



4823AC

User's Manual

V. 1.0

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FCC WARNING

Computing devices and peripherals manufactured by Daisy Data Displays generate, use, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions in this manual may cause interference to radio communications. Such equipment has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of the FCC Rules, which are designed to provide reasonable protection against radio interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user - at his own expense - will be required to take whatever measures may be required to correct the interference.

Some components may not have been manufactured by Daisy Data Displays, Inc. If not, Daisy has been advised by the manufacturer of the component that the component has been tested and complies with the Class A computing device limits as described above.

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Daisy Data Displays, Inc.
2850 Lewisberry Road
York Haven, PA 17370 USA
Phone: (717) 932-9999
www.3inc.net

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Limited Warranty and Liability Statement

To the original purchaser, Daisy Data Displays, Inc., hereinafter referred to collectively as SELLER, warrants each of its manufactured products, and all components therein contained to be free from defects in materials and/or workmanship for a period of 12 months from the date of purchase.

Should a malfunction, or other indication of defect attributable directly to faulty materials and/or workmanship occur, Seller will, at its option, and without charge to the customer for labor and parts, repair or replace the defective product, F.O.B. Seller's plant, but Seller will not be responsible for freight from Purchaser to Seller's plant.

In no event shall Seller be liable for any loss, inconvenience or damage, whether direct, incidental, consequential or otherwise resulting from abuse, misapplication or modification of the product, improper or faulty power, damage resulting from repairs or alterations performed by unauthorized persons, or conditions resulting from any other equipment attached to the product.

Seller assumes no liability for damage occurring in transit due to the product not being returned in its original shipping material.

This warranty is exclusive and is in lieu of any warranty of merchantability or fitness for a particular purpose or other warranty of quality whether expressed or implied, except of title and against patent infringement. Correction of nonconformities, in the manner and for the period of time provided above, shall constitute fulfillment of all liabilities of the Seller to the Purchaser with respect to, or arising out of the goods, whether based on contract, negligence, strict tort or otherwise.

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This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

Seller makes every effort to provide clear and accurate technical information on the application of its products in the Operator's Manual, and assumes no liability for misuse of the information.

Power and Signal Requirements

Mounting Location

When mounting, Human Machine Interfaces (HMI) and Purge systems must be positioned to avoid radiated and induced interference. Do not mount the unit in close proximity to a device that generates strong radiofrequency interference or electromagnetic interference. HMI and Purge systems must be also positioned to avoid exposure to excessive heat. Do not mount the unit in close proximity to a steam line, heated vat or oven.

Gland Plates

Before modifications can be made, Gland Plates must be removed. Please note that metal shavings are detrimental to electronic systems.

Machining

Only make enclosure penetrations in designated locations. All metal shavings must be collected and removed.

Wiring Requirements

AC power inputs require dedicated circuits or feeds. Power from lines or circuits shared by motors, drives, welders, arc furnaces, or inductive lighting is not acceptable. Conduits for HMI and Purge power should be separated from other conduits to prevent radiated or induced interference. Devices that produce spikes, surges, and brownouts are detrimental to computers, and can corrupt data and interfere with purging systems. Do not use a transformer or other device to step down a three phase circuit to run a HMI or Purge System.

Communication wires and signals should be run in separate conduits and routed away from power conduits. Providing isolation to prevent emissions from other conduits is essential to data integrity. Long runs of parallel signal lines can cause “cross-talk” and corrupt data making communications unreliable or impossible.

DC power should be provided by a dedicated power source. If multiple units must be powered from a single DC supply, the power cables must be run directly from the unit to the supply. Chaining power from one unit to the next is unacceptable. Units can interfere with each other by developing noise due to the resistance of the wires. The filtering is provided by the source or power supply.

Additional Wiring

It is not permitted to run wiring through the unit that is nonessential to the unit. The cabinet is not a junction box.

Adding Additional Equipment

Installing additional equipment in units approved for hazardous classed environments violates the approval of the unit.

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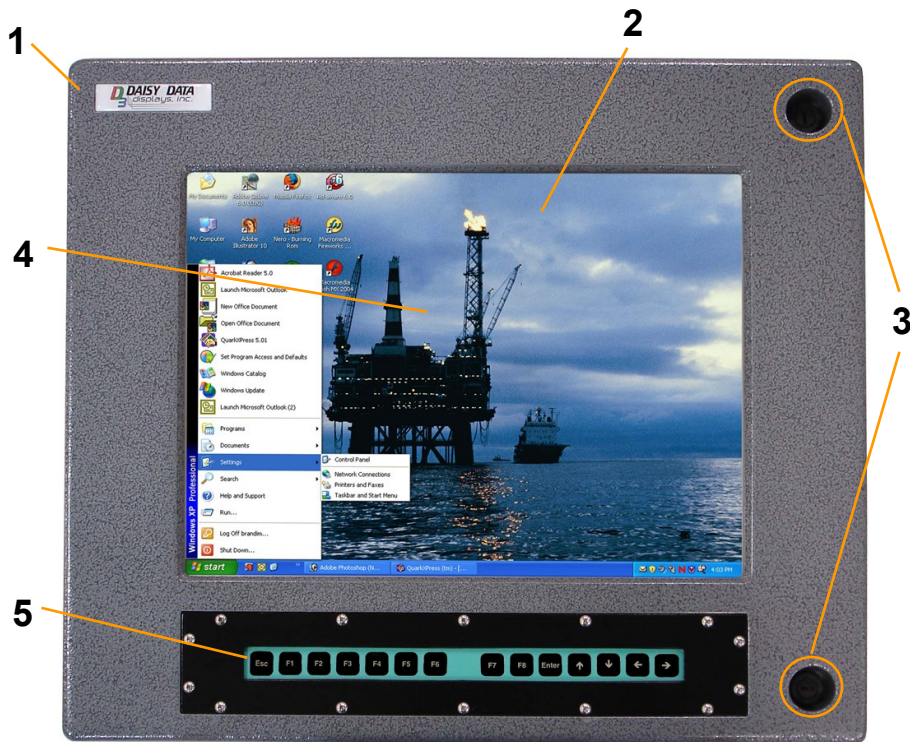
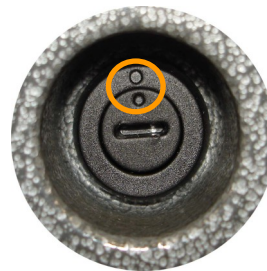


