

Circuit-Breaker IZM58

Simulation Kit

11/07 AWB1230-1602GB-INT



We keep power under control.

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Warning! Dangerous electrical voltage!

Before commencing the installation

- Disconnect the power supply of the device.
- Ensure that devices cannot be accidentally restarted.
- Verify isolation from the supply.
- Earth and short circuit the device.
- Cover or enclose neighbouring units that are live.
- Danger if spring is charged! Discharge spring.
- Follow the engineering instructions (AWA/AWB) of the device concerned.
- Only suitably qualified personnel in accordance with EN 50110-1/-2 (VDE 0105 Part 100) may work on this device/system.
- Before installation and before touching the device ensure that you are free of electrostatic charge.
- Connecting cables and signal lines should be installed so that inductive or capacitive interference does not impair the automation functions.
- I/O interface so that a line or wire breakage on the signal side does not result in undefined states in the automation devices.
- Deviations of the mains voltage from the rated value must not exceed the tolerance limits given in the specifications, otherwise this may cause malfunction and dangerous operation.
- Emergency stop devices complying with IEC/EN 60204-1 must be effective in all operating modes of the automation devices. Unlatching the emergency-stop devices must not cause restart.
- The electrical installation must be carried out in accordance with the relevant regulations (e.g. with regard to cable cross sections, fuses, PE).
- All work relating to transport, installation, commissioning and maintenance must only be carried out by qualified personnel (IEC 60364 and HD 384 and national work safety regulations).

Navigation Overview

Writing conventions

Select «File → New» means: activate the instruction “New” in the “File” menu.

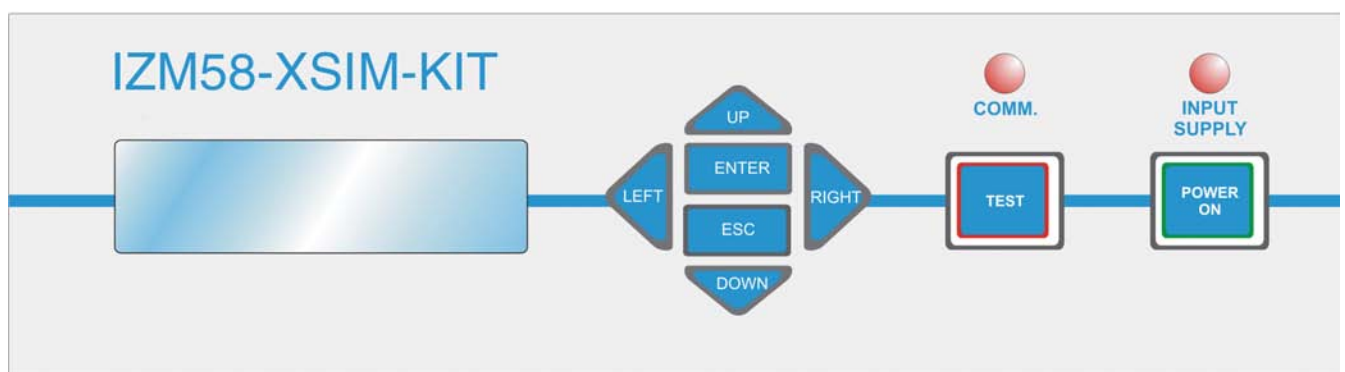
→ Draws your attention to interesting tips and supplementary information.

▽ **Attention!**
Warns of the risk of material damage.

⚠ **Caution!**
Warns of the possibility of serious damage and slight injury.

⚡ **Warning!**
Indicates the risk of major damage to property, or serious or fatal injury.

For clarity of layout, we adhere to the following conventions in this manual: at the top of left-hand pages you will find the Chapter heading, at the top of right-hand pages the current Section heading; exceptions are the first pages of Chapters and empty pages at the end of Chapters.



