

# 7200 PowerPinner® HAND WELDER OPERATOR'S MANUAL



Copyright: January 5, 2009 Revised: January 22, 2021

97 Dexter Road East Providence, Rhode Island 02914-2045 Tel: (401) 216-7900 Fax: (401) 438-8520 E-mail: GN.Sales@CarlisleHVAC.com Website: www.gripnail.com

# **TABLE OF CONTENTS**

| OPERATOR SAFETY              | 3  |
|------------------------------|----|
| DESCRIPTION                  | 4  |
| SPECIFICATIONS               | 4  |
| INSTALLATION                 | 5  |
| SETUP and OPERATION          | 6  |
| MAINTENANCE                  | 6  |
| INTERNAL PART IDENTIFICATION | 7  |
| EXTERNAL PART IDENTIFICATION | 8  |
| HAND GUN PART IDENTIFICATION | 9  |
| WIRING DIAGRAM               | 10 |
| SERVICE POLICY               | 11 |
| WARRANTY                     | 12 |

#### **OPERATOR SAFETY**

Our first concern at Carlisle Construction Material is the safety of the operators using our equipment. As with most types of welding equipment, there is always a potential for serious injury if the equipment is misused. Please familiarize yourself with the equipment before operating. Below is a list of a few safety precautions that should be observed.

- 1. **READ** this manual before you begin using the equipment.
- 2. **DO NOT OPERATE** this welder in or near water or damp areas.
- 3. **DO NOT LOOK** directly at the weld pin while welding. Arcing produced by the welding process could cause flash burns to your eyes and could cause blindness.
- 4. **WEAR** protective clothing to prevent skin burns from weld slag.
- 5. **DO NOT TOUCH** the weld pin or adjacent area after welding until sufficient time is allowed for cooling. Otherwise, serious burns may result.
- 6. **DO NOT OPERATE** the welder unless all covers are in place.
- 7. **DO NOT PULL** or move the welder by the attached cables or damage to the cables will result.
- 8. **CONTACT** the Service Department for assistance with replacement parts, repairs, questions or diagnosing a problem with the welder.

#### **Customer Service Department**

97 Dexter Road East Providence, Rhode Island 02914 Phone: (401) 216-7900 Fax: (401) 438-8520

Email: GN.Sales@CarlisleHVAC.com Website: www.gripnail.com

#### **DESCRIPTION**

The **GRIPNAL®** 7200 *PowerPinner®* hand welder is a solid state resistance welder designed for welding weld pins manufactured by Carlisle Construction Material to galvanized sheet metal ductwork. Exceptionally strong welds will be obtained with 16 gage or lighter sheet metal. However, tests should be performed to determine the correct weld time settings and if the weld is acceptable per individual requirements.

The normal, continuous weld rate is 15-20 welds per minute. It is capable of welding at faster rates, but for short durations only. Care should be exercised not to exceed the continuous rate for long periods, otherwise component overheating and damage may occur.

The weld gun has a pistol grip style handle with a trigger switch and extra long cables. Welding current is not available at the gun until the weld pin contacts the sheet metal. The weld relay and weld timer operations may be tested by activating the trigger without the pin touching the sheet metal. The "WELD ON" light will turn ON, as well as the weld transformer, for up to .5 seconds, or equal to the weld time control setting.

#### **SPECIFICATIONS**

Input voltage — 190-240 volts AC, 50/60 Hz, 1 Phase, 35 Amps (Recommend using a 50 Amp (minimum), slow blow Disconnect)

Electrical connection —10 ft, 8/3 power cord.

Ground cable — 5 feet, # 4/0 weld cable, with a spring loaded, copper alloy clamp

Weld gun cable — 15 feet, # 4/0 weld cable and # 16/3 control cable

Dimensions — 14" L x 18" W x 46" H (including handle)

Weld rate — 15-20 welds per minute (depending on weld time settings).

Gun type — pistol grip

Shipping weight—140 lbs., boxed

#### INSTALLATION

The 7200 hand welder is designed to operate from 190 to 240 volts, 50/60 cycles, single phase AC. An appropriate male plug, to match the female receptacle to be used, will need to be installed to the electrical supply cord: or wire the electrical supply cord to an appropriate disconnect.

