

2.4G RF PRODUCT SPECIFICATION

- True single chip GFSK transceiver in a small 24-pin package (QFN24 5x5mm)
- Wireless mouse, keyboard, joystick
- Keyless entry
- Data rate 0 to 1Mbps • Wireless data communication
- Only 2 external components • Alarm and security systems
- Multi channel operation
- 75 channels
- Channel switching time $<200\mu\text{s}$.
- Support frequency hopping
- Home automation
- Home automation
- Surveillance
- Automotive
- Data slicer / clock recovery of data • Telemetry
- Address and CRC computation • Intelligent sports equipment
- DuoCeiver™ for simultaneous dual receiver topology
- ShockBurst™ mode for ultra-low power operation and relaxed MCU performance
- Industrial sensors

- Toys
- Power supply range: 1.9 to 3.6 V
- Low supply current (TX), typical 10.5mA peak @ -5dBm output power
- Low supply current (RX), typical 18mA peak in receive mode
- 100% RF tested
- No need for external SAW filter
- World wide use nRF2401 is a single-chip radio transceiver for the world wide 2.4 – 2.4835GHz ISM band. The transceiver consists of a fully integrated frequency synthesizer, a power amplifier, a crystal oscillator and a modulator. Output power and frequency channels are easily programmable by use of the 3-wire serial interface. Current consumption is very low, only 10.5mA at an output power of -5dBm and 18mA in receive mode. Built-in Power Down modes makes power saving easily realizable.

2.4GHz XBOX RF CONTROLLER

INSTRUCTION MANUAL

1. SUMMARY

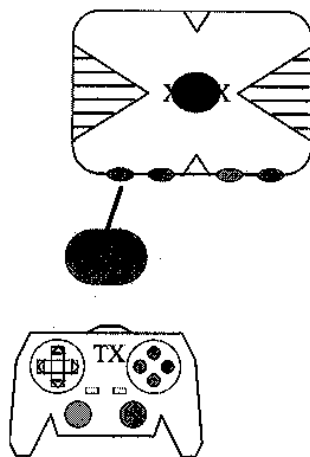
Using 2.4GHz Multi Channel RF module. Compatible with XBOX Input Device (XID) Version 1.0. Using CONNECT key to change channels. Supporting 16 players simultaneously. Having auto-sleep function to save battery life.

2. OPERATION INSTRUCTION

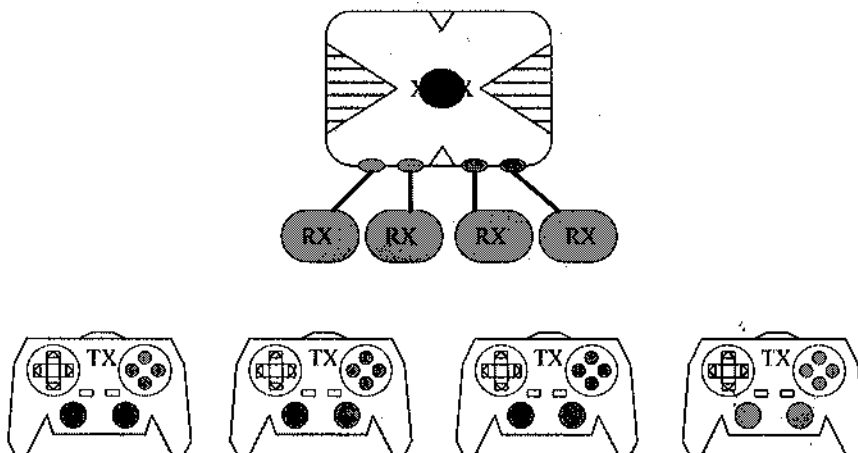
2.1 Basic operation instruction

2.1.1 Connecting

a). Insert receiver into XBOX console, put batteries into the battery compartment of controller. So receiver has been connected with controller.

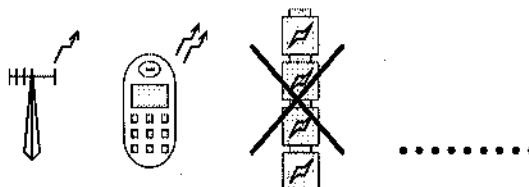


b). When several players (less than 16 players) connect the console simultaneously, receiver will auto check the controllers, and generate channels one to one. If channels repeat or be interfered, please refer to DISCONNECT and RESETTING.

