

INSTRUCTIONS and PARTS MANUAL

STAND ALONE CDS LINEAR WEAVER

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-SALW-IPM-0719

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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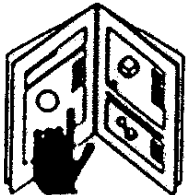
SAFETY

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 equipment when wet or standing in a wet location.
2. The unused connectors have power on them. Always keep the unused connectors covered with the supplied protective panels. Operation of the machine without the protective panels may result in injury.
3. Never open the equipment without first unplugging the power cord or serious injury may result.
4. 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.
5. Never remove or bypass the equipment power cord ground. Verify the equipment is grounded in accordance with all applicable local and national electrical safety codes. In none exist, use International Electric 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. Always verify both the pinion and wheels are fully engaged before applying power or equipment damage may occur.
3. Do not leave the equipment unattended.
4. Remove from the work site 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.

HIGH FREQUENCY WARNINGS

SPECIAL PRECAUTIONS ARE REQUIRED WHEN USING PLASMA, TIG OR ANY WELDING PROCESS THAT USES HIGH FREQUENCY TO STRIKE AN ARC.



WARNING: HIGH FREQUENCY CAN EFFECT MACHINE OPERATION AND THEREFORE, WELD QUALITY.

Read the precautions below before installing and using the equipment.

PRECAUTIONS:

- 1) Some plasma or welding cables are strong sources of high frequency interference. NEVER lay a plasma or welding cable across the controls of the machine.
- 2) Always physically separate the plasma or welding cable leads from the machine cables. For example, the plasma or welding cable leads should NEVER be bundled with a pendant cable or the machine power cord. Maximize the separation between any machine cables and the plasma or welding cables.
- 3) Strictly follow the grounding procedures specified for the plasma or welding unit. NOTE: Some plasma and welding units produce exceptionally large amounts of high frequency noise. They may require a grounding rod be driven into the earth within six feet (2 meters) of the plasma or welding unit to become compatible with an automatic cutting or welding process.
- 4) If the high frequency is produced using a spark gap, adjust the points so the gap is as small as possible. The larger the gap, the higher the voltage and the higher the interference.
- 5) Some plasma or welding units will inject high frequency interference into the AC power line. Use separate power line branches whenever possible to power the plasma or welding source and the machine. Do not plug them into the same outlet box.
- 6) High frequency noise may enter the machine through the plasma or welding supply remote contactor leads. Some plasma and welding sources can produce noise spikes of up to several thousand volts. These sources are not compatible with automated cutting and welding equipment. It is recommended that the remote contactor leads on these plasma or welding sources not be connected to the machine. An alternate solution is to purchase a separate remote contactor isolation box.

STAND ALONE CDS LINEAR WEAVER

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

INTRODUCTION

The **Stand Alone CDS Linear Weaver** is a self contained machine used for weave welding. It can be installed as part of a welding fixture, or mounted on a drive carriage running on a track.

The CDS Linear Weaver is particularly useful for weaving v-groove welds in a butt joint. The Weaver box is attached on the end of an adjustable rack, held by a rackholder that can be mounted on the front of the drive carriage, or directly on the welding fixture.

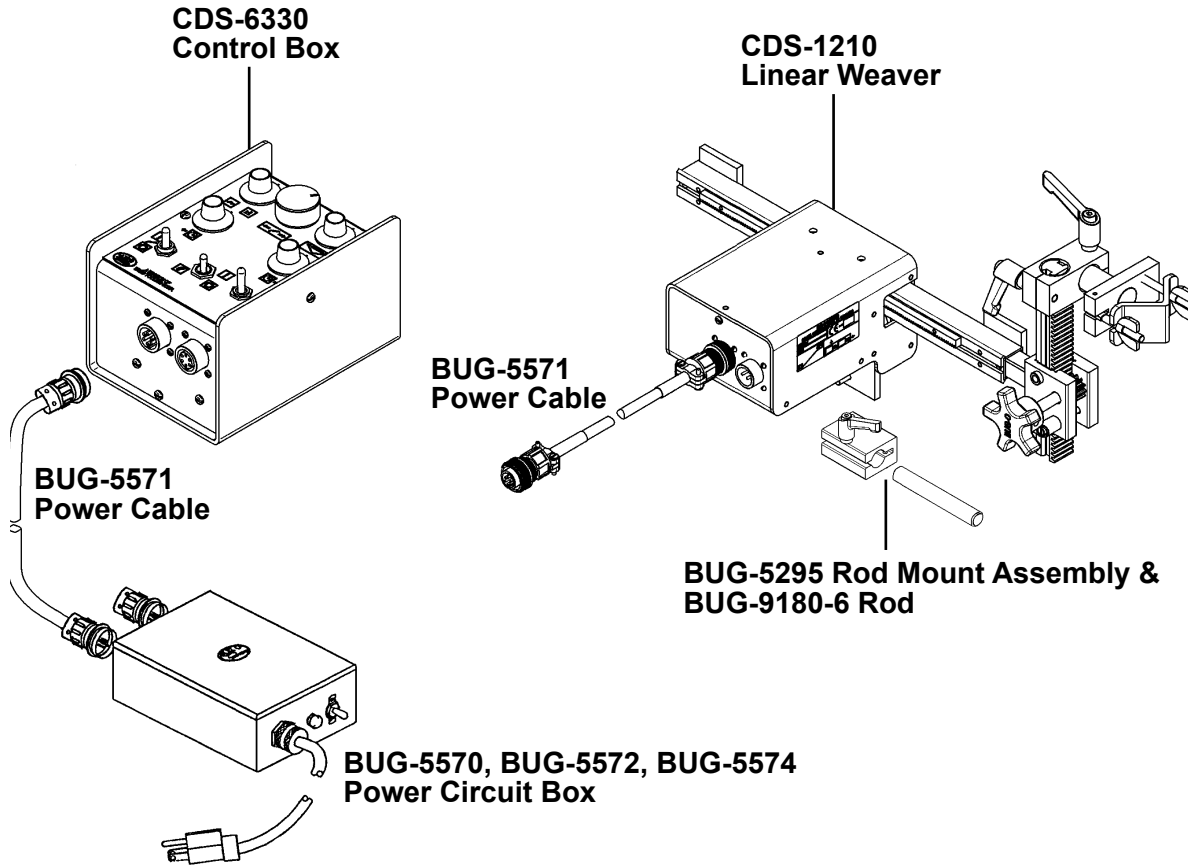
FEATURES

- High torque, low inertia motor for precise starts and stops.
- Heavy duty planetary gear box with powerful output shaft.
- Uniform linear motion with independent control of right and left dwell times.
- Closed loop speed control for adjustable and repeatable control of critical welding parameters.
- Closed loop position control to prevent drift from the center position.
- Gun mounting group with adjustable linkage for accurate positioning of the gun.
- Weld Contactor ON/OFF switch.

