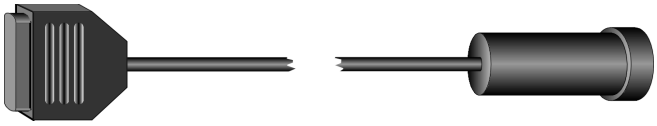
MSI Elektronik

Instruction Manual Dual-BCI



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Contents

1. Hints

Any use of a MSI 150, which contents the Option "Data Transfer from Digital Burner Controllers", requires a full understanding and strict adherence to the instructions of this manual and the manuals of the Burner (Controller) and the used MSI 150.

All MSI 150, which content the Option "Data Transfer from Digital Burner Controllers", are able to read out the digital burner controllers of Siemens (Landis & Staefa) and Satronic.

The data, which are given by the digital burner controllers, differ depending of the manufacturer and of the fuel type. Therefore the description of the data transfer in this manual is separated for each type of burner controller.

The MSI 150 Pro2 and MSI 150 Euro recognize the type of digital burner controller. All needed adjustments will be done automatically.

All shown displayed data are only examples.

2. Data Transfer from Digital Burner Controllers of Satronic

The digital burner controllers of Satronic are always sending data, which can be received by the MSI 150. It does not matter if the burner is working normal, if he is starting or if he has stopped, because an error occurred.

2.1 Satronic Oil Burner Controllers

2.1.1 Start function

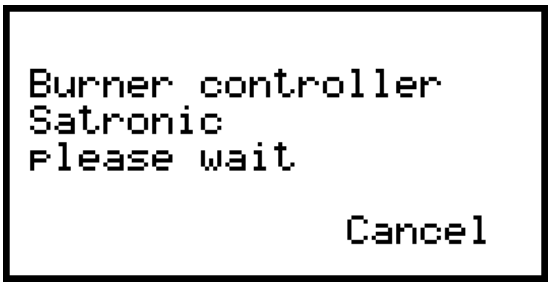
Connect the plug of the BC-Interface with the RS 232 interface of the MSI 150 and put the sensor head over the lighted switch of the burner controller.

Switch on the MSI 150, choose the fuel type selection and then by pushing " ! " the menu "Functions".

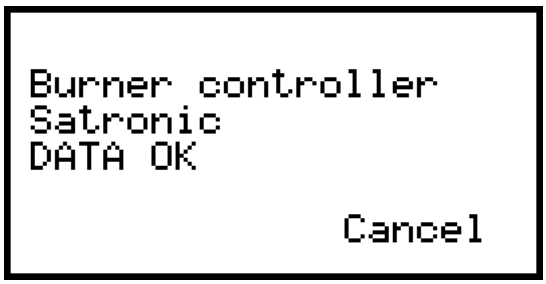
With "▲" set the mark "►" to "Burner controller" and start the function with "F".

The display reads:

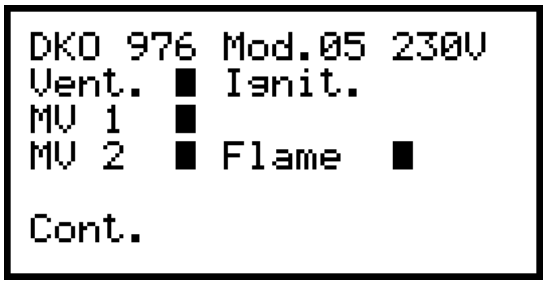
And if the burner controller is recognized:



With "!" (cancel) you may stop the searching and the menu "Functions" is shown again. Are all data transferred the display reads:



and after a few seconds:

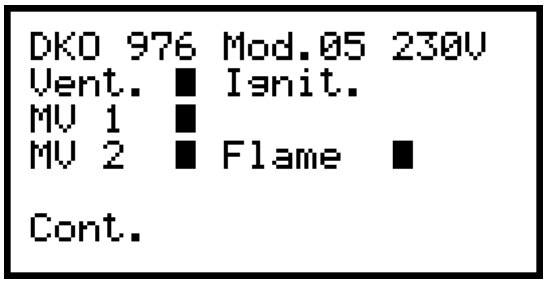


The rectangles mean that the function is active. The data will be continuously refreshed .

