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User Manual

Setup Procedures & Information For Used Of 2.4GHz RF Remote Control (RC1974503/00RF) & 2.4GHz RF USB Receiver (OVU700001/00RF)





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Table of contents

1.	FCC Statatement	Page 3 of 16
2.	Setup Procedures	Page 4 of 16
3.	Information For Used	Page 12 of 16
3.1	General	Page 13 of 16
3.2	Stuck key function	Page 13 of 16
3.3	Sleep mode	Page 13 of 16
3.4	Key press	Page 14 of 16
3.5	Pairing	Page 14 of 16



1. FCC Statement

[Class B Device]

FCC Compliance

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

No special accessory is required to enable the equipment to comply with the emission limits.

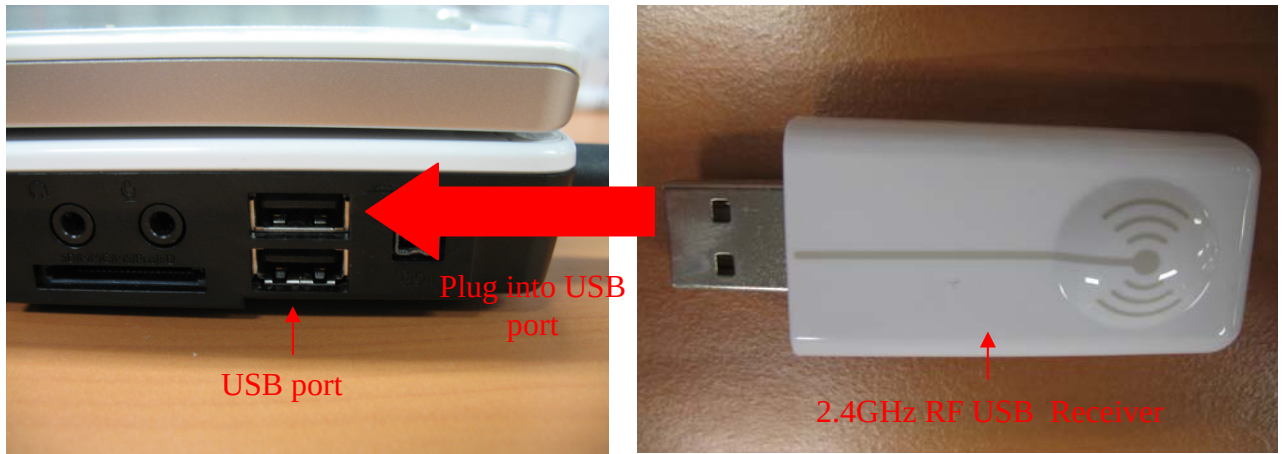
FCC Part 15.19

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.



2. Setup Procedures

Setup Procedures of 2.4GHz RF Remote Control and 2.4GHz RF USB Receiver



Picture 1: USB port and 2.4GHz RF USB Receiver plug into USB port.



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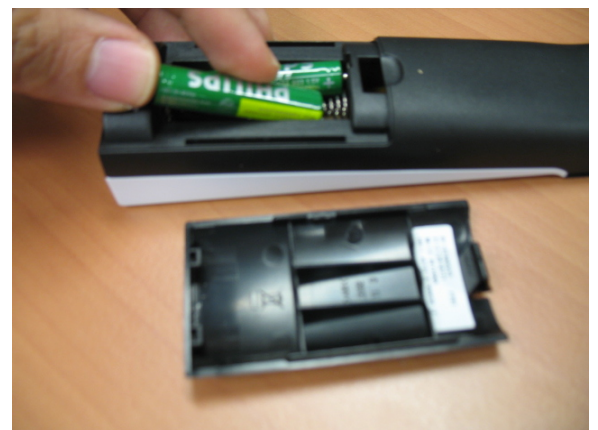
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Picture 2: 2.4GHz RF Remote control with packaging (front and rear side).



Picture 3: Remove the battery lid by pressed the hook down the battery lid and lift it up.



Picture 4: Insert the batteries (AAA type) with correct polarity.