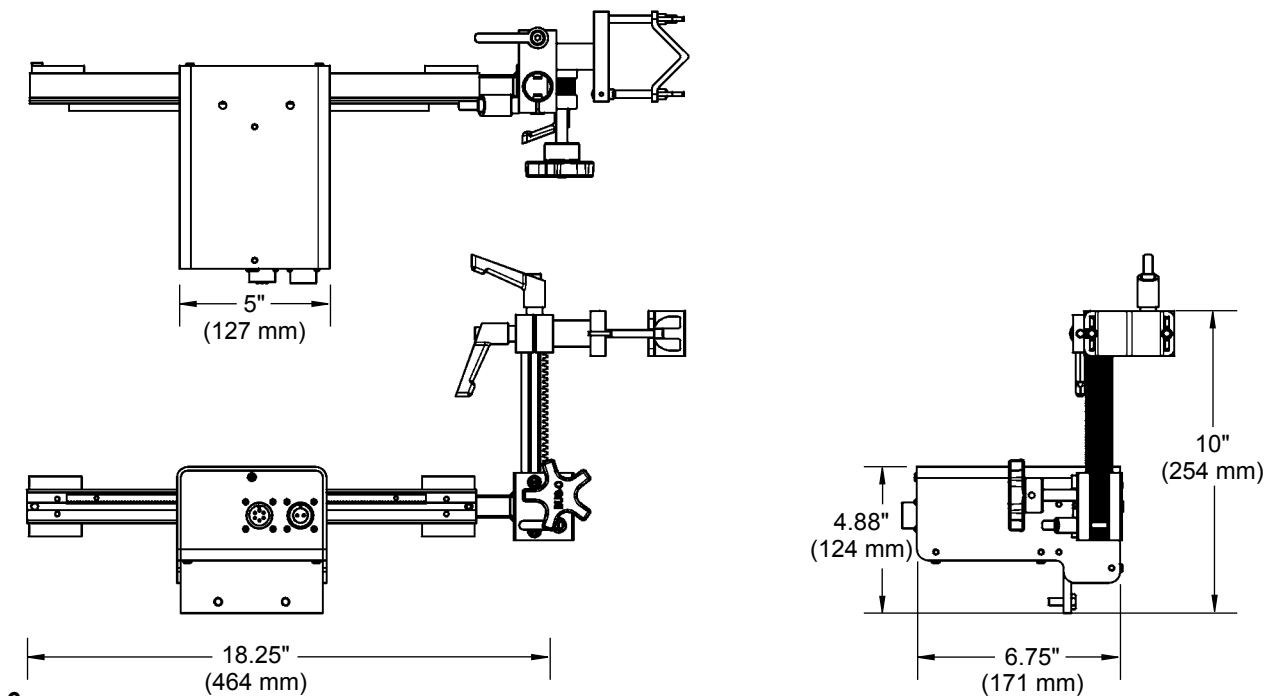
TECHNICAL DATA

Power Requirement:	CDS-6350	120 VAC/50-60/1
	CDS-6352	240 VAC/50-60/1
	CDS-6354	42 VAC/50-60/1
Weave Speed:	4 to 100 ipm (100 to 2540 mm/min)	
Dwell:	0-3 seconds Each side, calibrated	
Weave Width:	0 to 2" (0 to 50 mm)	
Steering:	2" (50 mm) left and right of center 4" (100 mm) total	
Dimensions:	6.75"L x 5.00"W x 4.88"H (171 x 127 x 124 mm)	
Net Weight:	20 lbs. (9.07 kg)	
Shipping Weight:	25 lbs. (11.34 kg)	

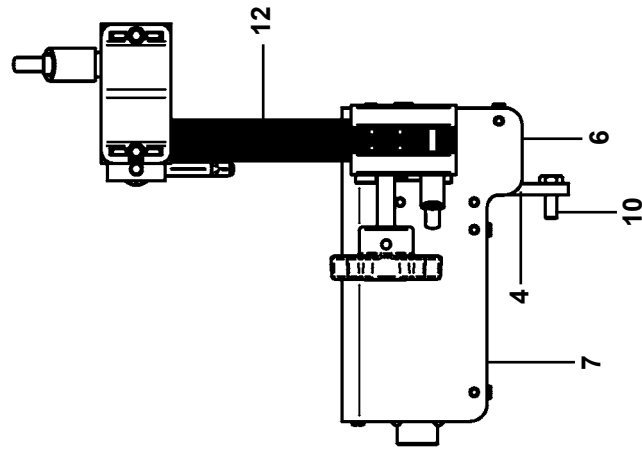
CDS-6350 STAND ALONE LINEAR WEAVER / MAJOR COMPONENTS



CDS-1210 DIMENSIONS

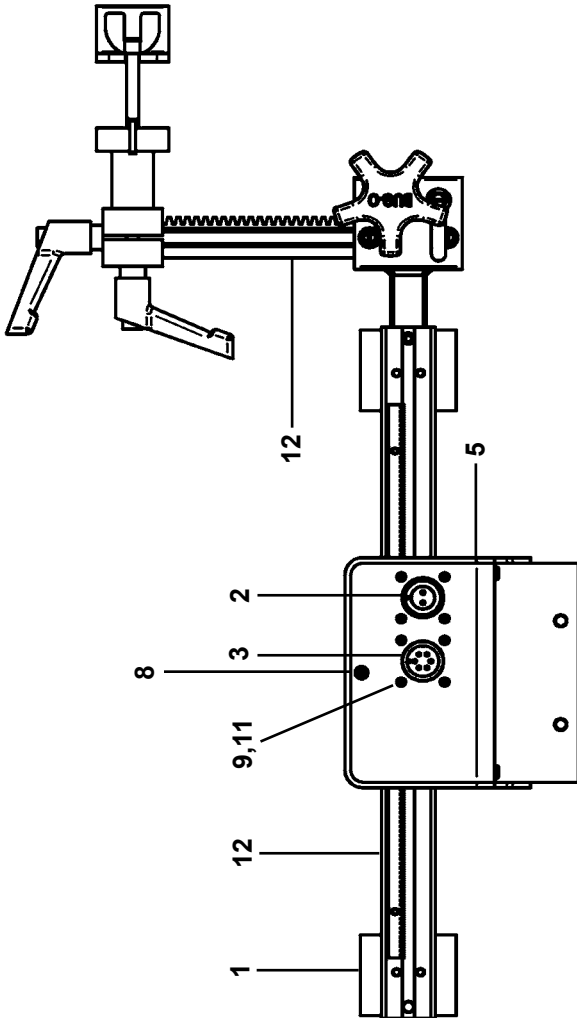


CDS-1210 WEAVER UNIT / PARTS LIST



DESCRIPTION

- Stop Plate
- Panel Connector, 2-T, Female
- Panel Connector, 6-T, Male
- Motor Plate Assembly
- Panel, Control End
- Panel
- Cover
- Pan Hd Scr 6-32 x 3/8 Lg
- Rnd Hd Scr 4-40 x 3/8 Lg
- Hex Hd Cap Scr 1/4-20 x 3/4 Lg
- Hex Nut 4-40
- Weaver Racking Group



PART NO.

