

WATERS CORPORATION
INSTRUMENT-FINAL TEST RECORD

REVIEWED & ACCEPTED
SIGN: <u>QUEK LAY HOON</u>
DATE: <u>26 JAN 17</u>
REMARKS: <u>ESID 0219</u> <u>found</u> <u>cleaned 26/01/17</u>

Part Number: <u>WAT091728</u>	Description: <u>Temperature Control module</u>
Tested By: <u>Shamsul (246394)</u>	Date: <u>24 / 01 / 17</u>
Serial Number: <u>J99TCM867R</u>	Control Number: <u>NA</u>
Software Revision: <u>2.1</u>	Factory Order: <u>NA</u>

1.0 Visual Inspection

PASS ☒ FAIL ☐ see note #__ PASS ☐

2.0 Electrical Safety Testing

Hi-Pot(≥ 1350 VAC for ≥ 2 seconds)

PASS ☒ FAIL ☐ see note #__ PASS ☐

Ground Continuity ($\leq 0.1 \Omega$)

PASS ☒ FAIL ☐ see note #__ PASS ☐

4.0 Power Supply @ 220 Vac 50 Hz

+15volts(14.25 - 15.75)Actual: 15.12V

PASS ☒ FAIL ☐ see note #__ PASS ☐

-15volts(14.25 - 15.75)Actual: -15.05V

PASS ☒ FAIL ☐ see note #__ PASS ☐

+5volts(4.85 - 5.25)Actual: 5.15V

PASS ☒ FAIL ☐ see note #__ PASS ☐

Power Supply @ 220 Vac 50 Hz

+15volts(14.25 - 15.75)Actual: 15.12V

PASS ☒ FAIL ☐ see note #__ PASS ☐

-15volts(14.25 - 15.75)Actual: -15.05V

PASS ☒ FAIL ☐ see note #__ PASS ☐

+5volts(4.85 - 5.25)Actual: 5.15V

PASS ☒ FAIL ☐ see note #__ PASS ☐

5.0 Temperature Accuracy

Chan1 (93°C - 95°C)Actual: 101.5°C

PASS ☒ FAIL ☐ see note #__ PASS ☐

Chan2 (93°C - 95°C)Actual: 101.5°C

PASS ☒ FAIL ☐ see note #__ PASS ☐

Chan3 (93°C - 95°C)Actual: 101.4°C

PASS ☒ FAIL ☐ see note #__ PASS ☐

6.0 Temperature Variation

High (95°C)Actual: 101.5°C

PASS ☒ FAIL ☐ see note #__ PASS ☐

Low (93°C) Actual: 101.4°C

PASS ☒ FAIL ☐ see note #__ PASS ☐

Variation ($\leq 5^\circ\text{C}$) Actual: 0.1°C

PASS ☒ FAIL ☐ see note #__ PASS ☐

This Test Record and any data contained within it are proprietary to Waters Corporation and must be retained by Waters for the time period prescribed in its Quality Records Retention Policy. If any of the individual tests noted above fail, a note must be referenced that details the work performed to correct that specific deficiency. An overall failure indicates a special circumstance in which case a complete retest is to be done. A second form is required to document that testing; the initial form must be attached and retained.

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Part Number: WAT091728 Serial Number: J99TCMB67R

7.0 Over & Under Default Values (switch settings = 1 up, 2 and 3 down)

Chan1 (Over = 150.5°C) (Under = 0°C)	PASS ☒ FAIL ☐ see note #___PASS ☐
Chan2 (Over = 150.5°C) (Under = 0°C)	PASS ☒ FAIL ☐ see note #___PASS ☐
Chan3 (Over = 150.5°C) (Under = 0°C)	PASS ☒ FAIL ☐ see note #___PASS ☐

Over & Under Default Values (switch settings = 3 up, 1 and 2 down)

Chan1 (Over = 150.0°C) (Under = 0°C)	PASS ☒ FAIL ☐ see note #___PASS ☐
Chan2 (Over = 150.0°C) (Under = 0°C)	PASS ☒ FAIL ☐ see note #___PASS ☐
Chan3 (Over = 150.0°C) (Under = 0°C)	PASS ☒ FAIL ☐ see note #___PASS ☐

Over & Under Default Values (switch settings = 2 up, 1 and 3 down)

Chan1 (Over = 75.0°C) (Under = 0°C)	PASS ☒ FAIL ☐ see note #___PASS ☐
Chan2 (Over = 75.0°C) (Under = 0°C)	PASS ☒ FAIL ☐ see note #___PASS ☐
Chan3 (Over = 75.0°C) (Under = 0°C)	PASS ☒ FAIL ☐ see note #___PASS ☐

8.0 Key Pad Response

PASS ☒ FAIL ☐ see note #___PASS ☐

9.0 Front Panel Illumination

PASS ☒ FAIL ☐ see note#___PASS ☐

10.0 Limit Tests

Over Temperature	PASS ☒ FAIL ☐ see note #___PASS ☐
Under Temperature	PASS ☒ FAIL ☐ see note #___PASS ☐

Notes:

EQID: 0219 Cr no: 707 Waters ID: 81024 Doc no: WAT-RW-SKI01838 (735001271)

5.0 Temperature Acc Fixture change from TE# 81379 to TE# 82905

5.4 Change Temperature from (93°C - 95°C) to (100°C - 104°C)

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