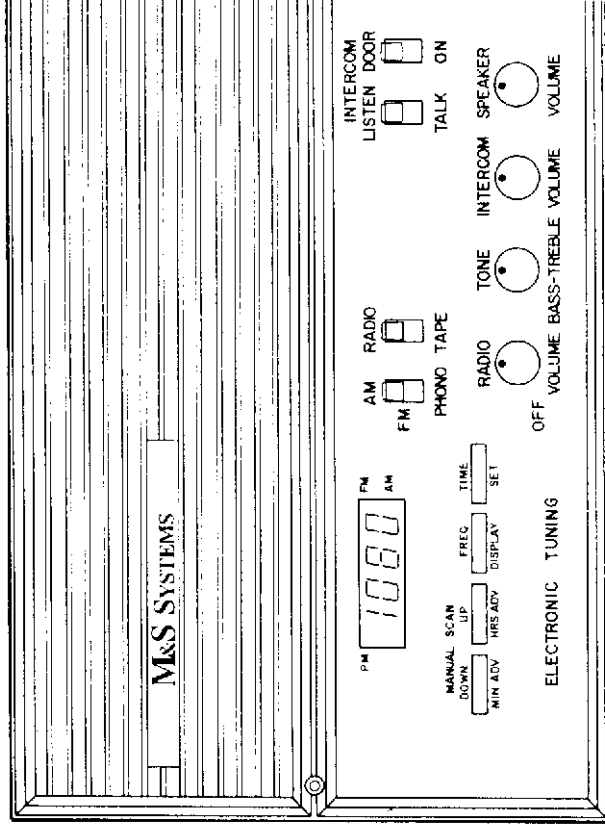


M&S Systems

Model MC300
Master Unit

Owner's Guide



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M&S

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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. Retain this booklet for future reference.

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About Your M&S Systems Model MC300 Musical Intercom System

The M&S Model MC300 Master Unit (Figure 1) is part of a complete home musical intercom system designed and built by M&S Systems, Inc. From a central location, the Master Unit may be linked to remote units in other rooms of your home. It may also be linked to outdoor units at your front door, patio, or garage.

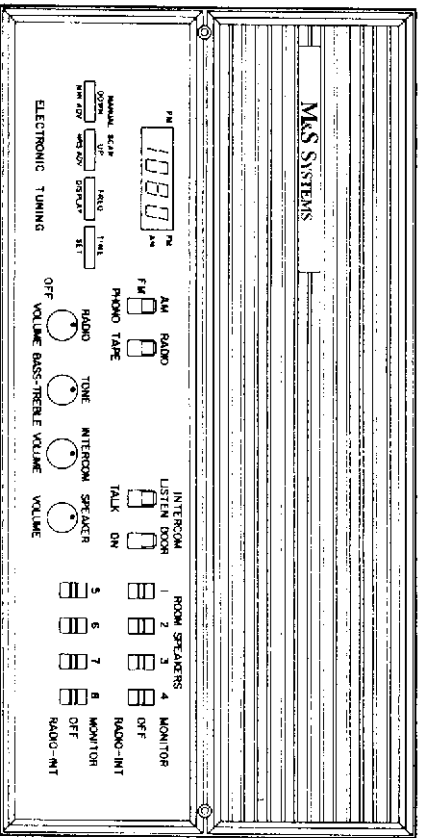


Figure 1. MC 3000 Master Unit

Although the remote units may contain a volume control and a few function switches, the Master Unit is the "brain" of your entire system. It contains the AM/FM radio and the intercom central console. From the Master Unit, you can select the operating mode of each remote unit, set the overall volume level for the system, and access all remote units for voice communications or for use as a radio speaker.

Your Master Unit is designed as both a communication and an entertainment center. And, like all M&S Systems products, the Model MC300 Master Unit is designed to make your home more functional and enjoyable. So prepare yourself for a more satisfying home living experience.

LIFETIME LIMITED WARRANTY PRODUCTS

Central Vacuum Power Units, Musical Intercom Master Units, Compact Disc Player, Cassette Tape Player, and Built-In 2-way 8-ohm Flush Mount Speakers

M&S Systems, Inc., warrants to the original homeowner for as long as he owns his home, its products to be free from factory-cause defects of material and workmanship. M&S Systems, Inc., will repair or replace, at its option, parts and/or materials at no charge should they, upon examination, be determined to be defective.

M&S Systems, Inc., reserves unto itself the sole right to make the final decision whether there is a defect in materials or workmanship and whether or not the product qualifies for the warranty.

