M2000-00-301 Revision Package
Product Code: R2000-00-301
February 1998

Introduction

Revision package R2000-00-301 is the first update of the T2000 Series II service manual. It includes the following information:

- PCB information for the following new PCBs:
  IPN 220-01389-03: T2000-700/-900 RF PCB
  IPN 220-01389-02: T2000 TCXO/Tx audio PCB
  IPN 220-01377-02: T201X HC05 logic PCB
  IPN 220-01377-03: T201X HC11 logic PCB
  IPN 220-01344-04: T2020/T203X/T2040/T2050/T2060 HC11 logic PCB
- Parts list updates & corrections.
- Servicing information on the following new accessory kits:
  T2000-A03/-A04 /-A16 remote loom kits
  T2000-A4500 CTCSS & T2000-A4502 scrambler kits
  T2000-A70 data modem kit

This revision also contains corrections and additions to other sections of the M2000-00-300 manual. These changes are indicated by a vertical line in the margin, or an arrow with a number, to show where text has been removed. The Index, containing the List of Effective Pages, has been updated to include these changes.

Revision Package Contents

Section	Description	Revision Package Page Numbers	Pages to Replace
Index	Index	1 to 20	1 to 18
1	General Information	1.5 to 1.10	1.5 to 1.10
3	Introduction To Servicing	3.1 to 3.12	3.1 to 3.12
4	Functional Tests	4.1 & 4.2	4.1 & 4.2
6	Tuning & Adjustment	6.1 to 6.8	6.1 to 6.8
7	PCB Information	7.1 & 7.2	7.1 & 7.2
7.6	T2000-700/-900 RF PCB	7.6.11 to 7.6.20	Add after 7.6.10
7.7	T2000-800 RF PCB	7.7.1 & 7.7.2	7.7.1 & 7.7.2
7.9	T2000 TCXO/Tx Audio PCB	7.9.1 & 7.9.2 7.9.7 to 7.9.12	7.9.1 & 7.9.2 Add after 7.9.6
7.10	T2010 & T2015 Logic PCB	7.10.11 to 7.10.30	Add after 7.10.10
7.11	T2020/T203X/T2040/T2050/T2060 Logic PCB	7.11.13 to 7.11.24	Add after 7.11.10
7.12	T2010/T2030 Control Head PCB	7.12.1 & 7.12.2	7.12.1 & 7.12.2
7.13	T2015/T2060 Control Head PCB	7.13.1 & 7.13.2	7.13.1 & 7.13.2
7.14	T2020/T2040/T2050 Control Head PCB	7.14.1 to 7.14.4	7.14.1 to 7.14.4
7.15	T2035 Control Head PCB	7.15.1 & 7.15.2	7.15.1 & 7.15.2
7.16	T2000 EMC Filter PCB	7.16.1 & 7.16.2	7.16.1 & 7.16.2
7.17	T2000 Data Interface Decoupling PCB	7.17.1 & 7.17.2	7.17.1 & 7.17.2

continued on next page

Section	Description	Revision Package Page Numbers	Pages to Replace
8	Accessories	8.1 & 8.2	8.1 & 8.2
8.1	T2008 Power Supply	8.1.17 & 8.1.18	8.1.17 & 8.1.1
8.10	T2000-A450X CTCSS & Scrambler Kits	8.10.1 to 8.10.10	8.10.1 to 8.10.10
8.12	T2000-A60 Dual Port UART Kit	8.12.5 & 8.12.6	8.12.5 & 8.12.6
8.13	T2000-A66 Single Port UART Kit	8.13.1 to 8.13.8	8.13.1 to 8.13.8
8.15	T2000-A70 Data Modem Kit	8.15.1 to 8.15.18	Add after 8.13.8
8.16	T2000-A03/-A04/-A16 Remote Kits	8.16.1 to 8.16.8	

The coloured pages between the sections may be discarded.

Additional Revision Packages

Additional revision packages can be ordered from your nearest Tait branch or approved dealer. Quote the Tait Product Code (R2000-00-301) when ordering.

