



ASTRO®XTS™ 2250 / XTS™ 2250I

ASTRO®XTS™ 2500 / XTS™ 2500I Model 1.5

ASTRO®XTS™ 2500 / XTS™ 2500I Model II

ASTRO®XTS™ 2500 / XTS™ 2500I Model III

## Secure Booklet

## **Introduction**

This booklet is a supplement to your main user guide:

ASTRO® XTS™ 2250 / XTS™ 2250I

ASTRO® XTS™ 2500 / XTS™ 2500I Model I.5

ASTRO® XTS™ 2500 / XTS™ 2500I Model II

ASTRO® XTS™ 2500 / XTS™ 2500I Model III

It only contains the information pertaining to secure operations. For all other features and explanations, please refer to your main user guide.

## Product Safety and RF Exposure Compliance



Caution

Before using this product, read the operating instructions for safe usage contained in the Product Safety and RF Exposure booklet enclosed with your radio.

### ATTENTION!

**This radio is restricted to occupational use only to satisfy FCC RF energy exposure requirements. Before using this product, read the RF energy awareness information and operating instructions in the Product Safety and RF Exposure booklet enclosed with your radio (Motorola Publication part number 68P81095C98) to ensure compliance with RF energy exposure limits.**

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# Secure Operations

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Secure radio operation provides the highest commercially available level of voice security on both trunked and conventional channels. Unlike other forms of security, Motorola digital encryption provides signaling that makes it virtually impossible for others to decode any part of an encrypted message.

## Select Secure Transmissions

Turn the preprogrammed **Secure/Clear** switch to position A.

**Note:** *If the selected channel is programmed for clear-only operation — when you press the **PTT** button, you see CLR TX ONLY, and you hear an invalid mode tone.*

CLR TX ONLY

- Invalid mode tone

The radio will not transmit until you set the **Secure/Clear** switch to position B or C.

## Select Clear Transmissions

Turn the preprogrammed **Secure/Clear** switch to either position B or C.

**Note:** *If the selected channel is programmed for secure-only operation — when you press the **PTT** button, you see SEC TX ONLY, and you hear an invalid mode tone.*

SEC TX ONLY

- Invalid mode tone

The radio will not transmit until you set the **Secure/Clear** switch to position A.

## Managing Encryption

### Key Loading

Refer to the key-variable loader (KVL) manual for equipment connections and setup.

- 1 Attach the KVL to your radio. When it is attached, the display will show `KEYLOADING`, and all other radio functions, except for power down, backlight, and volume, will be locked out.
- 2 Press the load button on the KVL. This will load the encryption keys into your radio. When the key has been loaded successfully, the radio will sound a short tone for single-key radios; for multikey radios, an alternating tone will be heard.

KEYLOADING

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### Multikey

The multikey feature allows your radio to be equipped with as many as 48 different encryption keys and supports the following algorithms DES-OFB, DES-XL, DVP-XL, AES and ADP.

- **Conventional Multikey** — The encryption keys can be tied (strapped), on a one-per-channel basis, through the CPS. In addition, you can have operator-selectable keys, operator-selectable keysets, and operator-selectable key erasure. If talkgroups are enabled in conventional, then the encryption keys are strapped to the talkgroups.
- **Trunked Multikey** — If you use your radio for both conventional and trunked applications, you will have to strap your encryption keys for trunking on a per-talkgroup or announcement-group

basis. In addition, you may strap a different key to other features, such as dynamic regrouping, failsoft, or emergency talkgroup. You can have operator-selectable key erasure.

### Key Selection

- 1 Press  until KEY appears on the display.



- 2 Press , , or  directly below KEY. The display changes to show the last user-selected and stored encryption key and the available menu selections.



- 3 Press  or  to scroll through the encryption keys.

#### OR

Enter the number of the desired key using the keypad.

**Note:** If an erased key is selected, the key name will be alternated with ERASED KEY.

- 4 Press , , or  directly below the desired menu selection.

#### OR

If you selected the key via the keypad, press  or  to scroll through the menu selections:

PSET or PRESET = selects the preset or default encryption key.

SEL = saves the newly selected key and returns to the home display.

- 5 Press , the **PTT** button, the **ABRT** menu selection, or turn the **16-Position Select** knob to exit this menu.

**Note:** If the selected key is erased, **KEY FAIL** will be displayed and a momentary keyfail tone will be generated.  
If the selected key is not allowed, **ILLEGAL KEY** will be displayed and a momentary illegal key tone, similar to the key fail tone, will be generated.

KEY FAIL

ILLEGAL KEY

## Keyset Selection

This feature allows you to select one or more groups of several encryption keys from among the available keys stored in the radio. For example, you could have a group of three keys structured to one keyset, and another group of three different keys structured to another keyset; by changing keysets, you would automatically switch from one set of keys to the other. Every channel to which one of the original keys was tied will now have the equivalent new key instead.

- 1 Press  until **KSET** appears on the display.

KSET

- 2 Press , , or  directly below **KSET**. The display changes to show the last user-selected and stored keyset and the available keyset menu selections.

KEYSET 1

SEL

KS1

KS2

- 3** Press , , or  directly below the desired keyset.

**OR**

Enter the number of the desired keyset using the keypad.

- 4** To save the newly selected keyset, press the button directly below **SEL**.

**Note:** Press , the **PTT** button or turn the **16-Position Select** knob to exit this menu at any time without changing the keyset selection.

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## Key Zeroization

This enables the user to erase all or selected encryption keys.

### Use the Menu

- 1 Press  until the display shows ERAS.



- 2 Press , , or  directly below ERAS. The display shows the last user-selected and stored encryption key, and the available menu selections:



ALL = erases all the encryption keys in the radio. The display shows ERS ALL KEYS and YES and NO.



SNGL = selects the displayed encryption key to be erased. The display shows ERS SNGL KEY and YES and NO.



ABRT = exits this menu and returns to the home display.

**Note:** Press , the **PTT** button, the ABRT menu selection, or turn the **16-Position Select** knob to exit this menu at any time without erasing any keys.

- 3 Press , , or  directly below the desired menu selection.

**OR**

Press  or  to find the desired encryption key. The display shows the selected key, and the available menu selections shown in step 2.

Press , , or  directly below the desired menu selection.

**OR**

Enter the location number of the desired key, using the keypad. The display shows the selected key, and the available menu selections shown in step 2. Press , , or  directly below the desired menu selection.

- 4 Press , the **PTT** button, the **ABRT** menu selection, or turn the **16-Position Select** knob to exit this menu.
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**Use the Buttons**

**Note:** This is the method used for erasing the single key in radios with the single-key option, and for erasing all keys in radios with the multikey option.

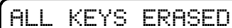
- 1 With the radio on, press and hold the **Top Side** button; while holding this button down, press the **Top** button.

**Note:** **DO NOT** press the **Top** button before pressing the **Top Side** button, unless you are in an emergency situation; this would activate the pre-programmed feature.

- 2 Before the keys are erased, the display shows PLEASE WAIT.

PLEASE WAIT

- 3 When all the encryption keys have been erased, the display shows ALL KEYS ERASED.

ALL KEYS ERASED

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