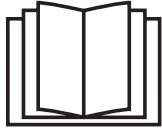


Software Update Instructions For 14-Pin SubArc Digital Converter Accessories: 301578



Have only trained and qualified persons install, operate, or service this unit. Call your distributor or the equipment manufacturer if you do not understand the directions.





For WELDING SAFETY and EMF information, read Owner's Manual.



All directions are given as facing front panel.

Keep hardware for reuse.

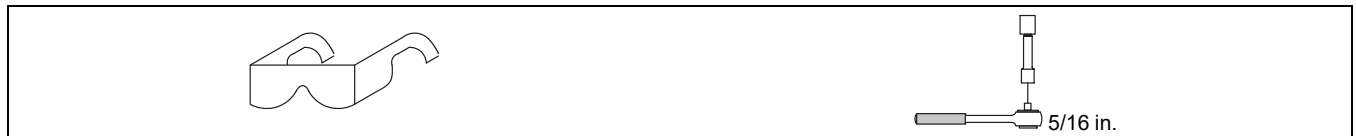
Staple these instructions inside Owner's Manual.

1. Safety Symbol Definitions

	DANGER! - Indicates a hazardous situation which, if not avoided, will result in death or serious injury. The possible hazards are shown in the adjoining symbols or explained in the text.
	Indicates a hazardous situation which, if not avoided, could result in death or serious injury. The possible hazards are shown in the adjoining symbols or explained in the text.
NOTICE – 	<i>Indicates statements not related to personal injury. Indicates special instructions.</i>
	Wear safety glasses with side shields.

	Hot parts can burn. Allow cooling period before working on equipment. Do not touch hot parts bare handed. To handle hot parts, use proper tools and/or wear heavy, insulated welding gloves and clothing to prevent burns.
	Beware of electric shock from wiring. Disconnect input power before installing this kit. Reinstall all panels and covers.
CALIFORNIA PROPOSITION 65 WARNINGS WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov	

2. Tools Needed



3. Download Software






 A computer with an SD memory card port or SD memory card reader is required to download software upgrades. Download upgrades at www.Miller-Welds.com. (or, upgrade software with a purchased software upgrade card).

The SD logo is a registered trademark of SD-3C LLC.

4. 14-Pin To SubArc Digital Converter System Information



 Please read these instructions carefully and completely before attempting to use the 14-Pin To SubArc Digital Converter.

Part: 1. How to Select the Power Source/Engine Drive that You Will Be Using


Once the hardware is all set up, it is now time to select what the 14-Pin To SubArc Digital Converter cable will be attached to by choosing the appropriate item in the Power Source Menu. This is necessary because without the right power source menu item selected, the voltage and current scaling will be inaccurate, along with your weld parameters.


Step 1. Finding the 'Power Source Menu' in the Aux Menu

A. Verify that all instructions in the "Basic 14-Pin To SubArc Digital Converter" are completed and that all the following devices are turned ON:

- Power Source/Engine
- 14-Pin To SubArc Digital Converter
- Digital Accessory


B. At the digital accessory, press the "Sequence" and "Set Up" buttons simultaneously to reveal the Aux Menu. If done correctly, then both LEDs will be flashing.

 At this point, "Set Up" and "Sequence" will serve as 'Back' and 'Forward' arrows to cycle through the Aux Menu items. The "Locks" item is the first item in the Aux Menu.


 To exit the Aux Menu, one must press the "Sequence" and "Set Up" buttons simultaneously again.

C. Press the "Set Up" button one time and you should arrive at the Power Source Menu. If done correctly, there will be a "PS" displayed on the upper left side of the digital accessory (in the 'Program' section).


D. You are now at the Power Source Menu.

 To see the different power sources and engine drives, one must use the dial/knob of the digital accessory. Clockwise/CCW turns will cycle through the available power sources. Proceed to Step 2 which will help you determine which Power Source/Engine Drive is right for your set up.

