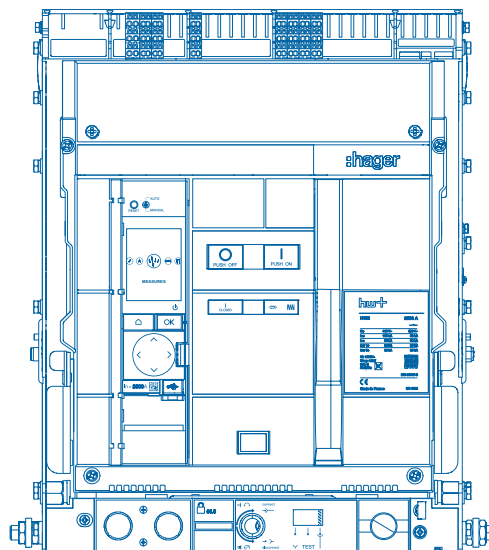


hw+



Air circuit breaker
HW1 / HW2 / HW4 / HW6
CE

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1 About this document

1.1 Safety instructions

Qualified personnel

The product or the system described in this documentation must be installed, operated and maintained by qualified personnel only. Hager Electro accepts no responsibility regarding the consequences of this equipment being used by unqualified personnel. Qualified personnel are those people who have the necessary skills and knowledge for building, operating and installing electrical equipment, and who have received training enabling them to identify and avoid the risks incurred.

Appropriate use of Hager products

Hager products are designed to be used only for the applications described in the catalogues and in the technical documentation relating to them. If products and components from other manufacturers are used, they must be recommended or approved by Hager.

Appropriate use of Hager products during transport, storage, installation, assembly, commissioning, operation and maintenance is required to guarantee problem-free operation in complete safety.

The permissible ambient conditions must be respected. The information contained in the technical documentation must be respected.

Publication liability

The contents of this documentation have been reviewed in order to ensure that the information is correct at the time of publication.

Hager cannot, however, guarantee the accuracy of all the information contained in this documentation. Hager assumes no responsibility for printing errors and any damage they may cause.

Hager reserves the right to make the necessary corrections and modifications to subsequent versions.

Read the following instructions carefully and make sure to follow them when carrying out the operations described in this guide.

Safety instructions for installation or accessory replacement operations



Danger

Risk of electric shock, electrocution or electric arc

Installation or accessory replacement operations should only be performed by staff qualified to install this device.

Before installing or replacing an accessory, follow the procedures described in User Maintenance Guides 6LE007897A (hw1) or 6LE009217A (hw2 / hw4) and in the package leaflets mentioned.

Wear appropriate personal protective equipment and follow the electrical safety regulations in force in your country.

Before starting any operation, check to ensure that all electrical power to the equipment has been disconnected and that it remains off for the duration of all the operations.

Follow the five safety rules below:

- Disconnect all electrical power supplies to the device, taking into account all the main, backup and control power sources,
- Disconnect and appropriately identify any power sources in such a way as to prevent their reconnection,
- Check that there is no voltage on the device,
- Earth all the circuits of the equipment,
- Provide protection against the adjacent parts that are still powered.

Verify that no tools or objects have been left inside the device.

Perform an insulation measurement with a megohmmeter or a Fluke device (500V DC to 1000V DC).

Replace all devices, doors and covers before powering up the device.

Qualified personnel

Qualified personnel are those people who have the necessary skills and knowledge for building, operating and installing electrical equipment, and who have received training enabling them to identify and avoid the electrical risks incurred and to apply the safety rules in force in the country. They must also be recognised as persons qualified to work on electrical installations, according to the regulations in force in the country.

1.2 Use of this document

Purpose of the document

This manual aims to provide maintenance personnel with the technical information necessary to troubleshoot the circuit breakers HW1, HW2, HW4 and HW6 with electronic trip units.

Field of application

This document is applicable to the HW1, HW2, HW4 and HW6 circuit breakers of the hw+ range.

Revisions

Version	Date
6LE009769Ac	2025-08

Documents to consult

Document	Reference
User Manual for hw+ sentinel electronic trip units	6LE009420A
User Manual for hw+ sentinel Energy electronic trip units	6LE009417A
Installation manual for HW1 air circuit breakers	6LE007893A
Installation manual for HW2 / HW4 / HW6 air circuit breakers	6LE009367A
User manual for HW1 air circuit breakers	6LE007331A
User manual for HW2 / HW4 / HW6 air circuit breakers	6LE009371A
sentinel Energy Modbus communication guide	6LE007964A
HTD210H panel display user guide	6LE002999A
Cybersecurity guide	6LE009346A
HW1 user maintenance guide	6LE007897A
HW2 / HW4 User Maintenance Guide	6LE009217A