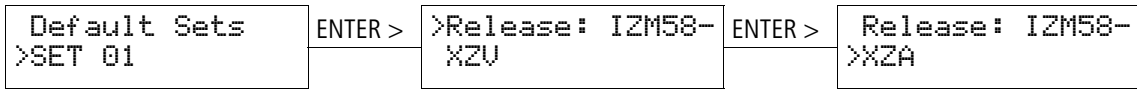
Default screen



Menu

- Settings Page 2
- Start test Page 3
- View records Page 4
- Reset REL PSWD Page 4
- Set kit PSWD Page 4
- Edit Date & Time Page 4
- i-dis Page 5
- DWNLTrip REC Page 5
- Data Recovery Page 5
- Enter COMM ID Page 5
- Enter TK ID Page 6

1 Settings



(Total sets 10)

Enter the release to be tested

- IZM58-XZA
- IZM58-XZV
- IZM58-XZU
- IZM58-XZU-RS
- IZM58-XZU-T
- IZM58-XZU-T-RS
- IZM58-XZU-T-I
- IZM58-XZU-T-COM
- IZM58-XZD

- IZM58-XZV-AM
- IZM58-XZU-AM
- IZM58-XZU-RS-AM
- IZM58-XZU-T-AM
- IZM58-XZU-T-RS-AM
- IZM58-XZU-T-I-AM
- IZM58-XZU-T-COM-AM

DOWN

>Type Of Test
OVERLOAD

ENTER >

Type Of Test
>OVERLOAD

Press ENTER to confirm the type of test

DOWN

Test list
OVERLOAD
S/C I²T ON
S/C I²T OFF
INSTANTANEOUS
E/F I²T ON
E/F I²T OFF

>Pick up Value
Ir=00.40In

ENTER >

Pick up Value
>Ir=00.40In

Set the pick up value from the range using DOWN & press ENTER to confirm pick up value.

DOWN

>Time Delay
Tr=002.5 Sec

ENTER >

Time Delay
>Tr=002.5 Sec

Set the time delay from the range using DOWN & press ENTER to confirm.

DOWN

>Enter Test VAL
It=02.50In

ENTER >

Enter Test VAL
>It=02.50In

Set the test current from the range $2.5 \times I_n - 13 \times I_n$ using DOWN & press ENTER to confirm.

DOWN

>Enter REL ID
1234567890

ENTER >

Enter REL ID
>1234567890

Set the release ID using DOWN & press ENTER to confirm.

DOWN

Press TEST Key

TEST >

Test In Progress

Test LED blinks till the issue of test command.

2 Start Test

Settings
>Start Test

ENTER >

>Enter Test VAL
It=13.00 In

Set the test current from the range ($2.5 \times I_n - 13 \times I_n$) using DOWN & press ENTER to confirm pick up value.