T2000 Series II

Service Manual

Issue 301

March 1998

M2000-00-301

Head Office
New Zealand
Tait Electronics Ltd
558 Wairakei Road
P.O. Box 1645
Christchurch
New Zealand
Phone: 64 3 358-3399
Fax: 64 3 358-3636

Australia
Tait Electronics (Aust) Pty Ltd
275 Toombul Road
Northgate 4013
P.O. Box 679
Virginia
Queensland 4014
Australia
Phone: 61 7 3865-7799
Toll Free: 1 300 304-344
Fax: 61 7 3865-7990
E-mail: helpdesk@tait.com.au

Canada
Tait Mobile Radio Inc.
Unit 5, 158 Anderson Avenue
Markham
Ontario L6E1A9
Canada
Phone: 1 905 472-1100
Fax: 1 905 472-5300
E-mail: 110252.44@compuserve.com

France
Tait France S.A.R.L.
2 avenue de la Cristallerie
92 316 Sèvres, Cedex
France
Phone: 33 1 41 14-05-50
Fax: 33 1 41 14-05-55
E-mail: 100675.651@compuserve.com

Germany
Tait Mobilfunk GmbH
Willstätterstraße 50
D-90449 Nürnberg 60
Germany
Phone: 49 911 967-460
Fax: 49 911 967-4679
E-mail: tait@t-online.de

Hong Kong
Tait Mobile Radio (Hong Kong) Ltd
Room 703A New East Ocean
Centre
9 Science Museum Road
Tsim Sha Tsui East
Hong Kong
Phone: 852 2369-3040
Fax: 852 2369-3009
E-mail: 106122.2060@compuserve.com

New Zealand
Tait Communications Ltd
Unit 4, 75 Blenheim Road
P.O. Box 1185
Christchurch
Phone: 64 3 348-3301
Fax: 64 3 343-0558
E-mail: nsc@tcl.tait.co.nz

Singapore
Tait Electronics (Far East) Pte Ltd
4 Leng Kee Road
SIS Building #05-11A
Singapore 159088
Phone: 65 471-2688
Fax: 65 479-7778
E-mail: taittfe@singnet.com.sg

Taiwan
Tait Mobile Radio (Taiwan) Ltd
1104, 142 Chung Hsiao E Rd
Sec 4
Taipei
Taiwan
Phone: 886 2 2731-1290
Fax: 886 2 2711-6351
E-mail: tait8503@ms7.hinet.net

Thailand
Tait Mobile Radio Ltd
14/1 Suwan Tower, Ground Floor
Soi Saladaeng 1
North Sathorn Rd
Bangrak
Bangkok 10500
Thailand
Phone: 662 267-6290
Fax: 662 267-6293
E-mail: taitthd@loxinfo.co.th

United Kingdom
Tait Mobile Radio Ltd
Ermine Business Park
Ermine Road
Huntingdon
Cambridgeshire PE18 6YA
United Kingdom
Phone: 44 1480-52255
Fax: 44 1480-411996
E-mail: techsupport@tait.co.uk

USA
Tait Electronics (USA) Inc.
9434 Old Katy Road
Suite 110
Houston
Texas 77055
USA
Phone: 1 713 984-8684
Toll Free: 1 800 222-1255
Fax: 1 713 468-6944
E-mail: tech@taitus.com

About This Manual

Scope

This manual contains general, technical and servicing information on T2000 Series II mobile two-way radios.

Format

We have published this manual in a ring binder so that "revision packages" containing additional information can be added as required.

Revision Packages

Revision packages will normally be published to coincide with the release of information on a new PCB, and may also contain additions or corrections pertaining to other parts of the manual.

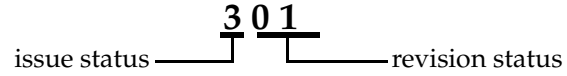
If you return the customer registration card at the front of this manual, you will be notified when revision packages containing new PCB information and/or text are available. You may then order as many packages as you require from your local Tait Company. Revision packages are supplied ready-punched for inclusion in your manual.

Revision Control

Each page in this manual has a date of issue. This is to comply with various Quality Standards, but will also serve to identify which pages have been updated and when. Each page and its publication date is listed in the "List of Effective Pages", and a new list containing any new/revised pages and their publication dates will be sent with each revision package.

Any portion of text that has been changed is marked by a vertical line (as shown at left) in the outer margin of the page. Where the removal of an entire paragraph means there is no text left to mark, an arrow (as shown at left) will appear in the outer margin. The number beside the arrow will indicate how many paragraphs have been deleted.

