### Recommended Effective Operating Distances

**Reference: 96 dB**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Feet</th>
<th>Meters</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>R SERIES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R15COAX</td>
<td>2-way, Coaxial; LF: 1 x 6&quot;, HF: 1 x 1&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R35COAX*</td>
<td>2-way, Coaxial; LF: 1 x 10&quot;, HF: 1 x 1.25&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R25-94Z</td>
<td>2-way; LF: 1 x 8&quot;, HF: 1 x 1&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R35-3896*</td>
<td>3-way; LF: 1 x 8&quot;, MF: 2 x 2.35&quot;, HF: 1 x 1&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R5COAX66/99**</td>
<td>2-way, LF: 1 x 12&quot;, HF: 1 x 1&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R5-66/94/992**</td>
<td>2-way, LF: 1 x 12&quot;, HF: 1 x 1&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R1-64,66,94**</td>
<td>2-way, LF: 1 x 12&quot;, HF: 1 x 1&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R5HP</td>
<td>3-way; LF: 1 x 12&quot;, MF: 1 x 2&quot;, HF: 1 x 1&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R5-66/96MAX</td>
<td>2-way; LF: 1 x 12&quot;, HF: 1 x 1.4&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R2-64/66/94MAX</td>
<td>3-way; LF: 2 x 12&quot;, MF: 1 x 2&quot;, HF: 1 x 1.4&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R2-52Z</td>
<td>3-way; LF: 2 x 12&quot;, MF: 2 x 2&quot;, HF: 1 x 1&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R2-52MAX</td>
<td>3-way; LF: 2 x 12&quot;, MF: 2 x 2&quot;, HF: 1 x 1&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R2-77/94/694/474**</td>
<td>3-way; LF: 2 x 12&quot;, MF: 1 x 2&quot;, HF: 1 x 1&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R6-51BIAMP</td>
<td>3-way; LF: 6 x 12&quot;, MF: 6 x 2&quot;, HF: 6 x 1&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SUBS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R5SUB</td>
<td>1-way; LF: 1 x 12&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R2SUBDF</td>
<td>1-way; LF: 2 x 12&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R6-BASSHORN</td>
<td>1-way; LF: 6 x 12&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>VOICE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RMG-200A</td>
<td>1-way; MF: 1 x 2&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R5-V2200</td>
<td>1-way; MF: 2 x 2&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RSH-462</td>
<td>1-way; MF: 4 x 2&quot;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

96 dB SPL with no atmospheric effects

*Voicing switch in Music position

**Average Max SPL considered or Max SPL of the lowest output device
Contents

Football
Football Field 'Press Box' ........................................................Page 4
Football Field 'Lighting Poles' ..................................................Page 5
Football Field 'Scoreboard' ......................................................Page 6

Baseball
Baseball Field 'Press Box' .......................................................Page 7
Baseball Field 'Lighting Poles' .................................................Page 8

Soccer
Soccer Field 'Pole Mount - Sideline Coverage' .................Page 9
Soccer Field 'Pole Mount - Sideline and Field' ..............Page 10
Soccer Field 'Scoreboard' .......................................................Page 11

Basketball
Basketball Court 'General Coverage' ...............................Page 12
Basketball Court 'Enhanced Court Coverage' ...............Page 13

Product Specifications ........................................................................................................................Page 14
Technical Considerations ......................................................................................................................Page 15
Football Field 'Press Box'

Installation Description:
The loudspeakers are mounted on the roof of a one-story press box. The bleachers are assumed to be 20 feet tall at the back row. An array of two to four loudspeakers to address the home seating, plus an R2-52Z or R2-52MAX in the center to provide crossfield coverage.

Option A:
One (1) R2-52MAX (visitor coverage)
Three (3) R.5-96MAX (home coverage)
High SPL and best musicality. Addresses larger bleacher areas while projecting uniformly over farther distances.

Option B:
One (1) R2-52Z (visitor coverage)
Two (2) R.5-94Z (home coverage)
Moderate SPL for use in venues with shorter bleachers (i.e., the length of the bleachers does not exceed the 30-30 yard line).