Figure 1. Front View

- | | |
|-----------------|------------|
| 1. Door | 4. Display |
| 2. Touch Screen | 5. Keypad |
| 3. Latches | |



**Figure 2.
Unlocked Latch**



**Figure 3.
Locked Latch**



Figure 4. Keypad

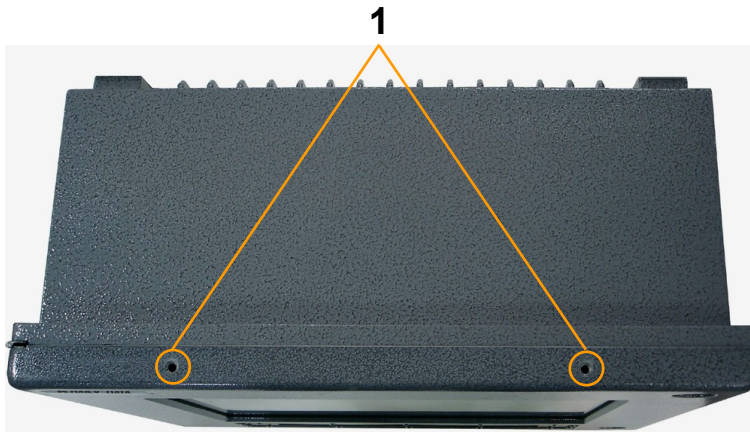


Figure 5. Top View

1. Accessory Mounting Holes ($\frac{1}{4}$ - 20 threads)
2. Serial Identification Label (DO NOT REMOVE)

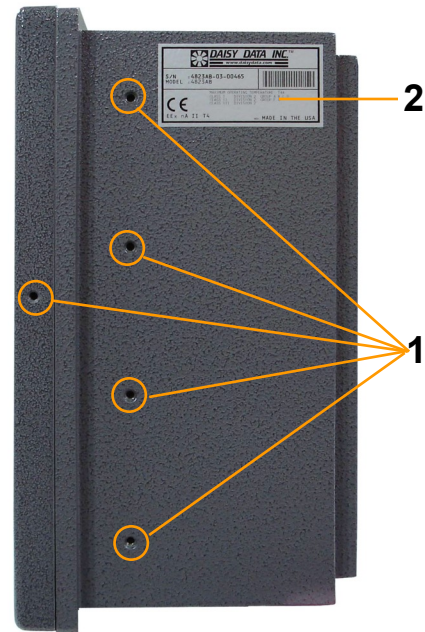


Figure 6. Latch side



Figure 7. Rear View

3. Accessory Mounting Holes ($\frac{1}{4}$ - 20 threads)



Figure 8. Gland Plate

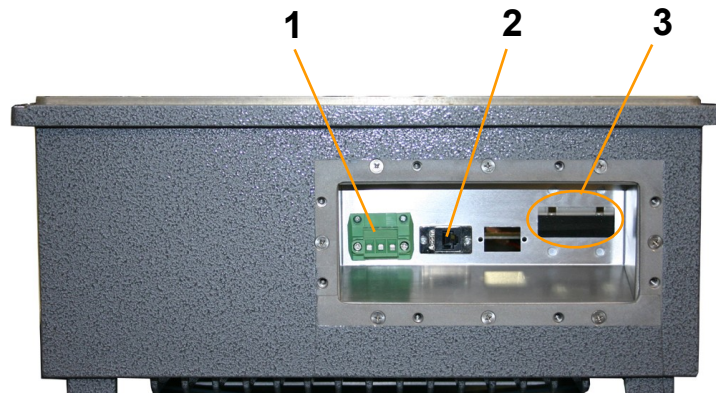
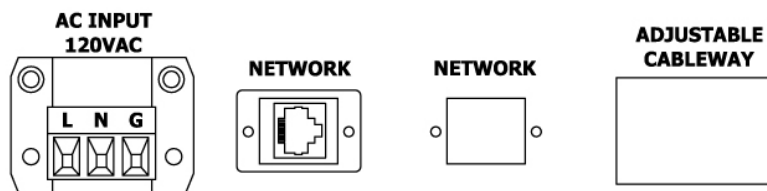


