

Flat Panel User Manual

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1.0 Introduction

This manual is a comprehensive overview of the Flat Panel Series Displays manufactured by Daisy Data Display, Inc.

1.1 **Product Description**

This manual reviews procedures for installing and operating many Flat Panel Series units. In addition to the setup instructions and diagrams in this manual, Daisy provides a detailed overview of the methods used to ensure that the electronic systems are safe for hazardous areas.

Should you have any inquiries or concerns, please contact Daisy Data Displays.

2.0 Customer Service

All Daisy systems pass detailed quality control configuration and inspection before being shipped. Daisy strives to create the highest quality systems and chooses top quality parts. However, like most electronic devices, units may experience issues over time. Should you experience problems, or have any further inquiries or comments, please contact Daisy's customer service department:

- Business Phone: (717) 796-9999
- Fax: (717) 796-9990
- Email: support@daisydata.com

Equipment returned to Daisy for service must be accompanied by a valid return merchandise authorization (RMA) number. Items or products shipped to Daisy without a valid RMA number will be refused. An RMA will be generated upon receipt of Company Name, Address, Contact, Product Model and Serial Numbers.



Figure 1 – Typical Daisy Data Product ID Tag

!! IMPORTANT NOTE ON ORDERING REPLACEMENT PARTS !!

All Daisy Data Display products undergo continual improvement to ensure they meet the myriad of regulatory standards and codes for equipment operating in hazardous environments. These improvements or modifications may affect Daisy Data products already in the field.

With that in mind, as a customer servicing your own product, it is highly recommended that you contact your Daisy Data Display customer service representative to confirm any part or part number you may be looking to replace. Your Daisy representative will ensure you are getting the correct part, or the possible availability of a suitable replacement part to ensure your equipment continues to meet the standards and/or codes originally intended.

3.0 Specifications

Table 1 – Technical Specifications

MATERIALS				
All materials comply with NEMA 4X IP66 Standards				
Enclosure and Hardware	Stainless Steel			
Explosion-proof I/O Casting	Cast Aluminum (Division 1 X-purge)			
Explosion-proof I/O Casting Bolts	Hardened Steel (Division 1 X-purge)			
MECH	ANICAL			
See drawings for dimensions				
ENVIRO	MENTAL			
Operating Temperature	-17.78° – +29.4° C (0° – +85° F)			
Storage Temperature	-17.78° - +60° C (0°- +140°F)			
Relative Humidity	5% - 95% RH Non-condensing			
ELECT	FRICAL			
Voltage	120/240 VAC			
Frequency	60/50 Hz			
Power (Monitors)	60W Maximum			
Power (PCs)	360W Maximum			
AIR REQU	IREMENTS			
NEMA 12 and NEMA 4X	No air required			
Division 2 Non-incentive	No air required			
Division 1 Y-Purge	150 SCFH Minimum			
	40 SCFH Minimum			
Division 1 X-Purge	300 SCFH Optimum			
	20 - 60 PSI Recommended at Inlet			
DISPLAY				
	1024 x 768 (15")			
Resolution Maximum	1280 x 1024 (19")			
	1680 x 1050 (22")			
	0.297mm (15")			
Dot Pitch	0.294mm (19")			
	0.282 x 0.282mm (22")			
	232.664(H) x 308.864mm (V) (15")			
Viewable Size	376.32(H) x 301.056mm (V) (19")			
	4/3.76(H) x 296.1mm (V) (22)			
viewing Angle				
Turiad Dricktopas	15° 350-600 NITS			
rypical Brightness	19 300 mits			
Calar Dapth	22 300 MILS			
Color Depth	24 DILS			

*Note: Due to frequent technological advances, please contact Daisy for latest model specifications.

4.0 Hazardous Area Safety Methods

4.1 Division 1: Y-Purge Protection

Y-purge systems are used for installing electrical equipment in Division 1 hazardous areas¹. By installing a Y-purge on an enclosure in a Division 1 area, the rating inside of the enclosure can be reduced to a Division 2 classification. As a result, less costly Division 2 electronic equipment can be safely used in Division 1 areas.

A Y-purge system provides the protective purge and safe gas flow to the enclosure. This system is controlled by the operator in place of the automatic control provided by X purge systems. To provide more alerts for the operator, the purge system includes alarm contacts, a visible indicator to alert the user and if applicable, an automated control system. This control system is important if pressure is lost within the enclosure, which may be caused by a failure of the protective safe gas flow or of enclosure integrity.

Prior standards required four volumes of air to be circulated through the enclosure. Now, the standards require that the volume of air passed through a given enclosure eliminate any possible flammable concentration of substances within the enclosure (the minimum of four volumes of exchange still applies).

Factory Mutual Class Number 3620 states that when *"concern exists that all compartments may not be purged, purging tests shall be conducted."* Thus, it is necessary to take into consideration the airflow, pressure, shape of the enclosure and effect of equipment installed within the enclosure.

Please note that DAISY's systems have been fully tested under the supervision of Factory Mutual to ensure compliance with the standards of FM 3620: 4.2, and include all of the features described above.

¹See National Electrical Code articles 500-504 and the NFPA 496, section 2-9.

4.2 Division 1: X-Purge Protection

X-purge systems are used for installing electrical equipment in Division 1 hazardous areas. By installing an X-purge system on an enclosure in a Division 1 area, the area can then be considered a non-rated environment. As a result, normally rated equipment may be installed within the enclosure (within reasonable limits, such as complying with temperature and power restrictions).

An X-purge system is fully automated. The system not only provides the protective purge and maintains positive pressure, but it also automatically controls the connection and disconnection of power supplies and signal paths. A well-designed X-purge system also automatically controls flow rates, internal pressure regulation, purge timing, and switching of states between purge flow and normal operation.

Please note that DAISY's systems have been fully tested under the supervision of Factory Mutual to ensure compliance with the standards of FM 3620: 4.2, and include all of the features described above.

4.3 Division 2: Non-Incendive Protection

The NEC defines a non-incendive circuit as "one other than field wiring, in which any arc or thermal effect produced under intended operating conditions of the equipment is not capable, under specified test conditions, of igniting the flammable gas-air, vapor-air or dust-air mixture." Non-incendive circuit designs do not take component failure into consideration, and therefore have a reduced safety level compared to IS circuit design. They can be worked on while energized without a hot-work permit.

Non-incendive devices can be rated for Division 2 as well as Zone 2 areas without a purge control or other protective device.

Please note that DAISY's systems have been fully tested under the supervision of Factory Mutual to ensure compliance and are approved as non-incendive devices for all Division 2 areas.

*Part of the NEC definition of Division 2 areas.

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5.0 Pre-Installation Testing

Before installing your system in its final location, the system should be tested to verify that the purge system is functioning correctly.

Please note that all pre-installation testing should always be conducted in a safe area.

5.1 **Division 1: Y-Purge Testing**

5.1.1 Equipment Required

Clean, dry purge air or inert gas supply equipped with local water/oil separator or filter capable of supplying 150 SCFH at 20 - 100 PSI

Fittings and tubing for purge air or inert gas supply (0.25" NPT Male to connect to the inlet of the purge system)

