

**Motorola DTR600/700/720 series two-way radio**

**Firmware Update info**

**6-July-2020**

DTR600/700/720 two-way radios firmware to be updated to:

Firmware Version: R01.02.02

Codeplug Version: R01.02.01

Keypad Version: R01.02.00

Affected Tanapa :

SUPER TANAPA	Tanapa	Sales Model
PMUF1952A	PMUF1953A	DTS130NBDLAA
PMUF1954A	PMUF1955A	DTS150NBDLAA
PMUF1956A	PMUF1957A	DTS1504BDLAA
PMUF1958A	PMUF1959A	DTS1505BDLAA
PMUF1960A	PMUF1961A	DTS1502BDLAA
PMUF1962A	PMUF1963A	DTS150PBDLAA

### **FW R01.01.02 provides enhancement listed below:**

1. Fixed Renoir freeze screen issue.

Note: When the issue happens, the radio's screen freezes but the radio is still able to transmit call, receive call and can power down radio via on/off button.

2. "Enable Profile ID pin" setting for DTR600 is changed to enable/checked in factory settings. No change on DTR700 and DTR720.

Note: New factory settings will only take place if users upgrade firmware with "Restore Radio's personality" **NOT** select.

### **Equipment/Tools needed to perform software update**

1. Prepare the below equipment.
  - a. CPS Cable kit is HKKN4027A.
  - b. Single Unit Charger/docking station PMPN4468A.



### **Computer System Requirements**

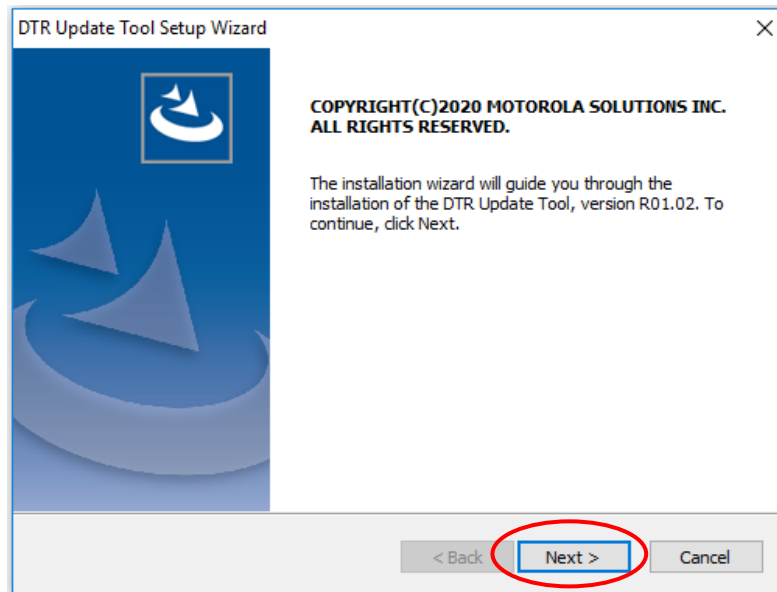
1. Computer with Windows 10 operating system.
2. Computer with USB port.

### **Note**

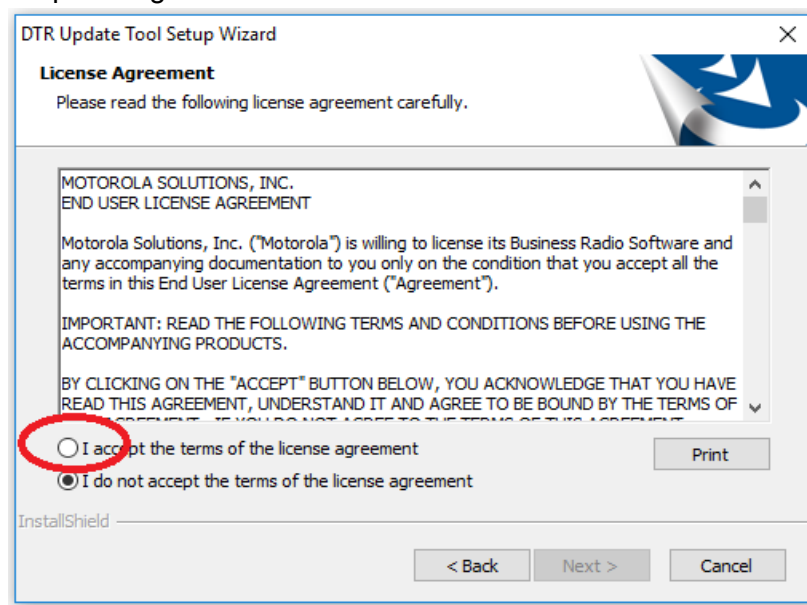
1. Only 1 radio can be updated at any one time.
2. Please ensure radio battery is fully charged before update commences.

