

4/6/2004

This booklet contains various installation schematics for the Weldtron Products Pipeliner remote amperage controller to a wide range of engine driven welding machines. Do not dispose of this manual will become invaluable when the need arises for maintenance or repair of your remote controller.

The Pipeliner is currently adaptable to over 59 different types and brands of welding machines.

The Pipeliner remote is extremely simple to operate.

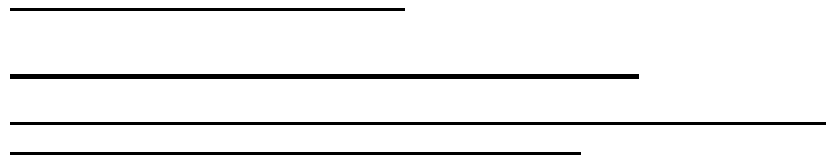
1. It uses a standard three wire extension cord for both control and power.
2. It does not require the installation of any switches. Plug it into the remote extension cord—it's on. Unplug it—it's off.
3. The electronic controller within your machine simply parallels your machine's own rheostat and simply parallels the machine's own field current.
4. In the event of failure your machine can still operate normally by simply removing two wires from the Pipeliner machine circuit board.
5. Minimum set welding current is simply selected by setting your machine rheostat to the lowest amperage you wish. The Pipeliner will automatically range from that setting to the machine maximum.
6. When the hand control unit is not in use the remote extension cord can be used as a standard extension cord by utilizing a common 3 prong to 2 prong 120 volt adapter to isolate the ground terminal.
7. The Pipeliner can be used with all systems on machines with AC auxiliary power.
8. The large knob on the hand control makes it easy to turn with welding gloves on.
9. The magnetic base allows the hand control to be attached to any iron or steel.
10. The electrical receptacle on the hand control is rated at 20 amps, AC or DC.

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1. Do not allow the hand control unit to be submerged in mud, snow or water even though it is protected from the weather, it is not waterproof.
 2. Don't use the remote extension cord for a standard extension cord without the hand control plugged in unless the adapter mentioned in paragraph 6 above is used.
 3. Wet, muddy or damaged extension cord connections can (and will) cause malfunctions that appear to be generated from the remote hand control.

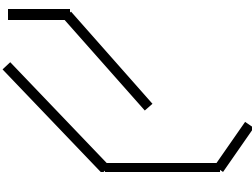
4. Most malfunctions with the Pipeliner occur upon installation. Read and follow the installation instruction exactly as shown. DO NOT GUESS at anything. If in doubt, contact us immediately BEFORE you damage the unit, or worse yet, your machine.



1. Place the machine circuit board on a piece of thick paper and mark the mounting holes on it. This will be your drilling template.
2. Mount the circuit board behind the machine's front panel where it will be protected from the weather. Use the screws supplied to mount the nylon spacers to the front panel. Simply slip the circuit board to the spacers.
3. Mount the supplied receptacle into the machine panel or mount it onto a piece of sheet metal mounted on the gas tank rail. We recommend the receptacle be mounted inside the cover of the machine to protect it from wind driven rain, road water or snow. You may use the supplied receptacle or a generic isolated ground receptacle such as the generic part number that can be obtained at most electrical supply houses. This part number is generic for brands such as Hubbel, Levaton and many others. If an isolated ground cannot be readily obtained use a temporary remote receptacle by cutting off the head of an extension cord and using it as a "drop cord" until you can purchase the correct isolated receptacle.

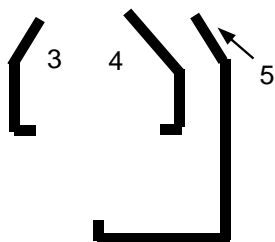


Machine Circuit Board	Rheostat	Machine power receptacle	Diode Bridge	Remote Receptacle
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Locate the machine's fine current control rheostat. _____
 _____ Add a new wire from the
 rheostat to terminal #1 on the machine circuit board. Add another new wire
 from the rheostat to terminal #2. It does not matter what wire goes to what ter-
 minal on the circuit board and polarity does not matter either. Simply attach
 the wires as shown. This completes the wiring to the machine's rheostat.

