

**3-Speed**

# **ALPHA 3000 SERIES**

**Industrial Radio Remote Control Systems**

Industry's Best 3-Speed Pushbuttons

Advanced "RISC" microprocessors

Advanced System Software

Metal Receiver Enclosure

100% Water-Resistant

Ultra Power Saving

Durable & Rugged

Reliable & Safe







# Unparalleled

## Advanced System Software

The Alpha 3000 Series utilizes advanced RISC microprocessor control with highly evolved system software that has redundant error checking and correcting capabilities to ensure 100% error-free encoding, transmitting, receiving, decoding and control of all output relays. This highly evolved system software includes CRC (Cyclical Redundancy Check) and Hamming Code (Error Recovery).

## Safe and Reliable Operation

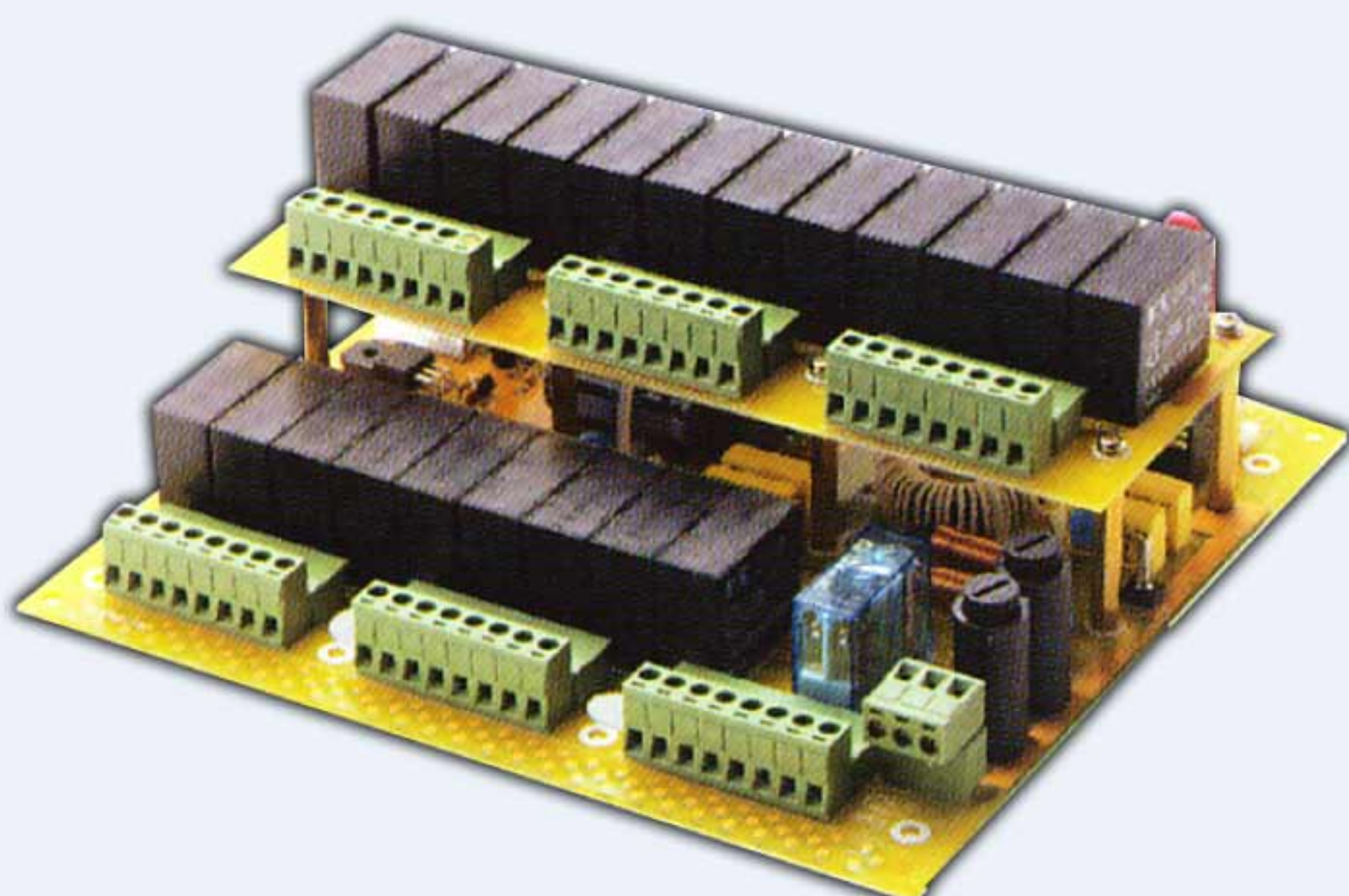
To ensure maximum operating safety the system incorporates numerous important safety features, which include transmitter pushbutton fault-detection ►► visual warning ►► auto-shutoff, transmitter low-voltage detection ►► visual warning ►► auto-shutoff, receiver fault-detection ►► auto-shutoff and receiver MAIN relay auto-disconnect when the system is in sleep mode, radio interference, system out of receiving range, and when transmitter low-voltage condition is detected.