## **Setup Steps (one time)**

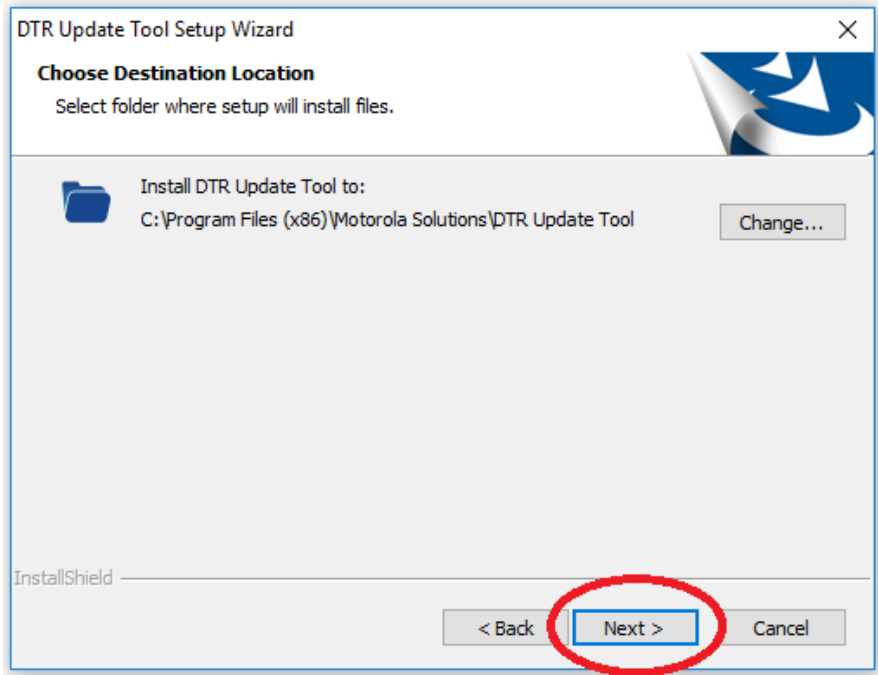
1. Connect the programming kit docking/charging station to computer using the USB programming cable from the programming kit.
2. On the programming cable HKKN4027A, please make sure to set the mode switch to Digital CPS.
3. Observe your computer will scan and install the programming cable driver automatically at the background (task tray for Windows computer). This will take a while.
4. Please wait until the driver installation is completed.
5. Download and double click to install the Update Tool application (provided by Motorola Team) into the computer.
6. Click "Next" to install proceed installation.



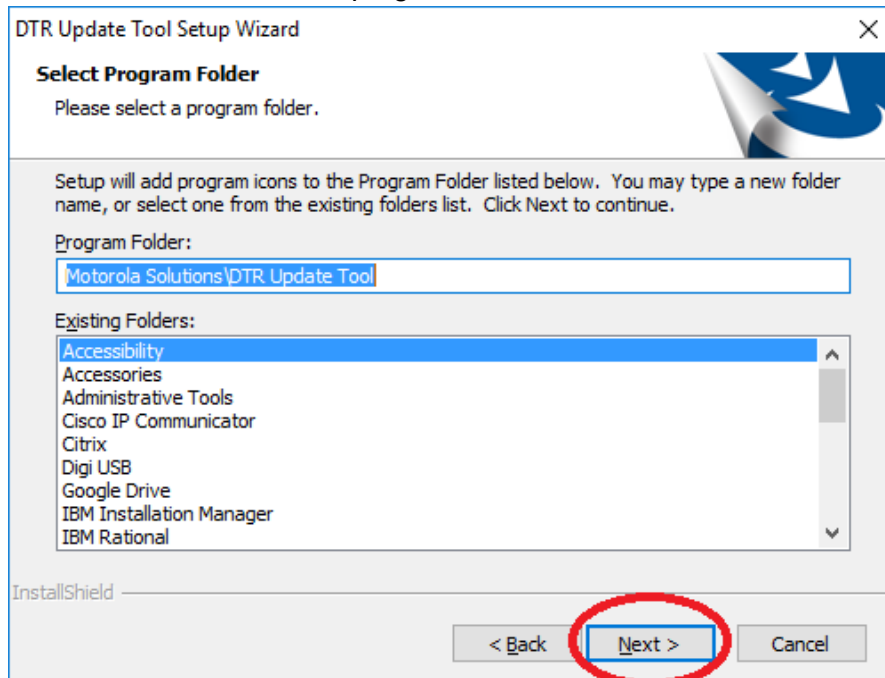
7. Click to accept the agreement and click "Next".



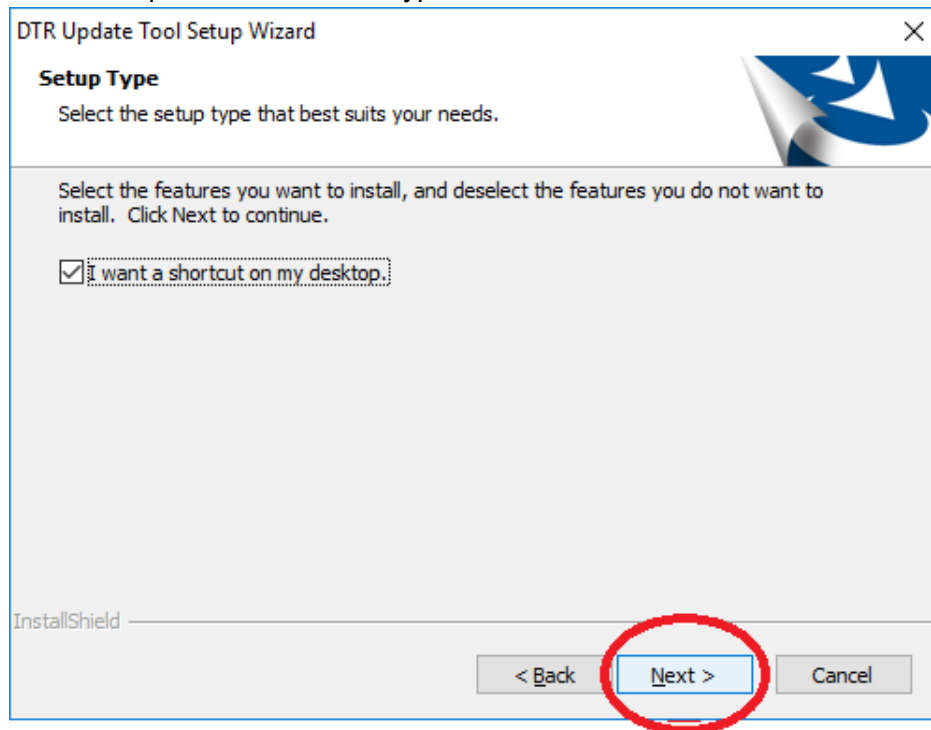
8. Click “Next” to install DTR Update Tool in default location in your computer.