Option C:
One (1) R2-52Z (visitor coverage)
Two (2) R2-94Z (home coverage)
Two (2) R.5-94Z (center of home)
Very articulate three-way performance and enhanced LF to the home seating section, while providing more even coverage to wide sections of the home stands.
Installation Description:
The loudspeakers are pole mounted at least 25 feet above the back row. The bleachers are assumed to be 20 feet tall. Because the loudspeakers are mounted at a higher point, this system provides more even home seating coverage than the Football Field ‘Press Box’ design. A single R2-52Z or R2-52MAX provides crossfield coverage. Additional matching compact loudspeakers on the press box (Extra Coverage- red triangles) will help reduce artificial echoes. This can be added to either Option A or B.

Option A:
One (1) R2-52MAX (visitor coverage)
Two (2) R.5-96MAX (home coverage)
Higher SPL and enhanced musicality for venues where the light poles are up to 240 feet apart.

Option B:
One (1) R2-52Z (visitor coverage)
Two (2) R.5-94Z (home coverage)
Moderate SPL for use in venues with shorter bleachers and light poles up to 180 feet apart.

Extra Coverage:
Three or Four (3-4) R.35-3596 (additional home stands coverage)
Additional signal-delayed coverage of the home stands helps reduce artificial echoes.
Installation Description:
R2-52Z or R2-52MAX loudspeakers are mounted to the scoreboard 25 feet above the ground. The bleachers are assumed to be 20 feet tall at the back row. Atmospheric effects such as wind, diffraction, and excess high frequency attenuation are more likely to be noticed in this design.
If the length of the home or visitor bleachers exceeds the 20-20 yard line, additional R2-52Z loudspeakers should strongly be considered for one or both sides.

Option A:
Two (2) R2-52MAX
Best coverage for shorter bleacher sections from a scoreboard location.

Option B:
Two (2) R2-52Z
Good coverage for shorter bleacher sections from a scoreboard location.

Option C:
Three (3) or Four (4) R2-52Z
The additional R2-52Z loudspeaker(s) provides enhanced SPL at long distances or covers longer bleachers.
**Baseball Field 'Press Box'**

**Installation Description:**
Three (3) loudspeakers mounted on the top of an 18-foot tall press box.

**Option A:**
**Three (3) R.25-94Z**  
Good SPL to the infield and the seating, with good speech articulation.

**Option B:**
**Three (3) R.5-94Z**  
Enhanced SPL and pattern control with better bass extension. Coverage extends up to 160 feet.

**Option C:**
**Three (3) R.5-96MAX**  
All of the benefits of Options A and B with greater musicality, higher SPL and the ability to address the entire field.
Baseball Field 'Lighting Poles'

Installation Description:
Three (3) loudspeakers pole mounted at a height of 30 feet, and up to 90 feet away from the press box. Additional matching compact loudspeakers on the press box (not shown) will help reduce artificial echoes.

**Option A:**
Three (3) R.35-3896
Good SPL to the infield and the seating, with good speech articulation.

**Option B:**
Three (3) R.5-94Z
Enhanced SPL and pattern control with better bass extension.

**Option C:**
Three (3) R.5-96MAX
All of the benefits of Options A and B with greater musicality and higher SPL.
Soccer Field 'Pole Mount - Sideline Coverage'

**Installation Description:**
The loudspeakers are pole mounted 50 feet above the ground on light poles about 180 feet apart. Each loudspeaker aims down sharply to focus on an individual zone, minimizing coverage overlap. Seating may be on the ground or small bleachers.

Alternative Coverage (*two to three* (2-3) loudspeakers - *not shown*): If mounting heights must be low and not aimed as sharply down, use only one (1) signal-delayed loudspeaker on "Pole B" aimed away from "Pole A". Or, use a larger model on "Pole A" to address the full "Pole B" zone (no loudspeakers on "Pole B").

**Option A:**
Four (4) R.25-94Z
Good voice articulation and good musicality.

**Option B:**
Four (4) R.35-3896
Great musicality and excellent voice articulation.

**Option C:**
Four (4) R.5-66Z
Very good musicality, enhanced low frequency extension and excellent voice articulation.
**Installation Description:**

The loudspeakers are pole mounted at least 30 feet above the ground on light poles about 180 feet apart. Seating may be on the ground between the poles or on small bleachers. Higher mounting points are preferred to minimize the effects of artificial echoes, ensuring good intelligibility.