Figure 9. Recessed Connector Panel

1. 120 Volts AC Input
2. Network Input
3. Adjustable Cableway



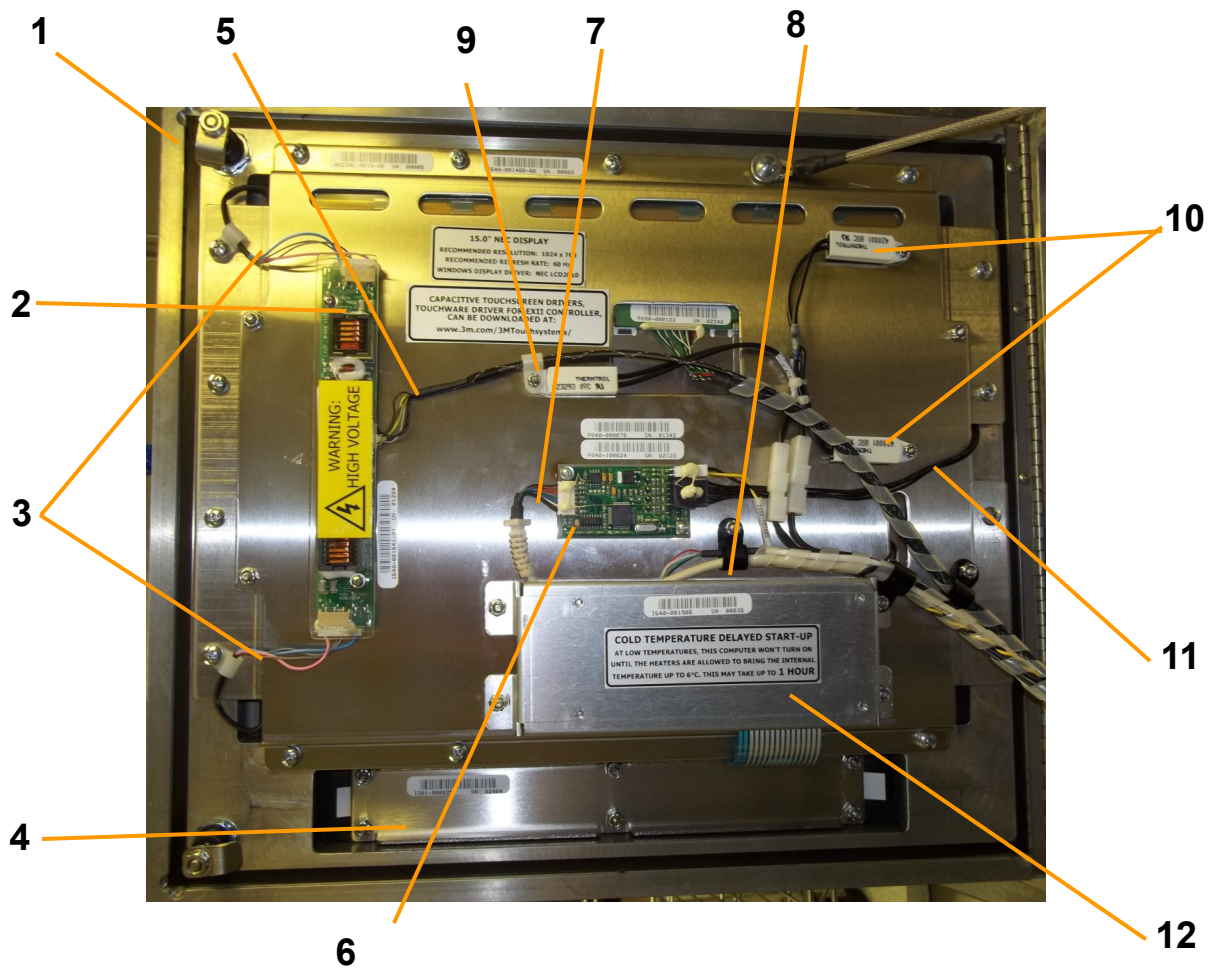


Figure 11. Door Interior

- | | |
|---|---|
| 1. Door Assembly | 8. USB Keypad Cable |
| 2. Backlight Inverter | 9. 0-6° Thermostat (for ATX power supply) |
| 3. Lamp Voltage Cables | 10. 8-16° Thermostat (for all heaters) |
| 4. Keypad Assembly | 11. Touch Screen Ribbon Cable |
| 5. Backlight Power/Control Signal Cable | 12. Keypad Controller Board |
| 6. Touch Screen Controller | |
| 7. Touch Screen Power/Data Cable | |

