

PBF-510

PBF-510 PINSPOTTER

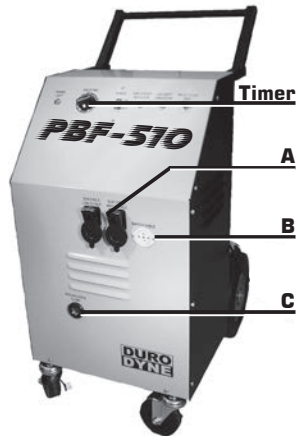


**MACHINERY
DIVISION**

OWNER'S MANUAL

SET UP

1. Plug the gun cable camlock connector into either the high or low gun female camlock **(A)**. (The HIGH tap produces about 10 volts, typically used for long pins or heavy gauge material. The LOW produces 5 volts, typically used for light gauge material.)
2. Plug the switch cable into the switch cable socket **(B)**.
3. Plug the ground cable camlock connector into the ground female camlock **(C)**.



TIMER ADJUSTMENT

The timer dial facing you on the front panel of the unit, determines the duration of the weld cycle. For maximum efficiency of the unit, the weld cycle should be set for the shortest length of time necessary to provide a good weld. An excessive amount of time does not improve the weld. On the contrary, the resulting weld may not be an acceptable one. It is recommended that at the start of a production run, using a given length of pin with a given gauge of metal, the operator take a few moments to determine the minimum timer setting to perform the job and leave the timer at that point.

NOTE: There is a common misconception that the longer the weld time, the stronger the weld. This is not true. It is important that you follow the above instructions for maintaining the minimum weld time.

"HEAT SINK"

Included with your PBF-510 is a simple "heat sink" tool that looks somewhat like a cookie cutter. This tool, when placed behind the point of weld on bare metal, will eliminate any mark on the metal by dissipating the heat generated from the point of weld. The use of a copper sheet on the work bench will also eliminate this mark.

MAINTENANCE

The PBF-510 has been designed and built to withstand rugged shop usage. Constant, trouble-free operation is assured with a minimum of maintenance. The GUN TIP, the GROUND CLAMP and all CABLE CONNECTIONS should be kept clean to maintain a good electrical contact. Wire brush the parts to remove any oxidation or adhesive that may have accumulated during the fastening operation.

INSTALLING CLIP PINS

Clip Pins are welded as easily as "A", "B", "C".

"A"

Position the Clip pin on the Magnetic tip of hand gun.



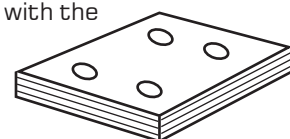
"B"

Press down through the insulation, twist the gun, pull the trigger. Do not release the trigger until the timer cycle has ended.



"C"

The Clip Pins are permanently welded in position flush with the insulation.



ELECTRICAL REQUIREMENTS

Connect the PBF-510 to a 100 amp power supply. (208-230 volts - 60 cycle). The PBF-510 unit uses 208-230 volt single phase. To wire to 208-230 volt single phase, the green lead is ground and the white and black leads are power. It is suggested that the unit be permanently wired into a 100 amp disconnect box fitted with 100 amp slow blow fuses.

PBF-510 AS A BENCH TOOL

To use your work bench as a welding table, set the PBF-510 alongside the work bench. Cover the bench top with a copper sheet, (.025 inch) which will act as a permanent ground when the duct work is placed on the table top. Attach the ground clamp to the duct work or copper bench top. The Clip Pins will quickly weld every time with no burn marks or wasted pins due to misfires.

