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1 MENU TREE - APPENDIX 2 (REL 551)

1.1 How to modify the Station Name

Start from the main screen:

- *If you don't know how to reach the main screen, just leave the REL alone, not touching anything. After a while it will automatically go, by time out, to the main screen. If no event is stored and no key has been pressed for some time, the display will automatically turn off. To turn it on again, press any key. If an event is stored or something else is showing than on the main screen, you can get to the main screen by pressing **E** (enter in the menus) a number of times.*

Ready
REL 551 VER 1.1
C=Quit
E=Enter menu

- Press **E** (enter in the menus)
- Press several times  and select **Configuration** (by select is meant that the denotation is shown flashing on the display)
- Press **E** (enter in the configuration menu)
- Press several times  and select **Identifiers**
- Press **E** (enter in the identifiers menu)

Your LCD screen should now look like this:

Config/Ident
Station Name =
String, 16 char
>

Flashing

- Press **E** (enter in the edit mode)





Your LCD screen will have the following appearance:


Config/Ident
Station Name =
String, 16 char

Flashing

You can now edit the Station Name. The station name must not be longer than 16 characters.

Editing the Station Name

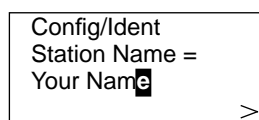
- Press  or  to modify the selected character (it is shown by the blinking prompt; in the figure above, the letter “S” of “String”).
- Press  or  to select another character that you want to modify in the string.


Hint! If you want to clear a character (i.e. replace it with a blank space), just keep  pressed down until a fixed blank appears.

Saving - Not Saving - Cancelling


Once you have modified the Station Name, you have to store this information in the non-volatile memory of the REL.

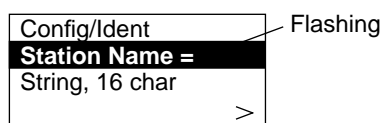
Your screen will have the following appearance:





Config/Ident
Station Name =
Your Name  >

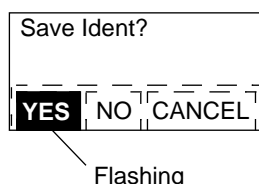
where **YourName** is the name you have just typed in.


- Press  to exit from the Edit Mode:





Config/Ident
Station Name =  Flashing
String, 16 char
>

- Press . A dialogue message will appear:



Save Ident?
 YES NO CANCEL
Flashing

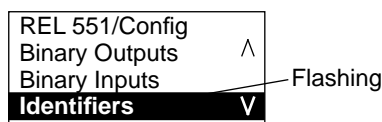
With the keys  and  you can select the following:

- Save your changes (YES)
- Not to save your changes (NO)
- Cancel (forget my last move, I didn't want to) (CANCEL)

Depending on what you have chosen, you can have the following situations:

Save

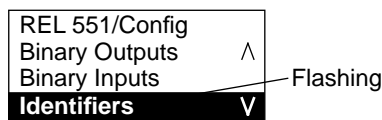
After you have selected YES in the 'Save Ident?' dialogue, press **E** to save your changes. A flashing **busy** alert will appear for a few seconds. This means that your REL is storing your information in the non-volatile memory. Once the REL has stored the data, you will get the following screen:



Press **C** twice to get back to the main menu.

Not save

After having selected NO in the 'Save Ident?' dialogue, press **E** if you do not want to save your changes. You will get the following screen:

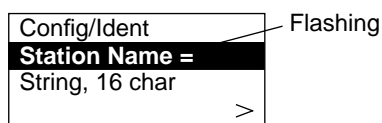


The previous data will remain valid.

You can press twice **C** to go to the main menu.

Cancel

While writing the Station Name, you can accidentally press **E** and then **C**. In this case you will get the 'Save Ident?' dialogue although you didn't want to. To get back to editing the Station name, after you have selected CANCEL in the 'Save Ident?' dialogue, press **E**. You will then get back to the Station Name menu, as if nothing happened:

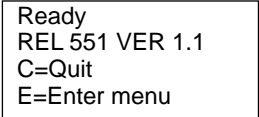


Now you can continue to type in your station name by pressing **E**.



