



1999 FIRST Robotics Competition
Kit of Parts Album
Green Container Parts

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Green Container

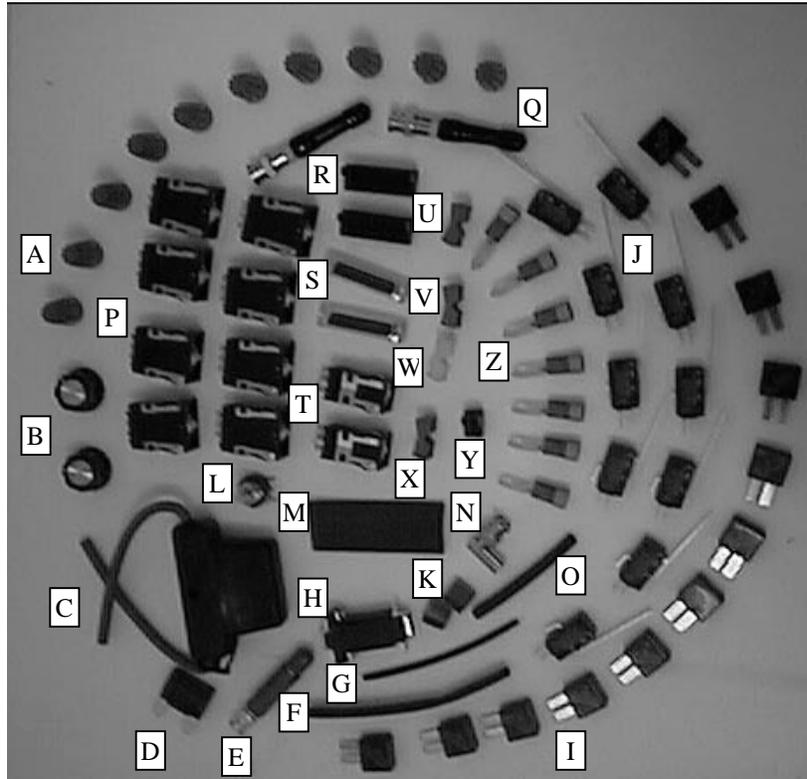
The parts pictured on the following pages are included in the green container. Each bag or group of parts is pictured, followed by an overview of the bag's contents and labeled pictures to assist in the identification of the individual parts.

