

INSTRUCTIONS AND PARTS MANUAL

CON-O

Please record your equipment identification information below for future reference. This information can be found on your machine nameplate.

Model Number: _____

Serial Number: _____

Date of Purchase: _____

Whenever you request replacement parts or information on this equipment, always supply the information you have recorded above.

LIT-CONO-IPM-0319

Bug-O Systems is committed to empowering our customers by providing operator controlled mechanized solutions for their welding, cutting and custom applications.



BUG-O SYSTEMS
A DIVISION OF WELD TOOLING CORPORATION

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SAFETY

PROTECT YOURSELF AND OTHERS FROM SERIOUS INJURY OR DEATH. KEEP CHILDREN AWAY. BE SURE THAT ALL INSTALLATION, OPERATION, MAINTENANCE AND REPAIR PROCEDURES ARE PERFORMED ONLY BY QUALIFIED INDIVIDUALS.



ELECTRIC SHOCK can kill.

1. The equipment is not waterproof. Using the unit in a wet environment may result in serious injury. Do not touch the equipment when wet or standing in a wet location.
2. Never open the equipment without first unplugging the power cord or serious injury may result.
3. Verify the customer-supplied power connections are made in accordance with all applicable local and national electrical safety codes. If none exist, use International Electric Code (IEC) 950.
4. Never remove or bypass the equipment power cord ground. Verify the equipment is grounded accordance with all applicable local and national electrical safety codes. If none exist, use International Electrical Code (IEC) 950.



READ INSTRUCTIONS

Read the instruction manual before installing and using the equipment.



EQUIPMENT DAMAGE POSSIBLE.

1. Do not plug in the power cord without first verifying the equipment is OFF and the cord input voltage is the same as required by the machine or serious damage may result.
2. Do not leave the equipment unattended. Remove from the worksite and store in a safe location when not in use.



FALLING EQUIPMENT can cause serious personal injury and equipment damage.

Faulty or careless user installation is possible. As a result, never stand or walk underneath equipment.



MOVING PARTS can cause serious injury.

1. Never try to stop the pinion from moving except by removing power or by using the STOP control.
2. Do not remove any protective panels, covers or guards and operate equipment.

CAUTION

DO NOT LEAVE EQUIPMENT UNATTENDED WHEN NOT IN USE!

Remove from work site and store in a safe location.

CON-O

INSTRUCTION AND PARTS MANUAL

TABLE OF CONTENTS

PAGE

4.....	TECHNICAL DATA
4.....	CON-O CAPACITIES AND SPEED RANGES
5-8	OPERATING INSTRUCTIONS
9.....	BUG-5100-F DC III DRIVE UNIT
10.....	EXPLODED VIEW / CON-O
11.....	PARTS LIST / CON-O
12.....	EXPLODED VIEW / BUG-5100-F DC III DRIVE UNIT
13.....	PARTS LIST / BUG-5100-F DC III DRIVE UNIT
14.....	WIRING DIAGRAM / ELECTRICAL COMPONENT CHART
15.....	VACUUM SUPPORT KIT
16.....	EXPLODED VIEW / VACUUM PUMP
17.....	PARTS LIST / VACUUM PUMP
18.....	TROUBLESHOOTING GUIDE
19	WARRANTY

**THIS PRODUCT IS COVERED BY ONE OR
MORE PATENTS WORLD WIDE.**

TECHNICAL DATA

CON-0 PRECISION CONTOUR-SADDLE CUTTER

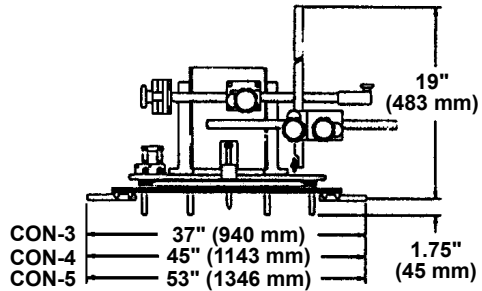
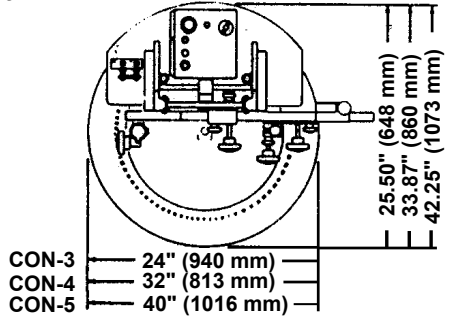
Part Number: Power Requirement:

CON-3303 120 VAC/50-60/1
 CON-3323 240 VAC/50-60/1
 CON-3313 42 VAC/50-60/1

CON-4404 120 VAC/50-60/1
 CON-4424 240 VAC/50-60/1
 CON-4414 42 VAC/50-60/1

CON-5505 120 VAC/50-60/1
 CON-5525 240 VAC/50-60/1
 CON-5515 42 VAC/50-60/1

Dimensions



Net Weight:

CON-3303, 3323, 3313 65 lbs. (29.5 kg)
 CON-4404, 4424, 4414 80 lbs. (36.3 kg)
 CON-5505, 5525, 5515 105 lbs. (47.7 kg)

CAPACITIES AND SPEED RANGES				
	DIAMETER		DIAMETER	
	INCH	IPM	MM	MM/MIN
CON-3303	3	.4-8	75	10-210
	6	.8-16	150	20-420
	10	1.4-28	250	35-700
	14	2-39	350	50-1000
CON-4404	10	.9-18	250	23-460
	14	1.3-26	350	32-650
	18	1.7-33	450	42-840
	22	2-40	550	50-1000
CON-5505	18	1.3-25	450	32-640
	22	1.5-30	550	38-760
	26	1.8-37	650	45-900
	30	2-41	750	52-1050

