

PBF520



PBF520
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.

ELECTRICAL REQUIREMENTS

Connect the PBF520 to a 100 amp power supply. (208-230 volts - 60 cycle). The PBF520 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. Note: due to inherent inrush current, it is recommended to use the next size gauge wire over codes when possible.

MAINTENANCE

The PBF520 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.

PBF520 AS A BENCH TOOL

To use your work bench as a welding table, set the PBF520 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.

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.



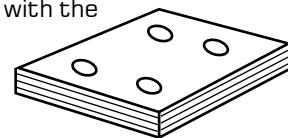
"B"

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.



WHEEL PBF520 TO THE WORK

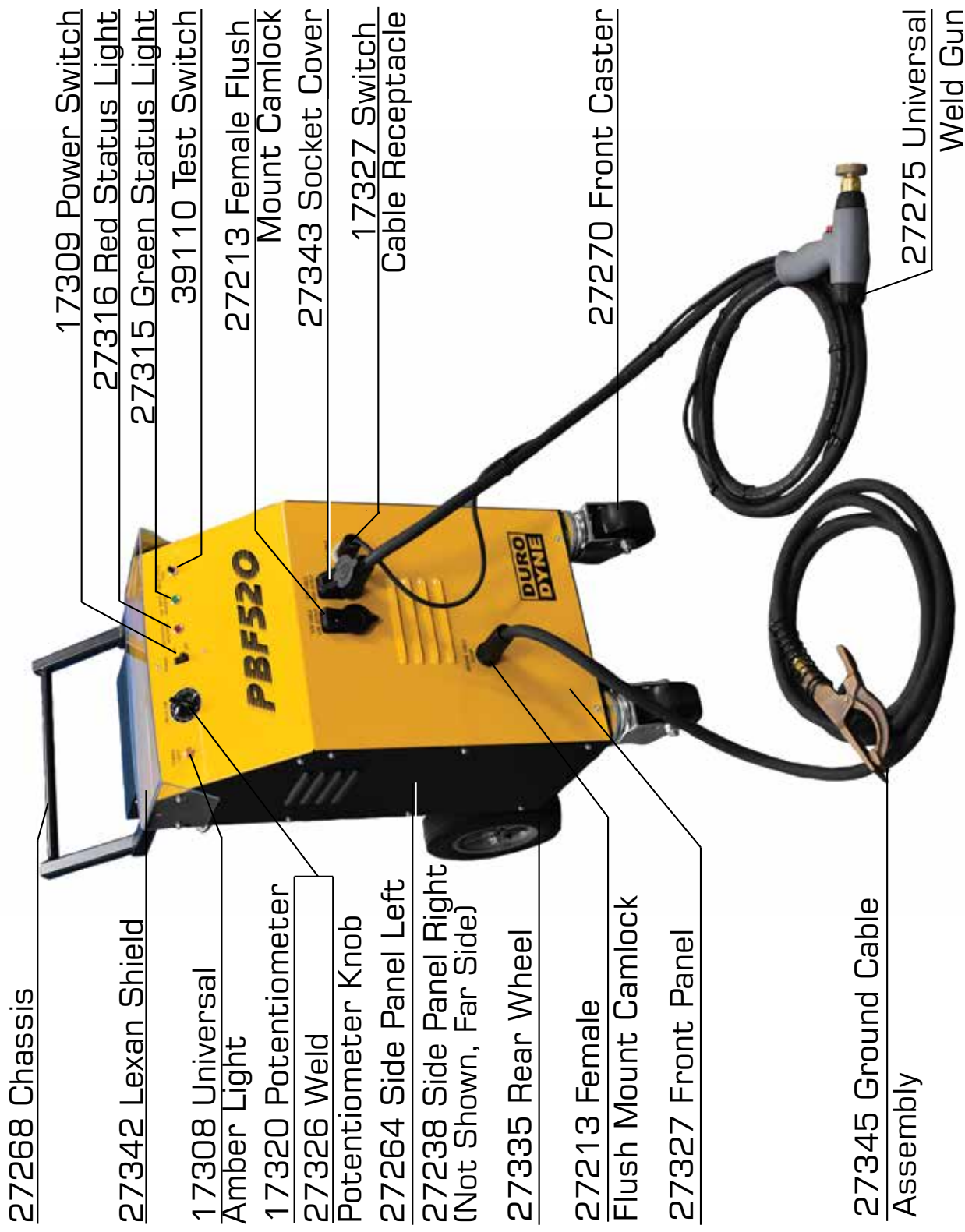
Where the duct is too large to put on a bench, snap the ground clamp onto the duct and secure the insulation quickly by welding the Clip Pins inside or outside of the ducts as required. Eliminate the heat mark on the duct by using the simple "heat sink" included on opposite the side of weld.