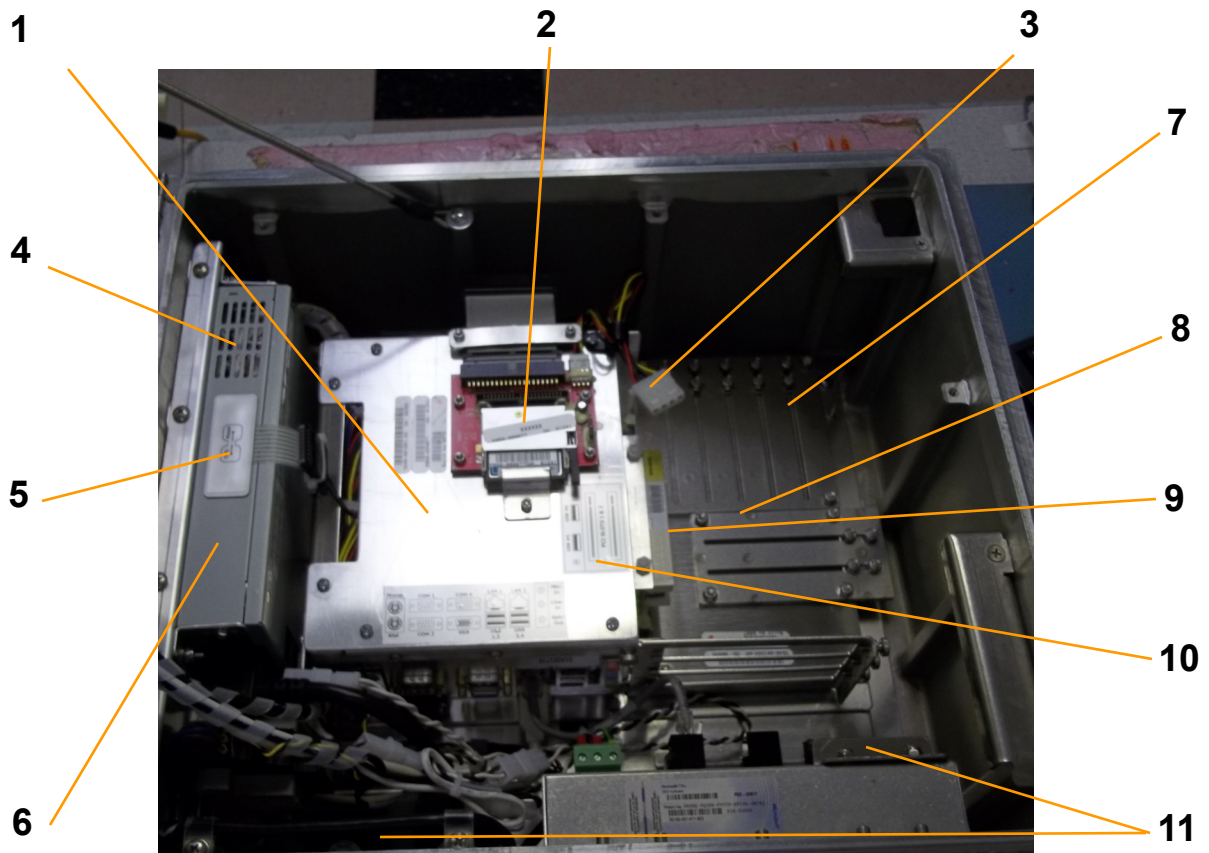
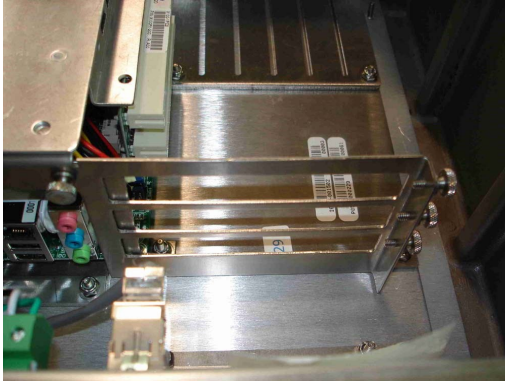


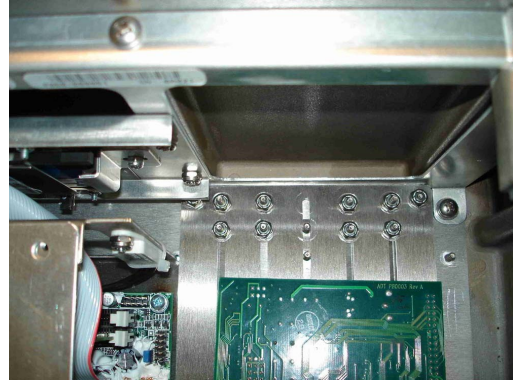
Figure 12. Enclosure

- | | |
|---|---|
| 1. Motherboard Cage | 7. PCI Card Retainers (see pg. 7 for assembly instructions) |
| 2. Flash Drive Assembly | 8. PCI Expansion Slots (2) |
| 3. CD Drive Power Connector | 9. Peripheral Component Interconnect (PCI)/USB label |
| 4. Power Supply Assembly | 10. I/O Ports Label |
| 5. CPU Reset Switch | 11. Fin Cooling Fans |
| 6. Thermostat (for fin fans - under power supply) | |