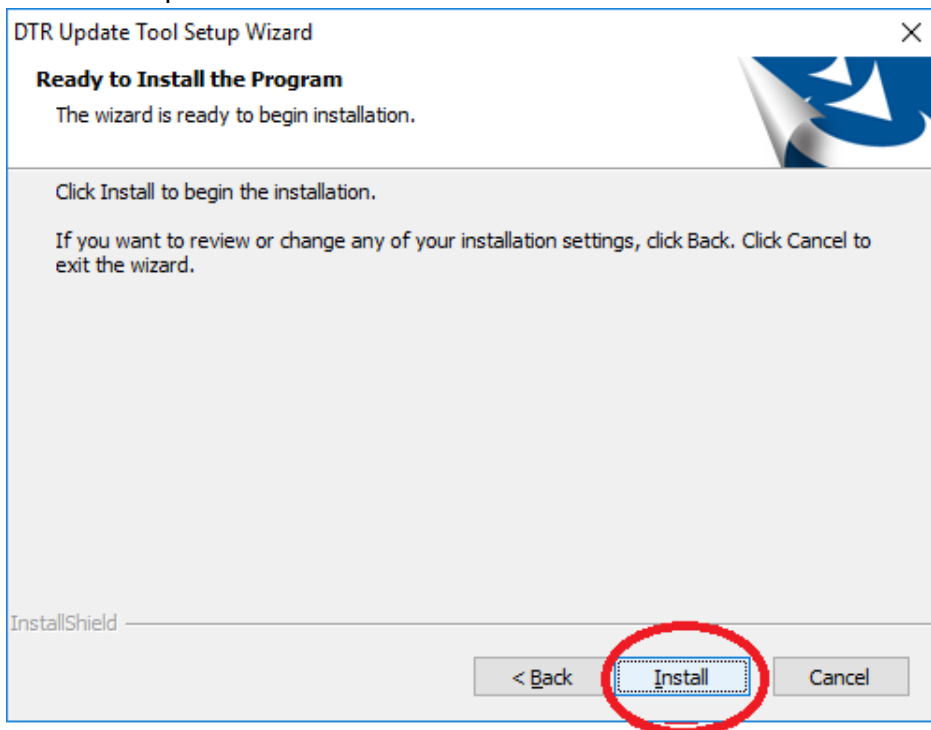
9. Click “Next” to select the default program folder.



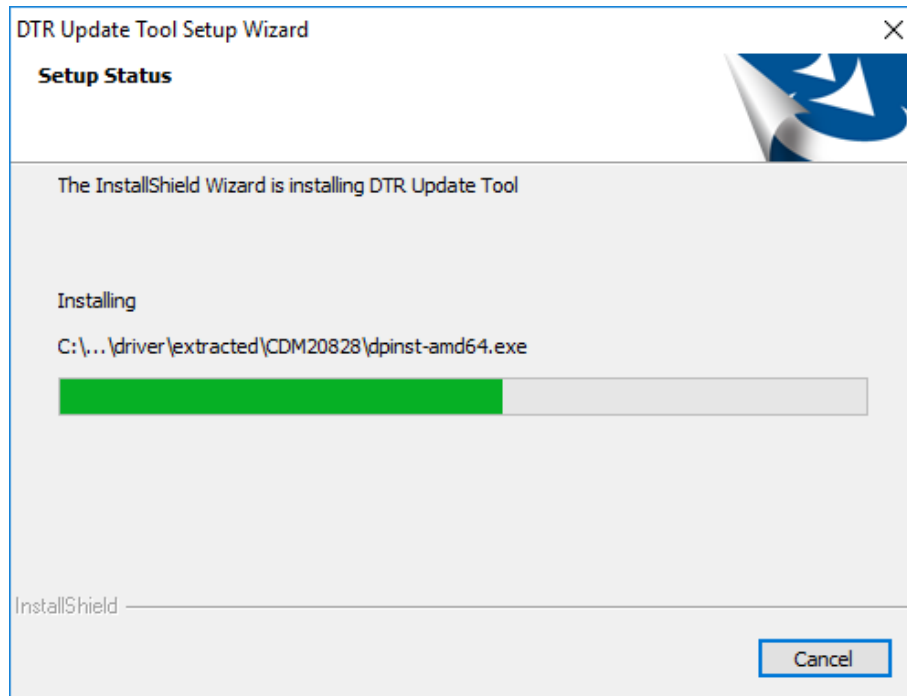
10. Click "Next" to proceed the install type.