Local air pressure shutoff valve

5.1.2 Procedure

- 1. Place the unit in a safe area near a source of the purge gas to be used (compressed air line or other inert gas source).
- 2. Through a cord grip or other cable-sealing device, bring AC power into the enclosure. Be sure that the AC power is off. Connect the AC power temporarily to the Y-purged unit (see drawing E010 or E013 at the end of this manual).
- 3. Temporarily install a pressure regulator, water/oil separator or filter, shutoff valve, pressure relief valve, and pressure gauge in the purge air or inert gas line (see drawing P002 at the end of this manual.).
- 4. Bleed the purge air or inert gas line to ensure that dirt, moisture, and other contaminants are cleared from the line prior to connecting the line to the unit.
- 5. Connect the purge gas line to the inlet of the regulator on the Purge Unit.
- Apply air or inert gas to the enclosure. The enclosure may "swell" slightly as the internal pressure increases. This is normal and is not a cause for concern. DAISY enclosures are designed to release excess pressure. DO NOT ATTEMPT TO OPEN THE ENCLOSURE WHILE IT IS PRESSURIZED.
- 7. Turn the control valve to PURGE. Look at the flow meter on the front panel to verify that the flow rate is 150 SCFH. If not, readjust the purge regulator to set the flow to 150 SCFH.
- 8. If the flow meter does not read 150 SCFH, inspect the enclosure for blockage in the purge gas lines and take appropriate action to clear the blockage. If blockages are not obvious, verify that the purge air or inert gas is clean and dry.
- 9. Slowly turn the control valve to OPERATE. If the control valve is turned rapidly, the indicator ball in the flow meter may start oscillating. Look at the pressure gauge on the front panel to be certain that the internal pressure is 1.0" of Water Column. If not, reset the adjustment on the exhaust assembly on the so that the pressure gauge reads 1.0" of Water Column.
- 10. Slowly turn the control valve to PURGE. Make sure that the flow meter reads 150 SCFH. If not, readjust the regulator for 150 SCFH.
- 11. Slowly return the control valve to OPERATE and apply power to the enclosure. The "Pressure Good" LED should be illuminated green. If not, check the internal pressure, it should be between 0.4" and 10.0" of Water Column. The pressure good led must be illuminated green at this time. If it is not, please consult the factory.

- 12. If the "Pressure Good" LED is not illuminated green, the internal pressure is below 0.4" Water Column and the alarm is on. Turn the enclosure power off and repeat steps 2 though 6.
- 13. Keyboard button legend (See Image and Diagram below).

Example image: Button style and location may vary per model.



Figure 2 – Keyboard Buttons

Button Label	Control	Function
CPU-Reset	Computer Control	Press both buttons simultaneously to power on and off the computer.
OSD Menu/Enter (On-Screen-Display)	Monitor Settings	Opens the OSD menu and selects/deselects the highlighted item for adjustment.
OSD -	Monitor Settings	Moves through the menu or decreases the value of the selected item.
OSD +	Monitor Settings	Moves through the menu or increase the value of the selected item.
LCD Power	Monitor Power	Turns LCD monitor on and off. Does not affect PC.

Table 2 – Button Functions

5.2 **Division 1: Y-Purge Testing**

5.2.1 Equipment Required

- Clean, dry purge air or inert gas supply equipped with local water/oil separator or filter capable of supplying 40 to 300 SCFH at 30 to 60 PSI.
- Fittings and tubing for purge air or inert gas supply (0.25" NPT Male to connect to the inlet of the purge system).
- Local air pressure shutoff valve.
- AC power line (with ground) to pigtails (tinned bare wire, stripped 0.25"), 120V, 10A or 240V, 5A

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5.2.2 Procedure

- 1. Place the unit in a safe area near a source of the purge gas to be used (compressed air line or other inert gas source).
- 14. Temporarily install a pressure regulator, water/oil separator or filter, shutoff valve, pressure relief valve, and pressure gauge in the purge air or inert gas line (see drawing P007).
- 15. Bleed the purge air or inert gas line to insure that dirt, moisture, and other contaminants are cleared from the line prior to connecting the line to the unit.
- 16. Connect the purge gas line to the inlet of the regulator on the Purge Unit.
- 17. Remove the cover of the explosion-proof I/O casting (see drawing P007 at the end of this manual).
- 18. Connect an AC power line (not plugged into AC power outlet.) to the power interface board (see drawing P008). For connection location and wiring, see drawing E017.
- 19. Close all access doors and covers.
- 20. Apply purge gas to the system by opening the shutoff valve (if installed). Adjust the pressure regulator on the air-in box (see drawing P008) so that the pressure gauge indicates 35 PSI.
- 21. Apply AC power to the unit.
- 22. Once the pressure inside the unit reaches 1.0" Water Column and at least 40 SCFH, the Purge Status LED will illuminate yellow, indicating that it is purging. If the purge status indicator does not turn yellow, inspect the unit for leakage. The gasketed panels can be checked with a soap solution. If leaks are not obvious, verify that the purge air of inert gas is clean and dry and that the pressure at the inlet is 35 PSI.
- 23. DO NOT ATTEMPT TO OPEN THE ENCLOSURE WHILE IT IS PRESSURIZED.
- 24. Note the reading on the Pressure Gauge while slowly turning the Air Input Regulator up until the purging process stops and the Purge Status LED flashes red with an error code of 2 2 (over pressure) or 3 2 (overflow).
- 25. Remove AC power from the enclosure for a minimum of 30 seconds. Decrease the pressure reading on the pressure gauge by 5 PSI. This change may vary slightly on some units; if in later testing the unit fails with an overflow error (3-2 blink code), decrease the inlet pressure by another 2 PSI. Note this pressure for use during start-up.
- 26. Re-apply AC power. The Purge Status LED will illuminate yellow. The system should purge for a minimum of 8 minutes. The time will vary according to the flow rate of the air into the enclosure; lower flow rates will result in a longer purge time.
- 27. After the purge is complete, the Purge Status indicator will illuminate green. AC power is now applied to the internal electronics so you should be able to power on the display or PC
- 28. If the purge status light blinks red, one of several possible errors has been detected. Please refer to Table 2 on page 19 for an explanation of the possible error codes.

6.0 **Division 1 Installation**

6.1 **PAC-Seal Connection Instructions**

A conduit seal is necessary for most equipment enclosures in hazardous areas. For Y-purge and X-purge systems, they are always required. Please consult your local code for other circumstances.

The sealing compound generally used for PAC-seals is an inorganic, chemically setting, magnesium oxide base material. This compound develops a slight expansion, while hardening into a porcelain-like body. A powder sealing compound is supplied and should only be mixed with water for application.

The sealing compound powder has a shelf life of six months when stored in unopened, tightly sealed containers in a dry location at 70°F. Any equipment accidentally splashed with sealing compound should be cleaned with soap and water before the sealing compound cures. Approximately one ounce of sealing compound is needed per cubic inch of space to be filled.

Please note to always follow all NEC, NFPA, and local codes when installing conduit and PAC-seals in hazardous areas. All knowledgeable personnel, familiar with national and local codes, must supervise hazardous area equipment installations. In Europe your equipment will most likely be installed with cable and cable glands. Refer to EN 60079-14:2003 and local codes when applicable.

6.1.1 Equipment Required

- Four PAC-Seal fittings, 1" NPT or 0.75" NPT for the Y-Purge, 0.75"NPT only for the X-Purge (2 for conduit connection at the enclosure or I/O casting, 2 for connection in the safe area), or sealing conduits. The PAC Seal and conduit size selected will depend on the size and number of conductors, which must be run to the unit. Check the NEC tables (Chapter 9, Table 4) to determine the conduit size necessary
- Conduit for electrical signals and for electrical power (separate runs), NEC and NFPA approved for use in hazardous areas
- NEC and NFPA approved flexible conduit if needed for difficult installations
- Fittings as required for permanent conduit installation NEC and NFPA approved for use in hazardous areas
- Signal cables, power cables, and connectors as required to mate with the equipment within the enclosure or cast aluminum box
- AC power switch for use in the safe area

6.1.2 Procedure

- 1. Threaded surfaces and pour locations should be cleaned with soap and water and thoroughly dried before proceeding.
- 2. On a Y-purge system, no entryway is provided by DAISY for power and signal conduits. These entries must be made by the end user. Select a point on the enclosure that matches well with the location of the incoming conduit. Be careful to ensure that the point you have selected is free from obstructions within the DAISY enclosure. Being careful to protect the internal electronics, air pathways, and keyboard surface from filings and other debris, drill or punch holes for the installation of the PAC-Seal fitting (1" NPT or 0.75" NPT, depending on application) in the wall of the enclosure.
- Install two conduit runs (one signal, one power) between the enclosure (Y-Purge) or the I/O casting (X-Purge) and AC power source (located in a safe area or in an explosion-proof box). See drawing P002 or P007 at the end of this manual.