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www.hager.com




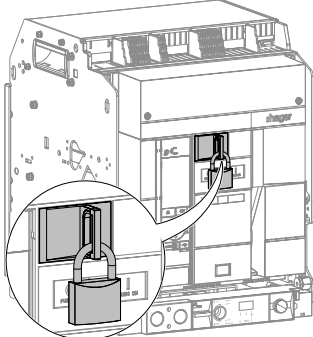
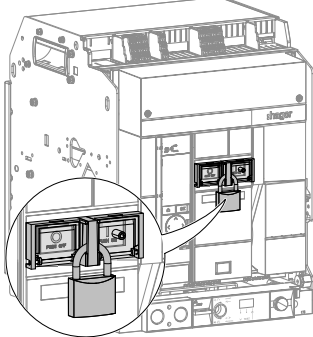
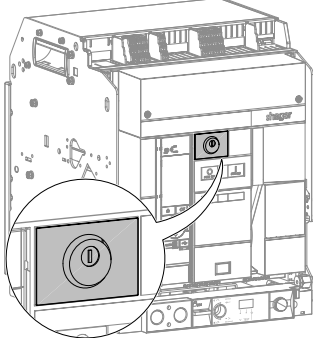
Contact


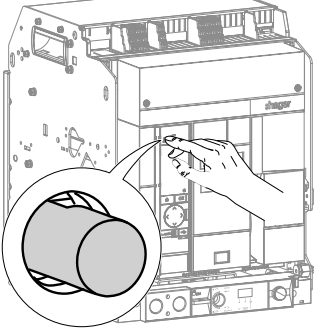
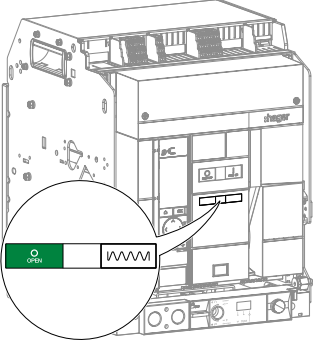
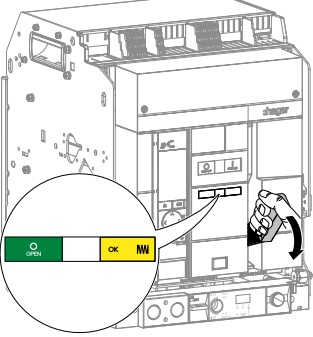
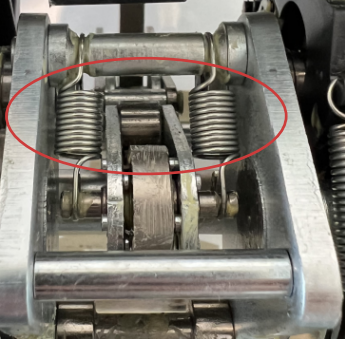
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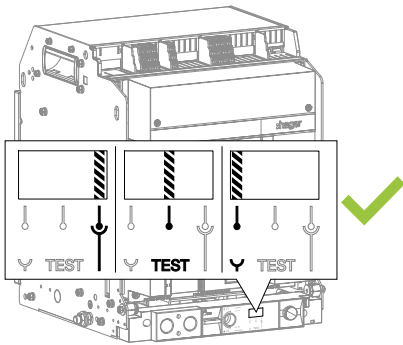
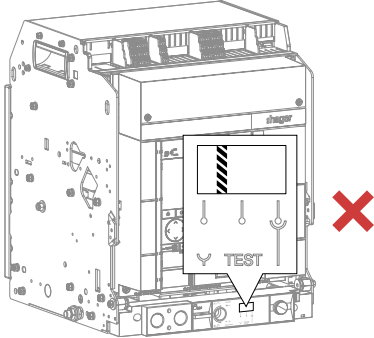
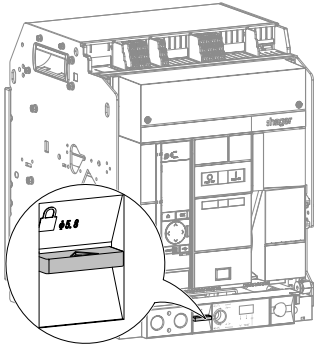
2 Troubleshooting help




This chapter lists the troubleshooting operations that are to be carried out in the event of problems with HW1, HW2 and HW4 circuit breakers with electronic trip units.


2.1 Problems with circuit breakers

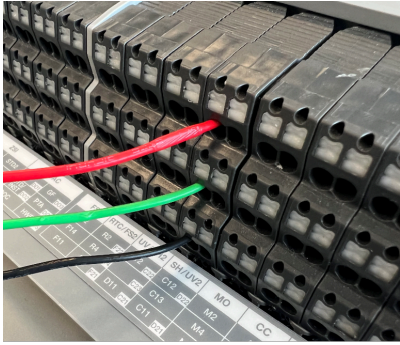
Description of the problem	Cause	Solution
<p>The circuit breaker cannot be closed by pressing the closing push button .</p>	<p>The opening push button  is not in the correct position.</p>	<p>Check that the opening push button  has returned to the correct position.</p>
	<p>The circuit breaker is locked in the OFF position by means of a padlock.</p>  	<p>Remove the padlock.</p>
	<p>The circuit breaker is locked in the open position using a lock.</p> 	<p>Unlock the lock.</p>

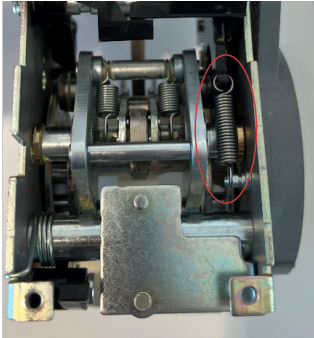
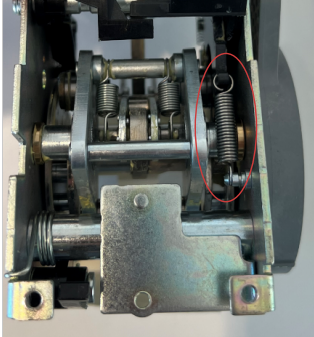