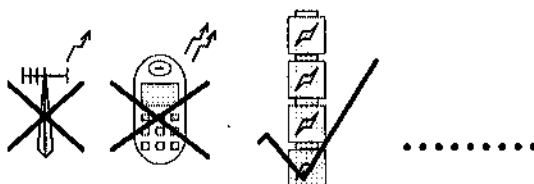


2.1.2 DISCONNECT & RESETTING

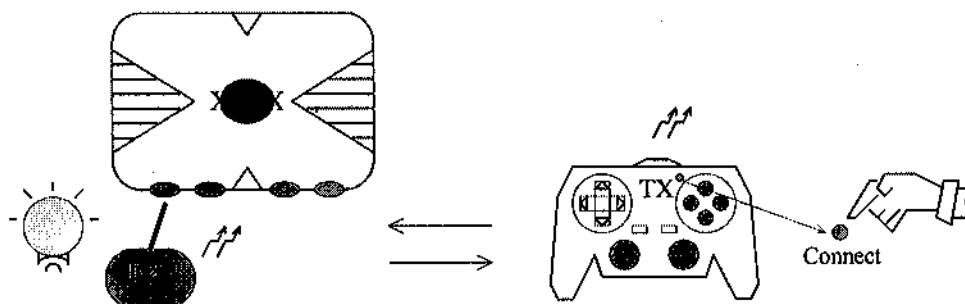
a). When battery is inadequate, or information sending is interfered by block, the channel will be changeful, or controller information will off and on.



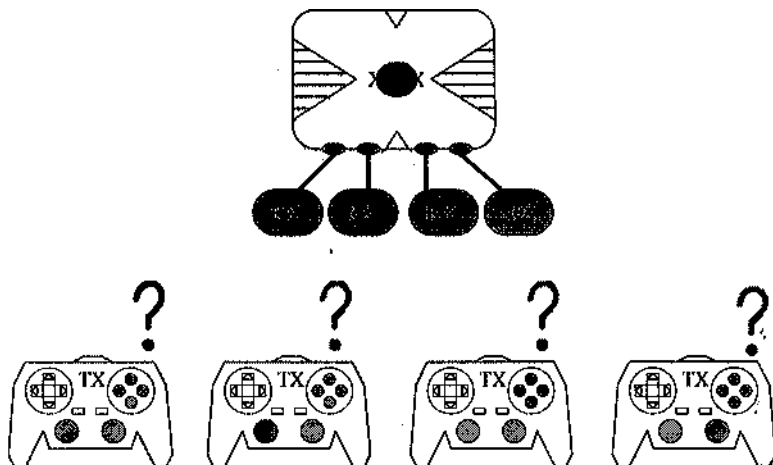
In this situation, please check the battery and make sure that shock has been taken off.



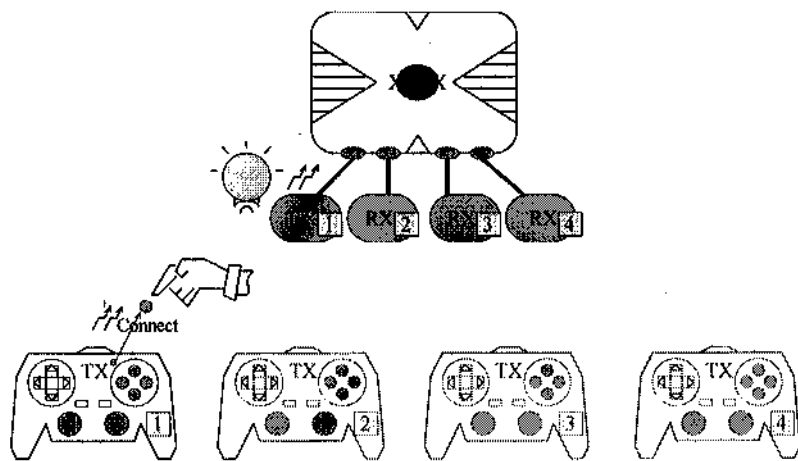
Then please press CONNECT key of wished controller, so receiver and wished controller has confirmed new channel. In the meanwhile, CONNECT LED will light, so you can play normally.



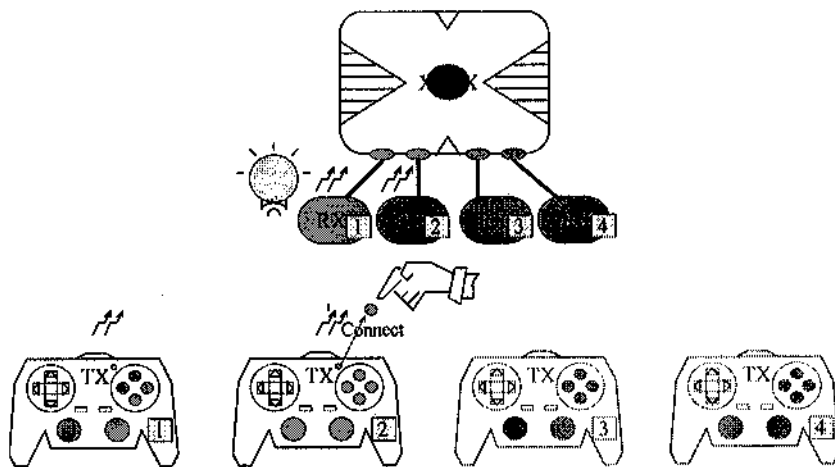
b). If original channels of several receivers repeat and interfere with each other, channel is changeful as well. So it is for controllers.



