

INSTALLATION INSTRUCTIONS

CC62 REMOTE RELAY MODULE

The CC62 Remote Relay Module consists of six double-pole double-throw relays which are controlled by way of IR commands from a Xantech RC68+ (or RC68) Programmer. The RC68+ commands are "taught" to learning devices and passed to the CC62 **IR IN** (S) and **G** input terminals via Xantech IR receivers, keypads, etc. The six relays give "dry contact" closures for a multitude of uses where simple contact closures are needed. Any combination of one to six relays may be selected and operated in several ways using the commands from the RC68+ Programmer.

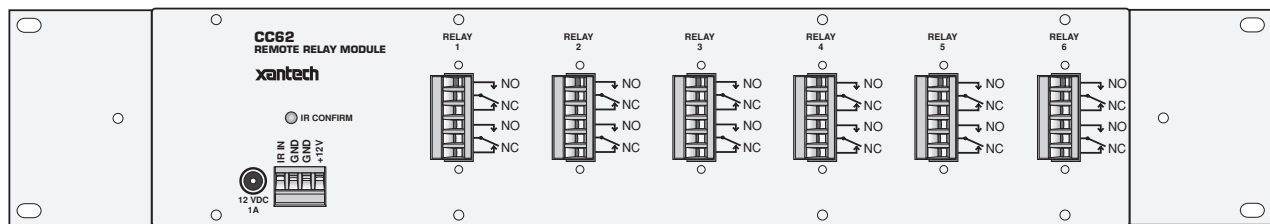


Fig. 1 The Model CC62 Remote Relay Module

FEATURES AND SPECIFICATIONS

- 6 double-pole double-throw relays rated at 5 Amps. 30 volts DC.
- 2 normally open and 2 normally closed contacts per relay.
- Six 6-terminal screw-type plug-in connectors - one for each of the relays.
- Each relay and the relay poles are isolated from each other allowing use in circuits of differing potentials and grounds.
- 4-terminal IR IN and +12V plug-in for Xantech IR Receivers, Smart Pads, connecting blocks and other devices.
- IR Confirm LED lights with RC68+ and non RC68+ IR signals.
- RC68+ IR commands permit **Pair**, **Toggle**, **Momentary** and **Group** mode operations as well as different IR codes for use of multiple CC62's.
- The CC62's Code Group number is **60**.
- Universal mounting fits 19-inch racks or any 3-1/2" X 19" flat surface. Extends about 2-3/4" behind panel with cables connected.
- Requires RC68+ (or RC68) Programmer and 782-00 Power Supply.
- Power: 12 VDC @ 300mA.
- Dimensions: 19" W x 3-1/2" H x 2-1/4" D

RC68+ PROGRAMMER / REMOTE CONTROL

The RC68+ Programmer (available separately) contains all commands necessary to operate the CC62 (see Fig. 2).

- You will need it to program universal learning devices such as the Xantech URC-1 learning remote, the Xantech Smart Pads, the 590 Controller, the 710 Fone Link, etc., with commands that operate the CC62.

- **NOTE:** The RC68+ codes operate several other Xantech models as well, such as the RS41AV, CC12, ZPR68, etc. Therefore, **only the button descriptions that apply to the operation of the CC62 are listed below.** All others should be ignored.

CAUTION: While the RC68+ can be used as a handheld remote control, it is highly recommended it not be given to the final user for the following reasons:

- Since it includes adjustable code groups, the user may inadvertently alter the installed configurations.
- Also, since the user will require IR commands from other brands of equipment to control the total system, in addition to those of the CC62, all commands should be consolidated into one learning device, for ease of use.

APPLICABLE RC68+ BUTTON DESCRIPTIONS (With the "D" Overlay. Refer to Fig. 2)

Relay Numbers (1 ~ 6).

These numbers identify the row of button commands that apply to each relay on the CC62.

Code Group Numbers.

The CC62 is capable of being set to 30 different IR code groups. The code groups are identified by the numbers and letters that are on the face of each button.

NOTE: When shipped from the factory, the CC62 is set to code group number 60.

Be sure to set the RC68+ (or RC68) to the same number!

It may be necessary to change the CC62 to a different code group if it is used in a common IR bus controlled system with other Xantech CC62's, to avoid mutual interaction.

Refer to the RC68+ instructions for code group setting details and procedures!

Relay Command Modes.

Depending on the installation, you may want to have the CC62 respond to IR commands in different ways. The basic modes of operation for each relay on the CC62 are as follows:

OFF - Activates the IR command that turns the selected relay OFF (the **N/C** position).

ON - Activates the IR command that turns the selected relay ON (the **N/O** position).

These dedicated OFF and ON (paired) commands are helpful when sending IR commands "blind" from locations where you have no visual aid for status.

