

FOCUS II

To assist you in completing your new Focus II for flight, we've assembled a listing of necessary and recommended equipment.

- | | |
|--------------------------------|-------------------------------|
| 1. Engine | 6. Spinner & Adapter |
| 2. Prop | 7. Fuel Tank, Lines & Etc. |
| 3. Radio & Servos | 8. Switches & Mounting |
| 4. Header, Muffler, & Mounting | 9. Control Linkage |
| 5. Engine Mount | 10. Hardware, Adhesives, etc. |

Additional Equipment Required

ENGINE

YS 170-DZ

4-Stroke Engine

If you're looking for superb power and performance, this is the engine for you.

Big horsepower in a small package.

The YS 170-DZ is built to handle planes on up to nearly twice the weight and size of the Focus II.

SPECIFICATIONS

Displacement 26.33 cc

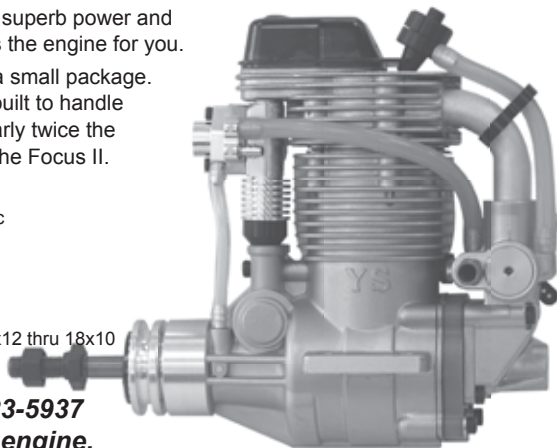
Bore 34.0 mm

Stroke 29.0 mm

Weight 930 g

RPM 2,000 - 11,000

Prop Recomm. 15.5x12 thru 18x10



**Call 1-800-723-5937
to order this engine.**



ENGINES cont.

YS 140 SPORT **4 STROKE ENGINE**

**The best 4-Stroke
engine available today.**



**Call 1-800-723-5937
to order this engine.**

O.S. 140RX

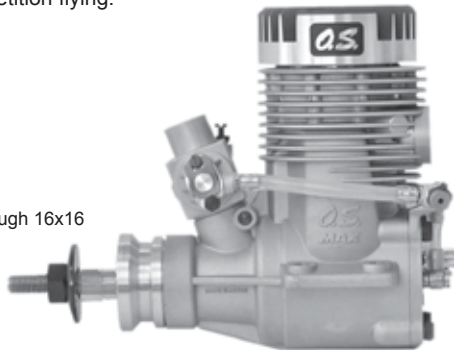
2-Stroke Engine

A true champion in the 2-stroke class, the O.S. 140RX delivers plenty of power for its size. A fine engine for both fun and competition flying.

SPECIFICATIONS

Displacement: 1.404 cu in (23 cc)
Bore: 1.26 in (32 mm)
Stroke: 1.126 (28.6 mm)
Output: 3.5 hp @ 9,000 rpm
Weight: 29.3 oz (830 g)
Recommended Props: 15x14 through 16x16

**Call 1-800-723-5937
to order this engine.**



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TECHNICAL INFORMATION (406) 259-9004 • FAX (406) 259-4744

PROP



Whatever size prop you decide to go with, you'll find that APC has it. The right size, the right pitch, the right prop. APC has dominated much of the market for years now. The reason is simple: attention to detail and design. You will appreciate, for example, how quiet the APC prop is compared to those produced by other manufacturers.

RADIO & SERVOS

**RADIOS & SERVOS:
The JR and FUTABA Brands**

Both Futaba and JR Radios & Servos are always at the leading edge of technology. These two brand names are also at the pinnacle of popularity, known and used by the world's top pattern flyers, and discerning rc enthusiasts everywhere.



Central Hobbies stocks both Futaba and JR. For the best servo and radio equipment selection, you can visit our online store at www.centralhobbies.com, or simply give us a call. Be sure to get our free catalog, either online (a PDF file download) or in print.

JR
Futaba



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EXHAUST & MOUNTING

PATTERN HEADER ADAPTER RING

Super durable adapter ring adapts the NMP Pattern Header to the Hatori #821 muffler (as well as Hatori's #699, #724 and others with the same intake diameter).



HATORI 915 HEADER

FOR THE OS140RX ENGINE



Adds proper rise for the Focus II with an OS140RX setup.

