ESAB®

Aristo®

TA6

Instruction manual

1   INTRODUCTION

This manual describes operation of the **TA6** control panel.

For general information on operation, see the power source operating instructions.

If this warning is shown in the display it means that the power source don't support this function.

```
 RESTRICTED
 FUNCTIONALITY!
 PLEASE UPDATE
   SOFTWARE!

 ↓  MAIN        NEXT
    MENU
```

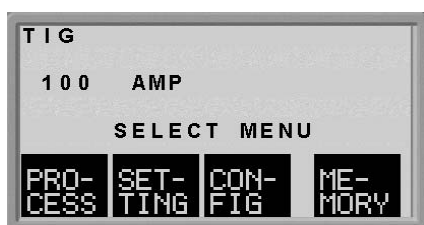Contact an authorised ESAB service engineer to get an updated software.

1.1   Do this first

This main menu appears in the display the first time that you start the power unit.

```
 0,0 Volt
 100 Amp

 4-   GAS
 STROK PURGE
```

When delivered, the control panel and display are set to English. There are 14 languages stored in the control panel: change to the one that you want as follows.

* Press [MENU] to reach the first selection menu.

```
 TIG

 100   AMP

     SELECT MENU

 PRO-  SET-  CON-  ME-
 CESS  TING  FIG   MORY
```

* Press [CON-FIG] to reach the configuration menu.

```
 -CONFIGURE MENU 1/1-
 LANGUAGE       ENGLISH
 DIMENSIONS     METRIC
 PANEL ENABLE ON
 TRIGGER DATA OFF

 ↓  MAIN        NEXT
    MENU
```
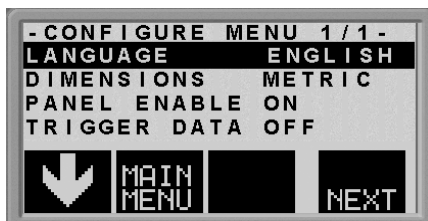
* Press [NEXT] (i.e. the soft button on the right beneath the [NEXT] symbol) until the correct language is shown in the display.

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1.2   Control panel's working method

The control panel can be said to comprise two units: the primary memory and the welding data memory.

```
┌─────────────────────────┐      Store ⇨    ┌─────────────────────────┐
│                         │                 │                         │
│     Primary memory      │                 │   Welding data memory   │
│                         │ ⇦ Recall        │                         │
└─────────────────────────┘                 └─────────────────────────┘
```

In the primary memory, a complete set of welding data settings are created which can be stored in the welding data memory.

When welding, it is always the content of the primary memory which controls the process. It is therefore also possible to recall welding data settings from the welding data memory to the primary memory.

Note that the primary memory always contains the most recently set welding data settings. These can be recalled from the welding data memory or individually altered settings. In other words, the primary memory is never empty or "reset"

1.3   Control panel
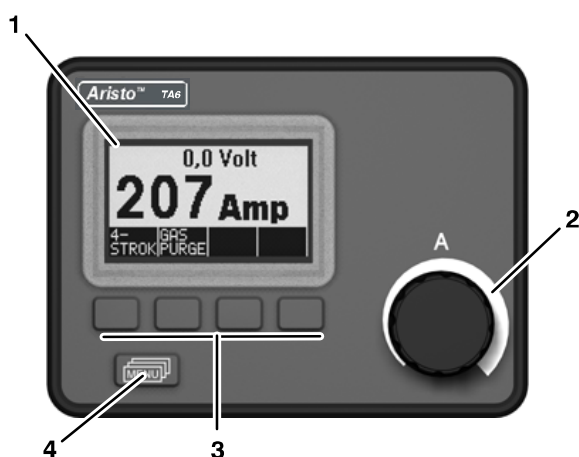
1   Display
2   Knob for setting the current
3   Soft pushbuttons (function keys)
4   MENU button

Soft pushbuttons

The functions of these buttons (i.e. what each one does) change, depending on the sub-menu shown on the display. The particular function for each button is shown by the text in the four blocks along the bottom of the display, corresponding to the buttons. (A white dot beside the text indicates that the button is active.)

"MENU pushbutton

This pushbutton brings you to the selection menu (see item 2.2) if you are in the main menu. If you are in some other menu, it moves you back up one menu.

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1.4 Symbols in the display

MAIN MENU Back to the main menu.

↓ Move the cursor down to a new setting parameter.

NEXT Change the function in the selected line.

+ Increase the value.   **−** Decrease the value.

2 MENUS

The control panel uses several different menus: the main menu, the measurements menu, the selection menu, the process menu, the settings menu, the configuration menu and the memory menu. A startup display is also shown when starting, with information on the type of panel and the software version in use.

2.1 The main menu and the measurements menu

The main menu always appears immediately after starting, showing the values that are set. If you are in the main menu when you start to weld, the menu changes automatically to show the measured values (the measurements menu). The measured values remain on the display even after welding stops.

Other menus can be accessed without losing the measured values.