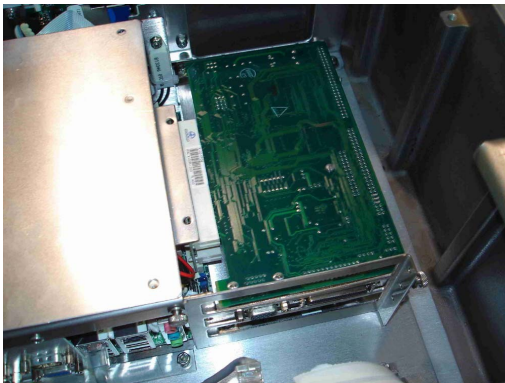
PCI Card Retainer Assembly



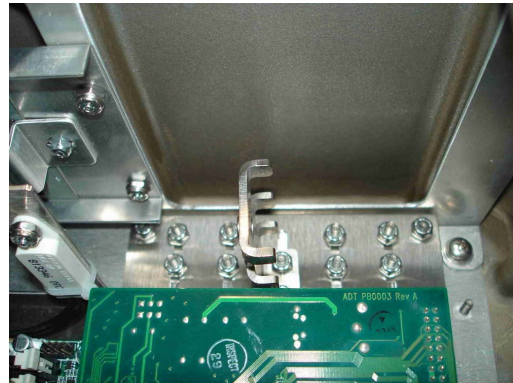
1. Loosen thumb screws on CPU cage. (Qty. 4)



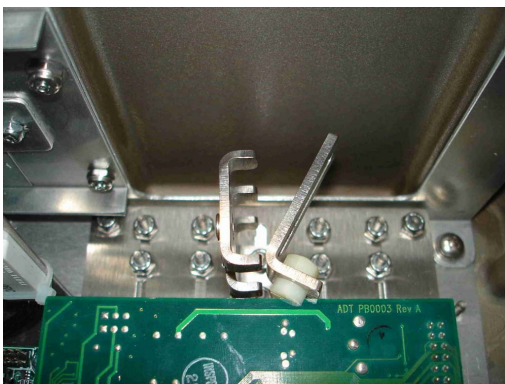
2. Remove 2 #6 nuts from studs.
3. Place card into bracket and slide stud assembly to about .50" from end of card.



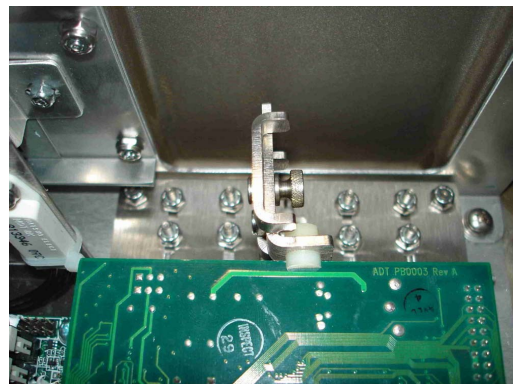
4. Tighten thumb screws to lock PCI card in place.



5. Place single or double card bracket onto stud assembly and secure with 2 #6 nuts.



6. Angle clip bracket and attach to PCI card end. (Clip will snap tightly onto card)



7. Slide clip bracket over flush to card and secure with thumb screw. (Locktite in place to secure)

*****MULTIPLE CARD AND CLIP BRACKETS SHOULD BE USED TO BETTER RETAIN THE END OF THE CARD FOR SHOCK AND VIBRATION. LOCATION AND NUMBER OF BRACKETS TO BE DECIDED UPON BY CUSTOMER NEEDS.**

MATERIAL
Enclosure Cast Aluminum Powder Coat Finish
Viewport Design Polycarbonate Standard NEMA 4X Non-incendive electrical equipment

CONNECTIONS
From Motherboard 1 Serial, 1 Parallel, 4 USB, Audio In/Out, Network, Game Port, PS/2 Keyboard Port, PS/2 Pointing Device

PHYSICAL
15.0" 15.50" Height (H₁)
 17.50" Width (W)
 14.50" Height (H₂)
 8.56" Depth (D₁)
 1.56" Depth (D₂)
 9.16" View Height (VH)
 12.16" View Width (VW)
Weight 60-65 Lbs.
Viewing Window Polycarbonate Standard

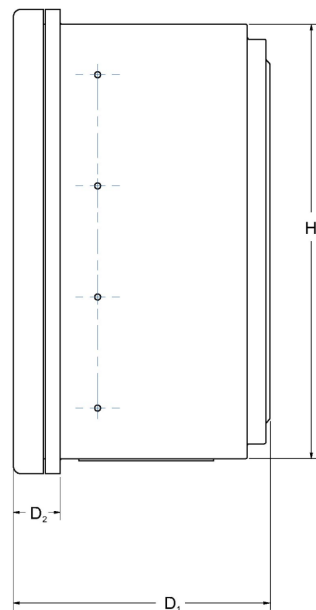
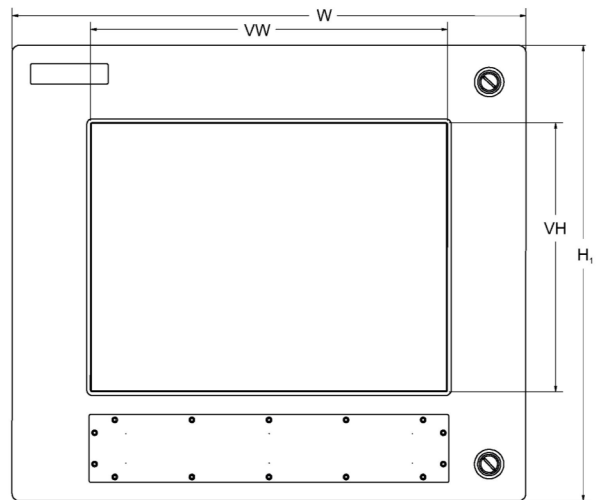
AVAILABLE OPTIONS
 451 Capacitive Touch Screen
 820 Bezel
 821 Sun Visor
 823 Windows XP
 9137 Yoke Mount

