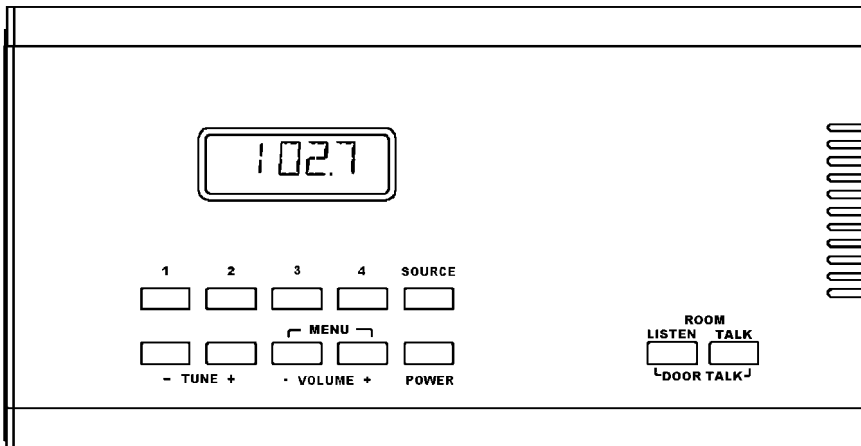

M&S SYSTEMS
Model MC302
Musical Intercom System

Owner's Guide



This booklet contains the information you need to get the most from your musical intercom system. It also tells you what to do if your system develops operating problems, and contains applicable statements of warranty. Keep this booklet for future reference.

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ABOUT YOUR SYSTEM

Congratulations! Your new Model MC302 is a state of the art Music and Intercom Center that provides high quality music and communication throughout your house.

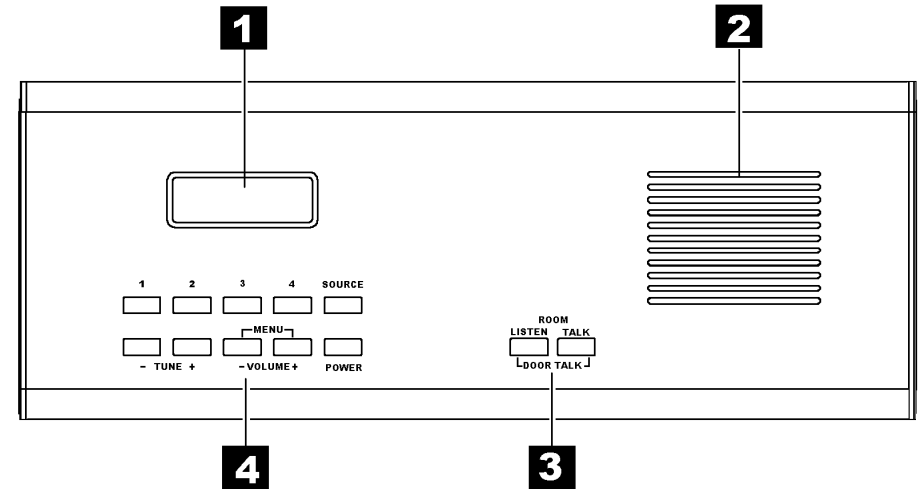
The MC302 is designed to be as user friendly as possible. The remote scan intercom speakers and the optional hand-held remote control, each allow you to turn the music on or off, select music source, change radio presets and adjust the system wide music volume. You may use up to four optional hand-held remote controls to control the MC302 from any room inside, or even outside your home.

In addition, your new musical intercom also features:

- # backlit display that can be read in any lighting condition
- # digital radio tuner with 8AM and 8FM presets
- # two external audio inputs for use with M&S Systems' built-in cassette tape and/or compact disc players as well as other music sources
- # lightning, static, and surge resistant design

Your MC302 is designed to make your home more functional and enjoyable. Prepare yourself for a more satisfying home living experience.

CONTROLS AND FEATURES



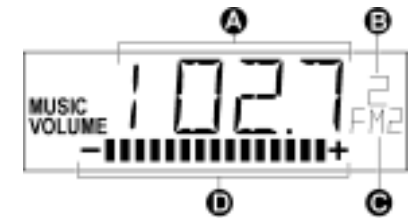
1 DISPLAY Easy to read Liquid Crystal Display with backlight. The display normally shows the radio frequency for AM and FM radio, but the display can also show additional important information.

