

TECHNICAL NOTE TN-822d How to Use the Software Feature Enabler Application 18th April 2006

Applicability

This Technical Note is intended to be used as an instruction guide on how to use the on-line application that allows Software Feature Enabling (SFE) codes to be generated and regenerated for repair for the following products:

- TB7100 Base Stations
- TM8000 Mobiles
- TM9100 APCO Digital Mobiles
- TP9100 APCO Digital Portables
- TB8100 Base Stations
- TB9100 APCO Digital Base Stations

The Technical Note also details how to enable and disable features in the products and aspects of board swapping.

1. Background on SFE.

What is an SFE?	A S oftware F eature E nabling key code (formally known as a Feature License Code (FLC)) that, once programmed into the product, turns on a feature that was not previously available to the user. This code is a purchasable item.
Who can get an SFE?	Currently only the Tait CSO's can order SFE codes. In future, once the appropriate systems and IT applications are in place, customers may be able to order upgrades over the internet.
How do I order and SFE for my product?	Please refer to TMS document TE0738 for ordering details
Can I get access to the SFE code generator?	Please refer to TMS document TE0738 for details

2. Using the SFE Generation Application

User Instructions

To obtain a SFE code, please follow the steps below:

1) Go to the following web address.

http://webapps.tait.co.nz/T8000_SFE/MainMenu_CSO.asp

- 2) Please note that this is a Taitweb address. Unless you have access to the Taitweb website the SFE website will not be shown.
- 3) You will be prompted to enter in your generic TaitWeb login information before the title screen will be displayed.
- 4) You will then be presented with the screen pictured below:

Thtp://webapps.fait.co.nz/sfe/MainMenu_CSO.asp - Microsoft Internet Explorer	_ 8 2
Be Edit View Favorites Icols Belp	
⇔Back ▼ → → 🕼 🕄 🖾 🕲 Search Galfavorites 🞯 Meda 🥥 🖏 କ 🗃 🐨 🗖	
Address 😥 http://webspps.tat.co.re/sfe/MarMenu_CSO.asp	- 00
Software Licence Key Generator	
Using the Licence Key Generator, you can purchase licence keys for software features for the products you specify. T application takes you step-by-step through the selection and purchase process. You can return to this page at any tin clicking Home.	his ne by
Purchase licence keys	
Board swap	
Manual Billing Process	
Enter Purchase Order	
Decode feature licence keys	
Administer transactions	
Administer locks	
Administer application users	
View Unallocated (Temporary link)	
Done State	calintranet

- 5) Left click with your mouse onto the link titled "Purchase License Keys".
- 6) You will now be presented with a screen asking you to enter in a serial number range or import a *.txt file (see picture below). Please select one of the options.



Instructions (Cont)

7) The next screen shown is the one pictured below. Please confirm that the serial number range you have entered is correct for your needs. Once confirmed, please click on "Step 3: Select Features".



8) You will now be presented with a screen indicating which features can be enabled for the product type (only TM8000 and TB8000 series products allowed currently, APCO product in future).



- 9) Using the mouse, click the "~" symbol. This will change from the "~" symbol to the words "Generate Key". If the feature was already enabled on a particular serial number, the "Status" field will display "enabled". If you click on the "~" key for a feature that was already enabled, the "~" will change to display the words "Regenerate Key".
- 10) Once all desired selections have been made, click on **"Step 4:** Generate Keys".

Instructions (cont)	 The next screen to be displayed is pictured below. This screen detail (in this order): Serial Number; Feature Number, SFE Code; Status. The swill be listed as "new" or "regenerated". You now have the option to either print the information or e it to an address. To e-mail, you must enter in a valid e address into the field provided. Then click on "Email Key Files 	n will tatus -mail -mail
	i i facti +	2900 (1995 ¹⁴
	Web	-
	Home 1 Step 1: Select Serial Numbers	
	Step 4: Email or Print Generated Keys	2
	The following keys have been generated. You can now:	
	Print this page for your reference and enter the keys manually, or	
	 Send the keys as lifes to the email address shown below (or one that you specify). Click Email Key Files to send the email. It will contain instructions on how to use the key files to enable the features. 	
	TBAS010 9ULW.6W9T.MS8B.AT4Q.Q2M3.TD New	
	Send To Email Address (Peny owed@retcone Email Key Files	
SFE files - Mozilla Thunderbird		
File Edit View Go Message Tools Help		
Get Mail Write Address Book Reply Reply All Forwa	ard Delete Junk Print Stop	
Subject: SFE files From: Tait SFE Application <webmaster@tait.co.nz> Date: 10:53 a.m.</webmaster@tait.co.nz>		ntuset
To: Barry Crates <barry.crates@tait.co.nz></barry.crates@tait.co.nz>		
This is an automatically generated email. Please do no	iot reply.	
Thank you for your order. Please find attached the licence keys for the softwars Instructions on how to enable the feature set(s) can	re features you requested. 1 be found at support.taitworld.com in Technical Note TN-822.	
Attachments:		
.key		
2		