It is only when the knob is turned or the welding method changed that the setting values are displayed instead of the measured values.
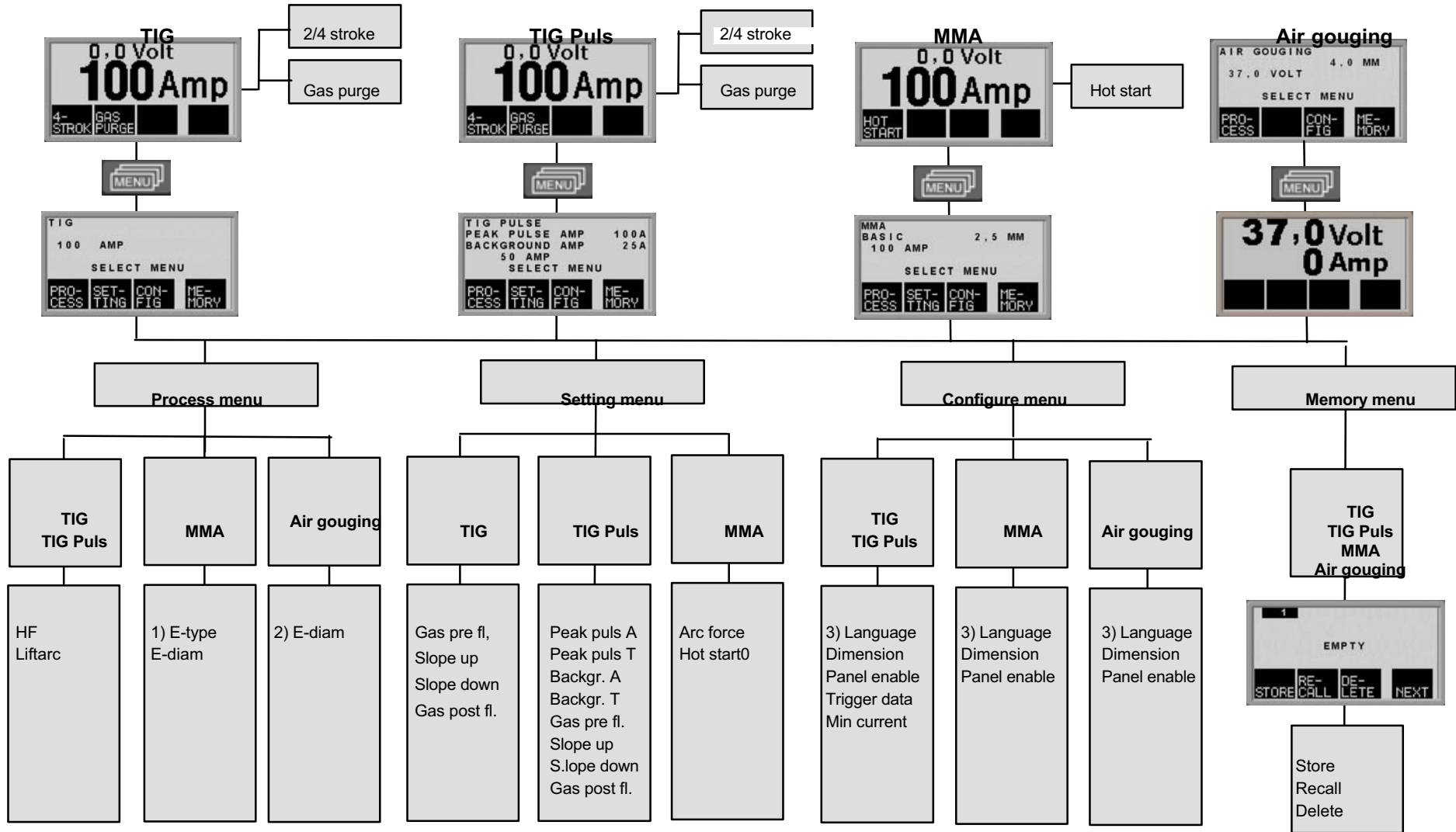
2.2 The selection menu

Use the selection menu to select the next level of menu to which you want to go: process, settings, configuration or memory.

The process menu

Use this menu to change the welding process, the method of starting the weld etc.

```
--PROCESS MENU 1/1--
PROCESS    TIG
START      HF
```

The settings menu

Use this menu to set welding parameters, such as gas pre-flow, "slope up", pulse current etc.

```
--SETTING MENU 1/1--
GAS PREFLOW      0,5s
SLOPE UP         0,0s
SLOPE DOWN       2,0s
GAS POSTFLOW     5,0s
```

The configuration menu

Use this menu to change the language, measurement units (metres or inches) etc.

```
-CONFIGURE MENU 1/1-
LANGUAGE      ENGLISH
DIMENSIONS     METRIC
PANEL ENABLE     ON
TRIGGER DATA    OFF
```

The memory menu

Use this menu to store, recall and/or erase various stored welding data settings. There are ten storage positions for data.

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2.3 Menu structure

TIG
0,0 Volt
100 Amp
4-STROK | GAS PURGE | | |

2/4 stroke

Gas purge

TIG Puls
0,0 Volt
100 Amp
4-STROK | GAS PURGE | | |

2/4 stroke

Gas purge

MMA
0,0 Volt
100 Amp
HOT START | | | |

Hot start

Air gouging
AIR GOUGING   4,0 MM
37,0 VOLT
SELECT MENU
PRO-CESS | CON-FIG | ME-MORY

MENU

MENU

MENU

MENU

TIG
100 AMP
SELECT MENU
PRO-CESS | SET-TING | CON-FIG | ME-MORY

TIG PULSE
PEAK PULSE AMP   100A
BACKGROUND AMP   25A
50 AMP
SELECT MENU
PRO-CESS | SET-TING | CON-FIG | ME-MORY

MMA
BASIC   2,5 MM
100 AMP
SELECT MENU
PRO-CESS | SET-TING | CON-FIG | ME-MORY

37,0 Volt
0 Amp

Process menu

Setting menu

Configure menu

Memory menu

TIG **TIG Puls**	**MMA**	**Air gouging**
HF Liftarc	1) E-type E-diam	2) E-diam

TIG	**TIG Puls**	**MMA**
Gas pre fl, Slope up Slope down Gas post fl.	Peak puls A Peak puls T Backgr. A Backgr. T Gas pre fl. Slope up S.lope down Gas post fl.	Arc force Hot start0

TIG **TIG Puls**	**MMA**	**Air gouging**
3) Language Dimension Panel enable Trigger data Min current	3) Language Dimension Panel enable	3) Language Dimension Panel enable

TIG
TIG Puls
MMA
Air gouging

1
EMPTY
STORE | RE-CALL | DE-LETE | NEXT

Store
Recall
Delete

1) The table below shows the electrode diameters that can be selected in the MMA welding process menu.