Description of the problem	Cause	Solution
<p>The circuit breaker cannot be closed by pressing the closing push button .</p>	<p>The RESET button was not reset following a trip.</p>	<p>1 Inspect the electrical installation and eliminate the cause of the trip. 2 Press the RESET button.</p> 
	<p>The closing spring is discharged.</p> 	<p>Charge the closing spring using the charging handle until the following indicators appear.</p> 
	<p>The T_lever/A springs on the mechanism are damaged.</p> 	<p>Replace the springs using the following spare parts:</p> <ul style="list-style-type: none"> • Circuit breaker HW1: HWW850HSP • Circuit breaker HW2/HW4: HWW851HS
	<p>The circuit breaker is locked in the open position by means of an MI mechanical interlocking system and/or electrical interlocking system.</p>	<ul style="list-style-type: none"> • Check the condition of the circuit breaker(s) integrated into the interlocking network. Clear the fault to unlock the circuit breaker. • Deactivate the interlock by opening the closed circuit breaker(s).

Description of the problem	Cause	Solution
<p>The circuit breaker cannot be closed by pressing the closing push button .</p>	<p>The MHT (Magnetic Hold Trigger) remains in the out position when it should be in the closed position to allow the contacts to be closed.</p>	<ol style="list-style-type: none"> 1 Turn off all power supplies to the circuit breaker including power and external power. 2 If there is a UV undervoltage release coil on the circuit breaker, remove it. 3 Switch the RESET button to manual mode. 4 Close the circuit breaker. <p>If the problem persists, the MHT must be replaced. Contact your Hager representative or local Hager technical support (contact details can be found on the Hager website for your country).</p>
	<p>The circuit breaker is not correctly inserted in its chassis.</p>	<ol style="list-style-type: none"> 1 Check to ensure that the circuit breaker has been fully inserted into the chassis, in the Connected, Test or Disconnected position. <div style="text-align: center;">  <p>Important: The circuit breaker may not be locked in the intermediate position.</p>  </div> 2 Check to ensure that the padlocking and position acknowledgement tab is outside of its holder. <div style="text-align: center;">  </div>

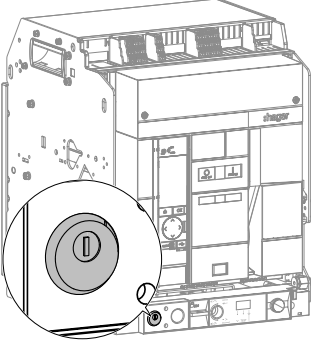
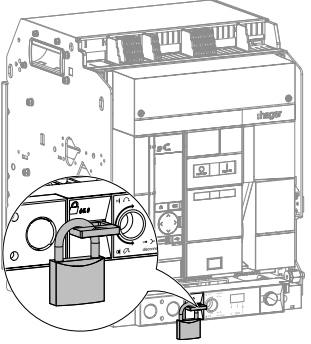
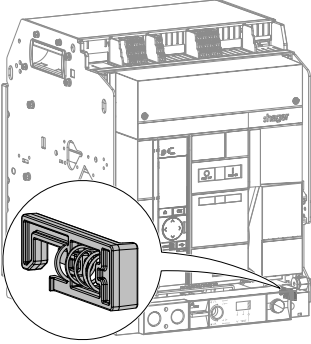
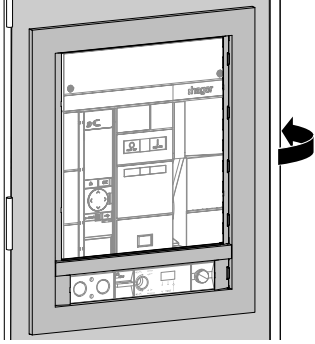
Description of the problem	Cause	Solution
The circuit breaker cannot be closed by pressing the closing push button  .	The SH shunt trip coil is powered constantly.	An opening command is sent to the SH shunt trip coil. Determine the origin of this opening command, then cancel it in order to be able to close the circuit breaker.
	The UV undervoltage release coil is not supplied with power after sending an open command.	Determine the origin of this opening command, then cancel it in order to be able to close the circuit breaker.
	The UV undervoltage release coil is no longer supplied with power due to an insufficient supply voltage.	Check the circuit and the supply voltage of the coil V ($V > 0.85 V_n$). If the problem persists, replace the UV undervoltage release coil.
	The UV undervoltage release coil is faulty.	Remove and power the UV undervoltage release coil outside the circuit breaker. Verify the change in status when the power is switched on or off. Replace it if necessary.
	The status indicator of the closing spring is not correctly clipped in on its support and is rubbing against the mechanism cover.	Clip the indicator in again.
		
The status indicator of the closing spring is blocked by dust or something else.	Clean the area around the indicator.	

