

ROTATING PARTS

(GEARS, PULLEYS, BELTS, O-RINGS)

ROLLER CHAIN AND SPROCKET SETS

Includes #25 roller chain (1/4" pitch), a 13 tooth and 20 tooth heavy-duty plastic sprocket and a master link. Sprocket shaft bores are 0.36" and have collars which can easily be drilled and tapped for a set screw.



60" CHAIN

13 & 20 tooth sprocket have a 0.36" bore.

CAT # CHS-2 \$ 10.00 per set

18" MINIATURE ROLLER CHAIN



#25 roller chain with 1/4" pitch. Works with master link and 1/4" pitch chain sprockets.

CAT # CHN-18 \$ 3.50 each

MASTER LINK for # 25 roller chain.

CAT # ML-25 \$ 1.00 each

1/4" PITCH SPROCKETS

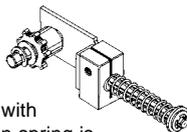
Glass-reinforced nylon sprockets for use with # 25, 1/4" pitch roller chain. Sprockets are designed for press-fit use, but collars have ample room to be tapped for set screws.



TOOTH	BORE	CAT#	PRICE
11	1/4"	GR-17	\$1.25
12	1/4"	GR-18	\$1.25
13	1/4"	GR-19	\$1.25
14	5/16"	GR-20	\$1.25
15	3/8"	GR-58	\$1.35
16	1/4"	GR-21	\$1.35
20	1/2"	GR-59	\$ 1.50
22	1/2"	GR-60	\$ 1.50

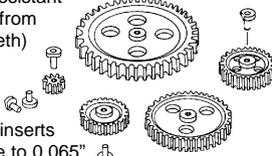
SPRING-TENSION IDLER GEAR

15 cog gear, 1/4" pitch, mounted on a spring-tensioned metal bracket. Ideal for maintaining chain tension. Metal gear rotates around a 3/8" axle and is held on with a c-clip. Overall bracket size when spring is relaxed is 4.28" long x 1.39" wide x 0.75" thick. Used, removed from equipment. **CAT # GR-63 \$4.50 ea**



5 GEAR ASSORTMENT

Five matched break-resistant plastic gears ranging from 0.44" diameter (10 teeth) to 2.02" (50 teeth). Gears are molded with 0.15" (4mm) bores and come with inserts which reduce the bore to 0.065" (2mm) diameter. **CAT# GR-5 \$2.75 per set**



Set includes five gears and five inserts
10 sets for \$20.00

COMPOUND GEAR

Black plastic compound gear. The smaller gear is 0.28" wide, has 14 teeth and a diameter of 0.53". The larger gear is 0.46" wide, has 21 teeth and a diameter of 0.77". 6 mm (0.24") bore. **CAT # GR-2 4 for \$ 1.00 • 100 for \$ 15.00**



16 TOOTH GEAR

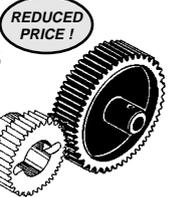
Black composite gear. Mates with GR-5, five gear set and GR-61, two gear set. 16 teeth. 0.7" dia.. 0.25" bore. **CAT # GR-64 75¢ each**



MATING PLASTIC GEARS

Two black plastic gears. 36 Teeth: 1.49" dia. x 0.46". 0.32" bore. 19 Teeth: 0.8" dia. x 0.35". 0.4" flatted bore. These mate with our 5 gear set. **CAT # GR-5.**

CAT # GR-61 \$ 1.25 per set



MATING PLASTIC GEARS

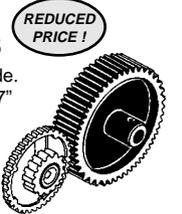
This set mates with the one above. The large gear is the same 72 tooth gear as above. The smaller gear has 32 teeth, is 1.06" diameter X 0.30" wide and has a bore of 0.5"

CAT# GR-26 \$1.50 per set

MATING PLASTIC GEARS

Larger gear is 2.3" diameter x 0.62" wide. 5/16" bore. 72 teeth. Smaller gear is 1.7" diameter x 0.2" wide. 3/8" bore. 52 teeth. Has a 0.94" diameter cog pulley (3 mm pitch) piggy-backed on it.

CAT # GR-25 \$1.50 per set



0.93" DIA. PLASTIC PULLEY

For 1/4" diameter shaft. Fits 0.2" wide drive belt. Smaller groove on one side for O-ring or O-ring-type drive belt, 0.5" high.

CAT# PY-1 3 for \$1.00



0.94" DIAMETER PULLEY

1/4" bore. Fits 0.2" wide V belt.

CAT# PY-3 3 for \$1.00



WHEEL WITH BELT GROOVE

0.69" dia. plastic wheel fits 1/4" dia. shaft. 0.5" wide overall. Has groove on one side that fits O-ring-type drive belt.

CAT# PY-2 3 for \$1.00



GEARBELT PULLEY

18 cog plastic pulley with 1/4" bore and recessed keyway slot. Overall diameter 1.1". Fits 3/8" wide (10mm) "XL" gearbelts with 1/5" pitch.