DOWN

>ENTER REL ID
1234567890

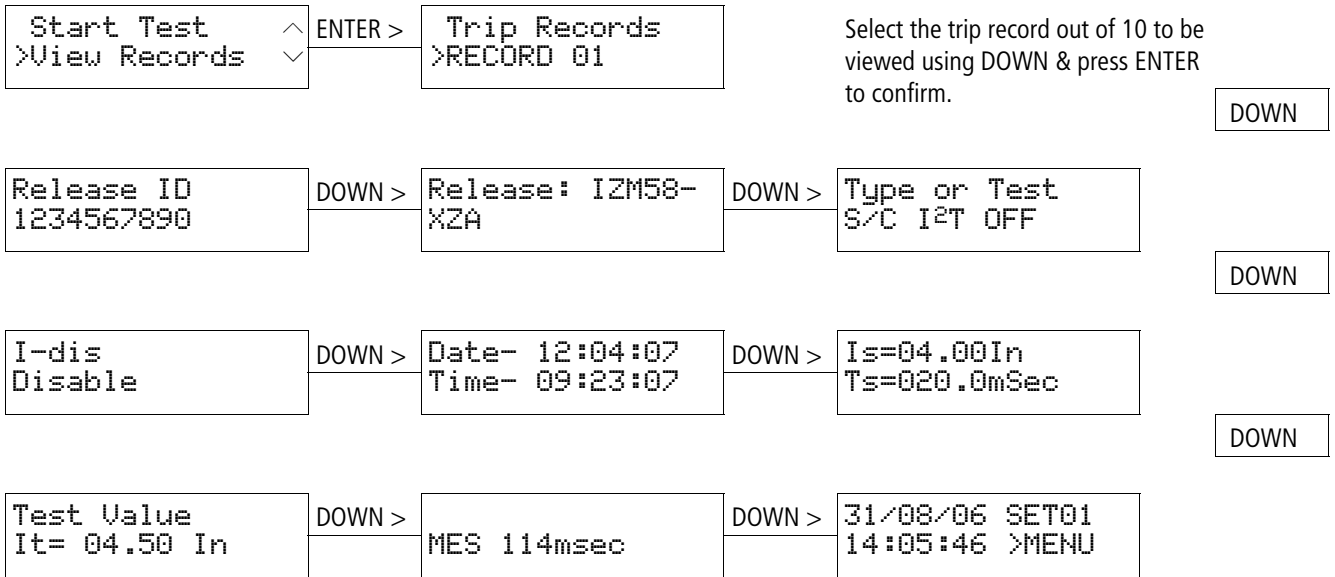
ENTER
DOWN
ENTER >

Press TEST key

Test LED blinks till the issue of test command.

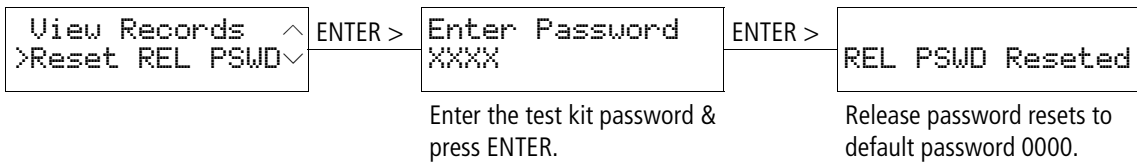
1234567890: default release ID

3 View Records

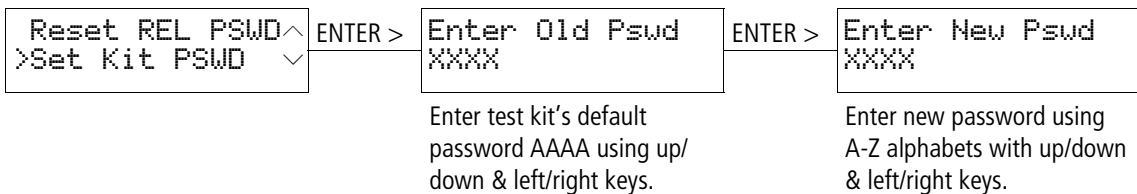


4 Reset Release Password

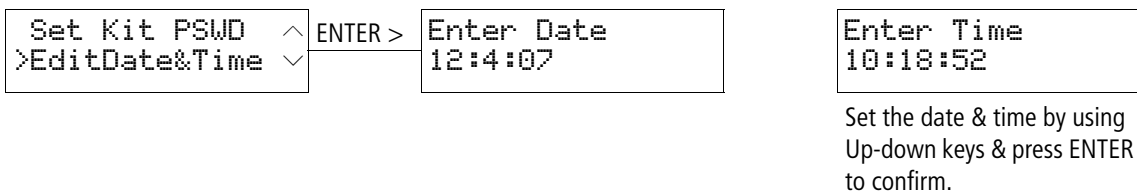
→ Only for IZM58-XZD release. Connect the communication cable before resetting password.



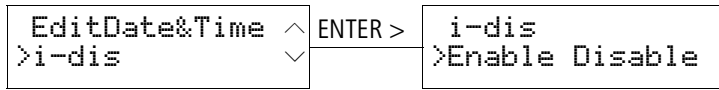
5 Set Kit Password



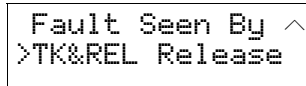
6 Edit Date & Time



7 i-discrimination

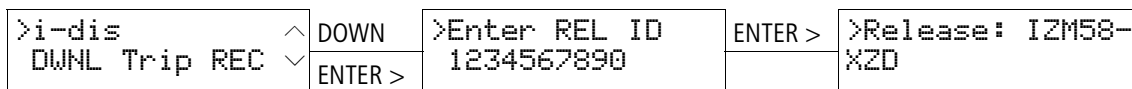


Set i-dis enable/disable by using left-right keys & press ENTER to confirm.

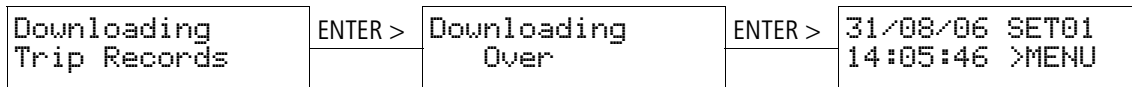


Set the option by using left-right keys & press ENTER to confirm. The test kit & release will be in down stream.