TGL - (Toggle Mode) - The first press of this button turns the selected relay ON (the **N/O** selection) - the second press turns it OFF (the **N/C** selection).

MMT - (Momentary Mode) - Pressing this button causes the selected relay to go ON (the **N/O** selection) but stays ON **only** as long as the MMT code is being sent. When released, the relay returns to the OFF position (the **N/C** selection).

GP-ON - (group ON).

This button (labeled F8 on the button face) causes the CC62 to turn all 6 relays ON at the same time (the **N/O** selections). GP-ON overrides all individual settings.

GP-OFF - (group OFF).

This button (labeled D8 on the button face) causes the CC62 to turn all 6 relays OFF (the **N/C** selection). It also turns any relay(s) OFF that may have been set to ON with the ON command.

NOTE: OFF, ON and TGL (toggle) operation will still operate for any individual relay after Group ON is executed.

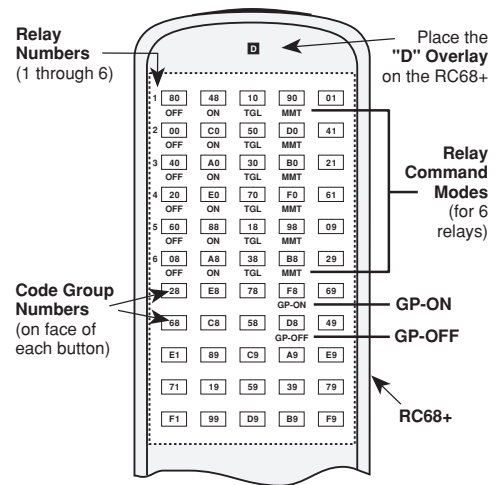


Fig. 2 RC68+ Programmer

The CC62 should normally be plugged into an **unswitched** AC outlet. However, if the power to the CC62 is interrupted by a power failure or other reason, the internal memory will retain the last selected switched condition for each of the relays.

IR RCVR INPUT CONNECTOR

This 4-terminal input has electrical connections for **+12V**, **GND** (chassis ground), **GND** (IR signal ground) and **IR IN** (IR signal). The **GND** terminal closest to the **IR IN** terminal is provided so that, if needed, the IR signal ground can be isolated from the chassis ground. This isolation may be necessary in some instances to prevent ground loop problems, etc.

A special jumper, inside the CC62, gives you the option to make the grounds common or have them isolated. Refer to **Fig. 3**.

To gain access to this jumper, remove the eight screws that secure the top cover to the metal chassis. Carefully lift the cover off. When you have made the adjustment, reassemble in reverse order.

NOTE: When shipped from the factory, the jumper is installed in the **ON** (common) position.

CAUTION: When powering IR receivers and keypads directly from the CC62, you **must leave the jumper installed in the ON position** so that the two **G** terminals are connected in common. This provides the needed ground return for the IR signal.

Change the jumper to the OFF position only when powering IR source devices separately from the CC62 and there is a need for electrical isolation.

INSTALLATION

Typical applications for the CC62 are as follows:

- **To activate shade or drape pulls, projector lifts, screen drops, etc.** Use Momentary On modes at relay #1 to **close** and at relay # 2 to **open**, if such devices require two separate dry contacts to operate.
- **To switch low voltage lighting or other devices:** Use Toggle or the ON & OFF (pair) commands. Pair commands allow a known ON/OFF status from remote rooms where visual status is not possible.
- **Amplifier A/B switching:** Each relay can be connected so that a stereo pair of speakers (in each remote room) can be switched between two AV receivers. This effectively creates a simple 2-zone system addressable from each room. Refer to **Fig. 4**.

Each remote control and keypad used in the system needs to be programmed with Toggle or Pair commands from the RC68+ to do the A/B switching. In addition, each room needs a dedicated learning remote or keypad having the RC68+ IR commands that operate the specific CC62 relay for each room.

NOTE: The CC62 is shown connected to Xantech 760-00 Match Maker room volume controls (**Fig. 4**) for individual room control. When set correctly, the Match Makers will provide the proper impedance match between the speakers and the amplifiers. See the 760-00 Installation Instructions for details.

- Another important application of the CC62 is to provide IR-to-switch closures for a 590 Programmable Controller. This permits multiple sequenced commands to be generated from a single RC68+ IR command or to convert RC68+ commands to other brand commands. **Fig. 5** illustrates such a system.

Up to 16 independent closures are possible by using as many as three CC62's with a 590-00.

Use Momentary On programming.