CAT# CGP-1 \$1.00 each



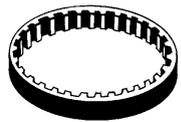
SYNCHRONOUS DRIVE "XL" GEARBELTS 1/5" PITCH

1/4" WIDE BELTS

40 Teeth 80XL025 **CAT # CGB-40 85¢ ea.**
45 Teeth 90XL025 **CAT # CGB-45 85¢ ea.**

3/8" WIDE BELTS

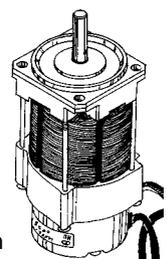
40 Teeth 80XL037 **CAT # CGB-80 \$ 1.00 ea.**
45 Teeth 90XL037 **CAT # CGB-90 \$ 1.00 ea.**



DC SERVO AND ENCODER

SKC Shinano Kenishi Corp. # LA052-040
40 Watt brushless servo motor and 6 channel encoder. 24 Vdc, 3000 RPM motor. 3.471" long x 2.13" dia. 2.125" square mounting flange. 0.31" (8mm) dia. shaft x 0.85" long. 20" leads. Spec sheet available.

CAT # DCM-139 \$20.00 each



DC MOTORS

1.5 VOLT MINI-VIBRATING MOTOR

Tiny 1.5 Volt motor with offset-weighted shaft. Typically found in pocket pagers and cell phones for vibrating alert signal. Operates on 1.5 Volts, 80 mA. Motor body is 0.28" dia. x 0.67" long. Shaft is 0.03" (1mm) dia. x 0.16" long.
CAT # DCM-131 \$2.50 ea. • 10 for \$ 22.50
 100 for \$200.00 • 500 for \$875.00 (\$1.75 ea.)



1 1/2 - 3 VDC MOTOR

Dual shaft motor operates well on 1.5 to 3 Vdc. 3/32" diameter shaft is 0.58" long on one side and 0.4" long on the other. Motor is 1.08" dia. X 1.47" long. Solder loop terminals.
CAT# DCM-75 \$1.35 each • 10 for \$11.50



SMALL - 1.5 - 9 V MOTOR

Mabuchi # FF-030PN
 Small DC motor operates smoothly and quietly over a range of 1.5 to 9 Volts. No load specs: 10,500 RPM @ 6 Vdc, 40 mA. 0.81" long x 0.47" x 0.61". 1.5mm dia. x 4mm long shaft has a brass gear press-fit onto it. Two mounting holes on 10mm centers with M2.0 x 0.4 tapped holes. 2.8" leads with two pin socket connector. **CAT # DCM-149**
 \$1.00 each • 48 for \$ 38.40 (\$ 0.80 ea)
 Case of 480 for \$ 288.00 (\$ 0.60 ea)



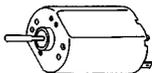
3 - 6 VDC MOTOR

Mabuchi RS-550PF
 Good-quality motor with internal cooling fan. No-load rating: 9000 RPM @ 6 Vdc, 1.3 Amps. 1.47" diameter x 2.25" long. 0.13" diameter shaft is 0.63" long.
CAT # DCM-104 \$3.50 each



6 - 12 VDC MOTOR

Mabuchi # FS-390PH
 1.13" x 0.96" x 1.7" long. Operates between 4.5 and 12 Vdc. No load rating: 9000 RPM @ 6 Vdc @ 0.39 Amp. 0.1" diameter x 0.55" knurled shaft. Solder lug terminals.
CAT# DCM-132 \$2.00 each



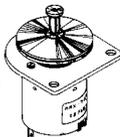
6 VDC MOTOR

Mabuchi # RS540SH. Good-quality reversible DC motor. No load specs: 1100 RPM @ 6 Vdc @ 1 Amp. 1.41" dia. x 2.15" long. 0.125" dia. x 0.3" long knurled shaft.
CAT # DCM-136 \$3.50 each
 Case of 90 for \$2.50 each



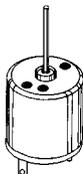
7 VDC MOTOR

Matsushita # MMX- 7AC O 8A
 1.25" diameter x 1.25" high motor. Prepped with 1.61" diameter flywheel, pulley and fiberglass mounting board.
CAT# DCM-54 \$1.00 each
 10 for \$9.00 • 100 for \$80.00



12 - 36 VDC MOTOR

Johnson Motor. Quiet, smooth operation from 12-36 Vdc. load spec: 3780 RPM @ 24 Vdc @ 32 mA. 0.967" dia. x 1.21" long. Shaft is 0.08"(2mm) dia. x 0.73"long. Solder terminals.
CAT # DCM-141 \$2.00 each



SPECIAL - 12 VDC MOTOR

Japan Servo Co., LTD #DME34SA
 1.34" diameter x 1.25". 0.1"dia. x 0.39" long shaft. No load rating: 4300 RPM @ 12 Vdc, 26 mA.
CAT # DCM-137 \$1.00 each
 100 for \$75.00