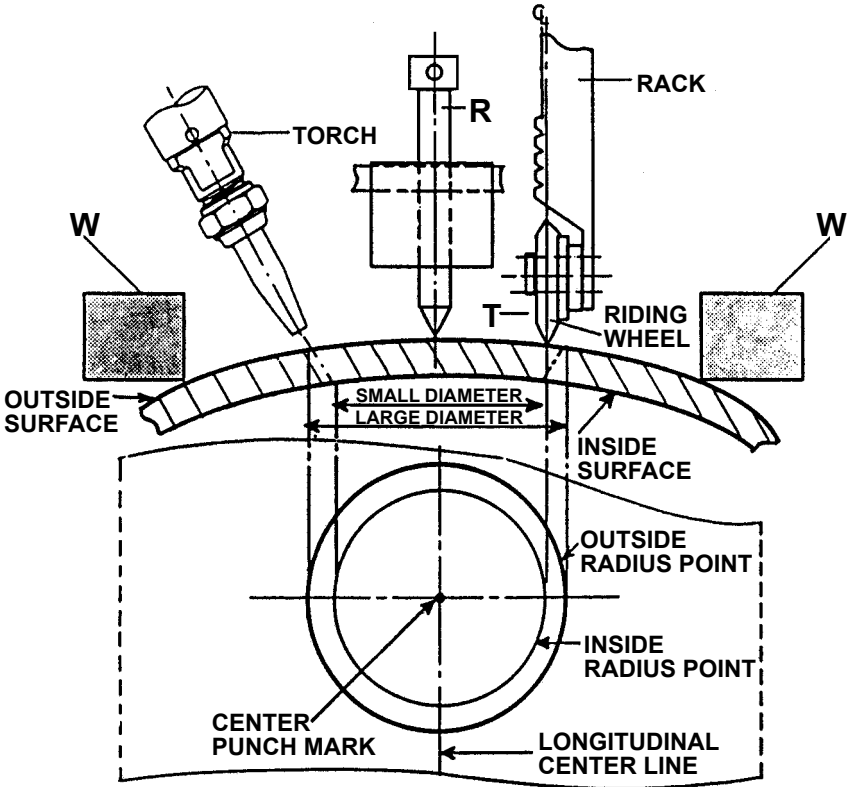
IMPORTANT NOTICE

SADDLE CUT DIAMETERS SHOULD NOT EXCEED 2/3 THE DIAMETER OF THE PIPE. 12" (304 mm) PIPE IS THE SMALLEST SIZE PRACTICAL, I.E. 8"(203 mm) HOLE MAXIMUM ON A 12" (304 mm) PIPE MAXIMUM DIAMETERS PRACTICAL WILL BE REDUCED WHEN BEVEL CUTS ARE MADE. CHART SHOWS DIAMETERS FOR STRAIGHT CUTS.

CON-O OPERATING INSTRUCTIONS CONT'D.

LAYOUT AND SETUP

The only layout necessary is a centerline longitudinally [parallel to the axis of the workpiece], a single **center**-punch mark, and a **second** punch mark [along the longitudinal centerline a distance from the center-punch mark equal to the radius [on the **outside** of the workpiece of the hole to be cut. If a bevel hole is to be cut, layout a **third** punch mark [along the longitudinal centerline] a distance from the center-punch mark equal to the radius [on the **inside** of the workpiece] of the bevel hole to be cut.



The illustration shows you that the **CON-O** machine should be placed on the work with the **Center Pin (R)** located in the center-punch mark and two sets of **Alignment Bars (W)** straddling, equidistant, the longitudinal center-line. The **Outrigger Support Kits (Q)** should be arranged with the **Magnet Foot Assemblies (O)** and **Legs (M)** approximately perpendicular to the work surface if possible. Clamp securely to level and stabilize the **CON-O**. The **Legs (U)** are also symmetrically located so they will align the machine on the layout line.

The **Four Straight Legs (U)** are symmetrically located so that they too may be used in aligning the machine. The type and size of work being done will determine which methods of attachment are most advantageous.

CON-O OPERATING INSTRUCTIONS CONT'D.

TORCH

The **Torchholder (V)** will accept any standard American machine torch [barrel diameter 1-3/8" (35 mm) with 1/4" (6 mm) square 32-pitch rack]. The 32-pitch pinion is standard. The **Twin Hose Assembly (BB)** connects the torch to the **Quick Acting Manifold Assembly (AA)**. The supply hoses are to be connected to the open side of the **Quick Acting Manifold Assembly**.

Proper torch operation is essential to quality cuts. We suggest that you follow the torch manufacturer's instructions carefully, being sure to use a clean tip of the proper size.

To reach maximum cutting diameter capacity with the **CON-O** machine, you can use an adjustable tip attachment which maintains the centerline of the offset tip in line with the torch body or you can use a bent or angled torch tip. The contouring capacity with this machine system, is limited to two-thirds of the diameter of the cylinder in which the cut is made; i.e. and 8" (200 mm) hole maximum in a 12" (300 mm) cylinder.

POWER SUPPLY

The DC III drive operates on 120 volt, [42 VAC], [240 VAC], 50/60 Hz. The **Circuit Breaker (DD)** protects the unit against overload or electrical faults. **CAUTION: IF THE CIRCUIT BREAKER OPENS, FIND AND CORRECT THE CAUSE OF FAILURE BEFORE RESETTING.**

DC DRIVE UNITS - SPEEDS

The standard speed for the DC drive is the speed at the pitch circle of the **Ring Gear (K)**, which is 18" (460 mm); 27" (685 mm) and 36" (915 mm) respectively for the **CON 3, 4 and 5**. The speed at the cutting circle is directly proportional to the diameter of the cut at given speed setting.