- BUG-5661
- BUG-9856
- BUG-9909
- CDS-1215
- CDS-1217
- CDS-1218
- CDS-1221
- FAS-0114
- FAS-0204
- FAS-0357
- FAS-1305
- BUG-5475

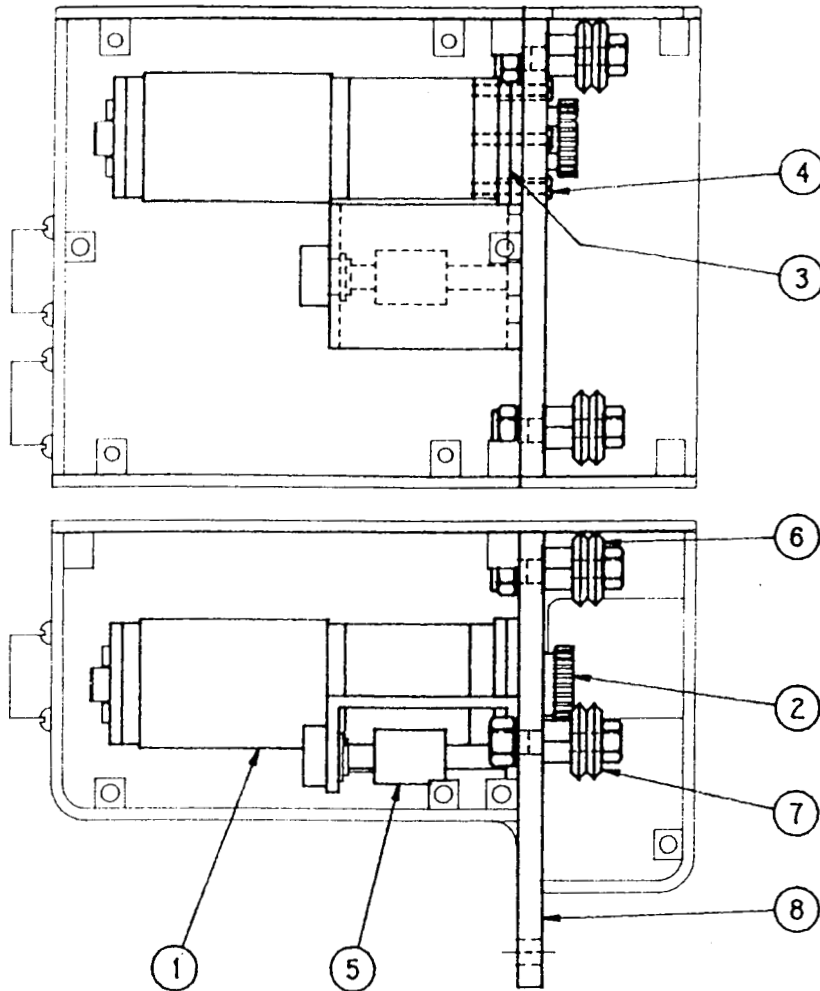
QTY

- 2
- 1
- 1
- 1
- 1
- 1
- 1
- 14
- 8
- 2
- 8
- 1

ITEM

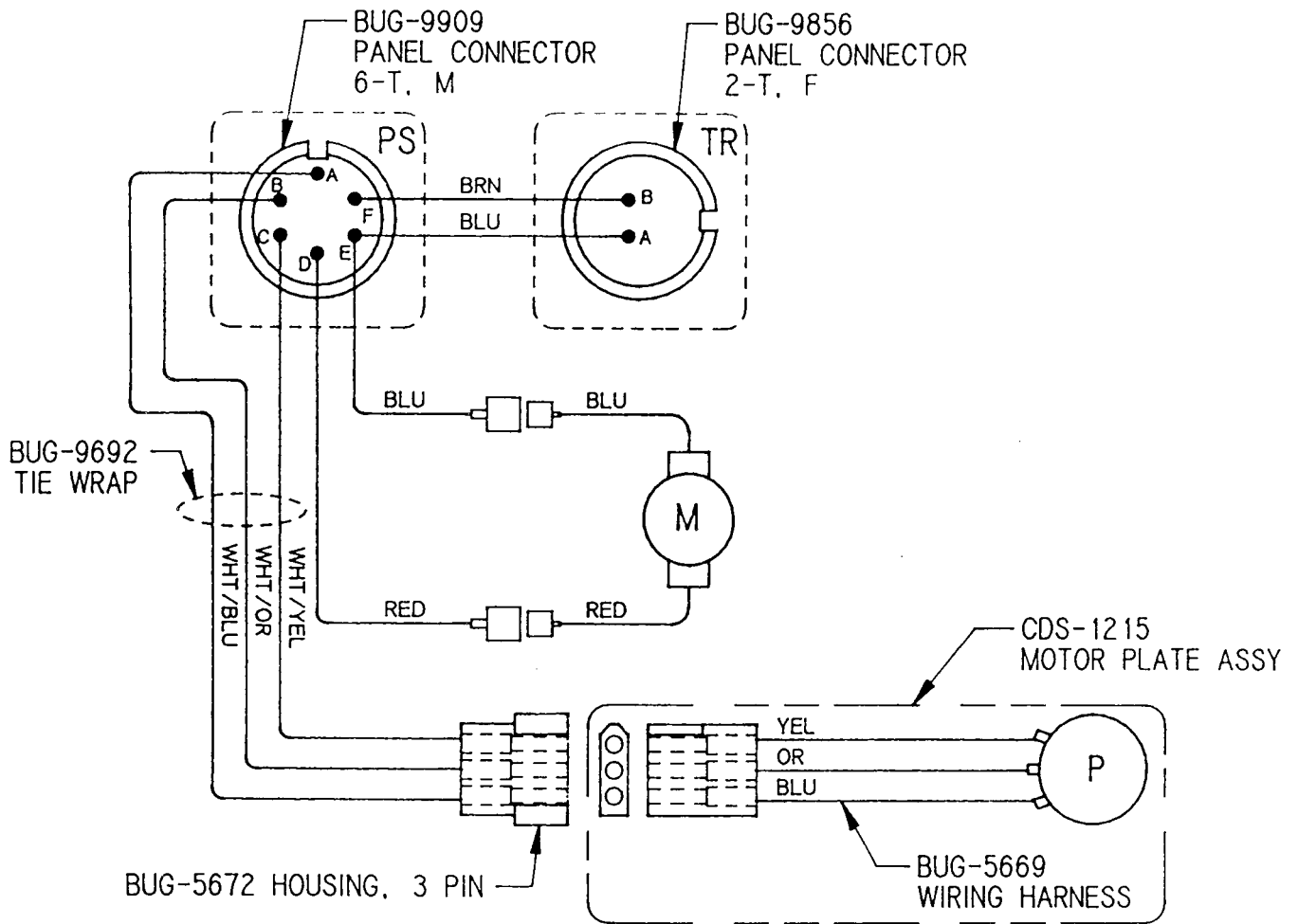
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