- 13) At this stage, the SFE key generation process is complete. If you require to generate more SFE keys, click on "Step 1: Select Serial Numbers" to start the process again. 14) If you have completed generating the keys you require, exit the
- application.

What happens if an SFE feature is disabled?	The only way that an SFE feature can purposefully be disabled is in the programming application using the SFE tool. When a feature is disabled, a disable key is generated. This key will always be able to be read and displayed until the feature is enabled again.
	However, to enable the feature again, the disable key needs to be provided to the SFE Administrator for your region. This key is then entered into the SFE database in association with the serial number of the radio. This effectively completes the cycle of disabling the feature.
	The entering in of the disable key into the database not only sets the feature to 'Disabled" in the database, but also increments the database which in turn allows a new SFE key to be generated for the radio.
How to Program the Key into my TB8100 /	Instructions are always attached to the e-mail message that is sent with the SFE key file. (Please note, screen shots used below are from the TB8100, but the process are the same and the screen shots similar)
ТВ9100	 Connect and log on to the base station. Save the license files (and any others that you received for other

- feature sets or other base stations) to the Programming application's license file folder (select Tools > Options to see which folder the Service Kit uses).
- 3. IMPORTANT: If you received a ZIP file containing multiple license files, you MUST unzip the contents of the ZIP file and save the individual license files into the correct folder.
- 4. Go into Standby mode, and then select Tools > Software Feature Enabler.

	ervice Kit - Ve	<u></u>											_ 5
e Base Stat	ion Tools H	elp											
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Sule Detail Reciter	8												
Power Ampi	ifier												
rms	syemen												
Current Stat	JS												
nitoring													
Channel Reciter													
Power Amp	ifier				т	B810	0 Ser	vice k	Cit				
na Logging	sgement												
System Dat	a												
System Flag	38						Version 2.0	0					
-RecentActi Timers	ons												
Counters					Come	abt (c) Tait E	lactonics 20	M All rights a	area ed				
riogs					copyin	grin (cy r cin c							

5. Click the feature set to select it.

Software Feature Enabler Base Station Name: Untitled Base Station				
Reciter Serial Number:	Statue	Sec	Fastura Licanca Kay	
TBAS000 Default Radio System TBAS010 Alarm Reporting TBAS020 Advanced Profiles and Tele Manager TBAS030 Power Saving Modes Reserved Reserved Reserved Reserved	 Enabled Enabled Enabled Disabled Disabled Disabled Disabled Disabled Disabled 	1 1 1 0 0 0 0 0	Fedure Conservey XMYP: 7KU9 PGFC: RT3 C28S.GL8N.7GZ5.NTCF. 6TT2.9F9X.3W5R.GTVF 52HW:43AB.UWF4.RTLf	79SH.TD 79SH.TD 79SH.TD 79SH.TT
Feature License Key: DZBM 28VA 4UGN 2TLF 79SH Progress:		<u>F</u> ind I	License File	—
	Enable	Disable	Close	Help

- 6. Click Find License File. This searches the license file folder for a license file for the current base station and the selected feature set. If the
- 7. Programming Application finds one, it displays the license key (in the feature set's row and in the Feature License Key boxes), and increments the Seq column by 1.
- 8. Click **Enable**. This enables the feature set. The license key appears in the feature set's row and the Seq column is incremented by 1

Software Feature Enabler			
Base Station Name: Untitled Base Station			
Reciter Serial Number:			
Feature Code Feature Set	Status	Seq	Feature License Key
TBAS000 Default Radio System TBAS010 Alarm Reporting TBAS020 Alarm Reporting	 Enabled Enabled 	1	XMYP.7KU9.PGFC.RT3F.79SH.TD C28S.GL8N.7GZ5.NTCF.79SH.TD
TBAS020 Advanced Promes and Task Manager	Enabled	1	0112.9F9X.3W9R.G1VF.795H.TD
Reserved Reserved Reserved Reserved	 Disabled Disabled Disabled Disabled Disabled 	0 0 0 0	
Feature License Key: DZBM 28VA 4UGN 2TLF 73SH		Einc	l License File
Progress:			
Ē	nable	<u>D</u> isable	e <u>C</u> lose Help

9. The feature has now been enabled in the product.

How to Program the Key into my TM8000 / TM9100 / TB7100

TM8100 shown in the screen shots below.