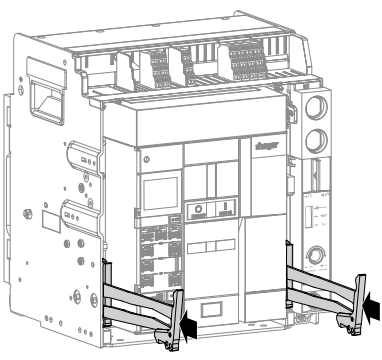
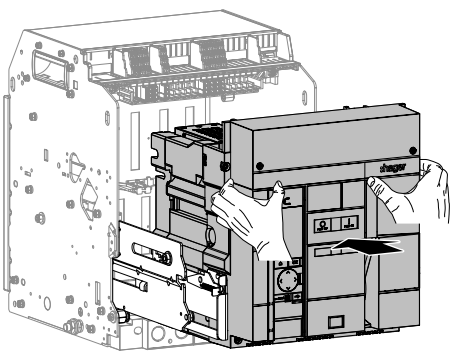
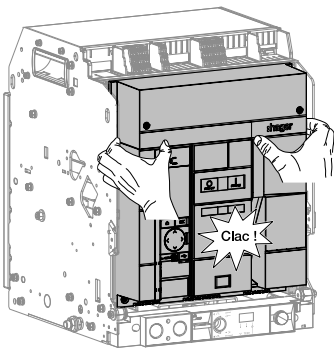
Description of the problem	Cause	Solution
<p>The circuit breaker cannot be closed by pressing the closing push button .</p>	<p>The circuit breaker is a three-pole model and neutral protection is activated.</p>	<ul style="list-style-type: none"> • If the neutral protection function is not wanted: <ul style="list-style-type: none"> - For a circuit breaker equipped with a sentinel trip unit, check that neutral protection is deactivated (OFF). <div data-bbox="1027 510 1433 1032" data-label="Image"> </div> - For a circuit breaker equipped with a sentinel Energy trip unit, check that neutral protection is deactivated (Protection/Neutral menu). <div data-bbox="1027 1205 1374 1543" data-label="Image"> </div> • If the neutral protection function is wanted: <ol style="list-style-type: none"> ① Check that an external neutral current sensor ENCT is correctly connected to the terminals marked ESP 4th S1 (black wire) and 4th S2 (red wire). ② Check whether this sensor is faulty. If so, replace it.

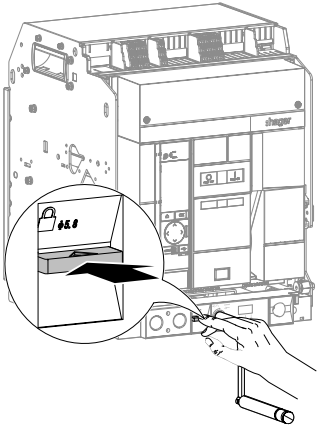
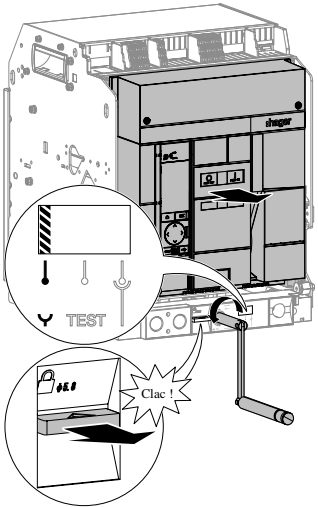
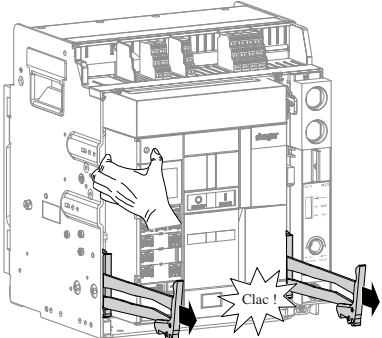
Description of the problem	Cause	Solution
<p>The circuit breaker opens and closes without receiving a command.</p>	<p>Electromagnetic disturbance via the wiring of the SH shunt trip coil and/or the CC closing coil.</p> <p>This problem can only occur when the coils are in 3-wire mode (configuration of a command locally or remotely) with a circuit breaker equipped with a sentinel Energy trip unit.</p> 	<ul style="list-style-type: none"> • Check that the coils used are not 380-480V AC coils, because this type of wiring is not permitted. • Check the length of the connection cables between: <ul style="list-style-type: none"> – the terminals Cx2 and Cx3 of the SH shunt trip coils, – the terminals A2 and A3 of the CC closing coils, <p>is limited to 5 m for the 200-250 V coils (beyond that, an intermediate relay is necessary).</p>
	<p>Unwanted command on the SH shunt trip coil and / or the CC closing coil.</p>	<p>Check the switches controlling the coils.</p>
<p>The circuit breaker opens when the closing spring is being charged using the charging handle.</p>	<p>The cables of the MI mechanical interlocking system are not properly adjusted and are blocking the movement of the transversal bar.</p> <p>The number of operating cycles is close to 10000 and the transversal bar is worn.</p> <p>Movement of the mobile contacts is blocked in the arc chambers.</p> <p>The braid of the moving contacts has hardened because the operating temperature is too high.</p> <p>The rear terminal of the circuit breaker was damaged and twisted during a short circuit or during assembly of the connecting bars.</p>	<p>Adjust the cables.</p> <p>Replace the circuit breaker.</p> <ol style="list-style-type: none"> 1 Check the arc chambers, clean them and remove any foreign bodies. 2 Check the continuity and resistance of the poles. <p>Replace the circuit breaker.</p> <p>Replace the circuit breaker.</p>