WHEEL PBF-510 TO THE WORK

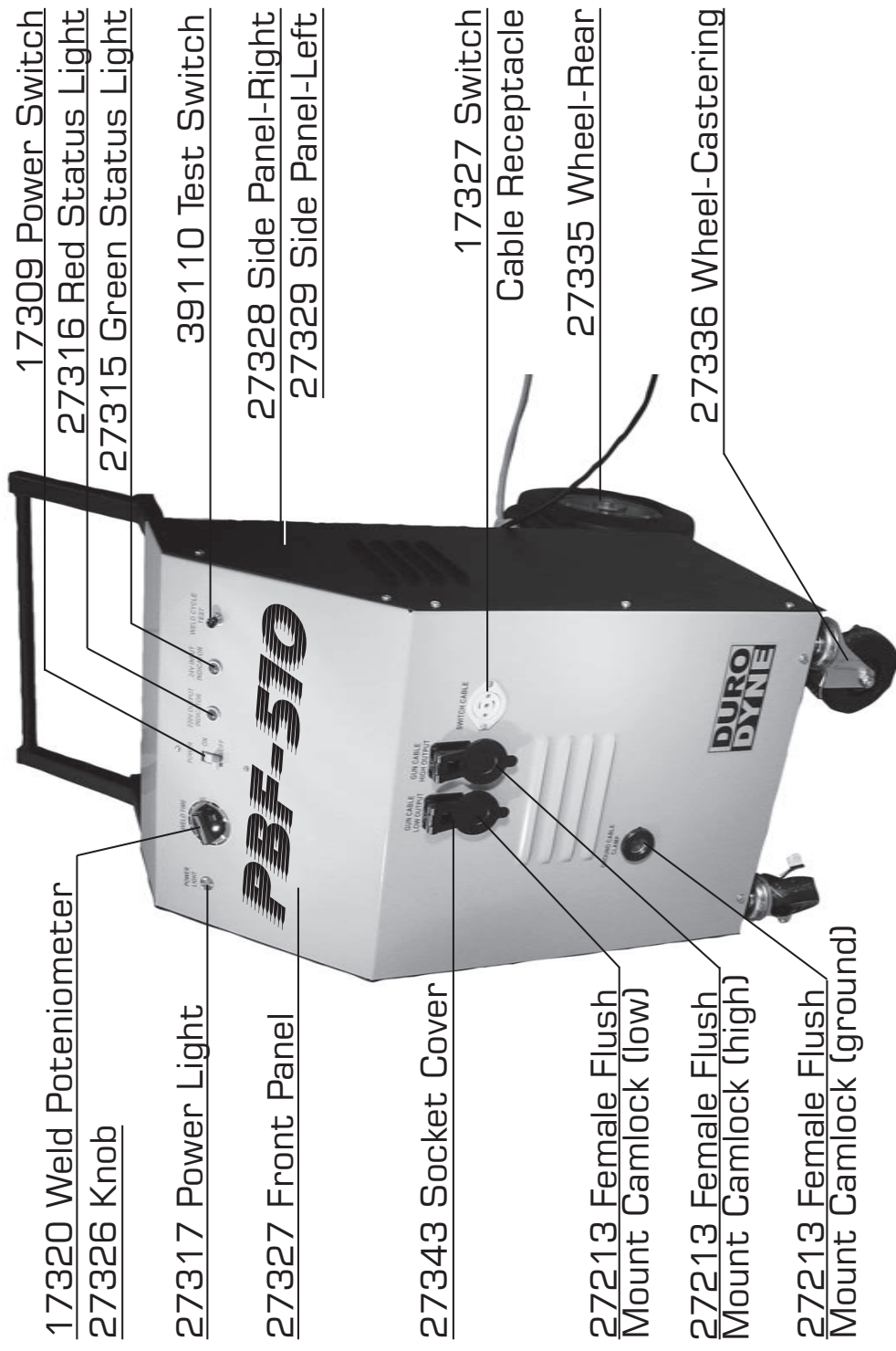
Where the duct is too large to put on a bench, snap the ground clamp onto the duct and secure the insulation quickly by welding the Clip Pins inside or outside of the ducts as required. Eliminate the heat mark on the duct by using the simple "heat sink" included on opposite the side of weld.

SERVICE

The PBF-510 has been designed and built to withstand rugged shop usage. The Indicator lights on the front panel will help you to diagnose minor problems. If your PBF-510 fails to operate, follow this simple procedure to find the defective component.

1. Pull the trigger and watch the lights, the green light (24 volts) and then the red light (220 volts) should flash on and off.
2. If only the green light comes on, go to step 4
3. If neither light comes on, press the WELD CYCLE TEST switch on the front panel.
 - a. If both lights flash and the transformers do not hum go to step 5.
 - b. If both lights flash and the transformers hum, the problem is either a bad trigger switch or bad switch cable.
 - c. If only the green light flashes, go to step 4
 - d. If neither light flashes, replace the 24 volt transformer.
4. Replace the weld activator.
5. The problem is probably a bad weld transformer. Call technical service for further assistance. (1-800-899-3876)

