

# JR Heli Full Line Brochure



**Vibe 90 3D**  
The Ultimate 3D Machine

- Helicopters
- Radios
- Gyros
- Servos
- Engines
- Hand Tools
- Accessories

JRPC995



For additional information on JR helicopters, radios and accessories, call or write:  
Horizon Hobby, Inc., 4105 Fieldstone Road, Champaign, IL 61822 (217) 355-9511  
Or visit our Web site at: [www.horizonhobby.com](http://www.horizonhobby.com)



[www.JRradios.com](http://www.JRradios.com)



# Team JR—Making a Difference

When it comes to creating helis and accessories that are the best in the business, it's a team effort.

JR® combines the talents of some of the best heli pilots in the world to bring you the kind of performance, service and support that makes the enjoyment of flying with JR second to none. Meet just a few of the many great people that help Team JR make a difference:



## Len Sabato

Len is the Product Development and Team Manager for the JR Heli line at Horizon Hobby. He's a 3-time IRCHA Grand National Champion and flew for the U.S. in the 2003 World Championship. Len spends much of his time finalizing production details and instruction manuals for JR heli-related products. He provides design input and testing for these products as well.



## Ron Osinski

Ron is Team JR's resident electric heli guru. He stays on the cutting edge of fast-changing battery and motor developments, and enjoys sharing this information with fellow pilots at fun flies. You'll find Ron online too, offering support and expertise on several popular RC heli forums.



## Curtis Youngblood

Recognized the world over as a pioneer of 3D heli aerobatics, Curtis is a 12-time U.S. National and 3-time World Heli Champion. He's also a two-time XFC and 3D Masters Champion. These extensive flying skills combined with his engineering and design background help drive the development of cutting edge JR products like the Vigor™ and Vibe series of helis.



## Scott Cathey

Scott is one of Team JR's most active team test pilots, and attends numerous heli fun flies. He's a very accomplished 3D pilot who enjoys helping pilots just like you by offering his experience and setup expertise whenever they need it.



## Scott Gray

Scott has won several Canadian Championships as well as top honors at the 2003 U.S. National Championships. He's also a regular at the XFC, F3C World Championships and UK 3D Masters events. Like Curtis, Scott also has engineering expertise and has been instrumental in the development of many JR innovations, including the Vibe 90 rotor hub.



## Marty Kuhns

Marty is a well-known 3D flyer from the west coast who competes regularly in the XFC. He is respected for his flying ability as well as his design ideas, one of which was the aerodynamically sculpted canopy that comes with the Vibe 90. You can find Marty at fun flies all along the west coast answering questions and helping pilots get the most from their equipment.



Team JR at IRCHA 2004 just before their Venture 50 madness demo.

Be sure to look for these other JR Heli Team members at a fun-fly near you.

- Erik Anderson
- Mike Fortune
- Rob Giles
- Paul Giles
- Scott Glasgow
- Anthony Jager
- Gary Kurtzman
- Dickson Lopez
- Leon Luke
- Marshall McClung
- Justin Moore
- Bob Motazed
- Ron Pisz
- Dave Storey
- Bill Tinsley
- Don Yoo

# Vibe 90 3D

The new Vibe 90 3D will handle everything you can throw at it.

**NEW!**



JRP9060

**Winner of the 2004  
XFC and 3D Masters**

## SPECS

Overall Length . . . . .	54"
Overall Height . . . . .	17.5"
Tail Rotor Diameter . . . . .	10.34"
Gear Ratio . . . . .	8.00 : 1 : 4.83
Gross Weight . . . . .	10.2–10.5 lb

To say U.S. 3D flying has gone to extremes is somewhat of an understatement.

Full-limit travels, light paddles, 90-size engines, 30% fuel and aggressive 3D blades combined with an attitude of "total chaos stick bending" is a recipe to wreak havoc on any set of helicopter mechanics.

And according to Curtis Youngblood, that'll be just perfect for owners of the new Vibe 90 from JR®.

Based on the popular Vigor™ CS, the Vibe 90 features many parts that have been redesigned and upgraded to handle the incredible loads of today's flying styles. And the results are impressive.