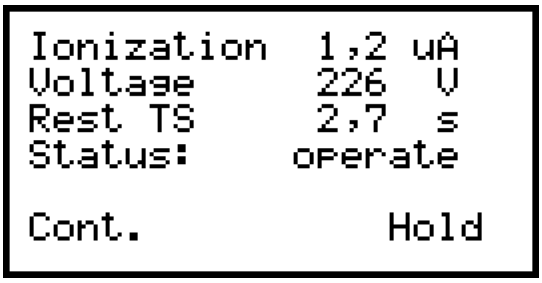
The displayed functions are: Vent. = Ventilation on, Ignit. = Ignition on, MV1 = magnetic valve 1 on, MV2 = magnetic valve 2 on, Flame = Flame on

2.1.2 Status Information

After the start function is finished the display reads:



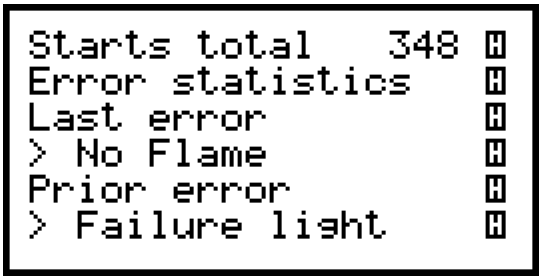
After pushing "F" (Cont) the display shows:



If an error occurs you see, instead of the measured values, bars and the status changes from operate to Failure.

Pushing "!" (Hold) locks all measured values or unlocks them again. Locked values are marked by a rectangle and can be printed and/or stored.

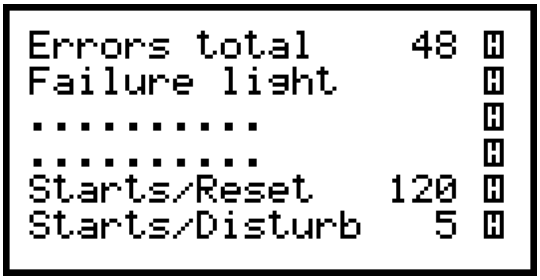
With " F " (Cont.) you change to the error statistics:



Pushing "!" locks all measured values or unlocks them again. Locked values are marked by a rectangle and may be printed and/or stored.

With "▲" you may scroll the displayed values and new elements of the error statistics will be shown.

The display reads for instance:



Following errors may be displayed:

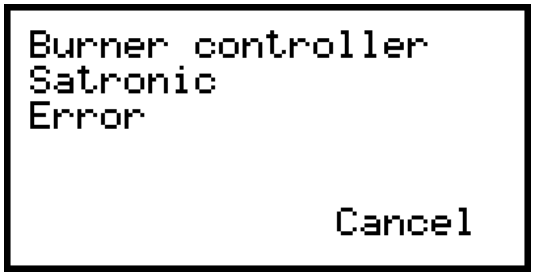
No Flame	=	no flame signal after ignition
Straylight	=	flame signal before ignition
LW stay open	=	air guard open after ventilator start
LW open	=	air guard open before ventilator start
LW closed	=	air guard close after fan stop
Fl. signal	=	flame signal after operation stop
Loss Flame	=	no flame signal during operation
Manual Stop	=	manual Reset of the burner controller
System Error	=	electronic error
unknown	=	unknown error

Pushing the button "!" locks all measured values or unlocks them again. Locked values are marked by a rectangle and may be printed and/or stored.

By pushing the button "F" you may call the menu "Printing" (see 4.), if values are locked, in other case the menu "Functions" is called again.

