

Futaba



F U T A B A
R A D I O
CONTROL
91



THE LEADER OF A NEW ERA.



F U T A B A
R A D I O

CONTROL



Explore the new possibilities in the
world of radio control.

The latest techniques and materials

make RC models lighter, faster and more

maneuverable than ever before.

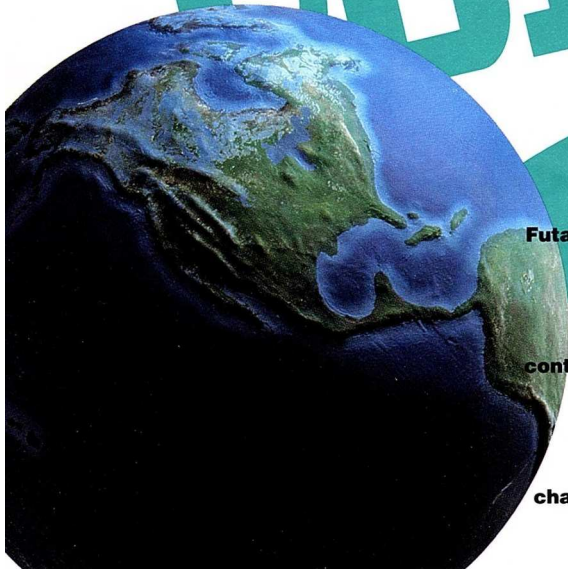
A new generation of RC enthusiasts are

rewriting the record books.

Futaba has the new generation of radio

control systems. Systems to handle the

challenge of World Class competition.



F U T A B A
R A D I O
CONTROL

ULTRA RC.COM

9VAP



20KHz
1991

Programmable mixing switch

Snap roll switch

Elevator and rudder dual rates

Landing gear switch

Adjustable control sticks

Pitch control lever

Idle up lever

Slantable, ball bearing open gimbals

Built-in tachometer

Ergonomically designed case

Master LCD computer screen displays all electronic functions

Computer input keyswitches



9VA/9 Channel PCM 1024 Aircraft system. R129DP receiver, four S5101 servos, computer LCD screen, ATV, AFR, ATR, programmable gang mixing, variable pitch propeller mixing, dual rate(3), exponential, adjustable VTR, timer, snap roll(3), servo reversing, mutual mixing, plug-in RF module, DSC. All NiCd. 50 and 72MHz. (Also available with four 9101 servos.)

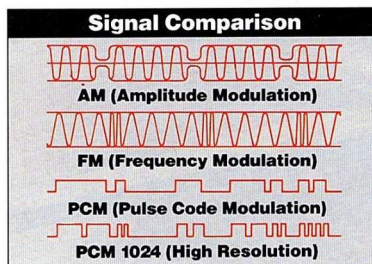
PCM 1024. THE NO. 1 CHOICE OF CHAMPIONS ALL OVER THE WORLD

When Futaba introduced PCM 1024 it took the RC world by storm.

PCM 1024 is a true, second generation PCM system, designed to give experienced flyers the most accurate and responsive control possible. We accomplished that goal by developing our own, exclusive 10-bit microprocessor. The result is the ultimate in PCM performance, digitally encoded signal transmission with



WORLD CLASS FLYER and Futaba Marketing Manager Steve Helms with his latest creation.



programmable fail safe plus the exceptional speed and response of PCM 1024.

HIGH PERFORMANCE AT THE HIGHEST LEVELS

PCM 1024 was first showcased in our incomparable 9VA system, selected for World Championship competition by the USA Pattern Team to win the team title and by top finalists like Wolfgang Matt, Ivan Kristensen and Giichi Naruke. The 9VA system is the ideal choice for the expert pattern

flyer, but is by no means the only Futaba system equipped with PCM 1024. In F3D Pylon competition, where the slightest glitch could mean disaster, Dave Shadel won the World's with a 5UAP. And in the F3C Helicopter the title went to Yukihiro Dobashi and his 9VH.

PCM 1024 or PCM.FM or AM. Only Futaba can offer this complete range of signal transmission choices. And every Futaba aircraft system has the advanced electronics and receivers to meet the 1991/20KHz specifications.

WORLD CHAMPION Dave Shadel's F3D Pylon racer is ready for takeoff.



SUPER SEVENS

NEW

1024

20KHz
1991



Snap roll switch

Rudder Dual rate/Exponential

2-6/6-2 mix

Trainer switch

Landing gear switch

Ch.6 Flap trim

Ch.7

Programmable mixing switch

Elevator Dual rate/Exponential

Aileron Dual rate/Exponential

Adjustable control sticks

Plug-in RF module.

Four model memory.

Aircraft, glider and helicopter functions.

Transmitter and receiver NiCds and charger.

Digital programming keys.

7UAPS/7 Channel PCM 1024 Aircraft system.



IF IT CAN FLY.... OUR SUPER SEVEN SERIES CAN CONTROL IT.

Futaba's new 7UAPS/Super Seven is really three radios in one, because advanced software gives it the capability of being programmed to airplane, helicopter or sailplane parameters.

And the 7UAPS is four radios in one, with its ability to store the complete

data banks for four different models.

We've added new twists and tweaks to make every kind of flying easier. Like Air Brake for pattern and glider competition. Additional Idle Up and Pitch Idle Up programming are included for helicopters.

The 7UAPS system includes R129DP/PCM 1024 receiver and four S148 precision servos. And for FM only operation there's the affordable 7UAFS with our R128DF receiver.



Features include: ATV(7), Dual Rate(3), Exponential(4), servo reverse and programmable mixing(2). New functions include Air Brake, 1-4 and elevon mixing in the aircraft mode; V-tail, elevon and start mixing in the sailplane mode and Idle Up 2 and CCPM mixing in the helicopter mode.

RECORD-SETTING
Futaba ace
Richard
Verano shows
off his National
Champion/
World record
holder.



AIRCRAFT SYSTEMS



9VA/9 Channel PCM 1024 Aircraft system. R129DF receiver, four S5101 servos, LCD computer screen, ATV, AFR, ATR, programmable gang mixing, variable pitch propeller mixing, dual rate (3), exponential, adjustable VTR, timer, snap roll (3), servo reversing, mutual mixing, plug-in RF module, DSC. All NiCd. 50 and 72MHz. (Also available with four 9101 servos.)



8SSA/8 Channel PCM Single Stick system. R128DP receiver, four S5101 servos, dual rate, VTR (3), mixing(7), ATL, ATV, DSC, servo reverse, tachotimer, plug-in RF module. All NiCd. 50 and 72MHz (Also available with four S9101 or four S9201 servos.)



7UAPS/7 Channel PCM 1024 Aircraft system. R129DP receiver, four S148 servos, four model memory with aircraft, glider, and helicopter programs, LCD computer screen, ATV, dual rate, exponential, programmable mixing, timer, snap roll, servo reverse, plug-in RF module, trainer system. All NiCd. 50 and 72MHz.



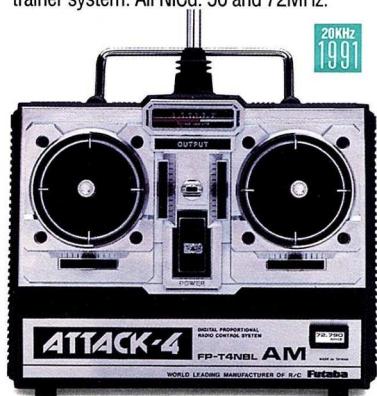
7UAFS/7 Channel FM Aircraft system. R128DF receiver, four S148 servos, four model memory with aircraft, glider, and helicopter programs, LCD computer screen, ATV, dual rate, exponential, programmable mixing, timer, snap roll, servo reverse, plug-in RF module, trainer system. All NiCd. 50 and 72MHz.



5UAP/5 Channel PCM 1024 Aircraft system. R129DP receiver, four S148 servos, control panel with ATV, dual rate and servo reverse, plug-in RF module, trainer system. All NiCd. 50 and 72MHz.



5UAF/5 Channel FM Aircraft system. R128DF receiver, four S148 servos, control panel with ATV, dual rate and servo reverse, plug-in RF module, trainer system. All NiCd. 50 and 72MHz.



4NBL Attack S/4 Channel AM Aircraft system. R114H receiver, three S148 servos, servo reverse. Transmitter NiCd. 72 and 75 (surface) MHz.



4NBL Attack E/4 Channel AM Electric Aircraft system. MCR-4A receiver/speed control, two S133 servos, servo reverse. Transmitter NiCd. 72MHz.



4NBL Attack G/4 Channel AM Glider system. R114H receiver, two S133 servos, servo reverse, 250mAh and transmitter NiCd. 72MHz.

CONQUEST SYSTEMS

PCM



20KHz
1991

6NPK Conquest/6 channel PCM Aircraft system. R127DP receiver, four S148 servos, adjustable sticks, retract switch, dual rates (2), servo reverse, trainer system. All NiCd. 50 and 72MHz.



20KHz
1991

6NFK Conquest/6 channel FM Aircraft system. R127DF receiver, four S148 servos, adjustable sticks, retract switch, dual rates (2), servo reverse, trainer system. All NiCd. 50 and 72MHz.

PCM



20KHz
1991

4NBP Conquest/4 channel PCM Aircraft system. R124DP receiver, three S148 servos, adjustable sticks, servo reverse, trainer system. All NiCd. 50 and 72MHz.

FUTABA TRAINING SYSTEM

	4FG (Old)	4FG (New)	4NBF	4NBP	5FGK (AM)	5FGK (FM)	5UA	5UAF	5UAP	6FG (Old)	6FG (New)	6FGK (AM)	6FGK (FM)	6NFK	6NPK	7FGK (AM)	7FGK (FM)	7FGHI (FM)	7UAF (S)	7UHF	7UAP (S)	7UHP	
4FG (Old)																							
4FG (New)																							
4NBF																							
4NBP																							
5FGK (AM)																							
5FGK (FM)																							
5UA																							
5UAF																							
5UAP																							
6FG (Old)																							
6FG (New)																							
6FGK (AM)																							
6FGK (FM)																							
6NFK																							
6NPK																							
7FGK (AM)																							
7FGK (FM)																							
7FGHI (FM)																							
7UAF (S)																							
7UHF																							
7UAP (S)																							
7UHP																							

The Futaba trainer system allows student and instructor to link their transmitters via a special cord (M-TC-AM for AM systems, M-TC-FM for FM/PCM). New encoder technology limits this use for some older units. This chart should be used to check compatibility or PPM/PCM setting.

- Systems are compatible
- Pulse Position Modulation must be set with mode selector
- ▲ Pulse Code Modulation must be set with mode selector



20KHz
1991

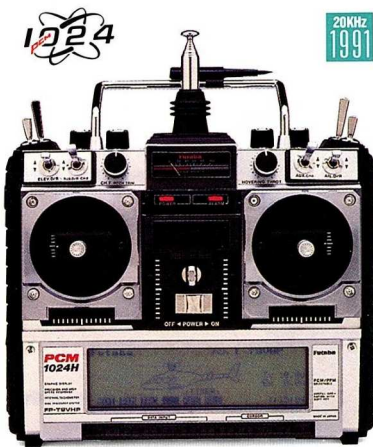
4NBF Conquest/4 channel FM Aircraft system. R127DF receiver, three S148 servos, adjustable sticks, servo reverse, trainer system. All NiCd. 50 and 72MHz.



M-TC-FM Trainer Cord

Get a friend hooked on R/C with the Futaba Trainer System. Built into many of our radios, it takes the fear out of learning to fly.