M&S Systems, Inc., will not be responsible for any service call charges arising from the installation or repair company to the homeowner.

Defective product must be returned to the installing dealer or distributor by the homeowner. Transportation/freight charges on products submitted for replacement or repair are the customer's responsibility.

ONE YEAR LIMITED WARRANTY PRODUCTS

Vacuum accessories, Video Door intercoms, Musical Intercom Accessories, Speakers, Ironing Centers, Wall Safes, System 2000 Intercoms.

WARRANTY EXCLUSIONS

M&S Systems, Inc.'s Limited Warranty does not apply to product damage or failure caused by acts of God, misuse, abnormal usage, normal wear, faulty installation, improper maintenance, or any repairs other than repairs made by an authorized M&S repair center. This Limited Warranty will not apply to any M&S Systems, Inc. product which has been used in violation of any electrical code or Vacuum Power Units, Musical Intercom Master Units, or Speakers Installed with NON-M&S Systems' brand wire or wall housings.

These warranties are for the sole and exclusive use of products in a residential installation. The Limited Warranty covers only the liability described alone, and does not include liability for incidental or consequential damages.

IMPORTANT: All M&S Wire and Cable Products are U.L. Approved

Master Unit Controls, Indicators, and Features

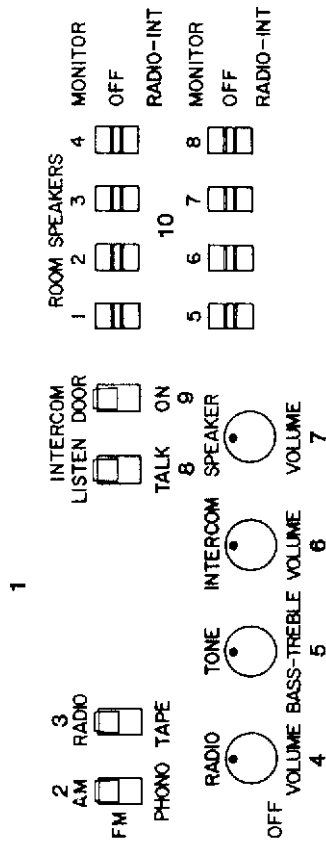
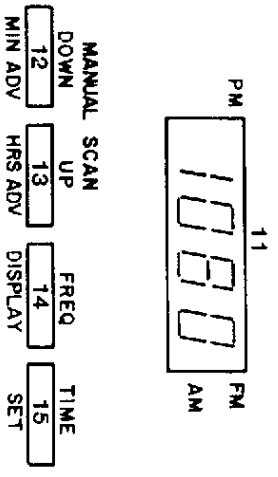


Figure 2. Master Unit Controls, Indicators, and Features

- 1 Combination Speaker/Microphone
Provides speaker for both radio and intercom. Provides microphone for intercom.
- 2 AM/FM Phono switch
Sets to any of three positions to select audio operating mode:
AM Radio operates on AM frequencies only.
FM Radio operates on FM frequencies only.
PHONO Radio is muted to allow audio input from phonograph.

- 3** Radio/Tape switch
Sets to either of two positions to select audio operating mode:
RADIO Receives input from AM/FM radio or from phonograph.
TAPE Allows audio input from tape player.
- 4** Radio Power/Volume knob
Turns Master Unit on, adjusts radio volume for entire system, and turns Master Unit off.
- 5** Tone knob
Adjusts radio bass/treble.
- 6** Intercom Volume knob
Adjusts overall volume of entire entertainment system.
- 7** Speaker Volume knob
Adjusts radio/intercom volume of Master Unit only.
- 8** Listen-Talk switch
Switch is spring-loaded to LISTEN position. Must be pressed and held to TALK position to speak over intercom, and released to listen.



ELECTRONIC TUNING

Figure 3. Master Unit Controls, Indicators, and Features

How to Correct Master Unit Operating Problems

Problem	What To Check For
No AM or FM reception	1. AM/FM Phono switch 2 not in correct position. 2. Radio/Tape switch 3 not in correct position. 3. Radio Power/Volume knob 4 not in correct position.
Display flashing	Momentary loss of electrical power. (Check and reprogram clock and radio frequencies.)
Feedback or squeal	Intercom Volume knob 6 on Master Unit adjusted too high.
Weak or no intercom	1. Intercom Volume knob 6 on Master Unit not adjusted correctly. 2. Room Speaker Station switches 10 not in correct position (RADIO-INT or MONITOR). 3. Volume Control knob 17 on room unit not adjusted correctly.