Electrode type	Electrode diameter
Basic	1,6 2,0 2,5 3,2 4,0 4,5 5,0 5,6 6,0 7,0
Rutile	1,6 2,0 2,5 3,2 4,0 4,5 5,0 5,6 6,0 7,0
Cellulose	2,0 2,5 3,2 4,0 4,5 5,0 5,6 6,0

2) Following electrode diameters can be selected in the process menu for **air-arc gouging**:
4,0 5,0 6,0 7,0 8,0

3) The text on the display panel is available in the following languages:

Swedish, Danish, Norwegian, Finnish, English, German, Dutch, French, Spanish (Castilian), Italian, Portuguese, Polish, Czech, Hungarian, Turkish and US English.

3 TIG WELDING

TIG welding uses a non-melting tungsten electrode from which the arc is struck that melts the workpiece. The molten weld pool and the tungsten electrode are protected by a shielding gas.

Pulsing is used in order to give better control of the weld pool and solidification. The pulse frequency is sufficiently low to allow some of the weld pool to start to solidify between each pulse. Pulsing has four controllable parameters: pulse duration, background current time, pulse current and background current.

3.1 Settings

TIG welding without pulsing

Settings	Setting range	In steps of	Default setting
2/4-stroke [1]	2-stroke or 4-stroke	-	2-stroke
HF / Liftarc	HF or Liftarc	-	HF
Gas purging [1]	-	-	
Gas pre-flow	0 - 5 s	0,1 s	0,5 s
"Slope up" time	0 - 5 s	0,1 s	0,0 s
"Slope down" time	0 - 10 s	0,1 s	2,0 s
Gas post-flow	0 - 25 s	0,1 s	5,0 s
Current [2]	4 - 500 A	1 A	100 A
Trigger data	OFF, ON or ARC OFF	-	DISABLE
Dimensions	METRIC or INCH	-	METRIC
Panel enable	OFF or ON	-	ON
Automatic save [3]	OFF or ON	-	OFF
Limits [3]	OFF or ON	-	OFF
Lock code [3]	OFF or ON	-	OFF
Min current	0 - 99%	-	-
VRD [3]	-	-	-

[1] *These functions cannot be changed while welding is in progress.*

[2] *Maximal current depends on which machine type is used.*

[3] *Contact an authorised ESAB service engineer to activate this function.*

TIG welding with pulsing

Settings	Setting range	In steps of	Default value
2/4-stroke [1]	2-stroke or 4-stroke	-	2-stroke
HF / Liftarc	HF or Liftarc	-	HF
Gas purging [1]	0 - 5 s	0,1 s	0,5 s
Gas pre-flow	0 - 5 s	0,1 s	0,5 s
"Slope up" time	0 - 5 s	0,1 s	0,0 s
"Slope down" time	0 - 10 s	0,1 s	2,0 s
Gas post-flow	0 - 25 s	0,1 s	5,0 s
Pulse duration	0.001 - 0.1 s 0.1 -5 s	0.001 s 0.1 s	0,100 s
Background duration	0.001 - 0.1 s 0.1 -1 s	0.001 s 0.1 s	0,200 s
Pulse current [2]	4 - 500 A	1 A	100 A
Background current [2]	4 - 500 A	1 A	25 A
Trigger data	OFF, ON or ARC OFF	-	DISABLE
Dimensions	METRIC or INCH	-	METRIC
Panel enable	OFF or ON	-	ON
Automatic save [3]	OFF or ON	-	OFF
Limits [3]	OFF or ON	-	OFF
Lock code [3]	OFF or ON	-	OFF
Min current	0 - 99%	-	-
VRD [3]	-	-	-

[1] *These functions cannot be changed while welding is in progress.*

[2] *Maximal current depends on which machine type is used.*

[3] *Contact an authorised ESAB service engineer to activate this function.*

2-stroke
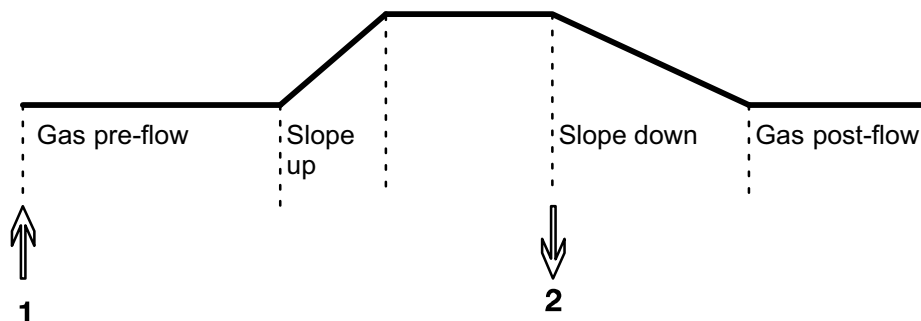
2-stroke operation of the welding gun switch button.