This machine is a welder and is supplied with 35 amp dual-element, time delay (2kA inrush) main fuses. Select the size and style plug, receptacle and branch circuit protection accordingly.

**CAUTION**— Follow OSHA standard 1910.147 "CONTROL of HAZARDOUS ENERGY (LOCKOUT/TAGOUT)" and NFPA70e "Standard for Electrical Safety in the Workplace"

Changing tap should be done by competent and qualified personnel only.

Set the jumper on the terminal strip (190, 208 or 230) to match the incoming voltage. With the power disconnected and or locked out, remove the cover to expose the transformer tap terminal strip. Move the tap wire to the proper terminal position. Replace the cover securely before repowering. (See Figure 1)

Assembly the upper handles and cross support, as shown below, using the hardware provided. Hand tighten the (4) screws thru the handles to the cross support. Slide the assembly onto the posts thru the base cover. Use the (2) screws and nuts provided to secure the assembly to the base. Now, tighten the (4) screws for the cross support. (See Figure 2)



Figure 1 Figure 2

# **SETUP and OPERATION**

- 1. Attach the spring loaded ground clamp to the work table or directly to the duct. Insure the connection is clean and free of foreign material or weld quality will be compromised.
- 2. Plug the welder into a proper electrical outlet and adjust the "Weld Time". (Shorter pins and thin gauge require a lower setting than long pins and thicker gauge.)
- 3. Use duct liner and a piece of scrap metal of the same gage for the following test.
- 4. Place a weld pin on the gun's magnetic weld tip.
- 5. Press the pin into the liner, making contact with the metal using a twisting motion, then apply moderate pressure prior to activating and throughout the weld cycle.
- 6. Pull and hold the trigger to start and continue the weld cycle. The green "WELD ON" light will turn ON during the weld cycle and will automatically go OFF.
- 7. Release the trigger, lift the gun from the metal, then repeat the process with a new pin.
- 8. Test weld several pins in this manner and adjust the "Weld Time" to the lowest setting required to give good weld results.

#### **MAINTENANCE**

The 7200 hand welder requires very little maintenance due to it's solid state circuitry and design. We do, however, recommend the following procedures periodically.

**CAUTION:** Turn welder OFF and disconnect from electrical supply before any maintenance or service is performed. Follow OSHA standard 1910.147 "CONTROL of HAZARDOUS ENERGY (LOCKOUT/TAGOUT)" and NFPA70e "Standard for Electrical Safety in the Workplace". Maintenance should be done by competent and qualified personnel only.

- 1. Remove all accumulated insulation dust and foreign debris from inside the welder.
- 2. Tighten all mounting hardware on solid state circuit components, transformers, cable connections to weld transformer, ground clamp, weld gun and control cable.
- 3. Using a steel wire brush, clean the contact surfaces of the spring loaded ground clamp.
- 4. Clean and inspect the magnetic weld tip. Replace if badly burned, deeply pitted or if the magnetism is too weak to properly hold a weld pin.
- 5. Carefully inspect and tighten all cable strain reliefs. **Note**: On the weld gun assembly, the weld cable should take the heavy strain load, not the lighter control cable.

# INTERNAL PART INDENTIFICATION

# **WARNING**

The inside view of the welder is shown below for parts identification purposes only.

**<u>DO NOT OPERATE</u>** the welder with the cover removed.

Possible injury or accidental electrical shock may result.

DISCONNECT all electrical power before servicing. Follow OSHA standard 1910.147 "CONTROL of HAZARDOUS ENERGY (LOCKOUT/TAGOUT)" and NFPA70e "Standard for Electrical Safety in the Workplace". Work should be done by competent and qualified personnel only.