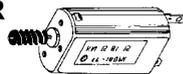
12 - 24 VDC MOTOR

Johnson Electric
 Small permanent magnet DC motor operates on 12 - 24 Vdc. No load speed: 5000 RPM @ 24 vdc, 85 mA. 2500 RPM @ 12 vdc, 14 ma. 0.95" x 0.72" x 1.21" long. 2 mm x 10 mm long shaft. Prepped with black and red 1.8" long leads terminated with 0.125" qc connectors.
CAT # DCM-100 2 for \$1.50 • 100 for \$60.00



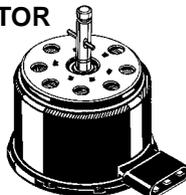
SMALL 12 VDC MOTOR W/ WORM GEAR

Mabuchi # FF-180PH
 Small, quiet-running permanent magnet motor. Motor operates smoothly between 6 and 24 Vdc. No-load rating: 7400 RPM @ 12 Vdc @ 23 mAdc. Motor body size: 1.25" x 0.8" x 0.6". 2 mm diameter shaft is 0.47" long. Plastic worm gear on end of shaft, 0.28" diameter, 0.06" pitch.
CAT # DCM-125 \$ 1.25 each 10 for \$ 10.00



POWERFUL 12 VDC MOTOR

Bosch
 Powerful new 12 Vdc motor with replaceable brushes. Purchased from a company making electric bicycles, they were used two per bicycle, powered with a 24 Volt battery pack. May have originally been fan motors for Ford automobiles. 4" dia. x 2.75". 0.31" (5/16") diameter shaft is 1.2" long. No load Rating: 2200 RPM @ 12 Vdc @ 2.8 Amps. Weight: 3.25 lbs. 0.25" quick-connect terminals..
CAT # DCM-142 \$9.50 each



12 VDC MOTOR

Mabuchi # RS375S. Small permanent magnet DC motor. Operates smoothly between 6 and 24 VDC. No load specs: 7700 RPM @ 12 VDC @ 120 mA.H. 1.08" dia. x 1.7" long. Shaft is 0.1" dia. x 0.5" long. Solder terminals.
CAT # DCM-144 \$1.25 each



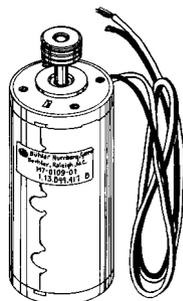
12 VDC MOTOR

Johnson Motor # 30011-370415
 1.1" diameter x 1.73" long. 0.1" dia. x 0.5" long flattened shaft. No load specs: 8900 RPM @ 12 Vdc, 150 mA. Solder terminals.
CAT # DCM-152 \$1.75 each



24 VDC MOTOR

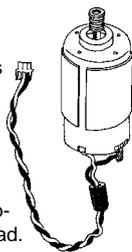
Buhler # 147-0109-01
 Fairly powerful DC motor operates smoothly from 6 to 40 Volts DC. No load specs: 3200 RPM @ 24 Vdc @ 170 mA. 2" dia. x 4.1" long. 0.24" (6mm) diameter shaft is 0.55" long. A 0.75" dia. pulley is press-fit on end of shaft. 32" wire leads. Four threaded mounting holes on motor face on 1.1" centers.
CAT # DCM-140 \$7.00 each



24-36 VDC MOTOR

Mabuchi # RS-775VB. Quiet, powerful, permanent magnet DC motor. Operates smoothly over a range of 12 – 48 VDC. No-load specs: 2400 RPM @ 24 VDC @ 110 mA. Body is 1.75" dia. x 3" long. Shaft is 5 mm (0.12") dia. x 0.5" long. A 0.32" dia. aluminum sleeve press-fit over the end of the shaft. Motor is prepped with 12" long leads with a ferrite bead.

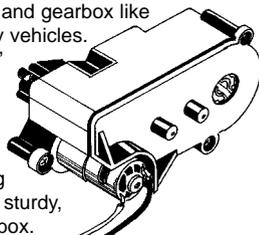
CAT # DCM-138 \$ 3.75 each



POWERFUL 6 VDC MOTOR w/ GEARBOX

Small-but-powerful motor and gearbox like those found on rideable toy vehicles.

Has a "deadman's switch" which can be rigged to disengage gears if motor is in wrong position or switch is released. A 1.13" diameter X 1.6" long Johnson motor drives the sturdy, unbreakable plastic gear box.



There is no drive shaft. The final drive is a recessed nylon gear with a 0.4" diameter hole and slots on two sides that could be fitted with a shaft. No load ratings: 36 RPM @ 6 Vdc @ 270 mA. Total assembly size: 6.5" X 3.1" X 2.42".