To enable an optional feature

- 1. Read the radio. See Reading a radio for more information.
- 2. Select the Tools > Optional Features menu command.

TM8000 Programming Ele Edit Radio Network Radio Model TM8100	Application (2.57.0.3)
Specifications Receiver Monitoring Data Selcall Selcall Selcall dentity Fixed Format Bursts Free Format Bursts Tone Settings DTMF DTMF Signalling Networks Features PTT Signalling Channels Scan Groups Key Settings UI Preferences Start-up PTT Programmable I/0	Specifications Radio Model Information Radio Model TM8100 Band H5 (400-470 MHz) Serial Number Serial Number
Database Version: 0054	Last action: Read radio TM8100

3. Click on the feature set that you want to enable in the Features box.

Radio Radio Model Radio Serial Number: Eeatures		Bead Radio		
Feature Code Feat TMOE000 Tait Reserved Reserved Reserved Reserved Reserved Reserved Reserved Reserved	iture Set High Speed Data	Status Unknown Unknown Unknown Unknown Unknown Unknown Unknown Unknown	Seq 0 0 0 0 0 0 0 0 0 0 0	Feature License Key
Disable	<u>S</u> ave To License Ke	y File		
Feature License Key:-	Eind License File] 	Radio Se	Feature

4. Obtain and enter a license key by clicking the Find License File button, and double click a *.key file.

Open							? X
Look <u>i</u> n: 🔂	ТМ8К_СРА		-	•	£ 💣	·	
	keγ						
File <u>n</u> ame:					_	<u>0</u>	pen
Files of <u>ty</u> pe:	Feature Keys (*.key)				•	Ca	ancel
Comments			Radio Info	rmation		F	lelp
				madon			
		-					~

5 Click the Enable button

Radio Radio Model TM8100 Radio D. F. O. J. W. J. C.	X Radio
Feature Solution Feature Code Feature Set Status Tait High Speed Data Reserved Unknow Reserved Unknow	Seq Feature License Key sled 1 TFYLNSHN BRMV FT3D.8KL4 TD vm 0 vm 0
Disable Save To License Key File	
File Eind License File Feature License Key: TFYL NSHN BRMV FT3D ØKL4 TD	Enable Feature TMOB000: Tait High Speed Data Radio Serial Number:

- 6 Close the SFE Window.
- 7 Enable relevant programmable settings. For example, to enable Tait high-speed data, select the Modem Enabled check box.

<u>Please note: If programming a TB7100, you will need two SFE keys for</u> <u>each sub-assembly used in the TB7100 system.</u>

How to Program the Key into my TP9100

TP9100 shown in the screen shots below.

To enable an optional feature

- 1. Read the radio. See Reading a radio for more information.
- 2. Select the Tools > Optional Features menu command.

🐻 TM9100/TP9100 P	ramming repplication (1.7.0.2)		_ 8 ×
File Edit Radio Tools I	жþ		
	Radio 🙀Rea	Kinterrogate 24 Program	
Radio Model	TP9100 TM9100		
Bitaclassical Bitaclassical Stackay Shadow Pacobieve Monitoring Call Liss Message Liss Status Liss Encloped Position Pacobievestoal Pacobievestoal Audod Position Pacobievestoal Pacobie	- Specifications	Radio Unit Information Serial Number Bend P15 (400-470 MHz) Padio Configuration Information Digital RF Performance FCC-TIA Configure es 110W Redio F1	

