Rauland

MODEL MLS-3A
"SPECTRUM" SERIES
PROFESSIONAL TWO-WAY SPEAKER SYSTEM

RAULANP-BORG CORPORATION • 3535 West Addison Street, Chicago, Illinois 60618 (312) 267-1300

1. ATTACHMENT

This instruction manual includes the following item:

8 ohm Loudspeaker System Diagram KC-1292

2. SPECIFICATIONS

| | |
|---|---|
| Type of System: | Twa-Way |
| High Frequency: | Rauland US-0165/SR9OF radial horn (90° horizontal dispersion 40° vertical dispersion) |
| High Frequency Driver: | Rauland US-0149/SDF30 compression driver |
| Low-Frequency Speaker | Rauland US-0162 12-inch speaker |
| Crossover Network: | Rauland CN800-8 crossover network |
| Shelving: | Continuously variable, 0 to over -2OdB |
| Frequency Response: | 50-15,000 Hz |
| Axial Sensitivity: | 97dB at 4 feet with 1 watt input |
| Power Handling Capacity: | 50 watts RMS |
| Impedance: | 8 ohm |
| Size: | 23" W, 15-7/16" D, 28-l/8" H |
| Weight: | 84 lbs. |

3. Description

The Rauland Spectrum Series MLS-3A Two-Way Speaker System combines professional components of superior quality in a properly balanced, integrated design, to deliver the fidelity of sound and the coverage demanded in the finest application.

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The MLS-3A System uses a radial horn with a high-frequency compression driver, a 800 Hz crossover network, and a 12 inch low-frequency loudspeaker that is precisely balanced and integrated in a tuned-port enclosure.

The Rauland US-0165 radial horn is of durable cast aluminum construction. It provides closely controlled, smooth 90° horizontal and 40° vertical dispersion characteristics. The Rauland US-0149 driver provides the highest degree of reliability, with remarkable dynamic range and power handling capacity. The Rauland US-0162 12-inch, low-frequency speaker in its tuned-port enclosure is outstanding for its ability to handle in excess of 50 watts RMS with undistorted full-bodied bass response.

The MLS-3A enclosure is ruggedly built of 3/4" high-density particle board and uses fiberglass padding where acoustically required. The enclosure is finished in an easily retouchable charcoal black color and includes a matching charcoal black readily removable cloth grille. The enclosure may be refinished to meet custom installation requirements. The separately supplied MK-6 Mounting Kit permits safe, convenient suspension mounting.

## 4. INSTALLATION

### 4.1 Equipment Damaged In Transit

This equipment has been carefully inspected and tested at the factory prior to shipment. If the equipment was damaged in transit, notify the transportation company immediately to place your claim.

### 4.2 Mounting

The speaker system may be placed in an alcove or similar inconspicious location, or may be suspended from a ceiling or structural supporting beam. Suspended mounting should be made using the optional (separately supplied) MK-6 speaker Mounting Kit. Installation instructions are provided with the speaker mounting kit.

### 4.3 Wiring and Connections

Use two-conductor, twisted-pair wire to interconnect the speaker system to the audio amplifier output. Wire size and maximum wire length is shown in TABLE 1. Use spade lugs to terminate the wire at each end for connection to the available screw terminals.

TABLE 1. Wire Sizes and Maximum Lengths

| AWG SIZE | *MAXIMUM LENGHT (FEET) | AWG SIZE | "MAXIMUM LENGHT (FEET) |
|---|---|---|---|
| 12 | 206 | 18 | 50 |
| 14 | 130 | 20 | 30 |
| 16 | 80 | | |

*Lenght at which power loss approaches 0.4 dB.