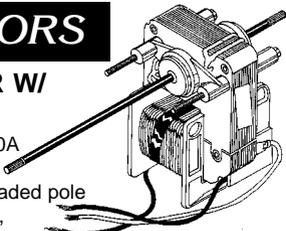
CAT # DCM-134 \$9.50 each

AC MOTORS

120 Vac MOTOR W/ LONG SHAFT

Ametek Model PTB100A 120 Vac, 1.2 Amp thermally protected shaded pole C frame motor. Quiet, open-air design. 4.75" long x 0.22" dia. shaft. 2.38" x 2.1" x 3" motor body. 4' three conductor SPT-1 cord attached. UL recognized.

CAT # ACM-3 \$ 4.00 each



115 VAC MOTOR

Small, relatively powerful 115 Vac Johnson motor. 1.5" dia. x 2.50" long, the motor has a 0.157" dia. shaft 0.57" long. 12,000 RPM (no load). Internal cooling fan. Solder terminals. **CAT# ACM-4** \$2.50 each

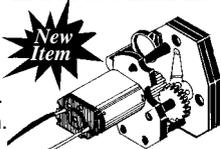


DC GEAR MOTORS

SMALL MOTOR AND GEAR ASSEMBLY

Small plastic 6 gear assembly powered by Mabuchi # FF-030PN motor (our CAT # DCM-149). Original application unknown. Probably designed for use

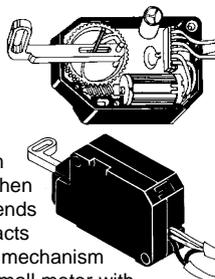
at about 3 – 6 Vdc. Gear assembly overall dimensions: 1.48" x 1.30" x 0.85". **CAT # DCM-148** \$1.00 each • 10 for \$9.00 • 100 for \$75.00



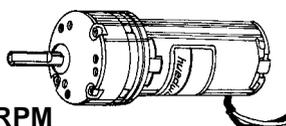
12 VDC WORM GEAR ACTUATOR

ASMO # B456 From an automotive (Mazda) application. Small motor and worm gear reducer mechanism is used to push an actuator. When voltage is applied actuator extends 0.32" and stops. Actuator retracts when voltage is removed. The mechanism that causes this to occur is a small motor with a plastic worm gear connected to a 1.1" diameter round gear. With a little modification the final drive gear can be made to turn continuously at 220 RPM. Overall dimensions: 2.5" x 1.7" x 1".

CAT # DCM-97 \$ 5.25 each



BARBER - COLEMAN GEARHEAD MOTORS



12 VDC, 180 RPM

Barber-Colman Company # EYQF-33300-640 Continuous use gearhead motor. No load rating: 180 RPM @ 12 Vdc, 0.14 Amps. Rated full load: 135 RPM @ 12 Vdc, 0.45 Amps. Torque 19.28 oz-in, 1.21 lb-in. 0.187" diameter x 0.75" long flat-topped shaft. Overall dimensions: 1.36" diameter x 2.41" long (excl. shaft). Three 4-40 threaded mounting holes on motor face.

CAT # DCM-153 \$17.50 each

24VDC, 50 RPM

Barber-Colman #EYQF-63604-750 Rugged gearhead motor designed for continuous use. No load ratings: 50 RPM @ 24 VDC @ 50 mA. Manufacturer specs: 41.7/ 38.8 RPM with 80.5 oz-in load. 0.185" dia. x 0.75" long flat-topped shaft. Overall dimensions: 1.36" diameter x 2.92" long (not incl. shaft). Three 4-40 threaded mounting holes in face of motor.

CAT # DCM-150 \$17.50 each

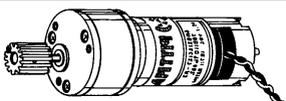


24 VDC, 140 RPM

Barber-Colman #EYQF-63604-740 Rugged gearhead motor designed for continuous use. No load ratings: 140 RPM @ 24 Vdc @ 50 mA. Manufacturer specs w/ 21 oz-in load: 129.5/ 85. 0.185" dia. x 0.75" long flat-topped shaft. Overall dimensions: 1.36" dia. x 2.72" long (not incl. shaft). Three 4-40 threaded mounting holes in face of motor. **CAT # DCM-151** \$17.50 each



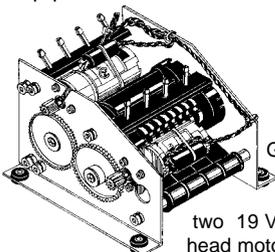
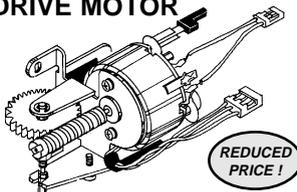
40 RPM GEARHEAD MOTOR



Pittman # GM8212C127-R2. Small, powerful gearhead motor. 187:1 ratio. No load specs: 40 RPM @ 19.1 Vdc, 130 mA. 24 RPM @ 12 Vdc, 160 mA. Overall dimensions 3" long X 1.37" diameter. 0.185" (3/16") diameter X 0.75" long shaft. A brass 0.56" diameter gear with 16 cogs is fastened to the shaft. 17" leads. **CAT# DCM-135** \$15.00 each 10 for \$125.00