HELICOPTER SYSTEMS



9VH/9 Channel PCM 1024 Helicopter system. R129DP receiver, five S9201 servos, computer LCD screen, ATV, AFR, ATR, programmable gang mixing, pitch mixing, CCPM mixing(5), dual rate(3), exponential, adjustable VTR, 4-way timer, snap roll(3), servo reverse, mutual mixing, DSC, 1000mAh receiver NiCd, plug-in RF module. 50 and 72MHz.



7UHP/7 channel PCM 1024 Helicopter system. R129DP receiver, five S5101 servos, computer LCD screen, ATV, dual rate, exponential, programmable mixing, timer, invert switch, hover memory, pitch mixing, tail rotor mixing, servo reverse, memory, trainer system, plug-in RF module 1000mAh receiver NiCd. 50 and 72MHz.



7UHF/7 Channel FM Helicopter system. R128DF receiver, four S5101 servos, computer LCD screen, ATV, dual rate, exponential, programmable mixing, timer, invert switch, hover memory, pitch mixing, tail rotor mixing, servo reverse, memory, trainer system, plug-in RF module 1000mAh receiver NiCd. 50 and 72MHz.



6NHP/6 Channel PCM Helicopter system. R128DP receiver, four S148 servos, invert switch, dual rate(2), mixing, servo reverse, plug-in RF module. All NiCd. 50 and 72MHz.



5NLH/5 Channel FM Helicopter system. R128DF receiver, four S148 servos, mixing(3), AST(2), hover memory(fixed), throttle hold, idle up, servo reverse. All NiCd. 50 and 72MHz.



8SSH/8 Channel Single Stick PCM Helicopter system. R128DP receiver, five S9201 servos, invert switch, dual rate/VTR, mixing, ATL, ATV, DSC, servo reverse, tachotimer, plug-in RF module 1000mAh receiver NiCd. 50 and 72MHz.

GYROS

G-132 Single axis gyro (standard)
G-152 Single axis gyro (PCM/FM)
 Power required: 4.8v shared (w/receiver) or 6.0v external
 Current drain: 20mA (amplifier at 4.8v) 100mA (motor)
 Gyro body: 1.57" x 1.65" x 1.34"/2.86 oz.
 Control amplifier: 1.73" x 2.28" x 0.63"/1.61 oz.
 Control box: 0.94" x 1.34" x 0.59"/0.54 oz.
 \$129.95

G133BB Ball bearing, single axis gyro (standard)
G153BB Ball bearing, single axis gyro (PCM/FM)
 Power required: 4.8v shared (w/receiver) or 6.0v external

Current drain: 20mA (amplifier @ 4.8v) 100mA (motor)
 Gyro body: 1.57" x 1.65" x 1.34"/2.86 oz.
 Control amplifier: 1.73" x 2.28" x 0.63"/1.61 oz.
 Control box: 0.94" x 1.34" x 0.59"/0.54 oz.
 \$149.95

G134 Single axis, 2-piece gyro (standard)
G154 Single axis, 2-piece gyro (PCM/FM)
 Power required: 4.8v
 Current drain: 20mA (amplifier) 100mA (motor)
 Gyro body: 1.57" x 1.65" x 1.60"
 Amplifier: 1.06" x 1.89" x 0.63"
 System weight: 3.6 oz.
 \$89.95



3PB



Steering wheel lock-to-lock adjustable

Plug-in RF module (27 or 75MHz)



Throttle ATL

Rubber padded ulnar area

Steering dual rate

Hand strap

Exclusive PCM 1024 for superior range and response

One-touch electronic trims are supplemented by audible signals, LED readouts and sub trimming for precise control.

Direct Servo Control



3PB Magnum/3 Channel PCM 1024 Pistol Grip system. R113IP/BEC receiver, two 9601 servos, electronic trim with sub trim, programmable mixing for four wheel steering or boats, dual rate(2), exponential(2), servo reverse and plug-in RF module. Steering wheel lock-to-lock angle and throttle trigger position adjustable. DSC, special hand strap and transmitter NiCd. 27 and 75MHz. (Also available with two S9301 or two S132H servos)



The control panel of the Magnum PCM gives you access to every option imaginable. ATV, exponential and sub-trim let you fine tune steering and throttle servo action to suit your driving style, car or track.

IT'S LOADED

You're looking at the most potent pistolgrip radio you can buy.

When it comes to features and performance, it's loaded. But only the competition needs to be worried. Futaba's Magnum PCM fires out its commands in high speed, high resolution 1024 Pulse Code Modulation.

Virtually stepless PCM 1024 is a Futaba exclusive, and for response and resistance to interference nothing even comes close.

And Futaba's pioneering efforts in PCM have also resulted in a remarkably compact 3 channel receiver.

On the track, Magnum PCM one-touch, electronic trim and adjustable dual rate give you precise control over changing conditions.

Steering wheel throw, spring tension and throttle limit can also be easily changed on the transmitter.

Another important feature is Direct Servo Control (DSC), which lets you check and adjust settings without turning the transmitter on.

Developed and competition-tested for all types of RC racing, the Magnum PCM can handle anything on wheels or water.

From high-powered 1:8 gas cars to high jumping 1:10 offroad racers, Futaba's reliable, surface-mounted electronics can take it. A complete selection of servos and MOS/FET speed controls is available.

We've even included twin-servo steering control, four wheel steer (4WS) differential and torque-steer compensation mixing for boats.

The Magnum PCM leads Futaba's extensive lineup of surface systems, which includes the new 2PD and 2PBKA pistolgrips and four dual stick models. Most offer a selection of servo options to best suit your model.

And for electric cars and boats, the Magnum Junior and Magnum Sport are also available with our MC112B MOS/FET electronic speed control.

SURFACE SYSTEMS



2PD Magnum/2 channel Pistol Grip system. R102JE BEC receiver, two S9301 servos, dual rate, sub trim, servo reverse, ATV(2). 27 and 75MHz. (Also available with two S9601 or two S132H servos.)



2PBKA Magnum Junior/2 Channel Pistol Grip system. R102JE BEC receiver, two S148 servos, steering dual rate, fine trim, throttle ATV, servo reverse. 27 and 75 MHz. (Also available with two S132H.)



2PBKA Magnum Junior ESC/2 Channel Pistol Grip system with speed control. R102JE BEC receiver, one S148 servo, MC112B MOS/FET electronic speed control with reverse, steering dual rate, fine trim, throttle ATV, servo reverse. 27 and 75MHz. (Also available with one S132H.)



2PB Magnum Sport/2 Channel Pistol Grip system. R102JE BEC receiver, two S148 servos, servo reverse. 27 and 75MHz.



2PB Magnum Sport ESC/2 Channel Pistol Grip system with speed control. R102JE BEC receiver, one S148 servo, MC112B MOS/FET electronic speed control, servo reverse. 27 and 75MHz.



3EGX/3 Channel Dual Stick Boat system. R3L(27MHz) or R114H(75MHz) receiver, two S31S(27MHz) or S131S(75MHz) watertight servos, exponential(2), rudder dual rate, ATV, plug-in RF module. All NiCd. 27 and 75MHz.

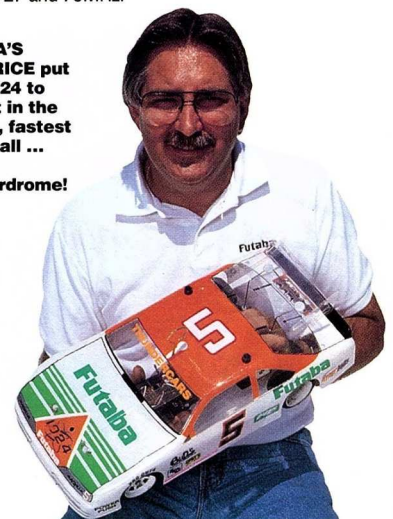


2NBR Attack R/2 Channel Dual Stick system. R102GR BEC receiver, two S148 servos, servo reverse. 27, 75 and 72(aircraft)MHz.



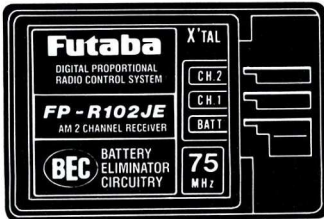
2NCS Attack/Sport/2 Channel Dual Stick system. R102JE BEC receiver, two S148 servos. 75 and 72(aircraft)MHz.

**FUTABA'S
DONN RICE** put
PCM 1024 to
the test in the
longest, fastest
race of all ...
the RC
Thunderdrome!



RECEIVERS

All receivers shown actual size

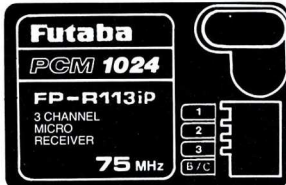



R102JE 2 Channel/BEC
1.30" x 1.86" x 0.78"
0.88 oz./27, 72 & 75MHz
\$59.95

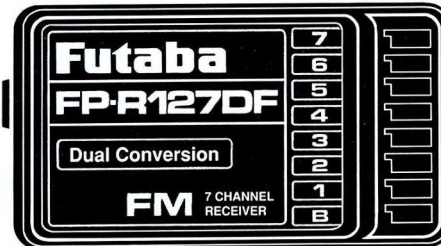


R117H 7 Channel
20KHz spacing
1.38" x 2.43" x 0.81"
1.1 oz./72 & 75MHz
\$129.95

20KHz
1991

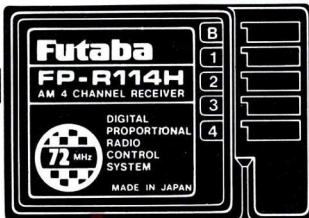


R113iP 3 Channel
Micro PCM 1024 
20KHz spacing
1.13" x 1.69" x 0.63"
0.72 oz./75MHz only
\$199.95



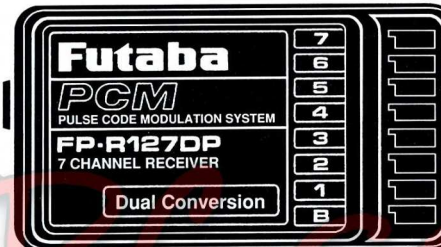
R127DF 7 Channel
FM/20KHz spacing
1.39" x 2.52" x 0.82"
1.5 oz./50 & 72MHz
TBA

20KHz
1991



R114H 4 Channel
20KHz spacing
1.31" x 1.87" x 0.81"
0.95 oz./72 & 75MHz
\$89.95

20KHz
1991



R127DP 7 Channel
PCM/20KHz spacing
1.39" x 2.52" x 0.82"
1.5 oz./50 & 72MHz
TBA

R124DP 4 Channel
PCM/20KHz spacing
1.39" x 2.52" x 0.82"
1.4 oz./50 & 72MHz
TBA

20KHz
1991
PCM



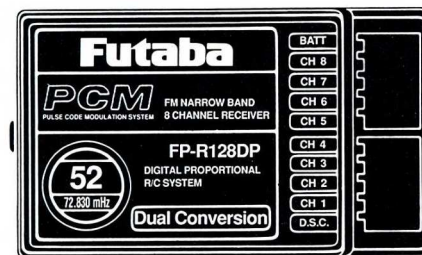
MCR-4A 4 Channel
Integrated MOS/FET
electronic throttle
1.24" x 2.92" x 1.12"
1.5 oz./72MHz only
Capacity: 100A (continuous)
450A (surge)
Motor: 280 to 540 size
\$159.95