HATORI 791 COOLING HEADER

FITS YS 140 & 160 ENGINES



HATORI 791 Cooling Header is preferred by many 4-stroke flyers. It's a great buy, and works well with the HATORI 699 Muffler.

NMP HEADER BRACKET

for YS120-YS160

Aluminum NMP Bracket adds firm support to exhaust line.



Call 1-800-723-5937
to order these products.

HATORI 699 COOLING MUFFLER

FITS YS 140 & 160 ENGINES



Fits the Focus II like it was specially designed for the plane. Allows air to move freely all around, cooling the exhaust.

DURABLE CARBON FIBER PIPES

ESD2C140L9

Item#	Inlet	Dia	Length
ESD2C140L9	7/8"	2.00"	22.00"

ESD4C160C7

Item#	Inlet	Dia	Length
ESD4C160C7	5/8"	1.50"	20.00"

NMP PATTERN HEADER

FITS YS 140-160 ENGINES

Aircraft-Strength
Aluminum Header



NMP Muffler Extension

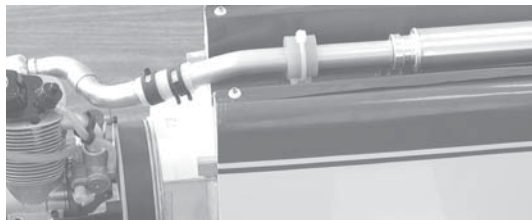
A Header-to-Muffler Adapter specially designed for the Focus II.



BEST SETUP

The following setup is recommended for excellent results:

- NMP Pattern Header
- NMP Header Bracket
- Viton Header Adapter Ring
- NMP Extension Pipe
- Hatori 699 Muffler



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ENGINE MOUNT



HCMYS140A for the YS 140 Sport
HCMOS140A for the OS140RX

There are different mounts. There are cheaper mounts. But there is NO better mount in the world for your pattern plane than a Hyde Soft Mount!

**Why a Hyde Mount?
 It's About Getting What You Pay For**

Why are so many experienced pilots willing to pay the extra money for a **Hyde** mount? Simple: Because they know what a **Hyde Mount** does.

Numerous tests were run to determine vibration levels, with and without a soft mount. While conducting those tests, one area proved to be very interesting. It had to do with measuring the current draw in a typical aircraft with 8 servos connected to the receiver, with the engine hard mounted, and with zero stick movement from the transmitter.

Before the engine was started it was determined from the flight pack, that there was 95mA of current being drawn, but after starting the engine and running it up to full throttle the current went up to 375mA. It seems the servos were consuming more current to keep the surfaces firm moving due to the vibration from the "hard mounted" engine being transmitted to the control surfaces. In other words, it required an extra 280mA of current for the servos to keep the surfaces in their commanded positions from the transmitter with *zero control sick movement*.

Next the engine was re-installed with a **Hyde Mount**. Before starting, the current was checked at 95mA, as in the previous test. However, when the engine was run up to full throttle the system only drew 125mA, which means that the mount isolated enough vibration from the aircraft control surfaces to only cause 30mA work load on the servos, instead of the 280mA with the hard mounted engine. (Yes, this test was repeated, as it was hard to believe the results.)

So what's the significance of this? If we could reduce the vibration on just

our servos, we could extend their life by 10 to 15 times. What about the airframe, and the reliability of the entire aircraft. You do the math, and then subtract the price of the **Hyde Mount** from it.

Assuming this proves true, shouldn't we also see increased flight times from a single charge on our flight packs? Absolutely! And that's what they found. Typically, if you recharge at a given cut off voltage by using your expanded scale voltmeter, you get 2 flights with a hard mount, versus 4 to 6 flights with the **Hyde Mount**.

So does a few more flights out of a charge on receiver pack justify an expensive mount? Of course not. And that's not the point. Why not buy a cheaper isolation mount and accomplish the same thing for less money?

Here's why: After testing several other isolation mounts, none even came close to the **Hyde Mount** performance. Most didn't change the current flow readings that much from a hard mounted engine. In fact, one of the other isolation mounts actually pulled **more** current, as it **increased** the work load of the servos!

This information is not meant to slam any manufacturer or demean his product in any way, nor is it to bias a test in favor of one product over another so we could sell more expensive engine mounts. In fact, one of the "other" mounts tested was actually more expensive than the comparable **Hyde Mount**.