WORM GEAR DRIVE MOTOR

12 Vdc motor with a nylon worm gear/cog gear combination drives a threaded metal shaft. A small metal bracket moves along the metal shaft and was used for adjusting a laser head assembly in a video disc player. Threaded shaft moves at 130 RPM @ 12 Vdc, 17 mA (no load rating). Motor is 1.25" diameter x 0.85" long. Assembly overall dimensions: 2" x 1.6" x 1.57". Removed from working equipment. **CAT # DCM-114** \$ 4.00 each



MECHANICAL ASSEMBLY WITH 2 GEARHEAD

New "ink pump" assembly. Great source of mechanical and electro-mechanical components. Contains

two 19 Vdc, 40 RPM Pittman gearhead motors (see our CAT # DCM-

135), two 2.5" dia., 80 cog nylon gears, a composite plastic cam and spring-loaded lever assembly and other unknown components mounted on a metal frame. Overall size, 7.75" x 6.62" x 4.95" high.

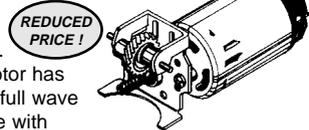
CAT # TMA-1 \$35.00 each

12 - 120 VDC WORM GEAR DRIVE MOTOR

CCL Motor # DE-25L.

This very unusual motor has been prepped with a full wave bridge rectifier for use with 120 Vac. If you bypass the bridge rectifier it works very nicely on any DC power from 12 volts on up. The final drive is a 0.8" long worm gear that turns a 0.8" dia. plastic gear at 120 RPM @ 12 Vdc (no load). Replaceable brushes. Motor body is 1.41" dia. x 2.75" long.

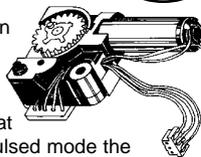
CAT # DCM-96 \$3.50 each • 10 for \$25.00



MINI-RIGHT ANGLE GEARHEAD MOTOR w/ CONTROL CIRCUIT

Omron # R2DG-41. These unusual little motors have built-in control circuits that allow them to be used in a continuous or a pulsed mode. In continuous mode the final drive gear turns at 22-45 RPM (3-6 Vdc). In the pulsed mode the final drive gear turns one revolution each time the controller is momentarily pulsed. The motor assembly is 1.75" x 1.25" x 0.5" overall. The nylon final gear is 0.62 diameter and has a little nipple slightly off-center to which a small push-rod could be attached. Motors are in good condition, removed from equipment.

Hook-up instructions included. **CAT# DCM-110** \$6.00 each • 10 for \$50.00 • 100 for \$450.00

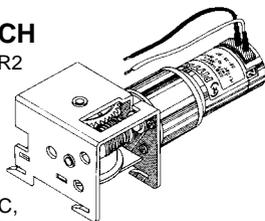


MOTOR AND WINCH

Pittman # GM8712G595-R2

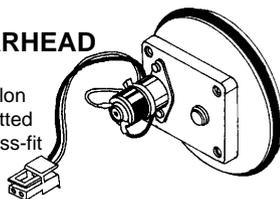
10:1 gearhead motor attached via worm drive to winch assembly. Motor rated 19.1 Vdc. Operates 12-24 Vdc.

No load ratings @ 12 VDC, 190 MA: Motor speed, 450 RPM. Winch speed, 30 RPM. Winch pulley diameter, 1.5" Will lift 2.5 - 12 lbs depending on voltage. Overall dimensions: 4.95" x 2.5" x 1.95". 4" wire leads. There are 4 side mounting hooks on the winch. Removed from equipment. **CAT # DCM-112** \$ 17.00 each



48 RPM DC GEARHEAD

Mabuchi # RS-380SH motor attached to a Molon gear-box. 5/16" dia. flatted shaft is 0.35" long. Press-fit onto the shaft is a 4.6" dia. x 0.34" thick reinforced plastic disc with an outer rubber ring. The motor works well between 12 and 24 Vdc. with optimum being closer to 24 Vdc. No load rating: 48 RPM @ 24 Vdc @ 53 mA. Motor is 1.1" diameter x 1.5" long. Gearbox is 2.75" x 3" x 0.53". 10-32 threaded mounting holes on 2.5" x 2.35" centers. 7" long wire leads. **CAT# DCM-118** \$12.75 each

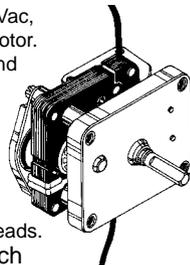


AC GEAR MOTORS

120 VAC, 1 RPM GEARHEAD MOTOR

Dayton # 3M095. 1 RPM, 120 Vac, 60 Hz shaded pole gearhead motor. Designed for continuous duty and impedance protected against stall conditions. 2.75" x 3" x 0.56" zinc diecast gear housing. Flatted 5/16" dia. x 0.8" long shaft. Four 10-32 mounting holes. Overall depth, excluding shaft is 2". 4" pigtail leads.

