

Active X - XS choice and observations after 10 years sales

Active X - XS choice

Active-X responds to 9.40 GHz X band radar which is fitted to pleasure and commercial vessels up to 3000GT. We call this the collision avoidance radar

Active XS responds to 3.00 GHz S band radar which is compulsory (in addition to X band radar) on vessels over 3000GT, for deep sea use against snow, heavy rain etc. 3000GT or larger vessels cannot stop or change course quickly to avoid you. The XS control box will identify and display whether its an X or S band radar which is painting you.

Make sure you use the Standard mast bracket for the Active X and the XS Ocean bracket for the Active XS – do not use other makes, especially the Glomex as we started with these but after having 5 break after 18 months designed our own. The Glomex are presumably designed for VHF, AIS etc not RTE

If you sail offshore or in or near busy shipping lanes you should consider fitting the Active XS.

On our website under FAQ there is a summary of AIS v RTE strengths and weaknesses both being useful safety aids for offshore sailors, also comments by Ross Hobson commenting on the much earlier response of his XS than the AIS racing in fog were quite enlightening.

Please also read the Active - FAQ section - regarding reduced responses to FMWC - broadband radar.

The RTE requires 12v dc power albeit with a miserly current draw of 15 to 26Ma on standby and with a SPL of 118m2 are effectively 20-30 times more responsive than an EM230 with a SPL of 4.8M2 but may be saturated within 250-300m by large vessel radar - but proper visual look out should never allow this to happen and the RTE was never designed for this type of use.

Never assume that ships see you – the Dutch Coast Guard came on our stand at METS and told us that they were in a helicopter hovering for 20 minutes above the bridge of a large vessel through the Dover Straights and at no time was there anyone on the bridge!

RTE - Active Location

The drawing below shows where the X or XS should or should not be fitted. The Active X or XS must never be fitted within the 28 degree radar horizontal beam width. Many sailors particularly single handed prefer lower mounting as the mast head gives a distant horizon and can make the use of the audible alarm tiresome. Some use rail mount with a fixed or QD rail bracket and possibly an extension pole of 60cm to obtain a more distant horizon. Since this drawing we have introduced the suspended version which can be used subject to sail and rigging configurations being kept well clear of the RTE cable.

Never position the RTE up against a mast or rigging as this will prevent or effect the response and will be subject to trial and error.

General observations –

The XS uses a three core cable and the X a two core cable so they are not interchangeable. The yellow and green cable used in the XS is not an earth but senses the voltage drop when responding to S band radar causing the yellow LED and alarm function to work. You can cut and rejoin the cable with a good quality waterproof plug with no problem. A total cable length of 50 metres is possible.

Both have audible and visual alarms and an extension alarm facility - this can be installed in the cock pit sole, over the bunks, galleys or any where in the boat - just depends on how much cable you use! etc. The control box has a dormant extension alarm relay which can be initialised by joining the link to brown connections on the front of the control box using a switch, otherwise the relay will be going for ever and a day! A second switch can be use on station if desired but this will not stop the relay. Initialising the extension alarm relay gives you an 8a volt free circuit so power must be supplied as shown in the operators manual in your possession.

The RTE is designed for offshore use so don't be surprised if the green or yellow LED illuminate whilst your vessel is in the harbour or close to shore based radar. The transmitting radar may not be visible . The RTE never lies! Use it offshore before you ring us!

RTE test – Disconnect from control box - connect RTE to a 12v battery supply with a mA meter in either line

Stand by/Sleep mode check -

Active X brown to battery red/pos/+ via mA meter and blue to battery black/neg/- you should get a reading of 10/11mA

Test Mode check - reverse polarity i.e.

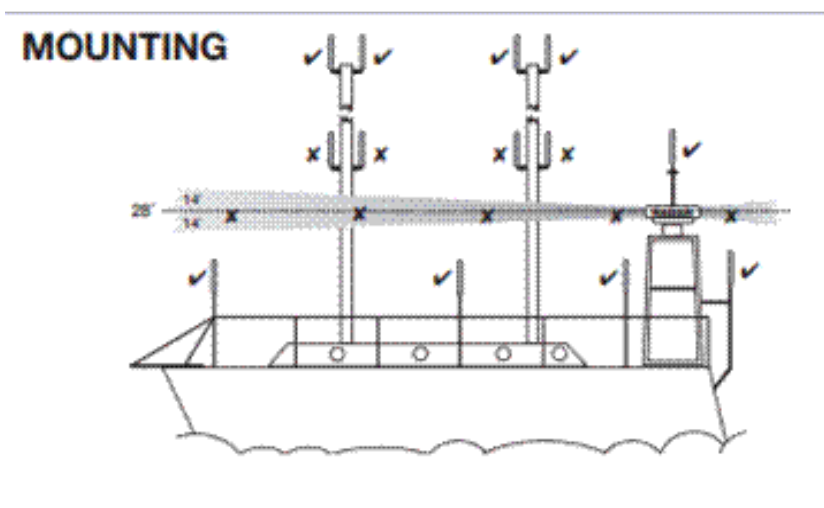
battery red + to RTE blue with mA meter in line

battery black - to RTE brown you should get a reading of 195/206mA

Active XS Ignore the green/yellow this is not an earth which senses the current drop when responding to S band radar and illuminates the yellow LED

Stand by/test mode - 16/17mA - test mode 350-370mA

Both RTE can be used without the control box but tape up the green and yellow cable.



We are always pleased to receive any useful comments to add to this document - we never stop learning.