2.1.3 Data Transfer Error

If the connection between burner controller and MSI 150 is disturbed the display will read:



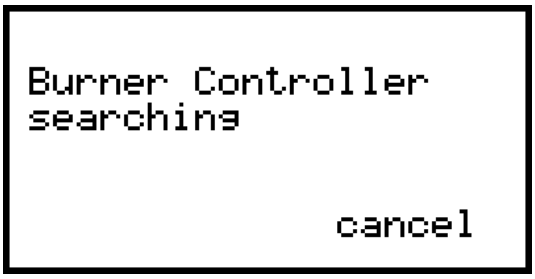
By pushing the button "!" (Cancel) you may call the menu "Function" again. After the connection is repaired (new mounting of the sensor head for example) the start function (see 2.1.1) is done again automatically.

2.2 Satronic Gas Burner Controllers

2.2.1 Start Function

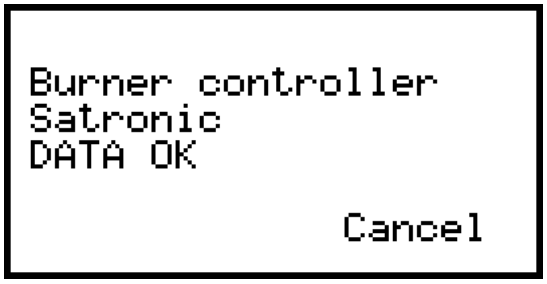
Connect the plug of the BC-Interface with the RS 232 interface of the MSI 150 and put the sensor head over the lighted switch of the burner controller.

Switch on the MSI 150, choose the fuel type selection and then by pushing " ! " the menu "Functions". With "▲" set the mark "►" to "Burner controller" and start the function with "F". The display now reads:

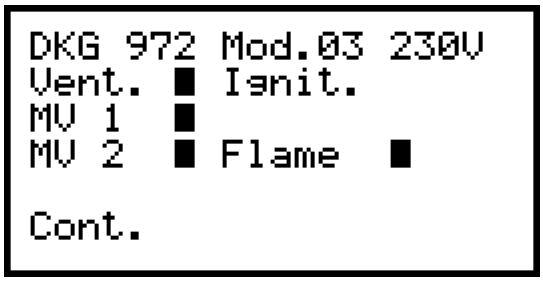


With "!" (cancel) you may stop the searching and the menu "Functions" is shown again.

Are all data transferred the display reads:



and after a few seconds:

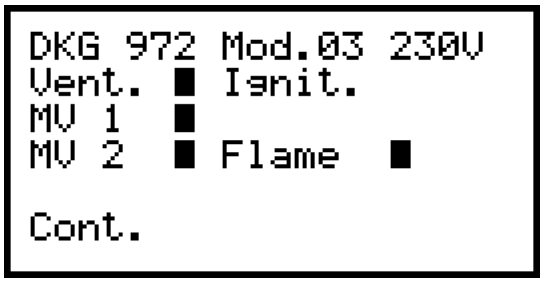


The rectangles mean that the function is active. The data will be continuously refreshed .

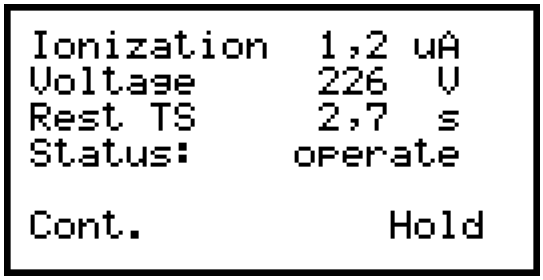
The displayed functions are: Vent. = Ventilation on, Ignit. = Ignition on, MV1 = magnetic valve 1 on, MV2 = magnetic valve 2 on, Flame = Flame on

2.2.2 Status Information

After the start function is finished the display reads:



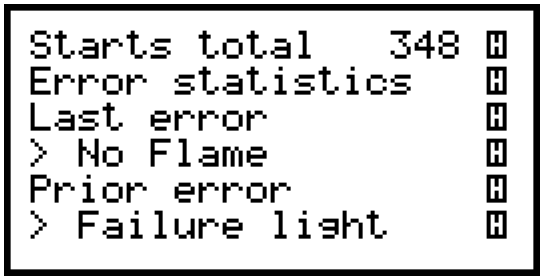
After pushing "F" (Cont) the display shows:



If an error occurs you see, instead of the measured values, bars and the status changes from operate to Failure.

