

SOUTHWEST RESEARCH INSTITUTE
Department of Quality Assurance
Calibration Laboratory • 522-5215

WORK ORDER

CERTIFICATE # 34837 ASSET # 001688 DATE 09 June 99

ITEM DATA:

Manufacturer Parr Model 4043 Series 981
Description temp & pressure controller Serial # 2209
Accessories Manual * 050144

ACTION REQUESTED Cal @ 12 mos

CUSTODIAN Div 20

Turned in by: James Priddy Phone 5067

CHARGE # 20-04 Date Required 16 June 99

INSTRUMENT USED ON: (DOD/NASA) (NUCLEAR) (GLP) (SPPE) (ISO)
 OTHER

COPY OF CALIBRATION CERTIFICATE (Yes) (No)

NEW WORK Yes No If yes, an evaluation shall be made to verify capabilities.

By [Signature] Date 06-09-99

Work involves proprietary/confidential information or equipment (Yes) (No)

CONDITION RECEIVED: _____ (F) Out of tolerance, repaired to specifications
_____ (G) In tolerance, minor adjustments/repairs made
 (J) In tolerance, no adjustments/repairs
_____ (K) Out of tolerance, adjusted to specifications
_____ (S) Received into system, introduced or reactivated

ACTION TAKEN: (Calibration/Repair/Parts) Cal

CAL ENVIRONMENT:
Temperature 74°F Humidity 55%RH

CALIBRATED/REPAIRED:
By [Signature] Cal Procedure CL-100 Jun 99
Date 6-23-99 Accuracy ±1.50 ± 0.55°C
Cal Interval 12 mo Reliability Code: _____
Next Cal due 6-23-00 Cal Time 0.5 h Repair Time _____
Standards used (Asset#) 5325

DATE COMPLETED 6-23-99
DATE PICKED UP 6-24-99 PICKED UP BY [Signature]

34837

WORK ORDER HISTORY

DATE	START STOP	CAL	REP	REMARKS:
				STD Inst
				0°C 0/-1 °C
				20°C 19°C
				50°C 49°C
				100°C 99°C
				200°C 200°C
				500°C 499°C
				800°C 799°C Max
				XITRON 2000
				ASN 5325
				Active CSC
				Type 5+/-
				$\pm 0.1\% \text{ Span } \pm 1 \text{ LSD for } T_{amb} = 77^\circ \text{F} \pm 5^\circ \text{F}$
				Arcy Span 1000°F (540°C)
TOTAL CAL/REPAIR				TOTAL HOURS _____



Southwest Research Institute
6220 Culebra Road
San Antonio, TX 78238
(210) 522-5215
Department of Quality Assurance
Calibration Laboratory



Certificate #
0972-01

Certificate of Calibration

23 June 1999

Issued to: JIM PRIKRYL DIV20 B57
Manufacturer/Model: PARR 4843
Description: TEMPERATURE CONTROLLER
Serial Number: 2209
Asset Number: 007388

This certifies the above item was calibrated in compliance with MIL-STD-45662A and ANSI/NC SL Z540-1-1994. Standards used in this calibration, described in the referenced calibration procedure with associated uncertainties or tolerances, are traceable to the National Institute of Standards and Technology (NIST). Supporting documentation relative to traceability is on file and is available for examination upon request. This certificate is not to be reproduced, except in full, without the written approval of the Southwest Research Institute Department of Quality Assurance Calibration Laboratory.

This laboratory is accredited by the American Association for Laboratory Accreditation (A2LA) and the results of this calibration certificate were determined in accordance with the terms of accreditation unless stated otherwise below.

The uncertainty of the calibration was sufficient to determine that the item met the manufacturer's published specifications unless stated otherwise below.

Ambient Conditions: Temperature: 74.0 Degrees Fahrenheit Humidity: 55 % RH

Calibration Date: 23 Jun 99

Calibration Procedure: CL-100 JUN99

Condition as Received: IN TOLERANCE

Condition as Released: IN TOLERANCE

Remarks:

Approved by:



Jim Patterson, Supervisor or Walt Hill, Metrologist

Certificate # 34837

sa:\a2la.rpt Rev date 10 Mar 99

Measurements performed by:



Mack Wood, Technician

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SOUTHWEST RESEARCH INSTITUTE
Department of Quality Assurance
Calibration Laboratory • 522-5215

WORK ORDER

WORK ORDER # 36680 ASSET # 004408 DATE 05 Nov 99

ITEM DATA:

Manufacturer Mikulago Model 611201-22
Description gauge block Serial # 940644
Accessories _____

ACTION REQUESTED cal

CUSTODIAN Albert Olveda

Turned in by: Manual Phone 2481

CHARGE # OB. SPPE. 04b Date Required _____

INSTRUMENT USED ON: (DOD/NASA) (NUCLEAR) (GLP) (SPPE) (ISO)
 OTHER _____

COPY OF CALIBRATION CERTIFICATE (Yes) (No)

NEW WORK Yes No If yes, an evaluation shall be made to verify capabilities.