## Secure Operation

Both transmitter and receiver utilize advanced 16+1 bit microprocessor control. The availability of 65,536 sets of unique ID code + 20 distinct RF channels ensure that only commands from a matching control transmitter can be carried out, reducing the risk of interference from outside sources.

## Safety MAIN Relay Circuits

For added safety the receiver system utilizes a special "Safety Relay" for the MAIN relay circuits. If the receiver MAIN relay is defective (example: fails to open or close during operation or not responding to a "Stop" command) a fault will be detected and the system will be shut down immediately to avoid possibility of any accidents occurring



## Ultra Power Saving Circuits

The transmitter utilizes advanced power-saving circuits providing more than 250 hours of continuous operation between battery replacements using just four (4) off-the-shelf "AA" alkaline batteries. The extremely long battery life eliminates the need for frequent replacing and recharging of batteries.



# ed Performance!



## Industry's Best 3 speed Pushbuttons

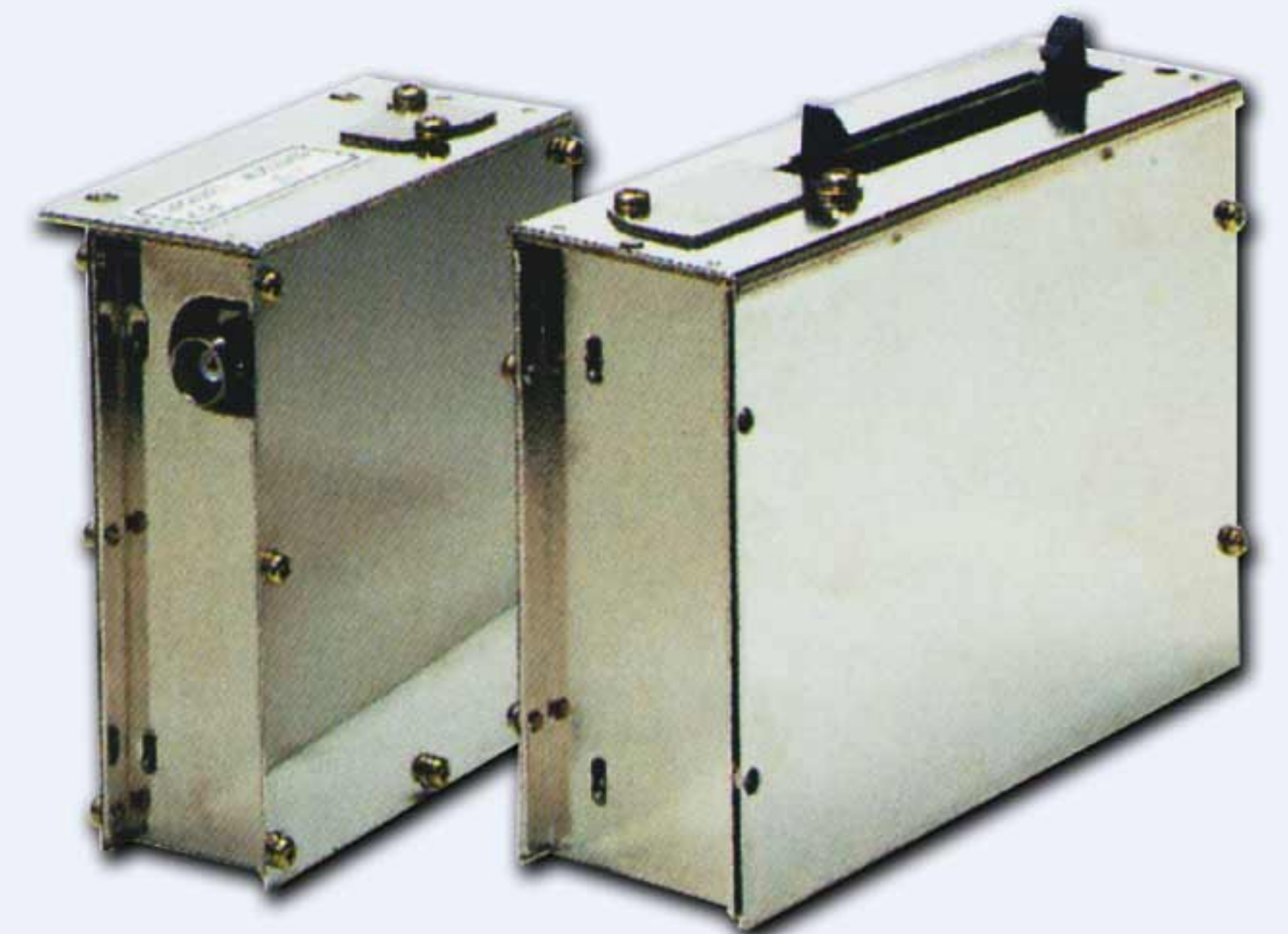
Custom in-house designed 2-speed pushbuttons are extremely durable and reliable for a minimum of one million press cycles. Unlike most 2-speed pushbuttons available from other radio control manufacturers, these pushbuttons are easily manipulated even when the operator is wearing gloves. The snapaction steps provide positive tactile feedback to the operator.