3. Click on the feature set that you want to enable in the Features box.

adio Radio Model TP3000 Radio Serial Number Bead Radio Features Feature ID Feature Set Feature ID Feature Set Feature ID Feature Set SFE P25 Common Air Interface Feature ID Feature ID Feature Set Feature ID Feature Set SFE P25 Graphical C/Head Operation Disabled 2 973'0 22CH8 ZU3H 56T8 5DOC TA TxAS055 SFE P25 Graphical C/Head Operation Disabled 0 2555 XSTS 2M7X SWT8 5DOC TT TxAS055 SFE P25 Trunking Services Disabled 0 2555 XSTS 2M7X SWT8 5DOC TT TxAS056 SFE P25 Char-Encrypt Rekey Disabled 0 2555 XSTS 2M7X SWT8 5DOC TT TxAS056 SFE P25 Char-Encrypt Rekey Disabled 0 2555 XSTS 2M7X SWT8 5DOC TT TxAS056 SFE P25 Encryption (DES) Enabled 1 BNN5 XXG2 AGCW 3W38 5DOC.TT TxAS058 SFE P25 Encryption (AES) Disabled 0 8FP2 U2C6 SYAJ T8T8 5DOC.TT Feature F	oftware Featur	e Enabler				
Radio Model TP9000 Radio Serial Number Bead Radio Feature ID Feature ID Feature Set Enabled 1 325V 2F48 ZU3H 56T8 5D0C TD TxAS051 SFE P25 Common Air Interface Enabled 2 886W 3EMB J3G3 N6A8 5D0C TA TxAS051 SFE P25 Common Air Interface Disabled 2 973Y 62CM BKDR W628 5D0C TA TxAS053 reserved Disabled 2 973Y 62CM BKDR W628 5D0C TA TxAS054 SFE P25 Graphical C/Head Operation Disabled 0 2555 XSFE 275 Nucking Services TxAS055 SFE P25 Trunking Services Disabled 0 255V 2F48 ZUAH 50C TT TxAS055 SFE P25 Packet Data Services Disabled 0 Z5FX 2MX 3WT8 5D0C TT TxAS057 SFE P25 Encryption (DES) Enabled 1 BIN5.5XG2 AGCW 3W98 5D0C.TT TxAS058 SFE P25 Encryption (AES) Disabled 0 8FP2.U2C6 SYAJ T8T8 5D0C.TT Pisabled SFE P25 Encryption (AES) Disabled 0 8FP2.U2C6 SYAJ T8T8 5D0C.TT Feature License Key Enabled 0 8FP2.U2C6 SYAJ T8T8 5D0C.TT Feature Enabled 0 8FP2.U2C6 SYAJ	oib					
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Feature ID Feature ID Feature ID Feature ID Feature ID TxAS050 SFE P25 Common Air Interface Enabled 1 323V 2F48 ZL3H 56T8 5D0C TD TxAS051 SFE P25 Graphical C/Head Operation Disabled 2 986W.3EMB J3C3 N648 5D0C TA TxAS054 SFE P25 Graphical C/Head Operation Disabled 2 973Y 62CM BKDR W628 5D0C TA TxAS054 SFE P25 Otar - Encrypt Rekey Disabled 0 2555 XST 2MX SWR8 5D0C TT TxAS055 SFE P25 Trunking Services Disabled 0 2555 XST 2MX SWR8 5D0C TT TxAS056 SFE P25 Packet Data Services Disabled 0 2748 ZL3H 56W28 5D0C TT TxAS056 SFE P25 Encryption (DES) Enabled 0 D2FU.SPL 7H46W28 5D0C TT TxAS058 SFE P25 Encryption (AES) Disabled 0 0 2749 ZVA 7WW 7H66W 2500 CTT TxAS058 SFE P25 Encryption (AES) Disabled 0 0 8FP2 U2C6 SYAJ T8T8 5D0C CTT TxAS058 SFE P25 Encryption (AES) Disabled 0 8FP2 U2C6 SYAJ T8T8 5D0C CTT Pisable Save To License Key File Enable Enable 8FP2 U2C6 SYAJ T8T8 5D0C CTT </td <td>Features</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Features					
Feature ID Feature Set Status Seq Feature Locense Key TxXS050 SFE P25 Common Air Interface Enabled 1 325V 2748 22.41558 5D 0C.TD TXXS051 SFE P25 Graphical C/Head Operation Disabled 2 973Y 62CM BKDR W628 SD 0C.TA TXXS054 SFE P25 Graphical C/Head Operation Disabled 2 973Y 62CM BKDR W628 SD 0C.TA TXXS054 SFE P25 Otar - Encrypt Rekey Disabled 0 2555 X57 2MX SWR8 SD 0C.TT TXXS055 SFE P25 Trunking Services Disabled 0 2555 X57 2MX SWR8 SD 0C.TT TXXS056 SFE P25 Encryption (DES) Enabled 0 DFUS X45		1				
TxAS050 SFE P25 Common Air Interface Enabled 1 325X/2F482332.3H 5618.5D0.CTA TxAS053 SFE P25 Graphical C/Head Operation Disabled 2 913Y 6200.RH KDR W628.5D0.CTA TxAS053 SFE P25 Graphical C/Head Operation Disabled 2 913Y 6200.RH KDR W628.5D0.CTA TxAS053 SFE P25 Graphical C/Head Operation Disabled 2 913Y 6200.RH KDR W628.5D0.CTA TxAS055 SFE P25 Tunking Services Disabled 0 47V8.7FN7.KFP5.N698.5D0.CTT TxAS055 SFE P25 Packet Data Services Disabled 0 T3XWUBPY/FR0.5WA8.5D0.CTT TxAS057 SFE P25 Encryption (DES) Enabled 1 B8N5.5XG2 AGCW.9W98.5D0.CTT TxAS058 SFE P25 Encryption (AES) Disabled 0 8FP2.U206.SYAJ.T818.5D0.CTT Pisable State P25 Encryption (AES) Enable Feature Enable	Feature ID	Feature Set	Status	Seq	Feature License Key	
