

UVGERMI®

ULTRAVIOLETS DE HAUTE TECHNOLOGIE

An issue
with your lamp?

The electrician's
troubleshooting manual

Applicable aux appareils équipés avec



HAZARDS

See at the back
of the manual.

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*First observation
when starting troubleshooting*
One of the UV lamp indicator lights is
switched off.

ACTIONS

Make a note of the number of the lamp which is
switched off.

Open the electrical cabinet and check the LEDs on the



Which indicator lights are ON
on the ballast?

Answer 1

The green indicator light corresponding to the faulty lamp is on.

>> [page 3](#)

Answer 2

The orange and red LEDs corresponding
to the faulty lamp are on.

>> [page 4](#)

Answer 3

No indicator light is ON on the ballast.

>> [page 5](#)

ACTIONS

The green indicator light on the front of the cabinet is probably out of order.



Does the indicator light receive 230V at its terminals?

Answer 1

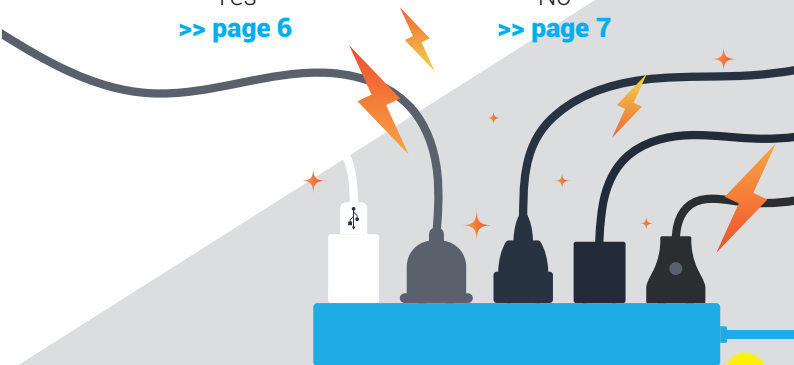
Yes

>> page 6

Answer 2

No

>> page 7



From page 2

ACTIONS

Turn the lamp switch to 0
and open the isolator switch.

Locate the faulty lamp on the reactor.

Loosen the grey cable gland and unscrew the lamp cap.
the lamp



Is water coming out
of the quartz sleeve?

Answer 1

Yes

>> [page 8](#)

Answer 2

No

>> [page 9](#)



If there are other ballasts
in the electrical cabinet,
are the green indicator
lights switched on?

Answer 1

Yes

>> page 10

Answer 2

No

>> page 11



From page 3

ACTION

Call UVGERMI®
to order
a new indicator light

*From pages 3, 10, 20, 23, 25,
30, 31, 34, 37, 44, 46*

ACTION

Call UVGERMI®
for a more
complete diagnosis

ACTIONS

Remove the lamp, clean it and store it in a clean safe place.

Open the bypass and close the water inlet/outlet valves on the UV reactor.

Open the drain valve to drain the reactor.

Remove the quartz sleeve.



Is it cracked?

Answer 1

Yes

>> **page 12**

Answer 2

No

>> **page 13**

ACTIONS

Check the condition of the electrical cables on the ceramic connector at the end of the lamp cable.

Firmly push the electrical connectors into the ceramic connector.



Are the electrical cables to the lamp in very poor condition? Are they broken?

Answer 1

Yes

>> **page 14**

Answer 2

No

>> **page 15**

ACTIONS

- Set the lamp switch to 0 and open the isolator switch.
- Disconnect the two power cables to the ballast and put each of them on a different wago connector/terminal strip.
- Connect the electrical cabinet back to the power supply and measure the voltage between the phase and neutral at the terminals of the wago connectors.



Is the voltage 230V?

Answer 1

Yes

>> [page 16](#)

Answer 2

No

>> [page 7](#)

ACTIONS

Check the voltage at the terminals of the electrical cabinet using a multimeter. For correct operation, the supply voltage must be at least equal to 220V.



Is the electrical cabinet supplied with a voltage at least equal to 220V between phase and neutral?

Answer 1

Yes

>> [page 18](#)

Answer 2

No

>> [page 19](#)

From page 8

ACTION

Replace the sleeve.



Have you got a spare sleeve
+ O-rings?
en stock ?

Answer 1

Yes

>> **page 20**

Answer 2

No

>> **page 21**

ACTIONS

Reinstall the quartz sleeve and the sealing element, making sure the O-rings are thoroughly cleaned. Clean the threads on the reactor.

Close the drain valve.

Fill the unit with water.

Gradually open the
UV reactor water inlet/outlet valves

Once the reactor is filled with water, close the bypass.



Is there still
a leak?

Answer 1

Yes

>> page 22

Answer 2

No

>> page 23

From page 9

ACTIONS

Send a photograph
of the connector.

Call UVGERMI®.

From page 9

ACTIONS

Swap the cable of this lamp round with that of a lamp on another ballast.

Request the specific UVGERMI® lamp troubleshooting document.

