

MOSAIC™ SERIES ANTENNA

For 108-512 MHz

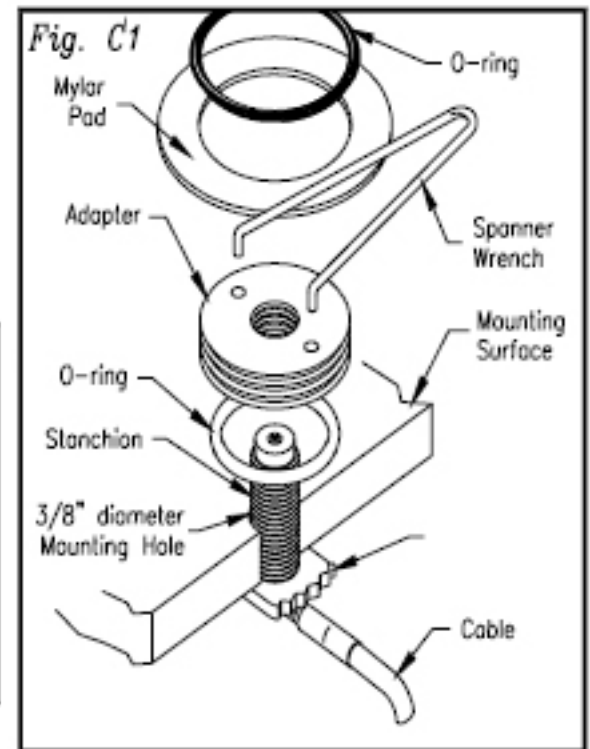
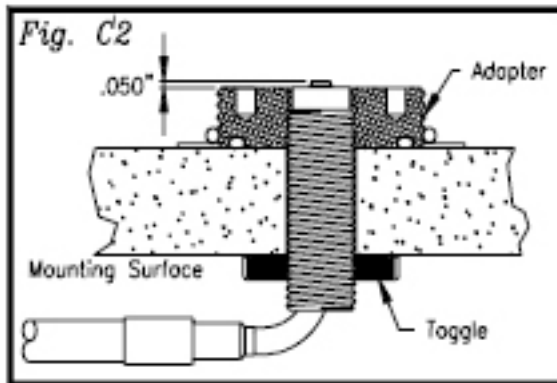
General Notes

1. The use of PTFE or similar lubricant, on the threaded portions of the antenna, prior to assembly, will protect from weather and ease future disassembly.
2. If an o-ring exists with your existing mount, discard the old o-ring and use new o-ring supplied with Base Coil.
3. Use supplied Mylar Pad with Roof Mount Antennas only.

THICK ROOF MOUNT (Models K794 and KE794)

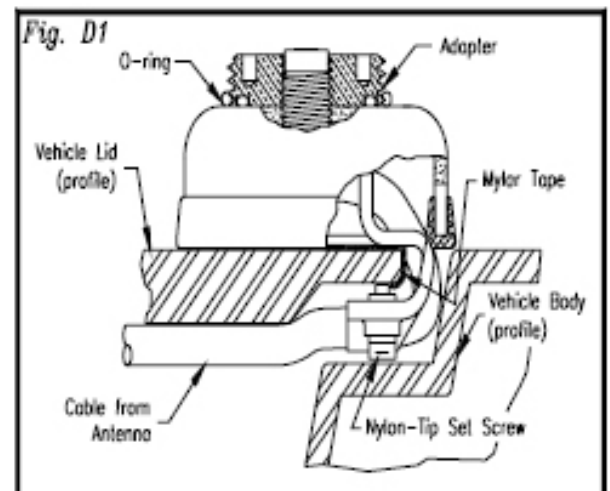
For use on vehicles with thick (up to 1/2") mounting surfaces.

1. When mounting on a non-metallic surface, apply Model K-67 Ground Plane Kit before installing antenna. Follow instructions supplied with kit.
2. Drill a 3/8" diameter hole in desired location. Mounting surface must be accessible from both sides.
3. Route cable from radio to hole. Adjust toggle so that it is about one or two turns from bottom of mount. Insert mount from underside of mounting surface (Fig. C1).
4. Insert o-ring in groove on underside of adapter. NOTE: Apply lubricant to o-ring surface to help hold it in place in the adapter. Screw adapter onto mount so that about .050" (thickness of a dime) of the white insulator is exposed over the top of adapter (Fig. C2).
5. Screw toggle up until it touches underside of mounting surface. Secure by tightening adapter with spanner wrench supplied.
6. Peel backing from mylar tape, supplied with base coil, and place around the adapter, sticking it to the mounting surface. Apply lubricant to o-ring, supplied base coil, and slip it down over adapter onto the mylar tape surface. Assemble coil, whip, and spring. Tighten assembly securely. Refer to 27-8477 instruction sheet for appropriate whip cutting chart.
7. Firmly screw assembled antenna onto adapter. Obtain and install the appropriate mating connector, as shown on page 2, and connect to radio.