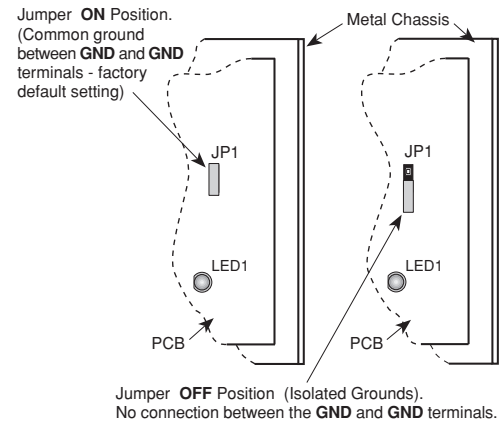


Fig. 3 Location and Adjustment of Grounding Jumper

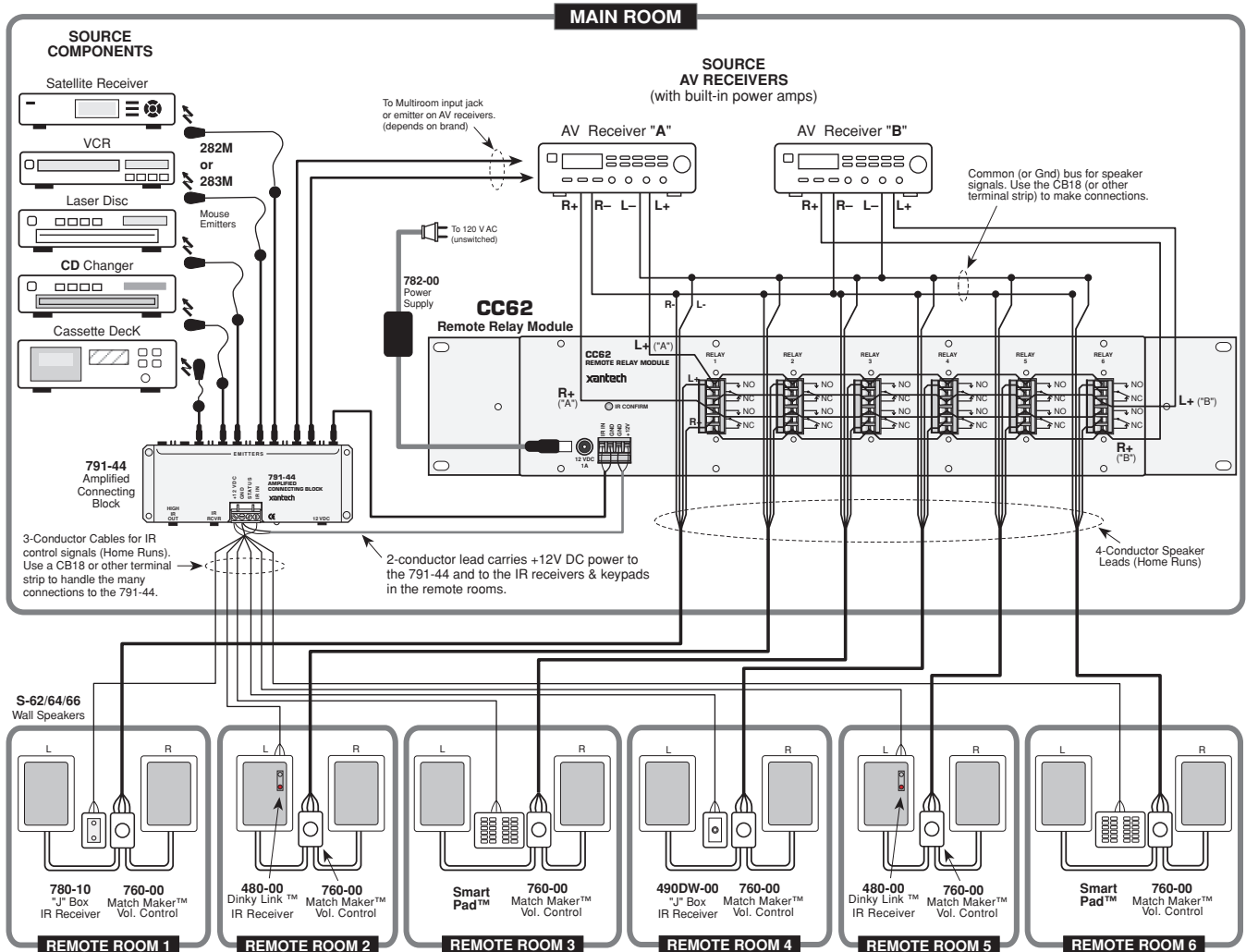


Fig. 4 A Typical Multiroom AV Receiver/Amp A/B Switching System

When using multiple CC62's or in combination with a 686-10 or other Xantech devices that respond to RC68+

codes, keep the following items in mind:

