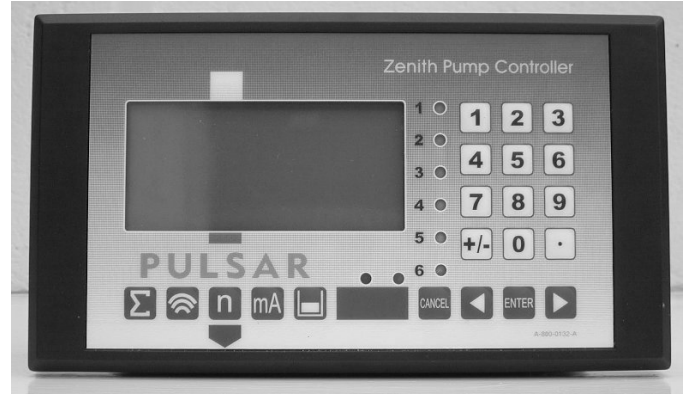


QUICK STARTUP – ZENITH 140

Congratulations on your purchase of a Pulsar Zenith 140 Level & Pump Controller! This quality system has been developed with the latest ultrasonic technology for liquids and solids. No more noise issues or beam angle problems.

It provides non-contacting pump and level control with 6 user-defined relay outputs and 7 digital relay inputs. “Easy-Prompt Menu-Driven” programming for quick, intuitive calibration. Standard AC & DC power with an isolated 4-20mA output. Delivered only as a fascia mount. Range is 0 – 82 feet and compatible with the dB3, dB6, dB10, dB15, and dB25 transducers. Also, the volume throughput of any lift station can be totaled and provide a pulse output.

The Zenith 140 Plus will add a second transducer for differential and averaging and input a 4-20mA signal and an external temperature sensor.



אלקטרוניקה
ובקרה בע"מ **מגטרון**
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טל: 04-8410704, פקס: 04-8410705
Email: Sales@megatron.co.il

TRANSDUCER INSTALLATION

LIQUIDS

- Mount the transducer away from any obstructions, falling water, rough walls, pumps, ect... (visualize looking down the path of the transducer and seeing a nice clear shot to the very bottom during fill and emptying cycles).
- Do not hang the transducer by the cable.



TRANSDUCER WIRING

TERMINAL

Red = Power

White = Signal

Black & Green = 0V

SPLICING

Red = Black

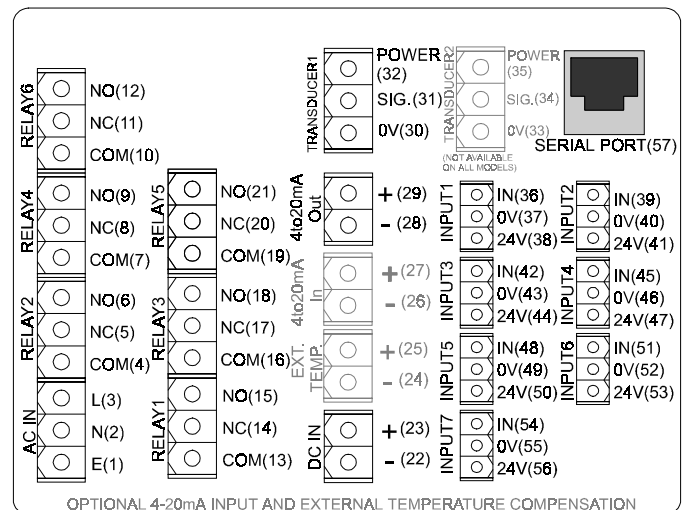
White = White

Black & Green = Shield

RECOMMENDATIONS

- Use any standard, shielded pair for splicing (recommend 18-20 AWG gauge, UV & Water Resistant, 2 conductor with shield)
- Shield is required – do not cut or float!
- Connect properly using J-box or splice with heat shrink – bare wire or shield must be protected from touching metal, water, or each other
- Confirm voltage selector is 115 Vac
- Battery is actually the 24Vdc terminal
- Be careful not to plug power into transducer slot

TERMINAL WIRING



Above wiring diagram is on the back of the Zenith

QUICK SET-UP PROGRAMMING

1 Enter Program Mode



2 Choose "Quick Set-up"



Press Enter for "Quick Setup"



Press Enter to view the application choices as shown below:

3 Choose Your Application

Four categories of applications to choose from:

1. **Level**
2. **Pump down** (sump pump)
3. **Pump up** (reservoir control)
4. **Customized** (special - do not choose)

Depending on the application selected, choose the number of alarms and pumps needed with corresponding pump control features.

4 Set-up Your Application

1. Select the "Transducer" being used: (1) dB3 (2) dB6 (3) dB10 (4) dB15 (5) dB25
2. Enter the "Empty Level" – this is the distance from the transducer face to the bottom of the vessel or well
3. Enter the "Span" – distance starting at the Empty Level (0%) to the Span (100%)

All units are preset to feet for easy programming!

"Hit Enter for More Details" – press Enter to select additional options: mode, relay set points, digital input set points, measurement units, volume throughput, and more if needed.

Otherwise, press "Cancel" to go up a level (back to Quick Setup) and press "Cancel" to get to "Run Mode?"

With "Run Mode?" displayed, press "Enter" to exit Program Mode and begin Run Mode Operation.

QUICK SET-UP ASSUMPTIONS

Preprogrammed percentages are assumed. For example:

High Alarm	"ON" at 85%	"OFF" at 80%
Low Alarm	"ON" at 10%	"OFF" at 15%
Pump 1	"ON" at 50%	"OFF" at 20%

Relays and their corresponding LED's are set up to give an immediate visual of the level being monitored. For example (HiHi, Hi, Lo alarms, and 2 pumps selected):

Relay 1	HiHi	"ON" at 90%	"OFF" at 85%
Relay 2	High	"ON" at 85%	"OFF" at 80%
Relay 3	Pump 2	"ON" at 70%	"OFF" at 20%
Relay 4	Pump 1	"ON" at 50%	"OFF" at 20%
Relay 5	Low	"ON" at 10%	"OFF" at 15%

USING THE MENU SYSTEM

The menu system is a row of categories that allow easy maneuvering for quick changes.

The most common request is to adjust relay set points. Find the "Relay" category and choose which relay # to adjust. Answer the prompted questions:

- Type (usually "Alarm" or "Pump")
- Function (usually "Level" for Alarm Type or 1="Fixed" or 3="Alternate" for Pump Rotation)
- ID (usually High or Low)
- Set 1 ("ON" set point)
- Set 2 ("OFF" set point)
- Fail Safe (defaults to last known value)

BACKUP AND RESTORE PARAMETERS

Enter the "1997" passcode. With "Quick Set-up" appearing, enter "925" to go to Parameter 925. Enter "1" for a backup to area 1 (memory 1). Press "Enter" again to confirm. "Cancel", "Cancel", "Enter" for Run Mode.

TROUBLE SHOOT

1. Check transducer location and aiming.
2. Check all splices and wiring – especially shield.
3. Check Parameter 900 – Transducer Status.
4. Check Echo Confidence (P901), Echo Strength (P902), and Peak Noise (P904)
5. Call Pulsar at 850-609-1777 – we'll help!

CONTACT PULSAR

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Email: info@pulsar-us.com

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