



**Reflex XTR** flight simulator's patented PANOlusion Engine<sup>®</sup> revolutionized the world of R/C flight simulators, by providing incredible graphics and superior flight dynamics, still unequalled in the hobby industry.

With a clear vision of the future of technology, Reflex's engineers have once again hit the pinnacle of evolution by offering a direct digital link between your simulator, your computer and even your real model.

### **What is iVol?**

**iVol stands for intelligent eVolution and is a totally new concept for Reflex XTR & R/C Flying.**

Designed from the "ground up" as the most full featured, technically and ergonomically advanced method of controlling R/C aircraft, its dual role as a controller for Reflex XTR & aircraft on the flying field is unparalleled. iVol is a unique technical achievement wholly based on the most modern radio control transmission system & computer programming technology that allows seamless interaction and integration between the two.

**Simply put: iVol is the future of flight simulation control and "real" R/C flying.**

**PROGRAMMING** - Later in 2007, iVol becomes the most modern, full function, 12 Channel, 2.4 Gigahertz transmitter (with a matching receiver) and you will program your own models with your PC, mouse, monitor & keyboard; taking full advantage of the power of the PC, the Internet and multi-media support you get from our modern IT environment.

**Simply put: Use iVol with Reflex XTR and then take it outside and fly your real models with a full featured, 12 channel, 2.4 Gigahertz transmitter & receiver that you've programmed and tested on your PC.**

**TESTING** – Easily test the programming and model setup in the simulator. Detect errors & mistakes using Reflex XTR before they cause a crash in the field. Use state-of-the-art online communications to get support from iVol users all over the world.

**Simply put: Most transmitters use a difficult, multi-layered "button pushing" menu system to change each transmitter setting. Testing cannot be simulated. iVol is computer programmed and uses straightforward Windows<sup>®</sup> screens to change settings. Then upload/download your changes into iVol, and test your programming with Reflex XTR.**

**ADAPTING** - Use the latest microprocessor control technology & styles to program your model and adapt them to your iVol. The state-of-the-art RST bus will allow you to run programs and setups in the future that are unknown at this time. Cascading multiple iVol's to a cooperating system or teacher/student systems are just minor aspects of the possible future options of this intelligent, innovative system.



**Simply put: iVol uses cutting-edge technology that is software upgradeable for years to come. Even now, iVol can be “buddy-boxed” to another iVol or even to a “standard” type transmitter, to help teach a student how to fly using Reflex XTR simulator. Download new features for iVol as they become available.**

**FLYING SAFETY** – iVol is shaped and constructed with unrivalled operational safety from the most intelligent technical design to date. Safety is always paramount, and the use of the latest 32 bit processor, RST bus, 13 bit A/D converter, 2.4 Gigahertz Spread Spectrum technology, fiberglass reinforced ball bearing gimbals, industrial quality potentiometers, highest quality surface mounted components, & connections instead of wires that can break, crimp or come loose will help ensure flight safety.

**Simply put: iVol’s design generates a control feeling unknown until today. iVol was built for maximum comfort for both hand-held & tray-type pilots. As an R/C transmitter, iVol will use the most interference free, upgradeable R/C technology and because it’s built with industrial quality parts from the “ground up”, it will help you fly with confidence knowing that electronic flight failure is minimized.**

**EXCHANGE** - Exchange your settings & programming with other iVol pilots worldwide. Help beginners, detect and correct errors or get additional support from experienced pilots using email or internet websites.

**Simply put: Use your PC to program iVol, download other pilot’s settings from email or the internet, and instantly program iVol without having to go through the entire “button pushing” process normally required with current transmitters. Programming mistakes are easy to correct.**

### **What makes iVol different from the competition?**

Our biggest flight sim competitor includes a control box made to look like a real radio control transmitter and can simulate the functions of a “real” 4-8-channel transmitter. But, unlike iVol that will have 12-channel, 2.4 GHz capability, it can only be used as a controller for the simulator, and never be used as an actual transmitter for actual R/C flight. Unlike iVol, their controller cannot be set up for Mode 1, 2, 3 or mode 4 flying. The control sticks (gimbals) do not have the smoothness unique to iVol. Pre-programmed functions and switches cannot be changed the way iVol can. It is strictly a controller for the simulator and cannot be upgraded. Trimming switches are not digital like iVol. It is not ergonomically designed and it cannot be personalized by color, tension of the “sticks” or custom fit to the users’ hands, the way iVol can be. Although with the proper cable, it can be used as a connection interface for a limited amount of “real” transmitters, it can’t be used as a “buddy box” in a student/teacher environment, like iVol. It does have a reset button to start a new flight after a crash. But, you can’t use it to scroll through and see & select the complete inventory of aircraft or flying fields as you can with iVol. This is a great feature considering Reflex XTR comes with at least 77 Aircraft and 17 actual location flying fields, compared to the competitions 50 aircraft & five “Photofield™” flying sites.