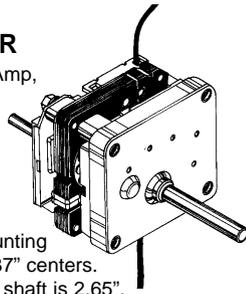
CAT # ACM-5 \$ 15.00 each



120 VAC, 1.2 RPM GEARHEAD MOTOR

OEM Inc. 115 volt, 0.382 Amp, 60 Hz. gearhead motor. Quiet running shaded pole motor with a 3" square x 0.55" thick metal enclosed gearbox.

3/8" dia. x 1.75" long shaft. Gearbox has threaded mounting holes in each corner on 2.37" centers. Assembly depth, excluding shaft is 2.65". 4" pigtail leads. **CAT # ACM-6** \$ 12.50 each

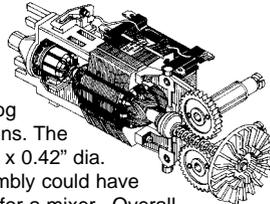


220 VAC MOTOR WITH EGGBEATER GEARS

Johnson # UF-4430-230 240 Vac, 50 Hz open frame motor drives a metal worm gear that turns two 1" dia plastic cog gears in opposite directions. The cog gears have 1.4" long x 0.42" dia. hollow shafts. The assembly could have originally been designed for a mixer. Overall size: 5.5" x 2.83" x 2.3". Motor will operate on 120 Vac with reduced speed and torque.

CAT # ACM-107 \$2.50 each

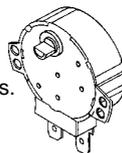
REDUCED PRICE!



4.8 RPM, 120 VAC MOTOR

Timetech # S430.1 120 Vac, 3.5 w timing-style motor. 2" dia. X 0.79" thick. Mounting ears on two sides. Flatted 0.27" dia. shaft is 0.33" long. QC or solder terminals.

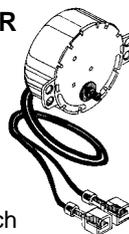
CAT# ACM-104 \$2.50 each



30 RPM, 120 VAC MOTOR

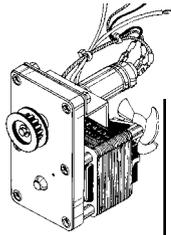
HTI # 111-0057 120 Vac, 3 Watt timing-style motor. 1.95" diameter x 0.81" thick. 12" long wire leads. Mounting ears on two sides. 0.16" square shaft is 0.27" long. UL recognized.

CAT # ACM-105 \$2.50 each



120 VAC, 42 RPM MOTOR

ECM Motor Co. 42 RPM capacitor run, subfractional 120 Vac gearmotor. New motor, prepped with capacitor, nylon fan and 18 cog nylon pulley (fits XL belts 1/5" pitch x 3/8" wide). 0.25" dia. 1" long shaft. Motor overall size excluding shaft is 4.06" x 2.2" x 3.7" deep. **CAT # ACM-8 \$15.00**



120 VAC, 42 RPM MOTOR

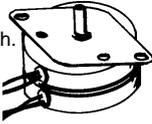
Same motor as above, not prepped. Requires 7uf capacitor. **CAT # ACM-7 \$9.00 ea.**

STEPPER MOTORS

AIRPAX STEPPER MOTORS

Unipolar, two phase stepper motors with 6 leads. 2.25" diameter x 1" high.

Two hole mounting flange, 2.75" centers. 0.25" diameter shaft is 0.6" long. Two types available:



Airpax # C82711-M1

17 Vdc, 23.25 ohm coil. 7.5 deg. per step.

CAT # SMT-6 \$ 2.00 each

Airpax # A83713

24 Vdc, 60.5 ohm coil. 15 deg. per step.

CAT # SMT-10 \$ 2.00 each

Mitsumi # M42SP-7

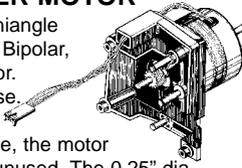
1.65" diameter x 0.62" thick stepper motor. 48 steps per revolution. 35 ohms per coil. Five 3" wire leads. 0.125" dia. x 0.4" shaft with press-fit 0.32" diameter (12 cog) gear. Removed from new equipment.



CAT # SMT-32 \$ 2.00 each

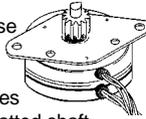
PRECISION STEPPER MOTOR

Minebea Co., "Astrosyn" Miniangle Stepper IBM P/N 1039265. Bipolar, 150 step per revolution motor. 1.9 volt, 0.75 amps per phase. Mounted on a hard plastic bracket and easily removable, the motor appears to be prepped but unused. The 0.25" dia. shaft is 1.125" long and has a brass gear press-fit on about mid way. The shaft also extends 0.375" from the rear of the motor. Motor body is 2.21" dia. x 1.55". Mounting bracket is 2.25" square. Four 7" leads. **CAT # SMT-35 \$ 5.50 each • 10 for \$ 45.00**



AIRPAX STEPPER MOTOR

Airpax # LB82715-M1. Unipolar, 2 phase stepper motor with 6 leads. 12 VDC, 32 ohm coil. 7.5 degrees per step. 2.25" dia. x 1". Mounting flange with holes on 2.6" centers. 0.25" dia. x 0.6" long flattened shaft. Nylon, 14 cog gear press-fit on shaft.