Another option is using only one loudspeaker array position to cover the sideline area (as explained on page 9) to consolidate the loudspeakers on one pole.

**Option A:**
- Two (2) R.35-3896 *(sideline coverage)*
- Two (2) R.35-3896 *(field coverage)*

Great musicality and excellent voice articulation for the seating area and the middle of the field.

**Option B:**
- Two (2) R.5-66Z *(sideline coverage)*
- Two (2) R.5-94Z *(field coverage)*

Very good musicality, enhanced low frequency extension and excellent voice articulation for the seating area and the middle of the field.
**Soccer Field 'Scoreboard'**

**Installation Description:**
Single or dual R2-52Z or R2-52MAX loudspeakers are mounted on the scoreboard to cover the middle of the field and the far sideline.

**Option A:**
One (1) R2-52Z *(single cross-field red arrow; light green color coverage)*
Great coverage for the viewing side and great speech intelligibility. Careful consideration should be given to the amplifier-loudspeaker wire gauge.

**Option B:**
Two (2) R2-52Z *(two yellow arrows from the scoreboard to opposite corners of the field)*
Expanded coverage providing a wider listening area along the entire sideline.

**Upgrade Option:**
One (1) R2-52MAX or Two (2) R2-52MAX
Substitute R2-52MAX models in either Option A or B to enhance musicality and intelligibility.
**Basketball Court 'General Coverage'**

**Installation Description:**
A typical 120-foot by 100-foot gymnasium with a 28-foot height to the low steel (bottom of trusses).
The bleachers are up to 14 feet tall.
The bleacher loudspeakers are mounted about 20 feet in front of the first row.
Bleachers longer than 70 feet can require four (4) or more loudspeakers per side.
The court loudspeakers provide general coverage to the court and floor seating for sporting events.

**Option A:**
Six (6) R.5-94Z (bleacher coverage)
Two (2) R.5-99Z (center court)
Good pattern control (for intelligibility) and moderate SPL in non-acoustically treated spaces.

**Option B:**
Six (6) R.35-3896 (bleacher coverage)
Two (2) R.35-3896 (center court)
Less low frequency extension, but excellent voice clarity with moderate SPL.

**Option C:**
Six (6) R.5-96MAX (bleacher coverage)
Two (2) R.5-99Z (center court)
Increased musicality, high SPL, and great pattern control. Subwoofers are often added to this system configuration.
**Basketball Court** 'Enhanced Court Coverage'

**Installation Description:**
A typical 120-foot by 100-foot gymnasium with a 28-foot height to the low steel (bottom of trusses).
The bleachers are up to 14 feet tall.
The bleacher loudspeakers are mounted about 20 feet in front of the first row.
Bleachers longer than 70 feet can require four (4) or more loudspeakers per side.
The court loudspeakers provide enhanced coverage to the court for higher speech intelligibility and allow more zone control to accommodate multi-purpose events.

**Option A:**
Six (6) R.5-94Z (bleacher coverage)
Eight (8) R.25-94Z (court coverage)
Good pattern control and moderate SPL in non-acoustically treated spaces for the bleachers, court and floor seating.

**Option B:**
Six (6) R.35-3896 (bleacher coverage)
Eight (8) R.35COAX (court coverage)
Less low frequency extension, but excellent voice clarity with moderate SPL for all areas.

**Option C:**
Six (6) R.5-96MAX (bleacher coverage)
Eight (8) R.5-99Z (court coverage)
Increased musicality, high SPL, and great pattern control across all listening areas.
## Product Specifications

