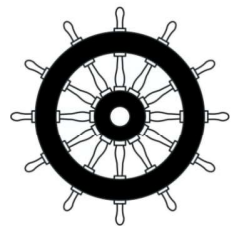


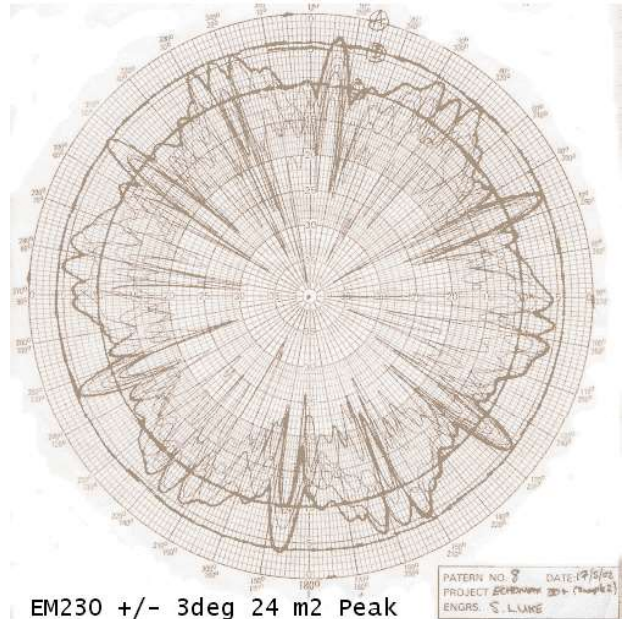
ECHOMAX



a significant advance in marine safety

EM230(BR) EM230BM3 Radar Reflector

Echomax models EM230 - EM230BR - EM230BM3 Ships Wheel Mark radar reflectors for life boats and rescue craft by virtue of TUV SUD DANMARK ApS Module B Type certificate dated 1st January 2021 in compliance with Marine Equipment Directive (2014/90/EU) Implementing regulation (EU) 2020/1170 - meeting ISO 8729 2nd edition published November 1997 and in Europe as EN ISO 8729-1998 and in UK as BS EN ISO 8729-1999 Echomax EM230 has NATO Stock no.5840 -99-742-6193 and the EM230BR NATO Stock no. 5840-99-986-7405 following the adoption by the UK Military Forces and others throughout the World. We hereby certify that the polar diagram opposite was issued on the 17th May 2002 by QinetiQ radar testing laboratory and that the array tested is identical in all respects to that fitted in the EM230 - EM230BR and EM230BM3. This recorded a maximum response of 24M² and a stated performance level (SPL) of 4.7M² at +/- 3° of heel



EM230 +/- 3deg 24 m2 Peak

Signed 

Managing Director

Radar Reflector Mounting Instructions

RECOMMENDED MOUNTING HEIGHT

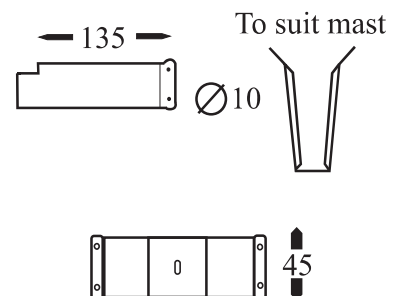
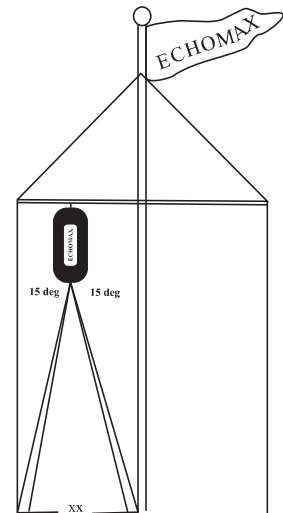
Mount vertically 3.5M for Sailing or Masted Vessels >2M for Lifeboats and Rescue Craft above sea level. The RORC recommended a mounting height where possible of 4m above sea level. Due to the curvature of the earth Echomax advice is "The higher the better"

EM230- 230BR- HALYARD SUSPENSION

To counter mast shadow of about 22 degrees and help compensate for heel mount as illustrated opposite - the reflector can be trimmed as required to give the best possible response. Important - The reflector must be trimmed when on the reverse tack- failure to take this action will compound the angle of heel rendering the reflector inefficient.

SAILING VESSELS – MAST MOUNT

Echomax may be fitted in any position around the mast fore or aft. Hypothetical figures on mast shadow may be viewed on our website. When fixing the Echomax Stainless mast brackets make sure the right angled corners face outwards as they are there to reduce halyard, rope or sail wear or chaffing. Utilising Echomax stainless steel mast brackets fit reflector as high as possible on the mast, using Monel or stainless steel rivets (3/16 x 1/2inch 4.8 x 12.7mm). To avoid electrolytic action use closed cell foam between bracket and mast. Firstly fix top bracket to mast in the required position, measure distance vertically between centres, mark position of lower bracket then drill and fix. Use two stainless steel hexagonal bolts 8mm x 35mm long to fix Echomax to the mounting brackets.



EM230MB & EM230BRMB