CAT # SMT-36 \$3.00 each

PRECISION STEPPER MOTOR

Shinano Kenshi Corp # STH-56D101 200 step, 1.8 degree/step, bipolar stepper motor. 2.21" (56mm) dia. x 1.55". 2.23" square mounting plate has one corner cut off. Four 11" leads. **CAT# SMT-31 \$10.00 each**



Minebea "Astrosyn" # 17PY-Q202-03

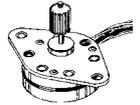
1.66" square X 0.92" high. 0.2" (5mm) dia. 0.4" long shaft. Precision motor with bearings. Four 2" wire leads with four pin connector.



CAT # SMT-14 \$2.00 each

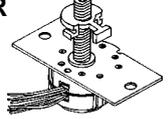
Airpax # LB82246

Unipolar, two-phase, 6 lead stepper motor. 500 ohm coil. 7.5 degrees per step. 1.4" diameter x 0.7" body. Oval mounting flange has holes on 1.65" centers. 0.08" (2mm) dia. shaft is 0.4" long and is fitted with a 0.31" diameter gear with 18 teeth. 15" leads. **CAT # SMT-28 \$ 2.00 each**



SMALL STEPPER MOTOR

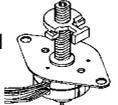
Unipolar, two phase, 6 lead stepper motor. 53 ohm coil. Operates well on 12 Vdc. 15 degree per step. Motor body is 1" diameter X 0.5" 0.08" (2mm) diameter shaft is 0.365" long. The shafts are covered with a threaded plastic shaft (0.25" dia X 0.75" long) which acts as a worm gear. On the shaft is a plastic ring which moves up and down the shaft as the motor turns. This mechanism could be quite useful as a positioner. If not required, it is easily removed. Rectangular mounting bracket, 1.73" X 1.10".



CAT# SMT-21 \$1.50 each • 10 for \$12.50

Oval mounting bracket, 1.92" x 1.37".

The plastic shaft has slightly finer thread than the one above. **CAT # SMT-22 \$1.50 each 10 for \$12.50**



MINIATURE STEPPER MOTOR

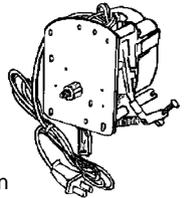
Seiko The smallest stepper motor we've seen. 10 mm diameter x 10 mm high. (0.4" x 0.4") 20 steps per revolution. Bi-polar 8 ohm coils. Shaft diameter 1.5 mm x 3.8 mm long. Connection via a 4 conductor, 2" long flat ribbon cable.



CAT # SMT-30 \$1.25 each

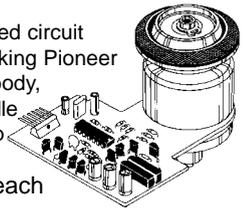
CLOCK MOTOR W/ PENDULUM

Spartus Corp. Model 58 120 Vac, 60 Hz clock mechanism with short pendulum arm and a chime striker which activates every half hour. Also includes 6' AC power cord. Make your own clock. Hands are readily available at hobby shops. **CAT# MOT-58 \$3.25 each**



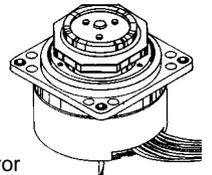
SPINDLE MOTOR AND CIRCUITRY

Pioneer # VXM-075 Spindle motor with attached circuit card. Removed from working Pioneer laser disc player. Motor body, 2.3" dia. x 2.2" high. Spindle dia., 2.6" dia. No hook-up information available. **CAT # MOT-11 \$2.00 each**



MOTOR WITH OCTAGONAL MIRROR

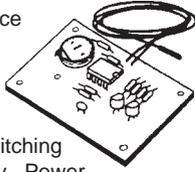
Copal Electronics # PD60FRB Probably made for a laser scanner, this motor turns a 2.3" dia. metal octagon with 0.18" wide sides, polished to a mirror finish. A laser beam reflected off of the rotating mirror becomes a straight line. A permanent magnet, multi-phase motor of some kind, the motor has eight color-coded leads and a ground lead. We supply a schematic that explains how to drive it with 6-12 Vdc. The circuit requires 3 NPN and 3 PNP Darlington TO-220 transistors and 3 resistors. Motor is 3.58" dia. X 1.35". 2.82" square mounting flange. **CAT # DCM-98 \$8.00 each**



TEMPERATURE GENIE

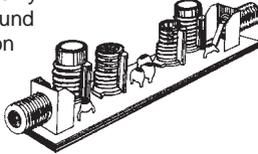
Electronic thermostat can activate an alarm or other device when temperature reaches a particular level. For temperatures from -30 to +250 degrees F. Will operate devices up to 100 mA. For switching larger loads add a triac or relay. Power requirement, 6 to 15 Vdc. Power supply or batteries not included. 2" x 1.4".