A Radio station frequency

B Radio station preset

C Radio band indicator

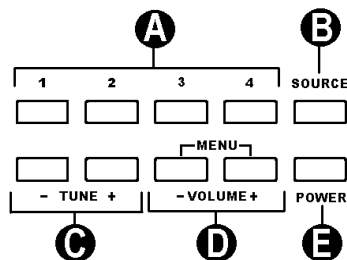
D Bargraph display for the level of volume, bass and treble



2 MASTER SPEAKER This speaker provides music and intercom at the master station.

3 INTERCOM These controls operate the intercom feature of the MC302. These buttons operate whether the power is on or off.

- 4 CONTROLS** These buttons are used to operate the various features of the MC302. Some of these functions are available from the N65RS room speakers, NRC65RS remote controls and wireless remote control.



- A 1, 2, 3, and 4 buttons** - These preset buttons are used to save and recall your most frequently used FM and AM radio stations.
- B SOURCE button** - This button is used to select the audio source (FM 1, FM 2, AM 1, AM 2, AUX or TAPE inputs) which the MC302 will output to the speakers. Each time the SOURCE button is momentarily pressed the audio source changes. The active source is displayed on the LCD display. *Note: If the MCD6 compact disc player is connected to the MC302, the source AUX will be shown as CD.*
- C TUNE +/- buttons** - These buttons are used to scan up/down through the FM or AM radio stations.
- D VOLUME +/- buttons** - These buttons are used to change the volume. (See *ADJUSTING THE SOUND* on page 5.)
- E POWER button** - This button is used to turn the MC302 music ON and OFF.

Note: The intercom is always on.

TUNING RADIO STATIONS

AUTOMATIC TUNING

The TUNE +/- buttons are momentarily pressed to scan radio frequencies, until the next strong station is found. The audio is muted and the displayed frequency changes during this automatic tuning. Once the MC302 locks onto a strong station, it will stop scanning.

MANUAL TUNING

The TUNE +/- buttons are pressed and held, to perform manual tuning of the radio. After about 1 second of holding a TUNE button, the MC302 will go into the manual mode. The displayed frequency changes and the audio plays at each frequency. The frequency continues to change until the TUNE button is released. The manual tuning is used to select a station that is not strong enough to be picked up by the automatic search, or to scan through many frequencies without stopping on each strong station.

NOTE: To change the radio frequency by a single increment, press and hold the TUNE +/- button until the frequency changes, then immediately release.

USING MEMORY PRESETS

Storing radio station frequencies

- 1** Change to the desired radio band (FM1, FM2, AM1 or AM2), using the SOURCE button.
- 2** Tune the radio to the desired station.
- 3** Press and hold a preset button until the preset number is displayed.

Example: Save a radio station in band FM2, preset 3.

- 1** Press the SOURCE button to change to FM2.
- 2** Tune the radio to the desired station.
- 3** Hold the 3 button until a 3 appears as the preset number.

Recalling radio station frequencies

- 1** Change to the desired radio band, using the SOURCE button.
- 2** Momentarily press the desired preset button.

Example: Recall the radio station saved in band AM1, preset 2.

- 1** Press the SOURCE button to change to AM1.
- 2** Momentarily press the 2 button.

ADJUSTING THE SOUND

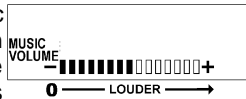
MENU buttons - Pressing both VOLUME buttons together enables the MENU mode. The MENU mode operates differently when the power is off or on. When the power is off, the MENU mode selects either INTERCOM VOLUME, SPEAKER VOLUME or monitor enable functions. Pressing the two VOLUME buttons together, alternately selects between the three modes. The selected function is indicated on the display and it may be adjusted by the VOLUME +/- buttons. When the power is on, the MENU mode steps through the following functions MUSIC VOLUME, SPEAKER VOLUME, BASS, TREB (Treble), LOUD (Loudness) and then back to MUSIC VOLUME. Again, the selected function is indicated on the display and it may be adjusted by the VOLUME +/- buttons.

SPEAKER VOLUME Sets the level of the master unit speaker.