EXAMPLE: On a **CON-3303**, the pitch circle is 18" (460 mm). To find the speed range at 2" (200 mm), use the following ratio: [Speed range at 18" pitch circle is 2-50 ipm (50-1270 mm/min)].

IPM

$$\text{Minimum: } \frac{x}{8} = \frac{2}{18}; \quad 18 \times x = 16; \quad x = 0.88 \text{ ipm}$$

$$\text{Maximum: } \frac{x}{8} = \frac{50}{18}; \quad 18 \times x = 400; \quad x = 22 \text{ ipm}$$

MM/MIN

$$\text{Minimum: } \frac{x}{200} = \frac{50}{460}; \quad 460 \times x = 10,000; \quad x = 22 \text{ mm/min}$$

$$\text{Maximum: } \frac{x}{200} = \frac{1270}{460}; \quad 460 \times x = 254,000; \quad x = 552 \text{ mm/min}$$

CON-O OPERATING INSTRUCTIONS CONT'D.

SQUARING UP THE MACHINE

1. To square the machine with the workpiece, The **Alignment Bars (W)** and **Outrigger Support Kits (Q)** should be located symmetrically and in approximately equal contact, then loosen the floating plate locking knob at the back of the **Floating Plate (H)**.
2. With the **Cam Clutch (D)** disengaged, rotate the machine until the **Riding Wheel (T)** assumes the lowest point of contact with the workpiece on one side of the longitudinal axis.
3. The height of the **Riding Wheel (T)** should be adjusted so as to keep the **Floating Plate (H)** from bottoming on the **Center Pin Support (S)** when in the lowest position for the cut.
4. In this lowest position, measure the distance from the top of the **Floating Plate (H)** to the top of the **Plate Support (E)** or **(G)** with a rule or by making a pencil mark on the **Plate Support (E)** or **(G)**.
5. Manually rotate the carriage halfway around the **Ring Track (L)** and again observe the height of the top of the **Floating Plate (H)** at the lowest position of the opposite side. If the **Ring Track (L)** is properly positioned for a perpendicular intersection, the height of the **Floating Plate (H)** will be the same on either side. If not, the **Outrigger Support Kits (O)** must be readjusted to bring it to perpendicular.
6. The radial position of the **Riding Wheel (T)** and the torch will be determined by the radius punch marks laid out in accordance with the preceding paragraphs headed "**Layout and Set-Up**" and the illustration shown on page 6.

PLEASE NOTE: The **Riding Wheel (T)** should ride the line equal in diameter to the path of the inside edge of a beveled cut and slightly inside the diameter of a straight cut.

STARTING THE CUT

1. The cut should be started inside the circle by drilling or piercing a starting hole.
2. When starting the cut, start the rotational motion of the machine before racking the torch out to the finish cutting position preset by **Rack Stop (I)** on **Rack (J)** which will "feather in" the cut and avoid a notch where the torch enters the cutting circle.

The **CON-O** has two or more **Outrigger Support Kits (Q)** comprised of the **Swivel Clamp Assembly (N)**, the **Rod (M)** and the **Magnet Foot Assembly (O)** which are assembled on the **Handlebar (P)** and bolted to the **Ring Track (L)** as shown. Additional magnet and vacuum supports are available as shown on vacuum support on page 15.

BUG-5100-F DC III DRIVE UNIT

DRIVE UNIT OPERATION

Rotating Cam Knob (B) will move the drive pinion in and out of engagement with the ring gear.

To lock drive into position, tighten the 1/4-28 **Wing Nut (A)**.

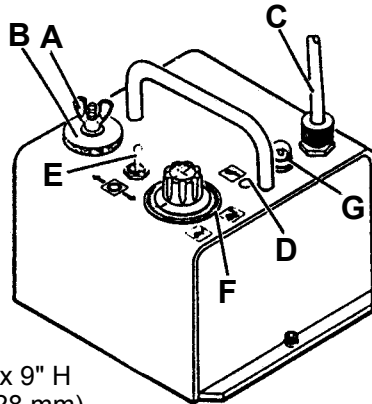
To disengage the drive pinion from the ring gear, loosen the 1/4-28 **Wing Nut (A)** and turn **Knob (B)** counterclockwise. Turn **Knob (B)** clockwise to engage the drive pinion with the ring gear, retighten the 1/4-28 **Wing Nut (A)** to lock position.

When **Power Cord (C)** is plugged into the appropriate power source, **Pilot Light (D)** will glow. **Switch (E)** controls the direction of travel, with the center position as "OFF". **Knob (F)** controls the speed. **Circuit Breaker (G)** protects the unit against overload or electrical faults.

CAUTION: IF THE CIRCUIT BREAKER OPENS, FIND AND CORRECT THE CAUSE OF FAILURE BEFORE RESETTING.