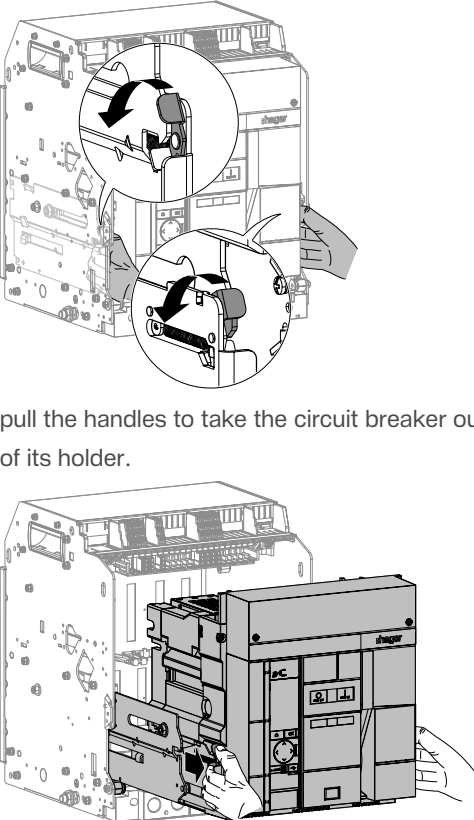
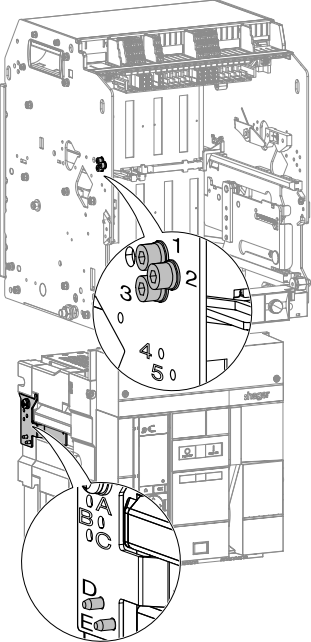
Description of the problem	Cause	Solution
<p>The circuit breaker closes while the closing spring is being charged.</p>	<p>The Charge Latch / Return spring is broken or worn.</p> 	<p>Replace the spring. If the problem persists, contact your Hager representative or local Hager technical support (contact details can be found on the Hager website for your country).</p>
<p>The closing spring discharges while charging.</p>	<p>The Charge Latch / Return spring is broken or worn.</p> 	<p>Replace the spring. If the problem persists, contact your Hager representative or local Hager technical support (contact details can be found on the Hager website for your country).</p>
<p>The closing spring does not charge and the charging handle is easy to move.</p>	<p>The spring of the charging handle is broken.</p>	<p>Remove the charging handle and check the condition of the spring. Change the handle if necessary.</p>
<p>The circuit breaker opens and closes but the CYC cycle counter does not increment.</p>	<p>The cycle counter is not properly adjusted or is broken.</p>	<p>Press the arm of the cycle counter directly, it should increment.</p>  <p>If it does not, change the cycle counter.</p>

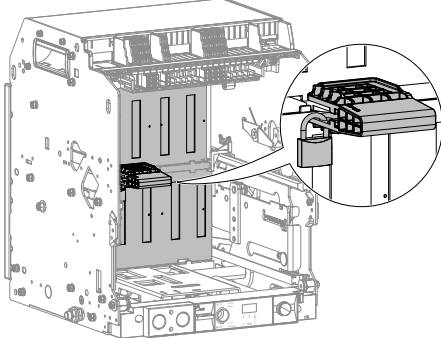
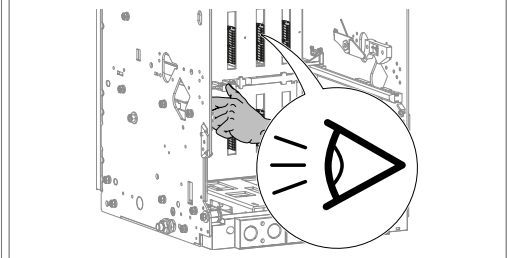
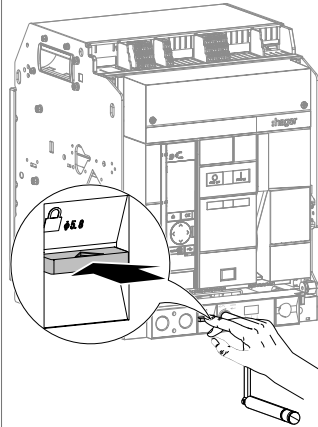
2.2 Problems with the chassis