20KHz
1991



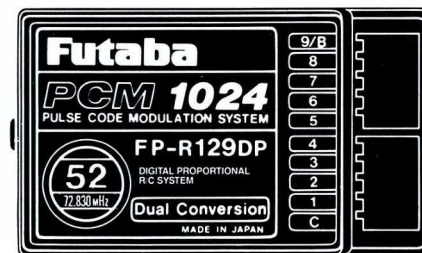
R128DF 8 Channel
FM/20KHz spacing
1.39" x 2.51" x 0.82"
1.3 oz./50 & 72MHz
\$179.95

20KHz
1991



R128DP 8 Channel
Dual Conversion
PCM/20KHz Spacing
1.48" x 2.48" x 0.97"
1.5 oz./50 & 72MHz
\$249.95

PCM



R129DP 9 Channel
Dual Conversion
PCM 1024
20KHz spacing
1.48" x 2.48" x 0.97"
1.5 oz./50 & 72MHz
\$259.95

20KHz
1991



RECEIVERS
THE ONLY CHOICE

ELECTRONIC SPEED CONTROLS



MC111B (MC11B)
Competition MOS/FET electronic speed control.
Capacity: 7.2v (6-cell) to 8.4v (7-cell)/130A (continuous), 500A (surge).
Variable braking with reverse.
Includes LED check circuits, motor connectors.
MC111B uses J-type connector, MC11B uses 3-pin connector.
VDR: .008 ohm.
1.81" x 1.59" x 0.78"/2.16 oz.
\$109.95

MC9T (MC109T) FET (7)
Electronic Speed Control
Competition/Proportional forward with brake and check circuits.
Capacity: 6-9.6v/150A (continuous) 450 (surge)
Voltage drop resistance: .007 ohm
1.17" x 1.59" x 0.61"/1.0 oz.
\$159.95

MC10T (MC110T) FET (6)
Electronic Speed Control
Compact/Proportional forward with brake.
Capacity: 6-9.6v/75A (continuous) 300A (surge)
Voltage drop resistance: .010 ohm
1.27" x 1.46" x 0.55"/0.9 oz.
\$129.95



MC112B (MC12B)
Competition MOS/FET electronic speed control.
Capacity: 7.2v (6-cell) to 8.4v (7 cell)/100A (continuous), 400A (surge).
Braking and one-speed reverse.
Includes LED check circuits, motor connectors.
MC112B uses J-type connector, MC12B uses 3-pin connector.
VDR: .009 ohm.
\$79.95

MC4-20 Speed control system
Proportional forward and reverse
Capacity: 24v/20A
Includes: MC4 controller, MC4-F20 filter and MC4-P20 driver module.
\$119.95

MC4-10 Speed control system Proportional forward and reverse
Capacity: 24v/10A
Includes: MC4 controller, MC4-F10 filter and MC4-P10 driver module.
\$99.95

MC4 Controller unit module
(requires filter and driver to operate)
1.34" x 2.06" x 0.73"/0.8 oz.
\$39.95



MC116
Competition Electronic Speed Control
Proportional forward with brake and check circuits
Built-in receiver power supply
FET Rating: 210A (Continuous)
1260A (Surge)
Voltage Drop Resistance: .0035 ohm
1.43" x 1.56" x 0.62"/1.4 oz.
\$159.95

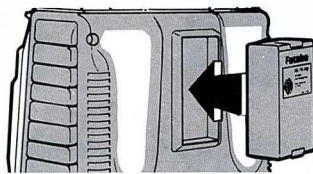
MC4-F10 10A noise filter
2.00" x 1.06" x 0.50"/0.35 oz.
\$7.95

MC4-F20 20A noise filter
2.00" x 1.06" x 0.50"/0.50"/0.35 oz.
\$11.95

MC4P10 10A power driver module
2.64" x 2.83" x 1.63"
5.5 oz.
\$79.95

MC4-P20 20A power driver module
2.81" x 3.12" x 1.62"
6.6 oz.
\$99.95

FREQUENCY MODULES



TD-27AM
3EGX/27MHz AM
\$44.95

TD-75AM
3EGX/75MHz AM
\$44.95

TG-27AM
3PG Magnum/27MHz AM
\$44.95

TG-75AM
3PG Magnum/75MHz AM
\$44.95

TF-50FM
PCM and G-Series/50MHz FM
\$59.95

TF-53FM
PCM and G-Series/53MHz FM
\$59.95

TF-72AM
G-Series/72MHz AM
\$44.95

TF-72FM
PCM and G-Series/
72MHz FM
\$59.95

TF-75AM
G-Series/75MHz AM
\$44.95

TK-50PCM
9VA and 9VH/72MHz FM
\$69.95

TK-72PCM
9VA and 9VH/72MHz FM
\$69.95

TL-27FM
3PB Magnum /27MHz FM
\$69.95

TL-75FM
3PB Magnum/75MHz FM
\$69.95

TP-72AM
5UA/72MHz AM
\$44.95

TP-75AM
5UA/75MHz AM
\$44.95

TP-50FM
5UAF, 5UAP, 7UAF(S), 7UAP(S),
7UHF, 7UHP/50MHz FM
\$64.95

TP-72FM
5UAF, 5UAP, 7UAF(S), 7UAP(S),
7UHF, 7UHP/72MHz FM
\$64.95

ACCESSORIES



9 Ch. Case
Lightweight alloy field case
\$79.95

DT-1 Digital tachotimer 4-function, LCD readout combination flight timer/tachometer \$89.95

Curl Cord 3PG Magnum remote NiCd extension cord \$16.95

FC-1 Audible flight checker Monitors receiver battery/low voltage warning. Aids model location/triggers signal when transmitter is switched off. (AM and FM only.)
Body: 1.36" x 2.11" x 0.77"
0.78 oz.
Buzzer: 1.02" x 1.02" x 0.77"
0.67 oz.
\$39.95

M-TC-AM AM Trainer cord \$14.95

M-TC-FM G-Series FM trainer cord \$14.95

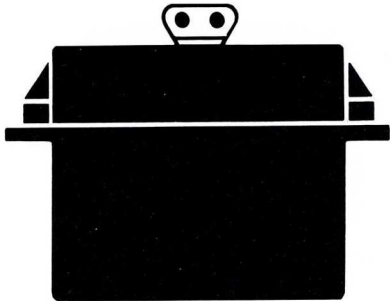
TSC-1 PCM Tacho-sensor \$15.95

SERVOS



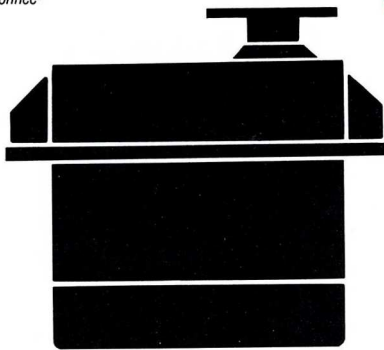
All servos shown actual size

NOTE: "S" preceding servo number designates standard Futaba 3-pin mini connector and 1320us neutral. "S100" designates version with J-connectors and 1520us neutral.



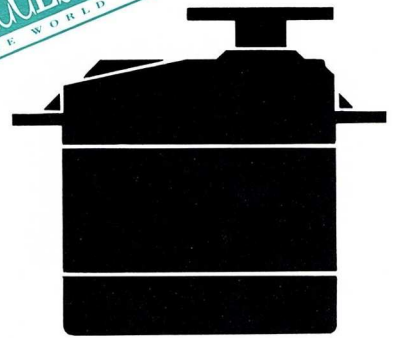
S11 Linear output servo
\$54.95 0.75" x 1.75" x 1.50"
1.4 oz./25.1 oz./in.

S110(S10) Heavy duty sail winch
\$129.95 1.50" x 2.93" x 3.50"
(not shown) 8.8 oz./122.3 oz./in.
Stroke: 21.8"/3.8 sec.

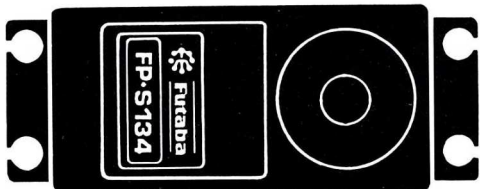
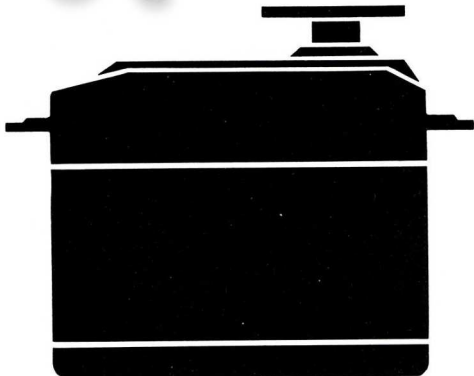


S125 (S25) Arm type sail control servo
\$59.95 140 degrees (max.)
0.88" x 1.75" x 1.69"
2.3 oz./129.3 oz./in.
0.62 sec./60 degrees
140 degree/arm type

S14(S14) High torque servo
\$129.95 1.50" x 2.93" x 3.50"
(not shown) 8.8 oz./167 oz./in.
0.29 sec./60 degrees

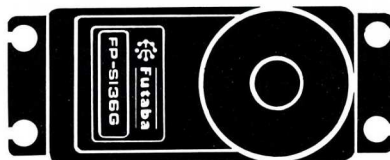
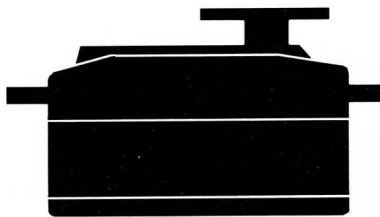


S128 (S28/S28L) Standard servo
\$39.95 0.75" x 1.56" x 1.56"
1.8 oz./48.7 oz./in.
0.24 sec./60 degrees

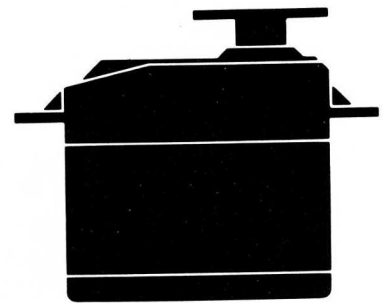


S134 Quarter scale servo
\$64.95 1.14" x 2.32" x 1.97"
2.7 oz./112.6 oz./in.
0.22 sec./60 degrees

S134G (S34G) Quarter scale retract
\$74.95 1.14" x 2.32" x 1.97"
2.8 oz./173.8 oz./in.
0.33 sec./60 degrees



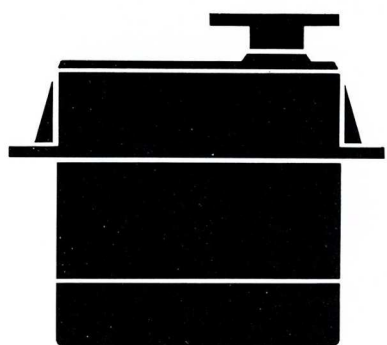
S136G (S36G) Compact landing gear retract
\$69.95 0.87" x 1.75" x 1.00"
1.48 oz./76.4 oz./in.
0.50 sec./60 degree



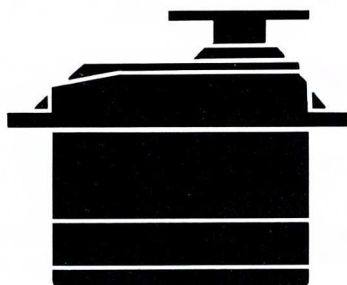
S148 Precision servo
\$39.95 0.77" x 1.59" x 1.58"
1.5 oz./42.0 oz./in.
0.22 sec./60 degrees