TECHNICAL DATA DC II DRIVE UNIT

Power Requirement:	BUG-5100-F	120 VAC/50-60/1
	BUG-5102-F	240 VAC/50-60/1
	BUG-5104-F	42 VAC/50-60/1



Dimensions: 7.12" L x 7" W x 9" H
(180 x 175 x 228 mm)

Net Weight: 16 lbs (7.3 kg)

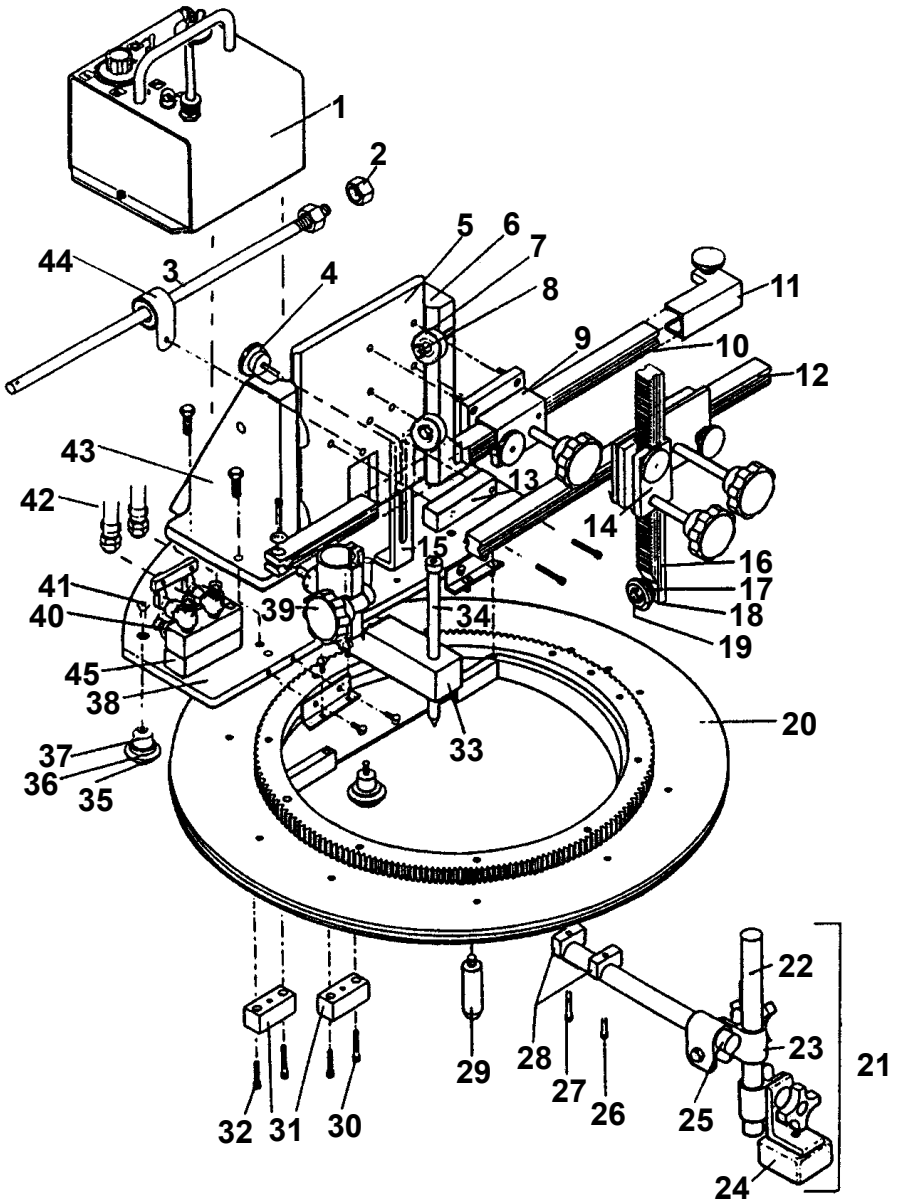
Shipping Weight: 20 lbs (9.1 kg)

Speed: *2-50 ipm (50-1250 mm/min)
[Measured at drive pinion]

Load Capacity: *30 lbs (14 kg)
[Measured at drive pinion]

*NOTE: Speed and load ratings apply at radius of ring gear. Speed is proportional to radius at any other point, and load rating is inversely proportional to radius.