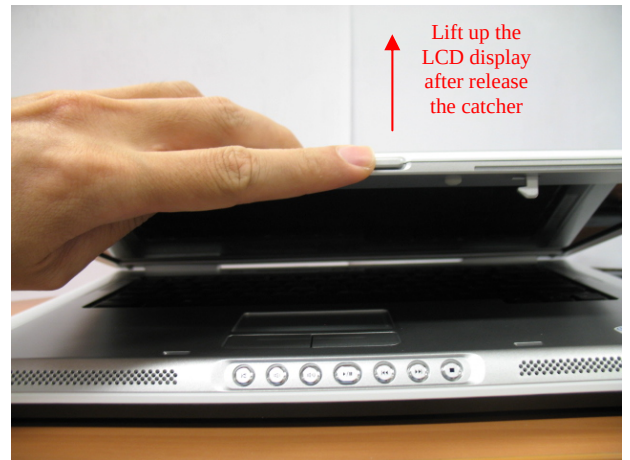
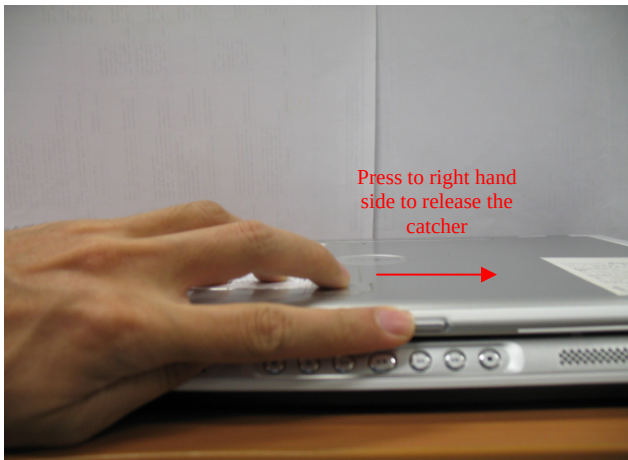


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Picture 5: Closed up the battery compartment with battery lid.



Picture 6: Lift up the notebook LCD display by release the catcher.

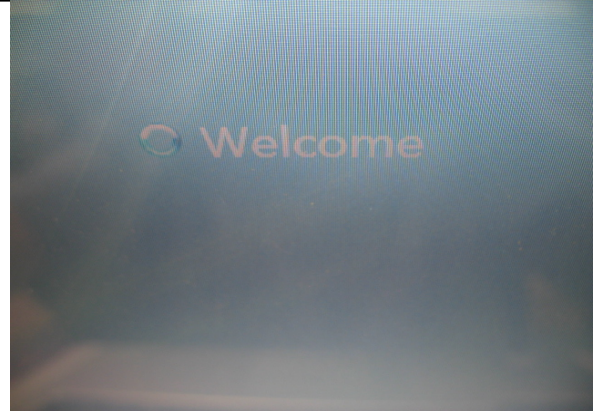


Picture 7: Press the switch to turn on the notebook.

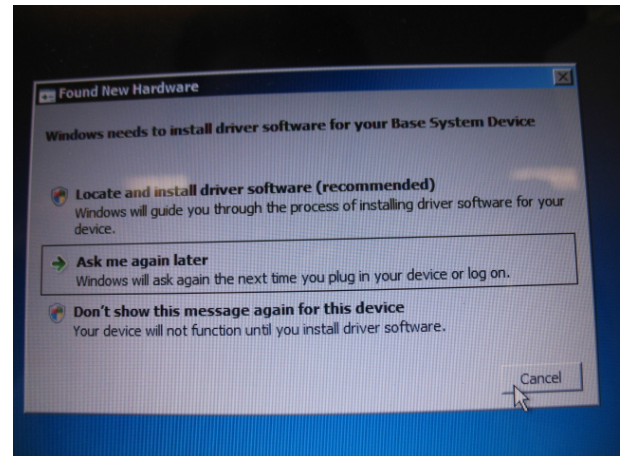
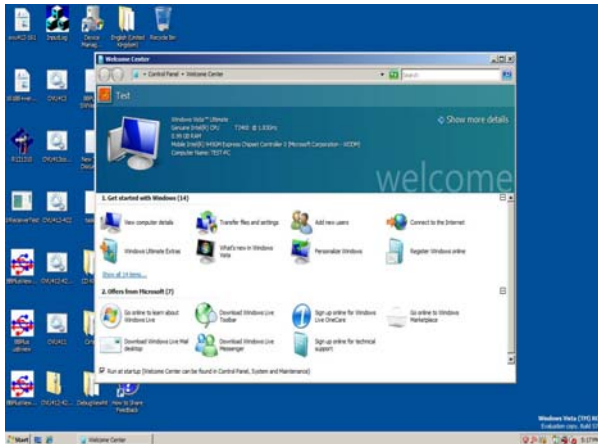