Electronics Bag



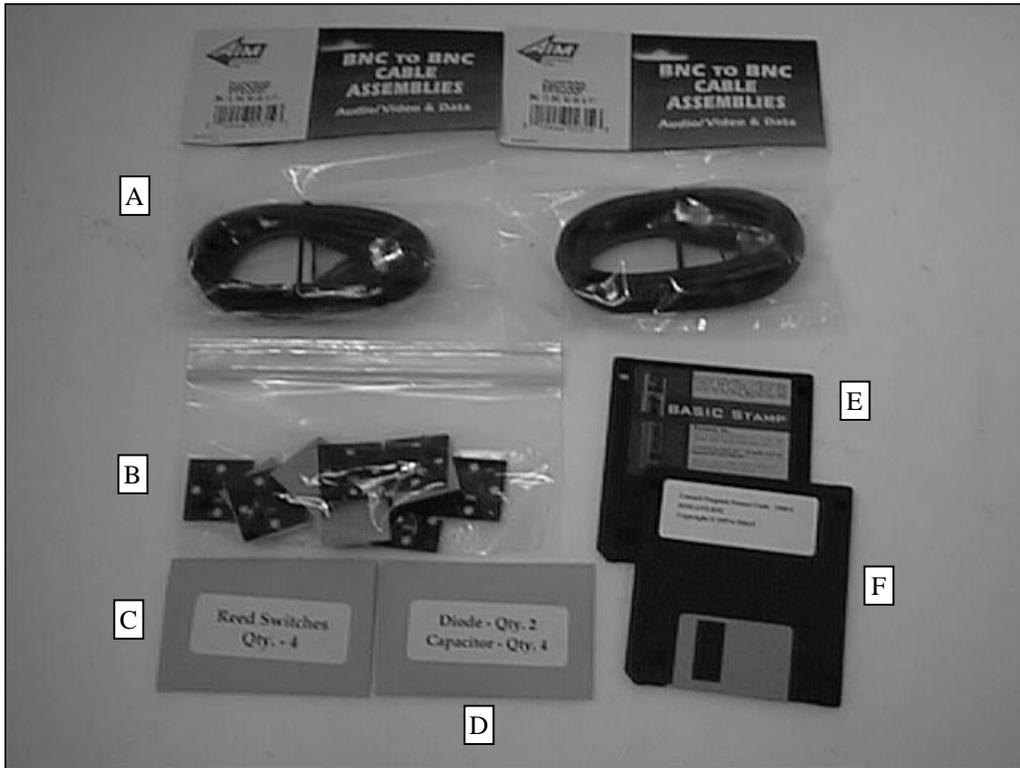
Picture 1 Electronics Bag

The contents of the Electronics Bag are shown in the next 5 pictures.



Picture 2: Partial Contents of the Electronics Bag

Contents: **A)** Wire Nut, Red (10), **B)** Knob for Potentiometer, **C)** Battery Fuse Holder (1), **D)** Battery Fuse (1), **E)** Attenuator (1), **F)** Heat Shrink Tubing, 3/8 x 5" (1), **G)** Heat Shrink Tubing, 1/8 x 4" (1), **H)** Tether Adapter (1), **I)** Circuit Breaker for Motors (12), **J)** Limit Switch (10), **K)** Pushbutton Switch Cover (2), **L)** Potentiometer (6), **M)** Heat Shrink Tubing, 3/4 x 3" (1), **N)** BNC Right Angle Connector (1), **O)** Heat Shrink Tubing, 1/4 x 4" (1), **P)** Momentary Rocker Switch (8), **Q)** Antenna (2), **R)** 8 Pin Relay Output Connector (2), **S)** 25 Pin Male D-Sub Solder Cup Connector (2), **T)** Latching Pushbutton Switch (2), **U)** Rocker Switch Cover, Red (1), **V)** Rocker Switch Cover, Blue (1), **W)** Rocker Switch Cover, Yellow (1), **X)** Rocker Switch Cover, Green (1), **Y)** 2 Pin Logic Power Connector (1), **Z)** Ring Connector, Blue (7)



Picture 3 Partial Contents of the Electronics Bag

Contents: **A)** BNC Coax Cable (2), **B)** Cable Tie Mounting Base (10), **C)** Reed Switches (4), **D)** Diode (2) & Capacitor (4), **E)** BASIC Stamp Programming Disk (1), **F)** Control Program Source Code (1)



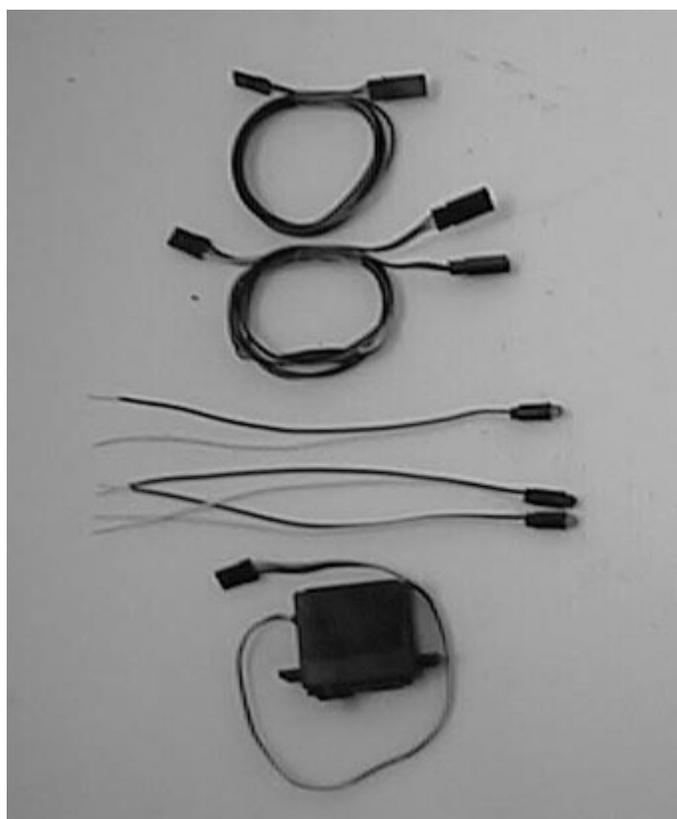
Picture 4: Partial Contents of the Electronics Bag