TxAS051 SFE P25 Administrator Services Disabled 2 886W3EMB 3/G3 NK68 500CTA TxAS052 SFE P25 Graphical C/Head Operation Disabled 0 373 (23CM 8/DR W288 500CTA TxAS053 reserved Disabled 0 47/8 (7KN KFPS N688 5D0CTA TxAS054 SFE P25 Otar - Encrypt Rekey Disabled 0 2555 XST3 2M7X9W78 5D0C TT TxAS056 SFE P25 Packet Data Services Disabled 0 Disabled 0 TxAS056 SFE P25 Encryption (DES) Disabled 0 DZFU.59T.1746 XW28 5D0C.TT TxAS058 SFE P25 Encryption (AES) Disabled 0 DZFU.59T.1746 XW28 5D0C.TT TxAS058 SFE P25 Encryption (AES) Disabled 0 DZFU.59T.1746 XW28 5D0C.TT TxAS058 SFE P25 Encryption (AES) Disabled 0 BN5 SXG2 AGCW 3998 5D0C.TT Disabled Question Question 0 BFP2.U2C6.SYAJ.T8T8 5D0C.TT Question Question Question PEresture Enable Question Question PEresture Enable Enable Peature Enable Radio Serial Number. Enable	TxAS050	SFE P25 Common Air Interface	Enabled	1	3ZSV.2F48.ZL3H.56T8.5DC	IC.TD
TMAS052 SEE P25 Graphical C/Head Operation Disabled 2 913Y G2CN18KDR Wb28.8D0C.TA TxAS054 SFE P25 Trunking Services Disabled 0 2555/STS 2MX SWT8 5D0C.TT TxAS055 SFE P25 Packet Data Services Disabled 0 2713/G2CM 2MX BSD0C.TT TxAS056 SFE P25 Packet Data Services Disabled 0 D2FU.SPF/T36/SW28.5D0C.TT TxAS056 SFE P25 Encryption (DES) Enabled 1 BIN5.5XG2.AGCW.9W98.5D0C.TT TxAS058 SFE P25 Encryption (AES) Disabled 0 8FP2.U206.SYAJ.T8T8.5D0C.TT @	TxAS051	SFE P25 Administrator Services	Disabled	2	886W.3EMB.J3G3.N6A8.5D	IQC.TA
IxASUb3 reserved Ubsabled 0 4/76/T/NZFPS.N898.5D0C.TT TxAS055 SFE P25 Trunking Services Disabled 0 T3X/UBPVPFR0.5WA8.5D0C.TT TxAS055 SFE P25 Packet Data Services Disabled 0 D2FU.S9FJ.1946.XV28.5D0C.TT TxAS057 SFE P25 Encryption (DES) Enclosed 0 BFP2.U2C6.SYAJ.T878.5D0C.TT TxAS058 SFE P25 Encryption (AES) Disabled 0 BFP2.U2C6.SYAJ.T878.5D0C.TT Perform File Feature File Feature Feature Radio Serial Number:	TMAS052	SFE P25 Graphical C/Head Operation	Disabled	2	913Y.G2GN.BKDR.W628.5	DUC.TA
IxASU64 SFE P25 Innking Services Disabled 0 2555/STS 2MX/SW18:5D0C.TT TxAS056 SFE P25 Packet Data Services Disabled 0 D2FU.SFJ.T346.5W28:5D0C.TT TxAS056 SFE P25 Encryption (DES) Enabled 1 B8N5.5XG2.AGCW.3W38:5D0C.TT TxAS058 SFE P25 Encryption (AES) Disabled 0 8FP2.U2C6.SYAJ.T8T8:5D0C.TT Disabled 0 8FP2.U2C6.SYAJ.T8T8:5D0C.TT Enabled 1 Disabled 0 8FP2.U2C6.SYAJ.T8T8:5D0C.TT Pisable Set P25 Encryption (AES) Disabled 0 Pisable Set P25 Encryption (AES) Enabled 8FP2.U2C6.SYAJ.T8T8:5D0C.TT	TxAS053	reserved	Uisabled	0	47V8.7FN7.KFP5.N698.5DC	IC.TT
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IxASUb/ SFE P25 Encryption (UES) Enabled Image: Bink SXG2 AGCW 9W98 SDOC TD TxAS058 SFE P25 Encryption (AES) Disabled 0 8FP2 U2C6 SYAJT818:5DOC.TT Disable Save To License Key File Enable Enable Enable Eind License File Enable Enable Enable Feature License Key Feature Enable Feature License Key Radio Serial Number: Enable	TXASU56	SFE P25 Packet Data Services	Uisabled	U	DZF0.S9FJ.1946.XW28.5D	
	TXAS057	SFE P25 Encryption (DES)	Enabled		B8N5.SXG2.AGCvv.9vv98.5	
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e Eind License File Enable Enable Feature License Key. Feature Radio Serial Number:	Disable	<u>S</u> ave To License Key Fi	le			
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Feature License Key. Feature I Radio Serial Number.	Eind	License File			Enable	
Feature License Ley. Feature Radio Serial Number:	F 1 1 1	,				
Radio Serial Number:	Feature License <u>r</u>	76À:			Feature	
Radio Seriel Number:			_			
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4. Obtain and enter a license key by clicking the "Find License File" button, and double click a *.key file.

