FM Adjustable Fine Matchers

Features
- Permits adjustment of most standing wave ratios (SWR) to values below 1.02:1
- Invaluable aid to fine match antenna without physical invasion of the antenna array
- Increases transmission line margin of safety

ERI ROTOTILLER® style antennas are matched at the factory and shipped with an excellent standing wave ratio (SWR) no greater than 1.04:1 on design frequency and 1.5:1 ±2 MHz off frequency. However, transmission system anomalies or tower appurtenances in the antenna aperture can cause an impedance mismatch resulting in an increased SWR reading. Typical ERI antenna installations have a SWR between 1.02:1 to 1.2:1, even in the worst environments. Field tuning can lower the SWR value to approximate the factory tuning levels.

ERI’s Adjustable Fine Tuner is one field tuning method that can be used to correct minor impedance mismatches thus reducing the SWR of the transmission system. This process is easily performed after the antenna is mounted on the tower to compensate for existing system disturbances. Adjustments are accomplished without disconnecting the transmission line from the antenna or disassembling the antenna array. ERI also offers antenna installation, field matching and service by trained ERI technicians.

Electrical and Mechanical Specifications

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Line Size</th>
<th>Input/Output</th>
<th>Maximum Match Capacity</th>
<th>Length</th>
<th>Input Power Rating</th>
</tr>
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<td>in</td>
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<td>CL1035</td>
<td>1 5/8</td>
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<td>1.20</td>
<td>72</td>
<td>1.83 12</td>
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<tr>
<td>CU305-OFM</td>
<td>4 1/16</td>
<td>3 1/8</td>
<td>1.28</td>
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<td>1.98 39</td>
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<td>CL6035</td>
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Note: Does not include mounting brackets or hardware. These are available from ERI at additional cost.

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About Electronics Research, Inc.

Founded in 1943, Electronics Research, Inc. delivers high quality, innovative, integrated solutions to broadcasters across the U.S. and around the world. Our dedicated staff of engineers, designers, fabricators, and project managers take pride in contributing to your success by providing AM, FM, VHF, UHF, BRS-EBS, and Mobile Media broadcast systems including the industry’s best antenna, transmission line, filter and combining, and tower and structural support systems. In addition to manufacturing the full range of broadcast system components and installation accessories, ERI offers all of the engineering and field services needed to plan, install, optimize, and maintain your broadcast facility. We are your single source for broadcast solutions.

Broadcast Antenna Systems
- ROTOTILLER® FM Radio Antenna
- LYNX™ Dual Input for IBOC FM Radio Antenna
- 1105 Circularly Polarized FM Radio Antenna
- 100 Low Power Circularly Polarized FM Radio Antenna
- FM Low Power Horizontally Polarized Educational FM Radio Antenna
- P300/P350 Series Vertically Polarized FM Radio Antenna
- 1180 and 1090 Series Broadband Panel FM Radio Antenna
- SLIMWING™ Batwing VHF Television Antenna
- CRUCIS™ Crossed Dipole VHF Television Antenna
- STINGRAY™ Broadband Panel VHF Television Antenna
- TRASAR® High Power Traveling Wave Television Antenna
- AGW Guided Wave Quick-Deploy Emergency UHF Television Antenna
- STINGRAY™ Broadband Panel UHF Television Antenna
- ALP Low and Medium Power UHF Television Antenna
- AL PLUS Low and Medium Power UHF Television Antenna
- AL8 Low Power UHF Television Antenna
- VELA™ Low Power Vertically Polarized Broadband UHF Television Antenna
- HMD BRS-EBS Antenna
- SHADOWMASTER® Shadow-Filling BRS-EBS Antenna

Transmission Line Systems
- MACXLine® Rigid Transmission Line with Bellows
- HELIAX® Air- and Foam-dielectric Coaxial Cable
- HELIAX® Standard Elliptical Waveguide
- GUIDELine® Circular Waveguide
- Standard Rectangular Waveguide
- Dehydrators and Pressurization Equipment

Filter and Combining Systems
- FM Radio Filter and Combining Systems
- UHF and VHF Television Filter and Combining Systems
- DAB Filter and Combining Systems
- Mobile Media Filter and Combining Systems
- RF Components
- System Monitoring and Protection Components

Structural Support Systems
- Guyed Towers
- Self-Supporting Towers
- Roof-top Antenna Support Structures
- Specialty Structures and Custom Antenna Supports

RF and Structural System Services
- RF Field and Engineering Services
- Installation and Structural Engineering Services