"The Vibe has totally reinvigorated my flying, which is why I love flying it so much," says Youngblood. "During the off-season, I have been practicing more, as many as 10–12 flights per day. You don't have to do much to it to keep it flying and it's really tough. I've been pushing to find the Vibe's limit, and so far, I haven't found it." Judging by his string of 3D and precision wins this year, it's clear the work spent on the Vibe by Curtis, Marty Kuhns, Len Sabato and other JR team members has paid off big time. Along with the redesigned carbon frames and carbon fins, the all-important drive system has received a total upgrade, beginning with a larger diameter start shaft that uses a heavy-duty, one-way bearing. The new hardened main shaft, with its heavy-duty autorotation assembly and newly supported bevel gear hub has also been beefed up. The revised control system features an upgraded High Cyclic Swashplate, one-piece CNC 3D center hub with 0-ring dampeners, composite blade holders, control arms and a brand new adjustable flybar/blade ratio system. On the tail, the rotor hub design, hub case, pitch lever, and control lever have all been upgraded, complete with a new carbon tail control rod for improved actuation.

Even the new pre-painted canopy has been sculpted to reduce drag in all axes, so the model flows through flips, rolls, tumbles and pirouettes easier than ever before.

If you're looking for a heli that can take your best shot and come back for more, this is it – look for the Vibe to arrive early in 2005 at your favorite JR retailer.



# Venture 30 CP

## A Great Way to Start



JRP9005

### SPECS

Overall Length . . . . .	44.6"
Overall Height . . . . .	17.2"
Tail Rotor Diameter . . . . .	9.3"
Gear Ratio . . . . .	9.78 : 1 : 5.18
Gross Weight . . . . .	7.0–7.5 lb

The almost-ready-to-fly Venture™ 30 CP combines the power of CCPM flight control with a versatile design that can take a complete beginner from the basics, through intermediate flight, all the way to thrilling advanced aerobatics.

### Get Off to a GREAT Start

The Venture 30 CP has quick assembly time, ball bearing precision, and rock solid in-flight stability that set the novice up for success right from the start. Since it's almost-ready-to-fly, all the really complicated assembly, like the rotor head and main frame, is done for you. What little assembly is left can be finished in a single afternoon.

When the time comes to take that first flight, the beginner will enjoy the smooth, precise flight control of CCPM. Since with CCPM all the swash-plate servos work together to control cyclic and collective functions, standard sport servos will work just fine. Maintenance and repair is much easier too. And unlike other helis in its class, the Venture CP sports ball bearings throughout the rotor head for silky smooth response in any flight attitude.

### Start Smart: Venture 30 Complete Starter Set

Not sure what else to buy? The Venture 30 Complete Starter Set gives you everything you need in one package. You get:

- The Venture 30 CP
- JR's phenomenal XP6102 FM Heli System
- JR's super-sophisticated G500T Tail Lock Gyro
- Webra's powerful, easy-to-use .35 heli engine
- A specially tuned JR heli muffler

Just ask for JRP9005C wherever JR® is sold.



XP6102



.35 Engine



G500T Gyro



JR Heli Muffler

### Mild to Wild: The Power of the Paddles

The Venture 30 CP includes an extra set of paddles that allow a beginner to "unlock" even more performance after learning the fundamentals. The paddles that come installed on the Venture soften the sensitivity of the controls nicely. This makes

learning fundamental maneuvers much easier.

Once they've mastered the basics, Venture owners can install the lighter, thinner paddles that are included for aerobatic maneuvers. With the conversion paddles installed, inverted hovers, tail slides, rolls, and loops can all be performed with precision.

Whether you're a novice or an accomplished heli pilot on a budget, JR's new Venture CP has everything you need.



# Venture 50

## Sizzling 3D Performance— ARF Simplicity



JRP9015

### SPECS

Overall Length . . . . .	47.32"
Overall Height . . . . .	16.29"
Tail Rotor Diameter . . . . .	10.34"
Gear Ratio . . . . .	9.78 : 1 : 5.18
Gross Weight . . . . .	7.0–7.5 lb

The almost-ready-to-fly Venture™ 50 3D is a brilliant combination of .50-size power with the simplicity of the Venture 30 CP's preassembled frame and CCPM flight control. It also boasts a number of performance components that most helicopters in its price range don't have, like: a high quality swashplate, heavy-duty spindle, aluminum center hub, main rotor thrust bearings, a limited slip differential clutch, and much more.

Like the Venture 30 CP, all the really complicated assembly, like the rotor head and main frame, are done at the factory. What little assembly is left for the modeler—basically bolting on the tail assembly and installing the servos and engine—can be finished in a single afternoon.

Perhaps best of all, the Venture 50 3D's price tag is well within reach of budget-minded modelers who really want a hot 3D machine but don't have a lot to spend.