5 Click the Enable button

Features				Bead Rad
Feature ID	Feature Set	Status	Seq	Feature License Key
TxAS050	SFE P25 Common Air Interface	Enabled	1	3ZSV.2F48.ZL3H.56T8.5DQC.TD
TxAS051	SFE P25 Administrator Services	\varTheta Disabled	2	886W.3EMB.J3G3.N6A8.5DQC.TA
TMAS052	SFE P25 Graphical C/Head Opera	ation 🛛 \varTheta Disabled	2	9T3Y.G2GN.BKDR.W628.5DQC.TA
TxAS053	reserved	\varTheta Disabled	0	47V8.7FN7.KFP5.N698.5DQC.TT
TxAS054	SFE P25 Otar - Encrypt Rekey	\varTheta Disabled	0	ZS55.XSTS.2M7X.9WT8.5DQC.TT
TxAS055	SFE P25 Trunking Services	\varTheta Disabled	0	T3XW.UBWP.YFRQ.5WA8.5DQC.TT
TxAS056	TxAS056 SFE P25 Packet Data Services 🕒 Disabled 0 DZFU.S9FJ.T946.XW28.5DQC.TT		DZFU.S9FJ.T946.XW28.5DQC.TT	
	TxAS057 SFE P25 Encryption (DES) 🕒 Enabled 1 B8N5.SXG2.AGCW.9W98.5DQC.TD			
TxAS057 TxAS058	SFE P25 Encryption (DES) SFE P25 Encryption (AES)	 Enabled Disabled 	1 0	B8N5.SXG2.AGCW.9W98.5DQC.TD 8FP2.U2C6.SYAJ.T8T8.5DQC.TT
TxAS057 TxAS058	SFE P25 Encryption (DES) SFE P25 Encryption (AES)	 Enabled Disabled Key File 	1 0	B8N5 SXG2 AGGW 9W88 5DOC.TD 8FP2.U2C6.SYAJ.T8T8.5DOC.TT
TxAS057 TxAS058	SFE P25 Encryption (DES) SFE P25 Encryption (AES)	 Enabled Disabled Key File 	1 0	BRN5,SXG2,AGGW,9W88,5DOC.TD 8FP2,U2C6,SYAJ,T8T8,5DOC.TT
TxAS057 TxAS058 Disable	SFE P25 Encryption (DES) SFE P25 Encryption (AES)	 Enabled Disabled Key File 	1	BRN5 SXG2 AGGW 9W88 5DOC.TD 8FP2.U2C6.SYAJ.T8T8 5DOC.TT Enable