Connect the remote receptacle
 as shown. You may use the
 supplied receptacle or any
 other
 receptacle such as the generic
 part number

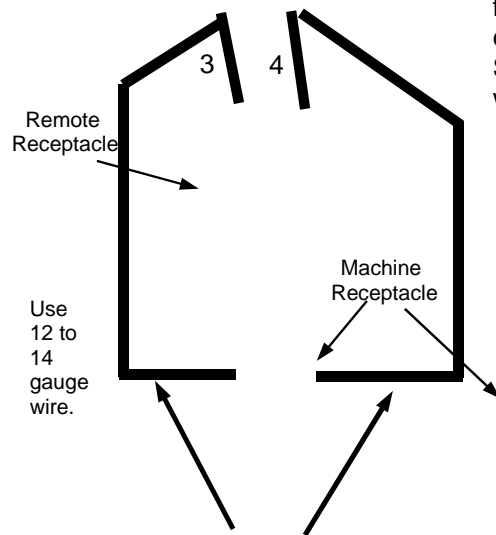


Most installation prob-
 lems are caused by the use of
 common electrical recepta-
 cles.

Note: Lincoln SA-200, Classic-I and Pipeliner 200G and D machines have a single receptacle but wiring is the same. Polarity does not matter.

Wiring the remote receptacle from the machine's auxiliary power receptacle is easy. Simply parallel the wiring as shown in this picture.

Note: in the previous step wiring from the remote receptacle was connected to the circuit board. Simply connect these additional wires to the remote receptacle.



Receptacle for SA-200, Classic I, Pipeliner 200G and Pipeliner 200D.

Ground Fault Interrupter (GFI) receptacles may be wired the same as shown above. Simply use the secondary side of the GFI receptacle to attach to the remote receptacle per the GFI instructions that come with the GFI receptacle.

NOTE:

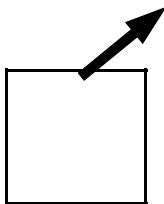
such as the SA-200, Classic-I or Pipeliner 200G or D series machines.



When installing to a machine that produces AC auxiliary power, you must know how to locate and identify the machine's diode bridge. The following gives a short description that will assist you in installation of the Pipeliner Remote Control.



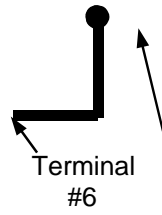
The diode bridge is a black plastic cube that is mounted on the rear of the front panel of the welding machine. It is easily recognizable. Some have small symbols on them stating "AC, AC, Neg, Pos, -, or +."



When connecting terminal #6 from the circuit board, only the positive terminal on the diode bridge will be used. No other terminals will be used. Do not disconnect any of the original wiring that is on the diode bridge when connecting the circuit board.

The positive terminal of the diode bridge is easily recognized by several means. The positive terminal is beveled, different from the other squared edges of the bridge. If the edge is not beveled there will be either a \oplus , a \ominus , or the word "Pos". The positive terminal on some diode bridges can easily be located because they are arranged differently than the other terminals.

Machines with 350 watt rheostats. Big 40,
Trailblazer , Wildcat 350 and all similar
machines.



Operation is very simple. The remote control utilizes a standard 3 wire extension cord for both control and auxiliary power. There are no switches to throw or special cables to use.

When the remote hand control is plugged into the remote extension cord it becomes active and controls your welding. When it is unplugged, it becomes inactive and full control reverts back to your machine's own current control. When using the remote control, set your machine's own fine current control at it's minimum setting (0%). This will insure that you have full control over the entire range of the machine from minimum to maximum current when using the remote.

The remote hand control dial ranges from 0 to 100%. This is a linear ranging device and will be close, but not duplicate your machine's own fine current control. After using the remote you will become familiar with it's operation.

For very fine control between ranges of your machine, you may set your machine's fine control to any setting and the remote control will give a much greater control over the minimum range set on the machine to it's maximum setting. The machine's fine current control setting will determine the current that the remote will produce.

The remote extension cord can be of any length. We recommend that a 12 gauge extension cord be used so that large tools can be used (such as chop saws and 1/2 inch drills).

The hand control is water resistant but not waterproof. Keep it dry and if it becomes wet DO NOT USE IT or it will be damaged. In most cases simply open the case and let it dry out for about 24 hours.