ELECTRICAL
Voltage 120 VAC @ 3.35 Amps
Power 90 W* (402 W w/ heaters)
 *Computer & display only

FLAT PANEL SPECIFICATIONS
Maximum Resolution 1024x768
Dot Pitch 0.297mm
Color Depth 24 bit
Viewing Angle (Typical HxV) 80° Left & Right
 x 80° Up & 60° Down
Brightness (Standard) 600 nits

ENVIRONMENTAL
Shock IEC68 2-27 15G bi-directional impulse
 11 msc, non operational
 3 axes
Vibration IEC68 2-6 3 GRMS operational,
 5-2000 Hz
 5 GRMS non-operational,
 5-2000 Hz, 3 axes
Operating Temperature -40° - 150° F (-40° - 65° C)
Storage Temperature -40° - 150° F (-40° - 65° C)
Relative Humidity 10-95% Non-Condensing
Listed Approvals EExnA IIC T4, ExII36

COMPUTER SPECIFICATIONS
Motherboard Mini-ITX SBC, Integrated Graphics, 2 PCI Slots
 Dual 10/100 Base-T Network Interface
Storage (Standard) 4GB Flash Drive, 1GB Ram
CPU (Standard) Pentium™ M 1.8 GHz
 Contact your Daisy Data Displays representative for info. on the latest CPU, memory, and hard drive options.



*Specifications are subject to change without notice.

Power Requirements
 Model **4823AC**
 Nominal Voltage 120VAC
 Current (Warm Climate) .75 Amps Nominal
 Current (Cold Climate) 3.35 Amps Nominal

Note 1
 The computer is not permitted to start if the temperature drops below 0 Celsius inside the cabinet and will remain off until the temperature rises above 6 Celsius.

Note 2
 The heaters turn on when the internal temperature drops below 8 Celsius and will remain on until the internal temperature rises above 16 Celsius.

