## FMA LIMITED WARRANTY ON RADIO RECEIVER PRODUCTS

## THE WARRANTY

Upon receipt of the original Owner's Registration found on the rear of this manual, FMA, Inc. warrants this receiver to be free of manufacturing defects for the term of one year. Should any defects covered by this warranty occur, the receiver shall be repaired or replaced with a unit of equal performance by FMA, Inc., or an authorized FMA service station.

#### LIMITS AND EXCLUSIONS

This warranty may be enforced only by the original purchaser, who uses this receiver in its original condition as purchased, in strict accordance with the Interceptor 2000B owner's manual. Receivers returned for warranty service to an FMA service center will be accepted for service when shipped post-paid, with a copy of the original sales slip or warranty registration form, to the service station advised by FMA, Inc.

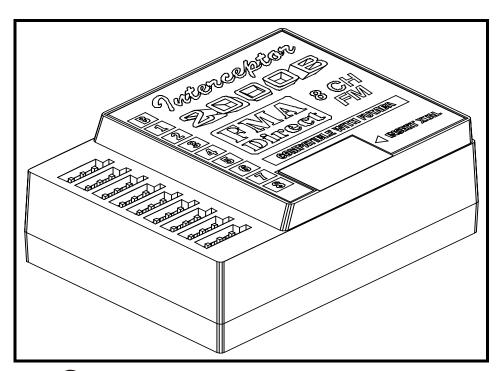
## THIS WARRANTY DOES NOT APPLY TO

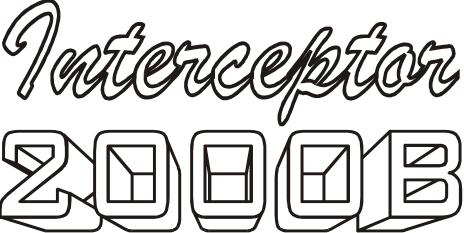
- Consequential or incidental losses resulting from the use of this receiver.
- Damage resulting from accident, crashes, misuse, abuse, neglect, electrical surges, reversed polarity on connectors, lightning or other acts of God.
- 3. Damage from failure to follow instructions supplied with the product.
- 4. Damage occurring during shipment of the product either to the customer or from the customer for service (claims must be presented to the carrier).
- Damage resulting from repair, adjustment, or any alteration to product by any one other than an authorized FMA technician.
- Installation or removal charges, or damage caused by improper installation or removal.

CALL (301) 668-7614 FOR MORE INFORMATION ABOUT SERVICE AND WARRANTY REPAIRS.

detach along this line and return to FMA. Inc.

	WARRANTY REGISTRATION						
1.	Last Name	M.I.	First Name				
	Street Address	City	State ZIP				
2.	Date of Purchase:/		3. Telephone: ( ) -				
4.	Serial Number (if applicable):						
5.	Specify receiver channel number	oer:	, for the following transmitter type:				
	□Futaba □J.R.	□Airtronics □Other					
	ve successfully range tested to ording to the FMA, Inc. range test		eiver with my transmitter to at least 200 feet tions.				
Sign	ed:						
Mail	this form to: FMA Warranty, 571	6A Indu	stry Lane, Frederick, MD 21704				





# **OWNER'S MANUAL**

NOTE: PLEASE READ MANUAL COMPLETELY BEFORE OPERATION

FMA, Inc.

5716A Industry Lane Frederick, MD 21704

Sales: (800) 343-2934 - Technical: (301) 668-7614



## INTRODUCTION:

CONGRATULATIONS!!! Your choice of the FMA Direct Interceptor 2000B receiver assures you of the highest standards of design available to the R/C industry. Your FMA receiver's exceptional performance is the result of countless hours of painstaking R&D time spent by FMA's technical team. The FMA Direct Interceptor 2000B receiver's design surpasses all present and future rigid FCC requirements at an affordable cost. In addition to quality design and production, FMA Direct is dedicated to customer satisfaction and will work to ensure you countless hours of trouble-free, safe modeling.

#### SPECIFICATIONS:

SIZE: 2.18"L X 1.68"W X 0.82"H

WEIGHT: 1.0 OZ.