Contents: **A)** Potentiometer (6), **B)** Rocker Switch Cover, Split Red/Green (4), **C)** Thermo-Plastic Shield for 25 Pin Connector (1), **D)** Spade Connectors (all)



Picture 5: Partial Contents of the Electronics Bag

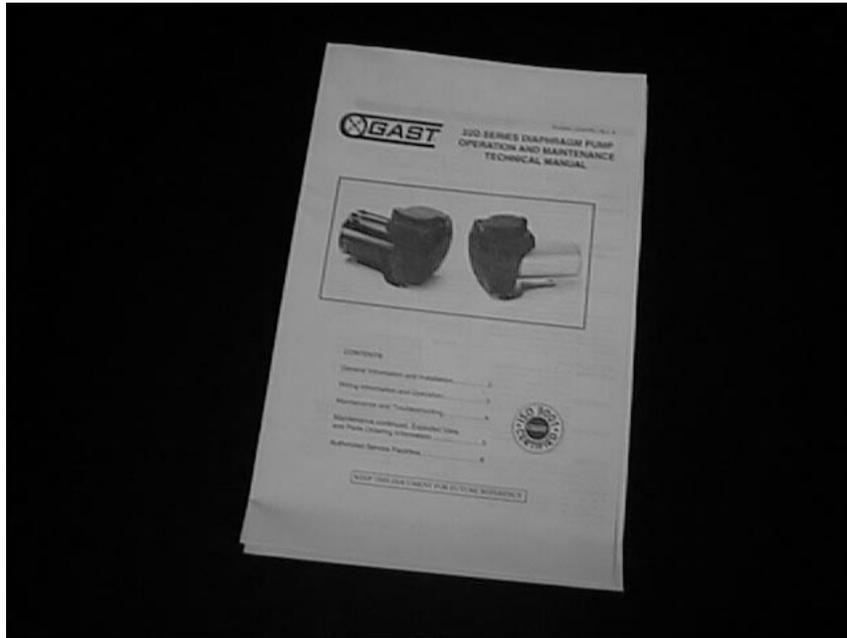
Contents (Left to right): Terminal Strip (1), BNC Bulkhead Connector (1), Servo hardware (not listed)



Picture 6: Partial Contents of the Electronics Bag

Content (Top to bottom): Servo Extension Cable (4), Servo Y Cable (2), LED, Panel Mount, Green 12V (4), LED, Panel Mount, Red 12V (4), LED, Panel Mount, Amber 5V (1), Servo (2)

Loose Items



Picture 7: Operation and Maintenance Manual for Pump



Picture 8: BASIC Stamp Programming Manuals

One of the two manuals shown above is included in each Kit of Parts.



Picture 9: 25 Pin Cable(1)



Picture 10: 9 Pin Cable(3)



Picture 11: Air Pump - Gast



Picture 12: Battery, Sealed Lead Acid (2)



Picture 13 (Left to Right): Associated Battery Charger, Xenotronix Battery Charger

Only one of the two chargers pictured is included in each Kit Of Parts.