In the **2-stroke** control mode, pressing the welding gun switch button starts gas pre-flow (if used) and strikes the arc (1). The current rises to the set value (as controlled by the "slope up" function, if in operation). Releasing the switch button (2) reduces the current (or starts "slope down" if in operation) and extinguishes the arc. Gas post-flow follows if it is in operation.

- Activation of 2-stroke performed in the *main menu.*

4-stroke
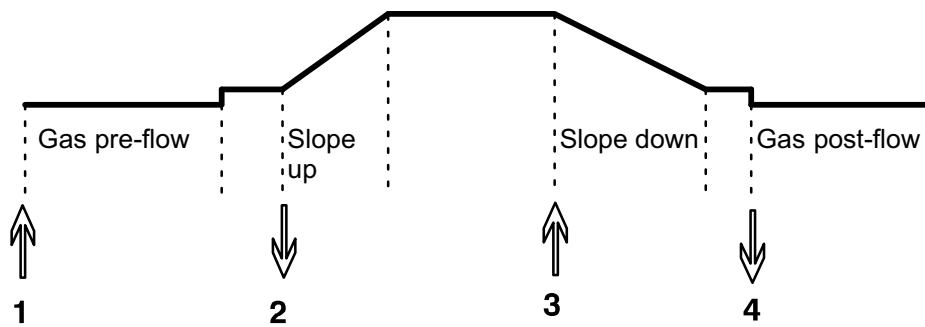
4-stroke operation of the welding gun switch button.

In the 4-**stroke** control mode, pressing the switch button starts gas pre-flow (if used) (1). At the end of the gas pre-flow time, the current rises to the pilot level (a few ampere), and the arc is struck. Releasing the switch button (2) increases the current to the set value (with "slope up", if in use). At the end of welding, the welder presses the switch button again (3), which reduces the current to pilot level again (with "slope down", if in use). Releasing the switch button again (4) extinguishes the arc and starts gas post-flow (if used).

- Activation of 4-stroke performed in the *main menu.*

HF

The HF function strikes the arc by a spark produced when the tungsten electrode is brought to within a certain distance from the workpiece.

- Activation of HF performed in the *process menu.*

Lift Arc

The "Lift Arc" function strikes the arc when the electrode comes into contact with the workpiece and is then lifted off.
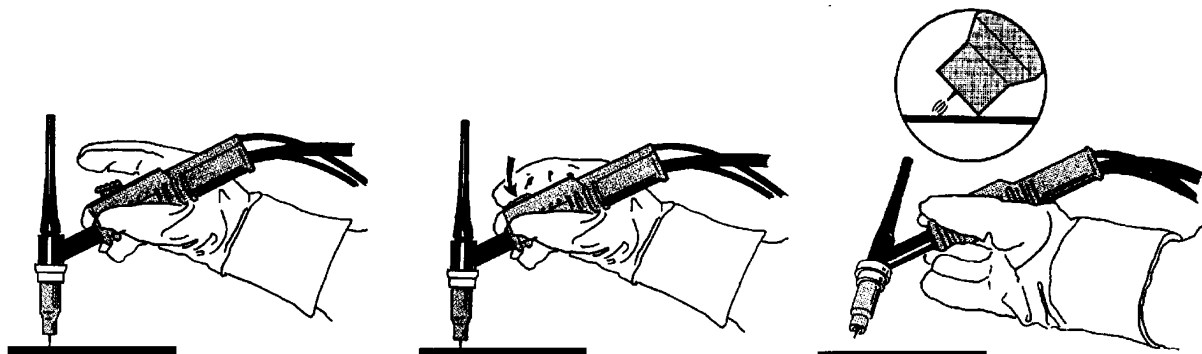
Striking the arc with the "Lift Arc" function. Step 1 shows the electrode in contact with the workpiece. The button is then pressed (Step 2), and a low current flows. The arc strikes when the welder lifts the gun away from the workpiece (Step 3), which causes the current to rise automatically to the set value.

- Activation of "Lift-Arc" performed in the *process menu.*

Gas purging

Use the gas purging function to measure the gas flow or to purge the gas hoses of any air and/or moisture before starting to weld. Purging continues for as long as the switch button is held pressed, and prevents the current from flowing or the wire feed from starting.

- Gas purging performed in the *main menu.*

Gas pre-flow

The gas pre-flow setting controls the time during which the shielding gas flows before the arc is struck.

- Setting of gas pre-flow time performed in the *settings menu.*

Slope up

"Slope up" means that the initial TIG arc current is low and increases slowly to the set value. This provides less harsh heating of the tungsten electrode and gives the welder time to position the electrode and arc before full welding current starts.

- The setting of "slope up" time performed in the *settings menu.*

Slope down

The "slope down" function in TIG welding is used to avoid the formation of crater cracking at the end of welding. It reduces the current slowly over an adjustable period of time.

- The setting of "slope down" time performed in the *settings menu.*

Gas post-flow

Gas post-flow controls the time during which the shielding gas continues to flow after the arc is extinguished.

- Setting of gas post-flow time performed in the *settings menu.*

Pulse duration

This is the length of time during which the pulse current is *on* during a pulse cycle.

- Setting of pulse duration time performed in the *settings menu.*

Background time

This is the length of time during which the background current flows. With the pulse duration time, it gives the total pulse cycle time.

- Setting of background time performed in the *settings menu.*

Background current

This is the lower current value of the two currents used in pulsed current welding.

