

RED RIVER MACHINERY
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<https://www.redrivermachinery.com>

MF70

PLATINUM EDITION

MF70
PINSPOTTER
ITEM# 27180



MACHINERY
DIVISION

OWNER'S
MANUAL

DURO
DYNE

MACHINERY
DIVISION

ELECTRICAL REQUIREMENTS

Connect the MF70 to a 60 amp power supply. (208-230 volts – 60 cycle). The MF70 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 60 amp disconnect box fitted with 60 amp circuit protection.

MF70 AS A BENCH TOOL

To use your work bench as a welding table, set the MF70 alongside or on top of 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 MF70 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.

BRING MF70 TO THE WORK

Where 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

SERVICE

The MF70 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 MF70 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 24 volt transformer.
4. Replace the weld activator.

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.

MAINTENANCE

The MF70 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.



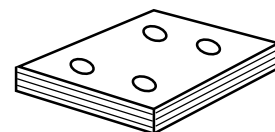
"B"

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



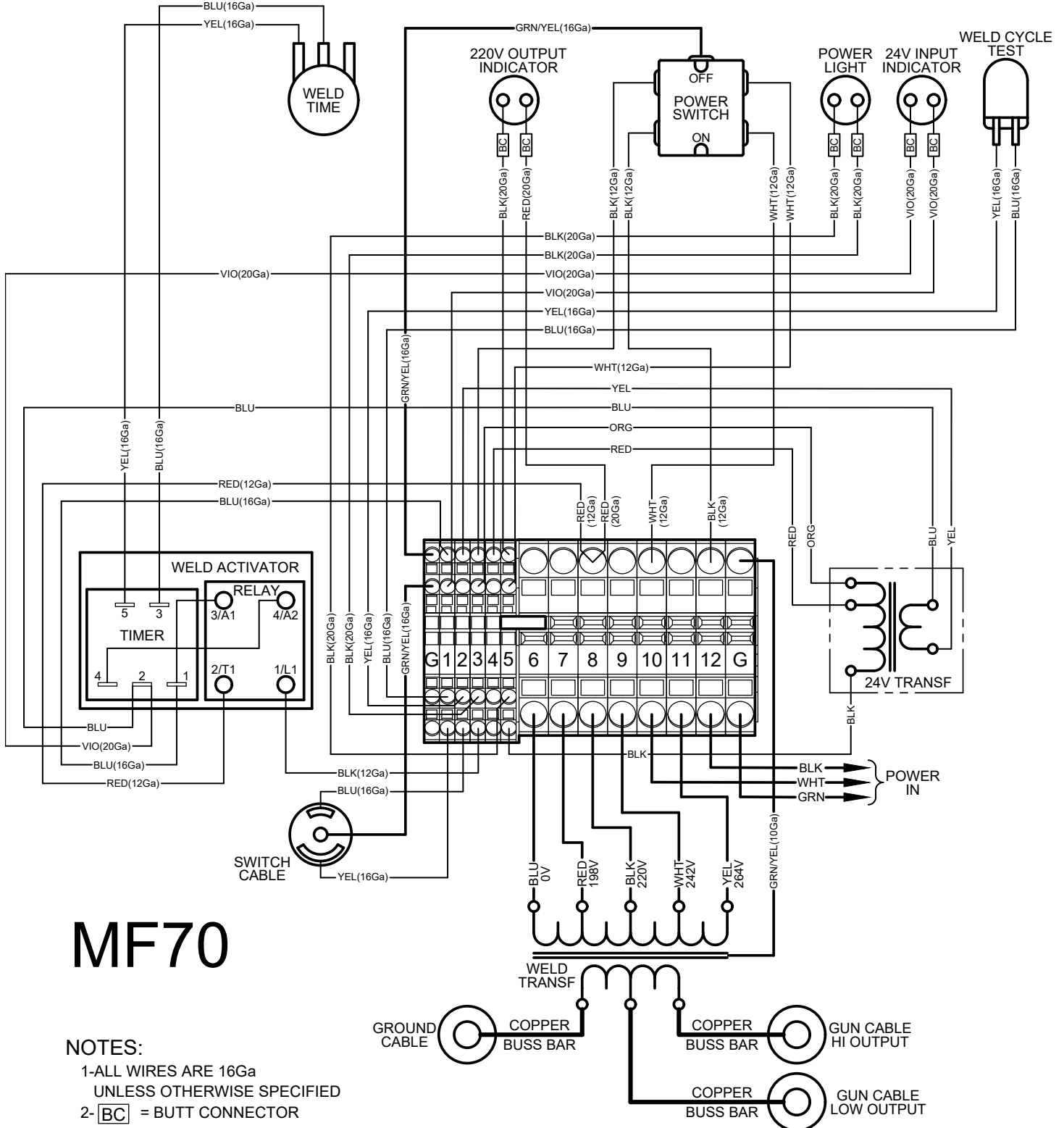
"C"