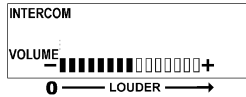
NOTE: Each room has its own volume control which can be used to turn down the audio level for that room.



MUSIC VOLUME Sets the system level for the music audio. Either a Remote Scan speaker or a hand-held remote control may also change this volume.



INTERCOM VOLUME Sets the volume level for communications. The intercom volume is adjusted independent of the music volume and generally does not require change from the initial setting.



NOTE: The music must be OFF before the INTERCOM VOLUME can be adjusted.

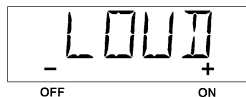
The MONITOR function enables or disables the room monitor feature. This feature is turned either on, indicated by the '+', or off, indicated by the '-'.



BASS and TREB are two tone control settings. These settings are used to either boost or cut the appropriate frequencies to optimize the music quality. The bar graph indicates a cut by starting in the middle and displaying segments to the left, and indicates a boost by displaying segments to the right.



The LOUD (loudness) function is turned either on, indicated by the '+', or off, indicated by the '-'. This function boosts the bass response at low volume levels.



NOTE: For best performance, the individual speaker volume controls should be turned to maximum volume (fully clockwise) and then the VOLUME UP/DOWN buttons adjusted for the proper listening volume (this is really setting the maximum listening volume). The individual speaker volume control can then be adjusted in rooms that require less volume.

IMPORTANT: Do not set the "system volume" to a high number and then adjust all individual speaker volume controls down to low levels. This is very inefficient and may add distortion to the system.

OPTIONAL HAND-HELD RF REMOTE CONTROL

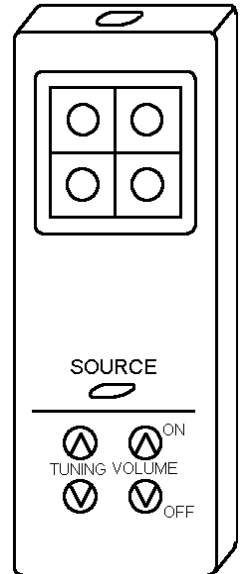
PROGRAMMING - Upon initial power up of the MC302, the unit must be programmed or taught the unique code that is present in the REMOTE CONTROL TRANSMITTER.

STEP 1 The MC302 must be put into its test mode by momentarily pressing the VOLUME + and SOURCE buttons at the same time. The display on the MC302 should show TEST.

STEP 2 Now press the TUNING UP button on the REMOTE CONTROL TRANSMITTER until the display flashes SAVE twice. The MC302 has now learned the TRANSMITTER.

STEP 3 If more than one transmitter is to be used with the system, press a different button for each TRANSMITTER to be programmed.

STEP 4 The test mode is exited by momentarily pressing the VOLUME + and POWER buttons at the same time.



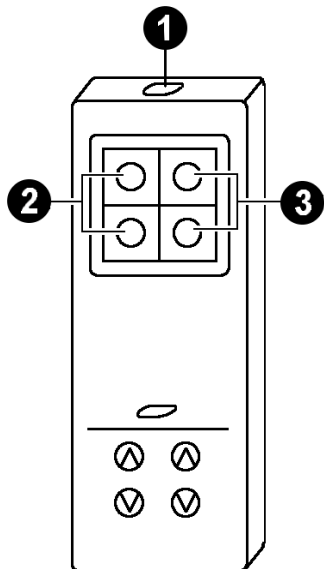
Hand Held RF Remote Control

OPERATION - Your HAND HELD REMOTE CONTROL is an RF (radio frequency) device. This means that it will work anywhere in or around your house (you do not have to be in the same room as the master). The system also has a unique code in the transmitter that is learned by the MC302, virtually ensuring that no one else can interfere with your system and you will not interfere with anyone else.

1 SOURCE button - This button is used to select the audio source (FM, AM, AUX or TAPE inputs) which the MC302 will output to the Music Speakers. Each time the SOURCE button is momentarily pressed, the audio source changes. The sequence is FM, AM, AUX, TAPE, and back to FM.

2 TUNING UP/DOWN buttons - To go to the next preset station, simply press the UP button momentarily. The MC302 will tune in the next station from the last station tuned.