- Setting of background current performed in the *settings menu.*

Pulse current

This is the higher current value of the two currents used in pulsed current welding.

Irrespective of which menu is displayed, the setting value for the pulse current can always be changed. The value is displayed in the main menu, the selection menu or the settings menu.
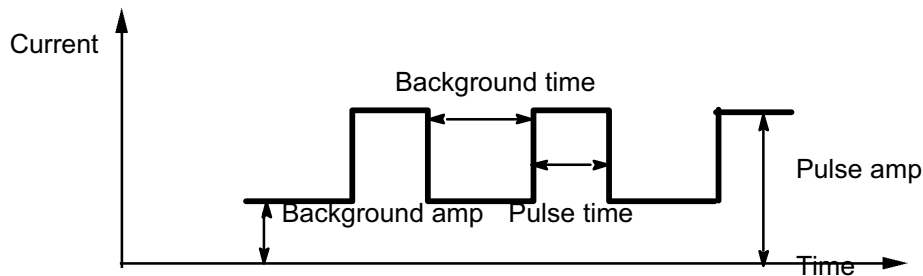
TIG welding with pulsing.

Current

Higher current produces wider and deeper penetration into the workpiece.

Irrespective of which menu is displayed, the setting value for the current can always be changed. The value is displayed in the main menu or selection menu.

Change of trigger data

Using this function, it is possible to switch to various pre-set welding data alternatives by double-clicking on the welding blowpipe's trigger.

Switching takes place between the memory positions 1, 2 and 3 (see under chapter 7 "memory management"). If there is no data in memory position 2, switching takes place instead between positions 1 and 3.

ON - Switching between memory positions can take place **before**, **after** or **during** welding.

ARC OFF - Switching between memory positions can only take place **before** or **after** welding.

- Activation of trigger data switching performed in the *configuration menu.*

Min current

Used to set the minimum current for the remote control T1 Foot CAN.

If the max current is 100 A and the min current is to be 50 A, set the concealed function min current to 50%.

If the max current is 100 A and the min current is to be 90 A, set the min current to 90%.

- Activation of min current performed in the *configuration menu.*

VRD (Voltage Reduction Device)

The VRD function ensures that the open-circuit voltage does not exceed 35 V when welding is not being carried out. This is indicated when the icon for VRD is visible, see picture.

The VRD function is blocked when the system senses that welding has started.

If the VRD function is activated and open-circuit voltage exceeds the 35 V limit, this is indicated by an error message (16) appearing in the display and welding cannot be started whilst the error message is displayed.

The VRD function is not active on delivery. Contact an authorised ESAB service technician to activate the function.

The VRD icon

Note! The VRD function works for power sources where it is implemented.

4   MMA WELDING

MMA welding is welding with the use of coated electrodes. Striking the arc melts the electrode and the coating, with the coating forming a protective slag.

4.1   Settings

Settings	Setting range	In steps of	Default setting
Hot start [1]	ON or OFF	-	OFF
Hot start time	1 - 30	1	10
Arc force	0 - 10	0,5	3
Current [2]	16 - 500 A	1 A	164 A
Dimensions	METRIC or INCH	-	METRIC
Panel enable	OFF or ON	-	ON
Automatic save [3]	OFF or ON	-	OFF
Limits [3]	OFF or ON	-	OFF
Lock code [3]	OFF or ON	-	OFF
VRD [3]	-	-	-

[1] This function cannot be changed while welding is in progress.

[2] Maximal current depends on which machine type is used.

[3] Contact an authorised ESAB service engineer to activate this function.

The synergy line on delivery rutile electrode 4.0 mm.

Hot start

The hot start function increases the welding current for an adjustable time at the start of welding. This reduces the risk of poor fusion defects at the start of the weld.

Setting of hot start time performed in the settings menu.

Arc force

The arc force function controls how the current changes when the arc length changes. A lower value gives a less harsh arc with less spatter.

Setting of arc force performed in the settings menu.

Current

Higher current produces wider and deeper penetration into the workpiece.

Irrespective of which menu is displayed, the setting value for the current can always be changed. The value is displayed in the main menu or selection menu.

VRD (Voltage Reduction Device)

The VRD function ensures that the open-circuit voltage does not exceed 35 V when welding is not being carried out. This is indicated when the icon for VRD is visible, see picture.

The VRD function is blocked when the system senses that welding has started.

If the VRD function is activated and open-circuit voltage exceeds the 35 V limit, this is indicated by an error message (16) appearing in the display and welding cannot be started whilst the error message is displayed.

The VRD function is not active on delivery. Contact an authorised ESAB service technician to activate the function.

The VRD icon

Note! The VRD function works for power sources where it is implemented.

5 ARC-AIR GOUGING

Arc-air gouging involves the use of a special electrode consisting of a carbon bar with a copper case. An arc is formed between the carbon bar and the workpiece, air is supplied to blow away the melted material, and a seam is formed.

5.1 Settings

Settings	Setting range	In steps of	Default setting
Wire diameter	4.0-8.0 mm	1 mm	4,0 mm
Voltage	8-60 V	0,25 V (Displayed with one decimal.)	37.0 V

Wire diameter

A larger wire diameter produces wider and deeper penetration into the workpiece.

Voltage

Higher voltage produces wider and deeper penetration into the workpiece

6   GENERAL FUNCTIONS

6.1   Remote control unit

Control panel's behaviour on connection of the remote control unit

- The display freezes in the menu showing when the remote control unit is connected.

  Measurement and setting values are updated, but only displayed in those menus in which the values can be shown.