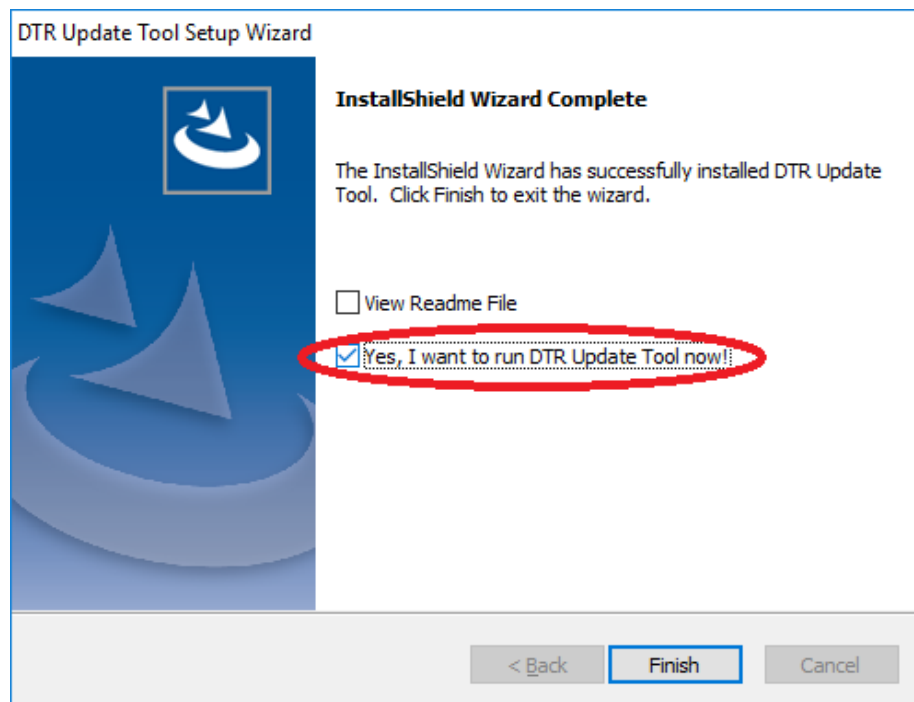
11. Click "Install" to proceed installation.



12. The installation will take a few minutes.



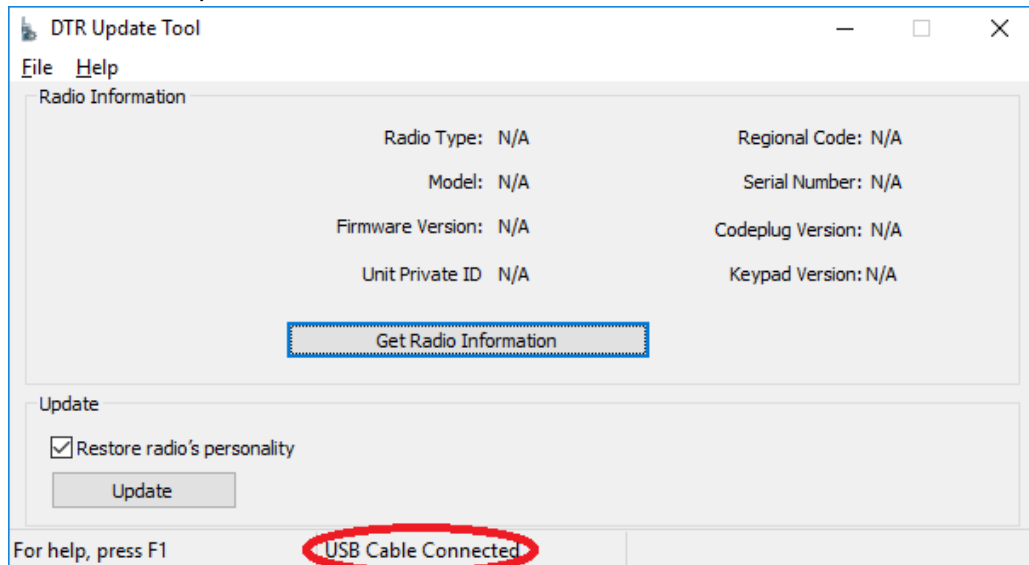
13. Once the installation is finished, check the checkbox to run the Update Tool now. Then click "Finish".



14. This ends your one time setup steps.

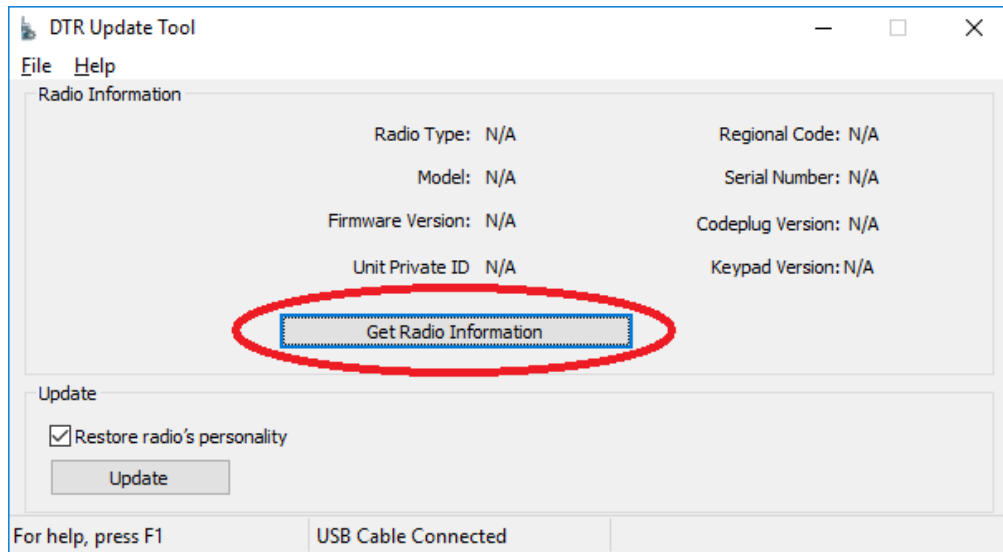
## **Steps to update radio firmware from R01.00.02 to R01.02.02 (Same before startsteps for R01.01.00 to R01.02.01)**

1. Before starting, ensure no other USB devices are plugged into your computer except keyboard and mouse.
2. Execute/Run the Update Tool program with computer connected to radios via cable and docking station, please wait for a while, you should see “USB Cable Connected” at the bottom of the Update Tool.