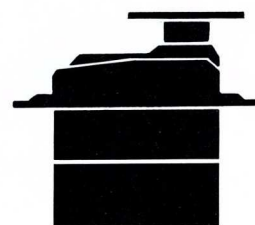
SERVOS



S129 Heavy duty, water tight servo
 \$44.95 0.88" x 1.75" x 1.69"
 2.1 oz./48.7oz./in.
 0.25 sec./60 degrees

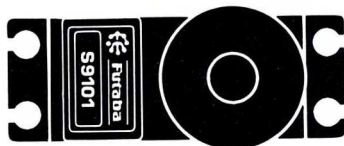
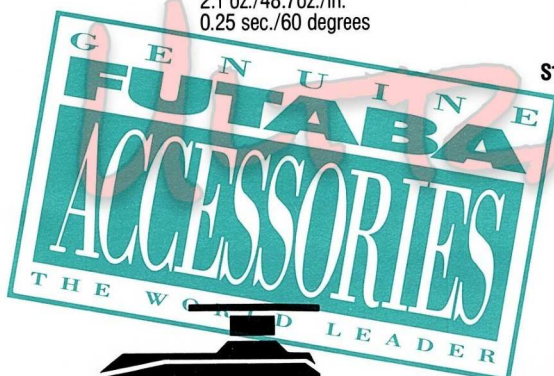


S132 (S32/S32L) Mini servo
 \$54.95 0.68" x 1.43" x 1.18"
 1.1 oz./33.4 oz./in.
 0.16 sec./60 degrees

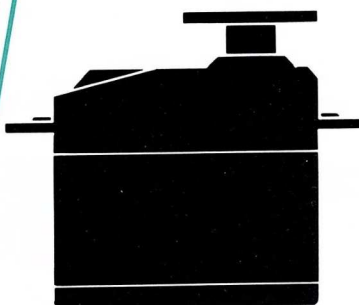


S133 (S33/S33L) Micro precision servo
 \$59.95 0.50" x 1.06" x 1.12"
 0.6 oz./27.8 oz./in.
 0.22 sec./60 degrees

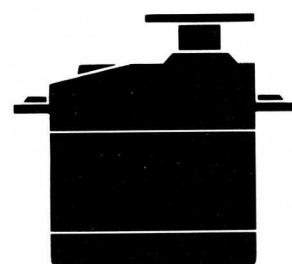
S132H (S32H/S32HL) High speed mini servo
 \$54.95 0.68" x 1.43" x 1.18"
 1.1 oz./25.0 oz./in.
 0.13 sec./60 degrees



S9101 Coreless, BB servo
 \$79.95 0.77" x 1.52" x 1.36"
 1.5 oz./41.7 oz./in.
 0.17 sec./60 degrees



S9201 (Air/Heli) Coreless BB servo
S9301 (S131S)
 \$79.95 0.79" x 1.59" x 1.40"
 1.7 oz./69.5 oz./in.
 0.22 sec./60 degrees



S9601 Coreless mini servo
 \$79.95 Metal gear/Ball bearing output
 0.62" x 1.21" x 1.18"
 1.1 oz./36.1 oz./in.
 0.17 sec./60 degrees

S5101 (S130) Dual Ball Bearing servo
 \$59.95 0.77" x 1.52" x 1.36"
 1.4 oz./55.6 oz./in.
 0.24 sec./60 degrees

S131SH (S31SH) Coreless BB servo
 \$79.95 0.79" x 1.59" x 1.40"
 1.7 oz./44.5 oz./in.
 0.16 sec./60 degrees

RADIO CONTROL MODELS



FUTABA PROFESSOR 40

The Professor 40 is perfect for beginners, because wing, tail and fuselage sections are all factory covered and beautifully finished. The Professor 40 uses a combination of advanced ARF techniques. The wing, for instance, is molded in special, light-weight foam for extra strength and ease of repair.

Pre-built sections, like the fuselage, are handcrafted on precision jigs to ensure perfect alignment. Elevator, aileron and rudder come pre-hinged. Wood parts, like the bulkhead and servo tray are pre-cut for an exact fit.

In addition to being over 90% pre-constructed, the Professor 40 is also a very complete kit. Included is everything you need to

start flying except glue, radio, engine and engine accessories.

And to put it all together, Futaba provides a thoroughly illustrated, step-by-step instruction manual. Easy to build, fun to fly, the Professor 40 will get you off to a flying start.

SPECIFICATIONS/FUTABA PROFESSOR 40/Part No. P1040

Type:	ARF Trainer	Weight:	5.25 lbs.(2400g.)
Length:	41"(1040mm)	Engine:	.40-.45(2 cycle)
Wing Span:	59"(1500mm)		.60(4 cycle)
Wing Area:	540 sq./in.(34.6dm ²)	Radio:	4 Channel



FUTABA ACROSTAR 60

Let Futaba make you a Star. The finish and detail of our new Acrostar 60 are stunning, accurate right down to the teardrop wheel pants. And thanks to our exclusive, precision ARF design, you go from workbench to runway in a fraction of the time it takes to scratchbuild.

Modeled after the European Aerobatic Champion, prototypes were test flown by Futaba experts like Steve Helms and Tony Frackowiak to refine handling and response to contest-ready form.

And that's why our Acrostar can hold a knife-edge, snap roll or avalanche just like you're in the cockpit.

SPECIFICATIONS/FUTABA ACROSTAR/Part No. P1060

Type:	ARF Aerobatic	Weight:	6-6.5 lbs. (2800-3000g)
Length:	52.75"(1340mm)	Engine:	.60(2 cycle)
Wing Span:	57.09"(1450mm)		.90(4 cycle)
Wing Area:	600 sq./in.(39dm ²)	Radio:	4 Channel

Landing gear, wheels, fuel tank and spinner included



Futaba ARF kits are 90% pre-constructed



All control surfaces pre-hinged

All covering and graphics pre-applied and fuel proofed



THE HIROBO · FUTABA PROFESSOR

With the new Professor Almost-Ready-to-Fly (ARF) radio control trainer, Futaba has made electric-powered RC flying easier than ever. Extremely stable design and quiet operation make the Professor the ideal first plane for beginners. Special, lightweight materials are used for exceptional strength and rigidity, and built-up, pre-covered wing, stab and tail make assembly simple and easy. Pushrods and 540SH motor are factory installed.

SPECIFICATIONS:

Type:	Electric powered/trainer	Battery:	7.2v/1200mAh NiCd (not included)
Length:	35.04"	Radio:	3-4 channel system with electronic speed control (MC109T) and two servos 4NBL Attack E system recommended. (Radio NOT included.)
Wing area:	400 sq. in.		
Weight:	2.02 lbs. (including radio and NiCd)		
Motor:	RS540SH w/3:1 gearbox		

REPLACEMENT PARTS			
H001	MOTOR MOUNT SET	\$ 3.95	H007 PROPELLER SHAFT 3.95
H002	GEAR CASE SET	9.95	H008 PROFESSOR DECALS 9.95
H003	BATTERY HOLDER SET	3.95	H009 INSTRUCTIONS 2.95
H004	PROPELLER SET	3.95	H010 STABILIZER 29.95
H005	COWLING	11.95	H011 MAIN WING 74.95
H006	MAIN GEAR SET	9.95	H012 FUSELAGE 59.95
H3009	METAL WRENCH SET	1.95	

PRICES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE



THE HIROBO · FUTABA CHIPMUNK

The new Hirobo/Futaba Chipmunk is designed for the more experienced RC flyer and brings a whole new level of performance and excitement to electric flight.

This Almost-Ready-to-Fly kit performs aerobatics with precision and ease in the hands of advanced pilots.

Fuselage and wings are already finished and pre-covered in colorful, realistic graphics. Also included in the kit are landing and all the necessary linkages and hardware. Pushrods and motor are factory installed, reducing construction time to a minimum.

Because weight is critical, the Futaba 4NBL Attack E system, with MCR-4A and micro S133 servos is recommended.

SPECIFICATIONS:

Type:	Electric powered, aerobatic	Motor:	Top Gun 9017 w/BB reduction gearbox
Length:	900mm (35.43")	Battery:	7.2v-8.4v/1200mAh NiCd (NOT included)
Width:	1200mm (47.24")	Radio:	3 or 4 channels w/ Electronic Speed Control (Radio NOT included)
Wing Area:	22.5d m ² (360 sq. inch)		
Weight:	1200g (2.65 lbs.)		

REPLACEMENT PARTS			
H001	MOTOR MOUNT SET	\$ 3.95	H1008 INSTRUCTIONS 2.95
H1001	PROPELLER ADAPTER	7.95	H1009 DECAL 17.95
H1002	38 TOOTH GEAR	2.95	H1010 VERTICAL/HORIZONTAL STABILIZER 34.95
H1003	16 TOOTH GEAR	9.95	H1011 MAIN WING 79.95
H1004	PLASTIC PARTS SET	2.95	H1012 FUSELAGE 69.95
H1005	GEAR DOWN UNIT SET	18.95	H2500-015 LF940 BEARING (1) 9.95
H1006	LANDING GEAR SET	3.95	H2500-039 L940ZZ BEARING (2) 9.95
H1007	COWLING	9.95	H2531-001 SCREW SET (10) 2.95

PRICES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

SPECIFICATIONS:

Scale:	1:10	Wheelbase:	10.24"
Overall length:	17.13"	Weight (approx.):	50 oz.
Rear track:	7.72"	Radio required:	2 Ch. (BEC)/2 servo
Front track:	7.36"		

REPLACEMENT PARTS			
FX10-001	SPARE BODY SET	\$30.00	FX10-013 UPRIGHT SET (LEFT AND RIGHT) \$5.50
FX10-002	FRONT TIRE/WHEEL SET	13.00	FX10-014 RECEIVER ANTENNA TUBE 1.00
FX10-003	REAR WHEEL/TIRE SET	15.00	FX10-015 DECAL SHEET 3.25
FX10-004	CHASSIS	12.00	FX10-016 SCREW BAG-A 2.25
FX10-005	A-PARTS	11.00	FX10-017 SCREW BAG-B 3.50
FX10-006	B-PARTS	7.50	FX10-018 SCREW BAG-C 3.50
FX10-007	C-PARTS	9.50	FX10-019 SCREW BAG-D 6.00
FX10-008	D-PARTS	8.50	FX10-020 METAL PARTS (BODY PINS, WRENCHES) 6.00
FX10-009	Q-PARTS	2.00	FX10-021 540/05 MOTOR 15.00
FX10-010	E-PARTS	11.50	FX10-022 18 TOOTH/19 TOOTH PINION GEARS 6.00
FX10-011	BUMPER	4.00	FX10-023 FRONT COIL SPRING AND DAMPER (2) 2.50
FX10-012	GEAR SET (DIFFERENTIAL)	4.00	FX10-024 REAR COIL SPRING AND DAMPER (2) 3.00
			FX10-025 3-STAGE SPEED CONTROLLER 15.00

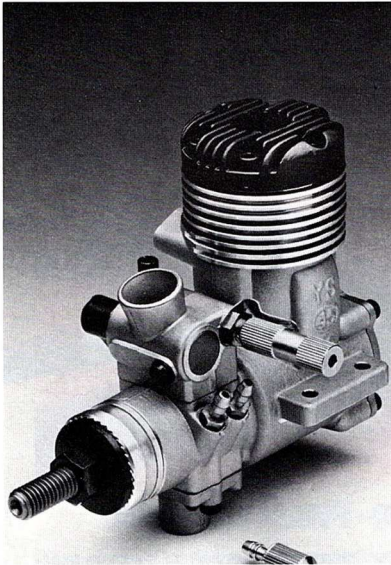
PRICES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE



FUTABA FX10

Futaba's FX10/All Terrain offroad car kit combines the high speeds and excitement of RC racing with the ease of assembly of a well engineered model kit. Designed by Futaba's international team of RC car experts, the FX10 incorporates many of the features of serious competition models and is as much fun to build as it is to drive. Features include 4 wheel, independent suspension with 4-link rear, monocoque racing chassis, sealed gearbox and differential, 540/05 class motor, 3-stage speed controller and lightweight polycarbonate body shell.