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- 4. Shake the sealing compound powder well before mixing with water. The recommended mix ratio is 5 parts powder to 1-part clean water, by weight. Place 70°F water into a clean mixing container and gradually add powder to water while mixing. Continue mixing until a uniform consistency is obtained. Mixing may be done with a slow-speed mixer or by hand with a spatula. The minimum amount of water (as specified above) should be used as excess water reduces mechanical strength, increases shrinkage, and delays set time. Failure of the cement to adhere indicates setting has begun, discard cement, do not attempt to re-temper by adding more water.
- 5. The compound may be applied by pouring, casting, or mechanical dispenser. The sealing compound hardens with an internal chemical-setting action in 18 to 24 hours at ambient temperature. Working time of the sealing compound when the powder is mixed with water is approximately 30 minutes at 70°F. If accelerated curing is desired, low temperature oven drying at 180°F can be used. Do not expose the sealing compound to higher temperatures, constant water immersion, or steam environments while curing. If high humidity resistance is required in the cured product, a moisture-resistant lacquer or silicone coating should be applied to the exposed surfaces.
- 6. The packing fiber is made from an environmentally safe, non-asbestos material. It is easy to use and forms a positive dam to hold the compound. The fiber is placed around each individual wire or cable at both ends of the cavity for horizontal pouring in the PAC Seal so that the Sealing Compound can encapsulate each completely. For vertical pouring, the packing fiber need only be placed at one end. See drawing P002 at the end of this manual.
- 7. We recommend a special blend of lubricants, LUBT-2, for use with threaded joints. This lubricant is to be used to prevent galling of the pipe threads when threaded into a coupling, junction box, etc. It ensures a quick release and undamaged male and female threads when parts are disassembled. The thread lubricant is high quality lubricant to be used in temperatures ranging from -40° to +50° F. It is recommended for use in a hazardous location. The PAC Seal Compound, packing fiber and LUBT-2 are available from Killark at http://www.killark.com/.
- 8. For enhanced reliability of the unit, install an AC line conditioner. AC power lines should be no smaller than 14 gauge and have a TRUE EARTH GROUND.

6.2 Purge Air Line Connection Instructions for Division 1 Y-Purge Systems

This section applies to the following models: 2513, 2516, 2518, 2613, 2616, 2618, 4513, 4516, 4518, 4613, 4616 and 4618.

After the unit has been mounted in its final location in the hazardous area, it must be permanently connected to a purge air or inert gas line and checked for leaks and proper operation of the purge/pressurization system. Only when its pressure integrity has been established should electrical signals and power be brought "live" to the unit.

Please note to always follow all NEC, NFPA, and local codes when installing conduit and PACseals in hazardous areas. All knowledgeable personnel, familiar with national and local codes, must supervise hazardous area equipment installations.

6.2.1 Equipment Required

• Clean, dry purge air or inert gas supply equipped with local water/oil separator or filter capable of supplying 150 SCFH at 20 - 100 PSI

- Fittings and tubing for purge air or inert gas supply (0.25" NPT Male to connect to the inlet of the purge system)
- Local air pressure shutoff valve

6.2.2 Procedure

- 1. Mount the enclosure in the location in which it will be installed. This must be near the source of air or inert gas to be used for the purge system.
- 2. Install the pressure regulator, water/oil separator or filter, shutoff valve, pressure relief valve, and pressure gauge in the purge air or inert gas line (see drawing P002).
- 3. Bleed the purge air or inert gas line to insure that dirt, moisture, and other contaminants are cleared from the line prior to connecting the line to the unit.
- 4. Connect the line to the inlet of the regulator on the Purge Unit.
- Apply air or inert gas to the enclosure. The enclosure may "swell" slightly as the internal pressure increases. This is normal and is not a cause for concern. DAISY enclosures are designed to release excess pressure. DO NOT ATTEMPT TO OPEN THE ENCLOSURE WHILE IT IS PRESSURIZED

6.3 Purge Air Line Connection Instructions for Division 1 X-Purge Systems

This section applies to the following models: 2563, 2566, 2568, 2663, 2666, 2668, 4563, 4566, 4568, 4663, 4666 and 4668.

After the unit has been mounted in its final location in the hazardous area, it must be permanently connected to a purge air or inert gas line and checked for leaks and proper operation of the purge/pressurization system. Only when its pressure integrity has been established should electrical signals and power be brought "live" to the unit.

Please note to always follow all NEC, NFPA, and local codes when installing conduit and PAC-seals in hazardous areas.

All knowledgeable personnel, familiar with national and local codes, must supervise hazardous area equipment installations.

6.3.1 Equipment Required

- Clean, dry purge air or inert gas supply equipped with local water/oil separator or filter capable of supplying 40 to 300 SCFH at 30 to 60 PSI.
- Fittings and tubing for purge air or inert gas supply (0.25" NPT Male to connect to the inlet of the purge system).
- Local air pressure shutoff valve.

6.3.2 Procedure

- 1. Mount the enclosure in the location in which it will be installed. This must be near the source of air or inert gas to be used for the purge system.
- 2. Install the pressure regulator, water/oil separator or filter, shutoff valve, pressure relief valve, and pressure gauge in the purge air or inert gas line (see drawing P007 at the end of this manual).
- 3. Bleed the purge air or inert gas line to ensure that dirt, moisture, and other contaminants are cleared from the line prior to connecting the line to the unit.
- 4. Connect the purge gas line to the inlet of the regulator on the Purge Unit.
- 5. The PAC-Seals bringing the power and signals to the explosion-proof I/O casting should already be installed. Connect the signal lines to the interlock system (see drawings E018, E019, E022, E025, and E016).

- 6. Ensure that the power to the AC supply lines is disconnected. Connect the power line(s) to the X-purge system (see drawing E017).
- 7. If the area can be made safe, you may want to test your connections before closing the explosion-proof I/O casting. If you test the system in place, it is VITAL that you ENSURE THAT THE AREA IS SAFE during the test and FOLLOW ALL APPLICABLE SAFETY PROCEDURES for "hot work" in a hazardous area. You can test connections without purging by holding down the "Bypass Purge" button (see drawing E020) while applying power; you must release the button within 30 seconds of power application to prevent a diagnostic error. When the button is released, power and signals are immediately "live" to the system; you can test operation to make sure that the connections have been made correctly. Disconnect power IMMEDIATELY upon completion of this test to ensure that the unit is not erroneously operated in bypass mode.
- 8. When the signal and power connections are complete, replace the cover on the I/O casting and secure with the supplied 14 hex-head bolts. Torque these bolts to 7.5 ft. lbs.

7.0 Start-Up Operation

7.1 Division 1 Y-Purge Start-Up Operation

- 1. When the air, signal, and power connections are complete, replace and close all access doors and covers.
- 2. Turn the Control valve to PURGE. Look at the Flow Meter on the front panel to verify that the flow rate is 150 SCFH. If not, readjust the Purge Regulator to set the flow to 150 SCFH.
- 3. If the Flow Meter does not read 150 SCFH, inspect the enclosure for blockage in the purge gas lines and take appropriate action to clear the blockage. If blockages are not obvious, verify that the purge air or inert gas is clean and dry.
- 4. Slowly turn the Control Valve to OPERATE. If the Control Valve is turned rapidly, the ball in the Flow Meter may start oscillating. Look at the pressure gauge on the front panel to be certain that the internal pressure is 1.0" of Water Column. If not, reset the adjustment on the exhaust assembly on the so that the pressure gauge reads 1.0" of Water Column.
- 5. Slowly turn the Control Valve to PURGE. Make sure that the Flow Meter reads 150 SCFH. If not, readjust the regulator for 150 SCFH.
- 6. After a 10-minute purge cycle, slowly turn the control valve to OPERATE.
- 7. Apply power to the enclosure. The Pressure Good LED should be illuminated green. If not, check the internal pressure: it should be between 0.4" and 10.0" of Water Column. The pressure good led must be illuminated green at this time. If it is not, please consult the factory.
- 8. If the Pressure Good LED is not illuminated green, the internal pressure is below 0.4" Water Column and the Alarm is on. Turn power off to the enclosure and repeat steps 2 through 6.