Step 2. Selecting the Right Power Source

 (see Section 7-6 in Owner's Manual)

A. Once at the Power Source Menu, cycle through the menu using the turn knob until you find the make/model of your 14-pin analog power source or engine drive.

 If you intend to use a Big Blue engine drive, you will see that the Power Source display menu for Big Blues ('BB') does not follow the regular "make/model" format, but instead follows a "make/voltage scale" format. Be sure to match the preset voltage range of your Big Blue engine drive with the voltage range in the Power Source Menu.


Example – 'BB 15.50' in Power Source Menu stands for a Big Blue with a preset voltage range of 15.0 – 50.0 Volts. If you are unsure how to check the preset voltage range on your Big Blue, the voltage range can also be found in the Owner's Manual of your Big Blue model (under the "Specifications" section).

B. When you have found your desired power source or engine drive in the Power Source Menu, exiting the Aux Menu will save the last seen Power Source Menu item.


- To exit the Aux Menu, press the "Sequence" and "Set Up" buttons simultaneously until you return to where you set your voltage and current preset values (two times).
- Cycling power while still in the Power Source Menu will still save the last seen item in the Power Source Menu.

5. 14-Pin To SubArc Digital Converter System Information (Continued)



 Please read these instructions carefully and completely before attempting to use the 14-Pin To SubArc Digital Converter.

Part: 2. How to Check What Version of Software You Are Using

 (see Section 7-6 in Owner's Manual)

The software version for the 14-Pin To SubArc Digital Converter can be found as an item in the Aux Menu.

- 1 Verify all steps in Part 1 are completed.
- 2 At the digital accessory, go to the Aux Menu by pressing the "Sequence" and "Set Up" buttons simultaneously.
- 3 From here, you can either press the "Sequence" button **one time** (cycle backwards through the menu) **OR** press the "Set Up" button numerous times (cycle forward through the menu).
- 4 You will know that you have reached the software revision screen in the Aux Menu once you see "**C.REV**" on the display. The "C" stands for Conversion Box (14-Pin To SubArc Digital Converter). The number below it will refer to the software revision number.
- 5 You can exit the Aux Menu by once again pressing "Sequence" and "Set Up" simultaneously, two times.

Part: 3. How to Update the Software Using the SD Card Reader

NOTICE – Do not remove the SD card or cycle power while an update is in progress. Please wait until the update completes before attempting a power cycle. **Never** attempt to insert or remove the SD Card when power is being supplied to the system.

14-Pin To SubArc Digital Converter software can be updated using the SD Card Reader located inside of the 14-Pin To SubArc Digital Converter. Follow the instructions below to update the software.

- 1 Complete **Part 2** steps to check the current software version that you are using. You will use this revision value to later confirm that the update occurred.
- 2 Acquire the Update from the Miller Website. Your unit should have been shipped with an SD card with current software. If you are just refreshing or updating other accessories you may skip this step and step 3.
- 3 Download the firmware image onto your SD Card.
 - You will now have the SADIGCBC.FW file on your SD Card.
- 4 If it isn't already, turn **OFF** the 14-Pin To SubArc Digital Converter (as well as any other power devices connected to it in the system) and wait for ~10 seconds.

 **Disconnect power from unit before moving to next step.**

- 5 Remove the 6 5/16 in. screws to remove the lid to the 14-Pin To SubArc Digital Converter.
- 6 Locate the SD Card Reader and insert the SD Card that has the updated firmware image into the card chamber.
- 7 Secure lid back onto the 14-Pin To SubArc Digital Converter.
- 8 Wait ~ 60 seconds for the 14-Pin To SubArc Digital Converter control board to update the Firmware.
 - During the update, If digital accessories are connected Help 98 and or Help 99 may be displayed. This is normal and may cause the update to take longer.
 - Once the display returns to the "Home" screen where you can adjust presets, continue on to step 10.
- 9 During the update, If digital accessories are connected Help 98 and or Help 99 may be displayed. This is normal and may cause the update to take longer.
- 10 Complete **Part 2** steps again to confirm that the software revision is updated/different.