### “Unmatched”

That's how *Model Airplane News* reviewer Rick Bell described the Venture 50 3D ARF's aerobatic prowess. Then, after noting its “outstanding instruction manual”, its “versatile “performance”, “low parts count” and the “minimal assembly required”, Rick summed it all up like this:



Rick Bell

**“Whether you're a novice,  
an intermediate or expert pilot,  
the Venture 50 3D ARF gives you  
a lot of bang for your buck!”**



# Voyager E

High Voltage Fun  
Everyone Will Enjoy



JRP9041  
JRP9042 (w/o motor or ESC)

JR's Voyager™ E offers a level of flight performance not normally associated with electric helis. Its 12-turn motor gives it performance on par with some 30-size machines. Cyclic response is also very powerful thanks to the synergistic advantages of its CCPM control system. Using a typical 7-cell 7.2V 2400mAh battery pack, pilots can enjoy about four to five minutes of loops and rolls, followed by 30 seconds of gentle flight. Add a brushless motor and Li-Po batteries, and you'll experience seriously high-voltage performance that's completely off the charts.

The standard Voyager E comes with JR's NEA-300H speed controller and special 540 motor. Want to customize your electronics? No problem. There's a Voyager E without electronics, as well. Whichever version you choose, you will enjoy features like: special nylon servo tray inserts that accept standard or mini servos, an auto rotation clutch, cog-toothed tail rotor belt drive as well as pre-finished and balanced rotor blades. The Voyager E's main frame is constructed from lightweight, fiber-filled nylon, and the canopy is blow molded from polypropylene, making it one of the most rugged electric helis around.

See for yourself just how much fun electric flight can be with the Voyager E.



## SPECS

Overall Length . . . . .	33"
Overall Height . . . . .	12.25"
Tail Rotor Diameter . . . . .	7"
Gear Ratio . . . . .	23.33 : 1 : 1.5
Gross Weight . . . . .	52.2-55.7 oz



# XP6102

# XP8103

**JR**  
*feel the difference!*

**JR**  
*feel the difference!*

## World's Most Advanced Six-Channel Radio

The first thing that grabs you when you pick up a XP6102 is the display screen. With some 1,550 dots available, the 6102 gives you a clearer picture of whatever programming task is at hand. PCM fail safe, servo position monitor, dual-rates, expo, pitch and throttle curves—once you see these programs on a matrix display, you'll never want to go back to simple numeric displays ever again.

With the XP6102's ample 10-model memory you'll probably be able to store more heli setups in it than you can helis in your workshop. And you can store both helicopters and airplanes. The XP6102's programming switches are positioned to make programming equally intuitive for both types. You even have the option of selecting PCM modulation for the ultimate in interference protection.

While the XP6102 has a host of programming features you would expect to find in a six-channel, it has several you wouldn't. One of these is Flight Mode Digital Trims which allow you to digitally adjust and save different trim settings for each flight mode—a feature normally found only on much more expensive systems.

Add to this the convenience of fully assignable switches, and it's easy to see why the 6102 can get you where you want to go, whatever type of flying you do.



Every XP6102 flightpack includes JR 5537 ball bearing sport servos and an 1100mAh battery pack. Flightpacks are available in airplane (4-5537s) and heli (5-5537s) versions that include your choice of a JR R700 FM or R770 PCM slimline receiver.

- JRP6645 FM Heli w/R700 & 5-537 servos
- JRP6665 PCM Heli w/R770 & 5-537 servos
- JRP6647 FM Air/Heli w/4-5537DS
- JRP6667 PCM Air/Heli w/4-5537DS



## 8-Channel Sophistication

Featuring programming capabilities that allow some of the hottest 3D flyers in the country to "do their thing," the XP8103 Heli has been designed to accommodate the needs of the serious sport flyer.

Its class-exclusive 8,000 dot matrix display gives more information on each screen—in a manner that conveys the clearest message possible—whether it's bar or graph pictorials, or simply words and numerals. As a result, comprehension skyrockets—along with modeling enjoyment.

What's more, new "3+1" Digital Trims mean that 8103 owners benefit from automatic trim storage anytime a mode is changed or the transmitter is turned off. Better still is the fact that JR has retained the conventional mechanical trim for throttle for the ultimate in visual and tactile references.

For those who like to keep program copies on their PC, the available JR® DataSafe™ interfaces the 8103 transmitter with your PC for easy storage and retrieval.

JRP8627 FM Heli w/R700 & DS537



# XP9303

# 10X



## Pro-Class Features Without the Price

If you thought pro-class luxuries like a vast array of programming options and a big easy-to-read display screen were simply beyond your means, take heart. The 9-channel, 30-model-memory, 3-model-type XP9303 gives you all kinds of pro-class advantages at a price that's almost too good to be true.