EXPLODED VIEW / CON-O



PARTS LIST / CON-O

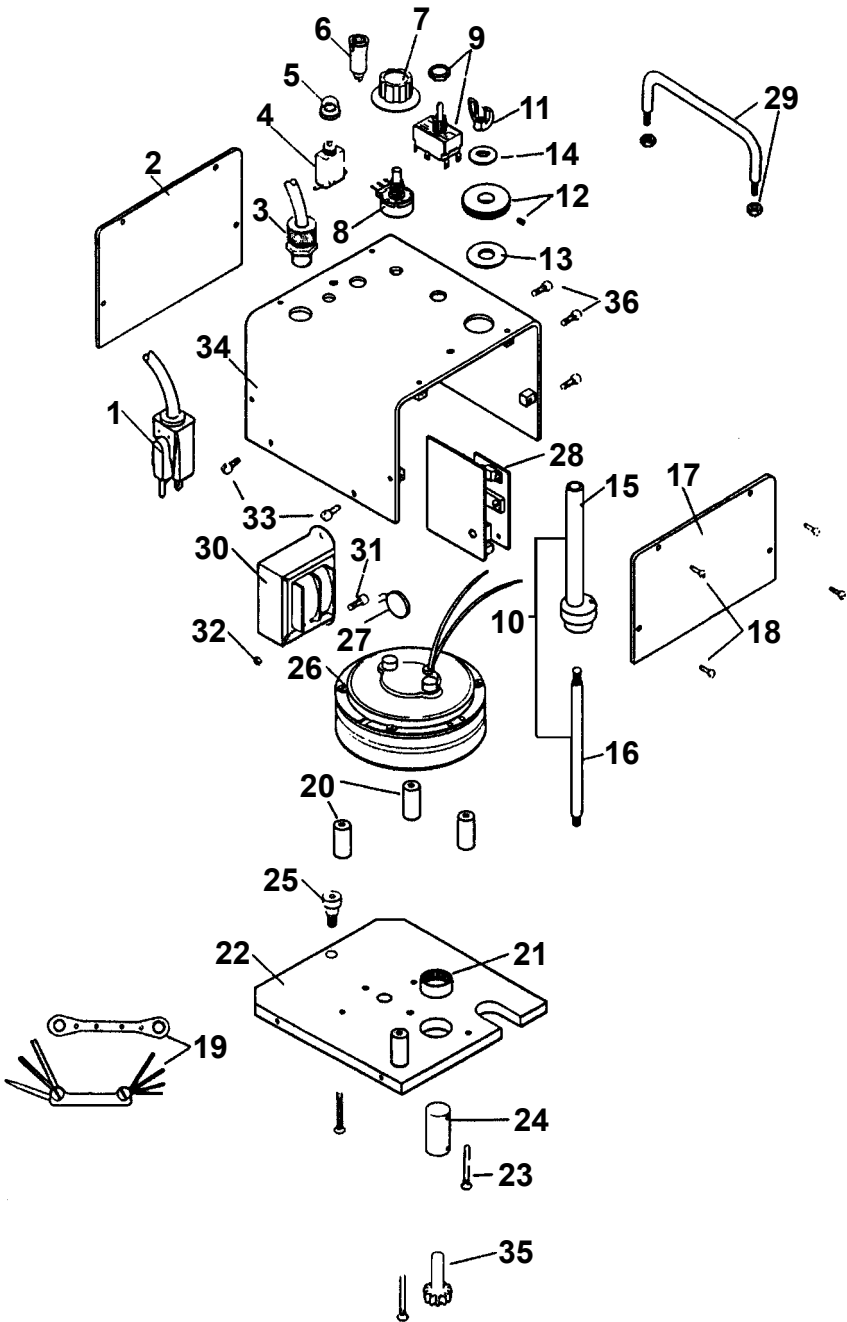
<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
** 1	BUG-5100-F	DC Drive Unit Assembly 240 VAC: BUG-5102-F 42 VAC: BUG-5104-F
2	FAS-1302	Hex Nut 1/2-20
3	CON-1053	Tension Bar
	or	
3	CON-5053	Tension Bar
4	HOB-1016	Knob Screw
5	CON-[3,5] 061	Floating Plate
6	CON-1052	Left Plate Support
7	BUG-2012	Bearing
8	FAS-0385	Hex Hd. Cap Screw 5/16-24 x 1/2
9	CON-1072	"H" Rack Holder
10	CON-1096	"H" Back
11	CON-1077	"H" Back Stop
12	CON-1085	Base Rack
13	CON-3058	Base Rack Pad
14	CON-4085	Right Angle Racker
15	CON-1045	Slide Lock
* 16	CON-1103	Rack
* 17	SPL-5318	Spacer
* 18	BUG-2010	Wheel w/Bearing
* 19	FAS-0389	Hex Hd. Cap Screw 5/16-24 x 1
20	CON-[3,4,5]_000	Ring Gear Assembly
21	CON-1010	Outrigger Support Kit [2]
22	BUG-9180-10	10" (254 mm) Support Rod 7/8" (22.2 mm)
23	CON-1020	Swivel Clamp Assembly
*** 24	CIR-9020	Magnet Foot
25	CON-1011	Handlebar
26	FAS-2551	Soc. Hd. Cap Screw 1/4-20 x 1-1/4
27	FAS-2554	Soc. Hd. Cap Screw 1/4-20 x 1-3/4
28	CON-1012	Block
29	CON-1003	Leg 2" (50 mm)
30	FAS-2553	Soc. Hd. Cap Screw 1/4-20 x 1-1/2
31	CON-1004	Alignment Bar
32	FAS-0559	Soc. Hd. Cap Screw 1/4-20 x 1
33	CON-1042	Center Pin Support Bar
34	CON-1043	Center Pin Assembly 9" (228 mm)
35	FAS-0386	Hex Hd. Cap Screw 5/16-24 x 5/8
36	BUG-2010	Wheel w/Bearing
37	BUG-2003	Adjustable Leg
38	CON-[3,4,5]_041	Carriage Plate
39	CON-1095	"H" Torchholder Assembly
40	GOF-3025	2-Hose Quick Acting Manifold
41	FAS-0986	Flt. Hd. Soc. Screw 5/16-24 x 5/8
42	CIR-1010-3	Twin Hose Assembly 32" (812 mm) 42" (1066 mm): CIR-1010-4 50" (1270 mm): CIR-1010-5
43	CON-1051	Right Plate Support
44	CON-1065	Negator Spring Assembly
45	PAN-1043	Spacer