The manual issue and revision status are indicated by the last three digits of the manual product code. These digits start at 100 and will increment through 101, 102, 103, etc., as revision packages are published, e.g:



Thus, Issue 301 indicates the first revision to issue 3, and means that one package should have been added to the manual. The issue digit will only change if there is a major product revision, or if the number of revision packages to be included means that the manual becomes difficult to use, at which point a new issue manual will be published in a new ring binder.

PCB Information

PCB information is provided for all current issue PCBs, as well as all previous issue PCBs manufactured in production quantities, and is grouped according to PCB. Thus, you will find the parts list, grid reference index (if necessary), PCB layouts and circuit diagram(s) for each individual PCB grouped together.

Errors If you find an error in this manual, or have a suggestion on how it might be improved, please do not hesitate to contact the Technical Writer, Product Support Group, Tait Mobile Radio Division, Tait Electronics Ltd, P.O. Box 1645, Christchurch, New Zealand.

Technical Information

Any enquiries regarding this manual or the equipment it describes should be addressed in the first instance to your nearest approved Tait Dealer or Service Centre. Further technical assistance may be obtained from the Product Support Group, Tait Mobile Radio Division, Tait Electronics Ltd, Christchurch, New Zealand.

Updating Equipment And Manuals

In the interests of improving performance, reliability or servicing, Tait Electronics Ltd reserve the right to update their equipment and/or manuals without prior notice.

Copyright

Ordering Tait Service Manuals

Service Manuals should be ordered from your nearest Tait Branch or approved Dealer. When ordering, quote the Tait product code and, where applicable, the version.

Date Of Issue

M2000-00-300 T2000 Series II Service Manual
Issue 300 published January 1997
Issue 301 published March 1998

List Of Effective Pages

The total number of pages in this Manual is 484, as listed below.

Page	Issue Date
1	31/12/97
2	31/12/97
3	31/10/96
4	31/10/96
5	31/12/97
6	31/12/97
7	31/12/97
8	31/12/97
9	31/12/97
10	31/10/96
11	31/12/97
12	31/12/97
13	31/12/97
14	31/12/97
15	31/12/97
16	31/12/97
17	31/12/97
18	31/12/97
19	31/12/97
20	31/12/97
1.1	31/10/96
1.2	31/10/96
1.3	31/10/96
1.4	31/10/96
1.5	31/12/97
1.6	31/12/97
1.7	31/10/96
1.8	31/10/96
1.9	31/12/97
1.10	31/10/96
2.1	31/10/96
2.2	31/10/96
2.3	31/10/96
2.4	31/10/96
2.5	31/10/96
2.6	31/10/96
2.7	31/10/96
2.8	31/10/96
2.9	31/10/96
2.10	31/10/96
2.11	31/10/96
2.12	31/10/96
2.13	31/10/96
2.14	31/10/96
2.15	31/10/96
2.16	31/10/96
2.17	31/10/96
2.18	31/10/96
2.19	31/10/96
2.20	blank
3.1	31/12/97
3.2	31/10/96
3.3	31/10/96
3.4	31/10/96
3.5	31/10/96
3.6	31/12/97
3.7	31/10/96
3.8	31/10/96
3.9	31/12/97
3.10	31/12/97
3.11	31/12/97
3.12	31/10/96
3.13	31/10/96
3.14	31/10/96
3.15	31/10/96
3.16	31/10/96
3.17	31/10/96
3.18	31/10/96
4.1	31/10/96
4.2	31/12/97
4.3	31/10/96
4.4	31/10/96
4.5	31/10/96
4.6	31/10/96
4.7	31/10/96
4.8	31/10/96
4.9	31/10/96
4.10	31/10/96
4.11	31/10/96
4.12	blank
5.1	31/10/96
5.2	31/10/96
5.3	31/10/96
5.4	31/10/96
5.5	31/10/96
5.6	31/10/96
5.7	31/10/96
5.8	31/10/96
5.9	31/10/96
5.10	31/10/96
5.11	31/10/96
5.12	31/10/96
5.13	31/10/96
5.14	31/10/96
5.15	31/10/96
5.16	31/10/96