7.2 Division 1 X-Purge Start-Up Operation

- 1. When the air, signal, and power connections are complete, replace and close all access doors and covers.
- 2. Apply AC power. The Purge Status LED will illuminate red. Power is now applied though the Intrinsic Safety Barriers to the purge/pressurization control circuits only.
- 3. Apply purge gas to the system by opening the shutoff valve (if installed). If the pre-installation test has been performed, the air-in pressure regulator will be preset you should begin the start-up process at the pressure noted during testing. Otherwise, adjust the pressure regulator on the air-in box (see drawing P008) so that the pressure gauge indicates 35 PSI.

- 4. Once the pressure inside the unit reaches 1.0" Water Column and at least 40 SCFH, the Purge Status LED will illuminate yellow, indicating that it is purging. If the purge status indicator does not turn yellow, inspect the unit for leakage. The gasketed panels can be checked with a soap solution. If leaks are not obvious, verify that the purge air of inert gas is clean and dry and that the pressure at the inlet is 35 PSI (or, if a pre-installation test was completed, at the pressure noted during that test).
- 5. DO NOT ATTEMPT TO OPEN THE ENCLOSURE WHILE IT IS PRESSURIZED.
- 6. If the pre-installation test was completed and the unit appears to be functioning correctly within the same parameters as during the test, you may skip the remaining steps of this procedure.
- 7. Note the reading on the Pressure Gauge while slowly turning the Air Input Regulator until the Purge Status LED flashes red with an error code of 2 2 (over pressure) or 3 2 (over flow).
- 8. Remove AC power from the enclosure for a minimum of 30 seconds. Decrease the pressure reading on the pressure gauge by 5 PSI. This change may vary slightly on some unit; if the unit fails during purging with an over flow error (3-2 blink code), decrease the inlet pressure by another 2 PSI.
- 9. Re-apply AC power. The Purge Status LED will illuminate yellow. The purge time is set for a minimum of 8 minutes. The time will vary according to the flow rate of the air into the enclosure.
- 10. After the purge is complete, the Purge Status indicator will illuminate green. AC power is now applied to the internal electronics and the signal relays are closed.
- 11. If the purge status light blinks red, one of several possible errors has been detected. Please refer to Table 2 on page 21 for an explanation of the possible error codes.

8.0 **Operation Notes**

8.1 Division 1 Y-Purge

When using a Y-purge system, it is the operator's responsibility to disconnect power and signal paths in the event of a purge failure if the pressure in the unit falls below a preset level.

DAISY units are equipped with both an indicator light (the "Pressure Good" LED shown on drawing P008) and an internal pressure meter (shown on the same drawing). If the "Pressure Good" indicator is extinguished, or if the internal pressure meter is in the red zone below 1" of water column, the operator should immediately disconnect power and signal connections to the unit using switches in a safe area.

DAISY's Y-purge systems are also equipped with alarm contacts that switch state simultaneously with the "Pressure Good" indicator. These can be connected to an alarm system or supervisory control system to provide further indications to the operator and/or the supervisory system. The operation of the alarm contacts and the "Pressure Good" indicator light is detailed in the flowchart shown.



Figure 3 – Y-Purge Alarm Logic

Table 3 – Y-Purge Alarm and Indicator S	States
---	--------

Power is	Pressure is	NC1 & NC2 are	NO1 & NO2 are	Pressure Good LED
Off	< 0.4" W.C.	Closed	Open	Off
Off	> 0.4" W.C.	Closed	Open	Off
On	< 0.4" W.C.	Open	Closed	Off
On	> 0.4" W.C.	Closed	Open	On

8.2 Division 1 X-Purge

X-purge systems are fully automatic. The system safely disconnects power and signal paths in the event of a purge failure.

The DAISY purge control also performs automatic self-diagnostics and can report other errors. Table 2 details both the normal conditions and the errors (fatal and non-fatal) that are reported by the purge status LED (see drawing P008, indicated by note 9).

Please note that blink codes can be read in forward or reverse; that is, code 2-3 is the same is code 3-2. A "0" in the code column indicates steady (non-blinking) light. The status column indicates the nature of the information being given: "informative" is simply a status indication and no action needs to be taken, "non-fatal" is a condition that can be corrected and operation will then proceed normally, and "fatal" are errors that require that the purge system be shut down before correcting the problem and restarting the purge cycle.

Color	Code	Meaning	Status	Recommended Action
Green	0	Operate, purge complete	Informative	n/a
Yellow	0	Purge in progress	Informative	n/a
Yellow	1-1	Minor overflow	Non-fatal	Turn the air in regulator down a few PSI.
Red	0	Waiting to begin purge	Non-fatal	Turn the purge gas supply on. If it is on, the enclosure may not be developing enough internal pressure – make sure all doors and access panels are closed. Also, the air inlet pressure may not be high enough – try turning the regulator up.
Red	1-1	System Error	Fatal	Contact DAISY customer service (see section 7 Customer Service on page 22 in this manual).
Red	2-1	Under pressure	Fatal	Loss of pressure is usually due to a door being opened or failure of the purge gas supply. Check both.
Red	2-2	Over pressure	Fatal	Turn the air inlet regulator down at least 5 PSI. Repeat until purge will complete without error. If problems continue, or occur during operation, contact DAISY customer service (see section 7 Customer Service on page 22 in this manual).
Red	3-2	Major overflow	Fatal	Turn the air inlet regulator down at least 5 PSI.

Table 4 – X-Purge Status Light Key

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Color	Code	Meaning	Status	Recommended Action
Red	3-3	Water detected	Fatal	This should only occur if a water sensor option is installed. If it is installed, the unit must be opened and dried completely out. Ensure that no water remains in the unit and that there is no damage to the internal components resulting from the water. In case of serious water incursion, DO NOT ATTEMPT TO REAPPLY POWER TO THE EQUIPMENT; the equipment should be returned to DAISY for evaluation.
Red	4-1	Faulty pressure sensor	Fatal	A purge system component has failed. Please contact DAISY customer service (see section 7 Customer Service on page 22 in this manual).
Red	4-2	Faulty flow sensor	Fatal	A purge system component has failed. Please contact DAISY customer service (see section 7 Customer Service on page 22 in this manual).
Red	4-3	Short purge switch is stuck	Fatal	The "Short Purge" switch on the DIP switch mounting board (see drawing E020) is either shorted or stuck, or the operator has held it down too long while beginning a test. Ensure that there is nothing holding the switch closed or shorting the circuit. If you continue to experience problems, contact DAISY customer service (see section 7 Customer Service on page 22 in this manual).
Red	4-4	Bypass purge switch is stuck	Fatal	The "Bypass Purge" switch on the DIP switch mounting board (see drawing E020) is either shorted or stuck, or the operator has held it down too long while beginning a test. Ensure that there is nothing holding the switch closed or shorting the circuit. If you continue to experience problems, consult DAISY contact DAISY customer service (see section 7 Customer Service on page 22 in this manual).

9.0 Trouble-Shooting Guide

9.1 **Division 1 Y-Purge Trouble-shooting**

Table 5 – Division 1 Y-Purge Trouble-shooting

PROBLEM	POSSIBLE CAUSE	SUGGESTED SOLUTION
The flow cannot be adjusted up to 150 SCFH during purge	Improper flow meter reading	For correct operation, the purge unit must be mounted vertically so that the flow meter is vertically plumb
	Improper regulator adjustment	Adjust the air inlet regulator to increase air supply
	The purge control is not set to purge	Check the position of the control valve to ensure that it is set to "Purge"
	Insufficient air supply	Check your purge gas supply to ensure that it can supply 150 SCFH. If you cannot achieve 150 SCFH, then purge times must be recalculated. Contact DAISY customer service for assistance.
	Restrictions in the air supply line	Check your air supply line for blockages and kinks
	Contamination in the air supply	Ensure that the purge gas supply is clean, dry, and free of oil – a water/oil separator should be installed near the connection to the purge control
	Restrictions in the purge line from the purge control into the enclosure	Ensure that the purge line from the purge control into the enclosure is not kinked, has no internal obstructions, and is unrestricted at its open end (at least 0.5" from any object in the path of the air flow)
During operation (control valve set to "Operate"), the internal pressure does not reach/will not maintain 1" of water column	The enclosure is not sealed and is leaking	Ensure that all access doors are closed and latched. Ensure that all access panels are closed and sealed. Make sure no unsealed holes or openings are present in the enclosure.
	Insufficient air flow	Adjust the regulator on the purge control to increase the air flow
	PAC-Seals are not poured	PAC-Seals must be poured in conduits entering the enclosure to prevent air from escaping via the conduit entry. Ensure that this has been done.
	Exhaust control valve setting incorrect	Adjust the purge control exhaust valve for a higher internal pressure.