Note: When the MC302 is installed with the MCD6 6-disc CD player, the UP/DOWN buttons will change the track selection. This track function operates when CD is selected as the source.



Hand Held RF Remote Control

VOLUME UP[ON]/DOWN[OFF] button - These buttons are used to change the system music volume. Pressing the VOLUME DOWN button reduces the volume. The MC302 will turn off when the volume reaches zero. Pressing the VOLUME UP button turns the MC302 ON if it is OFF.

ROOM STATION FEATURES

A Speaker - This speaker provides music and intercom output. This speaker also serves as the intercom microphone.

B VOLUME knob - This control is used to adjust the output level of both the intercom and music. *Note: It is recommended to keep this control set at maximum (clockwise) for optimum performance.*

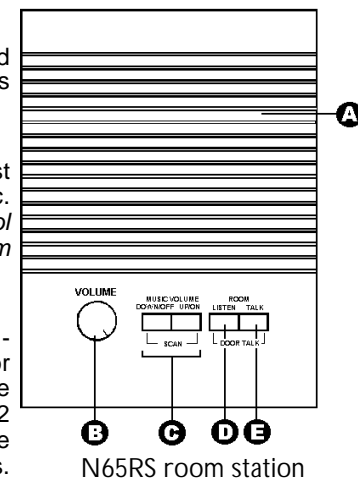
C UP/ON - DOWN/OFF buttons (N65RS only) - These buttons are used to increase or decrease the system music volume. These buttons can also be used to turn the MC302 ON and OFF. These buttons also provide radio preset tuning and source select functions. Momentarily pressing both the MUSIC VOLUME UP and DOWN buttons at the same time will perform a scan function which will step through the radio presets. Once all presets have been scanned, the radio station band and/or music source will change.

Note: When the MC302 is installed with the MCD6 6-disc player, the scan function will change the track selection. This track function operates when CD is selected as the source.

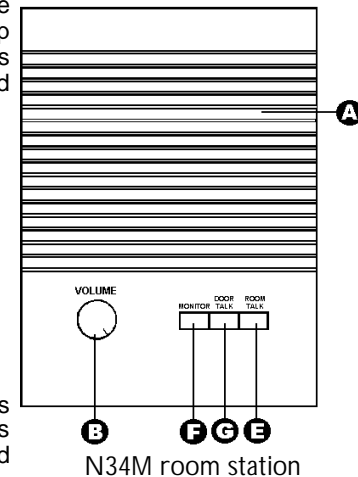
D ROOM LISTEN button (N65/N65RS) - This button is used for listening to the other rooms and the master. To listen to other rooms and the master hold the ROOM LISTEN button in. Release the ROOM LISTEN button when you are finished listening. **NOTE:** This feature is not available at the N34M station.

E ROOM TALK button - This button is used for talking to the other rooms and to the master. To talk to other rooms and the master hold the ROOM TALK button in while talking in the direction of the speaker. Release the ROOM TALK button when you are finished talking.

F MONITOR button (N34M only) - This button when pressed allows the room station to be used as a monitor input. This feature allows for easy continuous monitoring of an infant or those requiring special care.



N65RS room station



N34M room station

G DOOR TALK button - This button is used for talking to visitors at the door. Release this button to listen to the door. To end the door communication, momentarily press the ROOM TALK or wait approximately 25 seconds.

OPERATING THE INTERCOM

Calling other rooms

To talk to someone in another room, hold in the ROOM TALK button. Release the ROOM TALK button when you are finished talking.

Listening to other rooms

To listen to other rooms, hold in the ROOM LISTEN button. Release the ROOM LISTEN button when you are finished listening.

Hands free communication

To get the maximum benefit from this Hands Free system, make it a house rule that whoever initiates a call will always follow up by pressing the ROOM LISTEN button. This allows someone to respond to the call without getting up or stopping their current activities.

Communicating with the door

To talk to someone at the door speaker(s) hold the ROOM LISTEN and ROOM TALK buttons or DOOR TALK on the N34M. Release the ROOM LISTEN and ROOM TALK buttons when you are finished talking. The MC302 will automatically listen to the person at the door for approximately 25 seconds. The 25 second listening time can be canceled by momentarily pressing either the ROOM LISTEN or the ROOM TALK button by itself.