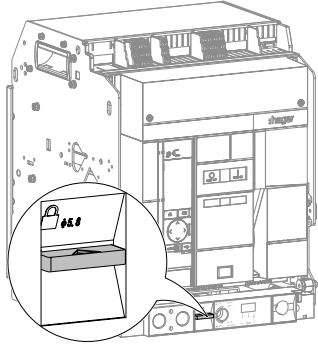
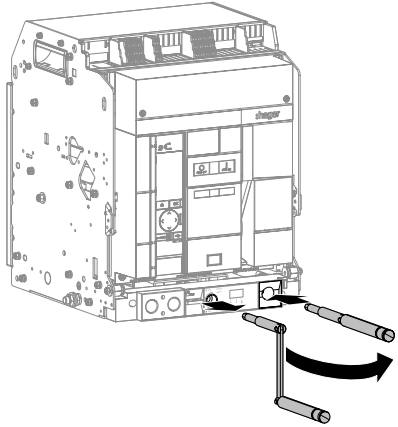
Description of the problem	Cause	Solution
The racking handle cannot be inserted into the racking-in/racking-out hole whatever the position of the circuit breaker.	The chassis is equipped with a lock. 	Unlock the lock.
	The chassis is equipped with a padlock. 	Remove the padlock.
	The chassis is equipped with an RI open-door racking interlock accessory. 	<ol style="list-style-type: none"> 1 Ensure that the interlock accessory is correctly installed and adjusted. 2 Close the electrical cabinet door again. 
	The racking-in/racking-out hole is blocked.	Clean the racking-in/racking-out hole.

Description of the problem	Cause	Solution
<p>The racking handle cannot be inserted into the racking-in/ racking-out hole whatever the position of the circuit breaker.</p>	<p>For an HW1 circuit breaker, the guide rails are not fully inside.</p>	<p>Push the guide rails to the back of the chassis.</p> 
	<p>The circuit breaker is not sufficiently inserted into the chassis.</p>	<p>Push the circuit breaker to the back of the chassis without pushing on the guide rails.</p>  
<p>The circuit breaker does not move when the handle is turned.</p>	<p>The racking-in/racking-out mechanism is faulty.</p>	<p>For an HW1 circuit breaker, the racking-in/ racking-out mechanism must be replaced. Contact your Hager representative or local Hager technical support (contact details can be found on the Hager website for your country).</p>

Description of the problem	Cause	Solution
<p>The racking handle cannot be turned.</p>	<p>The padlocking and position acknowledgement tab is outside of its holder.</p>	<p>Press the padlocking and position acknowledgement tab.</p> 
<p>The circuit breaker cannot be removed from the chassis.</p>	<p>The circuit breaker is not in the Disconnect position.</p>	<p>Turn the racking handle until the circuit breaker is in the Disconnect position and the padlocking and position acknowledgement tab comes out of its holder.</p> 
	<p>The guide rails are not extended all the way.</p>	<p>For an HW1 circuit breaker, pull the guide rails as far as possible while holding the upper part of the circuit breaker.</p> 

Description of the problem	Cause	Solution
<p>The circuit breaker cannot be removed from the chassis.</p>	<p>The guide rails are not extended all the way.</p>	<p>For an HW2, HW4 or HW6 circuit breaker, while keeping the toggles pressed...</p>  <p>pull the handles to take the circuit breaker out of its holder.</p>
<p>The circuit breaker cannot be racked in.</p>	<p>A WIP wrong insertion preventer is installed.</p>	<p>Check to ensure that the combination selected on the chassis matches the combination on the circuit breaker.</p> 

Description of the problem	Cause	Solution
<p>The circuit breaker cannot be racked in.</p>	<p>The insulated safety shutters are locked with a padlock.</p> 	<p>Remove the padlock.</p>
	<p>The contact jaws of the main circuit contacts are not correctly positioned.</p>	<p>Check that the contact jaws are correctly positioned.</p> 
	<p>The chassis is locked in the Disconnected position.</p>	<p>Unlock the chassis.</p>
	<p>The padlocking and position acknowledgement tab is outside of its holder, and the racking handle cannot be turned.</p>	<p>Press the padlocking and position acknowledgement tab.</p> 
	<p>The circuit breaker is not sufficiently inserted into the chassis.</p>	<p>Fully insert the circuit breaker into the chassis so that it engages the racking mechanism.</p>

Description of the problem	Cause	Solution
The chassis cannot be locked whatever the position of the circuit breaker.	The circuit breaker is not in the correct position.	Check to ensure that the padlocking and position acknowledgement tab is outside of its holder. 
	The racking handle is still in the racking-in/racking-out hole.	Remove, then store the racking handle in its holder. 

2.3 Problems with the electronic trip unit

Description of the problem	Cause	Solution
The ReadyToProtect indicator on the sentinel electronic trip unit does not flash when the circuit breaker is closed. The ReadyToProtect signal lamp on the sentinel Energy electronic trip unit is off when the circuit breaker is closed.	The current flowing through the circuit breaker is not sufficient to power the electronic trip unit.	Connect an external 24V DC SELV power supply (Hager HTG911H model recommended) to the TU 24V +/- terminals of the input and outputs terminal block to power the electronic trip unit if the current passing through the current transformers is less than 10% of I_n . Otherwise, measure the resistance of the current transformers of the sensors, using the tool introduced during the maintenance training.
Once the backup battery of the electronic trip unit has been replaced, the battery low or absent indicator is always on.	The battery low or absent indicator has not been acknowledged.	Briefly press the OK button.
	The new backup battery has failed.	Replace the new backup battery. If the problem persists, contact your Hager representative or local Hager technical support (contact details can be found on the Hager website for your country).
Once the display has been replaced, the screen remains off.	Faulty display or electronic trip unit.	Connect a PC equipped with the Hager Power setup software to the USB-C socket of the electronic trip unit to verify the status of the ReadyToProtect indicator. If the indicator in the software appears in green, replace the display again. If the electronic trip unit is defective, contact your Hager representative or local Hager technical support (contact details on the Hager website for your country).