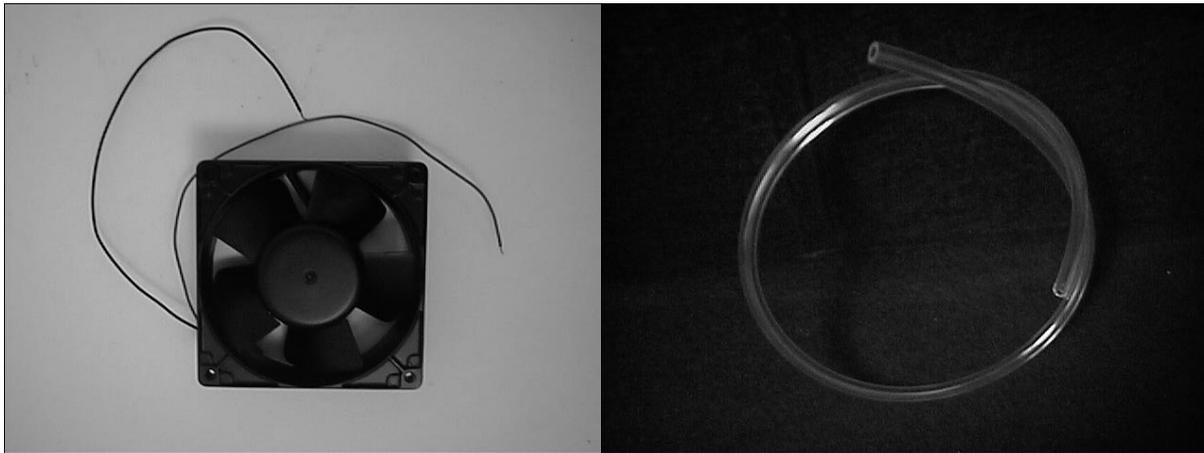
Picture 14 (Left to right): Castors, swivel (2) and Crimping Tool for Spade Connectors (1)



Picture 15: Drill Housing



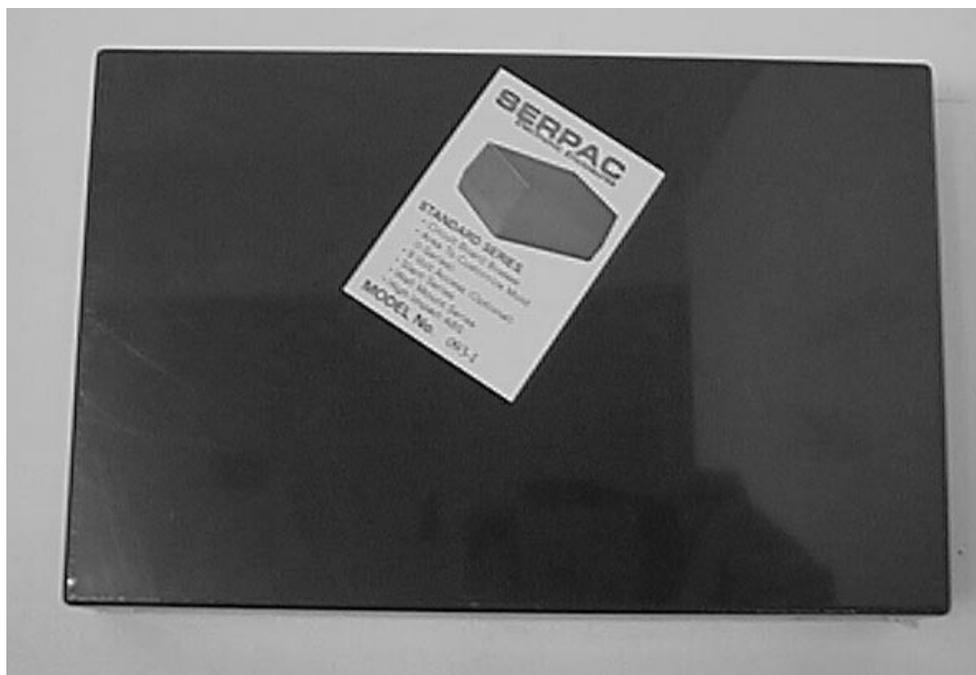
Picture 16: Flightstick Joystick (2)