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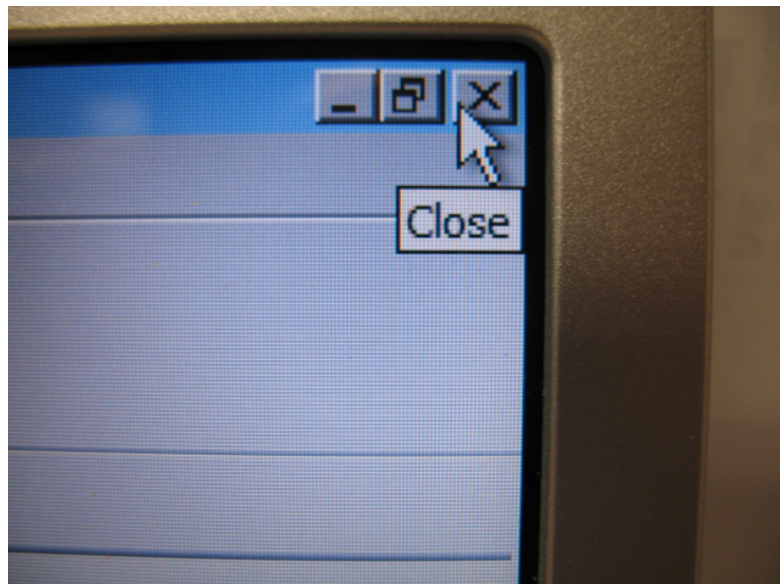
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Picture 8: Process of loading Windows Vista.



Picture 9: Close the application as above by click the “X” icon at upper right hand side as Picture 10.