YS FUTABA MODEL ENGINES

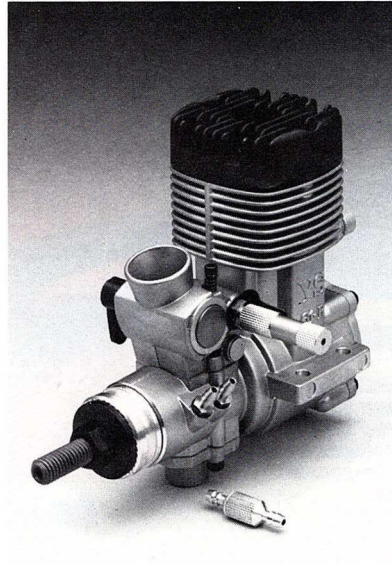


YS-FUTABA 45F-S/45F-R

The YS.Futaba 45F is the answer to the sport flyer's dreams, a high performance engine that is easy to tune and maintain.

Available in side (FS) or rear (FR) exhaust configurations, the YS.Futaba 45 delivers exceptional power for its size and weight.

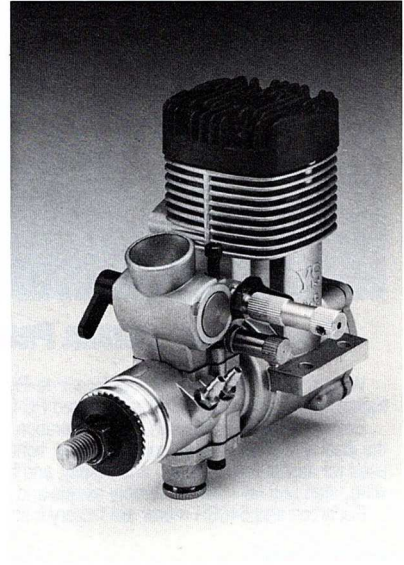
Features include YS.Futaba VPS fuel injection, ABC design, Schneurle porting and integrated carburetor. (Optional YS.Futaba side exhaust muffer available.)



YS-FUTABA 61F-R/61F-S

An evolution of the National Pattern-winning YS.Futaba 60F, the new 61F Long Stroke develops additional torque and thrust to give the serious competition flyer the efficiency to run larger props. The 61F, available in both side and rear exhaust configurations, produces a very flat power band and yields exceptional performance due to its use of the YS.Futaba VPS fuel injection system.

Another important feature of the YS.Futaba 61F is a unique, offset butterfly carburetor, which provides linear throttle response. ABC design, precision CNC machining, adjustable pressure regulator and convenient needle valve adjustment make the 61F Long Stroke a true pattern champion.



YS-FUTABA 61F-S-H/61F-R-H

For the R/C helicopter pilot who wants only the finest, YS.Futaba offers the new 61FH in side (F-S-H) and rear (F-R-H) exhaust versions.

Based on the same championship-winning design of YS.Futaba aircraft engines, the 61FH incorporates a ringed piston for easier starts and cooler operation.

Features include YS.Futaba VPS fuel injection for superior throttle response when hovering. The 61FH is also unaffected by tank position, rolls, loops or inverted flight.

SPECIFICATIONS

45F-S/45F-R

Bore	21.8 mm
Stroke	20.0 mm
Displacement	7.45 cc
Weight	400g
Practical rpm	2,000-18,000

61F-R/61F-S

Bore	23.0 mm
Stroke	24.0 mm
Displacement	9.97 cc
Weight	565g
Practical rpm	2,000-18,000

61F-S-H/61F-R-H

Bore:	23.0 mm
Stroke:	24.0 mm
Displacement:	9.97 cc
Weight:	565g
Practical rpm:	2,000-18,000

120SF

Bore	30.4 mm
Stroke	27.5 mm
Displacement	19.96 cc
Weight	950g
Practical rpm	2,000-12,500

YS-FUTABA ACCESSORIES

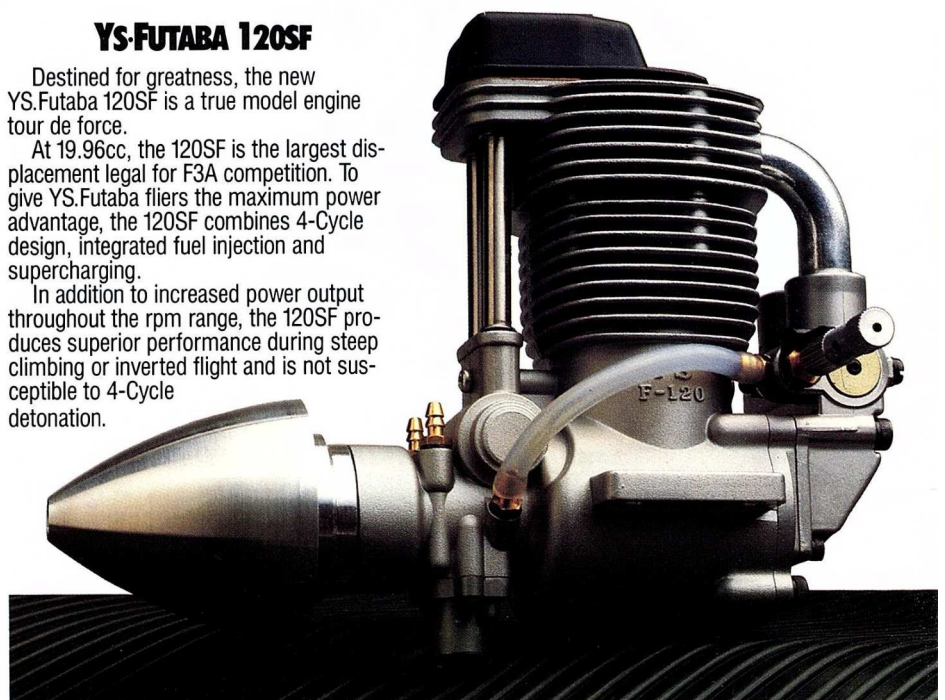
YS0495	.45 side exhaust muffer	\$24.95
YS1195	Fuel filter	3.95

YS-FUTABA 120SF

Destined for greatness, the new YS.Futaba 120SF is a true model engine tour de force.

At 19.96cc, the 120SF is the largest displacement legal for F3A competition. To give YS.Futaba fliers the maximum power advantage, the 120SF combines 4-Cycle design, integrated fuel injection and supercharging.

In addition to increased power output throughout the rpm range, the 120SF produces superior performance during steep climbing or inverted flight and is not susceptible to 4-Cycle detonation.



HATORI MUFFLERS

HEADERS AND MANIFOLDS

PART NO.	DESCRIPTION	PRICE
.21 TO .30		
Y00215	Side Mount/OS.21—25FSR, Enya.21CX, SS.25—.30	16.95
Y00220	Side mount/Enya.21—.25CX	16.95
Y00225	Short radius/OS.21—.25FSR, Enya.21CX, SS.25—.30	16.95
Y00230	Short radius/Enya.21—.25CX	16.95
Y00285	Dash/OS.21—25FSR, Enya.21CX, SS.25—.30	16.95
Y00290	Dash/Enya.21—.25X	16.95
Y00305	Joker/OS.21—.25FSR, Enya.21CX, SS.25—.30	16.95

PART NO.	DESCRIPTION	PRICE
.40 TO .45		
Y00315	Side mount/OS.40—.45FSR, Enya.40—.49X-CX, YS-Futaba.45FS	18.75
Y00320	Short radius/OS.40—.45FSR, Enya.40—.49X-CX, YS-Futaba.45FS	18.75
Y00325	Cosmos/OS.40—.45FSR, Enya.40—.49X-CX, YS-Futaba.45FS	18.75
Y00330	Arrow/OS.46VF, Enya.45CXL, YS-Futaba.45FR	24.50
Y00335	Arrow/OS.40—.45FSR	25.50
Y00340	Arrow/Enya.40—.49X-CX	25.50
Y00345	Arrow/YS-Futaba.45FS	25.50
Y00360	Curare/OS.40—.45FSR, Enya.40—.49X-CX, YS-Futaba.45FS	18.75

Y00380	Citation/OS.46VF, Enya.45CXL, YS-Futaba.45FR	24.50
Y00410	Dash Five/OS.46VF, Enya.45CXL, YS-Futaba.45FR	24.50
Y00415	Aurora/OS.40—.45FSR, Enya.40—.49X-CX, YS-Futaba.45FS	18.75
Y00420	Aurora/OS.46VF, Enya.45CXL, YS-Futaba.45FR	24.50
Y00425	Flash/OS.40—.45FSR, Enya.40—.49X-CX, YS-Futaba.45FS	18.75
Y00430	Supra Fly/OS.40—.45FSR, Enya.40—.49X-CX, YS-Futaba.45FS	18.75
Y00435	Supra Fly/OS.46VF, Enya.45CXL, YS-Futaba.45FR	24.50

PART NO.	DESCRIPTION	PRICE
.60/.61		
Y00440	Side mount/OS.61FSR, Enya.60X, YS-Futaba.60FS	18.75
Y00445	Short radius/OS.61FSR, Enya.60X, YS-Futaba.60FS	18.75
Y00450	Curare/OS.61FSR, Enya.60X, YS-Futaba.60FS	18.75
Y00455	Arrow/Enya.60X, YS-Futaba.60FR	24.50
Y00460	Arrow/OS.61VF	24.50
Y00465	Arrow/YS-Futaba.60FS	28.25
Y00470	Arrow/OS.61FSR, Enya.60X	28.25
Y00475	Citation/Enya.60X, YS-Futaba.60FR	24.50
Y00480	Citation/OS.61VF	24.50
Y00485	Atlanta/Enya.60X, YS-Futaba.60FR	24.50
Y00490	Atlanta/OS.61VF	24.50
Y00495	Cosmos Aurora/Enya.60X, YS-Futaba.60FR	24.50
Y00500	Cosmos Aurora/OS.61FSR, Enya.60X, YS-Futaba.60FS	24.50
Y00505	Nova Lily/OS.61FSR, Enya.60X, YS-Futaba.60FS	23.50
Y00510	Magic/Enya.60XL, YS-Futaba.60FS	29.95
Y00515	Magic/OS.61VF	29.95
Y00520	Sky Master/Enya.60XL, YS-Futaba.60FR	29.95
Y00525	Sky Master/OS.61VF	29.95