CDS-1215 WEAVER UNIT MOTOR PLATE ASSEMBLY / PARTS LIST



<u>ITEM</u>	<u>QTY</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	BUG-5590	Gear Motor
2	1	BUG-5591	Pinion
3	2	BUG-5592	Spacer
4	4	BUG-5594	Pan Hd Scr 3mm x .5
5	1	BUG-5595	Pot/Gear Assembly
6	2	BUG-5670	Adj Leg & Wheel Assembly
7	2	BUG-5675	Fixed Leg & Wheel Assembly
8	1	CDS-1216	Mounting Plate

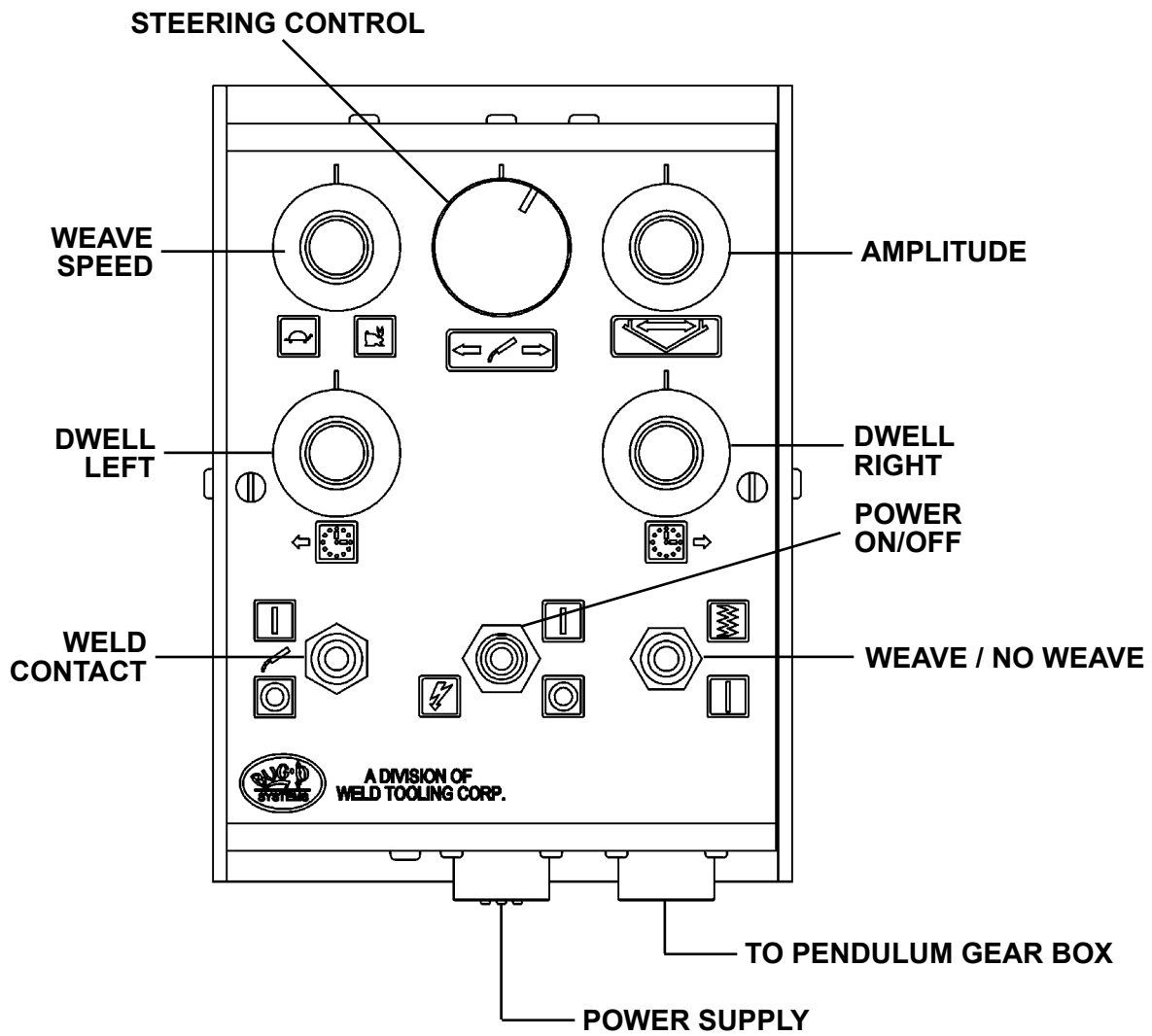
CDS-1210 WEAVER UNIT / WIRING DIAGRAM / ELECTRICAL COMPONENT CHART