From the Master Unit

- Step 1 To talk to the door unit, press and hold the Door-On switch **9** and press and hold the Listen-Talk switch **8**.
- Step 2 To listen to the door unit, press and hold the Door-On switch **9** and release the Listen-Talk switch **8**.

Note: The Door-On switch **9** mutes the radio when pressed.

From Room Units

Note: To communicate with the door unit from the room units, the Room Speaker Station switches **10** on the Master Unit must be in the RADIO-INT position.

- Step 1 To talk to the door unit, press and hold the Door-On switch **18** and press and hold the Listen-Talk switch **19**.
- Step 2 To listen to the door unit, press and hold the Door-On switch **18** and release the Listen-Talk switch **19**.
- Note:** The Door-On switch **18** mutes the radio when pressed.

How to Use the Optional Door Chime Function

Your Model MC300 Master Unit may be equipped with either a three-note or an eight-note chime. This optional chime rings through the Master Unit or any room unit and mutes the radio when the doorbell button is pressed. At least one speaker (Master Unit or room unit) must be ON for the Door Chime to function. Volume for the three-note or eight-note chime is controlled with the Speaker Volume knob **7** on the Master Unit and with the Volume Control knob **17** on the room units.

9	Door-On switch	Mutes radio and allows intercommunication with door unit. Switch is spring-loaded to DOOR OFF position. Must be pressed and held to ON position (for both LISTEN and TALK) to use door intercom.
10	Room Speaker Station switches	Eight switches set to any of three positions to select the operating mode of corresponding room units: MONITOR For monitoring rooms from Master Unit and rooms whose units are set in RADIO-INT position. OFF Room unit is turned off. RADIO-INT Normal Intercom and radio reception.
11	Digital Time/Frequency display	Displays time (except when selecting radio frequency), radio frequencies, and P.M.
12	Manual Scan Down/Minute Advance button	Pressed to manually select: • Radio AM or FM operating frequency (when Digital Time/Frequency display 11 shows radio frequency). • Clock minute setting (when Master Unit is in Time mode).

Momentarily pressing this button causes the numbers displayed to change one increment at a time. Pressing and holding the button causes the numbers displayed to change rapidly. When you press this button to scan radio frequencies, the numbers increment down (that is, toward lower numbers).

13 Manual Scan Up/Hours Advance button

Pressed to manually select:

- Radio AM or FM operating frequency (when Digital Time/Frequency display **11** shows radio frequency).
- Clock hour setting (when Master Unit in Time mode).

Momentarily pressing this button causes the numbers displayed to change one increment at a time. Pressing and holding the button causes the numbers displayed to change rapidly. When you press this button to scan radio frequencies, the numbers increment up (that is, toward higher numbers).

14 Frequency Display button

Pressed to display selected AM or FM frequency on Digital Time/Frequency display **11**.

15 Time Set button

Pressed to place Master Unit in Time mode for using Minute Advance button **12** or Hours Advance button **13** to set time.

Communicating with Room Units

Note: To communicate with the room units, the Room Speaker Station switches **10** must be in the RADIO-INT position.

- Step 1 To talk to room units from the Master Unit, press and hold the Listen-Talk switch **8**.
- Step 2 To listen to the room units from the Master Unit, release the Listen-Talk switch **8**.
- Step 3 To talk to the Master Unit from the room unit, press and hold the Listen-Talk switch **19**.
- Step 4 To listen to the Master Unit from the room unit, release the Listen-Talk switch **19**.

Note: The radio mutes during communication.

Monitoring Room Units

A unique feature of the Model MC300 is its ability to monitor room units. This feature is especially helpful when children or a sick person is involved. To monitor any or all room units, set the Room Speaker Station switches **10** to the MONITOR position. Volume is controlled with the Intercom Volume knob **6**.

Communicating with the Door Unit

Communication with the door unit is possible from the Master Unit or the room units. This feature allows you to screen visitors from the safety of your home.

18 Door-On switch

The switch must be pressed and held for communication between the door unit and the room unit. Switch is spring-loaded to DOOR OFF position.

19 Listen-Talk switch

Press the switch to talk and release it to listen. Switch is spring-loaded to LISTEN position.

Step 1 Rotate the Intercom Level knob **6** on the Master Unit to a level that allows voice communication between the Master Unit and the room units.

Here's a Tip: Set the Intercom Volume knob **6** between the 12 o'clock and 1 o'clock positions. This setting should help eliminate "feedback" or "squeal." Once the desired setting is made, no further adjustment is necessary.