5.17	31/10/96	
5.18	31/10/96	
5.19	31/10/96	
5.20	31/10/96	
5.21	31/10/96	
5.22	31/10/96	
5.23	31/10/96	
5.24	31/10/96	
5.25	31/10/96	
5.26	31/10/96	
5.27	31/10/96	
5.28	31/10/96	
5.29	31/10/96	
5.30	31/10/96	
5.31	31/10/96	
5.32	31/10/96	
6.1	31/12/97	
6.2	31/10/96	
6.3	31/12/97	
6.4	31/12/97	
6.5	31/10/96	
6.6	31/10/96	
6.7	31/12/97	
6.8	31/12/97	
6.9	31/10/96	
6.10	31/10/96	
7.1	31/12/97	
7.2	31/10/96	
7.3	31/10/96	
7.4	31/10/96	
7.1.1	31/10/96	
7.1.2	31/10/96	
7.1.3	31/10/96	
7.1.4	blank	
7.1.5	31/10/96	
7.1.6	31/10/96	
7.1.7	31/10/96	
7.1.8	31/10/96	
7.1.9	31/10/96	(fold-out)
7.1.10	blank	
7.2.1	31/10/96	
7.2.2	31/10/96	
7.2.3	31/10/96	
7.2.4	31/10/96	
7.2.5	31/10/96	
7.2.6	31/10/96	
7.2.7	31/10/96	
7.2.8	31/10/96	
7.2.9	31/10/96	(fold-out)
7.2.10	31/10/96	(fold-out)
7.3.1	31/10/96	
7.3.2	31/10/96	
7.3.3	31/10/96	
7.3.4	31/10/96	
7.3.5	31/10/96	
7.3.6	31/10/96	
7.3.7	31/10/96	
7.3.8	31/10/96	
7.3.9	31/10/96	(fold-out)
7.3.10	31/10/96	(fold-out)
7.4.1	31/10/96	
7.4.2	31/10/96	
7.4.3	31/10/96	
7.4.4	31/10/96	
7.4.5	31/10/96	
7.4.6	31/10/96	
7.4.7	31/10/96	
7.4.8	31/10/96	
7.4.9	31/10/96	(fold-out)
7.4.10	31/10/96	(fold-out)
7.5.1	31/10/96	
7.5.2	31/10/96	
7.5.3	31/10/96	
7.5.4	31/10/96	
7.5.5	31/10/96	
7.5.6	31/10/96	
7.5.7	31/10/96	
7.5.8	31/10/96	
7.5.9	31/10/96	(fold-out)
7.5.10	31/10/96	(fold-out)
7.6.1	31/10/96	
7.6.2	31/10/96	
7.6.3	31/10/96	
7.6.4	31/10/96	
7.6.5	31/10/96	
7.6.6	31/10/96	
7.6.7	31/10/96	
7.6.8	31/10/96	
7.6.9	31/10/96	(fold-out)
7.6.10	blank	
7.6.11	31/12/97	
7.6.12	31/12/97	
7.6.13	31/12/97	
7.6.14	31/12/97	
7.6.15	31/12/97	
7.6.16	31/12/97	
7.6.17	31/12/97	
7.6.18	31/12/97	
7.6.19	31/12/97	(fold-out)
7.6.20	blank	
7.7.1	31/12/97	
7.7.2	31/10/96	
7.7.3	31/10/96	
7.7.4	31/10/96	
7.7.5	31/10/96	
7.7.6	31/10/96	
7.7.7	31/10/96	
7.7.8	31/10/96	