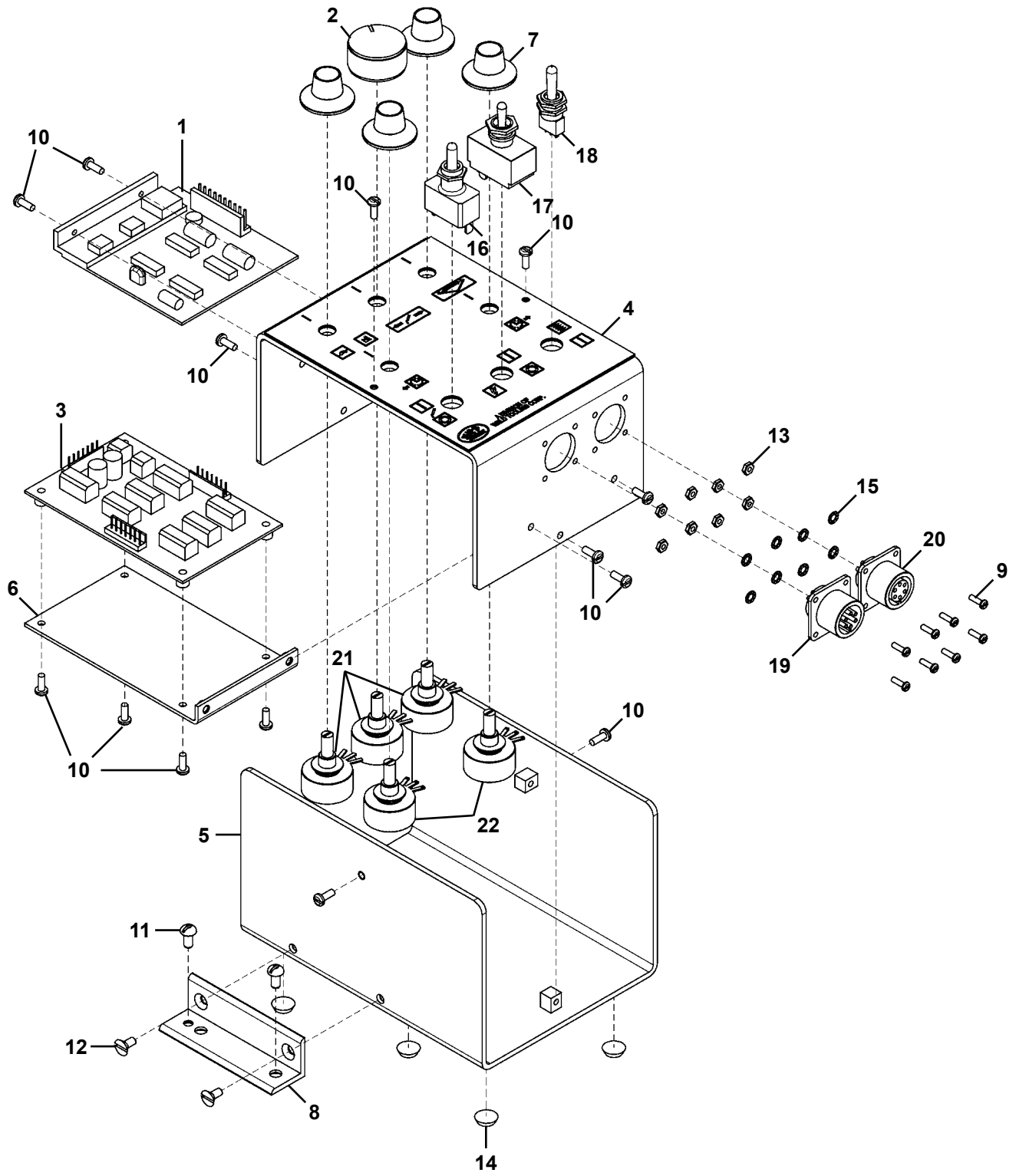
ELECTRICAL COMPONENT CHART

ITEM	DESCRIPTION	PART NO.
M	Gear Motor	BUG-5590
P	Servo Potentiometer	BUG-5240
PS	Power Supply Connector	BUG-9909
TR	Tractor Connector	BUG-9856

CDS-6330 CONTROL BOX



CDS-6330 / CONTROL BOX / EXPLODED VIEW



CDS-6330 CONTROL BOX / PARTS LIST

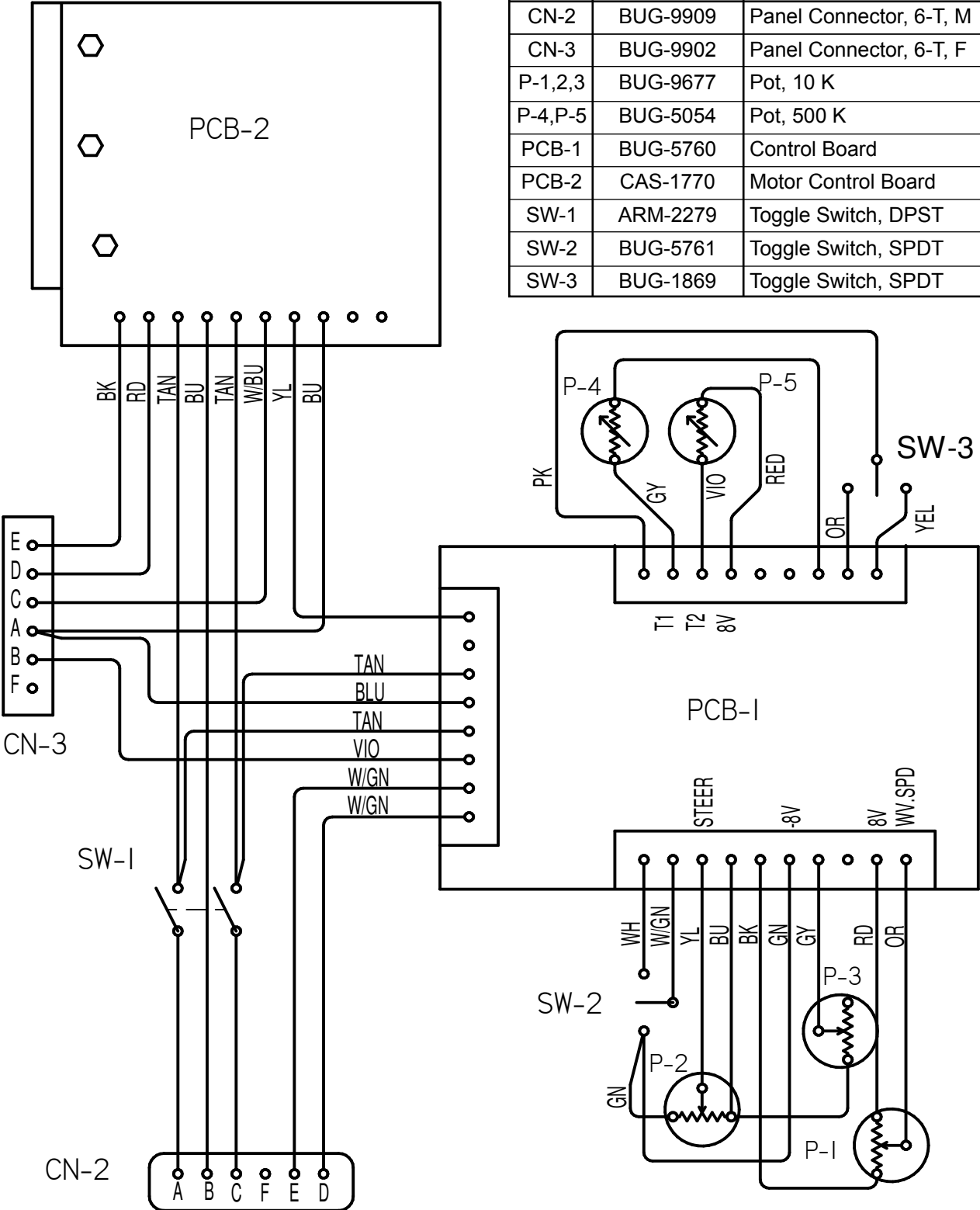
<u>ITEM</u>	<u>QTY</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	CAS-1770	Motor Control Board
2	1	BUG-5757	Knob
3	1	BUG-5760	Control Board
4	1	BUG-6331	Front Panel
5	1	BUG-6332	Rear Panel
6	1	BUG-6333	Mounting Bracket
7	4	BUG-9621	Knob
8	1	CDS-1068	Mounting Bracket
9	8	FAS-0104	Pan Hd. Scr. #4-40 x 3/8 Lg.
10	14	FAS-0114	Pan Hd. Scr. #6-32 x 3/8 Lg.
11	2	FAS-0224	Pan Hd. Scr. #10-32 x 3/8 Lg.
12	2	FAS-0824	Flat Hd. Slit. Scr. #8-32 x 3/8 Lg.
13	8	FAS-1305	Hex Nut #4/40
14	4	SFX-1292	Bumper
15	8	WAS-0201	#4 Internal Star Lock Washer
16	1	BUG-5761	SW-2 Toggle Switch, SPDT
17	1	ARM-2279	SW-1 Toggle Switch, DPST
18	1	BUG-1869	SW-3 Toggle Switch, SPDT
19	1	BUG-9909	Panel Connector, 6-T, M
20	1	BUG-9902	Panel Connector, 6-T, F
21	3	BUG-9677	Potentiometer, 10K
22	2	BUG-5054	Potentiometer, 500K
*	1	BUG-6336	Connector Wiring Harness
*	1	BUG-6318	Weave Wiring Harness
*	1	BUG-6337	Timer Wiring Harness