By MAI Date 11-05-99

Work involves proprietary/confidential information or equipment (Yes) (No)

CONDITION RECEIVED: _____ Out of tolerance
_____ In tolerance
_____ Damaged (Contact customer)
_____ Contact _____ Date _____
_____ Received into system, introduced or reactivated

ACTION TAKEN: (Calibration/Repair/Parts) for Gulf Coast ST# 359400
limited to grade 2 tolerance.

CAL ENVIRONMENT:
Temperature 68 °F Humidity _____ %RH

CALIBRATED/REPAIRED:
By Gulf Coast Houston TX Cal Procedure MM-G-15C
Date 11-17-99 Accuracy grade 2
Cal Interval 1 year Reliability Code 4
Next Cal Due 05-17-00 Cal Time _____ Repair Time _____
Standards used (Asset #) Vendor

DATE COMPLETED 19 Nov 99

DATE PICKED UP 12-13-99 PICKED UP BY mae

36680



Southwest Research Institute
6220 Culebra Road
San Antonio, TX 78238
(210) 522-5215
Department of Quality Assurance
Calibration Laboratory

Accredited

Certificate #
0972-01

Certificate of Calibration

11 July 2000

Issued to: JIM PRIKRYL DIV20 B57
Manufacturer/Model: PARR 4843
Description: TEMPERATURE CONTROLLER
Serial Number: 2209
Asset Number: 007388

This certifies the above item was calibrated in compliance with MIL-STD-45662A and ANSI/NCSL Z540-1-1994. The results of this calibration relate only to the individual item as described above. Standards used in this calibration, described in the referenced calibration procedure with associated uncertainties or tolerances, are traceable to the National Institute of Standards and Technology (NIST). Supporting documentation relative to traceability is on file and available for examination upon request. This certificate is not to be reproduced, except in full, without the written approval of the Southwest Research Institute Department of Quality Assurance Calibration Laboratory.

This laboratory is accredited by the American Association for Laboratory Accreditation (A2LA) and the results of this calibration certificate were determined in accordance with the terms of accreditation unless stated otherwise below.

The uncertainty of the calibration was sufficient to determine that the item met the manufacturer's published specifications unless stated otherwise below.

Ambient Conditions: Temperature: 68.0 Degrees Fahrenheit Humidity: 46 % RH

Calibration Date: 11 Jul 00 Calibration Procedure: CL100 6/99

Condition as Received: In Tolerance

Remarks:

Approved by:



Jim Patterson, Supervisor, or Walt Hill, Metrologist

Measurements performed by:



Mack Wood, Technician

Certificate # 39665

m:\a2h.qpt Rev date 22 May 00

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WORK ORDER 39665

Date Received 7/7/00

Asset No. 007388 Manufacturer PARR Model 4843
Description TEMPERATURE CONTROLLER Serial Number 2209
Accessory Received/Required WATLOW THERMOCOUPLE #PARR-R472E6 + User's Manual
Div/CC ID 030144 Accessory to Asset No. N/A
Div/CC DIV20 Location B57 Custodian JIM PRIKRYL Tel. 5667
Charge/Project No. 20.00751.006 Proprietary/Confidential N Date Required ROUTINE
Work Requested CALIBRATION
Receiving Inspection O.K.
Delivered By R. CHERRINGTON Tel. 5051

WORK HISTORY

Date	Start Time	Stop Time	Notes

PARTS

Part Name	Part Number	Cost	Failure Description

39665

WORK SUMMARY

Failure Description _____

Repair Action _____

Cal Procedure Q-100 6/99 Temp 68 F Hum 46 %

Tech [Signature] Cal Hrs. 1 Repair Hrs. _____ Part Cost _____

Action Taken Cal

Standards Used 5325

Date Cal 7-11-00 Int. 12 Mo. Date Due 7-11-01 Reliability Code _____

Date Picked Up 7/21/00 Picked Up By [Signature]