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PROBLEM	POSSIBLE CAUSE	SUGGESTED SOLUTION
		It may take several minutes for adjustments to this setting to take effect.
During operation (control valve set to "Operate"), the internal pressure does not reach/will not maintain 1" of water column	Restrictions in the air connections	Ensure that the air connection at the regulator is not kinked, has no obstructions, and is firmly connected.
The "Pressure Good" indicator does not light when the unit is powered	Incorrect power-up sequence	Power should only be applied to the enclosure after the internal pressure has reached 1" of water column or higher and when the full purge time has elapsed
	Insufficient internal pressure	The pressure within the enclosure must be within the operating (or "safe") range. If you are having trouble maintaining a suitable pressure, see the previous section of this trouble-shooting guide.
	Alarm board is not receiving power	Ensure that AC power has been connected to the unit, and that the power is turned on
	Voltage is set incorrectly	Ensure that the 120/240 VAC switch on the alarm board is set appropriately for your power source

9.2 Division 1 X-Purge Trouble-shooting

Table 6 – Division 1 X-Purge Trouble-Shooting

PROBLEM	POSSIBLE CAUSE	SUGGESTED SOLUTION
When power is applied, the purge status indicator light does not come on	Power is not connected to the unit	Connect AC power to the power connection on the purge system. Ensure that the power switch is on. Ensure that AC power is on.
	Improper line voltage selection	Ensure that the 120/240 VAC switch on the purge control is set appropriately for your power source.
After power is applied, the purge status indicator stays solid red; it does not switch to yellow or blink	No air supply to unit	Ensure that a purge gas line is connected to the unit and that the supply line is "on." The pressure gauge on the air-in box should indicate a higher pressure than 20 PSI
	Restrictions in air line	Ensure that supply line and inlet connect have no restrictions and that the supply line is not kinked
	Restrictions in main purge line inside enclosure	Ensure that the main purge line (terminating in a brass tee fitting) is not kinked or disconnected
	Leaks in the enclosure	Ensure that all access doors are closed and latched. Ensure that all access panels are closed and sealed. There should be no holes or openings in the enclosure.
The purge status indicator is yellow, but the enclosure takes an excessively long time to complete	Low purge gas supply pressure	Increase purge gas inlet pressure at the air-in regulator or on the main supply line
the purge (when the status indicator turns green)	Restriction in the main purge line	Ensure that the main purge line within the enclosure (ending in a brass tee fitting) is not kinked or obstructed
Purge status indicator flashes yellow and purge takes an excessively long time to complete.	Low purge gas supply pressure	Increase purge gas inlet pressure at the air-in regulator or on the main supply line
Purge or operation stops, and purge status indicator flashes red code	Fatal purge error	See Table 2

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APPENDIX A – Workstation/PC Drawing List
APPENDIX B – Monitor/Display DrawingList
APPENDIX C – X-Purge Drawing List
APPENDIX D – Y-Purge Drawing List
APPENDIX E – Flat Panel Drawing Library

FLAT PANEL USER MANUAL APPENDIX

APPENDIX A - WORKSTATION/PC DRAWING LIST

4300 SER	IES WORKSTATIONS		
MODEL	MODEL DESCRIPTION	DRAWING TYPE	DRAWING NO.
4300	Flat Panel Integrated PC on screen display	Keypad Layout	E097
1220	Div 2 non-incondivo integrated (15" 10" 22") flat papel PC	Mechanical/mounting Drawing	M007
4520	Div. 2 non-incendive integrated (15 , 19 , 22) hat panel PC	Conduit & Cable Entry Drawing	P001
4326	Div. 2 non-incendive integrated 19" flat panel PC	Electrical Block Diagram Drawing	E102
4328	Div. 2 non-incendive integrated 22" flat panel PC	Electrical Block Diagram Drawing	E103
1250	NEMA AV (15" 10, 22") flat papel integrated DC	Mechanical/mounting Drawing	M006
4550	NEMIA 4A (15, 19, 22) Hat parler integrated PC	Conduit & Cable Entry Drawing	P001
4356	NEMA 4X 19" Flat Panel Integrated PC electrical block dia-	Electrical Block Diagram Drawing	F102
+330	gram		2102
4358	NEMA 4X 22" Flat Panel Integrated PC electrical block dia-	Electrical Block Diagram Drawing	F103
	gram	Brain BrainB	

4500 SER	IES WORKSTATIONS		
MODEL	MODEL DESCRIPTION	DRAWING TYPE	DRAWING NO.
4500/0	Non-integrated panel mount flat panel DC w/ Kounad	28-Keypad Layout	E086
4500KP	Non-integrated panel-mount hat panel PC wy Reypad	On-screen Keypad Layout	E097
452040	Div.2 non-incendive non-integrated flat panel PC w/ key-	mechanical/mounting drawings	M019
4520KP	pad	conduit and cable entry drawings	P001
4526KP	Div.2 non-incendive non-integrated 19" flat panel PC w/ keypad	electrical block diagram	E102
4528KP	Div.2 non-incendive non-integrated 22" flat panel PC w/ keypad	electrical block diagram	E103
	NEMA4X non-integrated panel-mount PC	Mechanical/mounting Drawings	M018
4550KP		Conduit & Cable Entry Drawing	P001
4553KP	NEMA4X non-integrated panel-mount 15" flat panel PC w/ keypad	Mechanical/assembly Drawing	M018
AFECKD	NEMA4X non-integrated panel-mount 19" flat panel PC w/	Electrical Block Diagram Drawing	E102
4550KP	keypad	Mechanical/assembly Drawing	M018
	NEMA4X non-integrated panel-mount 22" flat panel PC w/	Electrical Block Diagram Drawing	E103
455668	keypad	Mechanical/assembly Drawing	M018
4576AA	NEMA4X non-incendive non-integrated 19" panel-mount PC	Electrical Block Diagram Drawing	8996

4700 SER	IES WORKSTATIONS		
MODEL	MODEL DESCRIPTION	DRAWING TYPE	DRAWING NO.
4723	Div.2 non-incendive 15" slope top PC electrical block diagram	Electrical Block Diagram Drawing	8991
4723KB	Div.2 non-incendive 15" slope top PC w/Keyboard	Electrical Block Diagram Drawing	8991
4726	Div.2 non-incendive 19" slope top PC	Electrical Block Diagram Drawing	8993
4726KB	Div.2 non-incendive 19" slope top PC w/Keyboard	Electrical Block Diagram Drawing	8993
4753KB	NEMA 4X integrated 15" slope top PC w/keyboard	Electrical Block Diagram Drawing	8987
4756KB	NEMA 4X integrated 19" slope top PC w/keyboard	Electrical Block Diagram Drawing	8988