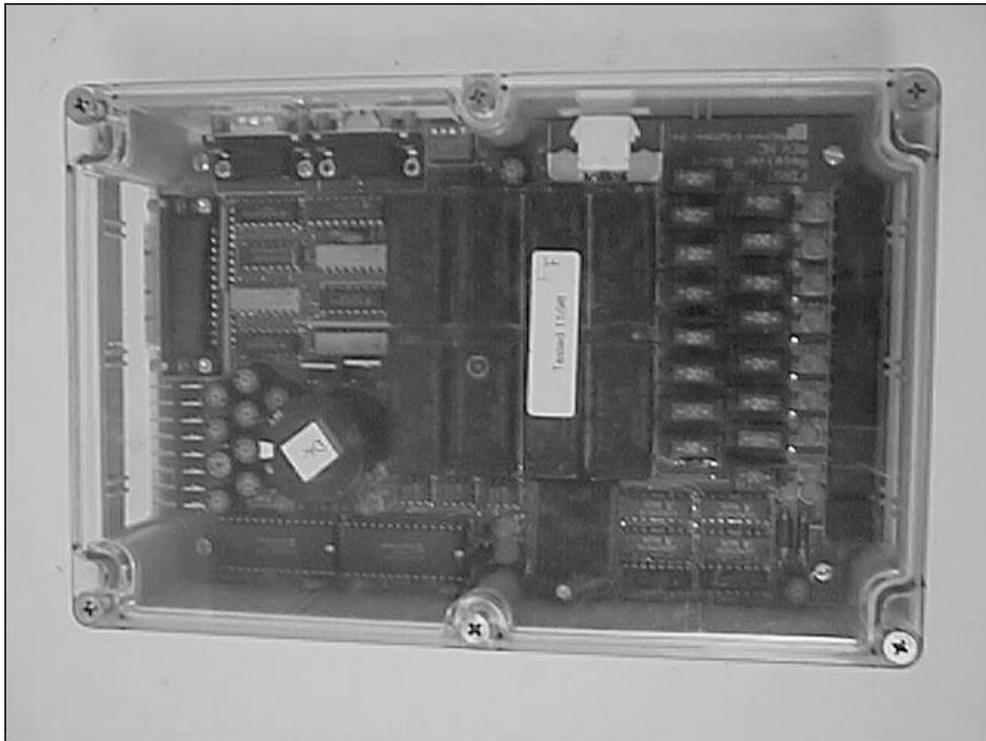
Picture 17 (Left to right): Muffin fan (1) and Numatrol Tubing (1)



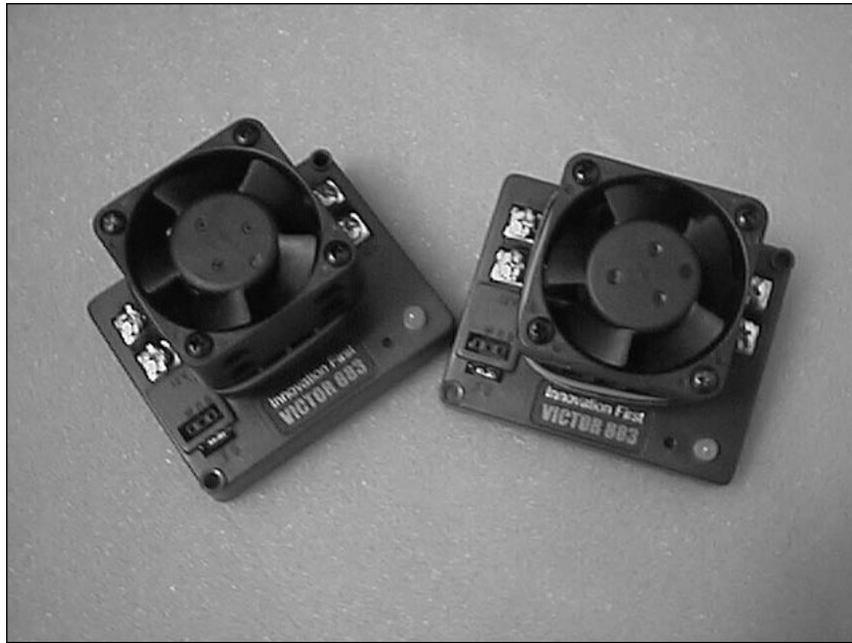
Picture 18: Power Supply (1)



Picture 19: Project Box (1)