Pushing "!" (Hold) locks all measured values or unlocks them again. Locked values are marked by a rectangle and may be printed and/or stored.

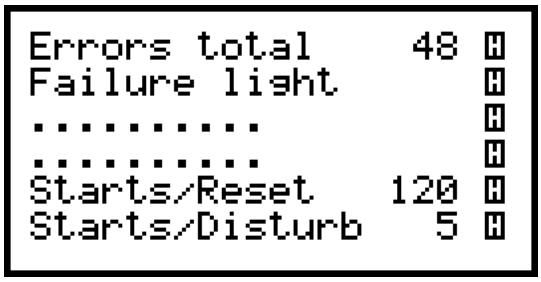
With " F " (Cont.) you change to the error statistics:



Pushing "!" locks all measured values or unlocks them again. Locked values are marked by a rectangle and can be printed and/or stored.

With "▲" you may scroll the displayed values and new elements of the error statistics will be shown.

The display reads for instance:



Following errors may be displayed:

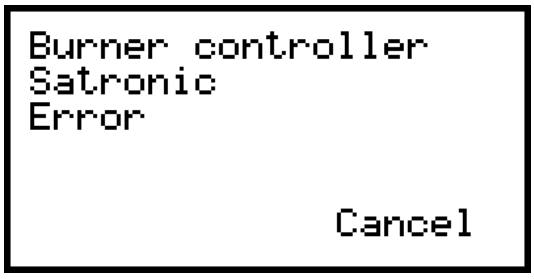
No Flame	=	no flame signal after ignition
Straylight	=	flame signal before ignition
LW stay open	=	air guard open after ventilator start
LW open	=	air guard open before ventilator start
LW closed	=	air guard close after fan stop
Fl. signal	=	flame signal after operation stop
Loss Flame	=	no flame signal during operation
Manual Stop	=	manual Reset of the burner controller
System Error	=	electronic error
unknown	=	unknown error

Pushing the button "!" locks all measured values or unlocks them again. Locked values are marked by a rectangle and can be printed and/or stored.

By pushing the button "F" you may call the menu "Printing" (see 4.), if values are locked, in other case the menu "Functions" is called again.

2.2.3 Data Transfer Error

If the connection between burner controller and MSI 150 is disturbed the display will read:



By pushing the button "!" (Cancel) you may call the menu "Functions" again. After the connection is repaired (new mounting of the sensor head for example) the start function (see 2.2.1) is done automatically.

3. Data Transfer from Digital Burner Controllers of Siemens

3.1 Siemens Oil Burner Controller

Before data can be transferred, the burner controller has to be set to interface diagnosis mode (see user manual burner / burner controller).

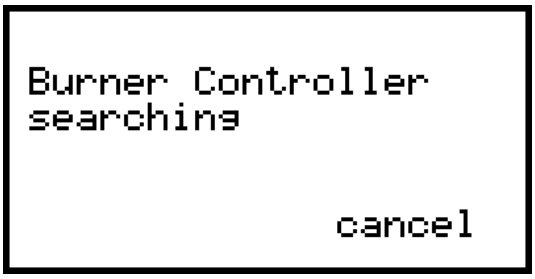
If the burner is shut off (the light in the burner controller switch is off) you may set the burner controller to interface diagnosis mode by pressing the burner controller button for more than 3 seconds. The red light in the switch is now flickering.

