Appendix A

Specifications

Size

L: 9.0" W: 6.25" D: 2.5"
L: 23cm W: 16cm D: 6cm

Weight

Less than 4 lbs., 2 Kgs.

Environmental

Storage

Temperature: -40°F to +185°F,
-40°C to 85°C

Humidity: 0 to 95%,
non-condensing

Operating

Temperature: -4°F to +162°F,
-20°C to 72°C

Humidity: 0 to 95%,
non-condensing

Mounting

Standard: shelf or back board
mounting (includes brackets)

Optional: 19" or 23" rack
mounting brackets available

Construction

Housing

Fully enclosed in clear anodized
aluminum

Gauge: top .080", base .060"

Electrical

All components mounted on
internal PCB

Power

Voltage

Nominal: 12 VDC

Range: 10 to 40 VDC

Consumption

Typical: less than 3 watts

Max: less than 4 watts with
internal modem

Input Isolation

Digital Inputs

3800 VDC to any other potential

Analog Inputs

1600 VDC to any other potential

Any Input to Adjacent Input

Digital: 3800 VDC

Analog: 3200 VDC

Internal Modem (optional)

Meets applicable FCC part 68
standards

Capacities

Inputs

Digital: 18, all opto-isolated

Analog: 4, voltage or
current

Virtual: 4, assignable

Event Storage

Standard: 13,852

Optional: 57,543

31st day over-writes oldest day

Newest data over-writes oldest
data

RS-232 Port

Single, suitable for operation
with a PC, VDT or printer

Supports ANSI-BBS emulation in
Terminal Mode

Baud rates: 300, 1200, 2400,
9600, 19200, 38400

Bit format: N-8-1

Liquid Crystal Display

2 lines by 20 characters

Alphanumeric, upper- and
lower-case

Viewing area: 2.9" by .5"

Front Panel Keypad

16 keys, button type, not
membrane

0-9, Setup, Browse, Esc, Enter

Input Circuits

Input Impedance

Digital: 5000 ohms min.

Analog: 10,000,000 ohms min.

Range

Digital: 5 to 30 VDC

Analog DC Voltage: 2 scales
0 to 12.8 V and 0 to 128 V

Analog AC Voltages: 2 scales
0 to 14.2 V and 0 to 142 V

Analog Current: (optional) 0 to
32.0 A, AC or DC

Detection Timing

Digital: .001 to 32.000 seconds,
compatible with non-varying
flashing circuits

Analog: R-C filtering, fast and
slow switch settings

Analog Limits

Voltage: separate high and low
limits, in multiples of .1 V or 1 V

Current: (optional) separate
high and low limits, in multiples
of .5 A

Virtual Inputs

Quantity

4, individually assignable

Definition

An AND/OR/NOT association of
4 physical inputs, digital or
analog

Logical associations are
selected from predefined menu
of equations

Reporting

Creates standard Event Record

Can be used to control local
alarm relay

Can be used to dial out an
alarm via modem (optional)

MICRO-AIDE reserves the right to make changes, at its sole discretion, to the specifications contained herein.

Specifications
(continued)

Internal Clock

Accuracy
+/- 1 minute per month (20 ppm)

Resolution
Event Records are time stamped to nearest .001 second

Operation
Full calendar, auto-adjusted for leap year

Non-volatile with power off

Year 2000 compatible

Memory

Type
Non-volatile, Event Records and Setup Database are saved in battery backed-up memory

Storage Longevity
2 years with power off, min.

Indicators

LCD Panel
Includes LED back lighting for enhanced visibility

Setup and data retrieval commands selected from multiple menus

Power
Green LED

Terminal Port and Modem
1 each, green LEDs, flash with xmt/rcv data

Connectors

Digital and Analog Inputs
Paired "+" and "-" into screw-down, detachable connector

Wire sizes: 12 to 22 AWG

Current Sensor (optional)
Female DE-9 connector

Terminal Port
Male DE-9 connector, configured as DCE

Power and Alarm Relay
Power: B and N pair into screw-down detachable connector

Alarm Relay: N.O., N.C. and common into screw-down connector, common is internally fused at 1 A

Wire sizes: from 12 to 22 AWG

Telephone Line
Female RJ-11

Password Protection

Administrative Level
Access to all commands, 10 characters

Restricted Level
Access to Event Record viewing commands only, 10 characters

Front Panel
Numerical Passcode protects against setup alterations, 8 digits

Internal Modem (optional)

Type
V.32bis, 14400 Baud, data compression and error correction

Usage
Provides auto-answer, remote access

Allows dial-out alarm reporting

Compliance
Designed to meet FCC part 68

Dial-out Alarms (optional)

Calling Procedure
Primary and secondary numbers

Prefix and access codes

Tone or pulse dialing

Data
Issues Event Record for enabled Virtual Input

CWR-CS (optional)

Capacity
4 current paths, each occupies an Analog Input

Configuration
Each current carrying conductor is fed through a non-intrusive circuit equipped with a Hall-effect device

Connects to CWR-22 via 15 ft. cable

Range
0 to 32 A, AC or DC

MICRO-AIDE reserves the right to make changes, at its sole discretion, to the specifications contained herein.