SERVICE

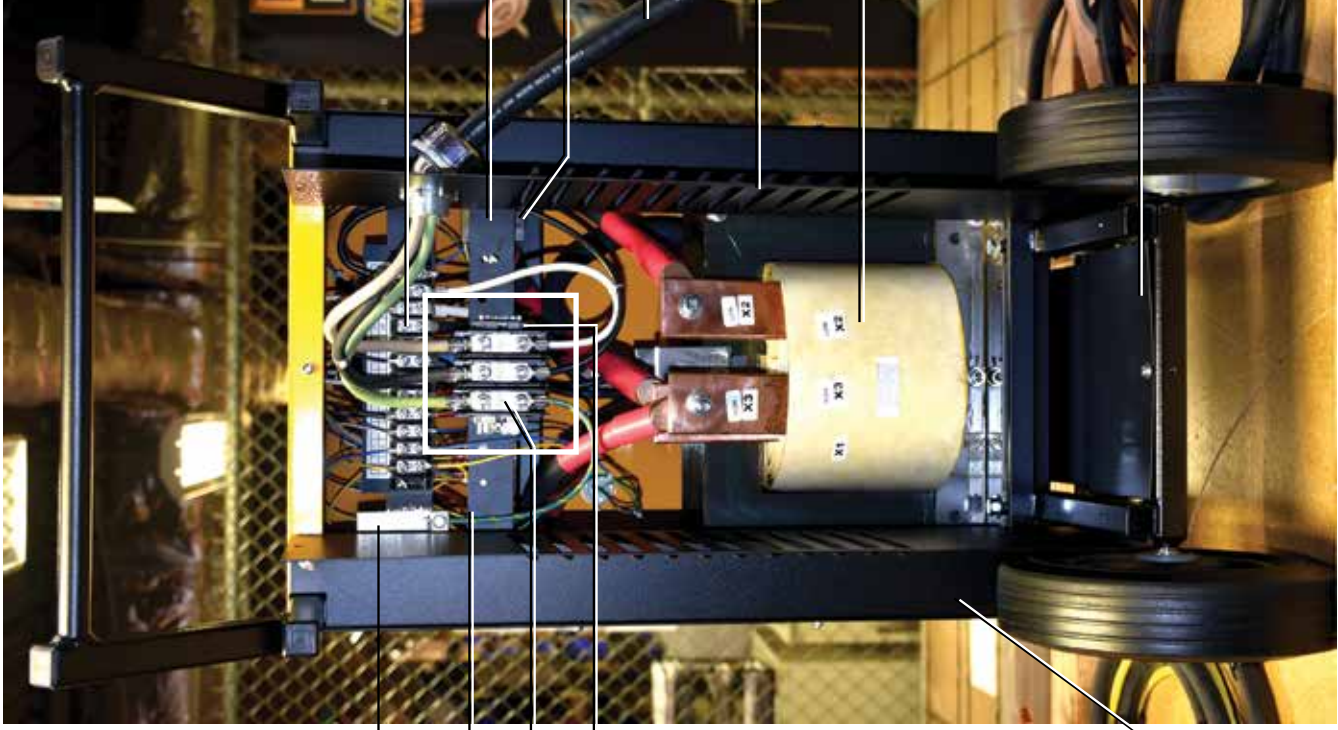
The PBF520 has been designed and built to withstand rugged shop usage. The Indicator lights on the front panel will help you to diagnose minor problems. If your PBF520 fails to operate, follow this simple procedure to find the defective component.

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 transformer does not hum go to step 5.
 - b. If both lights flash and the transformer hums, 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