Shows the burner controller an error (the light in the burner controller is red), you may set the burner controller to visual diagnosis mode by pressing the burner controller button for more than 3 seconds. The red light in the switch is now blinking red. Now press the button for more than 3 seconds again. This will set the burner controller into interface diagnosis mode, the red light in the switch is now flickering.

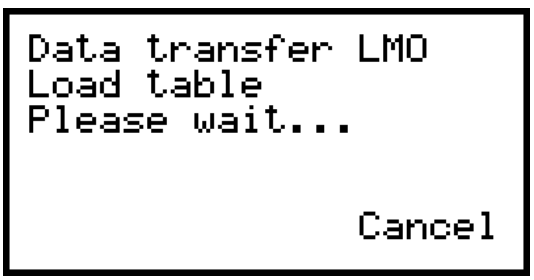
3.1.1 Start Function

Is the burner controller in the interface diagnosis mode connect the plug of the BC-Interface with the RS 232 interface of the MSI 150 and put the sensor head over the lighted switch of the Burner Controller.

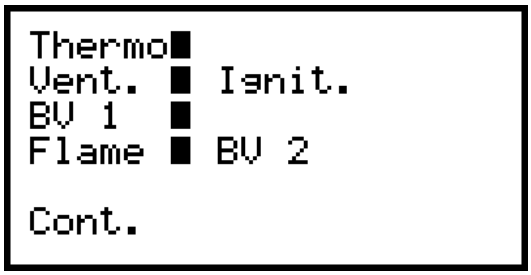
Switch on the MSI 150, choose the fuel type selection and then by pushing " ! " the menu "Functions". With "▲" set the mark "►" to "Burner controller" and start the function with "F", now the display reads:



With "!" (cancel) you may stop the searching and the menu functions is shown again. Are all data transferred the display reads:



And a short time later:

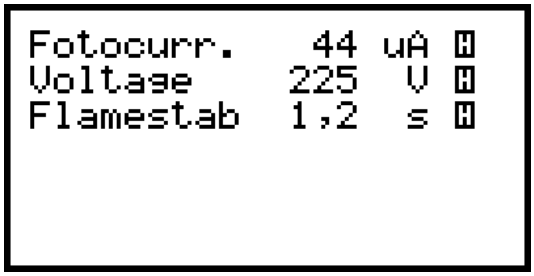


The displayed functions are: Vent. = ventilation on, Ignit. = ignition on, BV1 = fuel valve 1 on, BV2 = fuel valve 2 on, Flame = flame on

The rectangles mean that the function is active. All data will be continuously refreshed. By pushing "F" (Cont.) you call further status information.

3.1.2 Status Information

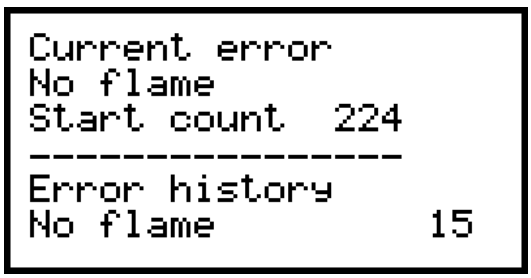
After choosing further status information the display reads (example):



The displayed measuring value Fotocurr. means current of the photo sensor.

Pushing the button "!" locks all measured values or unlocks them again. Locked values are marked by a rectangle and may be printed and/or stored.

With pushing the button " F " you choose the displaying of the error statistics. The display reads (example):



With "▲" you may scroll the displayed values and new elements of the error statistics will be shown.

Following errors may be displayed:

No Flame	=	no flame signal after ignition
Straylight	=	flame signal before ignition
Loss Flame	=	no flame signal during operation
Timeout heater	=	oil heater error
unknown	=	unknown error

By pushing the button "F" you may call the menu "Printing" (see 4.), if values are locked, in other case the menu "Functions" is called again.

3.1.3 Data Transfer Error

If the connection between burner controller and MSI 150 is disturbed the display will read:

By pushing the button "!" (Cancel) you may call the menu "Functions" again. After the connection is repaired (new mounting of the sensor head for example) the start function (see 3.1.1) is done automatically.