Peripheral Cables
Available from MICRO-AIDE or retail electronic and computer stores.

CWR-22 end
DCE

Peripheral end
DTE

DB-9 Female

DB-9 Female

Pin #	Signal		Pin #	Signal
1			1	
2	TD ———————		2	RD
3	RD ———————		3	TD
4	DSR ———————		4	DTR
5	Gnd ———————		5	Gnd
6	DTR ———————		6	DSR
7	CTS ———————		7	RTS
8	RTS ———————		8	CTS
9			9	

DB-9 female to DB-9 female, straight cable. Typically used with a PC or VDT.

CWR-22 end
DCE

Peripheral end
DTE

DB-9 Female

DB-25 Male

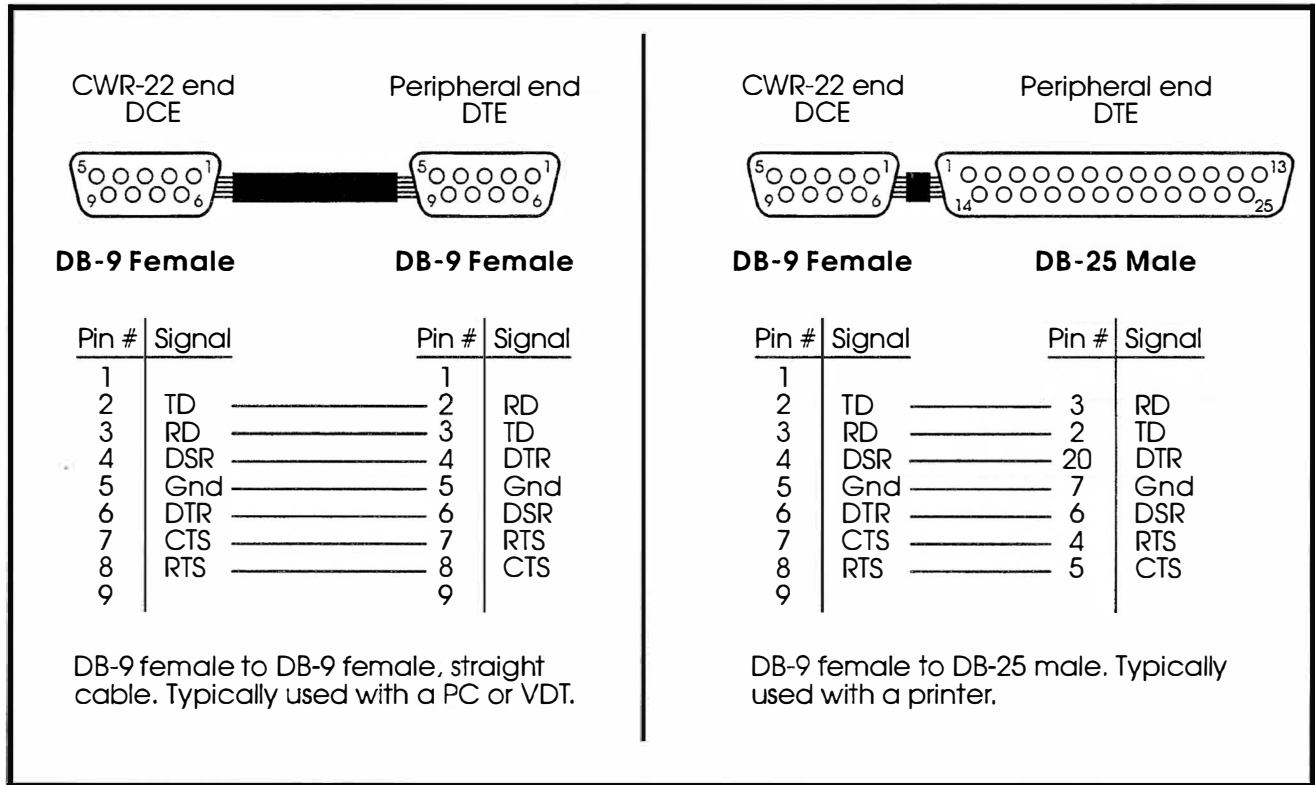| Pin #	Signal		Pin #	Signal
1				
2	TD ———————		3	RD
3	RD ———————		2	TD
4	DSR ———————		20	DTR
5	Gnd ———————		7	Gnd
6	DTR ———————		6	DSR
7	CTS ———————		4	RTS
8	RTS ———————		5	CTS
9				

DB-9 female to DB-25 male. Typically used with a printer.

Figure 5
CWR-22 peripheral cables