1.2 How to modify the Station No.

Start from the main screen:

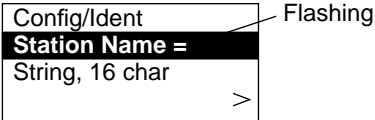
If you don't know how to reach the main screen, just leave the REL alone, not touching anything. After a while it will automatically go, by time out, to the main screen.



Ready
REL 551 VER 1.1
C=Quit
E=Enter menu


- Press **E** (enter in the menus)
- Press several times  and select **Configuration**
- Press **E** (enter in the configuration menu)
- Press several times  and select **Identifiers**
- Press **E** (enter in the identifiers menu)

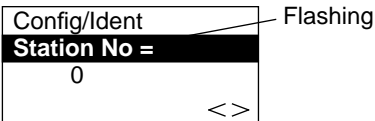
Your LCD screen should now look like this:



Config/Ident
Station Name =
String, 16 char
>

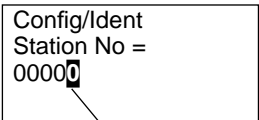
You now have to go into the Station Number page.

- Press  and you will get the following screen:



Config/Ident
Station No =
0
<>

- Press **E** (enter in the edit mode)







Config/Ident
Station No =
0000

Flashing

You can now edit the station number (no more than 5 digits).

Editing the Station No


- Press  or  to modify the digit selected (it is shown by the blinking prompt).
- Press  or  to select another digit you want to modify.

Saving - Not Saving - Cancelling

Your screen will have the following appearance:


Config/Ident
Station No =
1234 5

where **12345** is the number you have just typed in.

- Press  to exit from the Edit Mode:



Config/Ident
Station No =
12345
< >

Flashing

- Press . A dialogue message will appear:

Save Ident?
YES NO CANCEL

Flashing

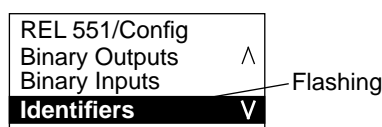
With the keys  and  you can select the following:

- Save your changes (YES)
- Not to save your changes (NO)
- Cancel (forget about my last move, I didn't want to) (CANCEL)

Depending on what you have chosen, you can get the following situations:

Save

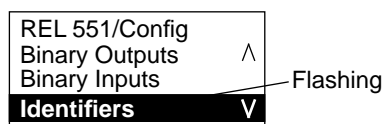
After having selected YES in the 'Save Ident?' dialogue, press **E** to save your changes. A flashing **busy** alert will appear for a few seconds. This means your REL is storing your information in the non-volatile memory. Once the REL has stored the data, you will get the following screen:



Press **C** twice to go to the main menu.

Not save

After you have selected NO in the 'Save Ident?' dialogue, press **E** to not save your changes. You will get the following screen:

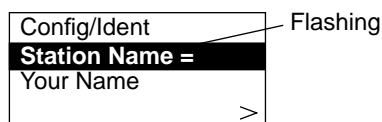



The previous data will remain valid.

You can press twice **C** to go to the main menu.

Cancel

While writing the station number, you can accidentally press **E** and then **C**. In this case you will get the 'Save Ident?' dialogue although you didn't want to. To get back to editing the Station name, after you have selected CANCEL in the 'Save Ident?' dialogue, press **E**. You will then get back to the Station Name menu, as if nothing happened:





If you want to continue to type in your station number, you must press  once to go to the 'Station No' page.

1.3 How to modify the Object Name

Start from the main screen:

If you don't know how to reach the main screen, just leave the REL alone, not touching anything. After a while it will automatically go, by time out, to the main screen.