7.7.9	31/10/96	(fold-out)	7.11.5	31/10/96	
7.7.10	blank		7.11.6	31/10/96	
7.8.1	31/10/96		7.11.7	31/10/96	(fold-out)
7.8.2	blank		7.11.8	31/10/96	(fold-out)
7.8.3	31/10/96		7.11.9	31/10/96	(fold-out)
7.8.4	31/10/96		7.11.10	blank	
7.8.5	31/10/96	(fold-out)	7.11.11	31/10/96	(fold-out)
7.8.6	blank		7.11.12	blank	
7.9.1	31/12/97		7.11.13	31/12/97	
7.9.2	blank		7.11.14	31/12/97	
7.9.3	31/10/96		7.11.15	31/12/97	
7.9.4	31/10/96		7.11.16	31/12/97	
7.9.5	31/10/96	(fold-out)	7.11.17	31/12/97	
7.9.6	blank		7.11.18	31/12/97	
7.9.7	31/12/97		7.11.19	31/12/97	(fold-out)
7.9.8	31/12/97		7.11.20	31/12/97	(fold-out)
7.9.9	31/12/97		7.11.21	31/12/97	(fold-out)
7.9.10	31/12/97		7.11.22	blank	
7.9.11	31/12/97	(fold-out)	7.11.23	31/12/97	(fold-out)
7.9.12	blank		7.11.24	blank	
7.10.1	31/10/96		7.12.1	31/12/97	
7.10.2	31/10/96		7.12.2	31/12/97	
7.10.3	31/10/96		7.12.3	31/10/96	
7.10.4	31/10/96		7.12.4	31/10/96	
7.10.5	31/10/96		7.12.5	31/10/96	(fold-out)
7.10.6	31/10/96		7.12.6	blank	
7.10.7	31/10/96	(fold-out)	7.13.1	31/12/97	
7.10.8	31/10/96	(fold-out)	7.13.2	31/12/97	
7.10.9	31/10/96	(fold-out)	7.13.3	31/10/96	
7.10.10	blank		7.13.4	31/10/96	
7.10.11	31/12/97		7.13.5	31/10/96	(fold-out)
7.10.12	31/12/97		7.13.6	blank	
7.10.13	31/12/97		7.14.1	31/12/97	
7.10.14	31/12/97		7.14.2	31/12/97	
7.10.15	31/12/97		7.14.3	31/12/97	
7.10.16	31/12/97		7.14.4	blank	
7.10.17	31/12/97	(fold-out)	7.14.5	31/10/96	
7.10.18	31/12/97	(fold-out)	7.14.6	31/10/96	
7.10.19	31/12/97	(fold-out)	7.14.7	31/10/96	(fold-out)
7.10.20	blank		7.14.8	blank	
7.10.21	31/12/97		7.15.1	31/12/97	
7.10.22	31/12/97		7.15.2	31/12/97	
7.10.23	31/12/97		7.15.3	31/10/96	
7.10.24	31/12/97		7.15.4	31/10/96	
7.10.25	31/12/97		7.15.5	31/10/96	(fold-out)
7.10.26	31/12/97		7.15.6	blank	
7.10.27	31/12/97	(fold-out)	7.16.1	31/12/97	
7.10.28	31/12/97	(fold-out)	7.16.2	blank	
7.10.29	31/12/97	(fold-out)	7.16.3	31/10/96	
7.10.30	blank		7.16.4	31/10/96	
7.11.1	31/10/96		7.16.5	31/10/96	
7.11.2	31/10/96		7.16.6	blank	
7.11.3	31/10/96		7.17.1	31/12/97	
7.11.4	31/10/96		7.17.2	blank	