3.2 Siemens Gas Burner Controller

Before data can be transferred, the burner controller has to be set to interface diagnosis mode (see user manual burner / burner controller).

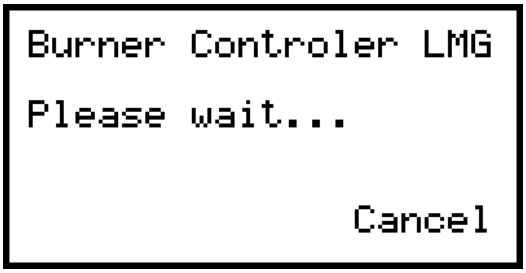
Shows the burner controller an error (the light in the burner controller is red), you may set the burner controller to visual diagnosis mode by pressing the burner controller button for more than 3 seconds.

3.2.1 Data Transfer

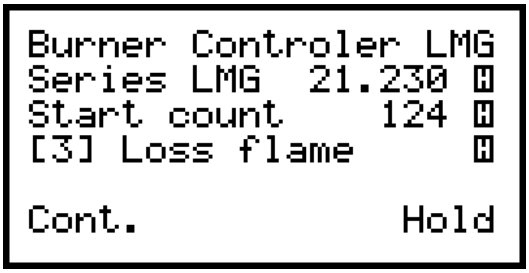
Is the burner controller in the interface diagnosis mode connect the plug of the BC-Interface with the RS 232 interface of the MSI 150 and put the sensor head over the lighted switch of the burner controller.

Switch on the MSI 150, choose the fuel type selection and then by pushing " ! " the menu "Functions". With "▲" set the mark "►" to "Burner controller" and start the function with "F", now the display reads:

With "!" (cancel) you may stop the searching and the menu "Functions" is shown again. If the burner controller is recognized the display reads:



With "!" (cancel) you may stop the searching and the menu "Functions" is shown again. In other case a short time later the display will read:



In the 4. line the actual error is displayed.

Pushing the button "!" (Hold) locks all measured values or unlocks them again. Locked values are marked by a rectangle and can be printed and/or stored.

By pushing the button "F" (Cont.) you call the menu "Printing" (see 4.), if values are locked, in other case the menu "Functions" is called again.

Following errors may be displayed: [1] Straylight, [2] No flame, [3] Loss flame, [4] 4 * No flame, [5] LP not closed (air guard), [6] LP opened , [7] Starting inhibit, [8] No diagnostic, [9] old software and General error.

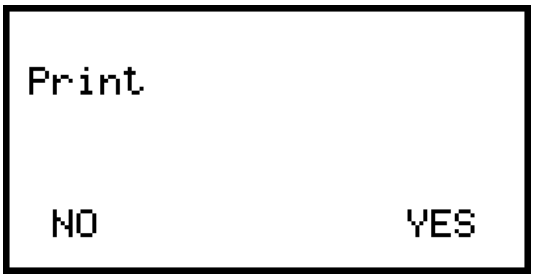
3.2.2 Data Transfer Error

If the connection between burner controller and MSI 150 is disturbed the display will read:

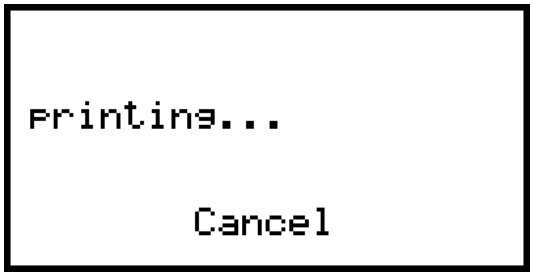
By pushing the button "!" (Cancel) you may call the menu "Functions" again. After the connection is repaired (new mounting of the sensor head for example) the data Transfer (see 3.2.1) starts again automatically.