PARTS LOCATION



27274 Ground Block

17140 Weld Activator

27277 Hi-Volt Terminal Block

27278 Hi-Volt Terminal Block
End Stop

27266 Rear Encl
Side Panel - Left

17313 12-Position

Terminal Block

27271 Component

Mounting Bracket

44091 24V Multi-Tap
Transformer

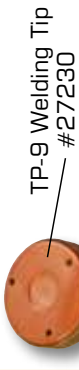
27273 Line Cord
w/ Strain Relief

27265 Rear Encl
Side Panel - Right

37272 Weld Transformer

27267 Rear Encl Back Panel
(Not Shown)

27269 Lower Chassis Cover



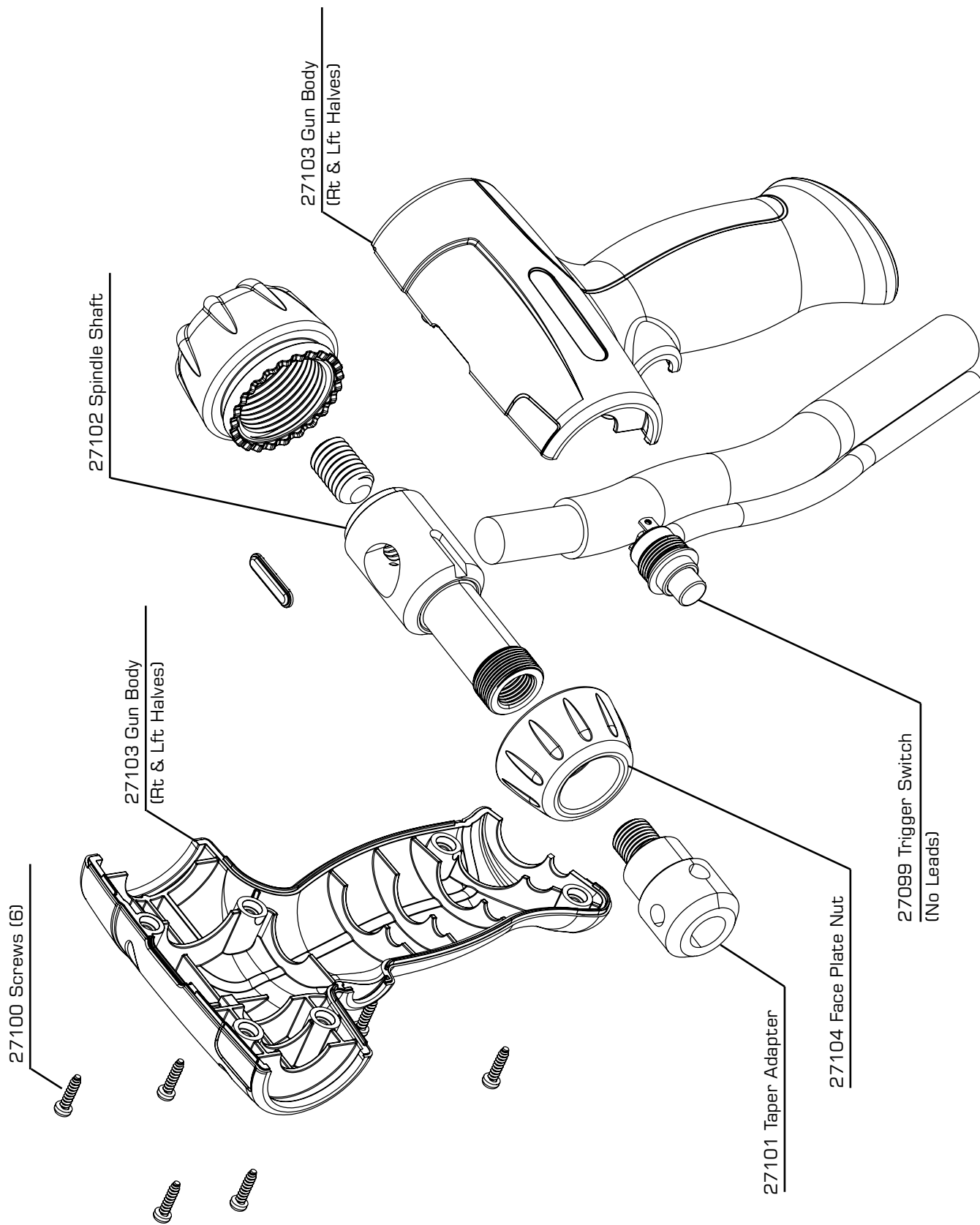
TP-9 Welding Tip
#27230



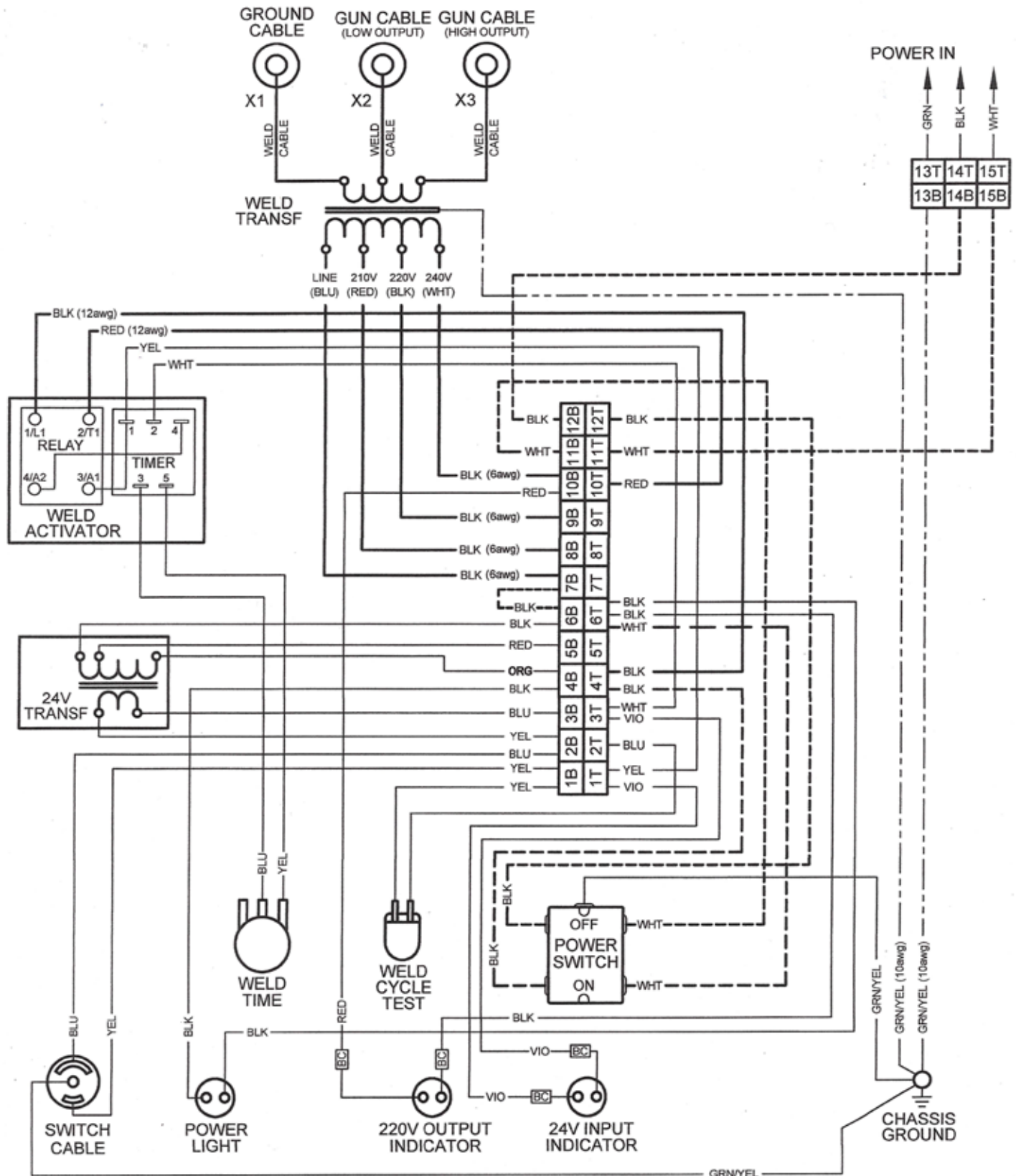
Upper Replacement
Plate Pkg. #17189

FRAME ASSEMBLY

PARTS LOCATION



PBF520 WIRING DIAGRAM



PBF520

NOTES:

- 1- ALL WIRES ARE 16awg UNLESS OTHERWISE SPECIFIED
- 2- ————— DENOTES 8awg WIRE
- 3- - - - - DENOTES 10awg WIRE
- 4- [BC] = BUTT CONNECTOR

PBF520 PARTS & SPECIFICATIONS

ITEM	DESCRIPTION	ITEM	DESCRIPTION
17049	Male Camlock	27268	Chassis
17140	Weld Activator	27269	Lower Chassis Cover
17288	Switch Cable Plug	27270	Wheel - Front Caster
17308	Universal Amber Light	27271	Comp Mounting Bracket
17309	Power Switch	27272	Weld Transformer
17313	Terminal Block	27273	Line Cord
17320	Potentiometer	27274	Ground Block
17327	Switch Cable Receptacle	27275	UWG16 Universal Weld Gun 16ft
27099	Trigger Switch - No Leads	27277	Hi-Volt Terminal Block
27100	Thread Form Screw - 6pk	27278	Hi-Volt Terminal Block End Stop
27101	Tapered Adapter	27315	Green Status Light
27102	Spindle Shaft	27316	Red Status Light
27103	Gun Body (Rt & Left)	27326	Weld Potentiometer Knob
27104	Face Plate Nut	27328	Side Panel - Right
27213	Female Flush Mount Camlock	27335	Wheel - Rear
27230	TP-9 Welding Tip	27340	Ground Cable only
27263	Front Panel	27342	Lexan Shield
27264	Side Panel - Left	27343	Socket Cover
27265	Rear Encl Side Panel - Right	27345	Ground Cable Assembly
27266	Rear Encl Side Panel - Left	39110	Test Switch
27267	Rear Encl Back Panel	44091	24V Multi-Tap Transformer

**DURO
DYNE**

MACHINERY DIVISION

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