- If a fault code symbol is displayed, it cannot be removed until the remote control has been disconnected.

- With 10-program remote control units, it is possible to switch between memory positions 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10. If memory position 2 is empty, the values from position 1 are retained. For further information, see chapter 7 "memory management".

6.2   Settings

Panel enable

When a remote control unit is connected it is possible to set current or voltage and wire feed speed by the control panel or the remote control unit.

Note: this function must be activated before the remote control unit is connected.

- Activation of panel enable performed in the configuration menu.

Auto save

If a welding data setting is recalled from the welding data memory and the settings are adjusted, the changed settings will automatic be saved when a new welding data setting is recalled from the memory.

Contact an authorised ESAB service engineer to activate this function.

- Activation of auto save performed in the configuration menu.

Limits

This function facilitates the assurance of a good welding quality by setting max. and min. values for wirefeed / current or voltage. The limits can be saved in the first 5 memory positions of the welding data memory.

Contact an authorised ESAB service engineer to activate this function.

- Activation of limits performed in the *configuration menu.*

Lock code

By this function the settings menu can be locked, then it is only possible to select the main menu and the measurements menu, see chapter 8 "Lock code".

Contact an authorised ESAB service engineer to activate this function.

- Activation of lock code performed in the *configuration menu.*

7   MEMORY MANAGEMENT

Various welding data created in the primary memory can be stored in the memory menu. Up to 10 different welding data settings can be stored.

7.1   Store welding data

• Set a welding data setting in the primary memory.

• Press [MENU] to access the "selection menu" and then on [MEM-ORY] to access the relevant settings.

```
- - MEMORY  MENU - -
CURRENT  SETTINGS
TIG        HF

100  AMP

                    NEXT
```
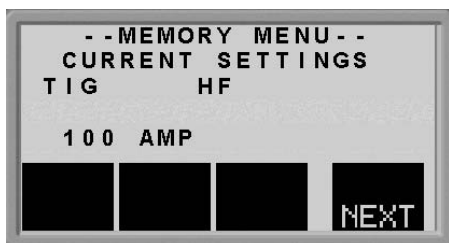
Check that the welding data settings are correct.

• Press [NEXT] to access the memory menu.

```
1

        EMPTY

STORE  RE-   DE-        NEXT
       CALL  LETE
```
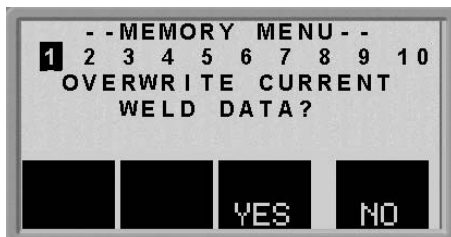
• Press [NEXT] until you come to the memory position in which you want to store the welding data setting, e.g. position 2.

• Press [STORE], a welding data setting is now stored in memory position 2. The other memory positions are empty.

7.2   Recall welding data

- Press [MENU] to access the selection menu and then on [MEM-ORY] to access the relevant settings.

```
- -MEMORY MENU- -
CURRENT SETTINGS
TIG        HF

100 AMP

[    ][    ][    ][NEXT]
```
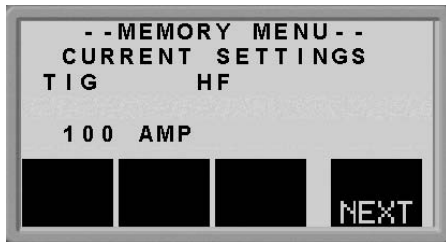
- Press [NEXT] to access the memory menu.

- Choose which memory position you want to recall, e.g. position 2. Press [NEXT] until you come to position 2.

- Press [RE-CALL] to recall memory position 2. The following question appears:

```
- -MEMORY MENU- -
[1] 2  3  4  5  6  7  8  9  10
OVERWRITE CURRENT
WELD DATA?

[    ][    ][YES][NO]
```

- Press "YES" if you want to recall welding data from memory position 2 and change the settings that currently are in the primary memory. (If you change your mind, press "NO")
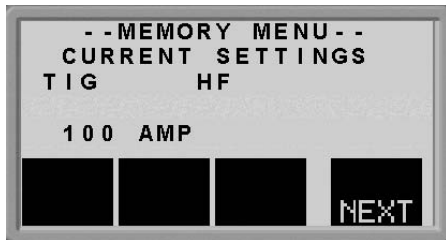
```
0,0 Volt    [#2]
100Amp
[HOT START][    ][    ][    ]
```

This icon [#2] in the main menu shows which memory position that is recalled.

7.3 Delete welding data

- Press ![MENU] to access the selection menu and then on ![MEMORY] to access the relevant settings.

```
--MEMORY MENU--
CURRENT SETTINGS
TIG       HF

100 AMP

                  NEXT
```

- Press NEXT to access the memory menu.

- Choose which memory position you want to delete, e.g. position 2. Press NEXT until you come to position 2.

- Press DELETE to delete memory position 2. The following question appears:

```
--MEMORY MENU--
1 2 3 4 5 6 7 8 9 10
DELETE EXISTING
  WELD DATA IN
    MEMORY?

          YES   NO
```

- Press "YES" if you want to delete welding data from memory position 2, (if you change your mind, press "NO"). Memory position 2 is now empty.

8 CODE LOCK

Contact an authorised ESAB service engineer to activate the code lock.

