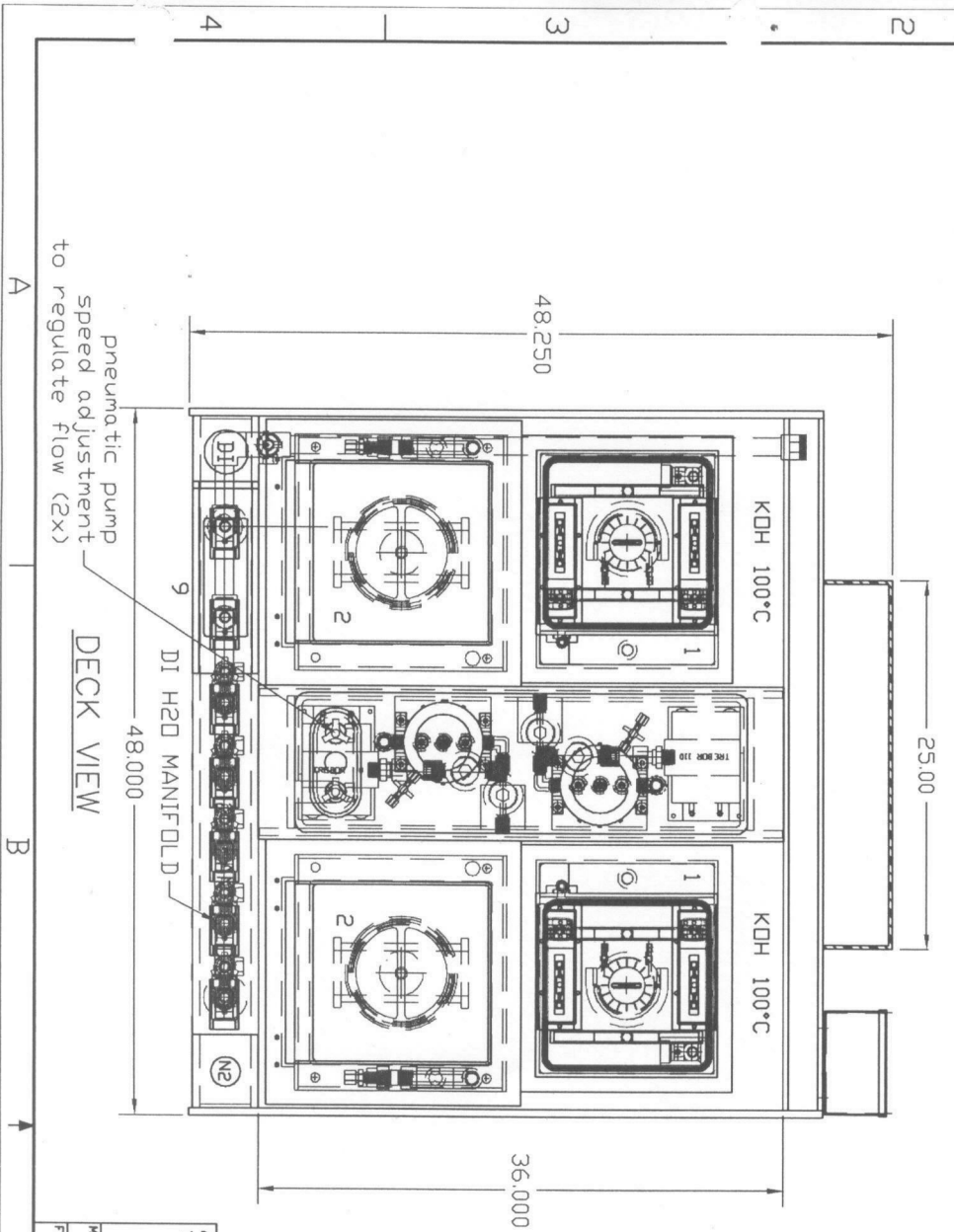


1. TEFLON HEATED/FILTERED/RECIRCULATING BATH (2X)
  - FLOW SENSOR
  - AUTO DI FILL WITH DRAIN OVERRIDE
  - MAGNETIC STIRRER
  - SUBMERSIBLE LAMP UNIT
  - H2O INJECT BY LIQUID LEVEL
2. CASCADING DUMP RINSER (2X)
  - NO SPRAY BARS
  - RESTIVITY PROBE
  - N2 BLANKET
3. FLOW METER (2X)
4. PHOTOHELIC
5. TEMPERATURE CONTROLLER (2X)
  - MODEL 971 SB
6. QDR CONTROLLER (2X)
  - MODEL 971 DSB
7. EPD CONTROLLER
  - MODEL 971 EB
8. RESTIVITY MONITOR/CONTROLLER
  - MODEL 971 R
9. GLOVE WASH



|                              |  |                   |        |                      |                                  |
|------------------------------|--|-------------------|--------|----------------------|----------------------------------|
| ALL DIMENSIONS ARE IN INCHES |  | CONTRACT NO. 2277 |        | *AMERIMADE TECHNOLOG |                                  |
| TOLERANCES ARE:              |  | APPROVALS         | DATE   | TITLE                |                                  |
| XX +/- .01                   |  | DRAWN             | 3-9-2K | 4' KDH BENCH         |                                  |
| XXX +/- .005                 |  | CHECKED           |        | LUCENT TECHNOLOGIES  |                                  |
| ANGLES +/- .1°               |  | ISSUED            |        | LUCENT               |                                  |
| MATERIAL WPP                 |  | SCALE NONE        |        | SIZE B               | DWG NO. 2277-01                  |
| FINISH -                     |  |                   |        | PATH                 | C:\DRAWINGS\CUSTOMER\LUCENT\2277 |
|                              |  |                   |        | CODE R               | SHEET 1                          |