*16,17,18,19 CON-1102 Back Assembly

** See page 12 and page 13 for parts breakdown.

*** See page 15 for optional supports.

EXPLODED VIEW / BUG-5100-F DC III DRIVE UNIT



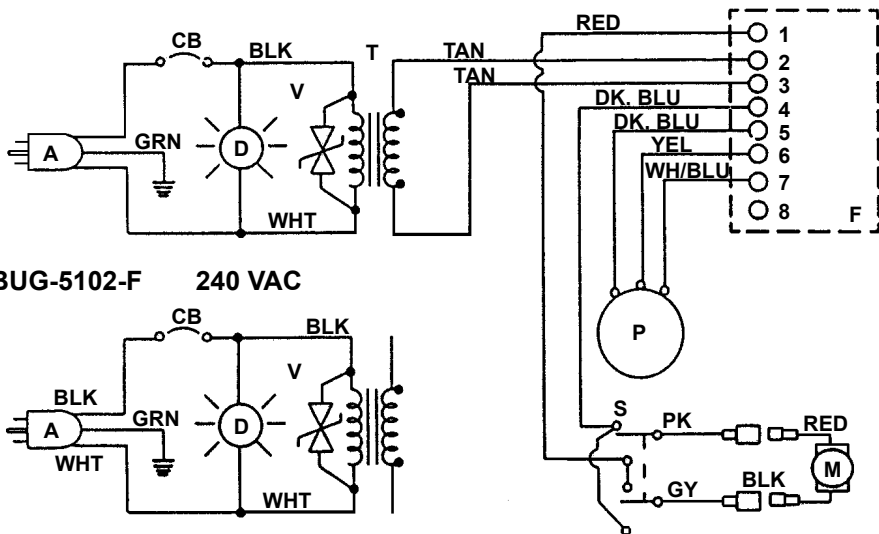
PARTS LIST / BUG-5100-F DC III DRIVE UNIT

<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
* 1	BUG-9445	Power Cord 120 VAC
2	BUG-2988	End Plate
3	BUG-9446	Cord Grip
* 4	BUG-2923	Circuit Breaker w/Reset.7A
5	BUG-2924	Reset Button Seal
* 6	BUG-1415	Pilot Light 120 VAC (also requires BUG-1415-A)
7	BUG-9587	Knob
8	BUG-9677	Potentiometer
9	BUG-2255	Toggle Switch
10	BUG-5120	Cam Clutch Assembly [Includes items 11-16]
11	BUG-2767W	Wing Nut 1/4-28
12	BUG-5119	Knob
13	BUG-5122	Delrin Washer
14	WAS-0240	SAE Washer
15	BUG-5113	Cam Clutch
16	BUG-5116	Stud
17	BUG-5112	End Plate
18	FAS-0114	Pan Hd. Screw 6-32 x 3/8
19	BUG-9444	Tool Kit
20	BUG-5121	Stand Off
21	BUG-9614	Needle Bearing
22	BUG-5114	Swivel Plate
23	FAS-2824	Flt. Hd. Sit. Screw 8-32 x 1-3/4
24	BUG-5131	Sleeve
25	FAS-0654	Soc. Hd. Shidr. Screw 5/16 x 3/8 x 1/4-20
* 26	BUG-1550	Gear Motor
27	BUG-1393	Volt Trap 120 VAC
28	BUG-1725	Precision Speed Control
* 29	GOF-3019	Handle
30	BUG-9675	Transformer 120 VAC
31	FAS-0224	Rnd. Hd. Screw 8-32 x 3/8
32	FAS-1320	Hex Nut 8-32
33	FAS-0724	Fil. Hd. Screw 8-32 x 3/8
34	BUG-5111	Cover
35	BUG-5128	Drive Pinion w/Long Shaft
36	FAS-0112	Pan Hd. Screw 6-32 x 1/4

* See Electrical Component Chart for 240 VAC and 42 VAC part numbers.

WIRING DIAGRAM / BUG-5100-F DC III DRIVE UNIT

BUG-5100-F 120 VAC
BUG-5100-F 42 VAC



ELECTRICAL COMPONENT CHART

PART NUMBER				
ITEM	DESCRIPTION	BUG-5100-F 120 VAC	BUG-5102-F 240 VAC	BUG-5104-F 42 VAC
A	Power Cord	BUG-9445	GOF-3115	BUG-9442
CB	Circuit Breaker	CIR-5247 (.7A)	BUG-2952 (.5A)	BUG-2933 (2A)
D	Pilot Light	BUG-1415/BUG-1415-A	BUG-1428	BUG-1427
V	Volt Trap	BUG-1393	BUG-1563	BUG-1393
T	Transformer	BUG-9675	GOF-3112	BUG-1468
M	Gear Motor		BUG-1550 (150:1)	
F	Precision Speed Control		BUG-1725	
S	Toggle Switch		BUG-2255	
P	Potentiometer Control		BUG-9686	

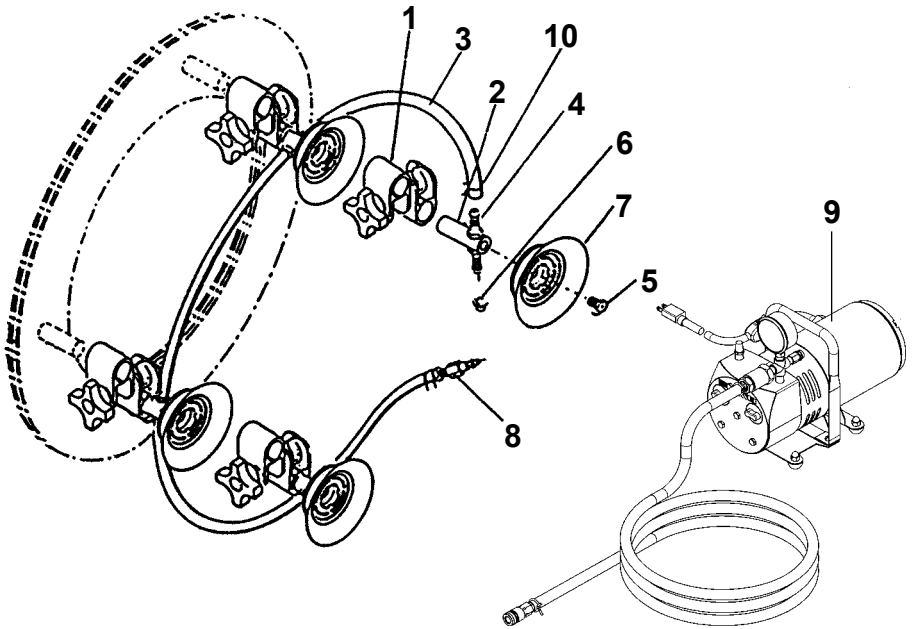
VACUUM SUPPORT KIT

CON-1006 VACUUM SUPPORT KIT can be mounted on any CIR-O or CON-O ring bases with standard CON-1003 legs. Vacuum pump kits are available for operation on 120 VAC (ARV-2020) or 240 VAC (ARV-2030).

