

ANTENNA MATCHERS

MN-100 MN-100L

(for 1.5 MHz to 30 MHz)

Thank you for purchasing this Icom product. These antenna matchers have been designed for Icom HF transceivers.

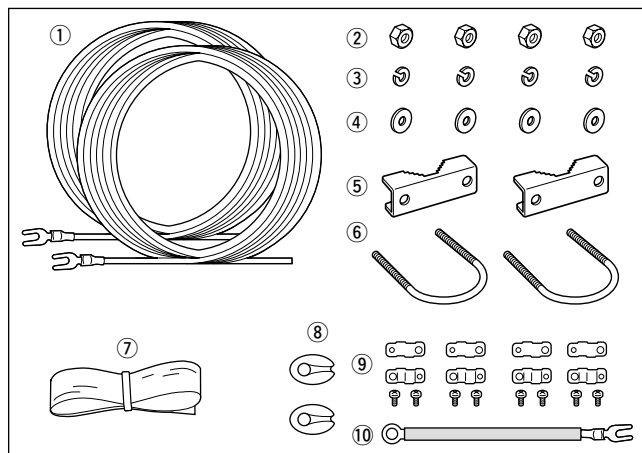
Please read all instructions carefully before installation to get maximum performance and full value from the transceiver.

■ Profile

To put a full size antenna on a yacht or boat is very difficult. However, these antenna matchers have been designed to put an antenna in such restrictions of space, and give low VSWR with short antenna elements on wide frequency range of 1.5 MHz to 30 MHz. So, you can obtain the best performance from the transceiver.

■ Supplied accessories

① Antenna wires	MN-100	8 m	.....	2
	MN-100L	15 m	.....	1
② Nuts			.....	4
③ Spring washers			.....	4
④ Flat washers			.....	4
⑤ Mast mounting brackets			.....	2
⑥ U bolts			.....	2
⑦ Rubber vulcanizing tape			.....	1
⑧ Insulators	MN-100		.....	2
	MN-100L		.....	1
⑨ Wire clamps	MN-100		.....	4 sets
	MN-100L		.....	2 sets
⑩ Grounding wire			.....	1



■ Specifications

MN-100	:	For dipole or whip antenna
MN-100L	:	For whip antenna only
• Max. input power	:	SSB 200 W pep
	:	CW 100 W
• Frequency range	:	1.5 MHz to 30 MHz
• Input impedance	:	50 Ω unbalanced
• Insertion loss	:	Approx. 6 dB
• VSWR	:	Less than 2.0 with supplied antenna wires
• Operating temp.	:	-30°C to +80°C; -22°F to +176°F
• Dimensions	:	
	:	Projections not included
	:	180(W)×65(H)×55(D) mm
	:	; 7 ³ / ₃₂ (W)×2 ⁹ / ₁₆ (H)×2 ⁵ / ₃₂ (D) in
	:	Projections included
MN-100	:	310(W)×100(H)×58(D) mm
	:	; 12 ⁷ / ₃₂ (W)×3 ¹⁵ / ₁₆ (H)×2 ⁹ / ₃₂ (D) in
MN-100L	:	245(W)×100(H)×58(D) mm
	:	; 9 ²¹ / ₃₂ (W)×3 ¹⁵ / ₁₆ (H)×2 ⁹ / ₃₂ (D) in
• Weight (approx.)	:	MN-100 1.27 kg; 2 lb 13 oz
	:	MN-100L 1.23 kg; 2 lb 11 oz