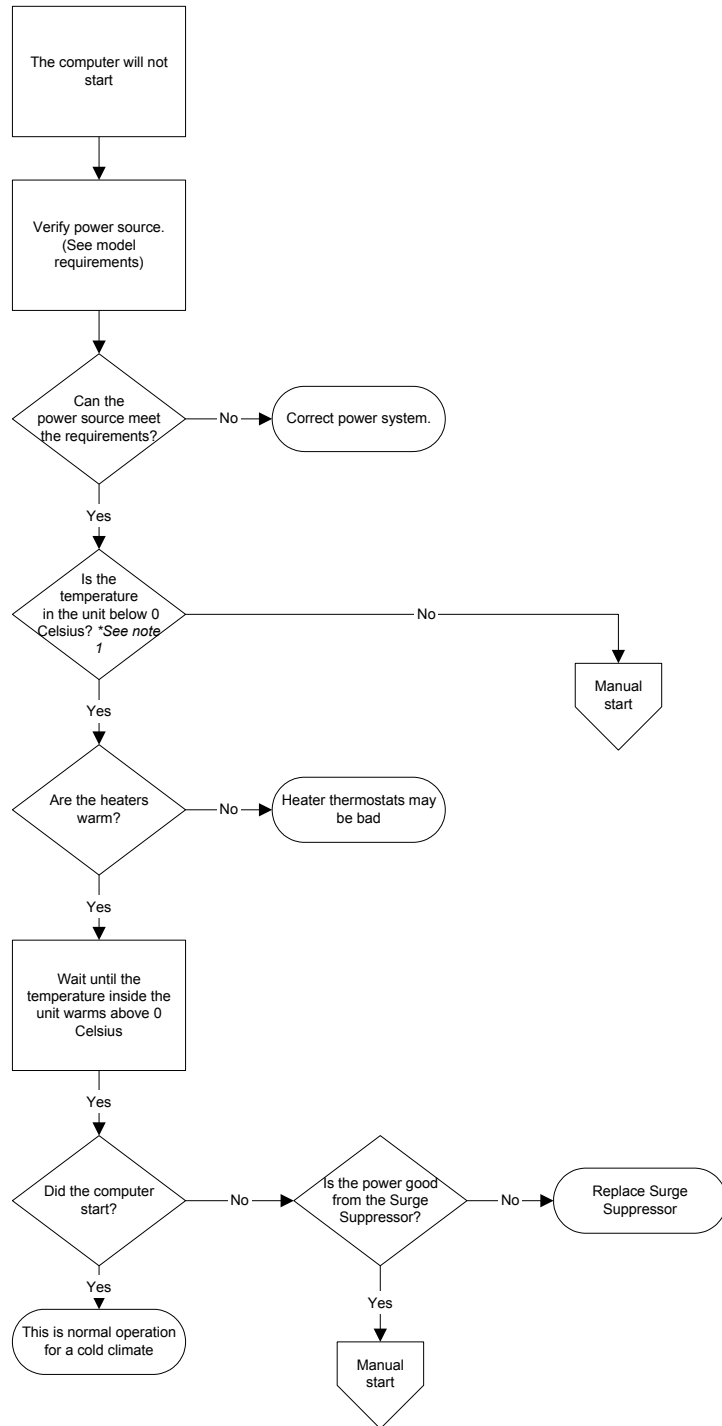


Figure 13a Power problem flowchart

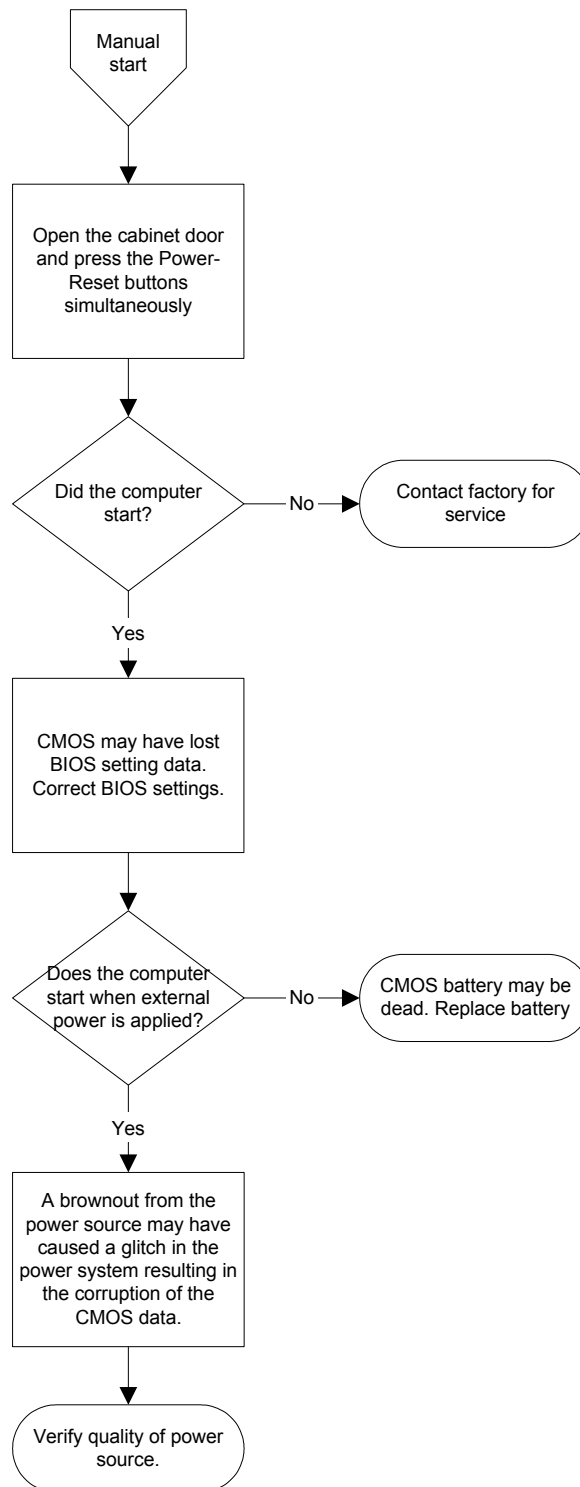


Figure 13b Power problem flowchart

Maintenance and Cleaning

While D3's products are designed to be durable and dependable, certain parts need to be maintained and cleaned occasionally. This will help to keep units operating at full potential.

Conductive dust or buildups of liquids can affect capacitive touch screens. Touch screens made from glass and polycarbonate can be cleaned with Isopropyl alcohol or a 50/50 mix of Isopropyl and water. Apply solution onto a clean lint free cloth first. Do not spray the cleaner directly onto the window. Ammonia based cleaners are not recommended. Live steam should not be used in the cleaning of the units. Solvents and abrasives can damage anti-glare coatings. Scratches cannot be buffed out of touch screens.

Elastomer keyboards and mice should be cleaned using a soft brush with mild soap and water.

Stainless steel enclosures can be cleaned with just about any cleaner available but care should be used if using solvents near gaskets and touch screens or viewing windows. Enclosures and external heat sinks should be kept clean and free of the accumulation of dirt, which can cause the buildup of heat and performance degradation.