REV/ZONE DESCRIPTION D DVG NO. 2277  
INITIAL DATA

TEMPERATURE CONTROLLER

— TEMPERATURE — °C

— TIMER — MIN:SEC

SAVE SETUP

VIEW  
SIL ▲

RETURN ▼

START HOLD

STOP  
RESET PUMP

DRAIN PWR

— STATUS —

● NORMAL

PUMP

SETUP

● COOL

● HEAT

● DRAIN

— ALARM —

● SYSTEM

● SENSOR

● H LIMIT

● H TEMP

● L TEMP

● L LEVEL

AMERIMADE TECHNOLOGY

## SPECIFICATIONS

AMERIMADE TECHNOLOGY  
MODEL 971SB  
SUBAMBIENT BATH CONTROLLER

|                             |   |
|-----------------------------|---|
| RANGE<br>(Temperature)      | 0.0 - 199.9 Degrees C.  |
| RESOLUTION<br>(Temperature) | 0.1 Degrees C.  |
| NOISE REJECTION             | NMR - 60 db @ 60 HZ<br>CMR -120 db @ 60 HZ  |
| RANGE (Time)                | 0:00 - 99:59 Min:Sec  |
| RESOLUTION (Time)           | 1 Sec.  |
| MEASURING TIME              | 4 Conversions/Sec   |
| DISPLAY                     | Eight, 0.56 Inch High, Seven Segment,<br>LED Uniplanar numerals. Twelve Discrete<br>LEDs (Red, Green, Amber). |
| ANNUNCIATOR                 | Audio Tone, ~ 2500 HZ   |
| SETUP MEMORY                | EEPROM, All Parameters  |
| MEMORY RETENTION            | 10 Years w/o Power  |
| SENSOR                      | Standard - Type J Thermocouple,<br>Cold Junction Compensation,<br>Up Scale Break Protection.                  |
| CONTROL                     | PID with Anti-Reset Windup.   |

|                 |   |
|-----------------|---|
| ADJUSTMENT      | Cycle Rate: 0 - 19 Sec.<br>Proportional Band: .1 - 19.9 Deg. C<br>Reset (Integral): .1 - 19.9 Sec.<br>Rate (Derivative): .1 - 19.9 Sec.<br>Calibration Offset: + 9.9 Deg. C |
| OPERATING RANGE | 0 to 50 Degrees C   |
| STORAGE RANGE   | -40 to 60 Degrees C   |
| CONSTRUCTION    | Enclosure - Kydex.<br>Face - Lexan, Back Printed  |
| SIZE            | 8.25 x 6 x 5.25 inches (HxWxD)<br>210 x 152 x 133mm   |
| WEIGHT          | < 4 Lbs. (1.8 kg)   |
| CONNECTION      | Rear, Screw-Type, 3/8 Inch Centers;<br>T/C - Miniature, Type J, Jack.   |
| OUTPUT          | Relay: 1 HP, 250 VAC.<br>SSR Drives: 20ma, 12 VDC (provided)  |
| POWER           | 11 VA, 24 VAC +10%, 50/60 HZ  |

## SPECIFICATIONS

AMERIMADE TECHNOLOGY  
MODEL 971DSB & 971DDB  
QUICK DUMP RINSER

|                  |   |
|------------------|---|
| RANGE            | 0 - 99 Cycles   |
| RESOLUTION       | 1 Cycle   |
| DISPLAY          | Two, 0.56 Inch High, Seven Segment, LED Uniplanar numerals. Four Discrete LEDs (Red, Green, Amber). |
| ANNUNCIATOR      | Audio Tone, ~ 2500 HZ   |
| SETUP MEMORY     | EEPROM, All Parameters  |
| MEMORY RETENTION | 10 Years w/o Power  |
| OPERATING RANGE  | 0 to 50 Degrees C   |
| STORAGE RANGE    | -40 to 60 Degrees C   |
| CONSTRUCTION     | Enclosure - Kydex.<br>Face - Lexan, Back Printed  |
| SIZE             | 8.25 x 3.75 x 5.25 inches (HxWxD)<br>210 x 95 x 133mm   |
| WEIGHT           | < 4 Lbs. (1.8 kg)   |
| CONNECTION       | Pneumatic - Rear, Tubing, 1/16" ID, PVC, Color Coded, 24" long.                                     |

Electrical - Rear, Screw-Type, 3/8 inch centers

OUTPUT

Pneumatic Solenoid, Internal,  
100 PSIG Max.

BUZ

Transistor, Open Collector,  
100 MA, 12VDC.

POWER

10 VA, 24 VAC +10%, 50/60 HZ