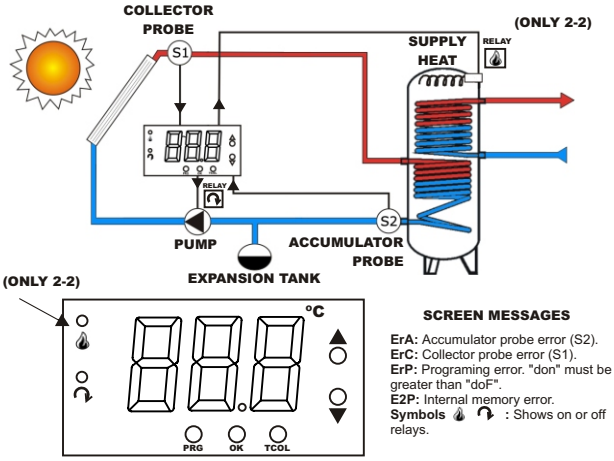
U-nik 2-1 90-007 — **2 PROBES 1 RELAY DIFFERENTIAL THERMOSTAT**

U-nik 2-2 90-006 — **2 PROBES 2 RELAYS DIFFERENTIAL THERMOSTAT**

DISTERM CONTROLS

USER MANUAL

This device is used to control solar installations. It has 2 temperature probes (S1 solar collector and S2 water tank accumulator) and 2 relays (2-2) or 1 relay (2-1).
The relay output turns on / off following the temperature difference between S1 and S2 and manages the water pump of the collector-accumulator circuit.
The relay (only 2-2) is the output of a simple thermostat following S2 probe, and is used to supply heat when solar collector is not enough, or in order to re-use heat excess.



- The screen shows the water tank accumulator temperature (S2).
- To view the solar collector temperature (S1), press TCOL key
- To programme parameters, press PRG key during "tEP" seconds.
- To manually turn ON the relay , press TCOL key during 10 seconds.
The associated led will light. To turn OFF, press any key.
- (Only 2-2) To manually turn ON the relay (simple thermostat), press ▲ or ▼ keys for 10 seconds. The associated led will light. To turn OFF, press any key.

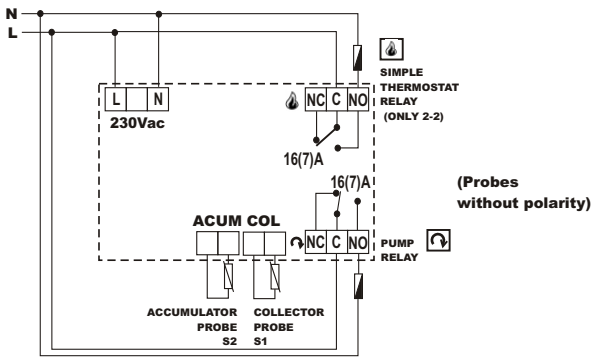
SCREEN MESSAGES

ErA: Accumulator probe error (S2).
ErC: Collector probe error (S1).
ErP: Programing error. "don" must be greater than "doF".
E2P: Internal memory error.
Symbols : Shows on or off relays.

INSTALLATION MANUAL

ATTENTION: before connecting the thermostat, be sure you have turned off the general electricity supply.
The installer has the responsibility to provide the proper electrical protection devices.
The probe wire mustn't be installed near other electrical wires.

WIRING DIAGRAM



PARAMETERS PROGRAMMING

To view or modify default values, press **PRG** key during **"tEP"** seconds. Release key. The first parameter name "**CCo**" appears. To view its value, press **OK** key. The value blinks. With the arrows keys ▲▼ the value can be changed. Press **OK** key to end value change. Press the up key ▲ to reach the next parameter name, and so on. Press the down key ▼ to reach the previous parameter name. Procede in the same way with the other parameters. To exit programming, press **PRG** key or wait 40 seconds without pressing any key.

PARAMETERS

CCo **Solar collector probe calibration (S1):** it allows you to adjust the the S1 probe temperature displayed depending on location or wire length.

CAc **Tank accumulator probe calibration (S2):** it allows you to adjust the the S2 probe temperature displayed depending on location or wire length.

don **Differential temperature turning ON the fluid pump( ):** if S1 plus "don" is greater than S2, the fluid pump relay turns ON.

doF **Differential temperature turning OFF the fluid pump( ):** if S1 plus "dof" is lower than S2, the fluid pump relay turns OFF.

ALA **Tank accumulator probe temperature (S2) alarm:** if S2 temperature is higher than this value, the relay will work following "diS".

diS **Alarm function:**
- If its value is ON --> Relay turns ON on reaching "ALA" temperature.
- If its value is oFF--> Relay turns OFF on reaching "ALA" temperature.

Ant **Freezing protection:** if S1 is lower than "Ant" temperature value, the relay will turn ON to move fluid to avoid freezing.

ton **Simple thermostat temperature turn on( ):**

toF **Simple thermostat temperature turn off ( ):**
- Si **ton < toF** --> The thermostat is used in heating mode.
- Si **ton > toF** --> The thermostat is used in cooling mode.
- Si **ton = toF** --> The thermostat is used as a simple thermostat heating mode with 0,3 degree hysteresis.

Heating example:
If S2 probe temperature is lower than **ton**, turn on relay .
If S2 probe temperature is higher than **toF**, turn off relay .
(Parameters "ton" and "toF" only 2-2)

Pin **Programming password entry:** Number to view or modify parameters. By default it is set to zero (disabled). If this value isn't 0, "Pin" is viewed on entry. Enter a number using the arrows keys ▲▼ and then press **OK** key.

tEP **Programming time entry:** Time to keep PRG key pressed to enter or modify parameters programming.

Parameter	Values	Default
CCo	-9.0 to 9.0 ºC	0.0 ºC
CAc	-9.0 to 9.0 ºC	0.0 ºC
don	2 to 15ºC	8ºC
doF	1 to 11ºC	4ºC
ALA	15 to 90ºC	55ºC
diS	on/oFF	oFF
Ant	-25 to 10ºC	5ºC
ton*	0 to 95ºC	40ºC
toF*	0 to 95ºC	45ºC
Pin	0 to 99	0
tEP	3 to 40 sec.	5 sec.

*** Only 2-2**

TECHNICAL FEATURES

Accuracy	+/- 1ºC
Resolution	0.1ºC (between -19.9 y 99.9ºC)
Temparature probes	PTC 2000Ohm IP67
Wiring diameter	1,5mm2
Temperature display	-40 to 140
Max resistive load	16 A to 250VAC
Max inductive load	7 A to 250VAC
Working temperature	-5ºC to 45ºC
Storage temperature	-10ºC to 50ºC
Ingress protection	IP30
Power supply	230Vac +10% -15% 50/60hz

CE

This thermostat has 2 year guarantee. The manufacturer will only repair the thermostat itself, not other parts of installation. The guarantee will be lost onto wrong managing, wrong electrical wiring, contact with fluids or gas, hits, deformation, wrong storage.