7.17.3	31/10/96	8.8.5	31/10/96	
7.17.4	31/10/96	8.8.6	31/10/96	
7.17.5	31/10/96	8.8.7	31/10/96	
7.17.6	blank	8.8.8	blank	
8.1	31/12/97	8.9.1	31/10/96	
8.2	31/10/96	8.9.2	blank	
8.1.1	31/10/96	8.10.1	31/12/97	
8.1.2	31/10/96	8.10.2	31/12/97	
8.1.3	31/10/96	8.10.3	31/12/97	
8.1.4	31/10/96	8.10.4	31/12/97	
8.1.5	31/10/96	8.10.5	31/12/97	
8.1.6	31/10/96	8.10.6	blank	
8.1.7	31/10/96	8.10.7	31/12/97	
8.1.8	31/10/96	8.10.8	31/12/97	
8.1.9	31/10/96	8.10.9	31/12/97	
8.1.10	31/10/96	8.10.10	31/12/97	
8.1.11	31/10/96	8.11.1	31/10/96	
8.1.12	31/10/96	8.11.2	31/10/96	
8.1.13	31/10/96	8.11.3	31/10/96	
8.1.14	31/10/96	8.11.4	31/10/96	
8.1.15	31/10/96	8.11.5	31/10/96	
8.1.16	31/10/96	8.11.6	31/10/96	
8.1.17	31/12/97	8.11.7	31/10/96	
8.1.18	31/10/96	8.11.8	31/10/96	
8.1.19	31/10/96	8.11.9	31/10/96	
8.1.20	31/10/96	8.11.10	31/10/96	
8.1.21	31/10/96	8.11.11	31/10/96	
8.1.22	31/10/96	8.11.12	31/10/96	
8.1.23	31/10/96	8.11.13	31/10/96	
8.1.24	blank	8.11.14	31/10/96	
8.2.1	31/10/96	8.11.15	31/10/96	fold-out
8.2.2	31/10/96	8.11.16	blank	
8.3.1	31/10/96	8.11.17	31/10/96	fold-out
8.3.2	31/10/96	8.11.18	blank	
8.3.3	31/10/96	8.12.1	31/10/96	
8.3.4	31/10/96	8.12.2	31/10/96	
8.4.1	31/10/96	8.12.3	31/10/96	
8.4.2	31/10/96	8.12.4	31/10/96	
8.5.1	31/10/96	8.12.5	31/12/97	
8.5.2	31/10/96	8.12.6	31/10/96	
8.5.3	31/10/96	8.12.7	31/10/96	
8.5.4	blank	8.12.8	31/10/96	
8.6.1	31/10/96	8.12.9	31/10/96	
8.6.2	31/10/96	8.12.10	31/10/96	
8.6.3	31/10/96	8.12.11	31/10/96	
8.6.4	31/10/96	8.12.12	31/10/96	
8.7.1	31/10/96	8.12.13	31/10/96	
8.7.2	31/10/96	8.12.14	blank	
8.7.3	31/10/96	8.13.1	31/12/97	
8.7.4	31/10/96	8.13.2	31/12/97	
8.8.1	31/10/96	8.13.3	31/12/97	
8.8.2	31/10/96	8.13.4	31/12/97	
8.8.3	31/10/96	8.13.5	31/12/97	
8.8.4	31/10/96	8.13.6	31/12/97	

8.13.7	31/12/97	
8.13.8	blank	
8.14.1	31/10/96	
8.14.2	31/10/96	
8.14.3	31/10/96	
8.14.4	31/10/96	
8.14.5	31/10/96	
8.14.6	31/10/96	
8.14.7	31/10/96	
8.14.8	31/10/96	
8.14.9	31/10/96	
8.14.10	31/10/96	
8.14.11	31/10/96	
8.14.12	31/10/96	
8.14.13	31/10/96	
8.14.14	31/10/96	
8.14.15	31/10/96	
8.14.16	31/10/96	
8.14.17	31/10/96	
8.14.18	31/10/96	
8.14.19	31/10/96	
8.14.20	31/10/96	
8.14.21	31/10/96	
8.14.22	31/10/96	
8.14.23	31/10/96	
8.14.24	31/10/96	
8.14.25	31/10/96	
8.14.26	31/10/96	
8.14.27	31/10/96	fold-out
8.14.28	blank	
8.15.1	31/12/97	
8.15.2	31/12/97	
8.15.3	31/12/97	
8.15.4	31/12/97	
8.15.5	31/12/97	
8.15.6	31/12/97	
8.15.7	31/12/97	
8.15.8	31/12/97	
8.15.9	31/12/97	
8.15.10	31/12/97	
8.15.11	31/12/97	
8.15.12	31/12/97	
8.15.13	31/12/97	
8.15.14	31/12/97	
8.15.15	31/12/97	
8.15.16	31/12/97	
8.15.17	31/12/97	
8.15.18	blank	
8.16.1	31/12/97	
8.16.2	31/12/97	
8.16.3	31/12/97	
8.16.4	31/12/97	
8.16.5	31/12/97	
8.16.6	31/12/97	
8.16.7	31/12/97	
8.16.8	blank	
9.1	31/10/96	
9.2	31/10/96	
9.3	31/10/96	
9.4	31/10/96	
9.5	31/10/96	
9.6	31/10/96	
9.7	31/10/96	
9.8	31/10/96	

Contents

1 General Information

2 Circuit Description

3 Introduction To Servicing

4 Functional Tests

5 Fault Finding

6 Tuning & Adjustment

7 PCB Information

8 Accessories

9 Software

List Of Illustrations

List Of Tables