TRUNK LID MOUNT (Model K721)

1. Find suitable mounting location. This should be on the side of the trunk lid near the back of the vehicle. The mounting location must be free from obstructions, both the trunk lid as well as the whip area, when the trunk lid is open.
2. Using a mild detergent and water, clean and dry the mounting location. Apply the 2" x 1/2" mylar tape curled over the edge of the trunk for protection from the mounting bracket when installed (Fig. D1).
3. Slide mounting bracket onto trunk lid edge over tape. Tighten nylon-tip set screws, alternating from one screw to the other, until even tightness is achieved. Do not over-torque.
4. Apply lubricant to o-ring, supplied with base coil, and slip it down over adapter. Refer to 27-8477 instruction sheet for appropriate whip cutting chart. Firmly screw assembled antenna onto adapter.
5. Obtain and install the appropriate mating connector, as shown on page 2, and connect to radio.



Cutting Chart for Standard ASPR795 (Whip Length in inches)

TUNING

For operation at 108-174 or 406-512 MHz, refer to chart below to find the point closest to the desired frequency, and match it to the correct mount. If equipment is available, the whip may be cut to cover any 20 MHz (or larger as the frequency increases) segment of the 108-512 MHz spectrum. In the region above 400 MHz, the bandwidth can exceed 80 MHz. After tuning, be sure that the set screw bears against whip when tightened.

FREQUENCY	K794	K721
108	25.75	25.25
111	25.00	24.25
114	24.25	23.50
117	23.50	23.00
120	22.75	22.50
123	22.25	21.75
126	21.50	21.25
129	21.00	20.75
132	20.50	20.25
135	20.00	19.75
138	19.50	19.25
141	19.00	18.75
144	18.75	18.25
147	18.25	17.75
150	18.00	17.25
153	17.00	16.75
159	16.50	16.50
162	16.25	16.25
165	16.00	15.75
168	15.75	15.00
171	15.50	14.75
174	15.00	14.50
406-440	5.25	5.00
415-455	5.00	4.75
435-470	4.75	4.50
455-490	4.50	4.25
475-512	4.25	4.00
485-530	4.00	3.75
495-550	3.75	3.50



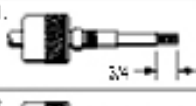
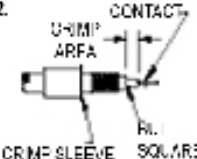
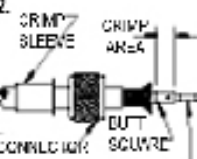
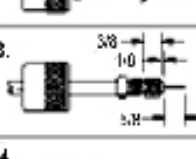
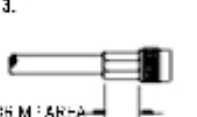
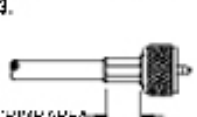


Cutting Chart for Standard ASPR7495 (Whip Length in inches)

TUNING

For operation at 150-174 or 406-512 MHz, refer to chart below to find the point closest to the desired frequency, and match it to the correct mount. If equipment is available, the whip may be cut to cover any 24 MHz (or larger as the frequency increases) segment of the 150-512 MHz spectrum. In the region above 400 MHz, the bandwidth can exceed 100 MHz. After tuning, be sure that the set screw bears against whip when tightened.

FREQUENCY	K794	K721
150-165	16.38	15.38
155-170	15.76	14.76
160-174	15.63	14.5
370-430	5.87	4.37
400-512	4.00	2.31
450-550	3.75	1.75

Connector Assembly Instructions (connectors supplied separately)

TNC CONNECTOR		MINI-UHF CONNECTOR		PL-259 CONNECTOR	
1. 	1. Trim cable to dimension shown, taking care not to nick the inner conductor or the braid.	1. 	1. Trim cable to dimensions shown, taking care not to nick the inner conductor or the braid.	1. 	1. Cut end of cable even. Remove vinyl jacket 3/4". Slide coupling ring & adapter onto cable.
2. 	2. Slip crimp sleeve over cable. Place inner conductor into contact. Note that the end of the contact and inner dielectric must be butting and square. Crimp contact with appropriate tooling.	2. 	2. Slip crimp sleeve, then connector shell over cable. Place inner conductor into contact. Note that the end of the contact and inner dielectric must be butting and square. Crimp contact with appropriate tooling.	2. 	2. Fan braid slightly and fold back as shown.
3. 	3. Hold outer main & gently but firmly push the contact into the connector housing until a gentle snap is felt. Indenting the contact is in place. Slide crimp sleeve in place, butting the flange against the connector housing, and crimp with appropriate tooling.	3. 	3. Fan outer braid & gently but firmly push the contact into the connector housing until a gentle snap is felt. Indenting the contact is in place. Slide the crimp sleeve in place, butting the flange against the connector housing, and crimp with appropriate tooling.	4. 	3. Position adapter to dimensions shown. Press braid down over body of adapter & crimp to 90°. Bore 3/8" of conductor. Trim exposed center conductor.
				5. 	4. Screw plug subassembly into adapter. Solder braid to shell through solder holes. Use enough heat to create bond of braid to shell. Solder conductor to contact.
					5. For final assembly, screw coupling ring onto plug subassembly.