4. Printing

If the menu "Printing" has been called the display reads:



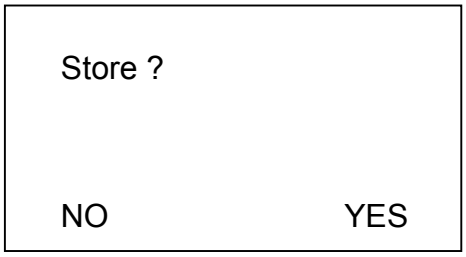
by pushing "!" (YES) the print out may be started and the display will read:



After pushing "F" (NO) and after the print out is finished or cancelled the menu "Store Data" (see 5.) is called.

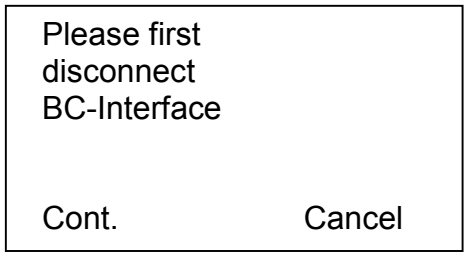
5. Store Data

If the menu "Store Data" has been called the display reads:



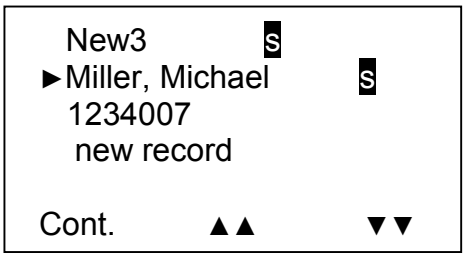
With pushing the button "F" (NO) you may call the menu "Functions".

With pushing "!" (YES) you may start the data transfer. If the plug of the BC-Interface is still connected with the instruments RS 232 interface, then the display will read:



Pushing "!" (Cancel) leads back to the menu "Functions".

After pushing the button "F" (Cont.) the selection of the customer can be done (See Instruction Manual of your MSI 150), the display reads (example):

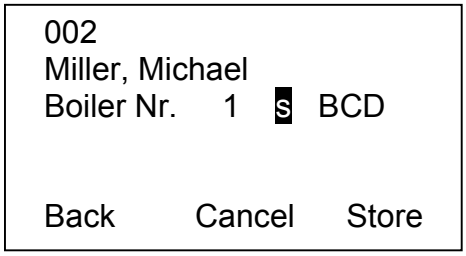


For S marked customers a data record is already stored.

With "▲" (▲▲) or "!" (▼▼) you may place the mark " ► " to the wanted customer.

If you are using a scanner, you may read now the barcode label by pushing the scanners key. A beep and the lighting of the LED quit the scanners correct function. The assigned customer name (if stored) will be displayed marked by " ► ".

With pushing " F " (Cont.) the marked customer is accepted. Now the display reads:



The first line shows the customer number, the second the customer name. The third line contents the number of the boiler.

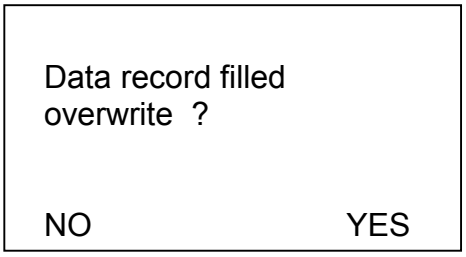
If for this customer a data record is already stored, this is shown by S and the type of data record A and / or B,C,D. If A follows a data record regarding the Data Transfer from Digital Burner Controllers is already stored.

Pushing " F " (back) leads back to the selection of customer.

With "▲" (cancel) the data storing is cancelled and the menu "Functions" is shown.

With pushing " ! " (Store) the data record is stored and the menu "Functions" is shown.

Is the type of data record already stored then the display reads:



With " F " (NO) the customer selection is called again without data storing.

With pushing " ! " (YES), the existing data record is overwritten and the menu "Functions" is shown.