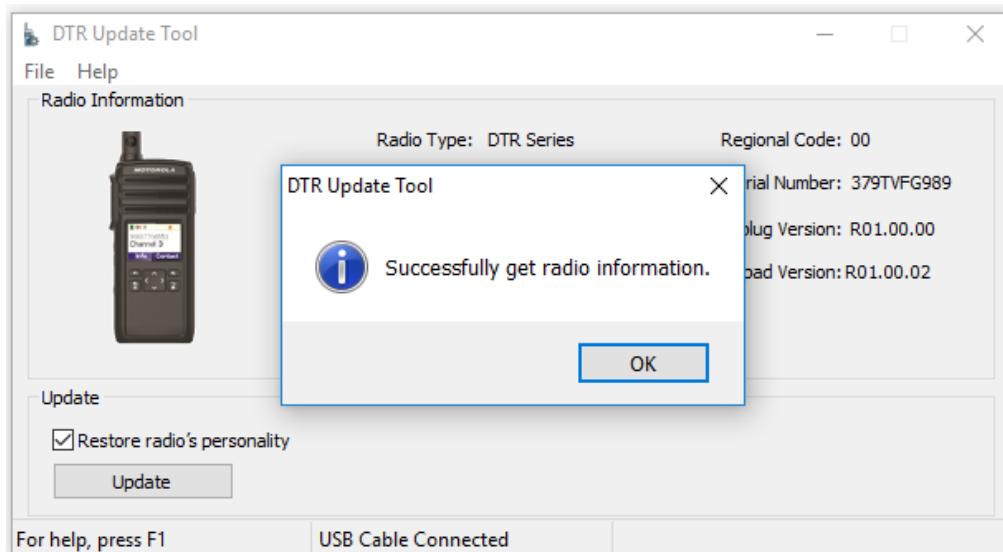


3. If you do not see “USB Cable Connected”, please check if your computer has successfully installed the programming cable driver.
4. **Ensure the battery is full** and inserted into the radio then turned ON the radio. Put the radio onto docking/programming/charging station.

- Click “Get Radio Information” button to read the current radio information and show on the screen.

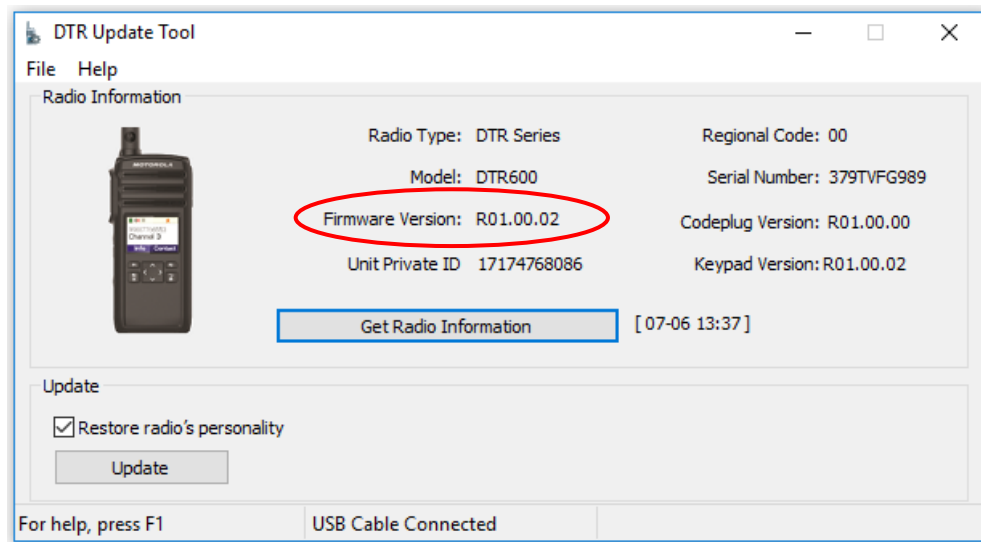


- Observe a pop up show “Successfully get radio information”.