Ready
REL 551 VER 1.1
C=Quit
E=Enter menu


- Press **E** (enter in the menus)
- Press several times  and select **Configuration**
- Press **E** (enter in the configuration menu)
- Press several times  and select **Identifiers**
- Press **E** (enter in the identifiers menu)

Your LCD screen should now look like this:

Config/Ident
Station Name =
String, 16 char
>

Flashing

You now have to go to the Object Name page.

- Press  twice and you will get the following screen:

Config/Ident
Object Name =
String, 16 char
<>

Flashing

- Press **E** (enter in the edit mode).





Your LCD screen will have the following appearance:


Config/Ident
Object Name =
String, 16 char

Flashing

You can now edit the Object Name. The Object Name must not be longer than 16 characters.

Editing the Object Name

- Press  or  to modify the selected character (it is shown by the blinking prompt; in the figure above, the letter 'S' of 'String').
- Press  or  to select another character that you want to modify in the string.

Hint! If you want to clear a character (i.e. replace it with a blank space), just keep  pressed down until a fixed blank appears.

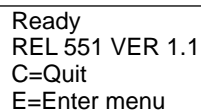
Saving - Not Saving - Cancelling.

For this part, please refer to par. 6.1, How to Modify the Station Name.



1.4 How to modify the Object No.

Start from the main screen:

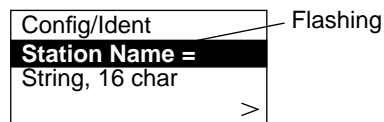
If you don't know how to reach the main screen, just leave the REL alone, not touching anything. After a while it will automatically go, by time out, to the main screen.



Ready
REL 551 VER 1.1
C=Quit
E=Enter menu

- Press **E** (enter in the menus)
- Press several times  and select **Configuration**
- Press **E** (enter in the configuration menu)
- Press several times  and select **Identifiers**
- Press **E** (enter in the identifiers menu)


Your LCD screen should now look like this:

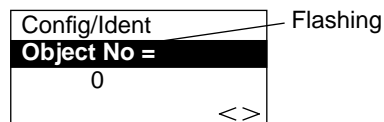


Config/Ident
Station Name =
String, 16 char
>

Flashing

You now have to go to the Object No page.

- Press  three times and you will get the following screen:

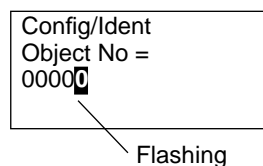


Config/Ident
Object No =
0
<>

Flashing

- Press **E** (enter in the edit mode).

Your LCD screen will have the following appearance:







Config/Ident
Object No =
0000

Flashing

You can now edit the object number (no more than 5 digits).

Editing the Object No

- Press  or  to modify the selected digit (it is shown by the blinking prompt).
- Press  or  to select another digit that you want to modify.

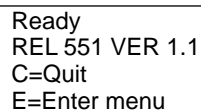
Saving - Not Saving - Cancelling

For this part, please refer to par. 6.2, How to Modify the Station No.



1.5 How to modify the Unit Name

Start from the main screen:

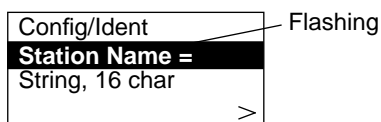
If you don't know how to reach the main screen, just leave the REL alone, not touching anything. After a while it will automatically go, by time out, to the main screen.



Ready
REL 551 VER 1.1
C=Quit
E=Enter menu


- Press **E** (enter in the menus)
- Press several times  and select **Configuration**
- Press **E** (enter in the configuration menu)
- Press several times  and select **Identifiers**
- Press **E** (enter in the identifiers menu)

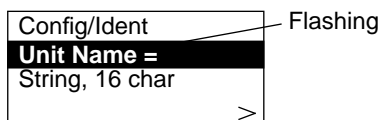
Your LCD screen should now look like this:



Config/Ident Flashing
Station Name =
String, 16 char
>

You now have to go to the Unit Name page.