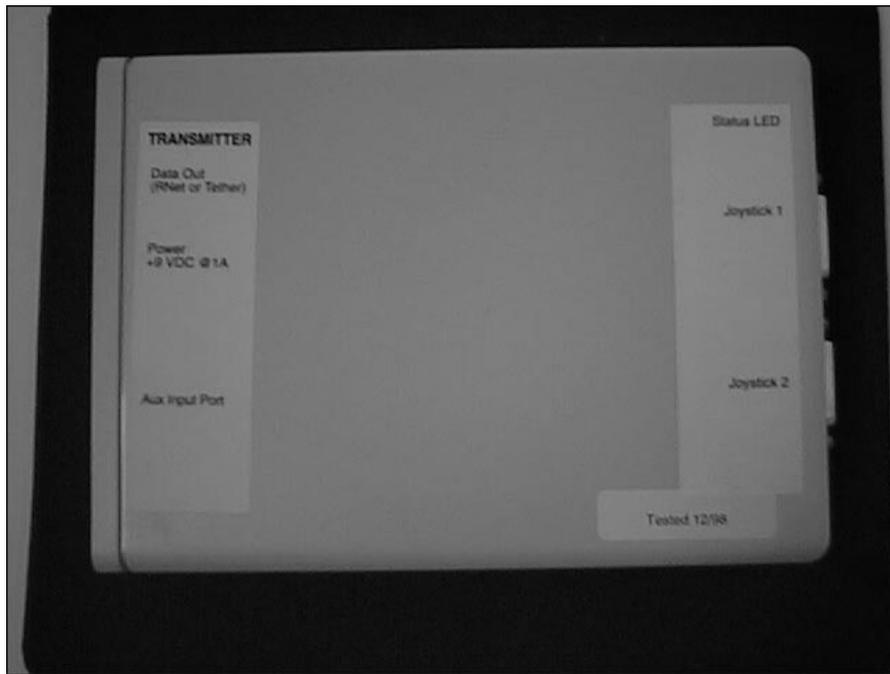
Picture 20: Receiver Box (1)



Picture 21: Innovation FIRST Speed Controller (2)



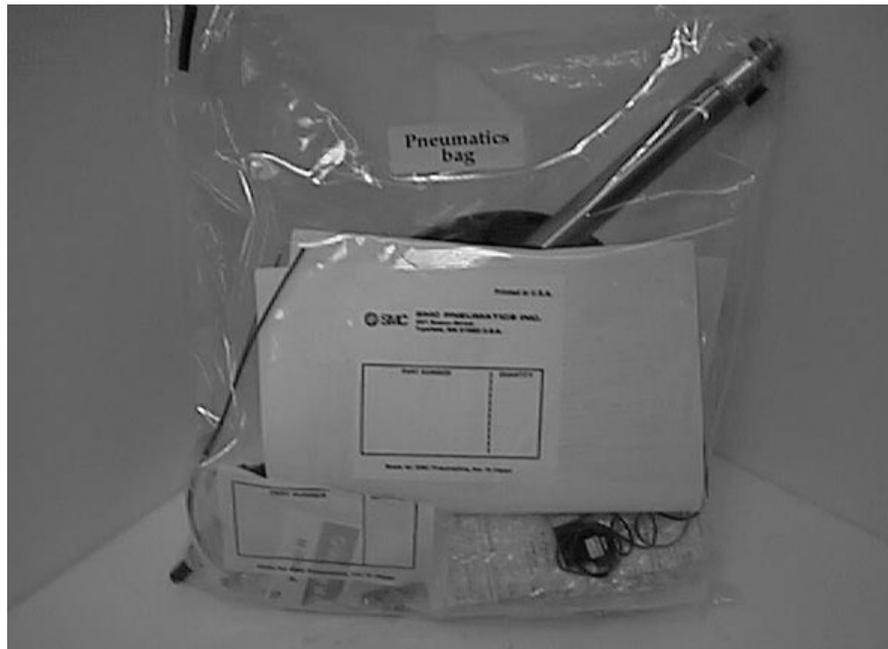
Picture 22: Tekin Electronics, Inc. Speed Controller (2)