HEADERS AND MANIFOLDS

PART NO.	DESCRIPTION	PRICE
.60		
Y00530	Omega/OS.61FSR, Enya.60X, YS-Futaba.60FS	22.50
Y00535	Sigma Mk.II/Enya.60XL, YS-Futaba.60FR	29.95
Y00540	Sigma Mk.II/OS.61VF	29.95
Y00560	Atlanta/Rossi R.60	29.95
Y00565	Arrow/Rossi R.60	29.95
Y00570	Magic/Rossi R.60	32.95
Y00575	Sky Master/Rossi R.60	32.95
Y00580	Arrow(140mm)/Enya.60XL, YS-Futaba.60FR	24.50
Y00585	Dash Five/Enya.60XL, YS-Futaba.60FR	24.50
Y00590	Dash Five/OS.61VF	24.50
Y00595	Joker/Enya.60XL, YS-Futaba.60FR	24.50
Y00600	Joker/OS.61VF	24.50
Y00605	Supra Fly/OS.61FSR, Enya.60X, YS-Futaba.60FS	20.75
Y00610	Supra Fly/Enya.60X, YS-Futaba.60FR	24.50
Y00615	Supra Fly/OS.61VF	24.50
1.20		
Y00211	Exhaust pipe (outside) YS 120SF	54.95
Y00212	Exhaust pipe (inside) YS-Futaba 120SF	54.95
Y00213	Exhaust pipe (outside) OS120	54.95
Y00214	Exhaust pipe (inside) OS120	54.95

HELICOPTER AND CAR

HELICOPTER TUNED PIPE/MUFFLERS

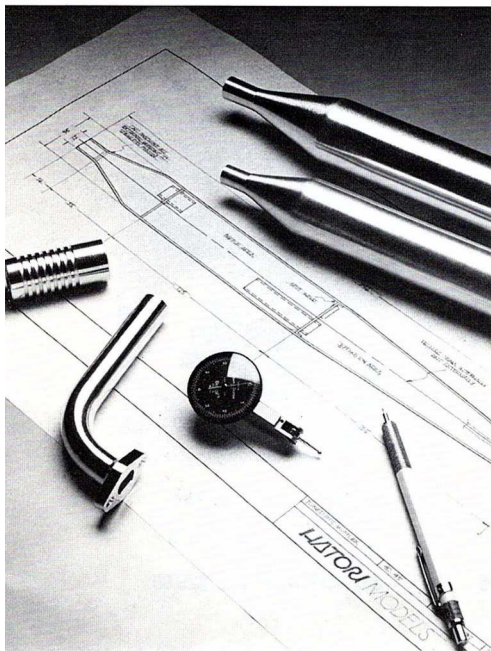
Y00070	3.5cc Tuned pipe/muffler	51.75
Y00072	.60 Heli tuned muffler	69.95
Y00074	05.25-2.8 FSR-H Heli muffler (for Shuttle or Baron 20)	27.95
Y00075	10cc Tuned pipe/muffler	108.25
Y00076	08.28-.32/Enya SS30 Heli muffler (for Concept)	27.95
Y00078	Heli tuned muffler adapter	10.95
Y00080	3.5cc Muffler	37.50
Y00092	Heli tuned muffler mting. bracket	1.49
Y00094	Heli tuned muffler mting. clamps	2.95
Y00096	Heli tuned muffler silicone connector	4.95
Y00097	Heli tuned muffler silicone tail pipe	4.49
Y00098	Heli tuned muffler tie wraps	.99
Y00105	Silicone connector	5.50
Y00140	3.5cc pipe and connector clamps	1.95
Y00145	10cc pipe and connector clamps	2.75

HELICOPTER HEADERS

Y00645	Kalt frame/YS-Futaba.60FSH	32.95
Y00650	Kalt frame/OS.61FSRH, Enya.60XF	32.95
Y00655	Kalt Hirobo frame body/YS-Futaba.60FRH	32.95
Y00660	Kalt Hirobo frame body/OS.61VFH	32.95
Y00665	Kalt Hirobo frame body/Enya.60XLF	32.95
Y00670	Kalt Hirobo body/YS-Futaba.60FSH	32.95
Y00675	Kalt Hirobo body/OS.61FSRH, Enya.60XF	32.95
Y00680	Fox-60/YS-Futaba.60FSH	32.95
Y00685	Fox-60/OS.61FSRH, Enya.60XF	32.95
Y00690	Baron/OS.28FSRH, Enya SS.30	16.95
Y00695	Shuttle/OS.28FSRH, Enya SS.30	16.95

CAR MUFFLERS AND HEADERS

Y00085	.21 On/Off road tuned pipe/muffler	28.25
Y00110	.21 On/Off road silicone connector	3.75
Y00245	.21 Road racing/OS.21VF, Enya.21CXL	18.75
Y00296	1:8 Off road	24.50
Y00300	.21 Off road/OS.21FSR, Enya.21CX	24.50



TUNED PIPES AND MUFFLERS

PART NO.	DESCRIPTION	PRICE
AIRPLANE TUNED PIPE/MUFFLERS		
Y00010	3.5cc Tuned pipe/muffler	42.25
Y00015	7.5cc Tuned pipe/muffler	65.75
Y00020	10cc Tuned pipe/muffler	75.25
Y00025	10cc Tuned pipe/muffler (Bent)	84.50
Y00030	10cc Tuned pipe/muffler (Long Chamber)	75.25
Y00035	10cc Tuned pipe/muffler (Long Chamber/Bent)	84.50
Y00040	15-20cc Tuned pipe muffler	114.75
Y00045	10cc Muffler	56.50
Y00050	7.5cc Scale muffler	51.75
Y00055	7.5cc Scale muffler (side mount)	51.75
Y00060	10cc Scale muffler	56.50
Y00065	10cc Scale muffler (side mount)	56.50
Y00208	YS 1.20 tuned muffler	75.75

CONNECTORS

Y00090	3.5cc Silicone connector	2.95
Y00095	7.5cc Silicone connector	3.75
Y00100	10cc Silicone connector	4.75
Y00115	7.5cc Header/pipe connector/Aluminum	20.25
Y00120	10cc Header/pipe connector/Aluminum	24.50
Y00125	3.5cc Pipe and connector clamps	2.75
Y00130	7.5cc Pipe and connector clamps	2.75
Y00135	10cc Pipe and connector clamps	2.75
Y00150	3.5cc Silicone connector clamp	1.75
Y00155	7.5cc Silicone connector clamp	1.75
Y00160	10cc Silicone connector clamp	1.75
Y00165	7.5cc Connector replacement rings	2.50
Y00170	10cc Connector replacement rings	2.75
Y00175	3.5cc Pipe extender	5.50
Y00180	7.5cc Pipe extender	6.50
Y00185	10cc Pipe extender	7.50
Y00190	3.5-7.5cc Tail pipe	8.50
Y00195	10cc Tail pipe	9.50
Y00200	10cc Tail pipe (short)	9.50
Y00205	3.5-7.5cc Tail pipe (silicone)	5.50
Y00210	10cc Tail pipe (long)	14.95

GENUINE FUTABA PARTS

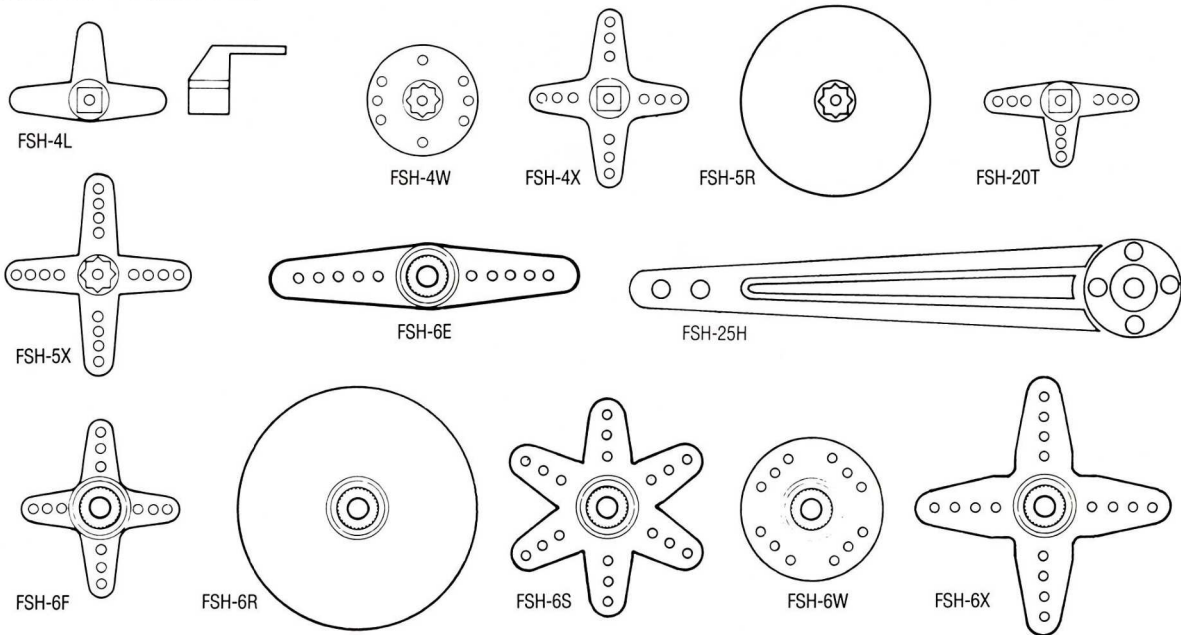
SERVO HORNS

SERVO GEAR SETS

SERVO CASE SETS

DESCRIPTION	PART #	RETAIL	DESCRIPTION	PART #	RETAIL	DESCRIPTION	PART #	RETAIL
L-shaped	FSH-4L	1.75	S6/S17/S18	FGS-6	2.50	S6	FCS-6	3.75
Small wheel	FSH-4W	1.75	S7/S12/S107	FGS-7	2.50	S7/S8	FCS-7	3.50
X-shaped	FSH-4X	1.75	S8	FGS-8	2.50	S10/S14	FCS-10	8.00
White disc	FSH-5R	1.75	S10	FGS-10	42.50	S11	FCS-11	3.75
X-shaped large	FSH-5X	1.75	S11	FGS-11	3.75	S12	FCS-12	3.75
(Above fit all servos except (S10, S14, S20, S25)			S14	FGS-14	48.50	S15/S15G	FCS-15	4.75
			S15	FGS-15	3.75	S16	FCS-16	3.75
			S15G	FGS-15G	3.75	S16G	FCS-16G	6.00
			S16	FGS-16	3.00	S17/S18	FCS-17	3.75
Splined Horn A X-shaped	FSH-6X	1.75	S16G	FGS-16G	3.00	S20	FCS-20	3.75
Splined Horn B star	FSH-6S	1.75	S20	FGS-20	3.75	S21/S121		
Splined Horn C disc	FSH-6R	1.75	S21/S121	FGS-21	3.75	S21G	FCS-21	3.75
Splined Horn D wheel	FSH-6W	1.75	S21G/S121G	FGS-21G	5.00	S22	FCS-22	3.75
Splined Horn E long arm	FSH-6E	1.75	S22	FGS-22	2.50	S23	FCS-23	3.75
Splined Horn F small X	FSH-6F	1.75	S23	FGS-23	2.50	S24/S124	FCS-24	3.75
(Above fit servos S28, S29, S30, S31, S32, S38, S48)			S24/S124	FGS-24	2.50	S25	FCS-25	3.75
			S24H	FGS-24H	3.75	S26	FCS-26	3.75
			S25	FGS-25	4.25	S26G/S126G	FCS-26G	3.75
			S26	FGS-26	2.50	S27	FCS-27	3.75
			S26G	FGS-26G	4.25	S28/S128	FCS-28	3.75
			S27	FGS-27	2.50	S29/S129	FCS-29	3.75
S20 T-shaped	FSH-20T	1.75	S28/128	FGS-28	3.75	S30/S130/S5101	FCS-30	3.75
S14 T-shaped	FSH-14T	2.00	S29/S129	FGS-29	3.75	S30G	FCS-30G	3.75
S25 Sail arm H	FSH-25H	4.50	S30/S130/S5101	FGS-30	3.75	S31S/S131S/ S9201/S9301	FCS-31S	3.75
			S30G	FGS-30G	4.25	S32/S32H	FCS-32	3.75
			S31S/S131S/ S9201/S9301	FGS-31S	3.75	S33	FCS-33	3.75
			S31SH/S131SH	FGS-31SH	3.75	S34	FCS-34	3.75
			S32	FGS-32	3.75	S35/S135/S9601	FCS-35G	3.75
			S32H	FGS-32H	3.75	S36/S136	FCS-36G	3.75
			S33	FGS-33	4.25	S38/S138	FCS-38	3.75
			S33H	FGS-33H	4.25	S48/S148	FCS-48	3.75
			S34/S34G	FGS-34	3.75			
			S35S/S9601	FGS-35S	4.95			
			S36G	FGS-36G	14.95			
			S38/S138	FGS-38	3.50			
			S48/S148	FGS-48	3.75			
			S9101	FGS-9101	3.75			