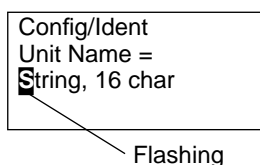
- Press  four times and you will get the following screen:



Config/Ident Flashing
Unit Name =
String, 16 char
>

- Press **E** (enter in the edit mode).





Your LCD screen will have the following appearance:




Config/Ident
Unit Name =
String, 16 char
Flashing

You can now edit the Unit Name. The Unit Name must not be longer than 16 characters.

Editing the Unit Name

- Press  or  to modify the selected character (it is shown by the blinking prompt; in the figure above, the letter 'S' of 'String').
- Press  or  to select another character that you want to modify in the string.

Hint! If you want to clear a character (i.e. replace it with a blank space), just keep  pressed down until a fixed blank appears.

Saving - Not Saving - Cancelling

For this part, please refer to par. 6.1, How to Modify the Station Name.

1.6 How to modify the Unit No.

Start from the main screen:

If you don't know how to reach the main screen, just leave the REL alone, not touching anything. After a while it will automatically go, by time out, to the main screen.

Ready
REL 551 VER 1.1
C=Quit
E=Enter menu

- Press **E** (enter in the menus)
- Press several times **▲** and select **Configuration**
- Press **E** (enter in the configuration menu)
- Press several times **▲** and select **Identifiers**
- Press **E** (enter in the identifiers menu)

Your LCD screen should now look like this:

Config/Ident
Station Name =
String, 16 char
>

Flashing

You now have to go to the Unit No page.

- Press **◀** several times until you will get the following screen:

Config/Ident
Unit No =
0
<

Flashing

- Press **E** (enter in the edit mode).





Your LCD screen will have the following appearance:

Config/Ident
Unit No =
0000

Flashing

You can now edit the unit number (no more than 5 digits).

Editing the Unit No

- Press  or  to modify the selected digit (it is shown by the blinking prompt).
- Press  or  to select another digit that you want to modify.

Saving - Not Saving - Cancelling


For this part, please refer to par. 6.2, How to Modify the Station No.

1.7 How to read the Self Supervision Report

Start from the main screen:

If you don't know how to reach the main screen, just leave the REL alone, not touching anything. After a while it will automatically go, by time out, to the main screen.

Ready REL 551 VER 1.1 C=Quit E=Enter menu
--

- Press **E** (enter in the menus)
- Press several times  and select **Terminal Status**
- Press **E** (enter in the Terminal Status menu)



Your LCD screen should now look like this:

REL 551/TermSt	Flashing
Self Superv	
Identity No	
V	

- Press **E** (enter in the Self Supervision menu)

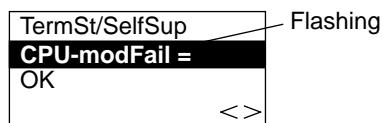
Your LCD screen should now look like this:


TermSt/SelfSup	Flashing
InternFail =	
OK	
>	

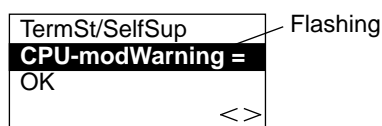
- From this screen you can navigate with the key  and read the whole Self Supervision Report.
- Press once  (see if any internal warning has appeared):

TermSt/SelfSup	Flashing
InternWarning =	
OK	
<>	

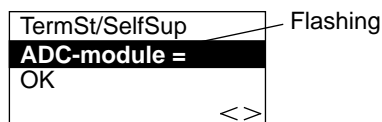
- Press  (check the Main processing module):



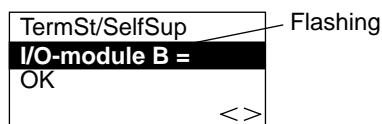
- Press  (check if any warning on the Main processing module has appeared):




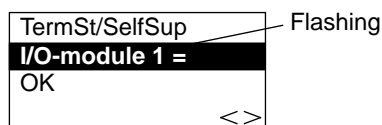
- Press  (check the A/D converter module):




