Technical Note TN-635

1. TOP Elan Trunked New V3.10 Firmware

2. TOP Excel Trunked New V3.10 Firmware

8 September 2000

1. TOP Elan Trunked V3.10 Firmware

Applicability   Software changes to TOP Elan Trunked have been made, resulting in the release of a new version of enhanced radio firmware, V3.10. This firmware will be used in all future productions of TOP Elan Trunked Radios.

Serial Number   V3.10 will be included into all Elans manufactured after S/N **14069811**.

1.1 New features available Elan V3.10 Firmware

Feature	Description	Impact on Customer
User Selectable group 99	Group 99 can now be assigned and operated as User Selectable	Minor improvement
Network operator restricted calls 112 - 119	Stop the Elan from making Network operator restricted calls 112 - 119 (as per MPT 1343 spec)	Minor improvement

1.2 Compatibility of Elan V3.10 Firmware

The recommended PC software products that meet the compatibility criteria are Orca programming software V1.25 or greater and Orca calibration software V2.02 or greater.

This product is compatible with the following software products:

- Orca Programming Software capable of programming trunk radio software with main database version 1.07
- Orca Calibration Software capable of programming trunk radio software with main database version 1.06 and calibration database 1.00
- Orca DSP software version 1.06
- Tait Orca Elan/Excel Users Manual: IPN 409-00120-02

K band UHF	Orca PCB 900 MHz Main Radio Board variant 02: Orca PCB 900 MHz Main Radio Board variant 02:	IPN 220-01610-02 IPN 220-01610-03
UHF	Orca PCB UHF Main Radio Board variant 06 : Orca PCB UHF Main Radio Board variant 07 : Orca PCB UHF Main Radio Board variant 08 : Orca PCB UHF Main Radio Board variant 09 : Orca PCB UHF Main Radio Board variant 10 : Orca PCB UHF Main Radio Board variant 11 : Orca PCB UHF Main Radio Board variant 11 : Orca PCB UHF Main Radio Board variant 11 : Orca PCB UHF Main Radio Board variant 11 : Orca PCB UHF Main Radio Board variant 11 :	IPN 220-01392-06 IPN 220-01392-07 IPN 220-01392-08 IPN 220-01392-09 IPN 220-01392-10 IPN 220-01392-11 IPN 220-01603-04 IPN 220-01603-05 IPN 220-01624-02 IPN 220-01624-03
G band UHF	Orca PCB sub-UHF Main Radio Board variant 01: Orca PCB sub-UHF Main Radio Board variant 02: Orca PCB sub-UHF Main Radio Board variant 03: Orca PCB sub-UHF Main Radio Board variant 04: Orca PCB sub-UHF Main Radio Board variant 04: Orca PCB sub-UHF Main Radio Board variant 04:	IPN 220-01503-01 IPN 220-01503-02 IPN 220-01503-03 IPN 220-01503-04 IPN 220-01503-05 IPN 220-01503-06
VHF	Orca PCB VHF Main Radio Board variant 04 : Orca PCB VHF Main Radio Board variant 03 : Orca PCB VHF Main Radio Board variant 03 :	IPN 220-01401-04 IPN 220-01588-03 IPN 220-01588-04

NB This firmware should be compatible with the 66 - 88 MHz and 800 MHz radio PCB.

1.3 Known issues remaining with V3.10 Firmware

Feature	Description	Impact on Customer
Conventional Channel problem	When radio is used in conventional mode, and the user transmits while the carrier is present, then there will be no modulation on the carrier from the user until PTT is re-keyed.	Irritation to conventional channel users.
Invalid conventional channel indicator	The radio will not give any indicator when an invalid conventional channel is selected	Irritation to conventional channel users.

2. TOP Excel Trunked V3.10 Firmware

Applicability   Software changes to TOP Excel Trunked have been made, resulting in the release of a new version of enhanced radio firmware, V3.10. This firmware will be used in all future productions of TOP Excel Trunked Radios.

Serial Number   V3.10 will be included into all Excels manufactured after S/N **14068802**.