Error code	Cause	Solution
E001	L1 current sensor out of service	<p>Measure the resistance of the current transformer and the current measurement coil using the tool introduced during the maintenance training.</p> <p>Check that the measured values match the ones indicated during the training.</p> <p>If not, contact your Hager representative or local Hager technical support (contact details can be found on the Hager website for your country).</p>
E002	L2 current sensor out of service	
E003	L3 current sensor out of service	
E004	N current sensor out of service	<p>Measure the resistance of the current measurement coil using the tool introduced during the maintenance training.</p> <p>Check that the measured value matches the one indicated during the training.</p> <p>If not, contact your Hager representative or local Hager technical support (contact details can be found on the Hager website for your country).</p>
E005	MHT actuator out of service	<p>Measure the resistance of the MHT actuator using the tool introduced during the maintenance training.</p> <p>Check that the measured value matches the one indicated during the training.</p> <p>If not, contact your Hager representative or local Hager technical support (contact details can be found on the Hager website for your country).</p>
E006	Critical Error 4: faulty circuit board	Replace the electronic trip unit.
E007	Critical Error 3: faulty circuit board	
E008	Critical error 2: corrupted memory	
E009	Rating plug out of service	<p>Check that the rated current of the rating plug is compatible with the circuit breaker size and that the rating plug has been installed correctly.</p> <p>If the error reappears, disconnect the power to the electronic trip unit, and then re-establish it.</p> <p>If the problem persists, contact your Hager representative or local Hager technical support (contact details can be found on the Hager website for your country).</p>
E010	Critical Error 5: software error	Replace the electronic trip unit.
E011	Critical Error 1: faulty circuit board	<p>If the problem persists, contact your Hager representative or local Hager technical support (contact details can be found on the Hager website for your country).</p>
E012	Overheating of the electronic trip unit	

Error code	Cause	Solution
<div style="display: flex; align-items: center;"> <div style="background-color: #0056b3; color: white; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin-right: 10px;"> i </div> <div> <p>Information</p> <p>If the critical system alarms are set to On, errors E001 to E012 appear as a result of the tripping. It is then necessary to reset the display by pressing the OK button after having resolved the problem.</p> </div> </div>		
E019	Internal error no. 1: microcontroller error	Contact your Hager representative or local Hager technical support (contact details can be found on the Hager website for your country).
E020	Faulty settings dial	Replace the electronic trip unit. If the problem persists, contact your Hager representative or local Hager technical support (contact details can be found on the Hager website for your country).
E021	High temperature of the electronic trip unit	Check that the installation temperature is below 90°C by performing a measurement at the electronic trip unit. If it is above 90°C, make the adjustments necessary to reduce the temperature around the circuit breaker. If the problem persists, replace the electronic trip unit.
E022	Trip unit keyboard or button faulty	Contact your Hager representative or local Hager technical support (contact details can be found on the Hager website for your country).
E023	Digital Input faulty error	Check the wiring of the circuit connected to the terminals of the digital input (terminal block RR/DI), and correct the fault. If the problem persists, contact your Hager representative or local Hager technical support (contact details can be found on the Hager website for your country).

Error code	Cause	Solution
E025	Internal error 2: software error	Replace the electronic trip unit.
E027	Internal error 3: software error	If the problem persists, contact your Hager representative or local Hager technical support (contact details can be found on the Hager website for your country).
E028	Internal error 4: error detecting the open/closed status	
E029	Internal error 5: ENCT sensor error	
E032	Internal error 6: electronic link to the MHT actuator error	
E033	24V DC external power supply lost	Check the 24V DC external power supply.
E034	Rating plug fault	Replace the rating plug
E035	Internal error 7: circuit breaker configuration error	Replace the electronic trip unit. If the problem persists, contact your Hager representative or local Hager technical support (contact details can be found on the Hager website for your country).
E036	Internal error 6: Bluetooth error	(contact details can be found on the Hager website for your country).
E040	Zone Selectivity Input (ZSI) activated	The error disappears automatically after the downstream circuit breaker is tripped.
E042	Internal error 9: incompatibility between the electronic trip unit and circuit breaker	Replace the rating plug with a model that is compatible with the electronic trip unit. If the problem persists, contact your Hager representative or local Hager technical support (contact details on the Hager website of your country).
E100 to E999	Manufacturing fault	Contact your Hager representative or local Hager technical support (contact details can be found on the Hager website for your country).