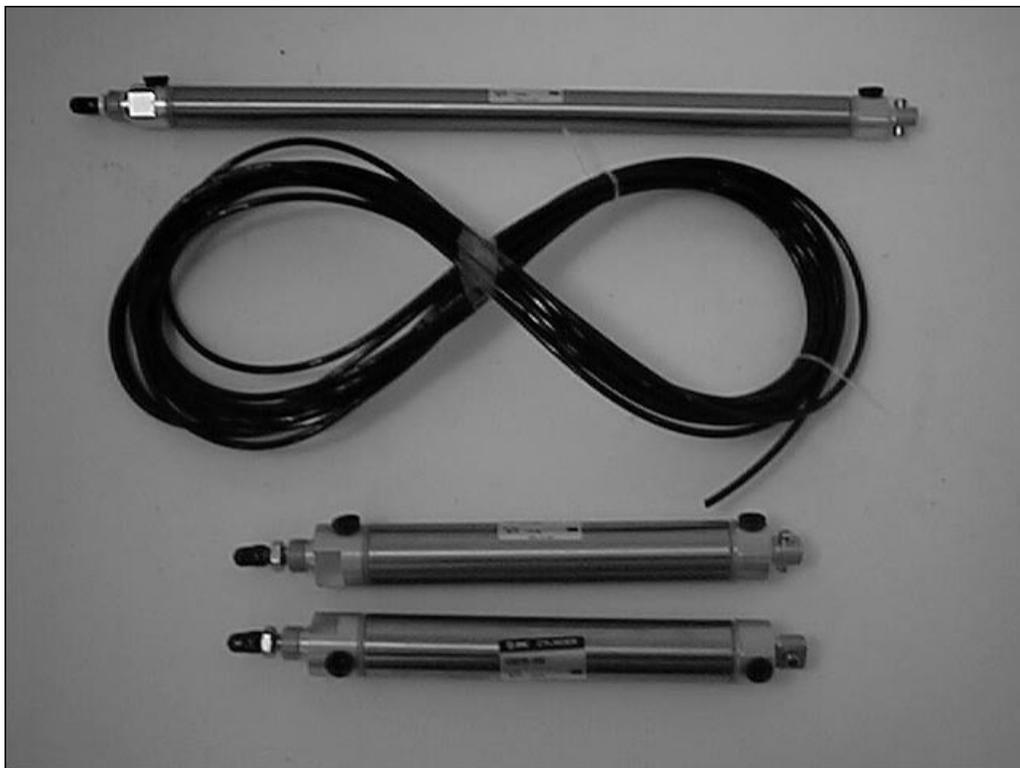
Picture 23: Transmitter (1)



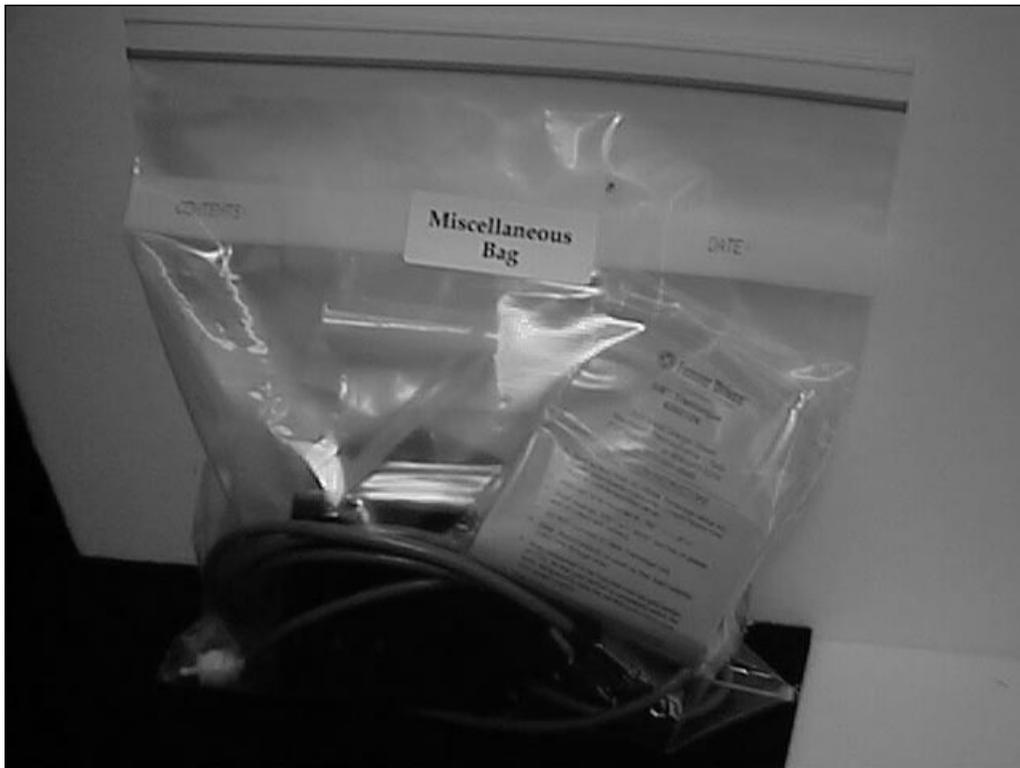
Picture 24: Volume Chamber (1)