APPENDIX B - MONITOR/DISPLAY DRAWING LIST

2500 SERIES WORKSTATIONS			
MODEL	MODEL DESCRIPTION	DRAWING TYPE	DRAWING NO.
2500KP	Non-integrated panel-mount monitor w/keypad	Keypad Layout	E 086
	Div 2 non-incondivo non-integrated nanol mount (15" 10"	Electrical Connection Drawing	E003
2520KP	$22^{\prime\prime}$) display w/keypad	Mechanical/mounting Drawing	M019
		Conduit & Cable Entry Drawing	P001
2523KP	Div.2 non-incendive non-integrated panel mount 15" display w/ keypad	Electrical Block Diagram	E100
	NEMA4X non-integrated panel mount (15", 19", 22") display w/ keypad	Electrical Connection Drawing	E003
2550KP		Mechanical/mounting Drawing	M018
		Conduit & Cable Entry Drawing	P001
255240	NEMA4X non-integrated panel mount 15" display w/ keypad	Electrical Block Diagram	E100
2553KP		Mechanical Assembly Drawings	M018
2556KP	NEMA4X non-integrated panel mount 19" display w/ keypad	Mechanical Assembly Drawings	M018
2558KP	NEMA4X non-integrated panel mount 22" display w/ keypad	Mechanical Assembly Drawings	M018
2572	NEMA4X non-incendive non-integrated panel-mount 15"	Electrical Block Diagram	E001
2573	monitor	Mechanical Assembly Drawings	M001
2576	NEMA4X non-incendive non-integrated panel-mount 19"	Electrical Block Diagram	E098
2370	monitor	Mechanical Assembly Drawings	M001
2576AA	NEMA4X non-incendive non-integrated panel-mount 19" monitor	Electrical Block Diagram	8997
2578	NEMA4X non-incendive non-integrated panel-mount 22"	Mechanical Assembly Drawings	E099
	monitor	Mechanical Assembly Drawings	M001

2600 SERIES WORKSTATIONS			
MODEL	MODEL DESCRIPTION	DRAWING TYPE	DRAWING NO.
2600	NEMA4X Integrated keyboard monitor	Keypad Layout	E097
		Electrical Connection Drawing	E003
2620	Div. 2 non-incendive integrated keyboard monitor	Mechanical/mounting Drawing	M007
		Conduit & Cable Entry Drawing	P001
2623	Div. 2 non-incendive integrated keyboard 15" monitor	Electrical Block Diagram	E101
		Electrical Connection Drawing	E003
2650	NEMA 4X integrated keyboard monitor	Mechanical/mounting Drawing	M006
		Conduit & Cable Entry Drawing	P001
2653	NEMA 4X integrated keyboard 15" monitor	Electrical Block Diagram	E101

4300 SERIES WORKSTATIONS				
MODEL	MODEL DESCRIPTION	DRAWING TYPE	DRAWING NO.	
2723KB	Div. 2 non-incendive integrated panel-mount slope top 15" monitor w/ kevboard	Electrical Block Diagram	8990	
2726KB	Div. 2 non-incendive integrated panel-mount slope top 19" monitor w/ kevboard	Electrical Block Diagram	8989	
2753	NEMA4X flat panel integrated slope top 15" monitor	Electrical Block Diagram	8985	
2756	NEMA4X flat panel integrated slope top 19" monitor	Electrical Block Diagram	8984	

APPENDIX C - X-PURGE DRAWING LIST

MODEL	MODEL DESCRIPTION	DRAWING TYPE	DRAWING NO.
	•	Signal Switching Board & Internal Signal Interface Board Connection Drawing	Chart
		Electrical Block Diagram Drawing	E016
		Power Interface Board Item Location Drawing	E017
		Signal Switching Board Item Location Drawing	E018
		Internal Signal Interface Board Item Location Drawing	E019
		DIP Switch Mounting Board Item Location Drawing	E020
2560KP	Div. 1 X-Purge flat panel (15", 19", & 22") display	Purge Control Board Item Location Drawing	E021
		Remote Enclosure Connections Drawing	E022
		Mechanical/mounting Drawing	M010
		Cable & Conduit Enclosure Entry Location Drawing	P007
		Front Panel Item Location Drawing	P008
		Back Panel Item Location Drawing	P009
		Pneumatic Block Diagram Drawing	P010
2566KP	Div. 1 X-Purge flat panel 19" display w/keypad	Electrical Block Diagram Drawing	E126
		Signal Switching Board & Internal Signal Interface Board Connection Drawing	Chart
		Electrical Block Diagram Drawing	E016
		Power Interface Board Item Location Drawing	E017
		Signal Switching Board Item Location Drawing	E018
		Internal Signal Interface Board Item Location Drawing	E019
		DIP Switch Mounting Board Item Location Drawing	E020
2660	Div. 1 X-Purge integrated flat panel (15", 19", & 22") display	Purge Control Board Item Location Drawing	E021
		Remote Enclosure Connections Drawing	E022
		Mechanical/mounting Drawing	M011
		Cable & Conduit Enclosure Entry Location Drawing	P007
		Front Panel Item Location Drawing	P008
		Back Panel Item Location Drawing	P009
		Pneumatic Block Diagram Drawing	P010

APPENDIX C - X-PURGE DRAWING LIST (Cont'd)

4000 SERIE	S X-PURGE WORKSTATION DRAWINGS		
MODEL	MODEL DESCRIPTION	DRAWING TYPE	DRAWING
		I Signal Switching Board & Internal Signal Interface Board Connection Drawing	Chart
		(15", 19", & 22") display PC	E016
		Power Interface Board Item Location Drawing	E017
		Signal Switching Board Item Location Drawing	E018
		Internal Signal Interface Board Item Location Drawing	E019
4260	Div 1 X Durge integrated flat papel	DIP Switch Mounting Board Item Location Drawing	E020
4300	Div. 1 X-ruige integrated hat-parler	Purge Control Board Item Location Drawing	E021
		Remote Enclosure Connections Drawing	E025
		Mechanical/mounting Drawing	M011
		Cable & Conduit Enclosure Entry Location Drawing	P007
		Front Panel Item Location Drawing	P008
		Back Panel Item Location Drawing	P009
		Pneumatic Block Diagram Drawing	P010
4366	Div. 1 X-Purge integrated flat panel 19" display PC	Electrical Block Diagram Drawing	E132
4368	Div. 1 X-Purge integrated flat panel 22" display PC	Electrical Block Diagram Drawing	E111
		Signal Switching Board & Internal Signal Interface Board Connection Drawing	Chart
		(15", 19", & 22") display PC w/keypad	E016
		Power Interface Board Item Location Drawing	E017
		Signal Switching Board Item Location Drawing	E018
		Internal Signal Interface Board Item Location Drawing	E019
		DIP Switch Mounting Board Item Location Drawing	E020
4560KP	Div. 1 X-Purge flat panel	Purge Control Board Item Location Drawing	E021
		Remote Enclosure Connections Drawing	E025
		Mechanical/mounting Drawing	M010
		Cable & Conduit Enclosure Entry Location Drawing	P007
		Front Panel Item Location Drawing	P008
		Back Panel Item Location Drawing	P009
		Pneumatic Block Diagram Drawing	P010
4566KP	Div. 1 X-Purge 19" flat panel display PC /w keypad	Electrical Block Diagram Drawing	E133
4568KP	Div. 1 X-Purge 22" flat panel display PC w/ keypad	Electrical Block Diagram Drawing	E111

APPENDIX D - Y-PURGE DRAWING LIST

2000 SERIES X-PURGE MONITOR/DISPLAY DRAWINGS			
MODEL	MODEL DESCRIPTION	DRAWING TYPE	DRAWING NO.
		Y/Z-Purge Alarm (ZPA) Board Item Location Drawing	E009
		Enclosure Electrical Connection Drawings	E010
		Stand-alone Mechanic/assembly Drawing	M008
2510KP	Div 1 panel-mount Y-Purge (15", 19", 22") monitor w/keypad	Enclosure Cable & Conduit Entry Drawing	P002
		Air-flow Block Diagram	P003
		Front Panel Item Location Drawing	P004
		Back Panel Item Location Drawing	P005
		Over-pressure Exhaust Diagram	P006
2516KP	Div.1 panel-mount Y-Purge 19" monitor w/keypad	Electrical Block Diagram	E104
2518KP	Div.1 panel-mount Y-Purge 22" monitor w/keypad	Electrical Block Diagram	E105
	Div.1 Y-Purge integrated flat panel (15", 19", 22") monitor	Y/Z-Purge Alarm (ZPA) Board Item Location Drawing	E009
		Stand-alone Mechanic/assembly Drawing	M009
		Enclosure Cable & Conduit Entry Drawing	P002
2610		Air-flow Block Diagram	P003
		Front Panel Item Location Drawing	P004
		Back Panel Item Location Drawing	P005
		Over-pressure Exhaust Diagram	P006
2616	Div.1 Y-Purge integrated flat panel 19" monitor	Electrical Block Diagram	E104
2618	Div.1 Y-Purge integrated flat panel 22" monitor	Electrical Block Diagram	E105