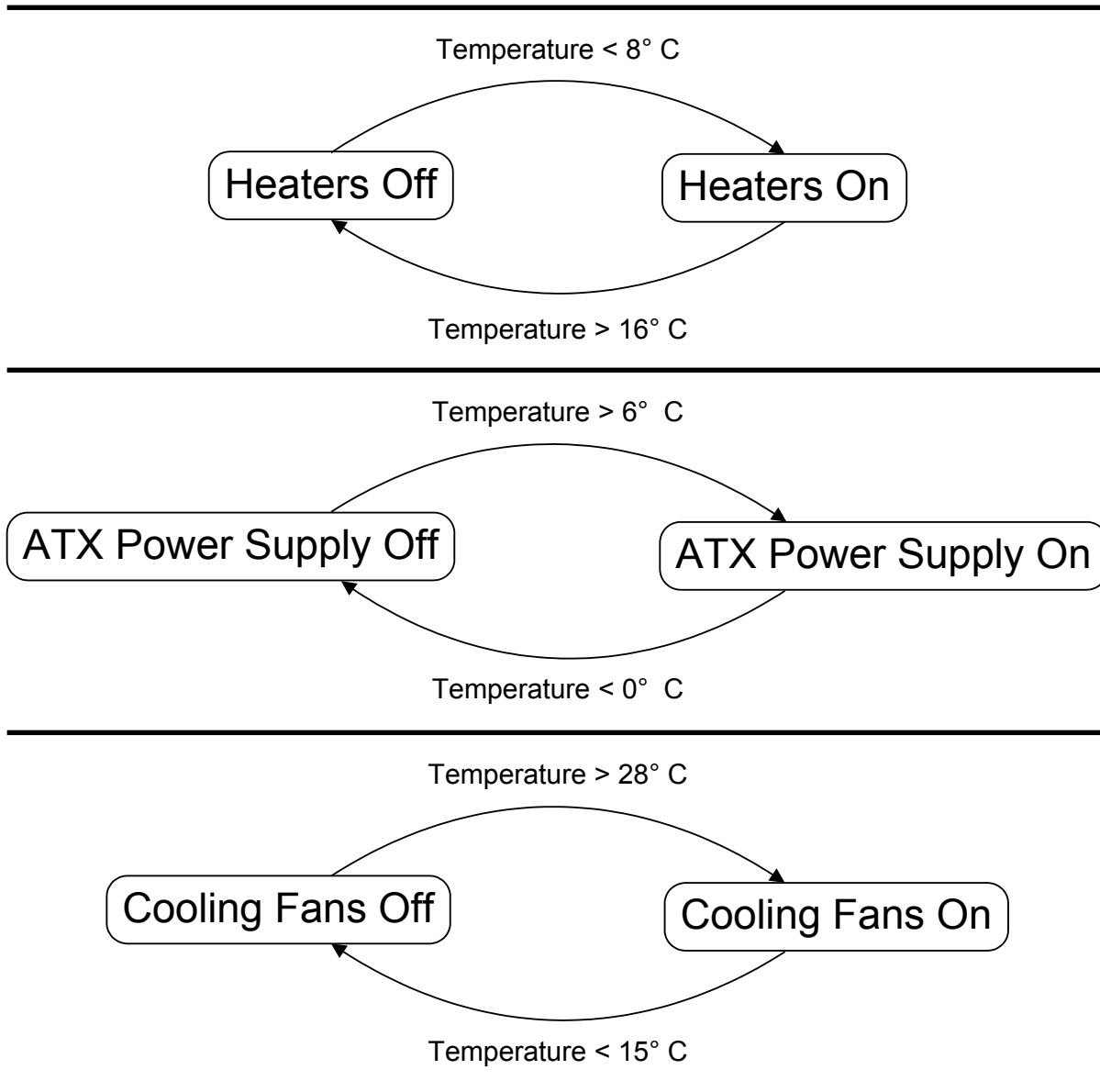


Figure 14 Thermostat Operation

Cold Temperature Delayed Start-Up

At low temperatures, this computer won't turn on until the heaters are allowed to bring the internal temperature up to 6°C. This may take up to **1 hour**.

Model Number: 4823AC

HVAC Components

Part Number	Description
P070-000433	110VAC Heater, Kapton 5"x10" 52.9 Ohms
I100-001809	Card Cage Cooler Fan Assembly
I640-001503	Cooling Fan Array Assembly (for Fins)
E906-00068	CPU Cooler Heatsink and Fan
I100-001800	Thermostat (0Y) –2PHSG 20"L
I100-001801	Dual Thermostat (8x&8x) –2PHSG
I100-001813	Thermostat (15Y0) –2PHSG 6"L

User Interface Components

Part Number	Description
I649-000038	Front Door Latch Kit
P040-000045	Touch Screen Capacitive Tough Touch (Optional)
P040-100022	Touch Screen Controller (Optional)
I301-000025	14-Key Membrane Keypad (Legend is customizable)
P000-000123	15" Transflective LCD Display
P070-000520	LCD Backlight Inverter Module
I640-001466-02	15" LCD Door Assembly (must specify touch screen option)
P030-000004	AC Filter 110VAC, 20A, TVSS Plug
P030-000005	AC Filter Base, DIN Rail Mount
I024-000013	Keypad Controller (must specify optional firmware)
I301-000035	CPU Power/Reset Membrane

Computer Components

Part Number	Description
I640-001497	Flash Drive Assembly with Mounting Panel and Adapter
P070-000505	Compact Flash to IDE Drive Adapter
P060-000061	4GB Compact Flash Drive (Blank)
I640-001518-01	110VAC Power Supply, 1U Form Factor, Potted
I640-001502-01	SBC Card Cage Assembly
I640-001519	SBC, Mini-ITX, Pentium-M, S479, Potted
P050-000230	PCI Riser Card
A301-000018-01	CPU Pentium-M 1.8Ghz
A314-001024	Memory, RAM, DDR 400, PC-3200, 1GB
I640-001504-01	PCI Card Retainer Kit

*Part Numbers subject to revision or change without notice.