- Press  (check the Basic I/O module):




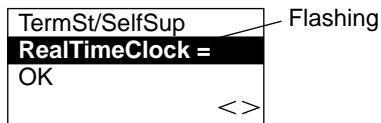
- Press  (check the optional I/O No. 1, if installed):




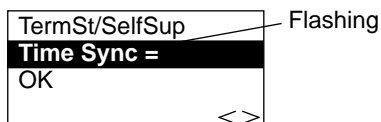
- Press  (check the communication module for the line differential protection):




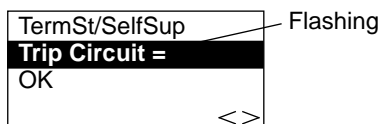
- Press  (check the Internal clock):




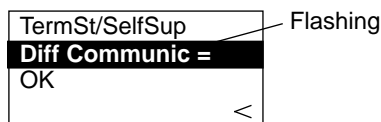
- Press  (check the time synchronisation):





- Press  (check the trip circuits):



- Press  (check the differential communication):



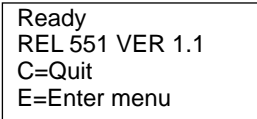
To go back to the main screen, press  twice.

You can also use the key , if you want to see some previous Supervision Reports.


1.8 How to change the System Frequency Report

Start from the main screen:

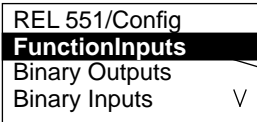
If you don't know how to reach the main screen, just leave the REL alone, not touching anything. After a while it will automatically go, by time out, to the main screen.



Ready
REL 551 VER 1.1
C=Quit
E=Enter menu

- Press **E** (enter in the menus)
- Press several times  and select **Configuration**
- Press **E** (enter in the Configuration menu)


Your LCD screen should now look like this:



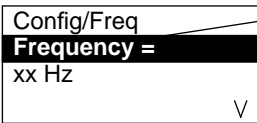
REL 551/Config
FunctionInputs
Binary Outputs
Binary Inputs

Flashing

V

- Press several times  and select Frequency
- Press **E** (enter in the Frequency menu)

Your LCD screen should now have the following appearance:



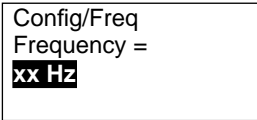
Config/Freq
Frequency =
xx Hz

Flashing

V

where xx can be 50 or 60.

- Press **E** (enter in the edit mode):



Config/Freq
Frequency =
xx Hz

You can now edit the system frequency.

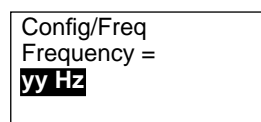
Editing the Frequency

Press  or  to choose between 50 and 60 Hz.

Saving - Not Saving - Cancelling.


Once you have modified the frequency according to your system frequency, you have to store this information in the non-volatile memory of the REL.

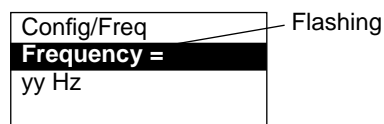
Your screen should look like this:



Config/Freq
Frequency =
yy Hz


where **yy** is the frequency you have just selected.

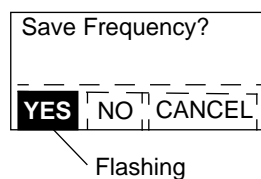
- Press  to exit from the Edit Mode:



Config/Freq
Frequency =
yy Hz



Flashing

- Press . A dialogue message will appear:



Save Frequency?
YES NO CANCEL

Flashing

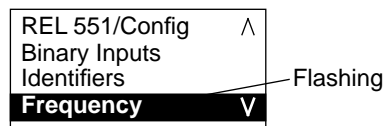
With the keys  and  you can select the following:

- Save your changes (YES)
- Not to save your changes (NO)
- Cancel (forget about my last move, I didn't want to) (CANCEL)

Depending on what you have chosen, you can get the following situations:

Save

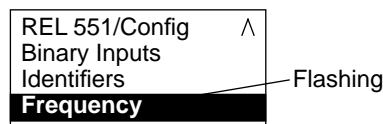
After you have selected YES in 'Save Frequency?' dialogue, press **E** to save your changes. A flashing **busy** alert appears for a few seconds. This means your REL is storing your information in the non-volatile memory. Once the REL has stored the data, you will get the following screen:



Press **C** twice to get back to the main menu.

Not save

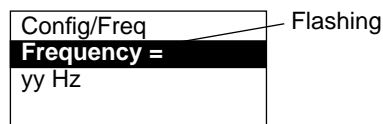
After you have selected NO in the 'Save Frequency?' dialogue, press **E** to not save your changes. You will get the following screen:



The previous data will remain valid.
You can press twice **C** to go to the main menu.

Cancel

While writing the Station Name, you can accidentally press **E** and then **C**. In this case you will get the 'Save Frequency?' dialogue when you didn't want to. To get back to editing the Frequency, select CANCEL in 'Save Frequency?' dialogue and press **E**. You will then get back to the Frequency menu, as if nothing happened:



You can now continue to type in your frequency.


1.9 How to configure a Binary Output

Please note! If you follow this example as an exercise, please remember to reconfigure the terminal afterwards, since your terminal configuration will be changed.

Start from the main screen:


If you don't know how to reach the main screen, just leave the REL alone, not touching anything. After a while it will automatically go, by time out, to the main screen.

Ready REL 551 VER 1.1 C=Quit E=Enter menu
--

- Press **E** (enter in the menus)
- Press several times  and select **Configuration**
- Press **E** (enter in the Configuration menu)

Your LCD screen should now look like this:

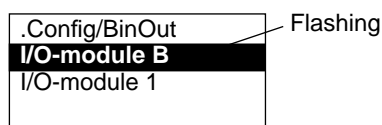
REL 551/Config	
FunctionInputs	
Binary Outputs	Flashing
Binary Inputs	✓

- Press  (select Binary Outputs)
- Press **E** (enter in the Binary Outputs menu)

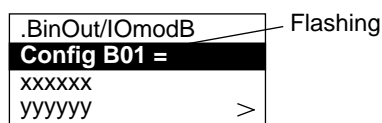
Your LCD screen should now look like this:

.Config/BinOut	Flashing
I/O-module B	

If you have more than one input/output module, your LCD will look like this:



- Select the I/O-module B (standard I/O module)
- Press **E** (enter in the edit mode):



Don't worry about what is written instead of xxxxxx and yyy on your screen.

Let us now suppose that you want to configurate the Binary Output number 3, connecting it to the internal signal DIFF-TRDIF (Trip from differential protection).

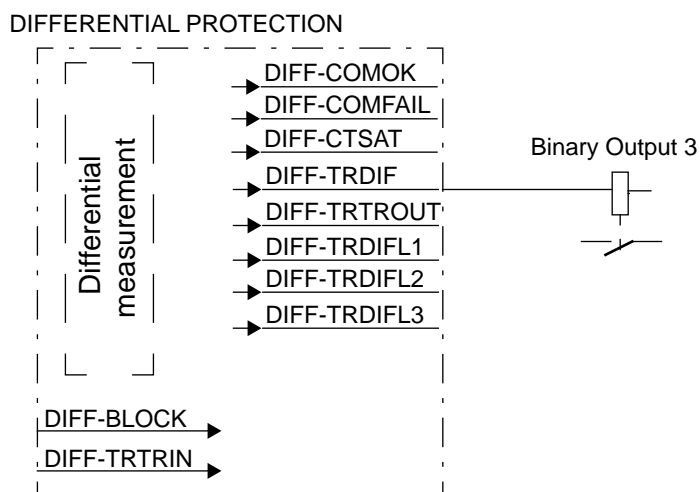
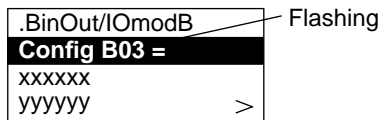