APPENDIX D - Y-PURGE DRAWING LIST (Cont'd)

2000 SERIES X-PURGE MONITOR/DISPLAY DRAWINGS			
MODEL	MODEL DESCRIPTION	DRAWING TYPE	DRAWING NO.
		Y/Z-Purge Alarm (ZPA) Board Item Location Drawing	E009
		Enclosure Electrical Connection Drawings	E013
		Stand-alone Mechanic/assembly Drawing	M009
4310	Div. 1 Y-Purge (15", 19", 22") I CD-flat panel integrated PC	Enclosure Cable & Conduit Entry Drawing	P002
		Air-flow Block Diagram	P003
		Front Panel Item Location Drawing	P004
		Back Panel Item Location Drawing	P005
		Over-pressure Exhaust Diagram	P006
4316	Div. 1 Y-Purge 19" LCD-flat panel integrated PC	Electrical Block Diagram	E106
4318	Div. 1 Y-Purge 22" LCD-flat panel integrated PC	Electrical Block Diagram	E107
	Div. 1 Y-Purge flat panel PC w/keypad	Y/Z-Purge Alarm (ZPA) Board Item Location Drawing	E009
		Enclosure Electrical Connection Drawings	E013
		Stand-alone Mechanic/assembly Drawing	M008
4510KP		Enclosure Cable & Conduit Entry Drawing	P002
101010		Air-flow Block Diagram	P003
		Front Panel Item Location Drawing	P004
		Back Panel Item Location Drawing	P005
		Over-pressure Exhaust Diagram	P006
4516KP	Div. 1 Y-Purge 19" LCD-flat panel PC w/keypad	Electrical Block Diagram	E106
4518KP	Div. 1 Y-Purge 22" LCD-flat panel PC w/keypad	Electrical Block Diagram	E107

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DRAWING NO.: 8985





DRAWING NO.: 8989



DRAWING NO.: 8990


DRAWING NO.: 8991





DRAWING NO.: 8993

DRAWING NO.: 8996





DRAWING NO.: CHART

SIGNAL SWITCHING BOARD and INTERNAL SIGNAL INTERFACE BOARD CONNECTIONS

SSB			PAC-SEAL	SIB				
JA	J13	BNC	Wire Color	J13	J10	J11/14	BNC	JA
1	12		WHITE/ORANGE	12	1	J11-1		1
2	11		ORANGE/WHITE	11	2	J11-2		2
3	10		WHITE/GREEN	10	3	J11-3		3
4	9		GREEN/WHITE	9	4	J11-4		4
5	8		WHITE/BLUE	8	5	J11-5		5
6	7		BLUE/WHITE	7	6	J11-6		6
7	6	J6 center	GREEN	6	7	J14-1	J6 center	7
8	5	J6 shield	YELLOW	5	8	J14-2	J6 shield	8
9	4	J4 center	RED	4	9	J14-3	J4 center	9
10	3	J4 shield	BLACK	3	10	J14-4	J4 shield	10
11	2	J5 center	WHITE/BROWN	2	11	J14-5	J5 center	11
12	1	J5 shield	BROWN/WHITE	1	12	J14-6	J5 shield	12
13			GROUND					13
JB	J12	BNC	Wire Color	J12	J7	J8/9	BNC	JB
1	12		BLUE/RED	12	1	J9-1		1
2	11		RED/BLUE	11	2	J9-2		2
3	10		WHITE/BLUE	10	3	J9-3		3
4	9		BLUE/WHITE	9	4	J9-4		4
5	8		WHITE/GREEN	8	5	J9-5		5
6	7		GREEN/WHITE	7	6	J9-6		6
7	6		WHITE/ORANGE	6	7	J9-7		7
8	5		ORANGE/WHITE	5	8	J9-8		8
9	4		ORANGE/RED	4	9	J9-9		9
10	3		RED/ORANGE	3	10	J8-1		10
11	2		WHITE/BROWN	2	11	J8-2		11
12	1		BROWN/WHITE	1	12	J8-3		12
13			GROUND					13
JC	J3	BNC	Wire Color	J3	J10	J2/8	BNC	JC
1	12		BLUE/RED	12	1	J8-4		1
2	11		RED/BLUE	11	2	J8-5		2
3	10		WHITE/BLUE	10	3	J8-6		3
4	9		BLUE/WHITE	9	4	J2-1		4
5	8		WHITE/GREEN	8	5	J2-2		5
6	7		GREEN/WHITE	7	6	J2-3		6
7	6		WHITE/ORANGE	6	7	J2-4		7
8	5		ORANGE/WHITE	5	8	J2-5		8
9	4		ORANGE/RED	4	9	J2-6		9
10	3		RED/ORANGE	3	10	J2-7		10
11	2		WHITE/BROWN	2	11	J2-8		11
12	1		BROWN/WHITE	1	12	J2-9		12
13			GROUND					13
Grey shaded connections are terminated by D.D.								
Green shaded wires are the regular twisted pairs								
Blue shaded wires are CAT5 cables								
Red shaded wires are hook-up wire								



DRAWING NO.: E003



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OPTION #2

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OPTION #1

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CONNECTION TABLE FOR THE SIGNAL SWITCHING

CONNECTION TABLE FOR THE SIGNAL SWITCHING

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NOTES ON THE KEY FUNCTIONS:

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PANEL MOUNT ENCLOSURE



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DRAWING NO. E101













DRAWING NO. E105





DRAWING NO.: E106



DRAWING NO. E107



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LCD with PC DIV. 1 X-22" ENCLOSURE

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D.D. P/N: 1100-0001139

KEYBOARD

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024-000000-04 POINTING DEVICE

P/N:

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D.D. P/N: 1100-001102

D.D. P/N: 1640-001246 1 P040-600005

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DRAWING NO. M009







DRAWING NO. M011

DRAWING NO.: M018





DRAWING NO. M019

DRILL ANY OF THE ENCLOSURE HAS THREE. 1/4" PILOT HOLES FOR CABLE ENTRY. DRILL ANY OF THE 3 HOLES TO THE CORRECT SIZE FOR YOUR CONDUIT OR CORD GRIP. IF CHOOSING TO ENTER THE ENCLOSURE AT ANOTHER POINT, EXAMINE THE INSIDE OF THE ENCLOSURE SO THE INTERNAL EQUIPMENT WILL NOT BE DAMAGED. CAREFULLY CLEAN THE INSIDE AFTER ATTACHING YOUR CONDUIT OR CORD GRIP. CONDUIT ENTRY INFORMATION! LOCAL TO ALL REFER THE TO DRILL A NOTES Θ

Flat Panel Operator User Manual

- WHEN USING A CORD GRIP, SELECT A SIZE THAT WILL "GRIP" THE CABLES WITHOUT DAMAGING THE CABLES. DAISY DATA CAN PROVIDE THE FOLLOWING CORD GRIP SIZES: M290-000018: 0.375NPT, 0.25° CABLE DIA. M290-000015: 0.375NPT, 0.375° CABLE DIA. M290-000014: 0.375NPT, 0.375° CABLE DIA. M290-000014: 0.375NPT, 0.375° CABLE DIA. M290-000014: 0.375NPT, 0.375° CABLE DIA. M290-000003: 0.5NPT, 0.375° CABLE DIA. M290-000003: 0.5NPT, S.S., 0.187° CABLE DIA. M290-000013: 0.5NPT, 0.25° CABLE DIA. M290-000013: 0.5NPT, 0.375° CABLE DIA. M290-000010: 0.5NPT, 0.375° CABLE DIA. M290-000012: 0.5NPT, SEL UNT M290-000015: 0.5NPT, SEL UNT 0
- SEE TABLE 1 FOR THE DAISY DATA KVM CAT5 INPUT CABLE MODEL NUMBER & LENGTH. Θ