PARTS LOCATION

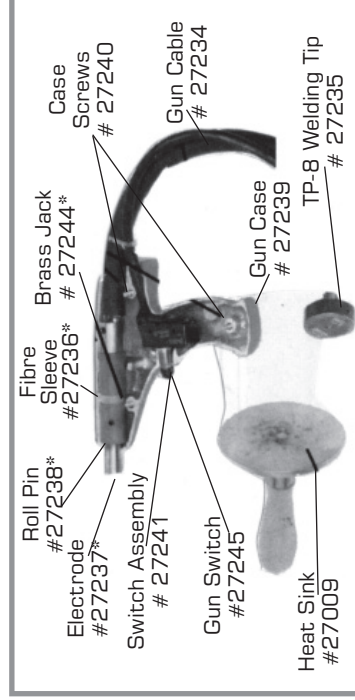
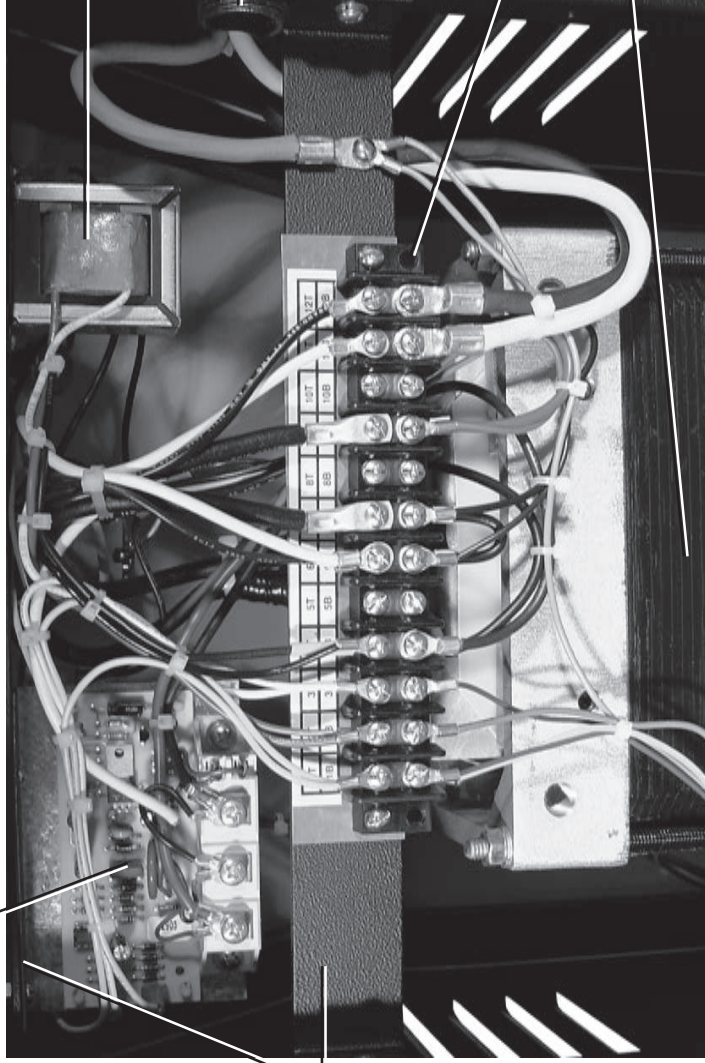