CAT# RK-15 \$7.95 each

**TV NOTCH FILTER**

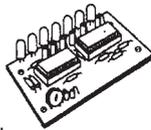
For Channels 2 thru 22 only. Eliminates unwanted sound and video interference on certain cable channels. Works only on channels which have a beeping signal.

CAT# RK-13 \$14.95 each

**DC VOLTAGE MONITOR**

Uses 7 leds to monitor 12 volts DC in 1v, 1/2v or 1/4v steps. Monitor 8 or 5 volts in 1/4v steps. Great for boats, motor homes, model planes and cars. 1.3" x 2.7".

CAT# RK-24 \$7.95 each

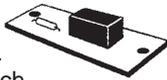
**TRIAC AND RELAY POWER KITS**

If you wish to switch loads above 100 mA with the Light Genie, Temperature Genie or Voice Activated Switch, those kits must be augmented with a relay or triac. The Relay and Triac Power Kits enable switching of up to 4 Amps.

Relay Power Kit

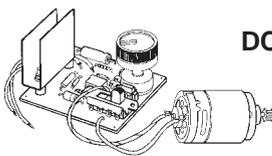
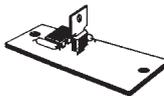
Increase output to 3 Amps.

CAT# RK-19 \$9.95 each

**Triac Power Kit**

Increases kit output to 4 Amps.

CAT# RK-20 \$9.95 each

**DC MOTOR SPEED CONTROL KIT**

Easy to build kit allows you to control the speed and direction

of 6-12 vdc electric motors or control the intensity of 6-12v incandescent lamps. Includes pc board, parts, instructions and dc motor.

CAT# MSC-6 \$15.00 each

I.R. RECEIVER MODULE (with timer)

When a signal is received from an infrared transmitter, this module will turn on a device (3-6 Vdc @ 0.5 amps) for 10 to 30 seconds. Can be activated with I.R. remote control from TV or VCR or make your own transmitter (see EM-111) below. Use with sound modules, toys and models. Requires 2 AA batteries. **CAT# EM-108** \$6.00 each

I.R. TRANSMITTER MODULE

Build this transmitter to use with the IR receiver module EM-108 above. Requires 2 AA batteries.

CAT# EM-111 \$3.50 each

TRAIN SOUNDS KIT

Produces 4 kinds of train sounds: approaching and departing station, diesel and steam train. With a size of only 0.78" X 0.78" X 2", it can be installed in various model trains. Includes speaker and battery holder. Requires 2 AA batteries

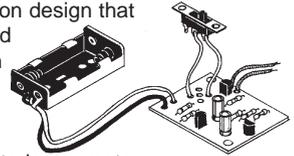
CAT# EM-105 \$6.95 each

MOTOR SPEED CONTROL MODULE

For 3-6 Vdc motors @ 0.5 amps. Features a pulse width modulation design that can vary motor speed from 5% to 95% with little loss of power. Use with any 3-6 Vdc power source.

Does not include batteries or motor.

CAT# EM-114 \$3.50 each

**"BIG EAR" KIT**

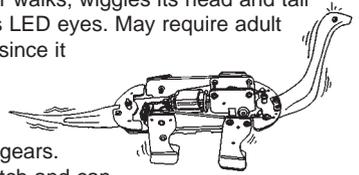
Listen to distant sounds with this electronic aid. A parabolic reflector or a tube is used to direct sounds into a sensitive microphone. The signals are then amplified enough to drive a speaker or earphone. Requires a 9 volt battery (not included). The paper parabolic reflector or paper tube is not included. **CAT# SK-252** \$9.50 each

SOLDERLESS KITS FOR KIDS...**WALKING DINOSAUR KIT**

This dinosaur walks, wiggles its head and tail and blinks its LED eyes. May require adult supervision, since it has a lot of parts including a motor and gears.

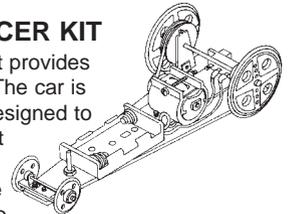
It's fun to watch and can

be painted to suit your taste. Operates on 2 AA cells (not included). **CAT # MK-103** \$9.95 each

**BIG WHEEL RACER KIT**

Easy to build racer kit provides hours of enjoyment. The car is over 6" long and is designed to be assembled without soldering. The front and rear wheels have rubber tires. It can go straight or in circles. The small DC motor is powered by two AA batteries (not included).

CAT # MK-102 \$6.95 each



Excellent educational toys, the following radio kits make great gifts for children ages 8 and older. Built on plastic breadboards, they don't require soldering and are fun to listen to.

CRYSTAL RADIO KIT

How long has it been since you've seen a crystal radio?

Amaze your children and yourself with this easy to build kit, the first form of modern radio.

CAT# SK-103

\$5.95 each