■ Connector assembly instructions

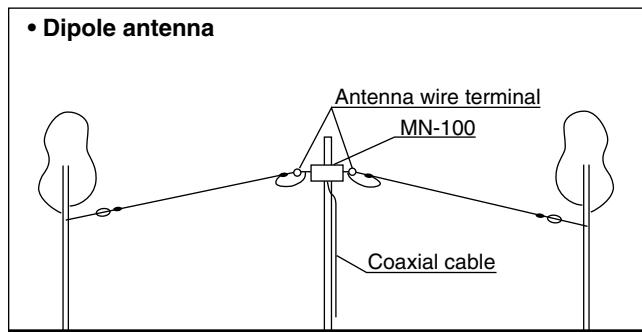
- ① PL-259 connector is not supplied with the MN-100/L, so please prepare suitable connector for the coaxial cable you desired to use.
- ② Cut end of the cable evenly. Remove vinyl jacket 29 mm (1¹/₈"). Please do not nick the braid.
- ③ Bare 15 mm (5⁸/₁₆") of the center conductor without nicking the conductor. Trim braided shield 14 mm (9¹⁶/₁₆") and tin it. Slide the coupling ring on the cable.
- ④ Screw the plug assembly on the cable. Solder plug assembly to the braid through solder hies. Solder the conductor to the contact sleeve. Screw the coupling ring on the assembly.
- ⑤ Attach it to the connector of the MN-100/L, and cover the connector with the supplied rubber vulcanizing tape.

■ Installation

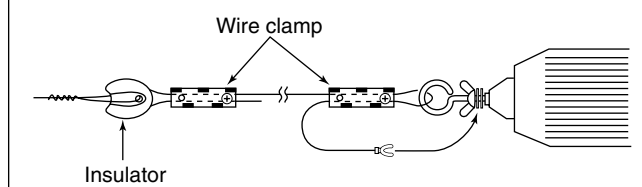
◇ Dipole antenna installation

(only MN-100 can be used)

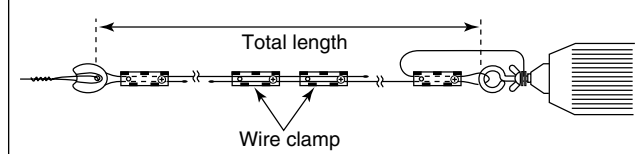
- ① First, decide the place where you attempt to put the antenna.
- ② Attach the antenna wires supplied to the terminals on the both side of MN-100 as shown in the figure.
- ③ If the antenna wires are too long for the place, cut the antenna wires to desired length. At this time, each wire should be the same length.
- ④ Attach coaxial cable to the connector of MN-100 with a PL-259 connector. Refer to the connector assembly instructions on the front page.
- ⑤ Attach the MN-100 onto the antenna mast with the supplied mounting hardware. The mounting hardware is adjusted for 25 mm to 63 mm (1" to 2½") tubing.
- If your antenna mast differs from this size, please make a mounting attachment suitable for it.
- ⑥ Stretch the antenna wires to both side so that the wires are in line, and hold each end to a mast or other suitable construction with a wire or rope.



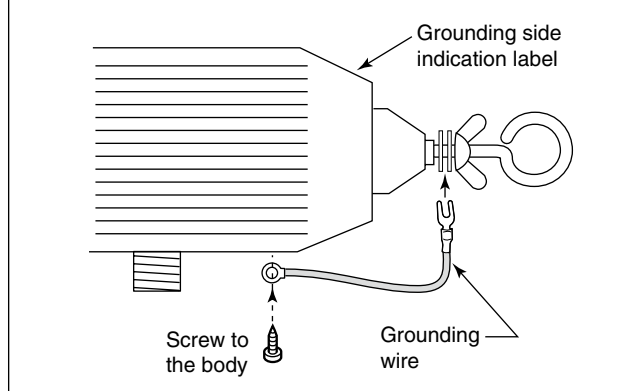
• Antenna wire installation



• Antenna wire joining



• Grounding wire attaching



◇ Whip antenna installation

(both MN-100 and MN-100L can be used)

When the MN-100 is used:

- ① Connect the right side antenna wire terminal to the body with the supplied grounding wire. Then join two supplied antenna wires, and connect one end to the left side antenna wire terminal as shown in the figure.

When the MN-100L is used:

- ① Connect one end of the supplied antenna wire to the antenna wire terminal.
- ② Attach the MN-100/L to a balustrade of the deck or other suitable portion of the yacht or boat, where is an adequate ground connection, with the supplied mounting hardware. If the attached portion is not grounded or on wooden or fiberglass boat, use a copper ground plate as the ground portion of the keel and connect between the ground terminal and there with another wire.
- ③ Attach the other end of the antenna wire to the mast or other suitable portion as high as possible so that the antenna wire is stretched in line.
- ④ If the antenna wire is too long, cut the wire so that the antenna wire is a stretch line when installed.