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



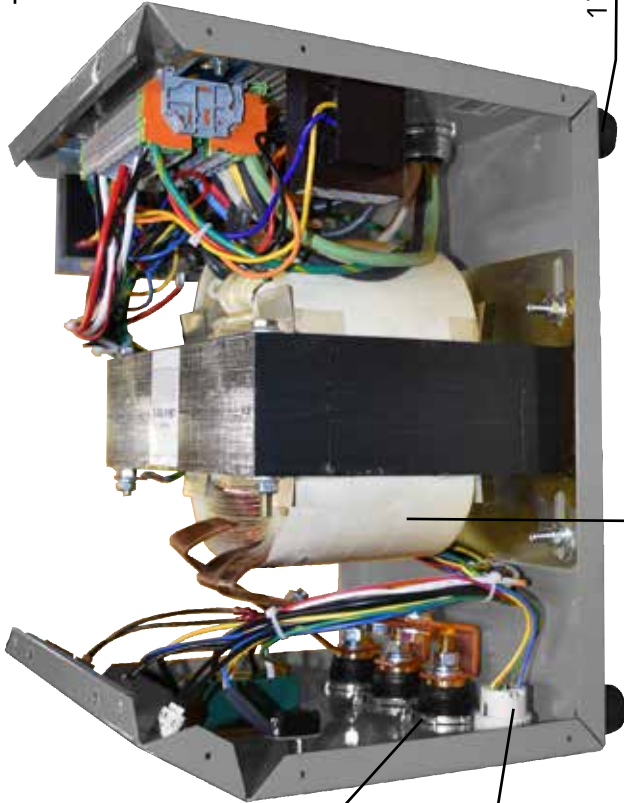
MF70 WIRING DIAGRAM

LATEST: 12-16-21/JO/REV-E



PARTS LOCATION

17140 Weld Activator



27213 Female Flush Mount Camlock

17327 Switch Cable Receptacle

27094 220 Volt Transformer

17079 Rubber Foot



17310 24 Volt Transformer

27355 22-12 Push-in Term Grnd Block

27354 Terminal Block Jumper

27354 20-6 Push-in Term Grnd Block

27315 Green Status Light

39110 Test Switch

17308 Universal Amber Light

27316 Red Status Light

17309 Power Switch

17320 Weld Potentiometer

27326 Knob



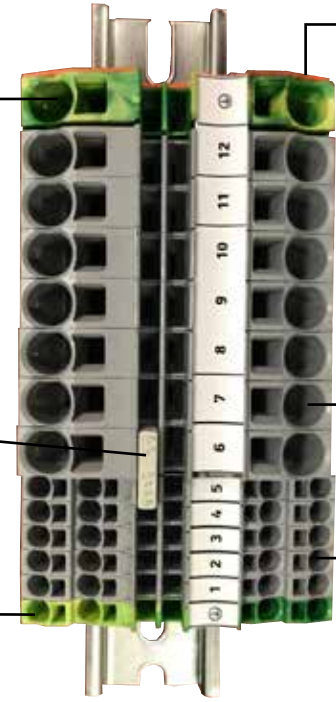
17308 Universal Amber Light

27316 Red Status Light

17309 Power Switch

17320 Weld Potentiometer

27326 Knob



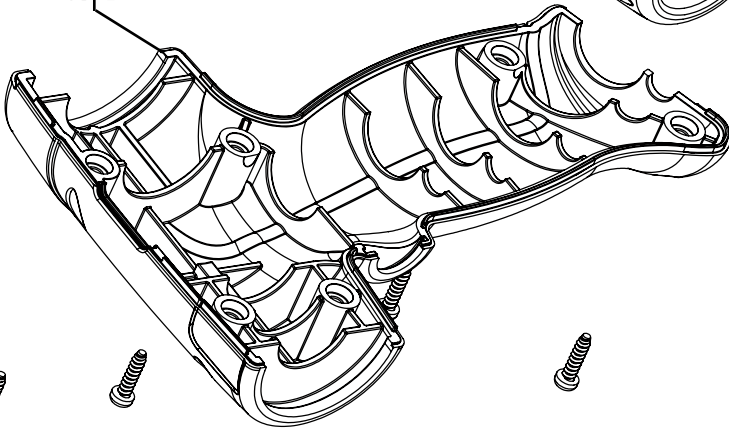
27353 22-12 Push-in Terminal Block

27352 20-6 Push-in Term Block

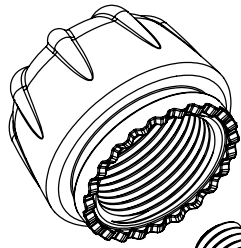
27351 Push-In Term Block End Plate

PARTS LOCATION

27100 Screws (6)



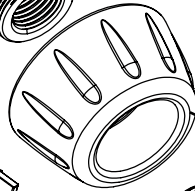
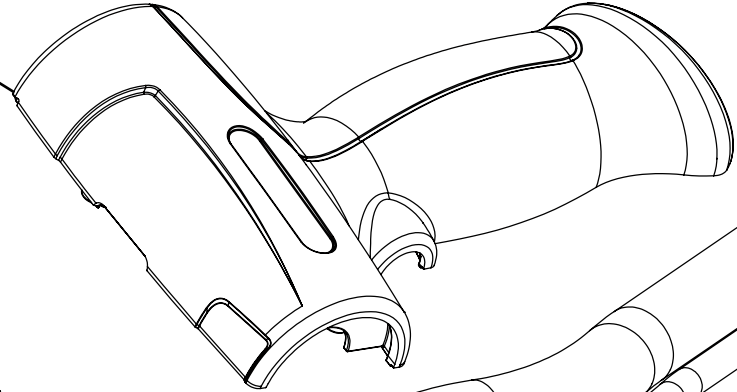
27103 Gun Body
(Rt & Lft Halves)



27102 Spindle Shaft