From page 10

ACTION

The ballast is faulty. Call
UVGERMI® to order a new
ballast.

From page 35

ACTIONS

Call UVGERMI® to inform them of the issue encountered and ensure the best possible service thereafter.



What
operating mode
is the lamp switch
set to?

Answer 1

0 or AUTO

>> **page 24**

Answer 2

Manu

>> **page 25**



From page 11

ACTION

Check power supply
upstream
of the electrical cabinet.

From page 12

ACTIONS

Hydraulically isolate + drain the reactor.

Replace the quartz sleeve.

Fill the unit with water.

Check its water tightness.



Is there a leak?

Answer 1

Yes

>> page 7

Answer 2

No

>> page 26

ACTION

Plugs are available in the electrical cabinet. Take one and screw it where the sealing element is usually located, after having removed the sleeve.



Are the electrical connectors on the cable oxidised?

Answer 1

Yes

>> page 27

Answer 2

No

>> page 28

ACTIONS

Open the bypass and close the water inlet/outlet valves on the UV reactor.

Open the drain valve to drain the reactor.

Remove the quartz sleeve.

Plugs are available in the electrical cabinet. Take one and screw it where the sealing element is usually located.



Are the electrical connectors on the cable oxidised?

Answer 1

Yes

>> page 27

Answer 2

No

>> page 28

ACTIONS

Wait a few minutes to make sure there isn't a leak.
Wipe/blow dry the ceramic connector on the lamp cable.



Is the connector on the cable
oxidised?

Answer 1

Yes

>> [page 7](#)

Answer 2

No

>> [page 35](#)

From page 18

ACTION

Put the switch on MANU.



Did the lamps
come on?

Answer 1

Yes

>> **page 29**

Answer 2

No

>> **page 30**



Are the circuit breakers in the
electrical cabinet
on ON?
And the isolator switch on ON?

Answer 1

Yes

>> page 31

Answer 2

No

>> page 7

ACTIONS

Wait a few minutes to make sure there isn't a leak.

Wipe/blow dry the ceramic connector on the lamp cable.



Is the electrical connector
on the cable oxidised?

Answer 1

Yes

>> **page 32**

Answer 2

No

>> **page 33**

ACTIONS

Disconnect the lamp cable
in the electrical cabinet.

Check that there is no water in the bottom of the
electrical cabinet, wipe it if needed.

Fill the system with water.

Gradually open the UV reactor water inlet/outlet
valves.

Once the reactor is filled with water, close the
bypass.

Connect the electrical cabinet back to the power
supply
and switch on the lamps.

Call UV GERMI to order a quartz sleeve/O-rings/a
new lamp/a lamp cable (make a note of the cable
length).

Do you have any idea

ACTIONS

Clean the connector, blow dry it to remove as much water as possible.

Disconnect the lamp cable in the electrical cabinet and store it in a safe place.

Check that there is no water in the bottom of the electrical cabinet, wipe it if needed.

Fill the system with water.

Gradually open the UV reactor water inlet/outlet valves.

Once the reactor is filled with water, close the bypass.

Connect the electrical cabinet to the power supply and switch on the lamps.

Call UV GERMI to order a quartz sleeve, O-rings and a new lamp.

Do you have any idea why

ACTIONS

Return the switch to its original position.

If it was on 0:

The cabinet has no operating request, check with the technicians why the switch is in this position.

If it was on AUTO:

If on AUTO, the lamps do not switch on, it means that the UVGERMI electrical cabinet is not receiving a run command.

Check the run command.

From page 24

ACTION

Check that all circuit breakers in the electrical cabinet are on ON.



Is this the case?

Answer 1

Yes

>> page 34

Answer 2

No

>> page 7



Is there a thermostat in the electrical cabinet?

Answer 1

Yes

>> [page 39](#)

Answer 2

No

>> [page 7](#)



ACTIONS

Plan to replace the lamp cable.

Do not reconnect the lamp.



Is there water
in the bottom
of the electrical cabinet?

Answer 1

Yes

>> **page 48**

Answer 2

No

>> **page 49**



Have you got a spare new lamp?

Answer 1

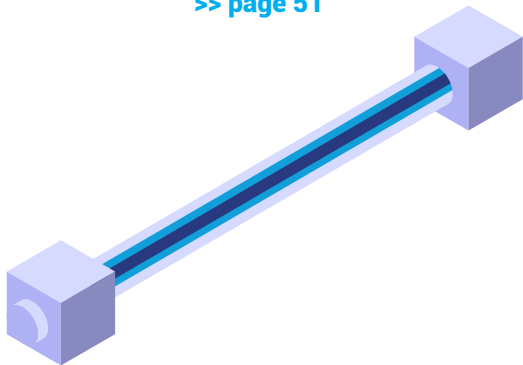
Yes

>> page 50

Answer 2

No

>> page 51





Is there a thermostat in the electrical cabinet?