- Press ![MENU] to access the code lock menu.

```
--LOCK CODE--
0 1 2 3 4 5 6 7 8 9

LOCK CODE

STORE     ENTER NEXT
```
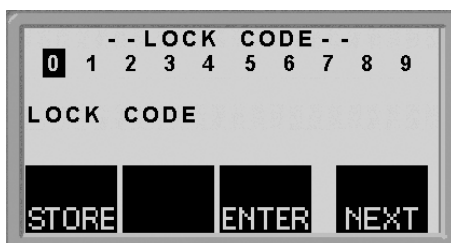
- Press NEXT until the first digit of the PIN code is selected.

- Press STORE, to store the first digit of the code. Repeat the procedure for the remaining digits.

- Press ENTER to unlock the control panel.

9 FAULT CODES

Fault codes are used to indicate that a fault has occurred in the equipment. They are shown in the display in the form of a symbol as follows:
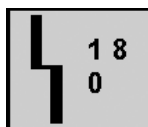
Fault codes are updated every three seconds. The upper numeral in the symbol is the number of the particular fault code: see Item 9.1. The lower figure indicates where the fault is:
0 = the control panel
2 = the power unit
4 = the remote control

The above symbol shows that the control panel (0) has lost contact with the power unit.

If several faults have been detected, only the code for the last fault to occur will be displayed.

Press any of the function keys in order to clear the symbol from the display.

Symbols may be steady or flashing, depending on the type of fault.

Flashing symbols are highlighted with "o" in the list of fault codes.

9.1 List of fault codes

Fault code	Description	Control panel	Power unit	Remote control
1	EPROM	x	x	x
2	RAM	x	x	
3	External Read/Write RAM	x		
4	5V power supply		x	
5	High intermediate voltage power supply		x	
6	High temperature		x	
8	Power supply 1*	x	x	x
9	Power supply 2*		x	x
10	Power supply 3*		x	
12	Communication error (warning)	x	x	x
14	Communication error (bus off)	x		
15	Messages lost	x	x	x
16	High open-circuit voltage		x	
18	Lost contact with the power unit	x		
19	Incorrect settings values in external RAM	x		
20	Memory allocation error	x		
22	Transmitter buffer overflow	x		
23	Receiver buffer overflow	x		
26	Watchdog		x	
28	Stack overflow	x	x	
29	No cooling water flow		x	
31	No reply from the display unit	x		
32	No gas flow		x	

Unit	Power supply 1*	Power supply 2*	Power supply 3*
Control panel	+3V		
Power unit	+15V	-15V	+24V
Remote control	+13V	+10V	

9.2   Fault code descriptions

Fault code1	Description
1	**Program memory error (EPROM)** The program memory has "lost" a value, i.e. the value in some particular memory location differs from the original value. This fault does not disable any functions. **Action:** Restart the machine. If the fault persists, send for a service technician.
2	**Microprocessor RAM error** The microprocessor is unable to read/write from/to a certain memory position in its internal memory. This fault does not disable any functions. **Action:** Restart the machine. If the fault persists, send for a service technician.
3	**External RAM error** The microprocessor is unable to read/write from/to a certain memory position in its external memory. This fault does not disable any functions. **Action:** Restart the machine. If the fault persists, send for a service technician.
4	**5 V power supply low** The power supply voltage is too low. The microprocessor stops all normal activities while waiting to be turned off. **Action:** Turn off the mains power supply to reset the unit. If the fault persists, send for a service technician.
5	**Intermediate DC voltage outside limits** The voltage is too low or too high. Too high a voltage can be due to severe transients on the mains power supply or to a weak power supply (high inductance of the supply). The power unit turns off automatically. **Action:** Turn off the mains power supply to reset the unit. If the fault persists, send for a service technician.
6	**High temperature** The thermal overload cutout has operated. The power unit turns off automatically, and cannot be restarted until the cutout has reset. **Action:** Check that the cooling air inlets or outlets are not blocked or clogged with dirt. Check the duty cycle being used, to make sure that the equipment is not being overloaded.
8	**Low battery voltage +3V, (control panel)** The voltage of the memory retention battery in the control panel is too low. This fault does not disable any functions. **Action:** Send for a service technician.
8	**+15V power supply, (wire feed unit and power unit)** The voltage is too high or too low. **Action:** Send for a service technician.

Fault code1	Description
9	**-15V power supply, (power unit)**
	The voltage is too high or too low.
	Action: Send for a service technician.
10	**+24V power supply, (power unit)**
	The voltage is too high or too low.
	Action: Send for a service technician.
12	**Communication error (warning)**
	The CAN circuit's error counter has too high a value, and contact with the control panel may be lost. This can occur if the load is temporarily too high.
	Action: Review the handling of welding settings data during welding.
14	**Communication error**
	The CAN circuit's error counter has too high a value, and welding is stopped.
	This can occur if the load is temporarily too high.
	Action: Check the equipment to ensure that only one remote control unit is connected. Turn off the mains power supply to reset the unit. If the fault persists, send for a service technician.
15	**Messages lost**
	A message has overwritten another message. This error can be caused by frequent pushing of the panel pushbuttons while welding is in progress.
	The welding process stops.
	Action: Review the handling of welding programs during welding. Turn off the mains power supply to reset the unit. If the fault persists, send for a service technician.
16	**High open-circuit voltage**
	The open-circuit voltage has been too high.
	Action: Turn off the mains power supply to reset the unit. If the fault persists, send for a service technician.
18	**Lost contact**
	The control panel has lost contact with the power unit.
	The current activity stops.
	Action: Check the cables. If the fault persists, send for a service technician.
19	**Incorrect settings values in external RAM**
	This fault will be detected if the information in the battery-backed memory has become corrupted.
	Action: The fault will correct itself, but the data stored in the current memory position will be lost.
20	**Memory allocation error**
	The microprocessor is unable to reserve sufficient memory space.
	This fault will generate fault code 26.
	Action: Send for a service technician.
22	**Transmitter buffer overflow**
	The transmitter buffer has become overfilled.
	The current activity stops.
	Action: Review the handling of welding programs during welding.