* not shown

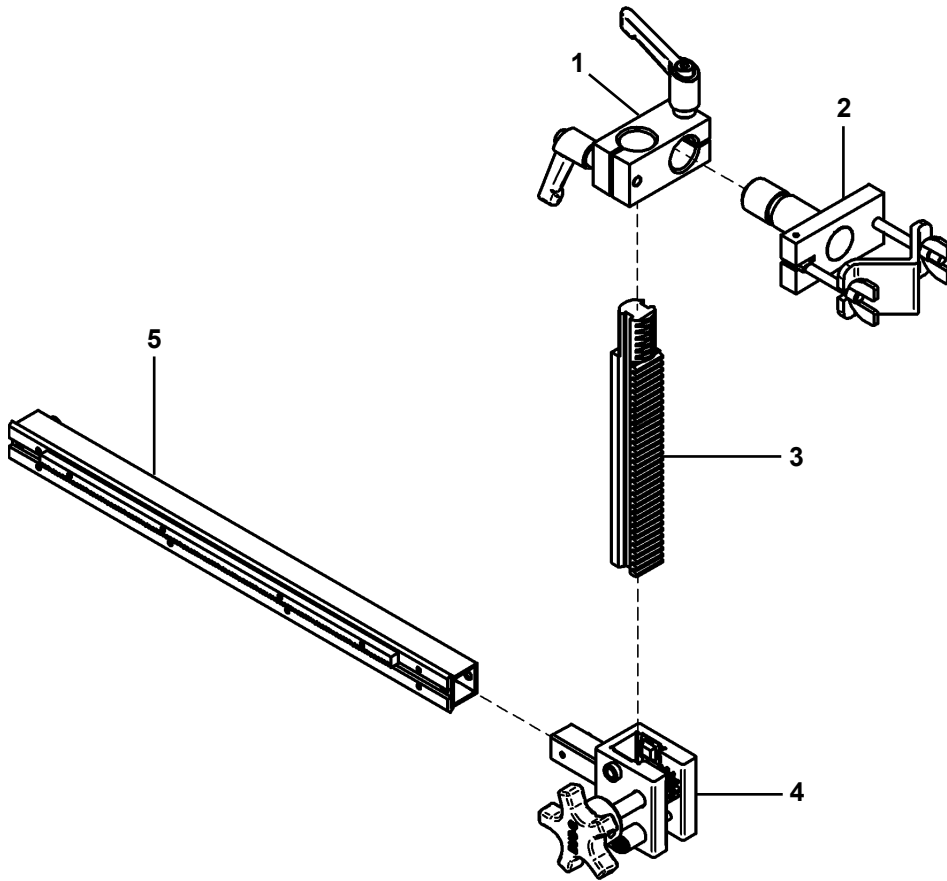
CDS-6330 CONTROL BOX / WIRING DIAGRAM / ELECTRICAL COMPONENT CHART

ELECTRICAL COMPONENTS

ITEM	PART NO.	DESCRIPTION
CN-2	BUG-9909	Panel Connector, 6-T, M
CN-3	BUG-9902	Panel Connector, 6-T, F
P-1,2,3	BUG-9677	Pot, 10 K
P-4,P-5	BUG-5054	Pot, 500 K
PCB-1	BUG-5760	Control Board
PCB-2	CAS-1770	Motor Control Board
SW-1	ARM-2279	Toggle Switch, DPST
SW-2	BUG-5761	Toggle Switch, SPDT
SW-3	BUG-1869	Toggle Switch, SPDT



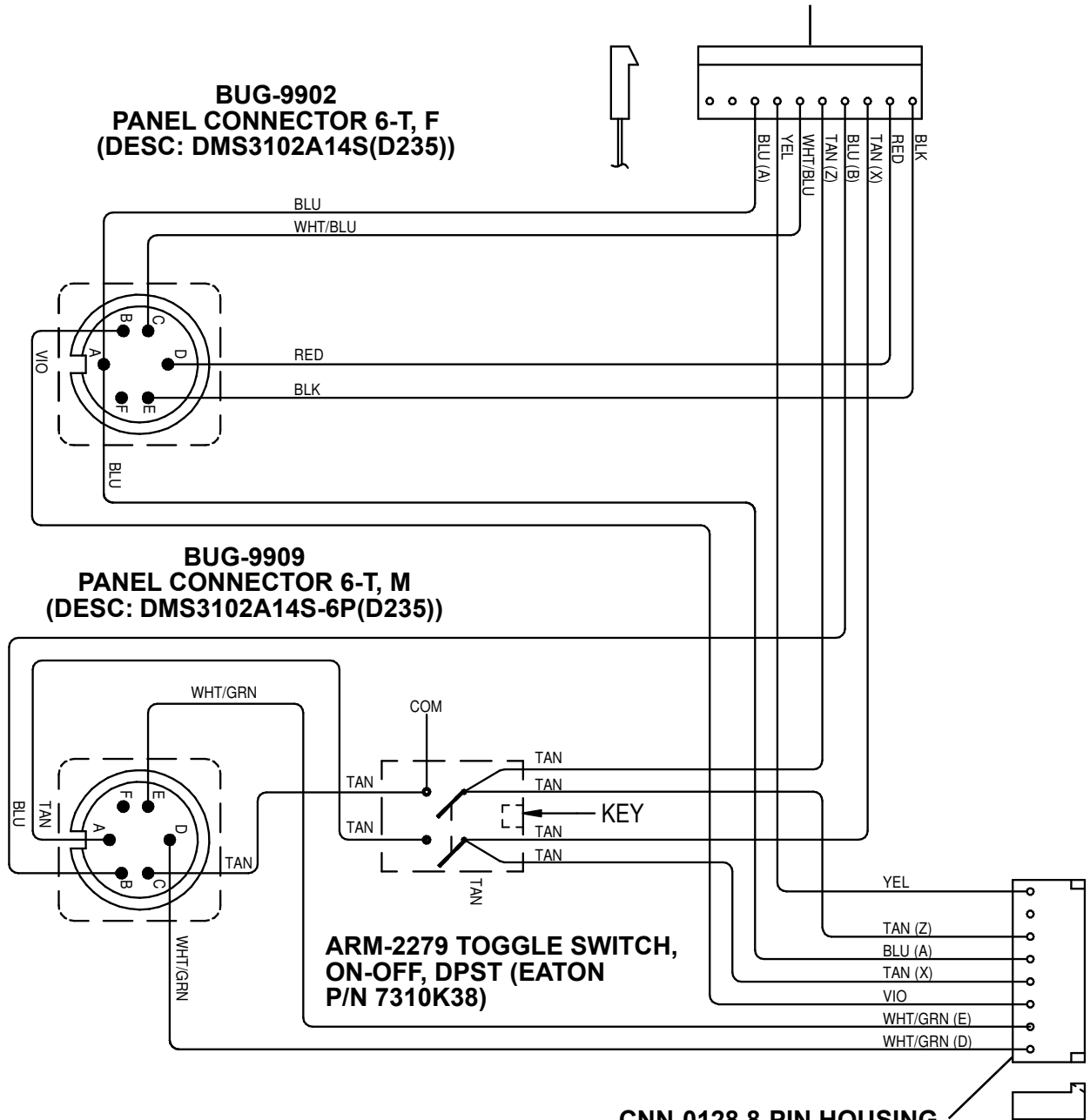
BUG-5475 WEAVER RACKING GROUP /EXPLODED VIEW / PARTS LIST



