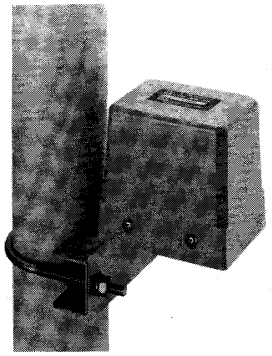
ICOM INSTRUCTIONS

IC-AG1 (430MHz) AG-25 (144MHz)
AG-30 (220MHz) AG-35 (430MHz)
AG-1200 (1200MHz)

WEATHERPROOF PREAMPLIFIERS



INTRODUCTION

ICOM offers a variety of optional all-weatherproof preamplifiers for use with ICOM transceivers, covering the 144MHz, 220MHz, 430MHz and 1200MHz band ranges.

These preamplifiers improve S/N ratios and receiver sensitivity, and make DX-communication possible.

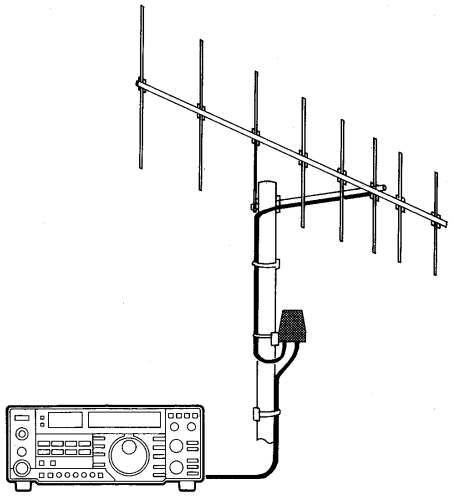
For maximum performance, please study these instructions carefully before installing the preamplifier.

FEATURES

- **NO POWER CABLE WIRING** is necessary since the RF coaxial cable is also used as the DC cable.
- **A LOW NOISE-FIGURE AND HIGH GAIN** GaAs-FET is incorporated to provide excellent performance as a low-noise microwave amplifier.
- **WEATHERPROOF CONSTRUCTION** results from a durable, acrylic plastic cover and stainless steel mounting hardware that ensures years of dependable service.

INSTALLATIONS

NOTE: Test the preamplifier to make sure it operates before mounting it on the antenna mast.



(1) Mount the preamplifier on the antenna mast in a spot that minimizes the coaxial cable length between the antenna and the unit.

(2) Mount the preamplifier and attach the connector vertically to prevent water from entering the case. (see photo).

(3) Clamp the coaxial cable between the preamplifier and the transceiver to prevent the weight of the cable from pulling on the preamplifier.

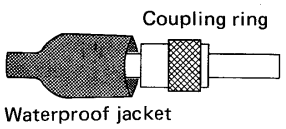
(4) Tune your antenna before using the preamplifier. Minimum antenna VSWR results in maximum preamplifier performance.

(5) **DO NOT** insert other units such as a filter or attenuator between the preamplifier and transceiver as DC shorts or DC isolation could occur.

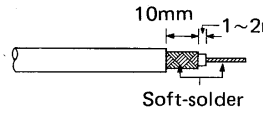
CONNECTOR INSTALLATIONS

CAUTION: Install the waterproof jacket immediately after removing it from the package. Exposure to air hardens the jacket after 30 minutes.

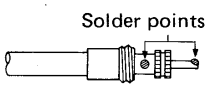
• PL-259 Connector



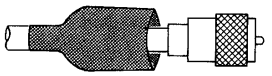
Slide the waterproof jacket and coupling ring over the coaxial cable.



Strip the cable and soft-solder.

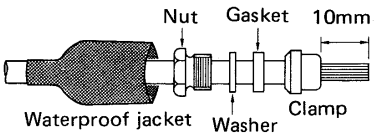


Solder the connector body.

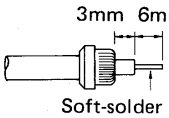


Screw on coupling ring and cover with waterproof jacket.

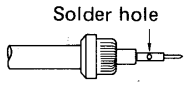
• TYPE-N Connector



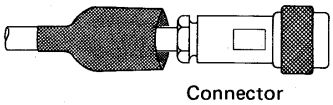
Slide parts onto the coaxial cable.



Strip cable, fold-shield conductor over clamp and soft-solder.



Install center conductor pin and solder.



Screw down nut and cover connector with waterproof jacket.

OPERATION

(1) Connect the coaxial cable from the preamplifier to the transceiver antenna connector.

(2) Turn power to the transceiver ON and then turn the transceiver PREAMP SWITCH ON (refer to the transceiver instruction manual).

- T/R switching relays in the preamplifier automatically route signals to the antenna directly when the transceiver is transmitting.
- Some transceivers have full break-in capability. When full break-in operation is selected the preamplifier automatically turns OFF.

SPECIFICATIONS

	IC-AG1	AG-25	AG-30	AG-35	AG-1200
Frequency range	430 ~ 450MHz	144 ~ 148MHz	220 ~ 225MHz	430 ~ 450MHz	1240 ~ 1300MHz
Gain	More than 15dB	More than 15dB	More than 15dB	More than 15dB	More than 10dB
Current drain	100mA	200mA	200mA	200mA	200mA
Maximum feed through RF Power	40W	100W	100W	100W	15W
Input/Output impedance	50Ω unbalanced				
Dimensions	77mm(H) x 82mm(W) x 62mm(D) (not including mounting hardware)				
Weight (Not including mounting hardware)	250g	450g	450g	450g	370g
Accessories included	Mounting bracket: 1 set Waterproof jacket: 2 pcs				
Mounting mast diameter	25.4mm ~ 60.0mm				

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