	TP9000	Radio Se	erial Number: 21	000233		<u>R</u> ead Radi
eatures						
Feature ID	Feature Set		Status	Seq	Feature License Ke	iy 🗍
TxAS050	SFE P25 Common Air Inte	rface	Enabled	1	3ZSV.2F48.ZL3H.56	ST8.5DQC.TD
TxAS051	SFE P25 Administrator Se	ervices	Enabled	3	ZN6T.9RALAB6B.2	26A8.5DQC.TN
TMAS052	SFE P25 Graphical C/He	ad Operation	\varTheta Disabled	2	9T3Y.G2GN.BKDR	.W628.5DQC.TA
TxAS053	reserved		\varTheta Disabled	0	47V8.7FN7.KFP5.N	698.5DQC.TT
TxAS054	SFE P25 Otar - Encrypt Re	ekey	😑 Disabled	0	ZS55.XSTS.2M7X.9	WT8.5DQC.TT
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- 8 Close the SFE window.
- 9 Now enable relevant programmable settings. In this example, Admin services are now allowed, which the programmer will need to enable in the XPA under the "Advanced" page

3. SFE Disabling Process.

How to disable

a feature?

- Simply click the "Disable" button.
- The programmer will be prompted to ensure this is the desired action. Press OK
- The radio product will be re-programmed at this stage and the feature disabled.
- The status will change from "Enabled" to "Disabled"

	🜌 Software Feature Enabler	X
	Radio Model TM8100 Bead Radio	
	Feature Sole Feature Set Status Seq Feature License Key TMOB000 TaitHigh Speed Data Feature License Key Inknown Reserved Unknown Reserved Reserved Unknown Reserved Unknown	
	File Enable Feature License Key: Feature TP/L NSHN BRMV FT3D BKL4 TD Radio Serial Number:	
What do I do with the disable key?	 Upon disabling of a key, a new code is generated within th radio. This is the SFE disable key. This key needs to be provided to Technical Support at the CSO along with the chassis seria number of the product. 	e d al

- Reason: If the feature is required to be turned on again in the future, the same SFE key used previously to turn the feature on can not be used (The "sequence" (see 'Seq' in the screen shot above) has incremented).
- By providing the disable key to the SFE administrator, the key number can be entered into the database which in turn resets the "Status Field" in the SFE application from "Enabled" to "Disabled".
- This means that next time the feature is required, an SFE key will be generated that will match the sequence the radio is up to for that particular feature.

CSO's need to be very much aware of this requirement to prevent any possible confusion in the future.

What about Product Demos? By receiving the SFE disable key, the TEL or CSO logistical staff can now issue a credit to the customer if the feature was only being used for demonstration purposes.

4. Product Board Swap Process

Why does the SFE database need to be updated when a Board Swap is performed?	With products such as the TM8000 and TB8000 series, it is becoming more and more apparent that board swapping will soon become the most economical repair for a product. However, along with this comes a need to have better traceability of what board is actually inside the product. The SFE requirement compounds this as the SFE key is based on the internal serial number of each individual board, not the chassis serial number. When a board is swapped, the SFE keys (if features are enabled) will need to be re-generated for the new boards, as the old keys will not function on a new board.
What will happen if the database is not updated?	If a board swap repair has been made to a customers radio unit, the customer will not notice any problem until they come to purchase an SFE key. The customer will quote the chassis serial number of the product they have in order to get the key generated. For this example, the chassis serial number is 12345678. When the product was built from the factory, the internal serial number was 3654321. However, it has now had a board swap performed and now contains a board with an internal serial number of 3232323. When the SFE board swap application is asked to generate a new SFE key for the customer radio, the application will generate an SFE key for serial number 3654321 and not 3232323. The end result is the SFE will not work for the customers' radio. To remedy the problem will require a manual database search that will take time and cause delays for the customer and potential damage to Taits' reputation.
What does a Sub-Assembly Serial Number look like?	On the TB7000 , TM8000 and TM9000 series, the subassembly serial number is a 7 digit number that begins with the number 3 (e.g. 3xxxxx). The location of the label has changed several times since production began (e.g. Bottom side PCB, top of the PA can) The intention is to have sub-assembly labels in one location. This location is on the bottom side, on the digital can. Some assemblies are already labelled this way (TM8100). An example of the TM8000/TM9000 label is shown below. TP9000 series hand portables have the sub-assembly serial number located on a label on topside digital can (previously located on the Front End can). The 7 digit sub assembly number begins with the 4 (e.g. 4xxxxx) TB8000/TB9000 have a 7 digit subassembly number that begins with the number 2 (e.g. 2xxxxx). There are many sub assembly numbers on a complete TB8000 or TB9000 product, however, the one of importance with regards to the "Board Swap" process is the one located on the topside of the digital board PCB.



The Procedure

1) Select the "Board Swap" option from the home page of the SFE application.

NOTE: Access to this option will be limited to key technical support / repair personnel.