Monitoring rooms

The monitor function is only available with N34M stations. To monitor a room, press in the locking MONITOR button. Monitor must be enabled at the MC302 master, see page 5. Rooms in monitor mode cannot hear any communications from other rooms.

TROUBLESHOOTING TIPS

PROBLEM	WHAT TO CHECK
System squeals when TALK or LISTEN buttons are pressed	Make sure room station volume controls are set to maximum and reduce intercom volume at the MC302 master unit.
Cannot MONITOR rooms	This feature is only available on the N34M station. Make sure the MONITOR button is pushed in. The monitor function must be enabled at the MC302 master.
Static noise is heard while listening to music	Disable the monitor function at the MC302 master. (see page 5)
Door chime volume at the master is too high or too low	Adjust the volume setting on the chime unit behind the MC302 master.
Door chime is heard only at the master	Turn the room stations up (clockwise)
Wireless remote control no longer operates the system.	Dead batteries in transmitter - Replace with two CR2032 or equivalent batteries.

For technical troubleshooting support, contact your installer or visit our web site at www.mssystem.com

M&S Systems
2861 Congressman Lane
Dallas, TX 75220

WARRANTY INFORMATION

M&S Systems Limited 2-Year No-Fault Product Warranty

M&S Systems warrants for 2 years all products to be free of defects (M&S Systems honors the 10-Year No-Fault warranty for AirVac Gold power units. See section below). The warranty period begins from either (1) the date of "first user" purchase of this product or (2) the first close of escrow date on a residence in which this new product was originally installed. This warranty extends to the original user of the product and to each subsequent owner of the product during the term of this warranty. M&S Systems will repair or replace, at its option, parts and materials at no charge. Parts supplied under this warranty may be new or rebuilt at the option of M&S Systems.

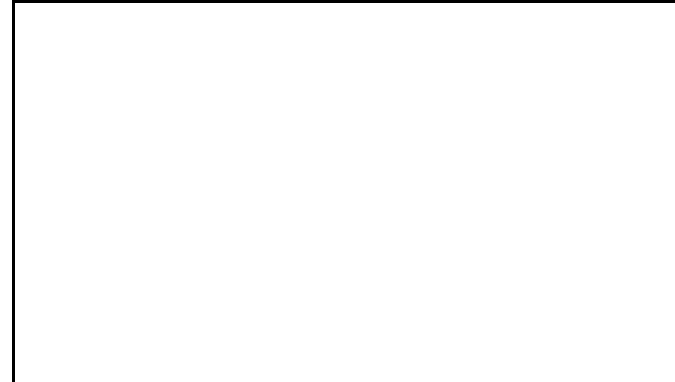
If, during the limited warranty period, it appears as though this product contains a defect which is covered by this limited warranty, call our toll free service number before dismantling the product (1-800-877-6631). Remember to attain a Return Authorization Number (RAN) before returning any product to M&S Systems. Send this product freight pre-paid and insured to our service center for warranty repair. You will be advised on shipping instructions when you call the toll free service number. M&S Systems will return the repaired product freight pre-paid within the U.S.A. The installing dealer or distributor may assist you, at your choice and expense, with returning product for repair. Please include a brief description of the problem and a dated proof-of-purchase receipt with any product that is returned for warranty repair. **ANY PRODUCT RETURNED WITHOUT A RETURN AUTHORIZATION NUMBER WILL BE REFUSED.**

This limited warranty is in lieu of any other warranties, express or implied, including any implied warranty of merchantability or fitness for a particular purpose or otherwise, and of any other obligations or liability on the seller's part. This limited warranty does not cover damage caused by improper installation, the violation of applicable building or electrical codes or the use of non-M&S/non-AirVac wire (excluding structured wire packages), cable (excluding structured wire packages) or wall housings. This limited warranty applies only to products installed in a private residence.

Under no circumstances shall the seller be liable for consequential, incidental or special damages arising in connection with use, or inability to use this product. In no event shall seller's liability, for breach of warranty, breach of contract, negligence, or strict liability, exceed the cost of the product covered hereby. No person is authorized to assume for us any other liability in connection with the sale of this product.

Some states do not allow the exclusion or limitation of consequential, incidental or special damages, so the above limitation or exclusion may not apply to you. This limited warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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