Each vacuum cup holds 50 lbs. (22 kg).

(Dirt and scale block vacuum lines; blowout when clogged).

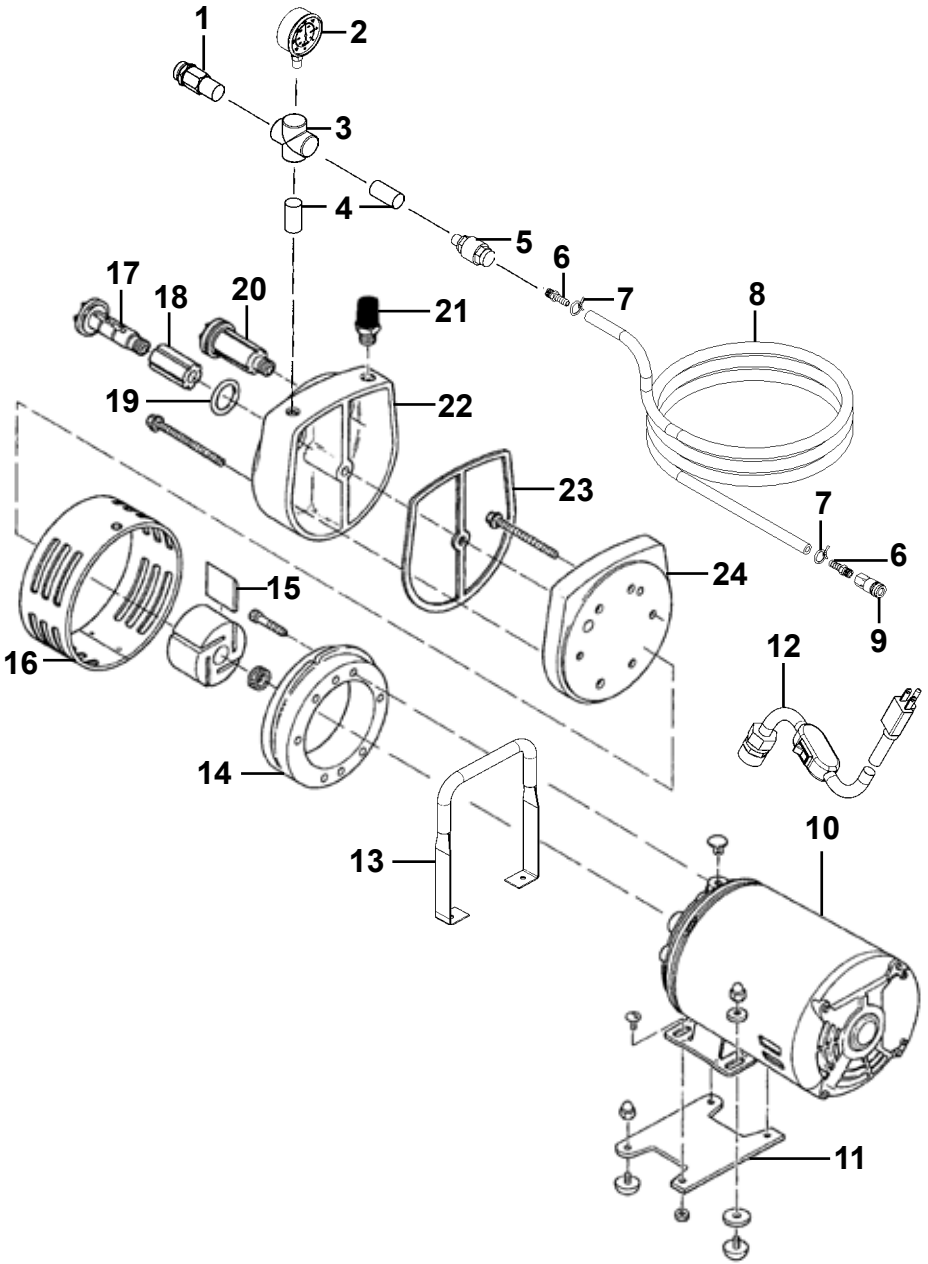
Keep flame 4" (100 mm) away from cups when burning or welding. Silicone vacuum cups will withstand a temperature of 600° F (318° C).



ITEM	PART NO.	DESCRIPTION
1	CON-1020	Double Swivel Clamp Assembly
2	CON-1007	Vacuum Leg
3	ARV-1004-14	Hose 14" (355 mm)
4	ARV-1107	3/8" Hose Barb 1/4 NPT
5	ARV-1034	Choke Nipple
6	ARV-1109	Protective Cap
7	ARV-1116	Vacuum Cup (Silicone) 50 lbs. (22 kg)
8	ARV-1013	Male Quick Connector 1/4 NPY
*9	ARV-2020	Vacuum Pump Kit (120 VAC/60 Hz/1Ph)
	ARV-2030	Vacuum Pump Kit (220 VAC/60 Hz/1Ph)
10	ARV-1005	Hose Clamp

*Vacuum pump is not included in CON-1006 Vacuum Support Kit.