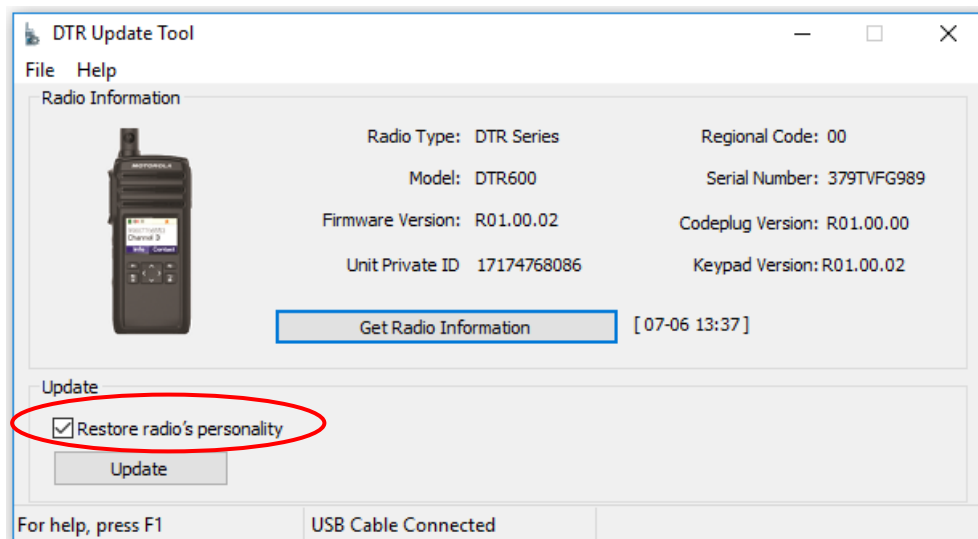




7. Ensure the radio model is the one you want to upgrade and with correct firmware version which is R01.00.02 in this example. Do not proceed update if the radio is not the correct model/firmware version.

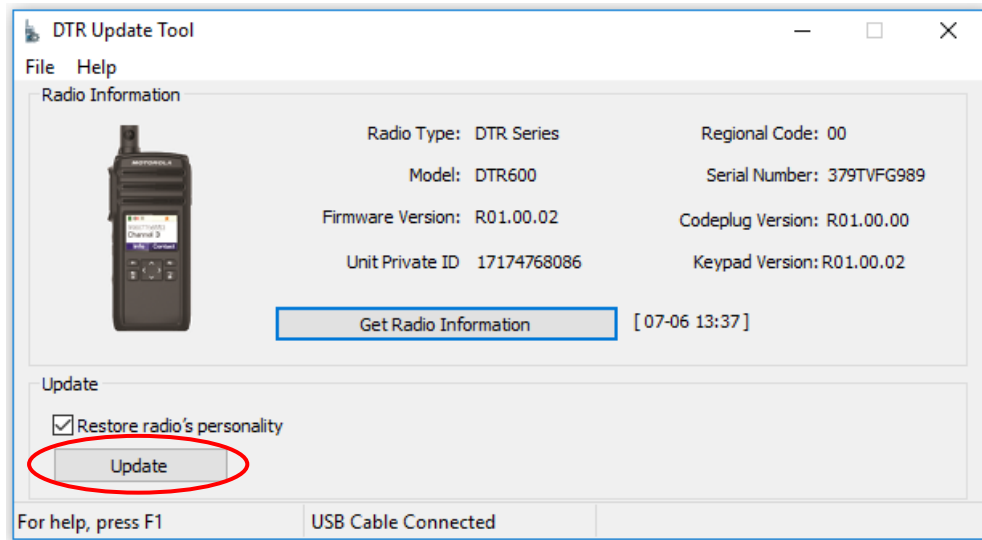


8. Select "Restore radio's personality" if you need to restore your previous configurations.  
\*\*\* if "Restore radio's personality" is selected when upgrading DTR600 from older FW version to R01.02.02, "Enable Profile ID Pin" setting will be restored too. To change "Enable Profile ID Pin" setting from disable/unchecked to enable/checked, user can only change via CPS if need to restore previous configuration OR unselect "Restore radio's personality" to factory reset radio configurations when upgrading FW to R01.02.02.