**DESIGN: DUAL CONVERSION, SUPERHETERODYNE** 

**CHANNELS:** 

MODULATION: FM/PPM (FREQUENCY MODULATION, PULSE POSITION)

FREQUENCY: R/C CHANNELS 00 THROUGH 90 - U.S. LEGAL 50, 53, 72, 75 MHz

ULTIMATE BANDPASS: ± 6.5 KHz @ >55 dB DOWN

**IMAGE REJECTION:** >50 dB

**USABLE SENSITIVITY:** BETWEEN -95 dBM AND -102 dBM

30IP: +12 dB

OPERATING VOLTAGE: +4.8V DC, 4 CELL NICAD, TOLERATES: FROM +3.2V TO +26V DC

**LEGAL USE: MEETS AMA GUIDELINES & 1999 FCC RADIATION REQ.\*** 

FCC Information: FCC ID: KH8-T2000 - This device complies with Part 15 of the Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept interference received, including interference that may cause undesired operation.

## PACKAGE CONTENTS:

FMA Interceptor 2000B FM, 8 channel, PPM receiver. (see TABLE 1 below)

TABLE 1 TRANSMITTER COMPATIBILITY SERVO COMPATIBILITY

Interceptor 2000B LABEL	ACE	AIR	FUT	HITEC	JR	ACE	AIR	FUT	HITEC	JR
COMPATIBLE WITH		✓			✓	NO!	YES	NO!	NO!	NO!
AIRTRONICS										
COMPATIBLE WITH FUTABA	✓		✓	✓		YES	NO!	YES	YES	YES
COMPATIBLE WITH JR		<b>√</b>			<b>✓</b>	YES	NO!	YES	YES	YES

Dealer or factory-installed channel crystal with "channel #" I.D. cover label attached.

CAUTION: REMOVAL OR REPLACEMENT OF CRYSTAL VOIDS WARRANTY!!!

Owner Manual with Registration.

#### PREPARATION:

- INSTALLATION. **POWER** AND **SERVO** CONNECTION
  - Care must be taken when installing your receiver to isolate the electronics from vibration as much as possible. This can be done by wrapping the housing in a suitable foam rubber and affixing it to the fuselage using Velcro or a rubber band. See Figure 1 for details on receiver installation.
  - Always make sure to extend the antenna to its full length. Do not coil the antenna up or range will be shortened.
  - When hooking up servos to your receiver, FIGURE 1 use the compatible servo types as listed in

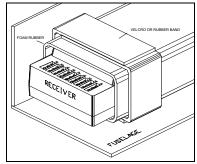


TABLE 1. Use TABLE 2 and FIGURE 2 to check its plug wire color orientation. In most cases, your receiver connectors are polarized by the case so that the pins mate properly with the servos listed in TABLE 1. If you are using JR servos, care must be taken to insure the signal wire (#3 / yellow in TABLE 2) goes to the label side of the

connector array. No damage will occur if a JR servo is plugged in backwards, but the servo will not operate. A nicad battery should be plugged into Position "B" on receiver.

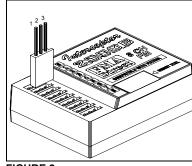
WARNING: AIRTRONICS SERVOS AND RECEIVERS ARE ELECTRICALLY INCOMPATIBLE WITH OTHER R/C ELECTRONICS. DAMAGE WILL RESULT EVERY TIME AIRTRONICS PRODUCTS ARE MIXED WITH OTHER R/C BRANDS. ANY ATTEMPT TO MIX AIRTRONICS COMPATIBLE EQUIPMENT WITH FUTABA/JR COMPATIBLE EQUIPMENT WILL VOID FMA WARRANTY!!!!

## **RANGE TEST**

#### **TABLE 2 SERVO PLUG COLOR ORIENTATION**

RCVR MODEL:	1	2	3		
FUTABA/ACE	BLACK	RED	WHITE		
JR/HITEC	BLACK	RED	YELLOW		
AIRTRONICS	RED	BLACK	BLACK		

To assure proper performance, the Interceptor 2000B receiver must be range tested with the "host" transmitter. Perform this test with the receiver antenna fully extended VERTICALLY into the air, and the transmitter antenna collapsed. Apply power and walk away from the receiver moving one stick on the transmitter. You should obtain at least 200 feet of line of sight ground range if everything is operating properly. FIGURE 2 If any loss of servo control occurs, the system



must be calibrated by an FMA service station. CALL (301) 831-8980 for FMA Direct technical assistance.

## **ACCESSORIES:**

Aileron extension cables, Y-harness, switch harness, and numerous other accessories as well as a full line of servos is available for use with your FMA receiver direct or from your local FMA dealer.