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Web	
Software Licence Key Generator	
Using the Licence Key Generator, you can purchase licence keys for software features for the products you specify. T step-by-step through the selection and purchase process. You can return to this page at any time by disking Home.	This application takes you
Purchase licence keys	
Board swap	
Manual Billing Process	
Decode feature licence keys	
Administer transactions	
Administer locks	
Administer application users	
View Unallocated (Temporary link)	
	Cancel Vetranet

2) Enter in the Chassis serial number of the radio into the field provided, and press 'continue'.

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Home Step 2: Board Swap	
Charstello: 5555555 Current Sanalko: 5555555 Teatures: TBA6000 is Enabled TBA6000 is Enabled TBA6000 is Enabled TBA6000 is Enabled	
Enter New Senailito (Subassembly Senail Number) to swap in and press Continue New Senailito (1999)	

3) The user will then be presented with a screen listing the chassis serial number, the current internal serial number and the current SFE features that are enabled on that product (if any are enabled). Also presented is a field for the user to enter in the internal serial number of the 'replacement' board sub-assembly. Once this has been done, press 'continue'.

The Procedure

(cont)

4) The application will then prompt the user asking whether to proceed with the 'board swap'.



5) There are two events that can occur from this point on.

5a – If the product had SFE keys previously generated for it, the SFE Board Swap application will recognise this and prompt the user as to whether new SFE keys need to be re-generated for the new internal serial number by providing a "Generate Keys" option. This is followed by another confirmation of action screen.

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Generate Keys		
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	Microsoft Internet Explorer	
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Once the 'OK' button in pressed, the user will then be presented with a page listing the SFE features and associated new SFE keys generated for the product. The user has the option to enter in an email address to send the key files to.

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• Print this page f	or your reference and	enter the keys manually.	or				
			77.2				
Send the keys a	is files to the email ad	fress shown below (or or	e that you specify).				
Click Email Key F	iles to send the email	It will contain instructions	on how to use the key files to er	hable the !	features.		
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Send To Email Add	ress barry crates@tait.co	nz					
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The Procedure

(cont)

Alternatively:

5b – If the product did not have any SFE keys previously generated for it, the SFE Board Swap application will recognise this and the board swap process would be complete at this point.

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There Are No FLCs to Generate	
	ALC: NO.

Can a board that has been repaired be reused?	Yes. When a board is removed from the chassis it was in, this action is recorded in the serial number database that the SFE Board Swap application uses. Any board taken out of circulation because it is faulty goes back into the "Unallocated" list of internal serial numbers. Therefore, if this board is repaired in future, it can be put into another radio as part of a board swap repair.
Are there any safe guards to	Yes. Firstly, access to the Board Swap feature will be restricted and only those who have had adequate training will be allowed access.
prevent error?	Secondly, the serial number tables used in the application are interrogated on each request for change to ensure that there is no serial number reuse where it is not allowed. For example – if someone enters an incorrect internal serial number for a board swap, the application will display a message stating:
	"Can't do Board Swap – New Serial number is already used".
	At this point, both the chassis serial number and the internal serial number of the board subassembly needs to be checked for accuracy.
Are there any charges involved?	No. The SFE features regenerated for a repaired radio are free of charge, as the customer has already paid for these features. There are safe guards in the system to ensure the Board Swap feature is not abused.

Compliance Issues	None
CSO Instruction	Please make sure that all sales, technical and logistical staff are aware of the processes that are required to be followed for ordering, freebies and repairs. Please take particular note of the requirements with regards to the SFE disable key.

1. Issuing Authority

Name and Position of Issuing Officer	Barry Crates Technical Support Team Leader – Terminal Product		
Confidentiality	Confidential – This message or document contains proprietary information intended only for the person(s) or organisation(s) to whom it is addressed. All Recipients are legally obliged to not disclose Tait technological or business information to any persons or organisations without the written permission of Tait.		
Distribution Level	Tait Only		
Document History	Original Release Added TM8000 SFE programming information Added more graphics for the TM8000 and TB8000 SFE key programming process Added disable process information Added Board Swap processes information and inserted the TMS	Dec 2003 10 March 2004 31 March 2004 8 April 2004 1 November 2004	BLC BLC BLC BLC BLC
	document numbers. Added information on where to find the XSN numbers on the PCB's Added information about what to do about product demonstrations and the SFE disable key(on page 9) Added the TP9100 screen shots, broadened TB8100 and TM8000 to	24 th June 2005 28 th September 2005 18 th April 2006	BLC BLC BLC
	include TB9100 and TM9100 information respectively		