



WB ALLOYS

500 SERIES

DC MULTI PROCESS WELDING MACHINES

WELDERS HAND BOOK

Based on Software Version 118

A GUIDE TO ASSIST OPERATORS IN THE CORRECT SETUP FOR

DC TIG PROCESS

FOR FURTHER INFORMATION PLEASE CONTACT

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DC TIG

- 1) Connect the Earth lead to the Positive Dix socket on the front of the machine
- 2) Connect the Tig torch to the Negative Dix socket on the front of the machine (*Use a suitable Tig adaptor if required*)
- 3) Connect the Tig torch switch plug to the 4 pin socket on the front of machine
- 4) Connect the Tig torch gas hose (*or the Tig adaptor gas hose*) to the 3/8" male connection on the front of the machine
- 5) Connect your Argon gas supply to the 8mm nipple on the rear panel of machine
- 6) Switch on the welding machine by lifting the circuit breaker switch located on the rear panel
- 6) Push **ESC** on the front panel, this will bring you to the **1st level menu** which is the **Process Selector menu**.
- 7) Select **TIG** by using the **Up/Down** \updownarrow **keys** then press **OK**. This will take you to the **2nd level menu** which is the **parameter setting menu**.

You are now ready to set the welding parameters prior to welding.

You will now see the following parameter settings menu; **below is an explanation of how to set these quickly & easily.**

(Depending on the software version that is installed in the powersource you are using)

CURRENT – Your main welding current. Select **Current** using the **Up/Down** \updownarrow **keys** and adjust the current using the **+/- keys**

SLOPE-UP – Your Slope Up control of welding current (from the start current you have set to the welding current you have set.)

This is based on Amps per second. Therefore, if your start current is 30A and your welding current is 100A, a slope-up setting of 10 will give you 7 seconds of slope up time. Select **Slope Up** using the **Up/Down** \updownarrow **keys** and adjust the setting to your needs using the **+/- keys**

SLOPE-DOWN - Your Slope down control of welding current (from the welding current you have set to the start current you have set.)

This is based on Amps per second. Therefore, if your welding current is 100A and your start current is 30A, a slope-down setting of 10 will give you 7 seconds of slope down time. Select **Slope Down** using the **Up/Down** \updownarrow **keys** and adjust the setting to your needs using the **+/- keys**

START CURRENT – Your initial starting current when striking the arc prior to sloping up to your set welding current. Select **Start Current** using the **Up/Down** \updownarrow **keys** and adjust the current to your needs using the **+/- keys**

PILOT CURRENT – Your pilot current, this can be set to suit your requirements and can be set at a very low current to prevent craters from forming.

The pilot current is used in some of the switching methods as described below. Select **Pilot Current** using the **Up/Down** \updownarrow **keys** and adjust the current to your needs using the **+/- keys**

PREGAS – Allows you set a Pre Flow gas time setting between 0.1 – 12 seconds. Select **Pregas** using the **Up/Down** \updownarrow **keys** and adjust the time to your needs using the **+/- keys**

POSTGAS – Allows you set a Post Flow gas time setting between 0.1 – 50 seconds. Select **Postgas** using the **Up/Down** \updownarrow **keys** and adjust the time to your needs using the **+/- keys**

GUN MODE – Allows you to select any of the 7 available switching options (**0 – 6**) for your torch switching sequence. Select **Gun Mode** using the **Up/Down** \updownarrow **keys** and select the switching option you require using the **+/- keys**

The 7 switching options are described on the following page:

GUN MODE – Switching Methods

- 0:** Press and hold the trigger, Pregas will flow, the arc will strike at the **Start** current set then slope up to the welding **Current** set. Release the trigger and the current will slope down to the **Start** current set and the arc will extinguish, post gas will then flow.
(if you press and hold the trigger before the arc extinguishes, you will slope up to the welding current set)
- 1:** Press and hold the trigger, Pregas will flow, the arc will strike at the **Start** current set. Now release the trigger
Repress and release the trigger, the current will slope up to the welding **Current** set.
Repress and release the trigger, the current will slope down to the **Pilot** current set.
Repress and release the trigger, the arc will extinguish, post gas will then flow.
*(if you press and hold the trigger before you reach the welding **Current** set, you will slope down to the **Pilot** current set)*
- 2:** Press and hold the trigger, Pregas will flow, the arc will strike at the **Start** current set. Now release the trigger
Repress and release the trigger, the current will slope up to the welding **Current** set.
Repress and release the trigger, the current will slope down to the **Pilot** current set.
Repress and release the trigger, the current will slope up to the welding **Current** set.
*(You can repeat the process of switching between welding **Current** and **Pilot** current as many times as required by simply repressing and releasing the trigger.)*
To extinguish the arc, press the trigger **twice quickly** while you are at either the welding **Current** set or the **Pilot** current set, the arc will slope down and extinguish, post gas will then flow.
- 3:** Press and hold the trigger, Pregas will flow, the arc will strike at the **Start** current set then slope up to the welding **Current** set. Now release the trigger.
Repress and release the trigger and the current will slope down to the **Start** current set and the arc will extinguish, post gas will then flow.
*(if you press and release the trigger before the arc extinguishes, you will slope up again to the welding **Current** set)*
- 4:** Press and hold the trigger, Pregas will flow, the arc will strike at the **Start** current set
Release the trigger and the current will slope up to the welding **Current** set
Press and hold the trigger the current will slope down to the **Pilot** current set
Release the trigger and the arc will extinguish, post gas will then flow.
- 5:** Press and hold the trigger until Pregas flows and arc strikes at the **Start** current set, then release trigger.
*(If you continue to hold the trigger after the arc has struck, you will slope up to the welding **Current** set.)*
Press and hold the trigger and the current will slope up to the welding **Current** set
Release the trigger and the arc will slope down to the **Pilot** current set
Press and hold the trigger and the current will slope up to the welding **Current** set
Release the trigger and the arc will slope down to the **Pilot** current set
(You can control your current by simply pressing and holding the trigger to slope up, then releasing the trigger to slope down as many times as required)
Press and release the trigger at any time and the arc will extinguish, post gas will then flow.
- 6:** Press and hold the trigger, Pregas will flow, the arc will strike at the **Start** current set then slope up to the welding **Current** set.
(You can release the trigger at any time after the arc has struck and this will stop the slope up and hold the arc)
Press and hold the trigger and the current will slope down to the **Start** current set and the arc will extinguish, post gas will then flow.
(You can release the trigger at any time after the slope down has started, this will stop the slope down and hold the arc)
Press and hold the trigger and the current will slope up to the welding **Current** set.
(You can release the trigger at any time after the slope up has started, this will stop the slope up and hold the arc)
Press and hold the trigger and the current will slope down to the **Start** current set and the arc will extinguish, if you release the trigger you will stop the slope down and hold the arc, you can now slope up and down and control the current as many times as required by simply pressing and holding/releasing the trigger

HF/LIFTARC – Allows you select either **HF ignition** or **Lift Arc ignition**. Select **HF/Liftarc** using the **Up/Down** \updownarrow **keys** and select the ignition type you require using the **+/- keys**

SAVE WELD DATA – Allows you save up to 30 welding settings you commonly use. Select **Save Weld Data** using the **Up/Down** \updownarrow **keys** then press **OK**. The screen will then ask you to select a job number between 1-30. Using the **+/- keys** select the job number you require and then press Save. You will then see a display saying Data Has Saved, then press ESC (**If you select a job number which already has settings stored, you will over-write these**)

LOAD WELD DATA – Allows you to load any of the 30 saved welding settings stored in the machine. Select **Load Weld Data** using the **Up/Down** \updownarrow **keys** then press OK. The screen will then ask you to select a job number between 1-30. Using the **+/- keys** select the job number you require and then press Load. You will then see a display saying Data Has Loaded.

(Please ensure when loading saved data that you select the correct process type you are about to load from the 1st level menu before loading)