EN6001 Easy Weld

Application Note 700246

Overview

The EN6001 Easy Weld feature provides the ability to access frequently edited parameters from one screen. The EN6001 must be configured prior to using the Easy Weld feature. For additional information on the EN6001 refer to User Manual 700230. This feature is available with firmware 8.0 and higher.

Operation

Depending on the current regulation mode, the Easy Weld screen will display as one of the figures below.

Easy Weld	
Use schedule =	2
Edit schedule =	2
Squeeze =	15 Cycles
Weld2 =	15 Cycles
>Current=	10.0 kA
Cool2 =	10 Cycles
Impulses =	3

Constant Current Mode

Easy Weld	
Use schedule =	2
Edit schedule =	2
Squeeze =	15 Cycles
Weld2 =	15 Cycles
>Heat=	25%
Cool2 =	10 Cycles
Impulses =	3

Phase Shift Mode

To edit the value of a parameter:

1. Press the Up ⬆ or Down ⬇ button to highlight the parameter to edit.
2. Press the Pluss ➕ or Minus ➖ button to change the value.
3. Press the Enter ↩ button to save the changes.

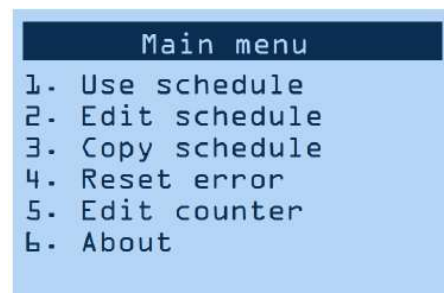The following parameters are available on the Easy Weld screen:

- Use schedule – the active schedule that will be executed when the weld is initiated. The setting of *Sch Select* must be set to *Internal* in the Config menu to edit this parameter from the Easy Weld screen.
- Edit schedule – the schedule being edited on the Easy Weld screen. *Edit Lock* must not be set in Programmable Inputs 2 or 6 to edit the parameters of the schedule.
- Squeeze – time in cycles between *Squeeze Delay* and weld initiation. This parameter is replaced with *Intensify* if *Air-over-oil* is set to *On* in the Config menu.
- Weld2 – the time in cycles of the *Weld2* segment.
- Current / Heat – Depending on the current regulation mode:
  - Current – constant current value in kA.
  - Heat – phase shift percent conduction.
- Cool2 – the time in cycles between the end of *Weld2* and the beginning of *Hold*.
- Impulses – the number of times the *Weld2 + Cool2* segments are repeated.
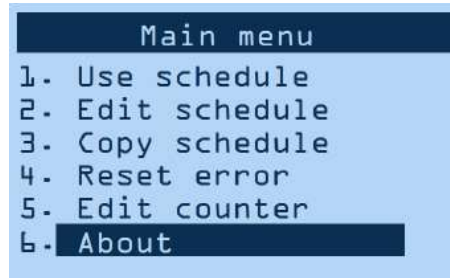
Enabling the Easy Weld Feature

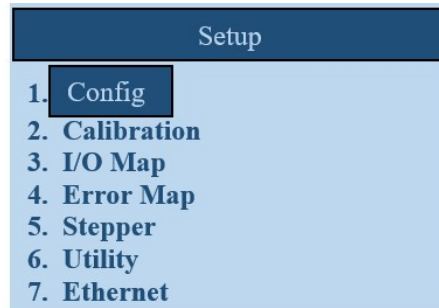1. Press Escape **ESC** until one of the four Status screens are displayed.