For more details or specifics on the mounts that were tested, contact Meryle Hyde at 702-269-7829.

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SPINNER & ADAPTER



TRU-TURN Spinners

TRU3012S12 3" FAI Spinner

TRU0522A ADAPTER
Adapter for the OS140RX

TRU0814A 8X1.00MM
For YS 140 & 160 Engines

Did you know? Every Tru-Turn spinner is turned from a single bar of aluminum bar stock. Just one reason why Tru-Turn spinners are widely preferred over the cheaper "spun aluminum" spinners.

FUEL TANKS & FUEL LINE ACCESSORIES



TETTRA

TET4035
580CC/20 oz.
Clunk Tank

Holding the pressure. Tetra tanks are tough enough to hold the pressure produced by YS engines for "positive fuel flow" without splitting.

CENTRAL HOBBIES **"LONG ENOUGH" FUEL DOTS**

Threaded Depth of 9/16 inch.



CHMFDOTS (GLOW) 2/pkg

TIP: Put a drop of fuel on the "O"-ring when you first plug your fuel dots together.



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**FUEL SYSTEM
CONTINUED...**



**TETRA
FUEL LINE "T"**

TET4302 2/pkg.

**JAYSON PRODUCTS
MICRO FUEL FILTER**



JAYMF100

Just How Important is a Fuel Filter?

The proper functioning of any carburetor depends on tiny fuel orifices remaining clear. Minute particles of foreign matter in the fuel will clog these orifices, upsetting the delicate mixture, making it difficult for the engine to operate correctly. Sudden crashes can result.

Dirt is about the worst thing that can happen to any engine. It causes damage because it's abrasive, eroding the clearances between moving parts in your engine. As the parts wear down performance drops. Eventually the engine stops running completely.

**SWITCHES, BRACKETS
& MOUNTING**

**CENTRAL HOBBIES
SERVO MOUNTING SCREWS**

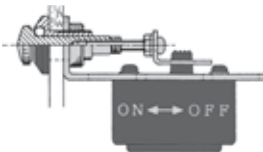
We ship our Servo Mounting Screws all over the world, and once a modeler mounts a servo with them, they won't use anything else. The deep socket head allows angled driving with a 5/64" ball driver. The built-in washer completely covers the grommets. Length is 9/16".

Pack of 100 #CHMSMS100

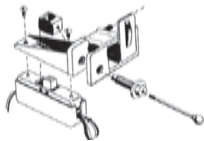
Pack of 1000 #CHMSMS1000



9/16" LONG



**TETRA
SWITCH BRACKET**



**DUBRO
KWIK-SWITCH & CHARGE JACK**

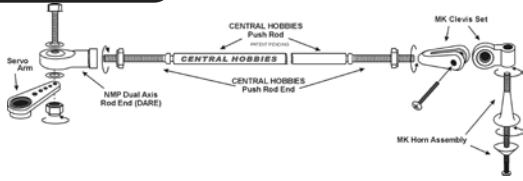
Makes charging a snap!

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CONTROL LINKAGE

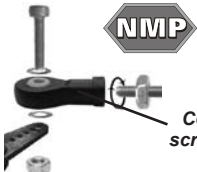
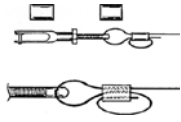
A configuration that works well for many competitive pilots.



CENTRAL HOBBIES Push Rod Set
 (2 carbon fiber rods/4 titanium ends)
 CHMPRS35M2 35x1/8" rods w/ 2mm ends

Titanium Push Rod Ends
 2 Sets of CHMPRE35M2..... 1/8" x 2mm (Set of 4)
 1 Set of CHMPRE36M3 3/16" x 3mm (Set of 4)

DUBRO #518 PULL PULL SYSTEM
 4-40



DUAL AXIS ROD END (D.A.R.E.)

Allows for movement along two axis, helping to prevent binding & stress.

Comes with machine screw, 2 washers & nut.

3MM D.A.R.E. NMPDARE3
 2MM D.A.R.E. NMPDARE2

Notes: How to get closer to trouble-free linkage.

NMP Dual Axis Rod Ends provide a slop-free, frictionless connection to the flying surfaces from the servo to the push rods. Carbon fiber push rods and ball-bearing clevises provide the best set up you can get.

OTHER ITEMS

Additional Hardware, Adhesives, etc.

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