SERVO HORNS (Shown actual size)



GENUINE FUTABA PARTS

SERVO TRAYS

DESCRIPTION	PART #	RETAIL	DESCRIPTION	PART #	RETAIL	DESCRIPTION	PART #	RETAIL
Single/Vertical/S7, S12, S22, S24, S124, S25, S27, S29	FST-4V	2.75	2 + 1/S16	FST-16T	3.75	2 + 1/S21, S121		
Single/Vertical/S11	FST-11V	2.75	Single/Vertical/S16	FST-16V	2.75	S121H, S30	FST-21T	3.75
2-by-2/S15	FST-15A	4.00	Side-by-Side/S17, S18					
Side-by-Side	FST-15B	3.25	S23, S26	FST-17A	3.25	Single/Vertical/S21		
Single/Vertical/S15V	FST-15V	2.75	Single/Vertical & Horizontal/S17, S18, S23, S26	FST-17B	3.25	S121, S121H except S30	FST-21V	2.75
2-by-2/S16A	FST-16A	3.75	2 + 1/S17, S18, S23, S26	FST-17T	3.75	2-by-2/S28, S31S, S38, S48	FST-28A	4.00
Single/Vertical & Horizontal/S16	FST-16B	2.75	Single/Horizontal/S20	FST-20H	2.75	2 + 1/S28, S31S, S38, S48	FST-28T	3.75
			2 + 1/S20	FST-20T	3.75	Single/Vertical/S28		
			Single/Vertical/S20	FST-20V	2.75	S31S, S38, S48	FST-28V	2.75
			2-by-2/S21, S121, S121H, S30	FST-21A	4.00	Single/Vertical/S30, S32	FST-30V	2.75

HARDWARE

DESCRIPTION	PART #	RETAIL	DESCRIPTION	PART #	RETAIL	DESCRIPTION	PART #	RETAIL
Round servo grommet - 20 pc.	FSH-10	2.25	Accessory pkg./S15, S15G	FSH-27	2.75	Accessory pkg./S25	FSH-33	4.50
Servo horn screws & washers	FSH-11	2.00	Accessory pkg./S16, S16G	FSH-28	2.75	Servo grommets rectangle - 20 pc./S28, S29, S30, S31, S32	FSH-40	2.75
Square servo grommet - 20 pc.	FSH-20	3.50	Accessory pkg./S20	FSH-29	2.75	Servo horn screw - 10 pc./S28, S29, S30, S31, S32	FSH-41	1.75
Servo eyelett - 20 pc.	FSH-21	2.25	Servo tray screws/S20	FSH-30	2.25	Servo Accessory pkg./S28, S30, S31, S32	FSH-42	4.25
Accessory pkg. for all servos except S15, S16, S20, S10, S14, S25	FSH-26	4.25	Servo horn screws & washers/S21, S22, S23, S25, S26, S27	FSH-31	2.25	Servo Accessory pkg./S29	FSH-43	4.25
			Servo mounting screws & washer/All servos	FSH-32	2.25	S33 horn screw	FSH-44	1.75

TRANSMITTER ANTENNAS

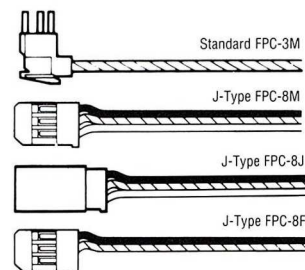
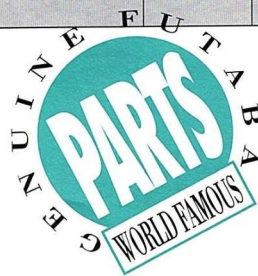
DESCRIPTION	PART #	RETAIL
FN-Series TX Antenna	ANT-1	8.00
T2F Antenna	ANT-2	8.00
T2GS Antenna	ANT-3	7.00
T2GA Antenna	ANT-4	7.00
T2L/2NL/2NCS/2PB 2PKA/2PD/2PKA/3PB 4NBL/4NBF/4NBP Antenna	ANT-5	7.00
T4L/5LK/6NPK/6NFK Antenna	ANT-6	7.00
J-Series Antenna	ANT-7	7.25
G-Series Antenna	ANT-8	7.25
T3PG Antenna (short) 27MHz	ANT-9	10.50
T3PG (short) 72/75 MHz	ANT-10	11.50
T3PG Antenna (long) All freq.	ANT-11	7.25
T9VA/9VH/8SSA/8SSH 7UAF/7UAP/7UHF/7UHP 5UA/5UAF/5UAP	ANT-12	7.25

ACCESSORIES

DESCRIPTION	PART #	RETAIL
T4L Shiftgate	FTA-1	2.25
PCM Screwdriver	FTA-2	3.75
T3PG Hand Strap	FTA-3	7.50
G-Series Neck Strap	FTA-4	8.50
FP-4NL Shiftgate	FTA-5	2.25
Clip-on Screwdriver	FTA-6	.95
Dry Cell Holder w/BEC plug	FBB-1	2.95
3PB/2PD Hand Strap	FTA-7	9.00
9VA/9VH Neck Strap	FTA-8	14.00

MINI CONNECTORS

DESCRIPTION	PART #	RETAIL
NR-4C Connector	FPC-3F	4.50
Servo Connector	FPC-3M	4.00
NR-4C/Servo Connector Set	FPC-3MF	7.50
FP-7G Connector Set	FPC-7	4.00
J-Type Nicd Conn.	FPC-8F	4.00
J-Type Female	FPC-8J	4.50
J-Type Servo Conn.	FPC-8M	4.00
J-Type Connectors (Nidc/Servo)	FPC-8MF	7.50



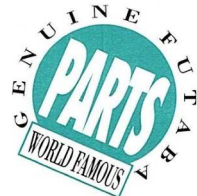
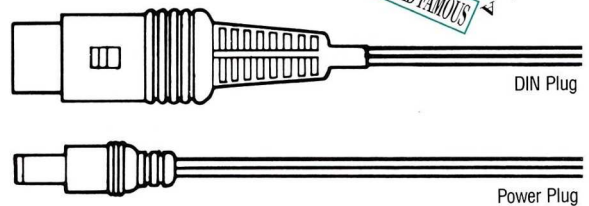
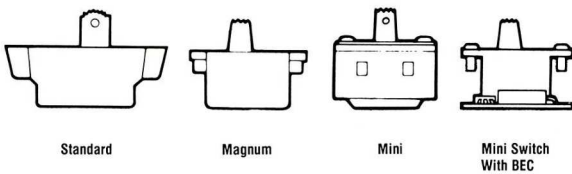
NOTE: The term "J-TYPE" designates components which use 1520µSec. neutral position and connectors which were first introduced with the J-Type. Standard Series use 1310µSec. neutral and Futaba mini 3 pin connectors.

GENUINE FUTABA PARTS

SWITCH HARNESSES / CHARGE CORDS

EXTENSION CORDS

DESCRIPTION	PART #	RETAIL	DESCRIPTION	PART #	RETAIL
Switch Harness with charge cord	SWH-1	9.50	Rx External Charge Jack	NCC-6	10.00
Switch Harness without charge cord	SWH-2	9.00	8 Ch. PCM DSC/ Charge Adaptor	NCC-8	10.00
Contest 7 Switch Harness	SWH-4	9.00	9VA/9VH PCM, DSC/Charge Adaptor	NCC-9	10.00
J-Type Switch Harness with charge cord	SWH-5	10.00	3PB DSC cord	NCC-10	6.00
Harness with Receiver Dry Battery Holder	SWH-6	9.50	Aileron Extension Cord	AEC-1	6.75
J-Connector Mini Switch Harness	SWH-7	9.50	Dual Servo Extension	AEC-2	8.50
Mini Switch Harness with charge cord	SWH-8	9.50	J-Type Aileron Extension	AEC-3	6.75
J-Mini Switch Harness with charge cord	SWH-9	9.50	J-Type Dual Servo Extension	AEC-4	13.00
Mini Switch with BEC Connector	SWH-10	10.00	Servo Adaptor J-Type to Standard	AEC-9	6.00
J-Mini Switch with BEC Connector	SWH-11	10.00	Servo Adaptor Standard to J-Type	AEC-10	6.00
J-Mini Switch with 2-Pin Connector	SWH-12	9.50	J-Extension, 16" cord	AEC-11	7.25
Transmitter Charge Cord	NCC-1	5.00	J-Extension, 1 meter cord	AEC-12	8.00
Receiver Charge Cord	NCC-2	6.75	J-Type Direct Servo Cord	FSC-1	8.50
J-Type Transmitter Charge Cord	NCC-3	6.75			
J-Type Receiver Charge Cord	NCC-4	6.75			