FRAME ASSEMBLY

PARTS LOCATION

17140 Weld Activator

27337 Component
Mounting Bracket



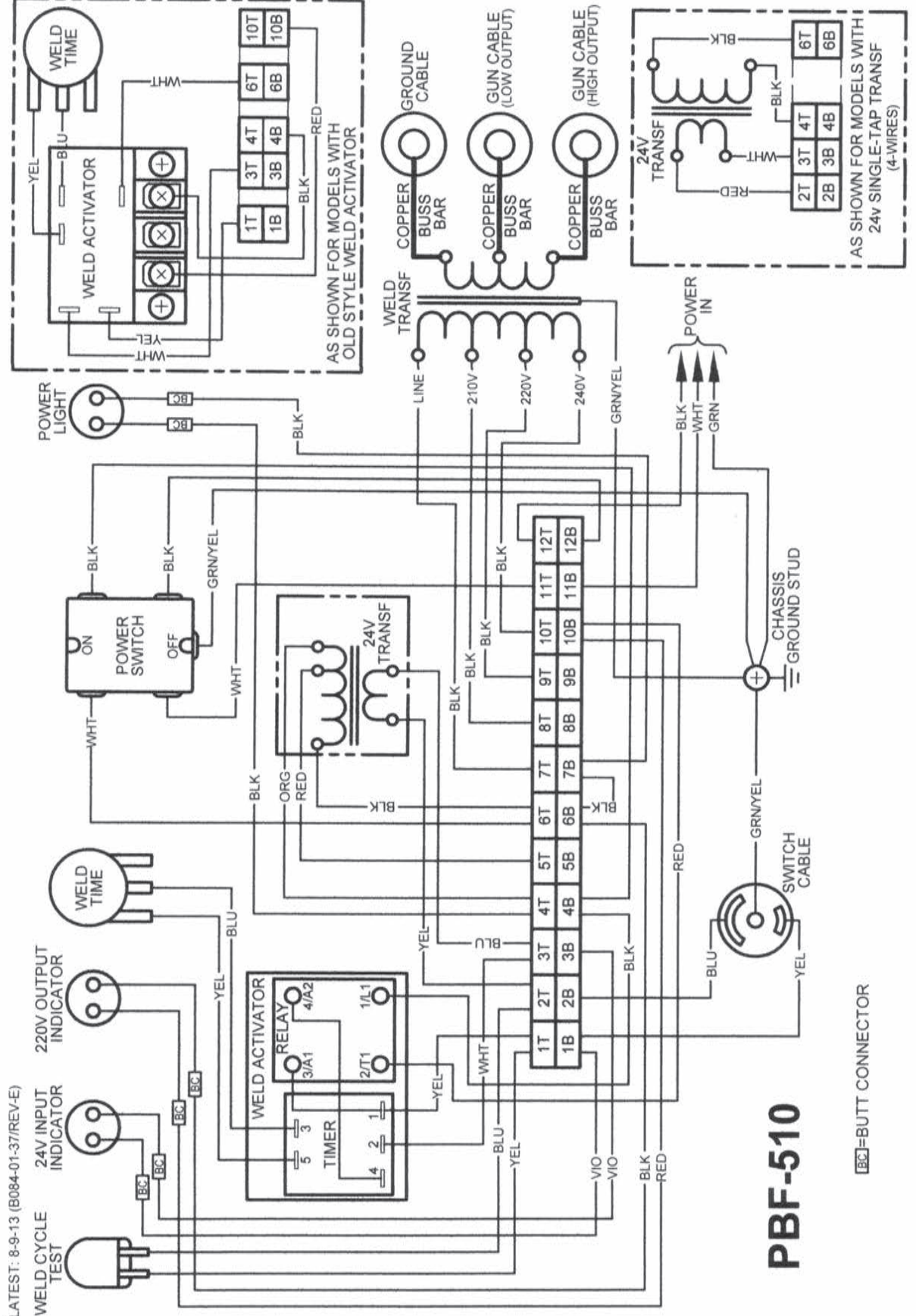
* Parts also available already assembled together
in part #27231 Electrode Assembly.

FRAME ASSEMBLY

PBF-510 WIRING DIAGRAM

LATEST: 8-9-13 (B084-01-37/REV-E)

WELD CYCLE TEST 24V INPUT INDICATOR 220V OUTPUT INDICATOR



PBF-510

[BC]=BUTT CONNECTOR

NOTES

[illegible]

NOTES

PBF-510 PARTS & SPECIFICATIONS

ITEM	DESCRIPTION	ITEM	DESCRIPTION
17049	Male Camlock	27328	Side Panel - right
17140	Weld Activator	27329	Side Panel - left
17288	Switch Cable Plug	27330	Back Panel
17309	Power Switch	27331	Storage Bin
17313	Terminal Block	27332	Transformer Mounting Bracket
17320	Potentiometer	27333	Chassis
17327	Switch Cable Receptacle	27334	Lower Chassis Cover
27009	Heat Sink	27335	Wheel - Rear
27213	Female Flush Mount Camlock	27336	Wheel - Castering
27231	Electrode Assembly	27337	Component Mounting Bracket
27235	TP-8 Welding Tip	27338	Switch Wire Assembly
27236	Fibre Sleeve	27339	Gun Cable only
27237	Electrode	27340	Ground Cable only
27238	Roll Pin	27341	Gun Cable / Electrode
27239	Gun Case	27342	Lexan Shield
27240	Case screws	27343	Socket Cover
27244	Brass Jack	27344	Gun and Cable Assembly
27245	Gun Switch	27345	Ground Cable Assembly
27315	Green Status Light	39110	Test Switch
27316	Red Status Light	44040	Weld Transformer
27317	Power Light	44041	Line Cord
27326	Weld Potentiometer Knob	44042	Line Cord Strain Relief
27327	Front Panel	44091	24V Multi-Tap Transformer

**DURO
DYNE**

MACHINERY DIVISION

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