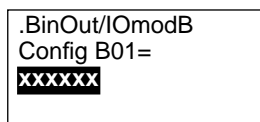
Fig. 35


- Press several times  and select the Binary Output number 3:

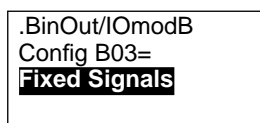


Note what is written under 'Config B03' (In the figure above, indicated with xxxxx and yyyyy). You must replace the old settings after having configured the binary output.

- Press  (enter in the Edit Mode. You are now choosing the group of signals to which your signal, DIFF-TRDIF, belongs).

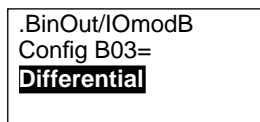


- Press  several times until your screen has the following appearance:

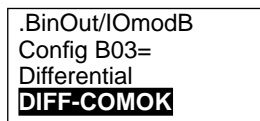


Your signal, DIFF--TRDIF, belongs to the Differential group. You now have to select this group.


- Press  two times:

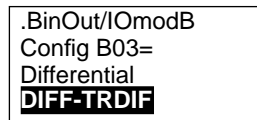



- Press  :



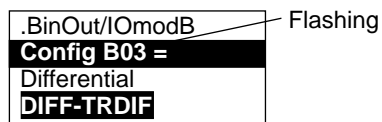
You are now going to choose, within the signal group Differential, your signal DIFF-TRDIF.

- Press  once and you will get the following screen:



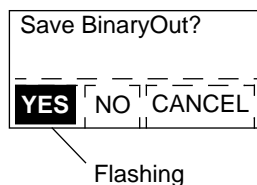
- Press  (you select the connection between Binary Output 3 and DIFF-TRDIF).

Your screen will look like this:



- Press  twice.

A dialogue message asking whether you want to save, not to save or cancel your modification, will appear:



with the keys  and  you can select if you want:

- Save your changes (YES)
- Not to save your changes (NO)
- Cancel (forget about my last move, I didn't want to) (CANCEL)

You can now refer to par. 6.1, How to Modify the Station Name

1.10 How to configure a Function Input

Please note! If you follow this example as an exercise, please remember to reconfigure the terminal afterwards, since your terminal configuration will be changed.

Configuring a Function Input means that you connect this Input to some other signals (internal signals, such as any output signal of any function, or directly to a binary input).

To configure an input signal, you must first select the input signal of the function you are considering and then select the output signal (Binary Input or any other Function Output) that you want to connect to.

In this chapter we will connect the transfer trip signal input of the differential protection (DIFF-TRTRIN) to the Binary Input number 3.

To achieve this result we will first select the signal DIFF-TRTRIN, and then connect it to the Binary Input 3 (it is impossible to do the opposite: select the Binary Input 3 and connect it to the signal DIFF-TRTRIN).

The figure below shows the connection we want to create.

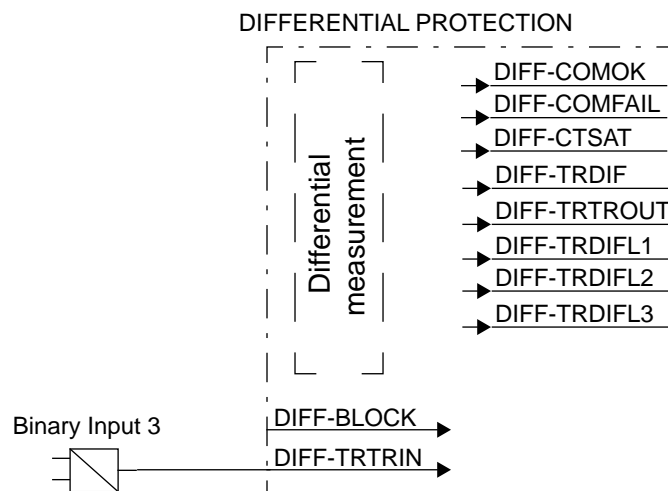



Fig. 36

Start from the main screen:

If you don't know how to reach the main screen, just leave the REL alone, not touching anything. After a while it will automatically go, by time out, to the main screen.