2.4 Problems with the accessories

Description of the problem	Cause	Solution
After the installation or replacement of an AX auxiliary contact, the auxiliary circuit does not signal the correct information.	Accessory or auxiliary circuit defective.	Repeat the tests using a new AX auxiliary contact. If the tests still do not produce the correct result, check the correct wiring of the load. If the problem persists, contact your Hager representative or local Hager technical support (contact details can be found on the Hager website for your country).
After the installation or replacement of an FS trip fault contact, the auxiliary circuit does not signal the correct information.	Accessory or auxiliary circuit defective.	Repeat the tests with a new FS trip fault contact. If the tests still do not produce the correct result, check the correct wiring of the load. If the problem persists, contact your Hager representative or local Hager technical support (contact details can be found on the Hager website for your country).
After the installation or replacement of an SH shunt trip coil, the auxiliary circuit does not allow the circuit breaker to be controlled.	Faulty accessory or coil wiring.	Repeat the tests with a new SH shunt trip coil. If the tests still do not produce the correct result, check that the coil is connected to the correct terminal block. If the problem persists, contact your Hager representative or local Hager technical support (contact details can be found on the Hager website for your country).
After the installation or replacement of a UV undervoltage release coil, the auxiliary circuit does not allow the circuit breaker to be controlled.	Accessory or auxiliary circuit defective.	Repeat the tests with a new UV undervoltage release coil. If the tests still do not produce the correct result, check that the coil is connected to the correct terminal block. If the problem persists, contact your Hager representative or local Hager technical support (contact details can be found on the Hager website for your country).
After the installation or replacement of a UVTC undervoltage release coil time delay controller, the auxiliary circuit cannot control the circuit breaker.	Accessory, time controller supply voltage or coil defective.	Check to ensure that the voltage of the time controller matches with the voltage of the UV undervoltage release coil. Directly power the undervoltage release coil and check that it is operating correctly. If the problem persists, replace the time controller.

Description of the problem	Cause	Solution
<p>After the installation or replacement of a CC closing coil, the auxiliary circuit does not allow control of the circuit breaker.</p>	<p>Accessory or auxiliary circuit defective.</p>	<p>Repeat the tests with a new CC closing coil. If the tests still do not produce the correct result, check that the coil is connected to the correct terminal block. If the problem persists, contact your Hager representative or local Hager technical support (contact details can be found on the Hager website for your country).</p>
<p>After the installation or replacement of an MO spring charging motor, the auxiliary circuit does not allow control of the circuit breaker.</p>	<p>Motor operating voltage to be checked.</p>	<p>Check to ensure that the operating voltage is suitable for the model of the MO spring charging motor. Check to ensure that 2 circuit breakers have not been mixed up.</p>
<p>After the installation or replacement of an RTC ready-to-close contact, the auxiliary circuit does not signal the correct information.</p>	<p>Accessory or auxiliary circuit defective.</p>	<p>Repeat the tests with a new RTC ready-to-close contact. If the tests still do not produce the correct result, check the correct wiring of the load. If the problem persists, contact your Hager representative or local Hager technical support (contact details can be found on the Hager website for your country).</p>
<p>After the installation or replacement of a CYC cycle counter, the counter does not increment.</p>	<p>Accessory or auxiliary circuit defective.</p>	<p>Repeat the tests with a new CYC cycle counter. If the problem persists, contact your Hager representative or local Hager technical support (contact details can be found on the Hager website for your country).</p>
<p>After the installation or replacement of a PS position contact, the auxiliary circuit does not signal the correct information.</p>	<p>Accessory or auxiliary circuit defective.</p>	<p>Repeat the tests with a new PS position contact. If the tests still do not produce the correct result, check the correct wiring of the load. If the problem persists, contact your Hager representative or local Hager technical support (contact details can be found on the Hager website for your country).</p>

2.5 Other problems

Description of the problem	Cause	Solution
Circuit breaker open, no trip indicator is displayed and the RESET button has not been released.	Voltage drop across the terminals of the UV undervoltage release coil.	Check the circuit and the supply voltage of the coil V ($V > 0.85 V_n$).
	An opening command is sent to the SH shunt trip coil by another circuit breaker.	Check the parameters of the circuit breaker from which the opening command originated.
	An unwanted opening command is sent to the SH shunt trip coil.	Find the origin of this open command and eliminate it.
Circuit breaker open, no trip indicator is displayed and the RESET button is out.	The sentinel electronic trip unit backup battery is drained or damaged.	Replace the backup battery.
The circuit breaker trips quickly after closing. A trip message is displayed.	The thermal memory is active and the current in the circuit breaker is $> I_r$.	Check the origin of the overload. For more information about the thermal memory, refer to the user manual for the sentinel electronic trip units hw+ 6LE009420A and the user manual for the sentinel Energy hw+ electronic trip units 6LE009417A.
The status indicators are not displaying the correct information.	The status indicators and the mechanism lid are rubbing against one another.	Check they are not rubbing against one another.
	An MI mechanical interlocking system is installed and activated.	For an HW1 circuit breaker, it is normal that even when the product is charged the status indicator of the closing spring indicates an uncharged state.
	You have just installed a UV undervoltage release coil and during the installation you have partially displaced the indicator	Control the UV undervoltage release coil to put the indicator in the correct state.
	The label is incorrectly stuck on the status indicator.	Check that the label is properly stuck on the status indicator. Replace it if necessary (Ref. HWW853HSP), removing the original label.



Information

For any label replacement, contact your Hager representative or local Hager technical support (contact details can be found on the Hager website for your country).



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