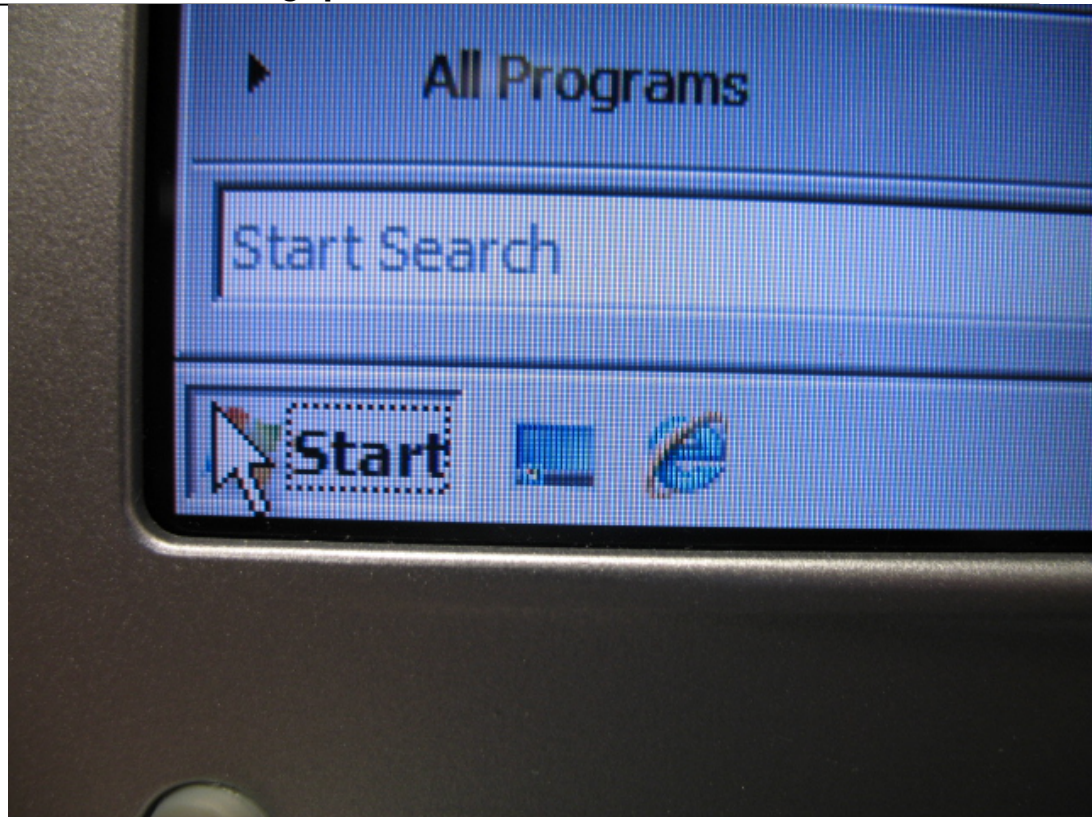


Picture 10: The “X” icon located at right hand side, upper corner.

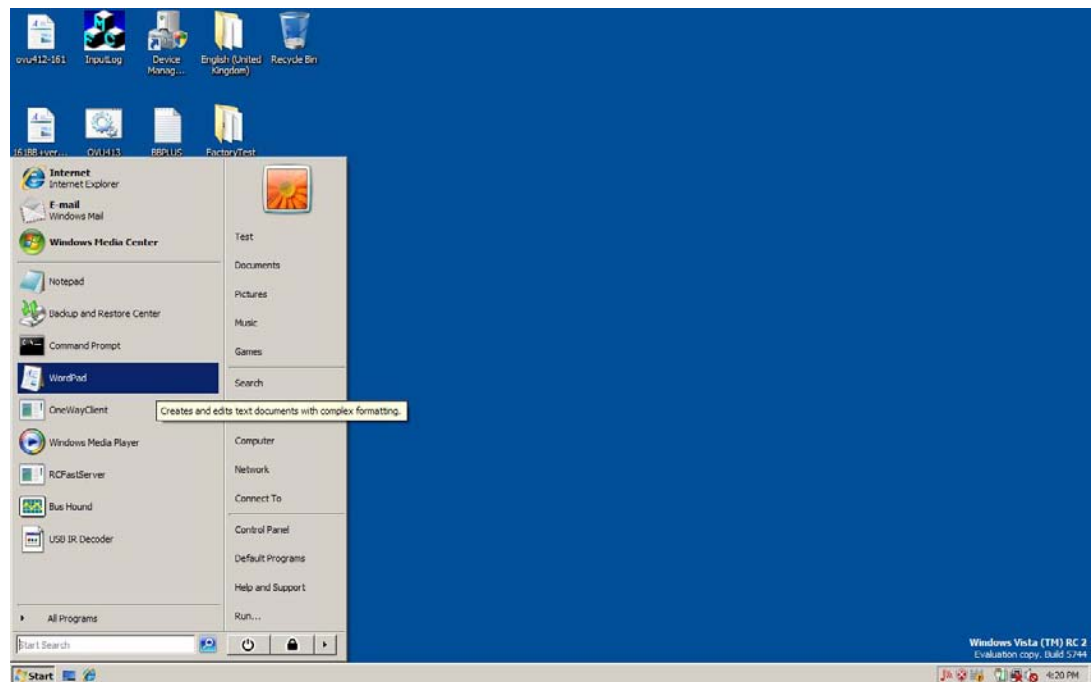


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Picture 11: Using cursor to click the “Start” icon located at left hand side, lower corner.