8 Download Trip Records

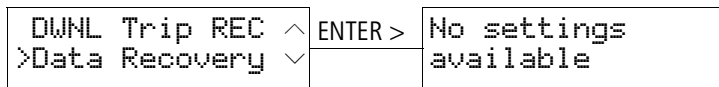


→ Only for IZM58-XZU-T-COM, IZM58-XZU-T-COM-AM & IZM58-XZD release The trip records get downloaded in test kit. No external access is provided to retrieve the records from test kit to PC.

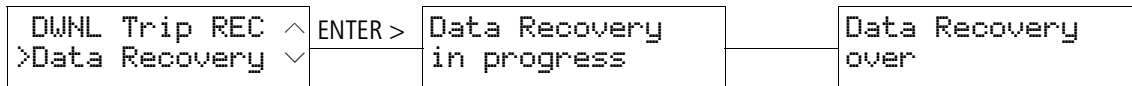


9 Data Recovery

→ Only for IZM58-XZD release To recover the actual settings of the release in case of communication link failure while writing the settings to release.

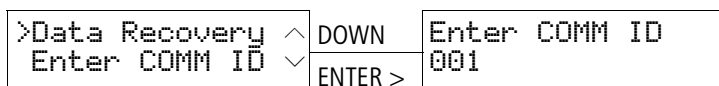


*This message will be displayed if IZM58-XZD release is not connected or communication is not established between release & test kit.



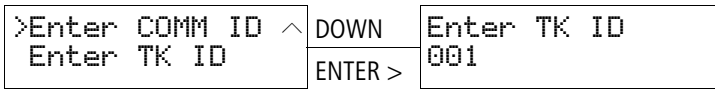
10 Enter Communication ID of Test Kit

→ For proper communication, the node address of release (IZM58-XZD only) must be same as that of test kit.



*COMM ID: 000 to 255
Set COMM ID of test kit using up/down & left/right keys. Press ENTER to confirm.

11 Enter Test Kit ID



*TK ID: 000 to 255
Set TK ID of test kit using up/down & left/right keys. Press ENTER to confirm.

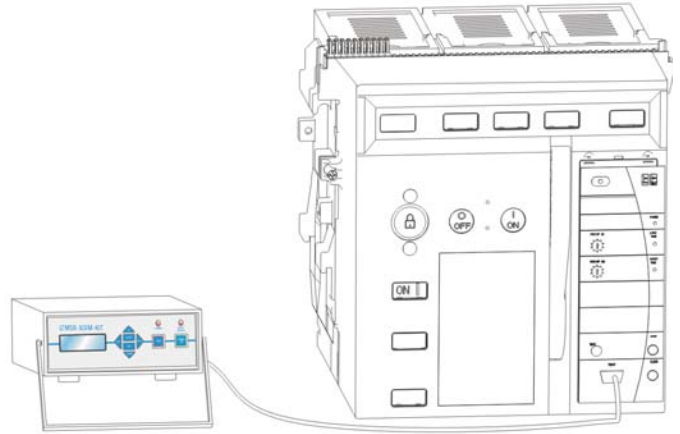
Trip Simulation

IZM58-XZA.../XZV-AM

Tools required: Screw Driver (Tip width 3 mm)

Trip Simulation Kit is available to test the functioning of IZM58-XZA.. / XZV-AM.. releases. The kit works on 240V supply and has a serial port connector to be plugged on to the release.

Follow the settings and procedure given below for testing various zones of the release. Before every test, breaker must be Closed. Once the breaker is tripped by the release, press 'Clear' button and push back the trip reset link on the release for further operation.



