- Recognizes RC68+ Commands to initiate IR output
- Outputs single IR commands or IR sequences
- Sends "busy" signal to keypads when system is outputting IR sequences

- IR learning eye on back panel of Controller/Amplifier can be used as "PCIR" for Dragon Drop-IR™
- DB-9 RS232 Serial port for programming and expansion to future capabilities (future-proof)
- Also available in 230 VAC / 50 Hz

#### **Five IR Emitter Ports**

- Four source specific IR emitter ports and one common IR output
- Emitters can be used as common outputs or for priority lockout and IR routing

#### **Software**

- Uses Xantech's Dragon Drop-IR™ programming software (included)
- Provides programming of IR codes for control of source components
- Program sequences of up to 40 IR codes per button
- Incorporate delays in sequences to allow for amplifier power-up, light dimming, screen drop, drape closure, etc.
- Allows programming of sources on keypad displays
- Associates IR codes to sensed conditions for power management of common sources
- "Future Proof" feature will allow upgrades for additional system flexibility and control as available

### KEYPAD

- Flush-mount wall unit with universal wall mounting plate requires a 4" x 4" hole cut-out in wall
- Configurable LCD panel (via supplied Dragon Drop-IR software)
- 16 buttons (4 source select, 11 function, 1 power)
- Backlit LCD and buttons

- Variable backlight timeout
- Bi-colored Status LED for power and status
- Broadband IR receiver (30KHz to 100KHz)
- Connects to MRC44 Controller/Amplifier via CAT5 cable with RJ45 connectors
- Two RJ45 connectors allow two keypads per zone



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### FOUR ZONE - FOUR SOURCE AUDIO/VIDEO CONTROLLER/AMPLIFIER SYSTEM

The Xantech MRC44 System is a revolutionary whole-house audio/video distribution, audio amplification and control system. Building on 30 years of experience, and in fact, as the inventors of multi-room remote control systems, the Xantech team has combined many features from our finest products into the world's most advanced, pre-packaged, whole-house system.

The MRC44 System consists of the MRC44 Controller/Amplifier, four LCD Keypads and four IR Emitters. When combined with almost any four IR controlled audio/video source components (CD,DVD,VCR, Satellite, etc.), using the MRC44 System is as easy as pushing a button.

The heart of the MRC44 System is the MRC44 Controller/Amplifier. With four audio/video source inputs, and four zone-specific outputs, any source can be selected and controlled from any room. Additionally, for the home with multiple users, multiple sources can be selected in different rooms simultaneously!

Sound complicated? It's not. The MRC44 Keypads provide one button control from any room. Push the Power button and the MRC44 System comes to life, the Controller is activated and the Keypads light up.

Select CD, adjust the volume, and indulge in the sound of the MRC44 Controller/Amplifier's clear and powerful 25 watts per channel stereo amplifier. Select DVD, VCR, Satellite or any source with an audio *and* 

video output — the press of a source button brings both sound and video to the room.

While control of the MRC44 System is as simple as the push of a button, it's the behind the scenes action that makes the MRC44 System run smoothly.

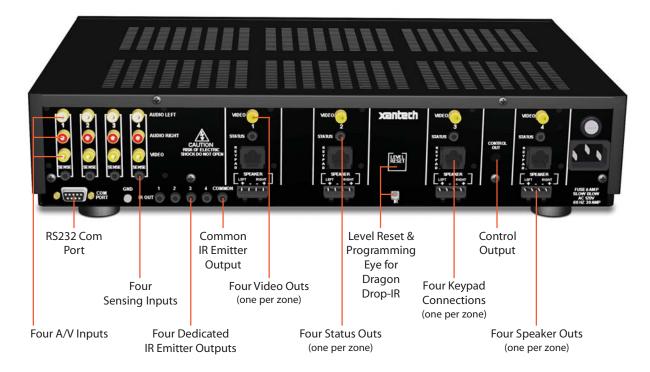
The Controller is a combination of technologies never before packaged in one product.

