

VX-450 Series

VHF Band Service Manual

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VERTEX STANDARD CO., LTD.

4-8-8 Nakameguro, Meguro-Ku, Tokyo 153-8644, Japan

VERTEX STANDARD

US Headquarters

10900 Walker Street, Cypress, CA 90630, U.S.A.

YAESU UK LTD.

Unit 12, Sun Valley Business Park, Winnall Close
Winchester, Hampshire, SO23 0LB, U.K.

VERTEX STANDARD HK LTD.

Unit 1306-1308, 13F., Millennium City 2, 378 Kowloon Road,
Kowloon, Kowloon, Hong Kong

VERTEX STANDARD (AUSTRALIA) PTY., LTD.

Tully Ho Business Park, 10 Wesley Court, East Burwood, VIC, 3151

Introduction

This manual provides the technical information necessary for servicing the VX-450 Series Transceiver.

Servicing this equipment requires expertise in handling surface-mount chip components. Attempts by non-qualified persons to service this equipment may result in permanent damage not covered by the warranty, and may be illegal in some countries.

Two PCB layout diagrams are provided for each double-sided board in this transceiver. Each side of the board is referred to by the type of the majority of components installed on that side ("Side A" or "Side B"). In most cases one side has only chip components (surface-mount devices), and the other has either a mixture of both chip and leaded components (trimmers, coils, electrolytic capacitors, ICs, etc.), or leaded components only.

As described in the pages to follow, the advanced microprocessor design of the VX-450 Series Transceiver allows a complete alignment of this transceiver to be performed without opening the case of the radio; all adjustments can be performed from the front panel, using the "Alignment Mode" menu.

While we believe the information in this manual to be correct, VERTEX STANDARD assumes no liability for damage that may occur as a result of typographical or other errors that may be present. Your cooperation in pointing out any inconsistencies in the technical information would be appreciated.



16 key Type



4 key Type



Non-key Type

Important Note

This transceiver was assembled using Pb (lead) free solder, based on the RoHS specification.

Only lead-free solder (Alloy Composition: Sn-3.0Ag-0.5Cu) should be used for repairs performed on this apparatus. The solder stated above utilizes the alloy composition required for compliance with the lead-free specification, and any solder with the above alloy composition may be used.

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Vertex 454 Service Manual

Albert A Gayle



Vertex 454 Service Manual:

Clinical Manual of Contact Lenses Edward S. Bennett,Vinita Allee Henry,2013-08-20 Designed to be used as a quick reference this fourth edition of the Clinical Manual of Contact Lenses allows readers to easily find the topic and information they need without having to search through an entire chapter to find it Rigid gas permeable lens design and fitting soft lens problem solving astigmatic management and bifocal correction are just a few of the subjects covered in this manual Each chapter includes sample cases to reinforce and demonstrate the practical nature of the topic with nomograms and proficiency checklists summarizing and emphasizing the important points With this guide students and practitioners will have a dependable resource to help fit evaluate and troubleshoot any contact lenses especially specialty designs for years to come

Sport Aviation and the Experimenter ,1996 **Moody's International Manual** ,2000 **Holland & Brews Manual of Obstetrics** Alan Brews,Sir Eardley Lancelot Holland,1963 **Management Accounting** ,1984 **Walker's Manual of Penny Stocks** ,2000 *Electri-onics* ,1986 **Pro Oracle Spatial for Oracle Database 11g** Ravikanth Kothuri,Albert Godfrind,Euro Beinat,2012-01-03 Now available in paperback Pro Oracle Spatial for Oracle Database 11g shows how to take advantage of Oracle Databases built in feature set for working with location based data A great deal of the information used in business today is associated with location in some way and analysis of that data is becoming ever more important in today s mobile and highly connected world In Pro Oracle Spatial for Oracle Database 11g authors Ravi Kothuri and Albert Godfrind address The special nature of spatial data and its role in professional and consumer applications Issues in spatial data management such as modeling storing accessing and analyzing spatial data The Oracle Spatial solution and the integration of spatial data into enterprise databases How spatial information is used to understand business and support decisions to manage customer relations and to better serve private and corporate users When you read Pro Oracle Spatial for Oracle Database 11g you re learning from the very best Ravi Kothuri is a key member of Oracle s Spatial development team Albert Godfrind consults widely with Oracle clients on the implementation of Oracle Spatial develops training courses and presents frequently at conferences Together they have crafted a technically sound and authoritative fountain of information on working with spatial data in the Oracle database

Flying Magazine ,1978-01 Monthly Catalogue, United States Public Documents ,1994 *A New English Dictionary on Historical Principles* James Augustus Henry Murray,1919

Cumulated Index Medicus ,1977 **Government Reports Index** ,1972 *Moody's OTC Unlisted Manual* ,1988

National Library of Medicine Current Catalog National Library of Medicine (U.S.),1971 First multi year cumulation covers six years 1965 70 The Standard Periodical Directory ,1993 *Scientific and Technical Aerospace Reports* ,1993

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