Step 2 Adjust the volume of the room units by turning the Volume Control knob **17** to the desired setting.

Step 3 Adjust the Master Unit volume by turning the Speaker Volume knob **7** to the desired setting.

Here's a Tip: Set the Speaker Volume knob **7** between the 3 o'clock and maximum positions. This setting should provide audio reception with the greatest clarity.

Operating the Model MC300 Master Unit

Your Master Unit operates with two standard functions and one optional function:

- Clock radio
- Intercom
- Door chime (optional).

This section explains how to use these functions.

How to Use the Clock Radio Function

The clock radio in your Master Unit receives both AM and FM stations.

Setting the Clock Time

Step 1 Press and hold the Time Set button **15**.

Step 2 Press and hold the Hours Advance button **13** until the desired hour is displayed; then release the button.

Note: Be sure to observe the PM indicator when setting the clock time.

Step 3 Press and hold the Minute Advance button **12** until the desired minute is displayed; then release both this button and the Time Set button **15**.

Turning the Radio On and Adjusting Volume

Step 1 To turn the radio on, rotate the Radio Power/Volume knob **4** clockwise. When you feel a "click," the radio is on. Rotating the knob counterclockwise to the OFF position turns the radio off.

Step 2 To select the Radio mode, position the Radio/Tape switch **3** to the RADIO position.

Step 3 To adjust the volume, rotate the Radio Power/Volume knob **4** clockwise. Rotating the knob counterclockwise decreases volume.

Here's a Tip: Setting the Radio/Power Volume knob **4** to maximum volume (fully clockwise) distorts the quality of sound at the room unit speakers. Remember that each room unit also has a volume control. For best sound quality, use a moderate system level setting at the Master Unit and adjust individual room unit volume settings as needed.

Adjusting the Tone (Bass/Treble)

You use a single control, the Tone knob **5** to adjust the tone. Rotating the Tone knob **5** clockwise increases TREBLE and decreases BASS. Rotating the knob counterclockwise increases BASS and decreases TREBLE.

Tuning the Radio

The range of the AM broadcast band is 540 to 1600 Kilohertz (KHz), and the range of the FM broadcast band is 88.1 to 107.9 Megahertz (MHz). All AM frequencies end with a zero (540, 820, 1080, etc.) and all FM frequencies end with a decimal point and an odd number (88.1, 92.5, 100.3, etc.) The Model MC300 has a tuning range beyond the standard AM/FM range. This unit tunes from 530 to 1620 KHz in the AM band and from 87.9 to 107.9 MHz in the FM band.

Step 1 Set the AM/FM Phono switch **2** to the desired broadcast band (AM or FM).

Do not set the AM/FM Phono switch **2** to PHONO unless you wish to mute the radio and receive audio from a phonograph.

Note: Before you can tune the radio, the Digital Time/Frequency display **11** must show a frequency. If the display shows the time, press the Frequency Display button **14**.

Step 2 Press and hold the Manual Scan Down button **12** to scan down rapidly to the desired frequency. (Momentarily pressing the button causes the numbers displayed to change one increment at a time.)

Step 3 Press and hold the Manual Scan Up button **13** to scan up rapidly to the desired frequency. (Momentarily pressing the button causes the numbers displayed to change one increment at a time.)

How to Use the Intercom Function

The 12-speaker, eight-station capacity intercom allows you to communicate with any room, answer the door unit from any room, or monitor one or more speakers from any combination of room speakers. The intercom functions are always ON. The intercom and optional door chimes operate 24 hours a day, even when the radio is turned off.

Setting up the Intercom

Step 1 Turn the Speaker Volume knob **7** to the full clockwise position.

Step 2 Place the Room Speaker Station switches **10** in the desired position (MONITOR, OFF, or RADIO-INT).

Adjusting Intercom Volume

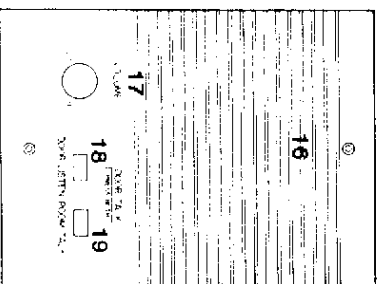


Figure 4. Room Unit

- 16** Combination Speaker/Microphone Provides speaker for both radio and intercom. Provides microphone for intercom.
- 17** Volume Control knob Adjusts the speaker volume.