Pneumatics Bag**Picture 25: Pneumatics Bag**

The contents of the Pneumatics Bag are shown in the following two pictures.



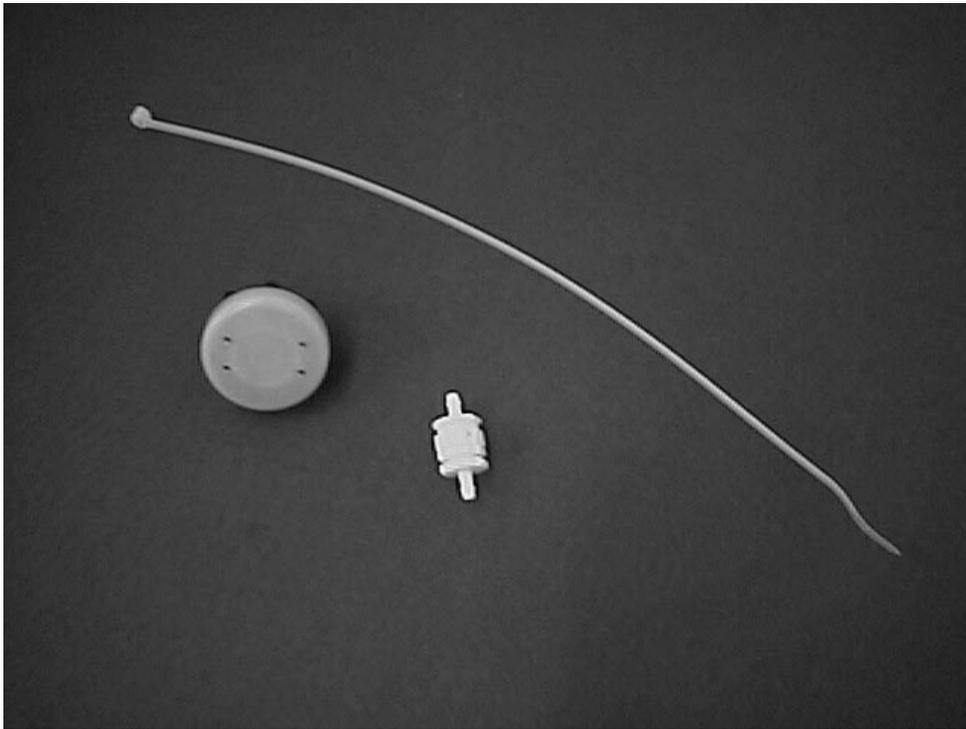
Picture 26 (Top to bottom): Air Cylinder, 12" stroke w/ clevis & nose (1), Polyurathane Tubing, 4mm OD, Black, 10m bundle (1), Air Cylinder, 5" stroke w/ clevis & nose (2)

Miscellaneous Bag**Picture 29: Miscellaneous Bag**

The contents of the Miscellaneous Bag are shown in the following two pictures.

**Picture 30: Partial Contents of the Miscellaneous Bag**

Contents (Clockwise from top): Fuse Panel (2), 9-15 pin cable (2), Optical Sensor (2), Check Valve (2), Drill Motor Mounting Flange Fastening Screw (4), Trantorque Coupling (2)



Picture 31: Partial Contents of the Miscellaneous Bag

Contents (Top to bottom): Cable Tie (10), Air Filter for Pneumatic Pump (1), Kent™ Connect Fitting (2)

Drill Bag



Picture 32: Drill Bag



Picture 33 (Clockwise from top): Drill Drive Assembly (2), Drill Housing Cover (2), Drill Housing Screws (10), and Drill Motor (2)