## 20 Use-Selectable RF Channels

The receiver is equipped with PLL (Phase Lock Loop) synthesized RF module with 20 sets of userselectable RF channels (narrow band FM) adjusted via simple dip-switch settings.

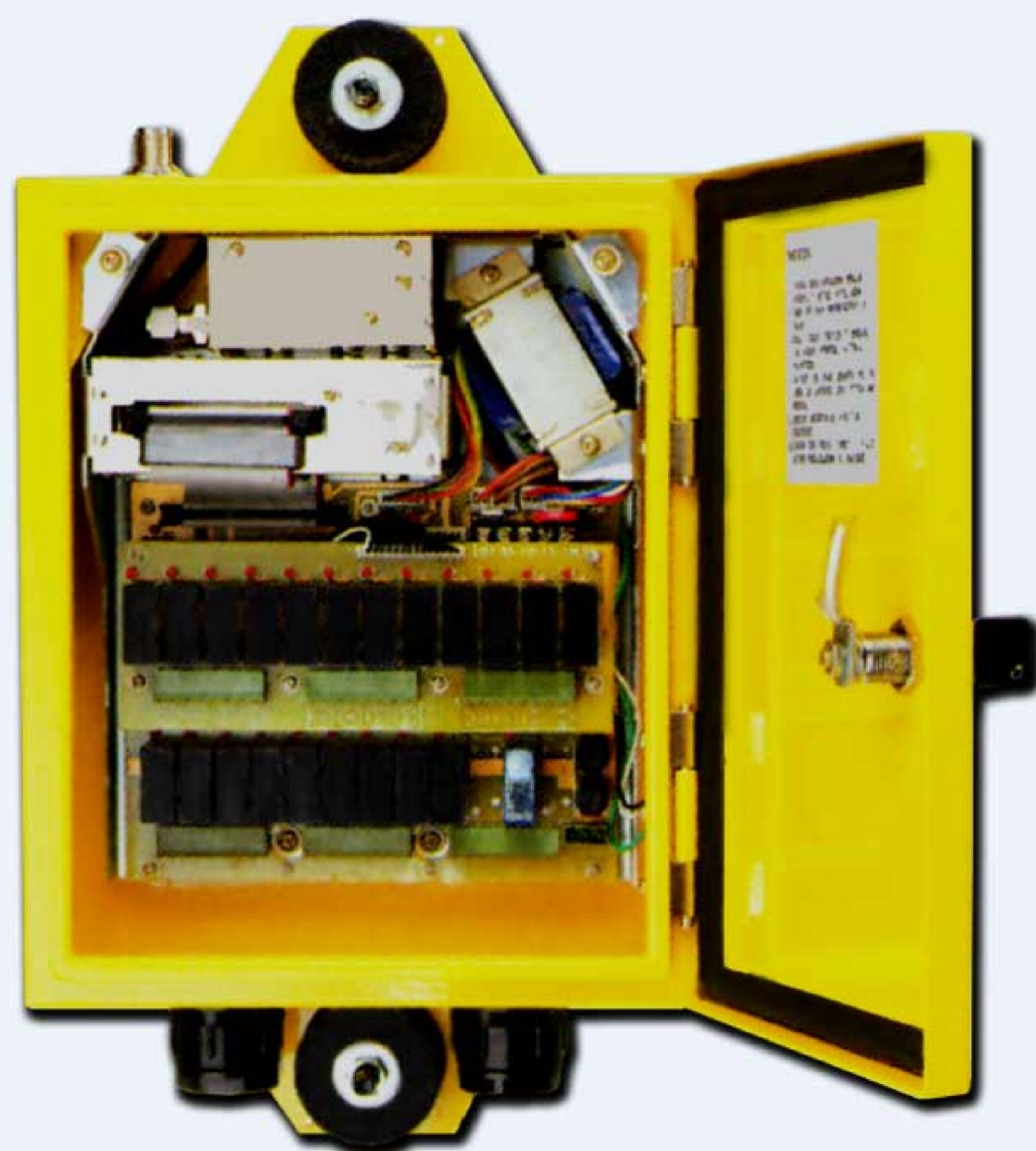
## Durable and Rugged Transmitter

The transmitter enclosures are constructed from industrial strength composite materials (Nylon + Fiberglass) that resist cracking and deformation commonly occurred from frequent drops and long term exposure to heat, sunlight and harsh environments.



## 100% Sealed Enclosure

Both transmitter and receiver enclosures are fully sealed and impervious to dust, water, oil, grease, acids, alkaline, heat and sunlight, which provide trouble-free operation in high moisture environments and outdoor applications. The receiver enclosures are fully painted inside and out with stainless steel hinges and key lock.



## Modular Receiver

The modular design of the receiver provides easy service maintenance of all internal components. The RF module, decoding module, upper/lower relay boards and power transformer are all placed independently inside the metal enclosure.

## Full Compliance

The Alpha 3000 series are designed and manufactured in accordance with FCC Part-15 Rules, European Directives (CE/CB), Industry Canada specifications (IC) and ISO 9001 guidelines. No site License is required.