*For loudspeakers referenced in this guide*

<table>
<thead>
<tr>
<th>Model</th>
<th>Transducers:</th>
<th>Operating Range:</th>
<th>Sensitivity (1W/1m):</th>
<th>Power Handling:</th>
<th>Continuous Max Output:</th>
<th>Nominal Beamwidth (H x V):</th>
<th>Dimensions (H x W x D):</th>
</tr>
</thead>
<tbody>
<tr>
<td>R.25-94Z</td>
<td>LF - 1 x 8&quot;; HF - 1 x 0.75&quot; exit compression driver</td>
<td>100 Hz – 16 kHz</td>
<td>97 dB</td>
<td>200W continuous @ 8 ohms (Various)</td>
<td>120 dB (126 dB Peak)</td>
<td>90° x 40&quot;</td>
<td>11.3 x 11.3 x 13.3 in. (287 x 287 x 338 mm)</td>
</tr>
<tr>
<td>R.35COAX</td>
<td>LF - 1 x 10&quot;; coaxial HF - 1 x 1.25&quot; exit compression driver</td>
<td>70 Hz – 16 kHz</td>
<td>97 dB</td>
<td>200W continuous @ 8 ohms, or 70V/100V Autoformer</td>
<td>122 dB (128 dB Peak)</td>
<td>90° x 60&quot; (conical)</td>
<td>11 x 13 x 13.5 in. (279 x 330 x 343 mm)</td>
</tr>
<tr>
<td>R.35-3896</td>
<td>LF - 1 x 8&quot;; coaxial MF - 2 x 2.35&quot; and HF - 1 x 1&quot; exit comp. driver</td>
<td>80 Hz – 16 kHz</td>
<td>100 dB</td>
<td>400W continuous @ 8 ohms, or 70V/100V Autoformer</td>
<td>126 dB (132 dB Peak)</td>
<td>-66Z (60° x 60°), -94Z (90° x 40&quot;), -99Z (90° x 90&quot;)</td>
<td>11 x 13 x 13.5 in. (279 x 330 x 343 mm)</td>
</tr>
<tr>
<td>R.5-66Z</td>
<td>LF - 1 x 12&quot;; HF - 1 x 1&quot; exit compression driver</td>
<td>85 Hz – 16 kHz</td>
<td>102 dB</td>
<td>200W continuous @ 8 ohms (Various)</td>
<td>126 dB (128 dB Peak)</td>
<td>66Z (60° x 60°), -94Z (90° x 40&quot;), -99Z (90° x 90&quot;)</td>
<td>16 x 16 x 16 in. (406 x 406 x 406 mm)</td>
</tr>
<tr>
<td>R.5-94Z</td>
<td>LF - 1 x 12&quot;; coaxial HF - 1 x 1.4&quot; exit compression driver</td>
<td>70 Hz – 20 kHz</td>
<td>103 dB</td>
<td>600W continuous @ 8 ohms</td>
<td>130 dB (136 dB Peak)</td>
<td>90° x 60&quot; (Additional horn patterns available)</td>
<td>16.0 x 16.0 x 16.2 in. (406 x 406 x 411 mm)</td>
</tr>
<tr>
<td>R.5-99Z</td>
<td>LF - 1 x 12&quot;; coaxial MF - 2 x 2&quot; exit M200 driver; HF - 1 x 1&quot; exit comp. driver</td>
<td>70 Hz – 16 kHz</td>
<td>105 dB</td>
<td>400W continuous @ 4 ohms</td>
<td>131 dB (137 dB Peak)</td>
<td>90° x 40&quot; (Additional horn patterns available)</td>
<td>24.75 x 24.75 x 29 in. (629 x 629 x 737 mm)</td>
</tr>
<tr>
<td>R2-94Z</td>
<td>LF - 2 x 12&quot;; MF - 1 x 2&quot; exit M200 driver; HF - 1 x 1&quot; exit comp. driver</td>
<td>70 Hz – 16 kHz</td>
<td>107 dB</td>
<td>400W continuous @ 4 ohms</td>
<td>133 dB (139 dB Peak)</td>
<td>50° x 20&quot;</td>
<td>24.75 x 24.75 x 29 in. (629 x 629 x 737 mm)</td>
</tr>
<tr>
<td>R2-52Z</td>
<td>LF - 2 x 12&quot;; MF - 2 x 2&quot; exit M200 driver; HF - 1 x 1&quot; exit comp. driver</td>
<td>70 Hz – 16 kHz</td>
<td>107 dB</td>
<td>400W continuous @ 4 ohms</td>
<td>133 dB (139 dB Peak)</td>
<td>50° x 20&quot;</td>
<td>24.75 x 24.75 x 29 in. (629 x 629 x 737 mm)</td>
</tr>
<tr>
<td>R2-52MAX</td>
<td>LF - 2 x 12&quot;; MF - 2 x 2&quot; exit M200HP driver; HF - 1 x 1&quot; exit comp. driver</td>
<td>71 Hz – 19.5 kHz</td>
<td>102 dB, HF/MF: 110 dB</td>
<td>1200W cont. @ 8 ohms, HF/MF: 350W cont. @ 8 ohms</td>
<td>135 dB (141 dB Peak)</td>
<td>50° x 20&quot;</td>
<td>24.75 x 24.75 x 29 in. (629 x 629 x 737 mm)</td>
</tr>
</tbody>
</table>

Full specifications for these, and other models, are available at www.communitypro.com.