Answer 1

Yes

>> [page 37](#)

Answer 2

No

>> [page 7](#)



ACTIONS

Replace the lamp in the quartz sleeve.
Connect the electrical cabinet back to the power supply and switch on the lamps.



Did the lamp switch on?

Answer 1

Yes

>> page 17

Answer 2

No

>> page 36

From page 35

ACTIONS

Swap the connector of this lamp round with that of a lamp on another ballast.

Request the specific UVGERMI® lamp troubleshooting document.

From page 34



Is the orange indicator light
on the thermostat
switched on?

Answer 1

Yes

>> page 7

Answer 2

No

>> page 38



From page 37

ACTIONS

Make a note of the value displayed on the thermostat.

Also check the SP value by pressing the P key once

Call UVGERMI® for a more complete diagnosis.

From page 31



Is the orange indicator light
on the thermostat
switched on?

Answer 1

Yes

>> page 40

Answer 2

No

>> page 41



ACTION

Visually check in the electrical cabinet whether the contactor on the eaton DILEM lamps is on ON.



Is the manual override
of the contactor
on I?

Answer 1

Yes

>> **page 42**

Answer 2

No

>> **page 43**

ACTIONS

Make a note of the value displayed on the thermostat.

Also check the SP value by pressing the P key once

Call UVGERMI®.

ACTION

Check the voltage between the phase(s) (black cable) and neutral (blue cable) at the output of the contactor.



Is the voltage 230V?

Answer 1

Yes

>> **page 44**

Answer 2

No

>> **page 45**

ACTIONS

If the manual override of the contactor is on 0, the contactor is not switched on and it does not send the run command to the lamps.

Measure the voltage between the contactor's terminals A1 and A2.



Can you measure 230V
voltage between A1 and A2?
du contacteur ?

Answer 1

Yes >> **The contactor is faulty,
call UVGERMI® to get it replaced.**

Answer 2

No >> **There is a problem on the contactor's command line.**

ACTION

Check the voltage between the phase(s) (black cable) and neutral (blue cable) at the output of the contactor.



Is the voltage 230V?

Answer 1

Yes

>> **page 46**

Answer 2

No

>> **page 7**

ACTIONS

There is a problem on the power supply line upstream of the contactor.

Call UVGERMI® for a more complete diagnosis.

From page 44

ACTIONS

Turn the lamp switch to 0 and open the isolator switch.

Disconnect the two power cables to the ballast and put each of them on a different wago connector/terminal strip.

Connect the electrical cabinet back to the power supply and measure the voltage between the phase



Is the voltage 230V?

Answer 1

Yes

>> page 47

Answer 2

No

>> page 7

ACTIONS

The ballast is faulty.
Call UVGERMI® to order a
new ballast.

ACTIONS

Switch off the power supply to the unit before working on it.

Mop up and wipe all the water in the bottom of the electrical cabinet.

Screw the lamp cable cap on the sealing element without putting the lamp back into the quartz sleeve.

Connect the unit back to the power supply and switch on the lamps

Call UVGERMI® to request a quote for a lamp and lamp cable, make a note

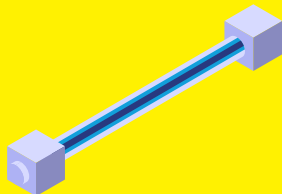
From pages 32, 51

ACTIONS

Screw the lamp cable cap on the sealing element without putting the lamp back into the quartz sleeve.

Connect the unit back to the power supply and switch on the lamps

Call UVGERMI® to request a quote for a lamp and lamp cable, make a note



From page 33

ACTION

Install the new lamp in the unit.



Is there water
in the electrical cabinet?

Answer 1

Yes

>> page 52

Answer 2

No

>> page 53

From page 33

ACTION

Do not reconnect the lamp.



Is there water in the bottom of the electrical cabinet?

Answer 1

Yes

>> page 48

Answer 2

No

>> page 49

ACTIONS

Switch off the power supply to the unit before working on it.

Mop up and wipe all the water in the bottom of the electrical cabinet.

Connect the electrical cabinet to the power supply and switch on the lamps.

If the issue is still not resolved, swap the connector of this lamp round with that of a lamp on another ballast.
Fill in the lamp diagnosis document.
Refer the customer

ACTIONS

Connect the electrical cabinet to the power supply.

If the issue is still not resolved,

- Notes -

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- Notes -

A series of 20 horizontal dotted lines for writing notes.



ELECTRICAL HAZARD

Do not work on the equipment without first locking out/tagging out the electrical cabinet.

Mandatory PPE.

UVC HAZARD

Do not expose yourself to UV radiation.

The lamps must be handled with the unit switched off and locked out /tagged out..

PRESSURISED REACTOR HAZARD

Do not work on a loaded reactor.

BACTERIOLOGICAL HAZARD

Wear nitrile gloves and anti-splash goggles during work

BURN HAZARD

Wear work gloves when working on the reactor.

CUT HAZARD

Wear work gloves when working on the reactor.