1. Be sure each is set to a different IR Code Group to prevent mutual interaction. Refer to **Fig. 2** and the **RC68+ Programmer Instructions** for Code Group setting procedures.
2. To perform GROUP ON and OFF commands, it is necessary to sequence (macro) the different Group ON and OFF codes for each CC62 in a learning device, such as the Xantech URC-1 Remote, a Smart Pad™, or a 590-00 Controller.
3. A CB18 Strip-IR Connecting Block is used in **Fig. 5** to make the many parallel connections from the IR devices to the 791-44 Connecting Block. In this example, 8 IR devices are shown connected to the

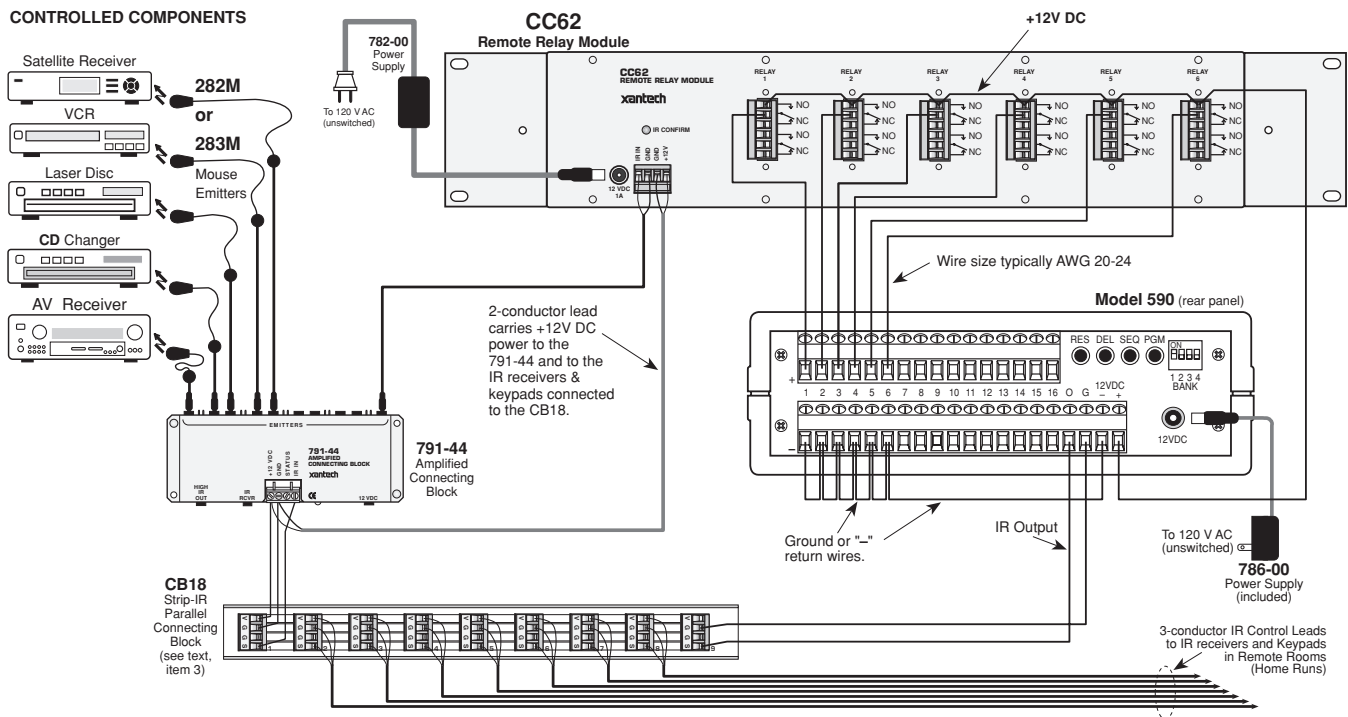


Fig. 5 Using a CC62 to provide switch closures for a 590 Programmable Controller

CB18. If more are needed, you could "double-up" on each connector or use an additional CB18.

• • • **IMPORTANT** • • •

1. **Power Supply Considerations.** Because of the relatively high current required to drive the relays in the CC62, the Xantech Model 782-00 High Current Regulated Power Supply *must* be used. In **Fig. 4**, all of the system IR control devices are also powered from the 782-00 through the CC62. To be sure you have sufficient power supply capability in your particular system, calculate the total current required using the method shown in the 791-44 instructions, then add 300 mA for the CC62. If the total exceeds 1 Amp, use a second supply to power the IR devices **separately** through the 791-44.
2. The devices to be switched are connected to the Model CC62 by the six-terminal plug-in connectors. The actual relays used in a given system are not important (if all six are not used). For instance, devices will work just as well connected to relays 5 and 6 as they would connected to relays 1 and 2.
3. The Model CC62 is intended to be mounted on a flat surface or onto a standard 19-inch rack.