KEYPAD KEYPAD KEYPAD KEYPAD KEYPAD KEYPAD DUNSION 2 FLAT PAREL 15" MONITOR W/ KEYP.
DIVSION 2 FLAT PAREL 19" MONITOR W/ KEYP.
DIVSION 2 FLAT PAREL 19" MONITOR W/ KEYP.
DIMA 4X 15" FLAT PAREL PAREL PC W/ KEYPAD
NEMA 4X 19" FLAT PANEL PC W/ KEYPAD
NEMA 4X 22" FLAT PANEL PC W/ KEYPAD
NEMA 4X 22" FLAT PANEL PC W/ KEYPAD
DIVSION 2 19" FLAT PANEL PC W/ KEYPAD
DIVSION 2 19" FLAT PANEL PC W/ KEYPAD
DIVSION 2 22" FLAT PANEL PC W/ KEYPAD 3 ¥ MONITOR V 53° 15 19 4X FLAT PANEL 1 4X FLAT PANEL 1 4X FLAT PANEL 2 NEMA NEMA NEMA 2526KP: 2528KP: 4556KP: 4558KP: 4526KP: 4528KP: 4553KP: 2558KP: 2523KP: 2553KP: 4523KP:



MONITOR MONITOR MONITOR FLAT PANEL INTEGRATED PC FLAT PANEL INTEGRATED PC FLAT PANEL INTEGRATED PC FLAT PANEL INTEGRATED PC 22¹9" NEMA 4X FLAT PANEL INTEGRATED 15" MONITOR
NEMA 4X FLAT PANEL INTEGRATED 19" MONITOR
NEMA 4X FLAT PANEL INTEGRATED 19" MONITOR
NENDON 2 NON-INCENDIVE FLAT PANEL INTEGRATED 19"
DIVSION 2 NON-INCENDIVE FLAT PANEL INTEGRATED 19"
DIVSION 2 NON-INCENDIVE FLAT PANEL INTEGRATED 22"
NEMA 4X 19" FLAT PANEL INTEGRATED PC
NEMA 4X 19" FLAT PANEL INTEGRATED PC
NEMA 4X 22" FLAT PANEL INTEGRATED PC
DIVSION 2 NON-INCENDIVE 15" FLAT PANEL INTEGRATED PC
DIVSION 2 NON-INCENDIVE 22" FLAT PANEL INTEGRATED PC
DIVSION 2 NON-INCENDIVE 22" FLAT PANEL INTEGRATED PC 2653: 2656: 2658: 2623: 2626: 2626: 43556: 4356: 4328: 4328: 4328:

DIMENSIONS ARE IN INCHES	Data Data Lao	CABLE & CONDUIT ENTRY NON-
THIS DOCUMENT IS PROPRIETARY TO DAISY DATA, INC. THE USE OF OR REPRODUCTION OF THIS DOCUMENT	Daisy Dala, IIIC.	PURGED 15". 19" & 22" ENCL.
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DRAWING NO. P008 Internets Safett Barters until the current & voltage to a credit which must operate in a statement of the current & voltage to a credit which must operate in a hazarous environment. The noise of the cursure fragment of course to prove the treet which fragment a short of fault can not cause a spark large found to caute a large which ensures that a short of the large which entre on recourse fragment to caute a current which are so on valor. It is short of the large shorten the enclosure fragment of the completion of the purce which entre on Recture to a short of the completion of the completion of the purce which entre is an and the enclosure fragment of the completion of the purce which entre is an entrement. He inclust connections. The attrouched from from the enclosure's purger and states in 1/4* Net fealure fitting. The attrouched from the other of the and the angle of the angl EXHAUST VALVE ASSEMBLY KIT. This valve opens during purge to exhaust the purge arr, once the purge is complete the valve closes & mill not reopen unless the internal pressure rises above 8° wc or the purge 10st. <u>1/0 casting screws.</u> Fourten 1/4-20, 7/16" hex, bolts That Hold The cover on The Cast Aluminum Box. JRGING, A STEADY YELLOW INDICATES WINDICATES OVERTLOW THE REGULATOR OREEN INDICATES THE PURGE IS COMPLE PASSED. IF AN ERROR OCCURS DURING RELAY s F EXPLOSION PROOF SOLENOID: THIS ALLOWS THE PURGED AIR INTO THE ENCLOSURE. OPERATES ON +24 Voits DC. JATOR GVES THE USER CONTROL OVER THE AIR PRESSURE, DV GONG THOT THE ENCLOSINE, THE PRESSURE SHOLLD BE PSI. AN ADJUSTIMENT OF 60 PSI MILL GIVE A FLOW RATE OF PSI. AN ADJUSTIMENT OF 60 PSI MILL GIVE A FLOW RATE OF S. SCH WITH AN INTERNAL PRESSURE INSIDE THE ENCLOSURE ٤ DRAWNG "POO7" ЗS OVER FLOW WATER DEFED (ONLY WITH WATER COOLER OPTION ON ENCLOSURE) FAULTY PRESSURE SENSOR FAULTY TON SENSOR SHORT PURGE BUTTON IS STUCK CLOSED PURGE BRPASS BUTTON IS STUCK CLOSED INDICATOR RED LED. <u>Pressure meter:</u> Reads the pressure of the Air Input for the enclosure. 띬 PLIPEC STATUS CARE: DLIPEC STATUS CARE: NETWORK 107 EFC 1958. A FELO YED AT STARTUP NETWORK 107 FEC 1958. A FELO YED AT STARTUP NETWORK 107 FEC 1959. A FELO YED AT STARTUP NETWORK 107 FEC 100 COM STARTUP STARTUP STORTION ET UNIVERSITY A STEADY GREEN NOISA STACHNIO RET IN PROCRESS A FLASHED STAPASSED A FLASHIO RET NOIDANS SLOTICS THE TREED STAPASSED A FLASHIO RET NOIDANS SLOTICS A FLASHED STUCK CLOSED A FLASHED RESSLE A FLASHIO RESENDER A FLASHIO RESSLERATION IS STUCK CLOSED A FLASHED RESSLE A FLASHIO RESSLERATION IS STUCK CLOSED A FLASHED RESSLE A FLASHED RESSLE A FLASHED RESSLE A FLASHIO RESSLE A FLASHED RESSLE A F L/O CONDUIT CONNECTION: A 3/4" NPT ENTRANCE INTO THE CAST ALUMINUM BOX. FOR CONDUIT CONNECTION TO THE ENCLOSURE. POWER INTERFACE BOARD: SEE DRAWING "EO17" FOR DETAIL INFORMATION. SIGNAL SWITCHING BOARD: SEE DRAWING "E018" FOR DETAIL INFORMATION. DIP SWITCH MOUNTING BOARD: SEE DRAWING "E020" FOR DETAIL INFORMATION COLUMN စ္စရို THEREFORE, THE F BETWEEN 20 & 60 APPROXIMATELY 30 OF 8" OF WATER (NOTES: C REGULATOR. THE PRESSUR PANEL X-PURGE FRONT P/ ITEM LOCATION Θ 0 0 00 60 0 0 Θ 0 Board .1∕0 Casting Screws (14) ⊕ 0 0000 I/O Conduit Connection Signal Switching Board Board 0 1/0 Conduit Connection 1 - 000000Switch Mounting - 3/4" NPT © Point − 3/4" NPT© 051-000000 000297-05 Pressure Gauge Air In Explosion Proof Solenoid E114-000010 © Power Interface Daisy Data, Inc. Air In Box 1071 I 640-Point DMB Dip Ē Regulator \mathbb{O} <u>M340-00017</u> 0 V INCHES DARY DATA, INC. THIS DOCUMENT ARY TO D EPRODUCT EXCEPT WRITING DIMENSION: THIS DOCUMENT IS P THE USE OF OR REI THE USE OF OR REI DARY DATA IN W SUBJECT TO OR Mounting Holes (18). Intrinsic Safety Barrier 8 Volt - E903-000010 Safety Barrier E903-000016 Under the Air In Box Safety Barrier Valve Assembly Kit Purge Status Cable (0) 1100-000705 TRI Color LED Intrinsic 3 6 Volt – F 640 6/16 Volt -Intrinsic Exhaust V

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DRAWING NO.: P009







NOTES:

REVISION	CHANGE DESCRIPTION	DATE	AUTHOR
-	Initial Release	7/25/2019	BM

Revision History