| Fault code1	Description
23	**Receiver buffer overflow** CAN messages are being received at a higher rate than the welding data board can handle. The current activity stops. **Action:** Review the handling of welding programs during welding.
26	**Watchdog** Something has prevented the processor from performing its normal duties. This fault does not disable any functions. **Action:** Review the handling of welding programs during welding.
28	**Stack overflow** The internal memory has become overfilled. This fault can be caused by abnormal processor loading. **Action:** Review the handling of settings data during welding.
29	**No cooling water flow** The flow monitor switch has operated. The current activity stops. **Action:** Check the cooling water circuit and the pump.
31	**No reply from the display unit** The microprocessor is not receiving replies from the display board. **Action:** Send for a service technician.
32	**No gas flow** Gas flow is less than 6 l/min. **Action:** Check the gas valve, hoses and connectors.

10   ORDERING SPARE PARTS

⚠ **CAUTION**

All guarantee undertakings from the supplier cease to apply if the customer himself attempts any work in the product during the guarantee period in order to rectify any faults.

Spare parts may be ordered through your nearest ESAB dealer, see the last page of this publication.

Diagram

clhr1e12
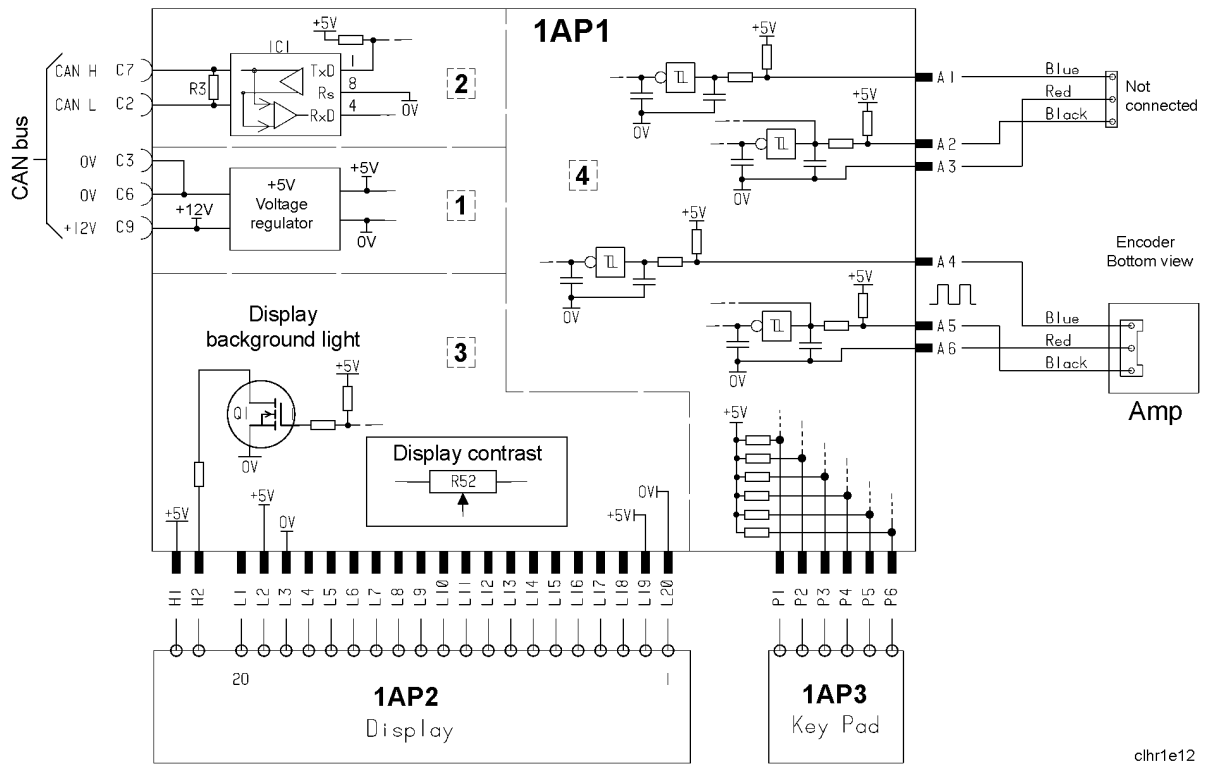
TA6

Ordering number

Ordering no.	Denomination
0458 535 885	Aristo™ TA6
0458 855 270	Instruction manual SE
0458 855 271	Instruction manual DK
0458 855 272	Instruction manual NO
0458 855 273	Instruction manual FI
0458 855 274	Instruction manual GB
0458 855 275	Instruction manual DE
0458 855 276	Instruction manual FR
0458 855 277	Instruction manual NL
0458 855 278	Instruction manual ES
0458 855 279	Instruction manual IT
0458 855 280	Instruction manual PT
0458 855 281	Instruction manual GR
0458 855 282	Instruction manual PL
0458 855 283	Instruction manual HU
0458 855 284	Instruction manual CZ
0458 855 186	Instruction manual RU
0458 819 990	Spare parts list, Aristo™ TA6

Instruction manuals and the spare parts list are available on the Internet at **www.esab.com**

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