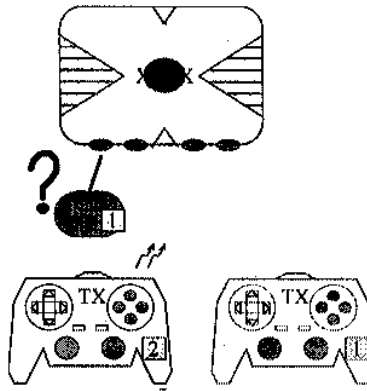
In this situation, please turn off all the controllers power, Then turn on one of controller power and press CONNECT key. So new channel will confirm and Connect LED lights.



Turn on the next controller power and press CONNECT key, so this channel will confirm and CONNECT LED lights. In this way you can reset the rest channels in turn.

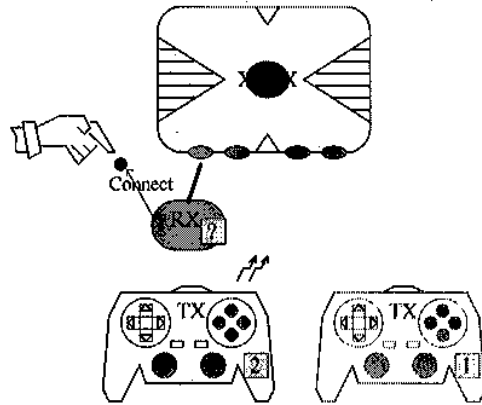


c). In the situation that receiver's ID is different from controller's
Controllers' original setting have one for one ID. When receiver's original ID is
different from controller's, you'd better reset ID.

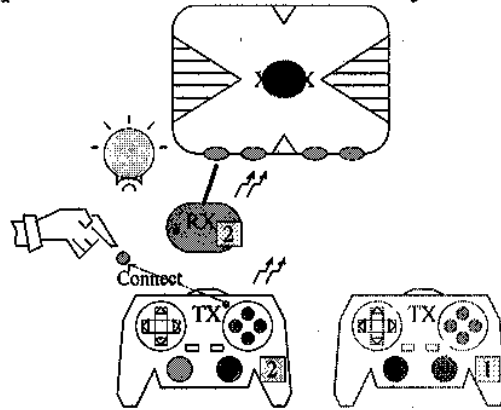


First press CONNECT key of receiver, then press the CONNECT key of your wished controller. After that, ID resetting has completed. At the same time, channel will confirm and CONNECT LED lights. So you can play normally.

Step 1: Press the CONNECT key of receiver



Step 2: Press the CONNECT key of controller.



2.1.3 Sleep Mode

If you do not touch any key of controller within 3 minutes, the controller will auto-sleep.

2.1.4 Wake Mode

Under the Sleep Mode, press any key (including D-PAD/3D/action keys) will wake up the controller.

2.2. Turbo function

By pressing TURBO key you can set TURBO mode and NORMAL mode: Press and

hold TURBO key, then when you press the key you want to set for the first time the TURBO function generates. When you press for the second time, NORMAL function will generate. For the third time, it turns to TURBO again, and so on. Till you complete the setting, relax the TURBO key.

2.2.1 Setting Turbo:

Press and hold the TURBO key, then press the key you want to set. At this time, TURBO LED starts to flash and you can relax them. After you relax, the TURBO LED will stop flashing and will be on, it means that you have completed the TURBO setting.

2.2.2 Cancel the TURBO function

Press and hold the CLEAR key, then press the key you have set.

3.

Operation voltage: DC 3.0V (AA *2 PCS)

Operation current: $\leq 15\text{mA}$ (without vibration)

MOTOR current: $\leq 80\text{mA}$

Operation distance: $\leq 1\text{M}$ (without block)

Operation time: 60 hours (without vibration and changes according to battery capacity)

20 hours (with vibration and changes according to battery capacity)

Operation frequency: 2.4GHz

The antenna(s) used for this transmitter must be installed to provide a separating distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

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.

NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.