Loudspeaker data files are available for EASE and EASE Focus acoustic modeling software to facilitate optimum system design. (EASE and EASE Focus are products of AFMG Technologies GmbH.)
Technical Considerations

Amplifier
For maximum system performance and longevity, the loudspeakers must be properly powered to achieve the needed sound pressure level (SPL) in the listening area.

<table>
<thead>
<tr>
<th>Model</th>
<th>Power Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>R.25-94Z</td>
<td>400W to 600W @ 8 ohms per loudspeaker</td>
</tr>
<tr>
<td>R.35COAX</td>
<td>400W to 600W @ 8 ohms per loudspeaker</td>
</tr>
<tr>
<td>R.35-3896</td>
<td>800W to 1200W at 8 ohms per loudspeaker</td>
</tr>
<tr>
<td>R.5-66Z</td>
<td>400W to 600W @ 8 ohms per loudspeaker</td>
</tr>
<tr>
<td>R.5-94Z</td>
<td>400W to 600W @ 8 ohms per loudspeaker</td>
</tr>
<tr>
<td>R.5-99Z</td>
<td>400W to 600W @ 8 ohms per loudspeaker</td>
</tr>
<tr>
<td>R.5-96MAX</td>
<td>1200W to 1800W at 8 ohms per loudspeaker</td>
</tr>
<tr>
<td>R2-94Z</td>
<td>800W to 1200W at 4 ohms per loudspeaker</td>
</tr>
<tr>
<td>R2-52Z</td>
<td>800W to 1200W at 4 ohms per loudspeaker</td>
</tr>
<tr>
<td>R2-52MAX</td>
<td>1200W to 2400W at 8 ohms per loudspeaker</td>
</tr>
</tbody>
</table>

Processing and Protection
To properly process, equalize and protect the loudspeaker systems, it is recommended to use the Community dSPEC226 digital signal processor.

Some amplifiers have built-in processing which may be adequate when properly programmed. Community’s suggested DSP settings can be found at www.communitypro.com.

All of the loudspeakers referenced in this guide require a 24 dB per Octave electronic high pass filter for protection against over-excursion from bass-heavy program material.

Wiring
When considering the distance between the amplifier and the loudspeaker(s), the following minimum cable gauges are suggested.

<table>
<thead>
<tr>
<th>Distance between the Amplifier and Loudspeaker(s)</th>
<th>Suggested Minimum Cable Gauge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 50 feet</td>
<td>14 AWG</td>
</tr>
<tr>
<td>50 to 100 feet</td>
<td>12 AWG</td>
</tr>
<tr>
<td>100 to 250 feet</td>
<td>10 AWG</td>
</tr>
<tr>
<td>Beyond 250 feet</td>
<td>Please contact the Community TAG Team</td>
</tr>
</tbody>
</table>

It is strongly recommended that all loudspeaker level wire be stranded, twisted and never shielded. Loudspeaker wires should not be connected to earth ground or supporting structures.

For technical and applications assistance, please contact the Community TAG Team (Technical Applications Group) at (610) 876-3400 or tagteam@communitypro.com.
Community Professional Loudspeakers is a developer and manufacturer of innovative loudspeaker systems for installed sound applications.

Community products elevate the listening experience at the world’s foremost indoor and outdoor sports venues, auditoria, theme parks, worship facilities and convention centers.

For applications that demand reliable, long-term performance and consistent, high-quality sound – often in extreme and challenging environments – Community loudspeakers provide the critical listening experience audiences deserve and facility managers demand.

Based in Chester, Pennsylvania, Community is an American original whose innovative products have shaped the professional sound industry since the company was founded in 1968.

Community Professional Loudspeakers
333 East Fifth Street, Chester, PA 19013-4511 USA
Phone: +1 610 876 3400 • Fax: +1 610 874 0190
communitypro.com