The Tait Orca 5000 series of handportables

There are five Tait Orca 5000 series handport-
ables:

- Orca 5010 - low tier conventional

- Orca 5020 - high tier conventional

- Orca 5030 - low tier trunked

- Orca 5035 - mid tier trunked

- Orca 5040 - high tier trunked

This manual includes information specific to
all the Orca 5000 handportables. As new
features and enhancements occur, new
revisions of this manual will be released.

The Tait Orca Product Code

The characters in the Tait Orca 5000 product
code provide information about the radio's
functional parameters and various hardware
options, according to the scheme outlined in
Figure A-1. While Tait Orca products are
designed for flexibility of application, not all
Product Codes are available and hold regulato-
ry compliance in your market. For more infor-
mation on available products, contact your
nearest Tait dealer.

Figure A-1: Tait Orca Product Code Scheme

TOP-abcde-mn
Compliance Code (see note 7)

TOP – Family designator

a – Frequency band:
A	66–88 MHz
B	136–174 MHz
C	174–225 MHz
D	reserved
E	reserved
F	reserved
G	336–400 MHz
H	400–470 MHz
I	450–530 MHz
J	806–870 MHz Tx
	851–870 MHz Rx
K	896–941 MHz Tx
	935–941 MHz Rx

b – Channel space/IFBW:
1   *12 kHz Medium IFBW (MB) –
20/25/30 kHz Channel spacing
(Limited availability & Compliances – Some
G-band products only.
See note 1)*

2   10 kHz Universal IFBW (UB) –
12.5/15/20/25/30 kHz Channel spacing

c – User interface:
1	Orca Elan
2	Orca Excel
3	Orca Eclipse
4	5010, 5011, 5030)
5	5035) (see note 3)
6	5020, 5021, 5040)
7	RF Modem

d – Air interface:
1	Conventional PMR
2	MPT 1327 trunked
3	Conventional PMR II (See note 4)

e – Compliance-relevant changes:
0	Initial default
H,L	Reserved
A	Radio Modem

m – Badging:
C	Tait Custom Product (TCI)
G	Reserved
T	Tait
V	TEL (Argentina, see note 5)
U	Unbadged (see note 6)
Z	Reserved

**n – Custom variations not affecting radio/EMC
compliance:**
0	Initial default
1	Reserved
2	Intrinsically Safe (Factory Mutual)

Notes:

1. While Tait Orca products are designed for
flexibility of application, not all Product
Codes are available and hold regulatory

compliance for your market. Please
enquire before ordering any code which
has not been explicitly offered. Informa-
tion in *italics* refers either to planned new

or obsolescent parameters which are not available at the issue date of this document.

2. This document does not address coding for packed ensembles of radio, battery, charger, antenna etc. These must be negotiated with TOP Logistics (refer to TMS document CS0003, TOP Package Code Scheme).

3. The 50xx numbers assigned to Tait Orca 5000 products are the name of each product, analogous to Elan, Excel and Eclipse. Available combinations are:

'd' value	Product Name	Air Interface
1	5010, 5020	Conventional PMR
2	5030, 5035, 5040	MPT 1327 trunked
3	5011, 5021	Conventional PMR II

4. Conventional PMR II products have G-Star & Type 99 signalling, Flexiscan, ANR (audio noise reduction) & 2.5 kHz synthesizer steps for TOP-B2 products between 150 & 174 MHz, and when NB is selected.

5. V identifies TEL badged products are for sale in Argentina, where the name 'Tait' is registered to another Company.

6. U identifies accessories which are generally Tait-badged, but an unbadged equivalent has been produced for use with radios carrying a non-Tait badge.

7. The Compliance Code (underlined) addresses regulator concerns that the full (3-group) code appearing on the product is not the same as the 2-group code under which Compliance was obtained. It appears only on the product label and some regulatory declarations.
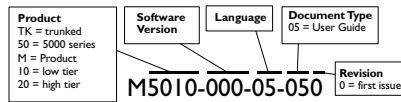
   For some regulatory areas, this permits the same Compliances to apply regardless of badging or minor custom variations expressed in the 3rd group. However, note that the first 2 groups of the Product Code may not necessarily be the same as the Compliance Code. This allows Compliance of Tait Orca 50xx products to be extrapolated from Elan/Excel/Eclipse for some regulators.