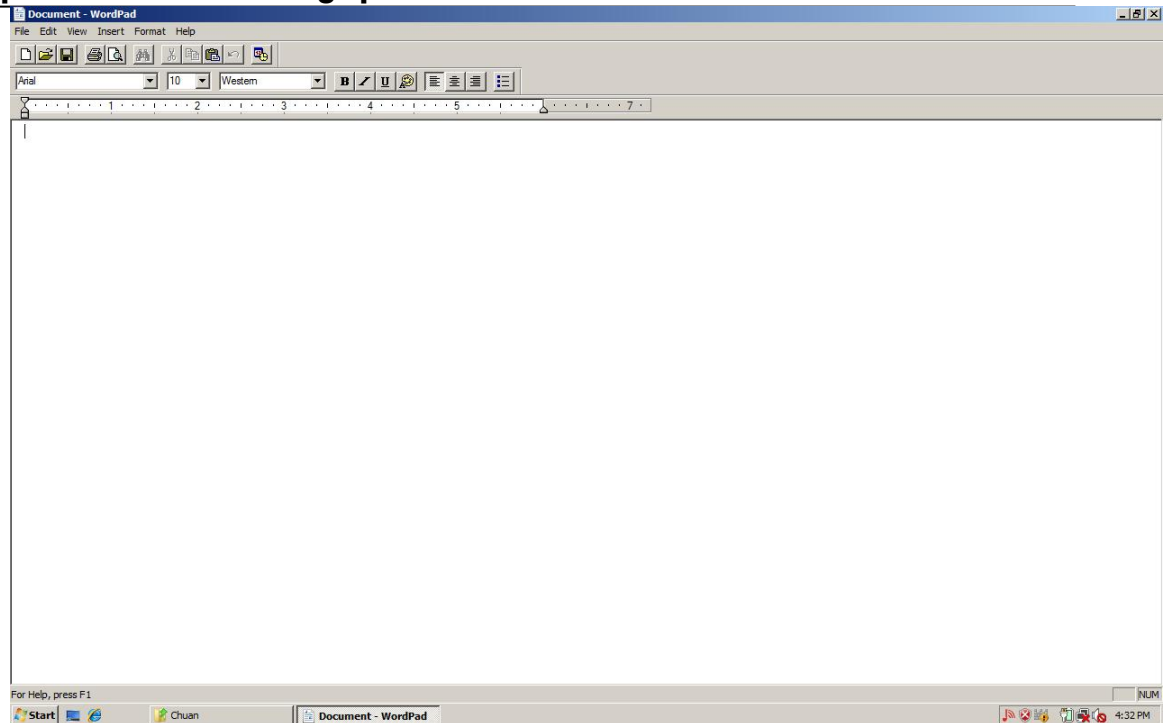


Picture 12: Select and click the “WordPad” application program.



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Picture 13: The “WordPad” application software.

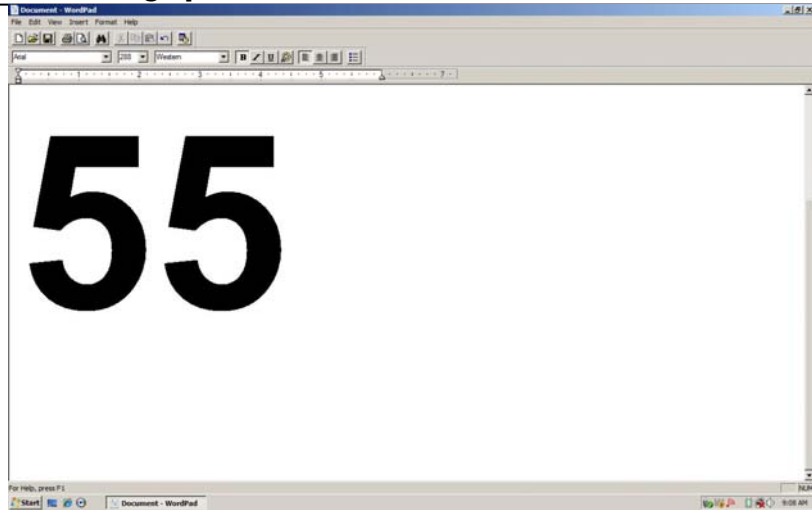


Picture 14: Press “Digit 5” and release the button on the 2.4GHz RF remote control