<u>ITEM</u>	<u>QTY</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	BUG-5462	Right Angle Clamp
2	1	BUG-2708	Clamp
3	1	BUG-1853	Machined Rack 7-1/2"
4	1	BUG-2714	Rackrider w/Post
5	1	BUG-5695	Cross Arm

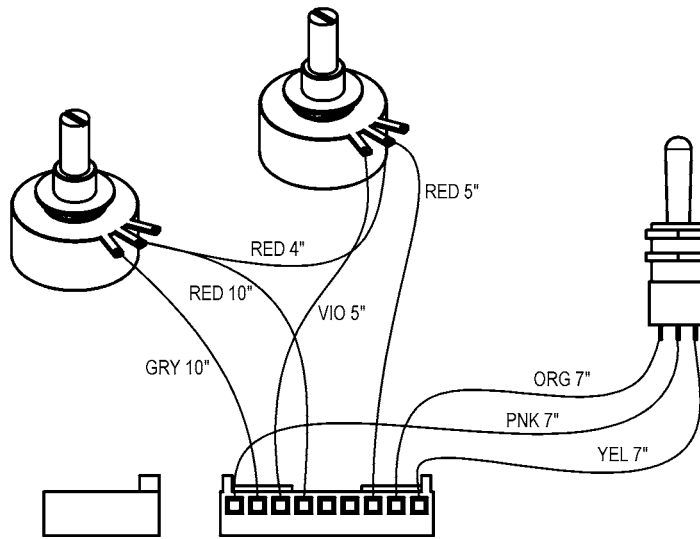
BUG-6336 CONNECTOR WIRING HARNESS / WIRING DIAGRAM

**CNN-022A 10-PIN HOUSING
INCLUDES:**
 (1) CNN-022A-P 10 PIN HOUSING
 (MOLEX P/N 09-50-8101)
 (10) CNN-0220 PIN .156
 (MOLEX P/N 08-50-0106)

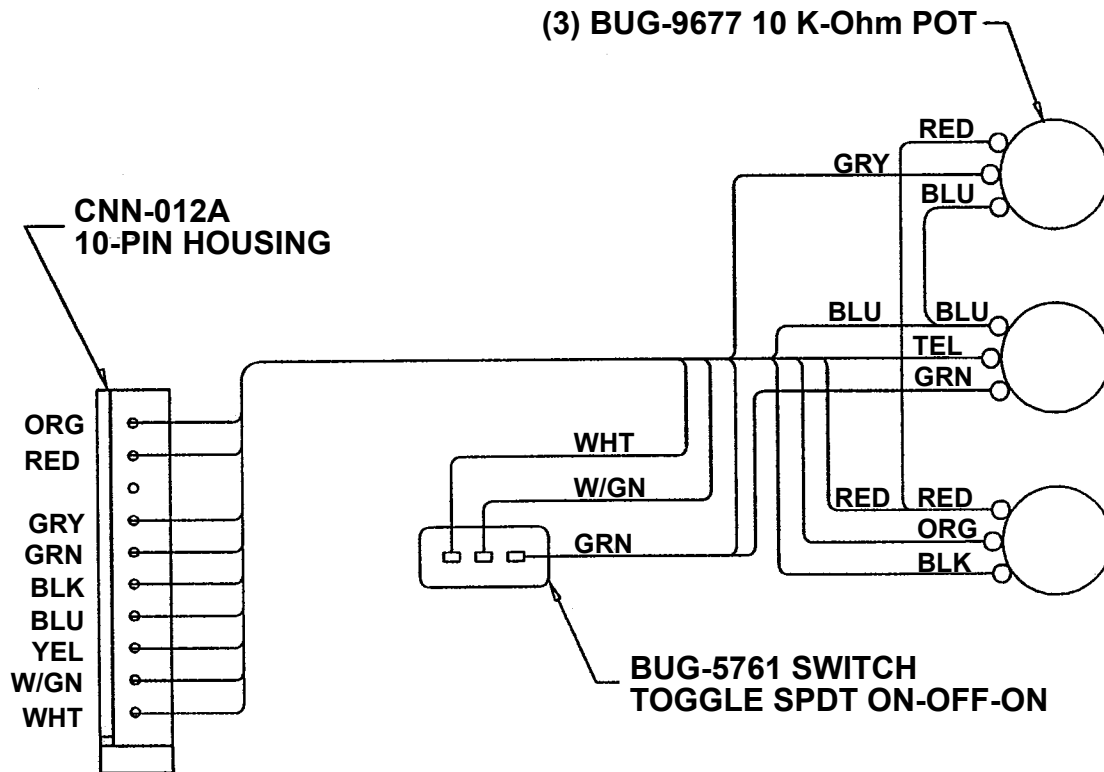


**CNN-0128 8-PIN HOUSING
INCLUDES:**
 (1) CNN-0128-P 8 PIN HOUSING
 (MOLEX P/N 22-01-3087)
 (8) CNN-0120 PIN .100
 (MOLEX P/N 08-05-0114)