51301 WELD RELAY

51272 POWER SUPPLY



51346 WELD TRANSFORMER

51350 WELD TIMER

51299 35A FUSE

# **EXTERNAL PART INDENTIFICATION**

51297 DISCONNECT SWITCH

51263 POTENTIOMETER

51352 POWER ON LIGHT 51351 WELD ON LIGHT



# HAND GUN PART INDENTIFICATION

COMPLETE ASSEMBLY 20516

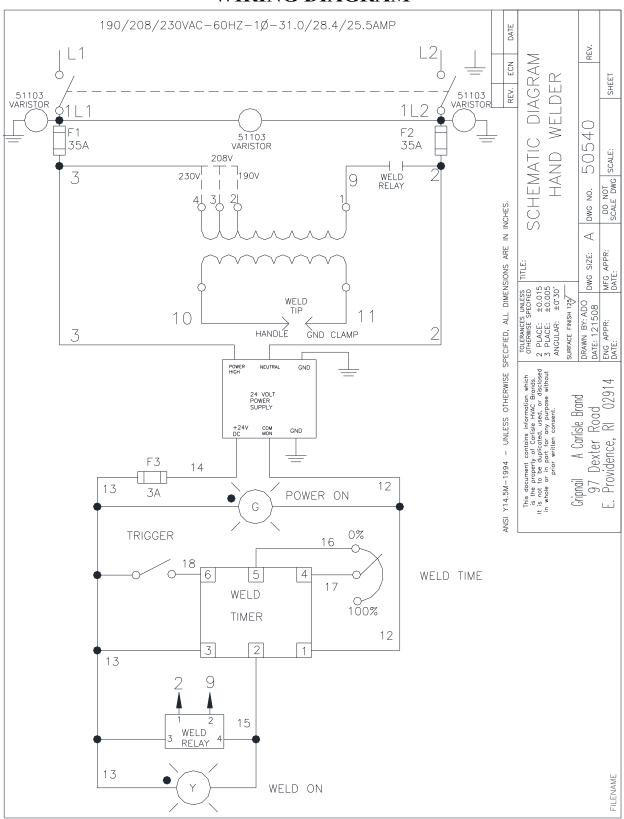


51308 TRIGGER SWITCH

The magnetic tip must be kept tight to the Weld Tip Holder, and clean during use or weld quality will be compromised. Check the tip condition often for wear and clean with a steel wire brush to remove glue buildup and burning as necessary. Replace when it becomes badly pitted or the magnets fail to hold a pin.

Complete Ground Cable Assembly is 20515.

# WIRING DIAGRAM



#### SERVICE POLICY

Proper operation of your machine is a top priority with the Carlisle Construction Material. We will assist you to the best of our abilities to see it is kept in peak operating condition.

In many cases, service needs can be made simply by calling Customer Service Department. If it becomes necessary for a service technician to visit your plant, we can make the arrangements.

Carlisle Construction Material hand welding equipment are covered under a one year New Machine Warranty (see Warranty next page). Replacement parts covered by the warranty are supplied free of charge, provided the original parts are returned to Carlisle Construction Material and do not shown signs of abuse. Normally replaceable components, such as weld tips, are considered "consumables" and are without warranty

All warranties on Carlisle Construction Material machines are good only if fasteners produced by Carlisle Construction Material are used. If it is determined that fasteners other than those manufactured by Carlisle Construction Material have been used, the warranty is voided. At Carlisle Construction Material, we believe in servicing what we sell for the lifetime of the equipment. If you are having difficulty with your machine or if you have any questions regarding service and warranty policy, please call, fax, or write:

#### **Customer Service Department**

97 Dexter Road East Providence, Rhode Island 02914 Phone: (401) 216-7900 Fax (401) 438-8520

Email: GN.Sales@CarlisleHVAC.com Website: www.gripnail.com

#### WARRANTY

All Carlisle Construction Material Equipment is thoroughly inspected and tested before leaving the factory. Carlisle Construction Material warranties its equipment to be free from defects in workmanship and materials under normal and proper use for a period of one (1) year from date of sale to original end purchaser.

The warranty does not apply when repairs or attempted repairs have been made by persons other than Carlisle Construction Material authorized service personnel, or where it is determined by our service personnel that the equipment has been subjected to misuse, negligence or accident. If it is determined that any fasteners other than those manufactured by Carlisle Construction Material have been used in this machine or tool, the warranty is terminated.

Carlisle Construction Material shall not be liable for contingent damages or delays caused by defective materials or any other means beyond our control.

#### **Customer Service Department**

97 Dexter Road East Providence, Rhode Island 02914 Phone: (401) 216-7900 Fax: (401) 438-8520

Email: GN.Sales@CarlisleHVAC.com Website: www.gripnail.com