Disconnect both the extension cord from the machine and/or remote control from the machine. Operate the machine without any remote cables or devices. Start an arc (or measure the open circuit voltage , OCV) while turning the machine's fine current control up and down. If the machine operates correctly, the problem is external to the machine. There is no problem with the Pipeline machine board. If the machine is too hot or the OCV cannot be varied, the machine circuit board is defective. If the machine acts normally, go to step #2.

2. Bypass, and do not use the extension cord for this test. Plug the hand control unit into the remote receptacle and vary it's control from 0 to 100% while welding or monitoring the OCV. If it

does not control the arc or OCV the hand control is defective. If it controls the arc or OCV then the hand control is good and go to step #3.

Unplug the remote hand control and plug the extension cord into the remote receptacle.

Test the machine by using it's own fine current control and vary the arc or OCV from 0 to 100%. If there is no control, or if the machine is not acting normal, the extension cord is at fault. Fix it or replace it. If the machine operates normally

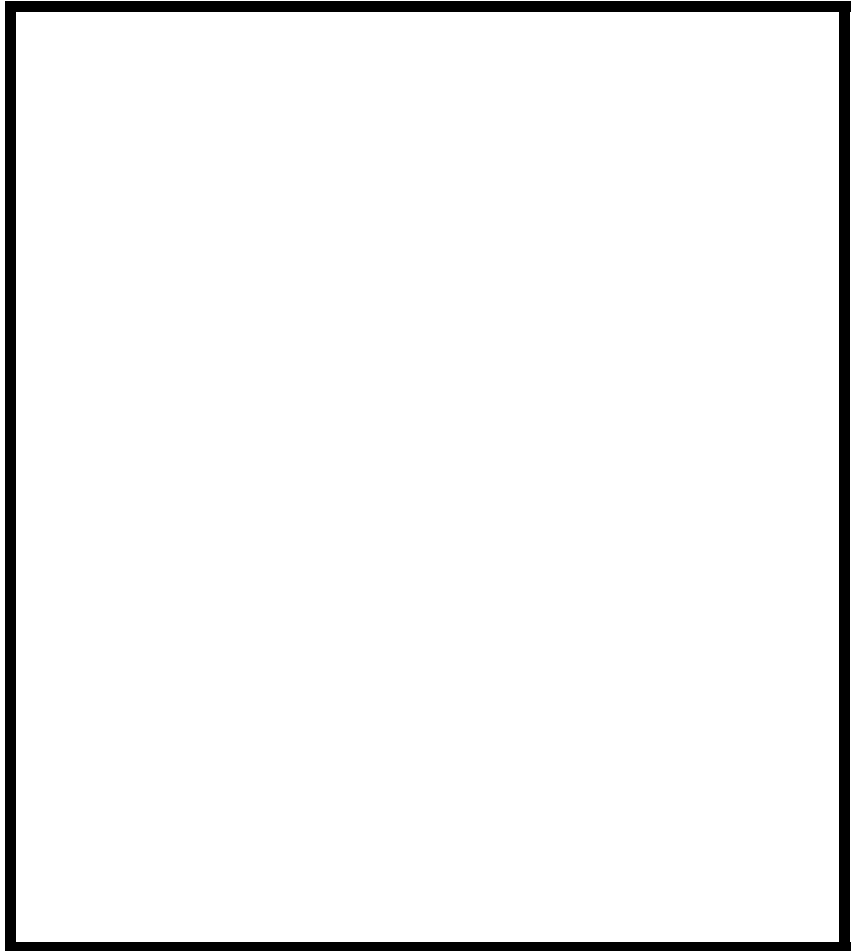
and vary the hand control from 0 to 100%. If the machine does not operate properly then, the problem is still in the extension cord and it must be repaired or replaced.

All products manufactured by Weldtron Products hold a conditional warranty for a period of one year from date of purchase. This warranty covers defective parts under normal wear and tear along with quality of workmanship.

Warranty is voided by errors in installation or application, physical damages, abuse, attempted repairs by others, alteration of any identifying information on the product, or damages caused by forces external to the product.

If you require warranty please contact us and we will issue a return materials authorization () document number to you to identify the problem and to whom it belongs to.

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