# ALPHA 3000 SERIES

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# ALPHA 3000 SERIES

## 2 Models Available



Alpha 3000F3

(6) three-speed pushbuttons + (1) one-speed AUX pushbuttons

Alpha 3000D3

(10) three-speed pushbuttons + (1) one-speed AUX pushbuttons

## Alpha 3000 Specifications

Transmitter		Receiver Unit	
Frequency Range	301 & 433MHz	Frequency Range	301 & 433MHz
Transmitting Range	100 meters	Demodulation	Narrow Band FM
Hamming Distance	$\geq 6$	Frequency Control	Synthesizer (PLL)
Channel spacing	25KHz	Frequency Drift	< 5ppm @ -25°C ~ 75°C
Frequency Control	Quartz Crystals	Frequency Deviation	< 1ppm @ 25°C
Spurious Emission	-50dB	Sensitivity	-122dBm
Transmitting Power	1.0mW	Antenna Impedance	50 ohms
Antenna Impedance	50 ohms	Data Decoder Reference	Quartz Crystals
Enclosure	IP-66	Responding Time	64~100mS
Source Voltage	DC 6.0V	Enclosure	IP-66
Current Drain	~8mA @ 6V	Source Voltage	AC 120V/220v/380V/415V @ 50/60 Hz.
Operating Temp.	-25°C ~ 75°C	Power Consumption	11VA
Dimension : Alpha 3000F	230 x 78 x 47 (mm)	Operating Temp.	-25°C ~ 75°C
Alpha 3000D	292 x 78 x 47 (mm)	Output Contact Rating	250V @ 10A
Weight : Alpha 3000F	600g (include batteries)	Dimension (All Models)	425 x 245 x 130 (mm)
Alpha 3000D	730g (include batteries)	Weight (All Models)	8.0 kg