

Instruction Manual for Airplane and Helicopter

XP7202

7- Channel synthesized computer radio

1- Using this manual

In the front of this manual you will find the specifications for the transmitter and its included accessories. In addition, guidelines for installation have been included. For your convenience, this manual is arranged with a separate sections for airplane and helicopter software functions: Airplane Programming: Pages xx thru xx Helicopter Programming: Pages xx thru xx. Programming functions are discussed in the same order that they appear in the radio. An explanation of the use and purpose of each feature is provided, followed by an illustration of its LCD display. A blank data sheet has been included at the end of each section. Once all data has been input for a particular model, it is highly recommended that you also record it on a copy of the data sheet provided. If you should experience memory loss or want to make changes to the current settings, this step will save you a great deal of time.

XP7202 Transmitter

The XP7202 synthesized transmitter allows on screen channel selection of channels 15 thru channel 60 via the computer. The system prevents accidental turn-ons by requiring acknowledgement of the selected channel before a signal is transmitted. The system incorporates a hi-resolution dot matrix LCD display offering sophisticated graphics that are easy to read and understand. Two model type programming offers airplane and helicopter pilots programming options that will meet the most demanding modelers needs. Control sticks are adjustable for spring tension and length. Twenty-model memory storage capacity allows programming of up to twenty separate helicopters or airplanes or you can program more than one set-up for a single aircraft. Two versions of the transmitter are available: Airplane and Helicopter. The switch positions are optimized for each model type however the programming is identical in both versions.

3. Component Specifications

3A System Specifications

Type Aircraft	Helicopter	
System Name	XP-7202A	XP-7202H
Transmitter Body	NET-K237US	NET-K237US
Receiver	NER-790	NER-790
Charger	NEC-222	NEC-222
Airborne Battery	1100mAh	1100mAh
Servos	NES-821x4	NES-821x4
Accessories	Standard Switch	Standard Switch
	12" Aileron Ext.	12" Aileron Ext.
	Charge Jack	Charge Jack
	Servo Accys	Servo Accys
	Hex Wrench	Hex Wrench
	Instruction Manual	Instruction Manual

3B Transmitter Specifications

Type Aircraft	Helicopter	
Model Number	NET-G127US	NET-G127US
Encoder	7-Channel Computer System	7-Channel Computer System
RF Module	72MHz	72MHz
Modulation	PCM (S or Z) or PPM	PCM (S or Z) or PPM
Output Power	Approximately 750mw	Approximately 750mw
Current Drain	200mA (70mA with DSC)	200mA (70mA with DSC)
Power Source	1.2Vx8 NiMh (9.6v) 15000mAh	1.2Vx8 NiMh (9.6v) 1500mAh
Output Pulse	1000-2000 (1500 Neutral)	1000-2000 (1500 Neutral)

4. Battery Charging

4A Transmitter/Receiver

Note: It is imperative that you fully charge both the transmitter and the receiver battery packs prior to each fly session. To do so, using the included wall charger, leave the charger and batteries connected overnight (16 hours). The first charge should be approximately 20-24 hours in order to fully charge both battery packs to peak capacity. The charger supplied with this system is designed to recharge your batteries at a rate of 150 mA for the transmitter and 120 mA for the receiver battery pack.

Transmitter Polarity

The center pin on all JR transmitters is negative. Therefore, the center pin on all JR chargers is negative, not positive. This is different from many other manufacturers chargers and radio systems. Beware of improper connections based on "color coded" wire leads, as they may not apply in this instance. You must make sure that the center pin of your JR transmitter is always connected to the negative voltage for correct polarity hookup.

4B Charger

The pilot lamps should always be ON during the charging operation. If they're not, check to make sure that both the transmitter and receiver are switched OFF. Do not use this charger for equipment other than JR. The charging plug polarity may not be the same and equipment damage can result. During the charging operation, the charger's temperature is slightly elevated. This is normal.

5. General Information 5.1 Control Stick Length Adjustment the XP7202 allows you to adjust the control sticks' length. Loosen Tighten To adjust the stick length, use the 2 mm Allen wrench (supplied with your XP7202 transmitter) to unlock the setscrew. Turn the wrench counterclockwise to loosen the screw. Then, turn the stick clockwise to shorten or counterclockwise to lengthen. After the control stick length has been adjusted to suit your flying style, tighten the 2 mm set screw. If you desire longer sticks, JR offers a longer stick tip (JRPA047) that is approximately one inch longer than the standard stick. This stick is available at your local JR dealer.