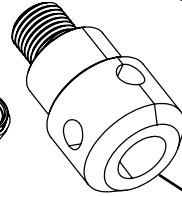


27103 Gun Body
(Rt & Lft Halves)



27099 Trigger Switch
(No Leads)

27101 Taper Adapter



27104 Face Plate Nut



MF70 PARTS & SPECIFICATIONS

ITEM	DESCRIPTION
17049	Male Camlock
17079	Rubber Foot
17140	Weld Activator
17288	Switch Cable Plug
17308	Universal Amber Light
17309	Power Switch
17320	Weld Potentiometer
17327	Switch Cable Receptacle
27005	TP-2 Tip
27094	220 Volt Transformer
27095	Ground Clamp Assembly - 10ft
27099	Trigger Switch - No Leads
27100	Thread Form Screw - 6pk
27101	Tapered Adapter
27102	Spindle Shaft
27103	Gun Body (Rt & Left)
27104	Face Plate Nut
27213	Female Flush Mount Camlock
27217	Line Cord
27230	TP-9 Tip
27253	Line Cord - Strain relief
27315	Green Status Light
27316	Red Status Light
27318	Case Top Cover with Handle
27322	Top Handle
27326	Weld Potentiometer Knob
27343	Socket Cover
27351	Push-In Term Block End Plate
27352	20-6 Push-in Term Block
27353	22-12 Push-in Terminal Block
27354	MF Terminal Block Jumper
27355	22-12 Push-in Term Grnd Block
27356	20-6 Push-in Term Grnd Block
39110	Test Switch
44091	24V Multi-Tap Transformer