GENUINE FUTABA PARTS

AM Crystal Sets			FM Crystal Sets			FM Crystal Sets		
Part No.	Price		Part No.	Price		Part No.	Price	
26.996/Brown	FMC-21	12.00	26.995/Brown	FMC-321	28.50	75.690/Ch.75	FMC-475	28.50
27.045/Red	FMC-22	12.00	27.045/Red	FMC-322	28.50	75.710/Ch.76	FMC-476	28.50
27.095/Orange	FMC-23	12.00	27.095/Orange	FMC-323	28.50	75.730/Ch.77	FMC-477	28.50
27.145/Yellow	FMS-24	12.00	27.145/Yellow	FMC-324	28.50	75.750/Ch.78	FMC-478	28.50
27.195/Green	FMC-25	12.00	27.195/Green	FMC-325	28.50	75.770/Ch.79	FMC-479	28.50
27.255/Blue	FMC-26	12.00	27.255/Blue	FMC-326	28.50	75.790/Ch.80	FMC-480	28.50
72.010/Ch.11	FMC-111	17.00	50.800/Ch.00	FMC-400	28.50	75.810/Ch.81	FMC-481	28.50
72.030/Ch.12	FMC-112	17.00	50.820/Ch.01	FMC-401	28.50	75.830/Ch.82	FMC-482	28.50
72.050/Ch.13	FMC-113	17.00	50.840/Ch.02	FMC-402	28.50	75.850/Ch.83	FMC-483	28.50
72.070/Ch.14	FMC-114	17.00	50.860/Ch.03	FMC-403	28.50	75.870/Ch.84	FMC-484	28.50
72.090/Ch.15	FMC-115	17.00	50.880/Ch.04	FMC-404	28.50	75.890/Ch.85	FMC-485	28.50
72.110/Ch.16	FMC-116	17.00	50.900/Ch.05	FMC-405	28.50	75.910/Ch.86	FMC-486	28.50
72.130/Ch.17	FMC-117	17.00	50.920/Ch.06	FMC-406	28.50	75.930/Ch.87	FMC-487	28.50
72.150/Ch.18	FMC-118	17.00	50.940/Ch.07	FMC-407	28.50	75.950/Ch.88	FMC-488	28.50
72.170/Ch.19	FMC-119	17.00	50.960/Ch.08	FMC-408	28.50	75.970/Ch.89	FMC-489	28.50
72.190/Ch.20	FMC-120	17.00	50.980/Ch.09	FMC-409	28.50	75.990/Ch.90	FMC-490	28.50
72.210/Ch.21	FMC-121	17.00	53.100	FMC-351	31.00			
72.230/Ch.22	FMC-122	17.00	53.200	FMC-352	31.00			
72.250/Ch.23	FMC-123	17.00	53.300	FMC-353	31.00			
72.270/Ch.24	FMC-124	17.00	53.400	FMC-354	31.00			
72.290/Ch.25	FMC-125	17.00	53.500	FMC-355	31.00			
72.310/Ch.26	FMC-126	17.00	53.600	FMC-356	31.00			
72.330/Ch.27	FMC-127	17.00	53.700	FMC-357	31.00			
72.350/Ch.28	FMC-128	17.00	53.800	FMC-358	31.00			
72.370/Ch.29	FMC-129	17.00	72.010/Ch.11	FMC-411	28.50			
72.390/Ch.30	FMC-130	17.00	72.030/Ch.12	FMC-412	28.50			
72.410/Ch.31	FMC-131	17.00	72.050/Ch.13	FMC-413	28.50			
72.430/Ch.32	FMC-132	17.00	72.070/Ch.14	FMC-414	28.50			
72.450/Ch.33	FMC-133	17.00	72.090/Ch.15	FMC-415	28.50			
72.470/Ch.34	FMC-134	17.00	72.110/Ch.16	FMC-416	28.50			
72.490/Ch.35	FMC-135	17.00	72.130/Ch.17	FMC-417	28.50			
72.510/Ch.36	FMC-136	17.00	72.150/Ch.18	FMC-418	28.50			
72.530/Ch.37	FMC-137	17.00	72.170/Ch.19	FMC-419	28.50			
72.550/Ch.38	FMC-138	17.00	72.190/Ch.20	FMC-420	28.50			
72.570/Ch.39	FMC-139	17.00	72.210/Ch.21	FMC-421	28.50			
72.590/Ch.40	FMC-140	17.00	72.230/Ch.22	FMC-422	28.50			
72.610/Ch.41	FMC-141	17.00	72.250/Ch.23	FMC-423	28.50			
72.630/Ch.42	FMC-142	17.00	72.270/Ch.24	FMC-424	28.50			
72.650/Ch.43	FMC-143	17.00	72.290/Ch.25	FMC-425	28.50			
72.670/Ch.44	FMC-144	17.00	72.310/Ch.26	FMC-426	28.50			
72.690/Ch.45	FMC-145	17.00	72.330/Ch.27	FMC-427	28.50			
72.710/Ch.46	FMC-146	17.00	72.350/Ch.28	FMC-428	28.50			
72.730/Ch.47	FMC-147	17.00	72.370/Ch.29	FMC-429	28.50			
72.750/Ch.48	FMC-148	17.00	72.390/Ch.30	FMC-430	28.50			
72.770/Ch.49	FMC-149	17.00	72.410/Ch.31	FMC-431	28.50			
72.790/Ch.50	FMC-150	17.00	72.430/Ch.32	FMC-432	28.50			
72.810/Ch.51	FMC-151	17.00	72.450/Ch.33	FMC-433	28.50			
72.830/Ch.52	FMC-152	17.00	72.470/Ch.34	FMC-434	28.50			
72.850/Ch.53	FMC-153	17.00	72.490/Ch.35	FMC-435	28.50			
72.870/Ch.54	FMC-154	17.00	72.510/Ch.36	FMC-436	28.50			
72.890/Ch.55	FMC-155	17.00	72.530/Ch.37	FMC-437	28.50			
72.910/Ch.56	FMC-156	17.00	72.550/Ch.38	FMC-438	28.50			
72.930/Ch.57	FMC-157	17.00	72.570/Ch.39	FMC-439	28.50			
72.950/Ch.58	FMC-158	17.00	72.590/Ch.40	FMC-440	28.50			
72.970/Ch.59	FMC-159	17.00	72.610/Ch.41	FMC-441	28.50			
72.990/Ch.60	FMC-160	17.00	72.630/Ch.42	FMC-442	28.50			
75.410/Ch.61	FMC-161	17.00	72.650/Ch.43	FMC-443	28.50			
75.430/Ch.62	FMC-162	17.00	72.670/Ch.44	FMC-444	28.50			
75.450/Ch.63	FMC-163	17.00	72.690/Ch.45	FMC-445	28.50			
75.470/Ch.64	FMC-164	17.00	72.710/Ch.46	FMC-446	28.50			
75.490/Ch.65	FMC-165	17.00	72.730/Ch.47	FMC-447	28.50			
75.510/Ch.66	FMC-166	17.00	72.750/Ch.48	FMC-448	28.50			
75.530/Ch.67	FMC-167	17.00	72.770/Ch.49	FMC-449	28.50			
75.550/Ch.68	FMC-168	17.00	72.790/Ch.50	FMC-450	28.50			
75.570/Ch.69	FMC-169	17.00	72.810/Ch.51	FMC-451	28.50			
75.590/Ch.70	FMC-170	17.00	72.830/Ch.52	FMC-452	28.50			
75.610/Ch.71	FMC-171	17.00	72.850/Ch.53	FMC-453	28.50			
75.630/Ch.72	FMC-172	17.00	72.870/Ch.54	FMC-454	28.50			
75.650/Ch.73	FMC-173	17.00	72.890/Ch.55	FMC-455	28.50			
75.670/Ch.74	FMC-174	17.00	72.910/Ch.56	FMC-456	28.50			
75.690/Ch.75	FMC-175	17.00	72.930/Ch.57	FMC-457	28.50			
75.710/Ch.76	FMC-176	17.00	72.950/Ch.58	FMC-458	28.50			
75.730/Ch.77	FMC-177	17.00	72.970/Ch.59	FMC-459	28.50			
75.750/Ch.78	FMC-178	17.00	72.990/Ch.60	FMC-460	28.50			
75.770/Ch.79	FMC-179	17.00	75.410/Ch.61	FMC-461	28.50			
75.790/Ch.80	FMC-180	17.00	75.430/Ch.62	FMC-462	28.50			
75.810/Ch.81	FMC-181	17.00	75.450/Ch.63	FMC-463	28.50			
75.830/Ch.82	FMC-182	17.00	75.470/Ch.64	FMC-464	28.50			
75.850/Ch.83	FMC-183	17.00	75.490/Ch.65	FMC-465	28.50			
75.870/Ch.84	FMC-184	17.00	75.510/Ch.66	FMC-466	28.50			
75.890/Ch.85	FMC-185	17.00	75.530/Ch.67	FMC-467	28.50			
75.910/Ch.86	FMC-186	17.00	75.550/Ch.68	FMC-468	28.50			
75.930/Ch.87	FMC-187	17.00	75.570/Ch.69	FMC-469	28.50			
75.950/Ch.88	FMC-188	17.00	75.590/Ch.70	FMC-470	28.50			
75.970/Ch.89	FMC-189	17.00	75.610/Ch.71	FMC-471	28.50			
75.990/Ch.90	FMC-190	17.00	75.630/Ch.72	FMC-472	28.50			
			75.650/Ch.73	FMC-473	28.50			
			75.670/Ch.74	FMC-474	28.50			

Dual Conversion FM	Part No.	Price
50.800/Ch.00	FMC-800	34.95
50.820/Ch.01	FMC-801	34.95
50.840/Ch.02	FMC-802	34.95
50.860/Ch.03	FMC-803	34.95
50.880/Ch.04	FMC-804	34.95
50.900/Ch.05	FMC-805	34.95
50.920/Ch.06	FMC-806	34.95
50.940/Ch.07	FMC-807	34.95
50.960/Ch.08	FMC-808	34.95
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72.970/Ch.59	FMC-859	34.95
72.990/Ch.60	FMC-860	34.95



FUTABA CONTROL



RC GLOSSARY

PCM/Pulse Code Modulation

PCM is the most advanced form of radio signal transmission available for radio controlled models. First introduced to American hobbyists by Futaba, PCM uses digitally encoded signals to reduce interference. PCM 1024 is Futaba's exclusive, second generation system, which offers the ultimate in servo resolution and response.

FM/Frequency Modulation

FM systems vary the frequency of the signal wave for improved resistance to interference.

AM/Amplitude Modulation

AM systems, most commonly used for surface models, use this radio signal system which varies signal amplitude.

Dual Rate

Dual rates are used to electronically reduce servo throw with full control stick or wheel throw.

Exponential

Exponential rates provide non-linear servo response and are used to reduce servo sensitivity close to neutral without reducing throw.

Trainer System

Futaba trainer systems let two transmitters to be linked with an optional trainer cord, allowing an instructor to take over control at the flick of a switch. (New 4FG/6FG are trainer compatible with J-Series mini connector systems. Older 4FG and 6FG systems with standard mini connectors are not compatible.)

NiCd/Nickel Cadmium

Rechargeable Nickel Cadmium power packs are standard equipment in many Futaba systems and are available as an optional accessory for most others.

ATV/Adjustable Travel Volume

Frequently referred to as end point adjustment, ATV lets you preset the maximum travel of a servo either side of neutral.

AFR/Adjustable Function Rate

Similar to ATV, AFR allows end point adjustment independent of dual rate or exponential settings.

DSC/Direct Servo Controller

Using the DSC feature you can operate the servos in your system without transmitter power. This is ideal for field or pit checking your radio while others are operating on the same frequency.

Mixing

Mixing allows the simultaneous operation of two or more servos with one control input.

Please respect the FCC regulations regarding band use. Surface models are only to be operated on approved 27 and 75MHz frequencies, aircraft only on 50, 53 and 72MHz.



ONE YEAR WARRANTY

FUTABA Digital Proportional R/C Systems are warranted to the original purchaser for one full year from the date of purchase against defects in material and workmanship. During this period Futaba will repair or replace, at our discretion, the defective component.

This warranty does not apply to any unit which has been improperly installed, handled, abused, damaged in a crash, nor to any unit which has been repaired or altered by unauthorized agencies. Under no circumstances will the buyer be entitled to consequential or incidental damages. This Limited Warranty gives you specific legal rights; you may also have other rights which vary from state to state. Batteries and plastic housings are not covered by warranty.

THIS WARRANTY APPLIES ONLY TO SYSTEMS PURCHASED AND USED IN THE CONTINENTAL UNITED STATES, HAWAII AND ALASKA.



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