Operating instructions

A user's guide is available for each radio. Figure A-2 shows the naming convention for Tait Orca 5000 radio user's guides.

Figure A-2: Naming convention for Tait Orca 5000 handportable user's manuals

Product	Software Version	Language	Document Type
TK = trunked			05 = User Guide
50 = 5000 series			
M = Product			
10 = low tier			Revision
20 = high tier			0 = first issue

M5010-000-05-050

USER GUIDES

ENGLISH	FRENCH	LATIN SPANISH
M5010-xxx-00-05x	M5010-xxx-02-05x	M5010-xxx-05-05x
M5020-xxx-00-05x	M5020-xxx-02-05x	M5020-xxx-05-05x
M5030-xxx-00-05x	M5030-xxx-02-05x	M5030-xxx-05-05x
M50TK-xxx-00-05x	M50TK-xxx-02-05x	M50TK-xxx-05-05x

SIMPLIFIED CHINESE	TRADITIONAL CHINESE
M5030-xxx-09-05x	M5030-xxx-10-05x
M50TK-xxx-09-05x	M50TK-xxx-10-05x

Accessories

Table A-1 shows the accessories available for Tait Orca 5000 handportables. Of these accessories, only the chargers are serviceable.

For more information on chargers, see *Part E: Battery packs and chargers*. The six battery packs available for Tait Orca 5000 handportables are also described in Part E.

Fitting an accessory (without D-clip)

To fit some accessories to the radio, you will need to remove the rear accessory cover. Remove the battery, then insert the end of a key underneath the bottom edge of the accessory cover. Lift to remove the cover.

When attaching or removing an accessory, ensure that the lever is in the upright position. Engage the two posts at the base of the connector with the rear panel. Once the accessory is in position, rotate the lever 90 degrees counterclockwise to lock it in place.

Servicing Intrinscially Safe radios

Intrinsically Safe radios

Intrinsically Safe (IS) radios are certified by a third party to be safe to use in particular hazardous locations.

Tait Orca 5000 IS handportables can be identified by one or more of the following:

■ Yellow labels

■ IS circle logo   (IS)

■ FM diamond logo   ◁FM▷ APPROVED

A radio with any of these features must only be serviced by an agency certified by both the approval authority and Tait Electronics Limited. Any unauthorised repair or substitution of parts invalidates the intrinsic safety rating and the third party IS approval.

IS PCB servicing requirments

Tait Orca 5000 IS handportables must be returned to an authorised Tait branch or subsidiary for servicing. Any unauthorised repair or substitution of parts invalidates the intrinsic safety rating.

FM approval

Tait Orca 5000 IS handportables and accessories are approved by Factory Mutual Corporation (FM) to the following ratings:

Approval	Class	Division	Group	Temperature Rating
Intrinsically Safe: The unit is unable to cause ignition under normal or abnormal operating conditions.	Class I: Gas or petroleum type environment.	Division 1: Hazardous mixtures are normally present.	Groups C & D: Ethylene and propane gases.	T3C: 160°C
Non-Incendive: The unit is unable to cause ignition under normal operating conditions.	Class I: Gas or petroleum type environment.	Division 2: Hazardous mixtures are present abnormally.	Groups A, B, C & D: Acetylene, hydrogen, ethylene and propane gases.	T3C: 160°C

FM approved products

Refer Figure A-1. Radios with the following product code have FM IS approval:

■ TOP-a**2**cd**0**-**T2**

FM approved accessories

The following accessories are approved for use with the Tait Orca 5000 IS handportables.

■ TOPB200-IF NiCd IS battery pack

■ TOPA-AA-003 rugged speaker-microphone

■ TOPA-AA-004 RF speaker-microphone

■ TOPA-AA-005 adapter (required for use with TOPA-AA-012/013)

■ TOPA-AA-012 heavy duty headset with noise cancelling microphone (over the head)

■ TOPA-AA-013 heavy duty headset with noise cancelling microphone (behind neck)

■ T952-051 rugged earphone kit (optional for use with TOPA-AA-003/004)

TOPB200-IF IS battery pack

The shift life of the TOPB200-IF IS battery

pack may be reduced by up to 10 percent when compared to its non-IS equivilant.

The battery pack should not be charged in a hazardous location.