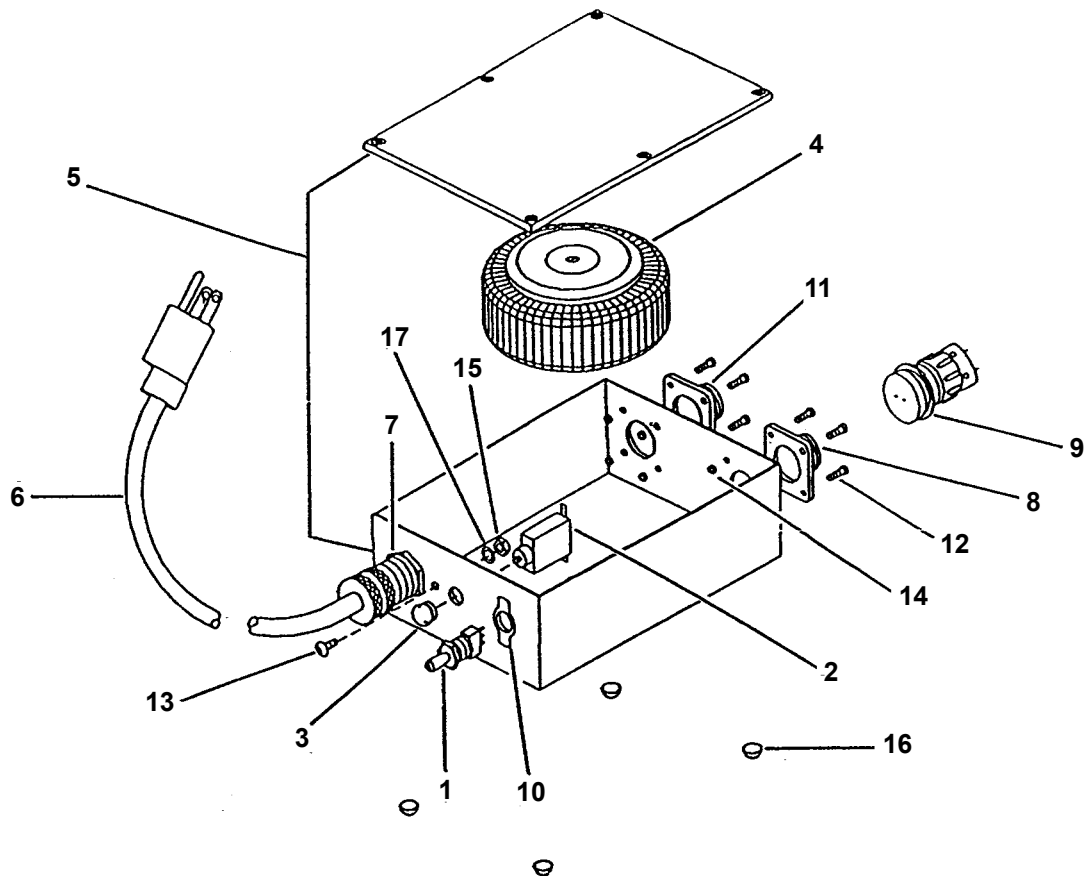
BUG-6337 TIMER WIRING HARNESS / WIRING DIAGRAM



BUG-6318 WEAVE WIRING HARNESS / WIRING DIAGRAM



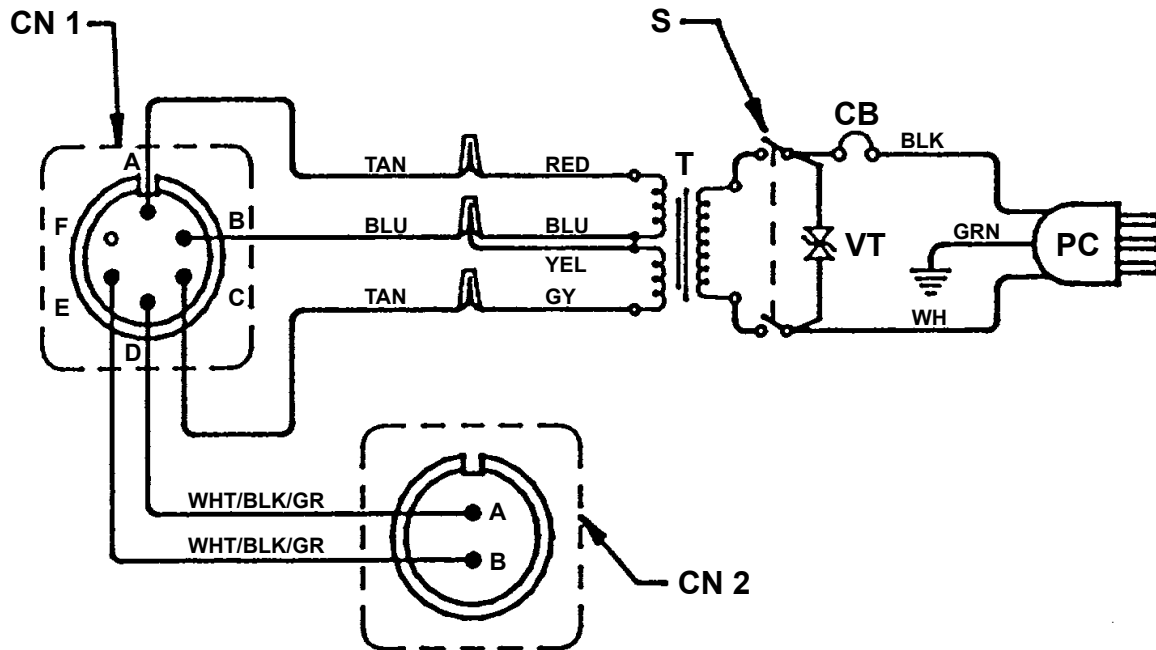
BUG-5570 POWER CIRCUIT BOX / EXPLODED VIEW / PARTS LIST



<u>ITEM</u>	<u>QTY</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	ARM-2279	Toggle Switch
*2	1	BUG-2923	Circuit Breaker .7A
3	1	BUG-2924	Reset Button Seal
*4	1	BUG-5218	Transformer
5	1	BUG-5573	Enclosure
*6	1	BUG-9445	Power Cord
7	1	BUG-9446	Cord Grip
8	1	BUG-9486	Panel Connector, 2-T, M
9	1	BUG-9487	Cable Connector, 2-T, F
10	1	BUG-9884	On-Off Switch Plate
11	1	BUG-9902	Panel Connector, 6-T, F
12	8	FAS-0204	Rnd Hd Scr 4-40 x 3/8
13	1	FAS-1224	But Hd Soc Hd Scr 8-32 x 3/8
14	8	FAS-1305	Hex Nut 4-40
15	1	FAS-1320	Hex Nut 8-32
16	4	SFX-1292	Bumper
17	1	WAS-0221	#8 Star Lockwasher

* See Electrical Component Chart for 240 VAC and 42 VAC Part Numbers

POWER CIRCUIT BOX / WIRING DIAGRAM



ELECTRICAL COMPONENT CHART

ITEM	DESCRIPTION	BUG-5570	BUG-5572	BUG-5574
		120 VAC PART NO.	240 VAC PART NO.	42 VAC PART NO.
CB	Circuit Breaker	BUG-2923	BUG-2952	BUG-2933
PC	Power Cord	BUG-9445	GOF-3115	BUG-9442
T	Transformer	BUG-5218	BUG-5231	BUG-5232
VT	Volt Trap	BUG-1393	BUG-1563	BUG-1393
CN-1	Panel Connector		BUG-9902	
CN-2	Panel Connector		BUG-9486	
S	Toggle Switch		ARM-2279	

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 Manufacturer'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.