

# Operation Instructions

## IMPORTANT INFORMATION REQUIRED BY THE FCC

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.

### 1.0 Preparation before use

- 1.1 Before using this product, open the battery cover on the bottom of the Chalkboard and connect the Li battery. To assure the proper operating voltage, plug in the AC adaptor and charge the Li battery for 10 hours prior to the first time use.. During charging, the charging LED indicator will turn orange color and blink at 1 Hz rate. Charging indicator will change from orange to green once the battery is full.

Placing the cordless pen into the cradle of the Chalkboard to charge the NiH battery at any time. If external power supplier is used, the NiH battery will be charged first before charging the Li battery. When the pen NiH battery is full, charging indicator (2<sup>nd</sup> from the power button) will turn green, then turn off after 5 minutes.

- 1.2 This product is compatible with Windows 98, 2000, Me & XP as well as Mac.

### 2.0 Operation Instructions

The product can be operated either wired or wireless.

#### 2.1 Wired

- Using USB cable connects this product with computer. Mini-B connector is used to connect to this product.
- When the power button blue light comes on, it means that product is ready
- Depending the computer's speed, there are few seconds delay to allow the computer to recognize this product
- When USB cable is used, the batteries is also being charged at the same time.
- When operated on USB cable, it will not turn off automatically until press the power button for 3 seconds. Even if the power is turned off, it still can charge pen battery.

#### 2.2 Wireless

- Connect the RF receiver to computer USB port. The LED indicator will turn green
- Either on Li battery or AC adaptor, pressing the power button will turn the blue light on. If the light turn off by itself, this means that the system requires re-synchronization.

- Synchronization procedures
- Press the receiver sync button and green light should blink
- Press the sync button on the back of the chalkboard. Power light (blue) will turn on and start binding
- Keep depressing the sync button until the receiver green light stop blinking. This means that communication has been successfully established
- If the power light turn off, then repeat the above steps
- Once communication established, receiver indicator turns to red and blink during normal signal transmitting
- If the communication lost more than 5 second, Chalkboard will turn power off automatically
- Chalkboard will switch to "Sleep Mode" after ten minutes idling. Power indicator (blue) will blink for 5 minutes before switch power off. During this 5 minutes, system can be reactivated by simply touch the board with cordless pen
- When strong RF interference is encountered, signal transmission could be interrupted briefly. Chalkboard will automatically switch channel and reconnect. However, when RFI lasts more than 5 seconds, it will switch off automatically
- Operating distance is 10 meters

### **3.0 Battery Charging**

Batteries can be charged by either AC adaptor or via USB cable. When charged with AC adaptor, Li (chalkboard) and NiH (pen) are charged simultaneously. But when charged with USB, pen NiH battery takes priority. This is to protect the USB circuits of the PC and also considering that the older model computer may have lower power supply. NiH battery can also be charged by Li battery from pen cradle. To protect the Li battery, it will not deliver power if it is being charged. PWM protocol is adapted for battery charging. It will also automatically inspect battery for voltage, current to insure the battery safety and charging completeness. In addition, it also has LED rapid blink (2 Hz) error warning function. When this condition occurs, inspect the external power sources and remove the batteries if necessary to inspect for abnormality.

When batteries are charged normally, the charging indicator will blink at 1 Hz rate. Once charging completed, the indicator will blink at a ¼ Hz rate. Li battery has low voltage protection. When the protection circuit kicks in, Li battery will stop charging NiH battery. Li charging indicator will warn at 4 Hz blink rate. This product also has high temperature protection design, once it kicks in, charging will stop immediately and both LED indicators will blink at 4 Hz rate. Remove external power source and NiH & Li batteries to stop the LED blinking. When external power supply is not connected, NiH is charged by Li battery and charging indicator will stay on for five minutes after NiH battery is full. When Li battery is re-installed or external power

supply is connected, power management module will monitor the power status of the entire product. When external power supply is not used, Chalkboard will switch to sleep mode after 10 minute of idling. Li battery will be check every five minutes. Once low voltage detected, charging indicator will start to blink at 4 Hz rate for a full minute, then stop for a full minute. When this product is used for the first time, the chalkboard transmitter must be synchronized with the receiver to establish the communication. Following are the procedures.

- 1) Press the receiver button and the LED will start to flash in green.
- 2) Press the chalkboard synchronize button till the receiver green LED stop flashing and the power button blue LED of chalkboard stay constantly on.
- 3) If the blue light could not stay on, this means that the synchronization failed. Then you need to try it again.

Although multiple protections have been designed into this product, it is a slight possibility that the system may crash if severe RFI is experienced. If this condition is encountered, remove all power supply including Li battery, wait for 10 seconds before re-install power supply to reboot the system.

This product is designed to switch channels to avoid interference, channel switching will induce a brief freeze to the system. If the interference persist more than 5 seconds, system will turn off automatically. Once the source of RFI is eliminated, chalkboard can be turn on and can be operated normally.

If product will not be used for a prolonged period, it is recommended to remove batteries from chalkboard and pen to preserve the useful life span.

If power button flashing irregularly, remove Li battery first, then plug in AC adaptor and reinstall Li battery back. Turn on the power and the blue light should be on consistently. If the flashing persist, new battery is required.

**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.**