EXPLODED VIEW / VACUUM PUMP



PARTS LIST / VACUUM PUMP

<u>ITEM</u>	<u>QTY</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	ARV-2017	1/4" Brass Vacuum Relief Valve
2	1	ARV-2014	Vacuum Gage
3	1	ARV-2018	1/4" NPT Union Cross, Female
4	2	ARV-2012	1/4" NPT Nipple
5	1	ARV-2016	1/4" NPT Brass Check Valve, F
6	2	ARV-1107	3/8" Hose Barb x 1/4" NPT-M
7	2	ARV-1005	11/16" X .112 Thk
8	1	ARV-1004-P	Hose 3/8" ID x 11/16" OD
9	1	ARV-1012	Female Quick Connector
10	1	ARV-2019	Pump
11	1	ARV-1999	Foot Support
12	1	ARV-2021	120 VAC Power Cord w/Switch
13	1	ARV-2013	Handle
14	1	ARV-2011	Body
15	4	ARV-2010	Vane
16	1	ARV-2009	Shroud
17	2	ARV-2003	End Cap
18	2	ARV-2004	Felt
19	2	ARV-2005	O-ring
20	2	ARV-2002	End Cap Assembly
21	1	ARV-2001	Filter / Muffler
22	1	ARV-2006	Muffler Box
23	1	ARV-2007	Gasket
24	1	ARV-2008	End Plate

ARV-2020 VACUUM PUMP KIT, 120 VAC 60 HZ/1 PH
 ARV-2030 VACUUM PUMP KIT, 220 VAC 50 HZ/1 PH

The **VACUUM PUMP KITS** are 1/6 HP units that provide 15" (381 mm) Hg. on continuous duty. The ARV-2020/2030 Pump will support 30 vacuum cups.

A Repair Kit, **ARV-2015** is available for the **ARV-2020** and **ARV-2030** pumps.

TROUBLESHOOTING GUIDE

PROBLEM	CAUSE	REMEDY
Does not run indicator light off.	No power to machine.	Check power line supply voltage. Plug in line cord firmly.
Does not run, light off.	Wiring shorts.	Disconnect machine and indicator examine internally; rewire at fault.
Circuit breaker tripped.	Shorted motor.	If none found, throw direction switch to 'OFF', reset breaker and plug in. If breaker does not trip, replace drive unit.
	Faulty speed control board.	If breaker trips again, replace control board. (OR)
	Burned out transformer.	Replace transformer.
Does not run, indicator light on.	Bad connection.	Check wiring connections, 12 VAC should appear across secondary of transformer. Tighten terminal screws on speed control board.
	Faulty speed control board.	If DC Volts = 0 across leads to motor; replace control board.
Unit runs, but no control over speed.	Faulty speed control board.	Replace control board. (Check connection first).

NOTE: Make sure unit is plugged into correct voltage, (120VAC, 240VAC, 42VAC) corresponding to Model No. rating.

12 VAC should appear across secondary of transformer in all DC III Drive Units.

WARRANTY

**LIMITED 3-YEAR
WARRANTY**

MODEL _____
SERIAL NO. _____
DATE PURCHASED: _____
WHERE PURCHASED: _____

For a period ending one (1) year from the date of invoice, Manufacturer warrants that any new machine or part is free from defects in materials and workmanship and Manufacturer agrees to repair or replace at its option, any defective part or machine. HOWEVER, if the invoiced customer registers the Product Warranty by returning the Warranty Registration Card supplied with the product within 90 days of the invoice date, or by registering on-line at www.bugo.com, Manufacturer will extend the warranty period an additional two (2) years which will provide three (3) total years from the date of original invoice to customer. This warranty does not apply to machines which, after Manufacture's inspection are determined by Manufacturer to have been damaged due to neglect, abuse, overloading, accident or improper usage. All shipping and handling charges will be paid by the customer.

The foregoing express warranty is exclusive and Manufacturer makes no representation or warranty (either express or implied) other than as set forth expressly in the preceding sentence. Specifically, Manufacturer makes no express or implied warranty of merchantability or fitness for any particular purpose with respect to any goods. Manufacturer shall not be subject to any other obligations or liabilities whatsoever with respect to machines or parts furnished by Manufacturer.

Manufacturer shall not in any event be liable to Distributor or any customer for any loss of profits, incidental or consequential damages or special damages of any kind. Distributor's or customer's sole and exclusive remedy against Manufacturer for any breach of warranty, negligence, strict liability or any other claim relating to goods delivered pursuant hereto shall be for repair or replacement (at Manufacturer's option) of the machines or parts affected by such breach.

Distributor's Warranty:

In no event shall Manufacturer be liable to Distributor or to any customer thereof for any warranties, representations or promises, express or implied, extended by Distributor without the advance written consent of Manufacturer, including but not limited to any and all warranties of merchantability or fitness for a particular purpose and all warranties, representations or promises which exceed or are different from the express limited warranty set forth above. Distributor agrees to indemnify and hold Manufacturer harmless from any claim by a customer based upon any express or implied warranty by Distributor which exceeds or differs from Manufacturer's express limited warranty set forth above.

HOW TO OBTAIN SERVICE:

IF YOU THINK THIS MACHINE IS NOT OPERATING PROPERLY, RE-READ THE INSTRUCTION MANUAL CAREFULLY, THEN CALL YOUR AUTHORIZED BUG-O DEALER/DISTRIBUTOR. IF THEY CANNOT GIVE YOU THE NECESSARY SERVICE, WRITE OR PHONE US TO TELL US EXACTLY WHAT DIFFICULTY YOU HAVE EXPERIENCED. BE SURE TO MENTION THE MODEL AND SERIAL NUMBERS.