In fact, there are very few pro-class features that aren't included in the XP9303 Heli. Cyclic-to-throttle mixing is standard as are 7-point throttle and pitch mix curves. It also boasts four available flight modes, in addition to Hover and Hold, and new governor software that makes it easier to use Throttle Jockey and similar governors. All forms of CCPM—120, 140 and 4-90 and 3-90—are supported as well. Add to all this triple-rate gyro function, triple rate settings for all modes and fully assignable switch locations and you've easily got the most impressive combination of capability and value you'll find in any heli radio.



*Beyond an abundance of features at an affordable price, the XP9303 further distinguishes itself with a Rolling Selector System interface that's hands down the most intuitive in its class.*

JRP9250 Heli w/R770  
JRP9251 Heli w/R649 & 4-DS811  
JRP9252 Heli Adv. w/R649 & 4-DS8311  
JRP9259 Heli Tx Only w/Mod

**NEW!**



## The Ultimate Heli System

If you're looking for the absolute best way to control your heli, we'd like to recommend the 10X. This system simply does what heli flyers want it to do, and most importantly, it gets you there with the fastest, easiest, most direct methods ever conceived.

The 10X model utilizes ADT (Advanced Digital Trims)—now flight trimming is a "set it and forget it" methodology. Just make trim adjustments as needed and they are automatically memorized anytime a flight mode is changed. In addition, flight trim is more precise than ever—scalable to 1/1024th of the servo travel. And, the ADT system uses a mechanical throttle trim to retain the advantages of visual and tactile reference so popular with flyers the world over.

With new features like a throttle hold delay system and multi-point tail curves for all flight modes, plus the included DataSafe™ PC Interface System (which gives you virtually unlimited memory storage capacity via your personal computer), the capability of the 10X simply has no equal.

JRP1656 PCM Heli w/5-8231 & case  
JRP165TX PCM Heli Tx only



# Gyros

# Servos



## Rock Solid Holding Power

### G500T Tail Lock Ring Gyro

When it comes to consistent, precise holding power, nothing can touch the G500T. Its advanced silicone ring sensor is highly resistant to shock or vibration and practically eliminates temperature drift. Couple these benefits with JR's unequalled processing power and you can count on tail slide after tail slide without ever blowing out once. As World Champ Curtis Youngblood puts it, "The G500 holds a straight line as well or better than any other gyro on the market, in any price range." What more could you ask for?



JRPG500T

Voltage: 4.8V only  
Size: 1.18" x 1.18" x 0.94"  
Overall Weight: 0.96 oz  
Gain Adj: Dual Remote Adjustable  
Current: 95mAh

### Gyro/Servo Combos

Translating the G500T's outstanding holding power and accuracy in to precise control movement requires a precision servo. JR® offers the G500T in combination with two of its most sophisticated tail servos: the S810G SportTail Servo and the tried and true S8700G Super Servo.

### G500T/S810G Sport Tail Servo Combo

The S810G boasts an impressive transit time of .10 sec/60° and a respectable 34 oz/in of torque. This makes it ideal for beginner and sport heli fliers who desire improved tail precision over standard servos but at a wallet-friendly price.



JRPG500TC1

### G500T/S8700G High Speed Super Servo Combo

Those seeking the ultimate in tail rotor control need look no further than the matching of the G500T with JR's phenomenal S8700G.



JRPG500TC2

### JR Specialty Heli Servos

It's hard to put a feeling into words, but just ask anyone who's used a JR® servo and you'll hear things like, "solid", "consistent", "dialed", "locked in"—you get the picture. And with three specialty heli servos to choose from, there's one that's sure to fit your type of flying and budget.



JRPS8311

### DS8311 Digital High-Torque Cyclic Servo

Those seeking the ultimate 3D servo need look no further than the DS3811. Using JR's digital technology the DS3811 makes tail control more like thought control. It's rock-solid holding power, incredible resolution and dead-center accuracy are quite simply second to none.

Torque: 125 oz/in  
Weight: 2.03 oz  
Motor: Coreless  
Speed: .18 sec/60°  
Size: 0.73" x 1.52" x 1.32"  
Ball Bearing: Dual



JRPS8700G

### S8700G Ultra-Speed Tail Servo

The name says it all. With its .09 second transit time, the S8700G is as quick as they come. It achieves this phenomenal speed on just 4.8V using the advanced mechanics of a final output shaft with wider bearing spacing.\*

Torque: 19.9 oz/in  
Weight: 2.11 oz  
Motor: Coreless  
Speed: .09 sec/60°  
Size: 0.75" x 1.54" x 1.36"  
Ball Bearing: Dual

\*For use with PCM receivers only.