IZM58-XZA

Type of test	Settings on the Release	Test Current	Observations
Overload	Overload Pick-Up: $1.0 \times I_n$	$I_t = 2.5 \times I_n$	<ul style="list-style-type: none"> Breaker should trip in 16 ± 3 s On pressing 'Query' button, 'Overload' LED should glow
Short Circuit	Short Circuit Pick-Up: $4 \times I_n$	$I_t > 4.8 \times I_n$	<ul style="list-style-type: none"> Breaker should trip in ≤ 60 ms On pressing 'Query' button, 'Short Circuit' LED should glow

IZM58-XZV / IZM58-XZV-AM

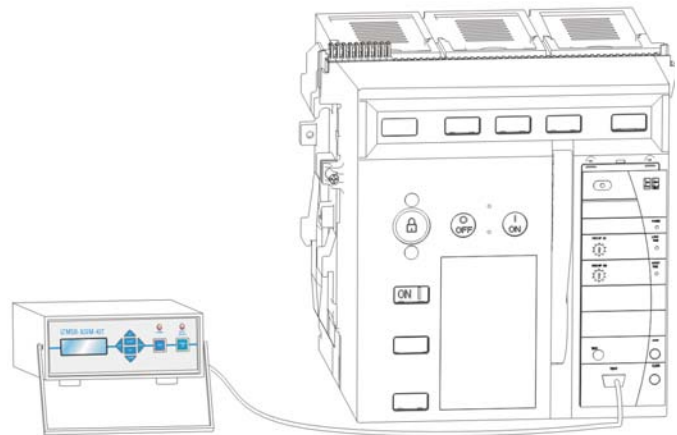
Type of test	Settings on the Release	Test Current	Observations
Overload	Overload Pick-Up: $1.0 \times I_n$	$I_t = 2.5 \times I_n$	<ul style="list-style-type: none"> Breaker should trip in 16 ± 3 s On pressing 'Query' button, 'Overload' LED should glow
Short Circuit	Short Circuit Pick-Up: $4 \times I_n$	$I_t > 4.8 \times I_n$	<ul style="list-style-type: none"> Breaker should trip in 400 ± 40 ms
	Short Circuit Delay: 400 ms, I ² t OFF		<ul style="list-style-type: none"> On pressing 'Query' button, 'Short Circuit' LED should glow
Instantaneous	Instantaneous: ON ($6 \times I_n$)	$I_t > 7.2 \times I_n$	<ul style="list-style-type: none"> Breaker should trip in ≤ 60 msec
	Thermal Reflectivity: Blocked		<ul style="list-style-type: none"> On pressing 'Query' button, 'Instantaneous' LED should glow

IZM58-XZU.../XZU-AM

Tools required: Screw Driver (Tip width 3 mm)

Trip Simulation Kit is available to test the functioning of IZM58-XZU-../ IZM58-XZU-../-AM releases. The kit works on 240V supply and has a serial port connector to be plugged on to the release.

Follow the settings and procedure given below for testing various zones of the release. Before every test, breaker must be Closed. Once the breaker is tripped by the release, press 'Clear' button and push back the trip reset link on the release for further operation.



IZM58-XZU-../ IZM58-XZU-../-AM (all versions)

Type of test	Settings on the Release	Test Current	Observations
Overload	Overload Pick-Up: $1.0 \times I_n$	$I_t = 2.5 \times I_n$	<ul style="list-style-type: none"> • Breaker should trip in 14 ± 3 s • On pressing 'Query' button, 'Overload' LED should glow
	Overload Delay: 2 s		
	Short Circuit Pick-up: $4 \times I_n$		
Short Circuit	Short Circuit Delay: 400 ms; I^2t OFF	$I_t > 4.8 \times I_n$	<ul style="list-style-type: none"> • Breaker should trip in 400 ± 40 ms • On pressing 'Query' button, 'Short Circuit' LED should glow
	Earth fault Pick-up: $0.3 \times I_n$		
	Earth fault Delay: OFF		
Instantaneous	Instantaneous: $6 \times I_n$	$I_t > 7.2 \times I_n$	<ul style="list-style-type: none"> • Breaker should trip in ≤ 60 ms • On pressing 'Query' button, 'Instantaneous' LED should glow
	Thermal reflectivity: Blocked		
Earth Fault	Overload Pick-up: $1.0 \times I_n$	$I_t > 0.45 \times I_n$	<ul style="list-style-type: none"> • Breaker should trip in 400 ± 40 ms • On pressing 'Query' button, 'Earth fault' LED should glow
	Overload Delay: 2 s		
	Short Circuit Pick-up: $4 \times I_n$		
	Short Circuit Delay: 400 ms; I^2t OFF		
	Earth fault Pick-up: $0.3 \times I_n$		
	Earth fault Delay: 400 ms; I^2t OFF		
	Instantaneous: $6 \times I_n$		
Thermal reflectivity: Blocked			