2. Press Function **F** to access the Main Menu
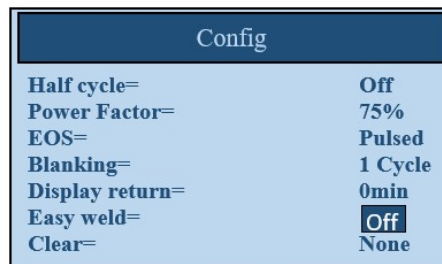
3. Arrow Down ⬇ to highlight About

```
              Main menu
    1. Use schedule
    2. Edit schedule
    3. Copy schedule
    4. Reset error
    5. Edit counter
    6. About
```

4. Hold Plus ➕ and press Enter ↩ to access the Setup Menu

```
                  Setup

    1. Config
    2. Calibration
    3. I/O Map
    4. Error Map
    5. Stepper
    6. Utility
    7. Ethernet
```

5. Highlight Config and press Enter ↩ to access Config Menu

6. Arrow Down ⬇ to highlight *Easy weld*

```
                  Config

    Half cycle=              Off
    Power Factor=            75%
    EOS=                     Pulsed
    Blanking=                1 Cycle
    Display return=          0min
    Easy weld=               Off
    Clear=                   None
```

7. Press Plus ➕ to display *On*

```
                  Config

    Half cycle=              Off
    Power Factor=            75%
    EOS=                     Pulsed
    Blanking=                1 Cycle
    Display return=          0min
    Easy weld=               On
    Clear=                   None
```
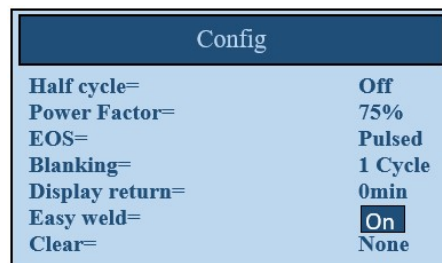
8. Press Enter ↩ to save the change

9. Press Escape ESC until the Status screen is displayed
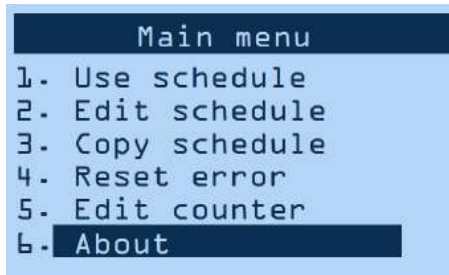
Disabling the Easy Weld Feature

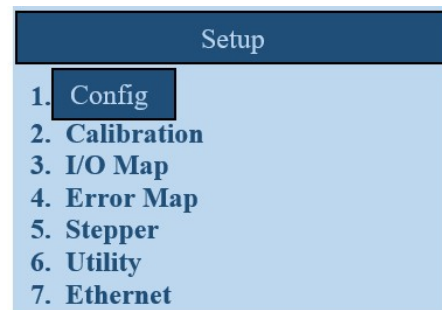1. Press Escape [ESC] until one of the four Status screens are displayed.

```
Status[1]
          I1=    0.00 kA
     0.00 KA
 S00      ER61
```

2. Hold Plus [+] and press Function [F] to access the Main Menu

```
        Main menu
 1. Use schedule
 2. Edit schedule
 3. Copy schedule
 4. Reset error
 5. Edit counter
 6. About
```

3. Arrow Down [↓] to highlight About

```
        Main menu
 1. Use schedule
 2. Edit schedule
 3. Copy schedule
 4. Reset error
 5. Edit counter
 6. About
```

4. Hold Plus [+] and press Enter [↵] to access the Setup Menu

```
            Setup
 1. Config
 2. Calibration
 3. I/O Map
 4. Error Map
 5. Stepper
 6. Utility
 7. Ethernet
```

5. Highlight Config and press Enter [↵] to access Config Menu

6. Arrow Down [↓] to highlight *Easy weld*

Config	
Half cycle=	Off
Power Factor=	75%
EOS=	Pulsed
Blanking=	1 Cycle
Display return=	0min
Easy weld=	On
Clear=	None