JRPS811

### S810G Sport Tail Servo

The S810G is JR's most affordable tail servo, but it's by no means "cheap."

Possessing an impressive .10 sec transit time, it is more than up to the task of providing solid tail control in just about any application.

Torque: 34 oz/in  
Weight: 1.68 oz  
Motor: Cored  
Speed: .10 sec/60°  
Size: 0.75" x 1.54" x 1.36"  
Ball Bearing: Dual

# Engine Tools | Accessories



JRP953001

## IMZ RV-50S Heli Engine w/Muffler

- Outstanding performance and power
- Unique reed valve induction
- Side-mounted slide valve carburetor
- Pre-tuned muffler included



JRP960090

## Universal Hex Start Shaft

- Hardened steel ball
- Fits most straight shaft starters



JRP960234

## CNC Tail Pitch Lever

- Designed for Vigor™ CS and Vigor w/shaft drive
- CNC machined
- Ball bearing supported for smooth operation



JRP960008

## Aluminum Engine Mount

- Precision machined
- Fits the Ergo™ 30, Ergo 30 CCPM and Venture™ 30 CP



JRP960340

## Aluminum Tail Pitch Assembly

- CNC machined
- Increases durability
- Fits all JR™ Helis except Voyager™ E



JRP960527

## Spiral Servo Wire Tube

- Protects servo wires
- For use with any heli



JRP960625

## Training Gear Set: Voyager E

- Makes learning to fly easier
- Includes lightweight tubes, balls and tie straps

## Engine

JRP953001

IMZ RV-50S Heli Engine w/Muffler

## Engine Parts

JRP960785

Muffler, .32--.36: Venture 30

JRP960298

Aluminum T Fuel Filters

## Hand Tools

JRP960219

Ball Link Sizing Tool: All

JRP960205

Fan Removal Tool: E, S

JRP960963

Long Glow Plug Wrench

JRP960242

Universal Ball Link Pliers

JRP960326

Pitch Gauge w/Case: Universal

## Accessories

JRP9005RS

Venture 30 CP Repair Set

JRP960090

Hex Start Shaft, Universal

JRP960234

CNC Tail Pitch Lever w/BB: VC

JRP960321

Pinion Gear, 10 Tooth: E, V, VC

JRP960763

IMZ RV-50S Motor Mount: Voyager

JRP960765

IMZ RV-50S Motor Mount: Ergo 46

JRP983009

AC Main Rotor Blade, White 550mm: A

JRP983019

Main Rotor Blades, 600mm

JRP996065

Hardened Main Rotor Shaft: V, VC

JRP960008

Aluminum Engine Mount: A, AC, CP

JRP9600902

Hex Shaft Only For 960090

JRP960322

Aluminum Front Tail Pulley

JRP960323

Alum Tail Case Pulley: E

JRP960325

Aluminum Tail Gear Case: E, Z

JRP960338

Landing Struts, White: E, V

JRP960339

Landing Struts, White: A, B, V50

JRP960340

Alum Tail Pitch Assembly: A, B, E, Z

JRP960376

Pinion Gear, 11 Tooth

JRP960504

CNC Main Drive Gear, 84T: E, V

JRP960527

Spiral Servo Wire Tube: All

JRP960625

Training Gear Set: Voyager E

JRP970001

Joint Balls/2 x 8mm Screws (10): V

JRP970002

Joint Balls/2 x 10mm Screws (10): V

JRP970004

Universal Ball Link: All (10)

JRP970069

Blade Bolts w/Spacer (12mm): V (pkg 4)

JRP9700691

Blade Bolts w/Spacers, 14mm: E

JRP970176

Threaded Fuel Tank Stopper

JRP970189

Servo Wire Holders: All

JRP9821801

Voyager 50 Body (Mini Vigor) FR

JRP983008

Flybars, 710 mm: (2) E, S

JRP9830081

Flybar, 450mm SS: E, Q, Z

JRP9830082

Flybar, 500mm SS: E, Q, Z

JRP9830083

Flybar, 530mm SS: E, Q, Z

JRP983025

Carbon Tail Brace Set: E, Z

JRP983035

NYA Tail Brace Set, Dual: V50, CP

JRP983057

Flybar, 440mm: VE

JRP983060

Pre-Finished Main Blades: VE

JRP9920011P

Vigor CS Pre-Painted Body: White

JRP993001

Flybar, 610mm: V

JRP996057

Flybar, 410mm (3D): CP

JRP997168

Universal Ball Link, Black (10)

JRP997169

Universal Ball Link, Short, Black