



## E Plate

**Radio/Electrical earth system  
for wooden or fibreglass vessels**



A compact radio or electrical earth plate designed to provide an efficient low resistance earth connection in wooden or fibreglass vessels for the professional and non professional user.

The Moonraker E Plate has an effective surface area of approximately 1265 sq cm (1.26 sq ft) and is not appreciably affected by marine growth fouling. Two units connected together meet the Australian marine electrical standard of 2500 sq cm.

Normally constructed of 94% low corrosion copper alloy, designed especially for tropical waters, it is also available in low corrosion aluminium for boats fitted with aluminium outboard legs or under conditions where bronze fittings should not be used, to prevent electrolysis.

Two threaded studs are integrally connected with the E Plate for mounting. No pre assembly is necessary and there are no bolted joints to corrode and cause problems.

## Specifications

<b>Area</b>	Effective surface area of approximately 1265 sq cm (1.26 sq ft) - use 2 units to meet 2500 sq cm standard	
<b>Length</b>	240 mm (9.5 in)	
<b>Width</b>	130 mm (5 in)	
<b>Thickness</b>	20 mm (0.75 in)	
<b>Impedance</b>	Less than 1 $\Omega$ (measured) at 5 MHz in sea water; also suitable for use in fresh water	
<b>Mountings</b>	<b>Copper Type:</b> two 12.75mm (0.5 in) dia x 75mm (3 in) long studs, threaded 1/2 in Whitworth	<b>Aluminium Type:</b> two 9.53mm (3/8 in) dia x 75mm (3 in) long studs threaded 3/8 in Whitworth
<b>Weight</b>	2.9kg (6.38 lbs)	900g (1.98 lbs)
<b>Packed Weight</b>	3 kg (6.6 lbs)	1 kg (2.2 lbs)

Specifications subject to change – Issued 01/09/13

Moonraker Australia Pty. Ltd. ABN 70 162 868 475  
Tasmanian Technopark, Dowsing Point, Tasmania, Australia 7010

Website: [www.moonraker.com.au](http://www.moonraker.com.au) Tel: 61 (0)3 6273 1533 Fax: 61 (0)3 6273 1749 Email: radiocom@moonraker.com.au



# E PLATE INSTALLATION INSTRUCTIONS

## Mounting

1. Mount the E Plate in a position which will allow minimum lead length from the radio equipment and located so that the E Plate will not be out of water under any sea conditions.
2. Drill two 12.5mm (1/2 in) holes (3/8 in for aluminium plate) spaced 152mm (6 in) apart, so that the E-Plate fins run fore and aft. An internal backing plate should be used to strengthen thin hulls.

**Note:**

**DO NOT OVERTIGHTEN THE NUTS** as this may fracture the studs.

3. Copper strip at least (2 in) wide should be used for connection between radio equipment and COPPER E-PLATE. The strip should follow the shortest possible path clear of power wiring and free from contact with other metal objects.

**Note:**

Do not use flexible copper braid for connecting strap as it has a relatively high radio frequency resistance and may corrode rapidly.

**COPPER STRIP SHOULD NOT BE USED WITH ALUMINIUM E PLATES.** Use marine grade aluminium strip. Continuous length copper strip is available from Moonraker

4. It is recommended that a silicone rubber sealant be used to bed in the E-Plate bolts, also smeared over the connection between the strap and E-Plate. Use only neutral cure silicone sealant, others may corrode the metal.

## Maintenance

1. The E Plate requires no maintenance other than regular inspection. Moderate marine growth does not appreciably affect operation. Any growth should be cleaned off at boat slipping time.
2. Aluminium plates require more frequent inspection than copper plates to guard against possible plate and bolt corrosion due to the possible presence of copper lead or mercury, etc., in paints, timber, etc. E Plates should not be treated with anti-fouling paints. Copper base anti-fouling paints should be kept clear of aluminium E Plates.

*The performance of any HF radio circuit is limited by the efficiency of the antenna / earth system used. Moonraker products are designed to give the high standard of efficiency demanded by the professional user.*