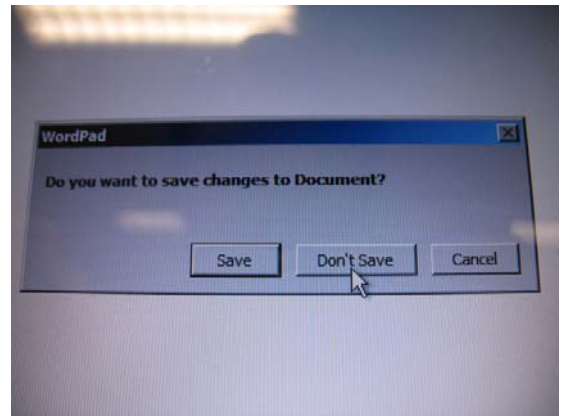
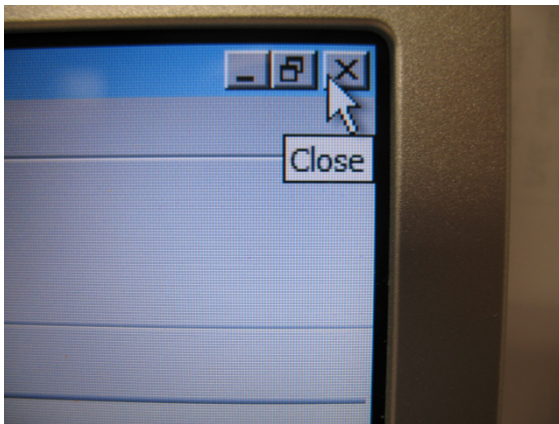


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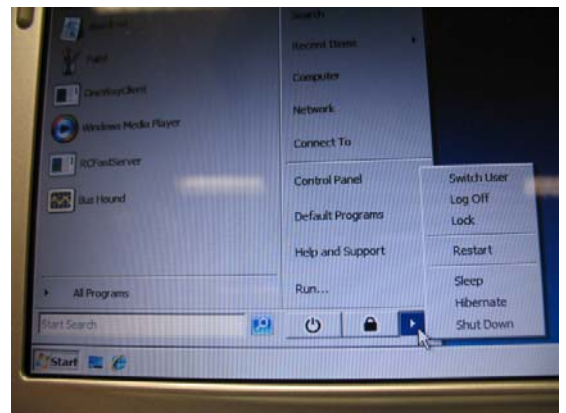
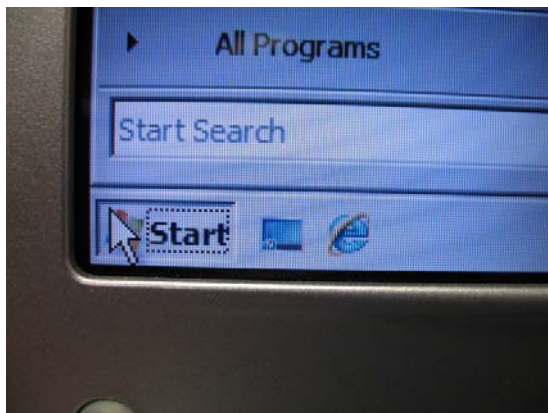
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Picture 15: The WordPad display “5” for press and release button Digit 5 on 2.4GHz RF remote control.



Picture 16: After testing, before shutdown the note book, close all the application software as click the “X” icon located at upper right hand corner and after that, click the icon “Don’t Save” to abort saving the file.

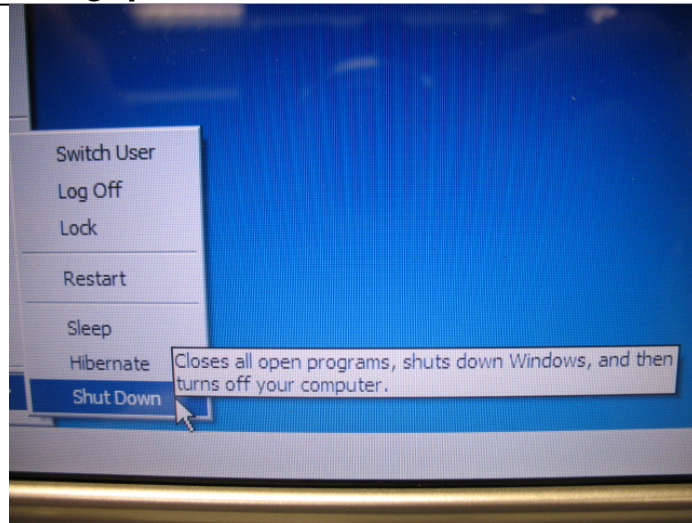


Picture 17: Click the “Start” icon then select the “►” icon.



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Picture 18: Click the "Shut Down" icon



Picture 19: Notebook shutting down.