7. Press Plus ![+] to display *Off*

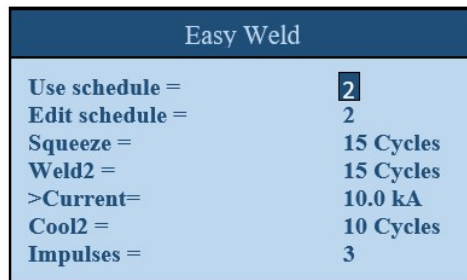| Config	
Half cycle=	Off
Power Factor=	75%
EOS=	Pulsed
Blanking=	1 Cycle
Display return=	0min
Easy weld=	Off
Clear=	None

8. Press Enter ![Enter] to save the change

9. Press Escape ![ESC] until the Status screen is displayed

Easy Weld Page Navigation

In the Easy Weld mode there are three areas to navigate:
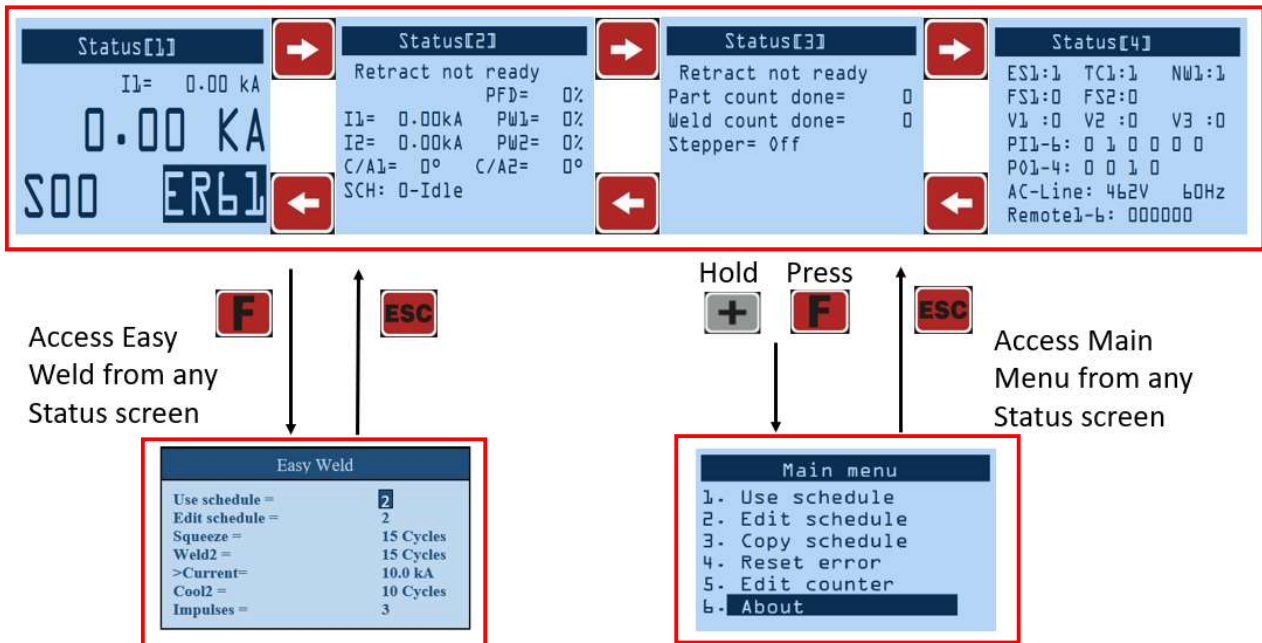
1. Status – to display the Status screen press Escape **ESC**. Press the Left ⬅ or Right ➡ Arrow to scroll through the different screens.

2. Easy Weld – to display the Easy Weld screen from the Status area press Function **F**.

Easy Weld	
Use schedule =	2
Edit schedule =	2
Squeeze =	15 Cycles
Weld2 =	15 Cycles
>Current=	10.0 kA
Cool2 =	10 Cycles
Impulses =	3

3. Main menu - hold Plus ➕ and press Function **F** to access the Main Menu. From this menu all EN6001 parameters may be accessed as described in the User Manual (700230).

```
         Main menu
  1. Use schedule
  2. Edit schedule
  3. Copy schedule
  4. Reset error
  5. Edit counter
  6. About
```