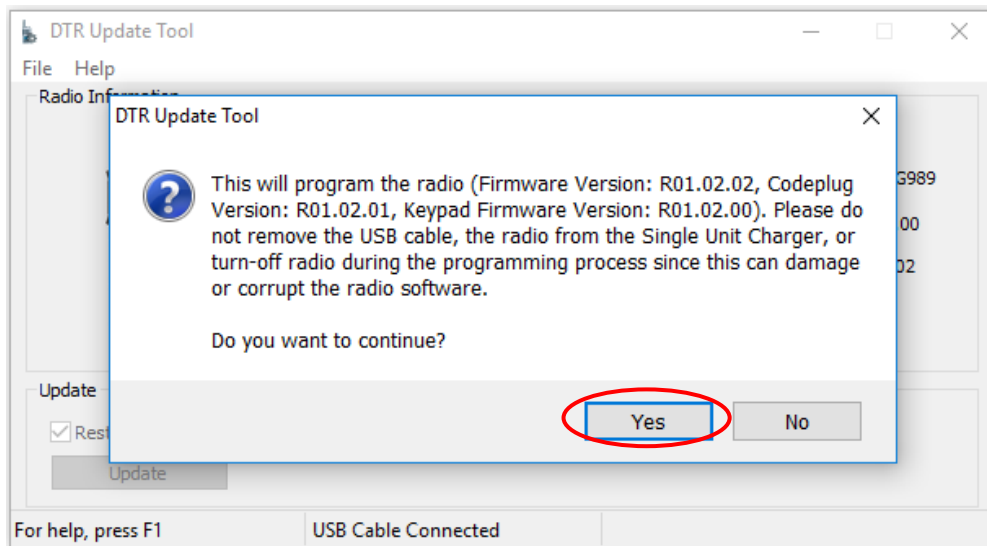


9. Click the “update” button to update the radio to the new firmware.

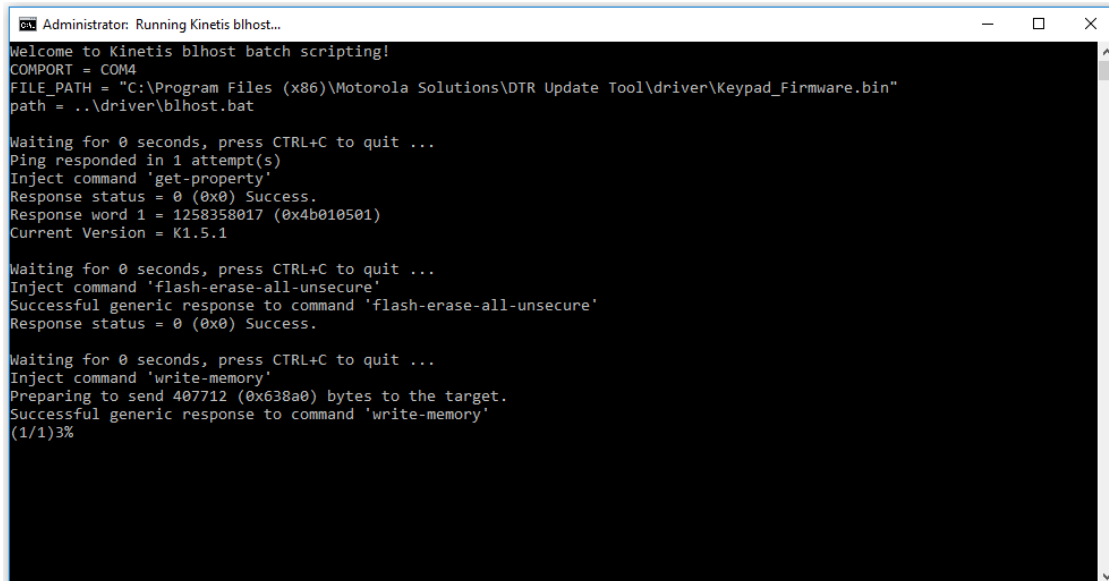
\*\*\*Do not disconnect and do not power down the radio during the upgrade process.



10. A pop up will remind you on your update information and cautious. Click the “Yes” button.



11. There will be a black pop up screen showing % of progress. Please do not press any button on your keyboard as that will pause the upgrading process. Please wait for the radio to be completely updated. This should take about 15 minutes.  
Do not worry about what is shown on the radio display at this moment.