5.2 Control Stick Tension Adjustment Note: Remove the transmitter Nicad battery, and six (6) transmitter back cover screws as shown on the previous page. Remove the transmitter back, being careful not to cause damage to any components
Adjust each stick tension screw for the desired tension (counterclockwise to loosen stick feel, clockwise to tighten stick feel). When adjusting the throttle ratchet tension, make sure the adjusting screw does not touch the PC board after the adjustment is complete.

5.4 DSC Cord For proper DSC hook up and operation:

1. Leave the transmitter power switch in the OFF position. The transmitter will not transmit radio frequency (RF) in this position.
2. Plug the DSC cord (optional) into the DSC port in the rear of the transmitter.
3. The encoder section of the transmitter will now be operational and the LCD display will be lit.
4. Plug the other end of the DSC cord into the receiver charge receptacle. Turn the switch harness to the ON position. Note: The DSC function will only operate with the JRPA001 Deluxe Switch Harness, or the JRPA004 Charge Switch. When you install the charging jack, be sure to hook the charging jack receptacle securely into the switch harness charge cord.

Why you should use the DSC function:

1. The DSC function allows you to make adjustments to your model without transmitting any radio signals. Therefore, if another pilot is flying on the same frequency, you can adjust your models radio setting and not interfere with the other pilot's aircraft.
2. The DSC enables you to operate the control surfaces of your airplanes without drawing the fully operational 200 mAh from your transmitter battery pack. Instead, you will only draw 70 mAh when using the DSC function. Note: Under no circumstances should you attempt to fly your airplane with the DSC cord plugged in! This function is for bench checking your airplane only.

5.5 Neck Strap Adjustment

An eyelet is provided on the face of the XP7202 transmitter Note: Double check to ensure that the neck strap (JRPA023) is securely fastened to the transmitter. This hook has been positioned so that your transmitter balances when you use the neck strap.

5.6 Base Loaded Antenna

An optional base-loaded antenna is available for use with the XP-7202 transmitter. It is considerably shorter than the standard antenna. The Base Loaded Antenna (JRPA155) is made of a flexible coil and is covered with soft plastic material. Your range will not be affected when using the based loaded antenna.

5.7 Using the synthesized channel selection

The XP7202 allows the selection of channels 15 thru 60 via the on screen programming. When the transmitter is first turned on, the screen will display "WARNING!" and the previous channel and frequency used will be displayed. At this time no signal is being transmitted. If you wish to transmit on this frequency press the clear key and the transmitter will begin transmitting on the selected channel displayed and the screen will display the main menu.

If you wish to change a frequency the following steps are necessary:

SHOW SCREEN WITH KEYS

- Enter the system set up mode by pressing and holding the down and channel keys simultaneously while turning on the power switch.
- Press the UP or Down key until "Synthesized CH" appears on the screen as shown.
- Press the Inc or DEC key to select the desired channel
- Press the down and channel key to exit the synthesized screen. This will return the screen to the warning menu
- In the warning menu the newly selected channel will be displayed. If you wish to transmit on that channel press the clear key and the transmitter will transmit and the screen will switch to the main menu screen.

The XP7202 can transmit in either Pulse Code Modulation (PCM-S and PCM-Z) or in Pulse Position Modulation (PPM, commonly referred to as FM). Be certain to observe the following guidelines: 1. Do not operate your transmitter when another transmitter is using the same frequency, regardless of whether the second transmitter is PCM, PPM (FM) or AM. You can never operate two transmitters on the same frequency simultaneously without causing interference to both receivers.

Installation Requirements

It is extremely important that your radio system be correctly installed in your model. Here are a few suggestions for installing your JR equipment:

1. Wrap the receiver in protective foam rubber that is no less than 3/8 inch thick. Secure the foam to the receiver with #64 rubber bands. This protects the receiver from shock in the event of a crash or a very hard landing.
2. The servos should be mounted using rubber grommets and brass bushings to isolate them from vibration. Do not over-tighten the mounting screws; this will negate the vibration absorption effect of the rubber grommets. The diagram below will assist you in properly mounting

your servo. The brass bushings are pushed from the bottom up in the rubber grommets. When the servo screw is tightened securely, it provides the proper security, as well as the proper vibration isolation, for your servo.

3. The servos must be able to move freely over their entire range of travel. Make sure that the control linkages do not bind or impede the movement of any of the servos.
4. Mount all switches away from the engine exhaust and away from any high vibration areas. Make sure each switch operates freely and is able to operate over its full travel.
5. Mount the receiver antenna firmly to the airplane to ensure that it will not become entangled in the propeller or control surfaces.