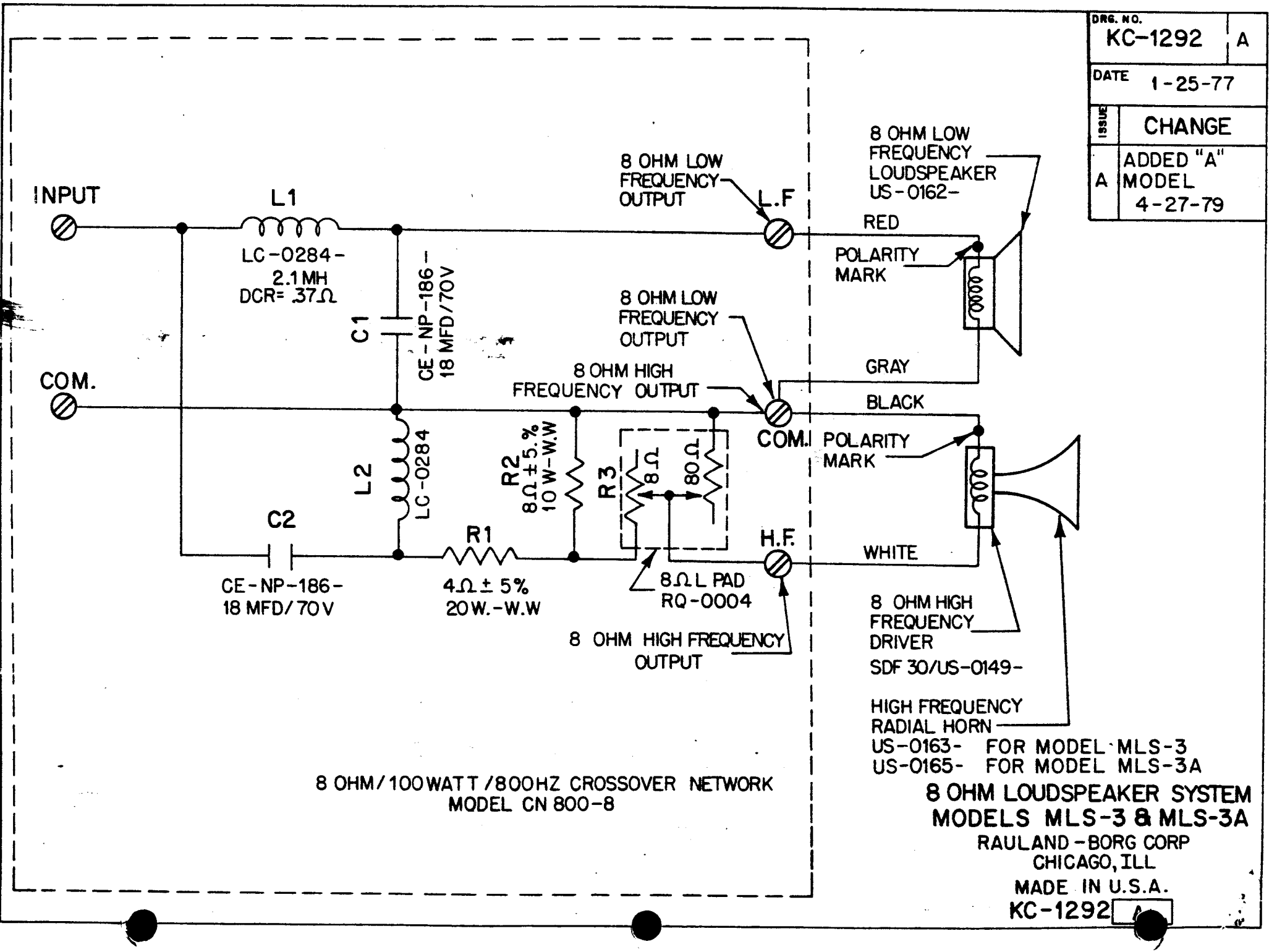
4.4 Setting High Frequency Attenuation

Use the HIGH FREQUENCY ATTENUATION control to obtain the' proper balancing (shelving) of the high-frequency horn with respect to the fixed shelving of the low-frequency speaker. When properly balanced, the high and low-frequency response will be the same: neither frequency range being accentuated or attenuated. This adjustment is most effectively made using a equalizer; which is built-into several different Rauland amplifier models, or may be purchased separately. Best sound balancing is obtained when the sound pressure level, measured at a fixed reference point, is the same below and above the 800 Hz crossover frequency. This is readily determined using one octave of pink noise centered near 400 Hz and another octave of pink noise centered near 1600 Hz.

5. RAULAND-BORG SERVICE

The entire Rauland-Borg organization is interested in the proper maintenance of your equipment for as long as you own it. Our national network of authorized Rauland-Borg Distributors is at the service of all purchasers of our products. Should you have a problem with your equipment, or require any advice or assistance, get in touch with your local Rauland-Borg Distributor.

If you are not able to locate a local Rauland-Borg Distributor, the information or action you want can be obtained by writing to our Sales Engineering Department.


DRG. NO. KC-1292 A
DATE 1-25-77
ISSUE CHANGE
A ADDED "A" MODEL 4-27-79
INPUT
L1
LC-0284-
2.1 MH
DCR= .37Ω
C1
CE-NP-186-
18 MFD/70V
8 OHM LOW FREQUENCY OUTPUT
L.F
8 OHM LOW FREQUENCY LOUDSPEAKER US-0162-
RED
POLARITY MARK
GRAY
COM.
8 OHM HIGH FREQUENCY OUTPUT
BLACK
COM.
POLARITY MARK
L2
LC-0284
R2
8Ω ±5%
10 W-W.W
R3
8Ω
80Ω
C2
CE-NP-186-
18 MFD/70V
R1
4Ω ± 5%
20W.-W.W
8Ω L PAD
RQ-0004
H.F.
WHITE
8 OHM HIGH FREQUENCY OUTPUT
8 OHM HIGH FREQUENCY DRIVER
SDF 30/US-0149-
HIGH FREQUENCY RADIAL HORN
US-0163- FOR MODEL MLS-3
US-0165- FOR MODEL MLS-3A
8 OHM/100WATT/800HZ CROSSOVER NETWORK
MODEL CN 800-8
8 OHM LOUDSPEAKER SYSTEM
MODELS MLS-3 & MLS-3A
RAULAND-BORG CORP
CHICAGO, ILL
MADE IN U.S.A.
KC-1292 A