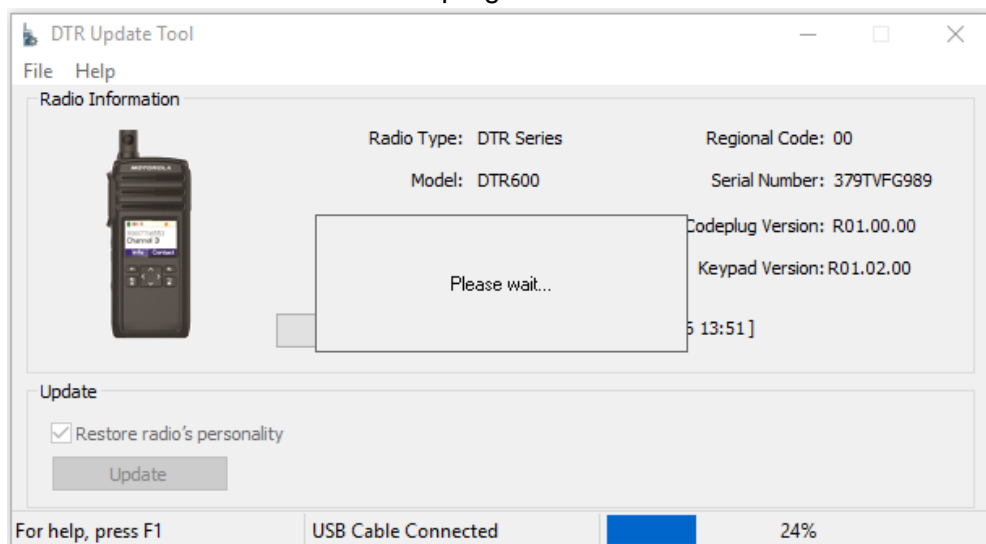
```
Administrator: Running Kinetis blhost...
Welcome to Kinetis blhost batch scripting!
COMPORT = COM4
FILE_PATH = "C:\Program Files (x86)\Motorola Solutions\DTR Update Tool\driver\Keypad_Firmware.bin"
path = ..\driver\blhost.bat

Waiting for 0 seconds, press CTRL+C to quit ...
Ping responded in 1 attempt(s)
Inject command 'get-property'
Response status = 0 (0x0) Success.
Response word 1 = 1258358017 (0x4b010501)
Current Version = K1.5.1

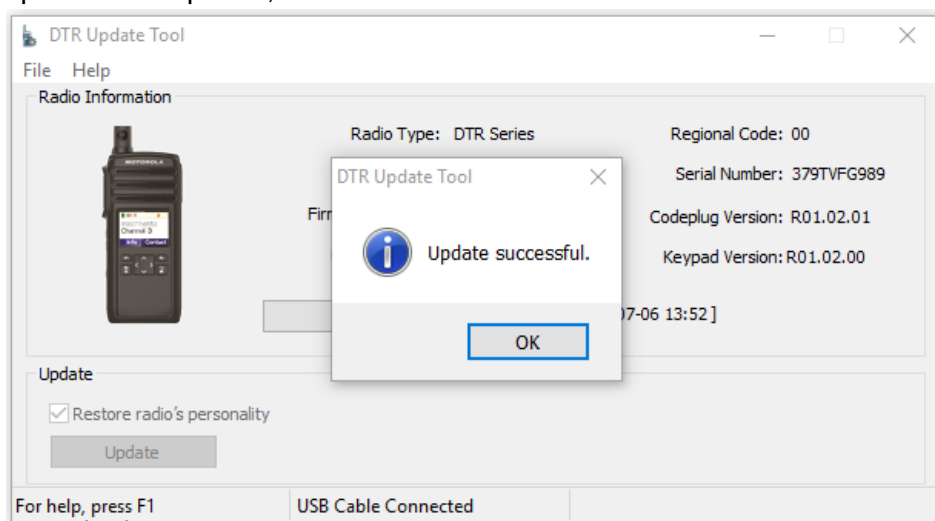
Waiting for 0 seconds, press CTRL+C to quit ...
Inject command 'flash-erase-all-unsecure'
Successful generic response to command 'flash-erase-all-unsecure'
Response status = 0 (0x0) Success.

Waiting for 0 seconds, press CTRL+C to quit ...
Inject command 'write-memory'
Preparing to send 407712 (0x638a0) bytes to the target.
Successful generic response to command 'write-memory'
(1/1)3%
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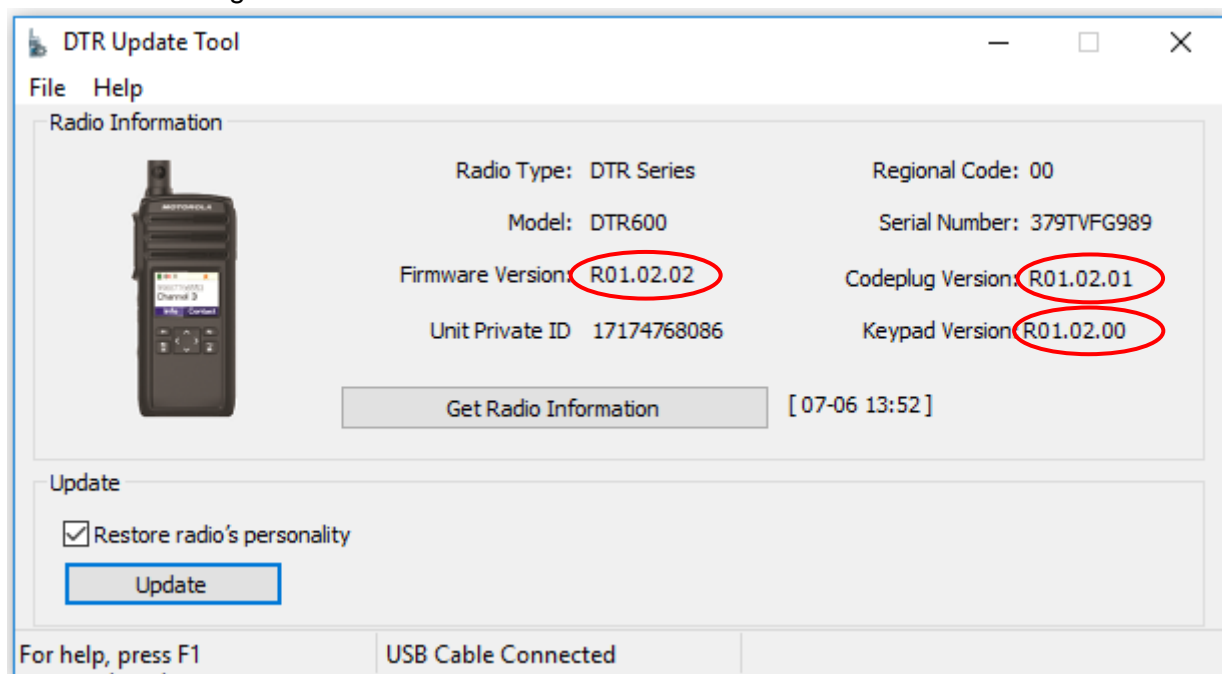
12. If you see failure, please try power cycle your radio and perform upgrade again.
13. if the radio still cannot upgrade again or if the radio shows any symptom cannot power up or showing any failure, please return your radio for warranty.
14. Screen will show Please wait and the progress.



15. Once update is completed, below screen will be shown.



16. Check the Radio Information in DTR update Tool and make sure all firmwares version are the same as figure below.



17. Please wait for radio to complete the restart before unplugging the radio from the docking/charging station.

18. If you see failure, please try power cycle your radio and perform upgrade again.

19. if the radio still cannot upgrade again or if the radio shows any symptom cannot power up or showing any failure, please return your radio for warranty.

## **Test Steps**

After upgrade, follow the steps to check the radio functionality:

1. Power up test - power up the radio as usual. Check if the radio powers up correctly and show the channel.
2. Transmit test - press PTT and ensure the other radio receive the transmission / can hear the audio.
3. Receive test - ensure this radio received the audio from the other radio.
4. Volume up and down test - test volume up and check the audio volume is increased.  
Test volume down and check the audio volume is decreased.
5. Channel test - change channel on two radios and test by transmit from one radio and receive on the other radio. Check if the audio is transmitted through.

## **Minimum PC Spec requirement**

1. Intel core i5-3320M @2.60 Ghz
2. 8 GB RAM
3. Windows 10, 64-bit OS
4. 320 GB HDD

## **Notes**

\*There will be a chance of failing during the update depending on the computer usage and environment.

\*Please close all the running applications before starts updating.

\*If failure persists, please stop upgrade using this computer and try another computer. If failure still persists, please do not perform upgrade and get to Motorola support.