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3. Information For Used

2.4GHz RF Remote Control (RC1974503/00RF) & 2.4GHz RF USB Receiver (OVU700001/00RF)





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3.1 General

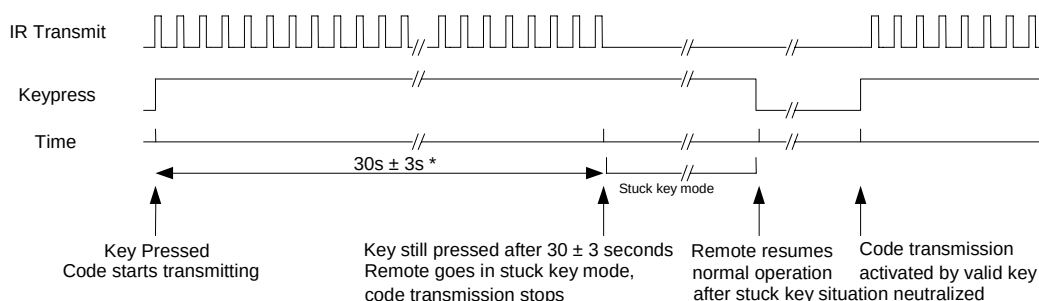
This remote control is a 2.4GHz RF remote control (RC1974503/00RF) which will transmit RF protocol. It will work with 2.4GHz RF USB receiver (OVU700001/00RF).

3.2 Stuck key function

Stuck key means a key or multiple key has been pressed for a very long time in normal operating mode. (For multiple key press, refer to section 1.6.4) To preserve battery power, the remote will enter sleep mode at about 30 seconds after the last key transition to consume minimal power (the Backlight LED and LED indicator will be turned off at the same time). After all keys are released, the remote resumes normal operation. Following graphic shows when this power down mode is entered: Power Down means the MCU and RF module enters into sleep mode.

There is a tolerance of +/- 3 seconds to this timeout

STUCK KEY TIMEOUT



* Stuck Key Timeout is typical 30 seconds, actual timing depends on the protocol transmitted

3.3 Sleep mode

Sleep mode means both application MCU and RF module enter sleep mode. All LEDs/Backlight LED is turned off during sleep mode.

Besides remote control can enter sleep mode because of stuck key described in section 3.2,

There are 2 conditions where the remote control will enter sleep mode

- Upon batteries insertion, remote control will enter sleep mode if there is no key press within 4 secs.
- Remote Control enters sleep mode 4 seconds after the key is released

In all the 2 cases above, pressing a key again will wakeup the remote control.



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3.4 Key press

3.4.1 Continuous key press

When the key is press and held, the transmission will repeat at the timing described in

1.1.1.1 If more than 1 key is pressed, there will be no transmission

3.4.2 Multiple Key press

Remote control will not react to multiple key press. No transmission will take place. Only the backlight LED will light up.

3.5 Pairing

3.5.1 Pairing between remote control and receiver

In order for remote control and receiver to talk to each other, both must have a same ID. There is a 24-bit ID in both the remote control and receiver. This ID is stored in the Eeprom

There are 2 scenario when the ID can be written/overwritten:

3.5.2 In the factory, before delivered to customer.

All the receiver and remote control has the same ID, which is default ID (equivalent to no ID in Eeprom). So, when the customer buy the receiver and remote control, they can straight away use it without any setup required.

3.5.3 Pairing by the user

Since all the remote control and receiver has the same ID, there could be a scenario where the remote interfere the receiver that is used by other user at the same time. In this case, the user has the option to change this ID on the remote and receiver. This is done by the following receiver.

- Make sure the USB receiver is unplugged from the host
- Press and hold **“Clear” key and “Enter” key** for 3 seconds. Then release both keys. The remote control now will send a special command code of pairing setup, repeatedly for 10 seconds. This command code contains a 24bit- ID ,which is randomly generated by remote control.
- Make sure the host is in active mode, plug in the USB receiver now.
- When the USB receiver is plugged in, it will enumerates. After enumeration completes, it will look for the command of pairing setup, for 1 second.



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- If it receives this pairing command, it will overwrite it's own 24bit- ID with the new ID in this command.
- The USB receiver will acknowledge the successful operation to the remote control.
- After the acknowledgement is received by the remote control, it will overwrite it's own ID with this ID as well, into the Eeprom. This new ID will remain in the Eeprom of both receiver and remote control.
- Now, both remote control and receiver have the same ID and pairing is completed.