Ready REL 551 VER 1.1 C=Quit E=Enter menu
--

- Press **E** (enter in the menus)
- Press several times  and select **Configuration**
- Press **E** (enter in the Configuration menu)

Your LCD screen should now look like this:

REL 551/Config	
FunctionInputs	
Binary Outputs	
Binary Inputs	V

Flashing

- Press **E** (enter in the Function Inputs menu)

Your LCD screen should now look like this:

REL 551/Config	
Trip logic	
Differential	
EarthFault	V

Flashing

- Press  (select Differential menu):

REL 551/Config	
Trip Logic	^
Differential	
EarthFault	V

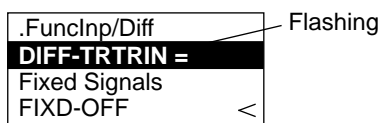
Flashing

- Press **E** (enter in the Differential signals menu):

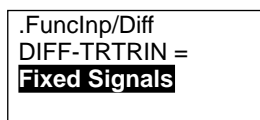


You now have to choose the signal DIFF-TRTRIN.


- Press  ONCE:

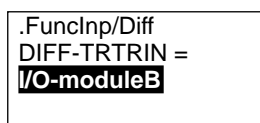


- Press **E** :

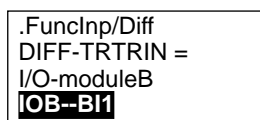


You want to connect DIFF-TRTRIN with the Binary Input number 3 of Input/Output module B (standard module). You now have to choose the I/O module.

- Press  several times until you get the following screen:



- Press **E** :



- Press  two times:

```
.FuncInp/Diff
DIFF-TRTRIN =
I/O-moduleB
IOB--BI3
```

- Press **E** (you are connecting Binary Input 3 with DIFF_TRTRIN).

Your screen will look like this:

```
.FuncInp/Diff
DIFF-TRTRIN =
I/O-moduleB
IOB--BI3      <
```



Flashing

- Press **C** twice.

A dialogue message, asking whether you want to save, not to save or cancel your connection, will appear:

```
Save FuncInputs?
YES NO CANCEL
```

Flashing

with the keys  and  you can select if you want:

- Save your changes (YES)
- Not to save your changes (NO)
- Cancel (forget about my last move, I didn't want to) (CANCEL)


You can now refer to par. 6.1, How to Modify the Station Name.

1.11 How to activate the Front Communication

Start from the main screen:

If you don't know how to reach the main screen, just leave the REL alone, not touching anything. After a while it will automatically go, by time out, to the main screen. If no event is stored and no key has been pressed for some time, the display will automatically turn off. To turn it on again, press any key.

Ready
REL 551 VER 1.1
C=Quit
E=Enter menu

- Press **E** (enter in the menus)
- Press several times  and select **Front Comm**

Your LCD screen should now look like this:

REL 551
Configuration ^
Test
Front Comm v

Flashing


- Press **E** (enter in the Front Communication menu)


Your LCD screen should now look like this:

Front:
Deactivate 

YES NO

Flashing

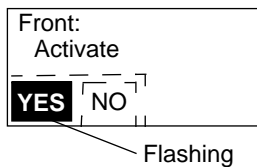
- press  and you will get the following screen:

Front:
Activate 


YES NO

Flashing

- press **E** and you will get the following screen:



- press **E** to activate the front communication.

Pressing  before **E** will not save your change (NO).