2.1 New features available V3.10 firmware

Feature	Description	Impact on Customer
Multiple Networks	Three networks are fully supported	Excellent
User Selectable group 99	Group 99 can now be assigned and operated as User Selectable	Minor improvement
DTMF Interdigit hold time	Reliable operation can now be achieved below 800mS (60mS tested)	Minor improvement
Network operator restricted calls 112 - 119	Stop the Excel from making Network operator restricted calls 112 - 119 (as per MPT 1343 spec)	Minor improvement

2.2 Compatibility of V3.10 firmware

The recommended PC software products that meet the compatibility criteria are Orca programming software V1.25 (only one network) and windows V2.0.0 (multiple networks). Orca calibration software DOS V2.02 and windows V2.0.0.

This product is compatible with the following software products:
- Orca Programming Software capable of programming trunk radio software with main database version 1.07
- Orca Calibration Software capable of programming trunk radio software with main database version 1.06 and calibration database 1.00
- Orca DSP software version 1.06
- Tait Orca Elan/Excel Users Manual: IPN 409-00220-02

K band UHF	Orca PCB 900 MHz Main Radio Board variant 02:	IPN 220-01610-02
	Orca PCB 900 MHz Main Radio Board variant 02:	IPN 220-01610-03
UHF	Orca PCB UHF Main Radio Board variant 06 :	IPN 220-01392-06
	Orca PCB UHF Main Radio Board variant 07 :	IPN 220-01392-07
	Orca PCB UHF Main Radio Board variant 08 :	IPN 220-01392-08
	Orca PCB UHF Main Radio Board variant 09 :	IPN 220-01392-09
	Orca PCB UHF Main Radio Board variant 10 :	IPN 220-01392-10
	Orca PCB UHF Main Radio Board variant 11 :	IPN 220-01392-11
	Orca PCB UHF Main Radio Board variant 11 :	IPN 220-01603-04
	Orca PCB UHF Main Radio Board variant 11 :	IPN 220-01603-05
	Orca PCB UHF Main Radio Board variant 11 :	IPN 220-01624-02
	Orca PCB UHF Main Radio Board variant 11 :	IPN 220-01624-03
G band UHF	Orca PCB sub-UHF Main Radio Board variant 01:	IPN 220-01503-01
	Orca PCB sub-UHF Main Radio Board variant 02:	IPN 220-01503-02
	Orca PCB sub-UHF Main Radio Board variant 03:	IPN 220-01503-03
	Orca PCB sub-UHF Main Radio Board variant 04:	IPN 220-01503-04
	Orca PCB sub-UHF Main Radio Board variant 04:	IPN 220-01503-05
	Orca PCB sub-UHF Main Radio Board variant 04:	IPN 220-01503-06
VHF	Orca PCB VHF Main Radio Board variant 04 :	IPN 220-01401-04
	Orca PCB VHF Main Radio Board variant 03 :	IPN 220-01588-03
	Orca PCB VHF Main Radio Board variant 03 :	IPN 220-01588-04

<u>NB</u> This firmware should be compatible with the 66 - 88 MHz and 800 MHz radio PCB.

2.3   Known issues remaining with V3.10 firmware

Issue	Description	Impact on Customer
Dynamic Regroup	Dynamic regroup interrogation does not work. Also dynamic regroup will not work when more than 8 groups are defined.	Partial functionality. Customer notification necessary.
Conventional Channel problem	When radio is used in conventional mode, and the user transmits while the carrier is present, then there will be no modulation on the carrier from the user until PTT is re-keyed.	Irritation to conventional channel users.
User selectable groups	This feature does not support MPT 1343 Interfleet groups	Minor irritation
Battery management problems	Radio resets cyclically when switched on with low batt and low battery power does not turn radio off while on Tx	Irritation. Customer education required
Knob position may override on an invalid user action	Radio might change operational mode after invalid user action to actual knob position rather than staying in most recent mode as defined via the keypad	Minimal. Customer education required (change operational mode using knob not keypad)
RSSI Indicators	RSSI indicators stay on when transmitting in conventional mode	Minor irritation

Invalid conventional channel indicator	The radio will not give any indicator when an invalid conventional channel is selected	Irritation to conventional channel users.

Note to CSO's   Please ensure that all external customers and internal logistical personal are aware of the change in required programming software. This Firmware is available from www.taitworld.com

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