**Simply put: Our leading competitor's controller is virtually a "mouse" or fancy computer joystick, that's made to look like a transmitter but can only be used as a controller for the simulator. It will never have iVol's capability as a state-of-the-art 12 channel, 2.4 GHz full function transmitter as well as a simulator controller; and as a bonus, iVol can be used as an actual joystick for other computer games that require a dedicated gaming joystick.**

### **What about iVol's cost?**

At first glance, if you only see a "simulator controller", justifying iVol's cost might look like a challenge to some, but can be easily justified if you look at iVol's overall usability, capability and technological achievements. Reflex XTR is included with iVol, and iVol's advanced design concept, performance level and future capabilities (based on its innovative and seemingly infinite hardware, firmware upgrade ability give you a simulator and R/C platform that challenges obsolescence. For the technically well informed, it contains a 32-bit processor, RST bus, 13-bit A/D converter and the highest technological quality, far beyond the reach of most current products. With its 10-ball bearing gimbals and very sophisticated ergonomics, iVol generates a control feeling unknown until today, with all control elements arranged in a logical and easy to reach fashion by hand-held or tray-use pilots. Today's "high-end" 10+ channel 2.4 GHz radios can cost well over \$1,200, and due to their cost, extensive feature set, multifaceted program learning curve, and delicate electronics, they were never designed to be used (for hours and hours) as a flight simulator controller. These transmitters are designed for the highly experienced, competition-level flyer only, rather than the full gamut of R/C flying hobbyists.

**Simply put: iVol can easily adapt to any skill level of flyer, from beginner to competition-level. Later this year, with the (optional) plug-in 12 channel, 2.4 Gigahertz transmission module installed, customers will have the most feature rich, easily programmable, upgradeable, personalized, flight control system ever devised, at less than half the cost of the other "high-end" boxes, and they're getting Reflex XTR, the world's best flight simulator virtually for "free".**

### **What are some of iVol's features!**

1. iVol is unique: Nothing looks like iVol; nothing feels like iVol; nothing is as adaptable as iVol; nothing is as upgradeable as iVol; it is a complete, integrated, simulator & R/C flight system
2. Use it as a controller for Reflex XTR
3. For Reflex, select models, scenery, start and stop your flying without touching the keyboard
4. Add a plug 'n play 12 channel 2.4 Gigahertz transmitter with matching receiver for use in the field (optional)
5. Fly in mode 1, 2, 3 or mode 4 configuration; fly the way you want to fly
6. As a transmitter, use your mouse & keyboard to completely & easily program iVol with your PC; no complicated series of button pushing necessary
7. Use iVol as a teacher/student "buddy box" (with many "standard type" transmitters) for Reflex XTR
8. Use iVol as a teacher/student "buddy box" (with many "standard type" transmitters) in the field



9. 10 industrial quality, fiberglass reinforced, ball-bearing gimbals for primary flight controls
10. Gimballed potentiometers are sealed, industrial quality with a virtually unlimited lifespan
11. Completely adjustable stick tension and length for ultimate control feel
12. All gimbals' adjustments are made externally with supplied tool (located on rear cover of iVol)
13. Digital trims for throttle, rudder, elevator and aileron
14. Changeable lengths of switches; Two position switches have changeable switch functions
15. Arrange and add switches as you like after removal of the service covers
16. Ball bearing, industrial quality, bi-directional control dials with proportional input & center-click (user selectable functions)
17. Adjustable contrast, backlit display for menu and function selection
18. Rear service covers provide access to circuit board to add switches
19. Ultra modern design accommodates both hand-held and "tray-type" pilots
20. Changeable and customizable rubber grips for personalized comfort
21. Select six changeable color face plates for personalization
22. Operated from the computer's USB port; no batteries required
23. PC connection via "mini" USB connector: no "dongle" required
24. Use iVol in place of a PC "joystick" for computer games
25. Test your programming in the simulator, then download your settings for flying "in the field"
26. Using the power of the PC, exchange settings, programming and flight techniques with other pilots, worldwide
27. iVol will not go out of date; download & use the latest and future control technology & styles
28. Surface Mount Components, intelligent "from the ground up" design and complete use of the highest quality, industrial strength components provide maximum safety & longevity
29. Designed, developed, produced, assembled, made in Germany

Minimum Requirements:  
Reflex XTR Ver. 5.04.0  
Windows® 98, SE, ME, 2000, XP, Vista  
iMacs using Boot Camp  
Pentium® 4, 1200MHz or comparable AMD  
256MB RAM, AGP 2X or PCI Express  
hardware accelerated video with 32MB  
minimum, DirectX 8.1 or above  
1GB free hard disk space, CDROM or  
DVD drive, USB port 1.1 or 2.0