With sensing intelligence developed for the award winning Xantech Gatekeep-IR<sup>TM</sup>, the Central Processor has the ability to know where the user's commands are coming from, know what device that room wants to control, know if that source is On or Off and know when to send control codes to keep the system running in perfect order.

Using award-winning and time-tested SmartPad™ technology, IR commands can be stored in central memory, giving the keypads the ability to not only adjust system settings such as source, volume and power, but to also have the ability to control the audio/video sources as well.

Programming the IR commands and incorporating advanced features is as simple as a mouse click using the universally-praised Dragon Drop-IR™ programming software. Using this software, all aspects of system operation can be viewed at a glance.

## MRC44 CONTROLLER/AMPLIFIER



The MRC44 Controller/Amplifier is the heart of the MRC44 System. It utilizes the finest features from the Xantech product line.

All components of the system connect to the MRC44 Controller/Amplifier. There are connections on the back panel for four Keypads, four A/V source components, five IR Emitters, four speaker pairs, four video outputs, four sensing inputs, four status outputs and one RS232 comport. The front panel features four LEDs that show activity by zone.

With the ability to select and control any one of four audio/video sources from any zone, the MRC44 Controller/Amplifier has considerable flexibility to adapt different modes of control for different applications.

**Whole-House Mode** - If the system is going to be controlled by a single user from multiple locations, the system can be set to allow selection and control of any source from any zone.

**Priority Mode** - In a situation where there will be multiple users on the system, the MRC44 Controller/Amplifier can be set to allow selective control of a source from a zone, so once a source is selected, only the first zone to select that source can control that source. Other zones can "monitor" the source by selecting the input, but would

not be able to control the device, i.e., stop the DVD player, that someone else had started from another zone.

Link Mode - Multiple zones can be tied together to act as one zone. At times, it may be desirable to have the dining room and living room be two separate zones giving each the ability to select its own source, adjust volume, etc. At other times it may be desirable to "link" the two zones so that when a souce is selected in one room, the other room will automatically have the same source selected. These rooms can be turned ON or OFF as a group from any of the "linked" zones. Each room will maintain independent volume and mute controls.

**Monitor Lockout** - Prevents particular zones from selecting certain sources allowing "parental control" of program material.

IR Routing - Some systems have more than one of the same source component in a system, i.e., two satellite receivers or VCRs. The IR routing feature sends the control codes to the proper device so one room can specifically select and control Satellite receiver number one while another room can select and control another Satellite receiver of the same brand without interfering with the other.

With the ability to turn the system ON and OFF from more than one location, the MRC44
Controller/Amplifier needs to know when the current drawn by the component when its either the current drawn by the component when its either the current drawn by the component when its either the current drawn by the component when its either the current drawn by the component when its either the current drawn by the component when its either the current drawn by the component when its either the current drawn by the component when its either the current drawn by the component when its either the current drawn by the component when its either the current drawn by the component when its either the current drawn by the current dra

different sources are ON or OFF to be able to

know when to send or not send power com-

mands to keep the sources in sync with the

The MRC44 Controller/Amplifier features two

input signal. When detected, the MRC44

sync with system activity.

sensing methods. The first is video sensing. All

four source video inputs are set to detect a video

Controller/Amplifier knows when to send or not

send power commands to keep components in

The other method is current sensing. The CSM1

Current Sensing Module (not included in the

source "sense" input on the MRC44 Controller/

plug from the source component and the AC

Amplifier. The other end goes between the AC

MRC44 System) plugs into the appropriate

system.

current drawn by the component when its either ON or OFF and know when to pass power commands to keep source components in sync with the system.

Five IR emitter ports allow four dedicated IR Emitters for priority lockout of the four source components and one common IR out for control of other devices such as motorized drapery systems, TV lifts and lighting systems.

The MRC44 Controller/Amplifier features four zone status outputs and a common control output. These 12VDC outputs allow automated triggering of voltage controlled devices such as lifts, screens, relays and AC switches.

There is also a com port for system programming with Xantech's Dragon Drop-IR™ software and for "future-proof" system expansion for the features of tomorrow.

