

METRON ELEDYNE CONTROL SYSTEMS
M15n – Jockey Pump Controller
OPERATING INSTRUCTIONS FOR:
M15n – Jockey Pump Controller

1 **CAUTION**

In order to avoid risk of personal INJURY or damage to the control equipment, READ THIS MANUAL VERY CAREFULLY. If after reading these instructions doubt exists, do not hesitate to contact Metron-Eledyne for further clarification. In the interests of safety pay special attention to the CAUTION notes listed below:

If work has to be carried out on the motor or control equipment, ensure the control equipment is ISOLATED AND LOCKED OFF from the A.C mains supply before work commences. If possible use a temporary label which draws attention to this fact. Label suggestion: Caution ENGINEER WORKING ON EQUIPMENT.

The control system operates automatically from the pressure switch, and may start the motor at any time. Ensure all concerned are aware of this condition by means of an appropriate label, prominently displayed in the motor area. Label suggestion: WARNING MOTOR MAY START AT ANY TIME.

In order to avoid the risk of serious electric shock, NEVER energise the control system with the access door open unless absolutely necessary. Care must be taken when dealing with the pressure switch, which has control circuit voltage at the switch contacts when the panel is energised.

If the access door to the interior of the panel has to be opened when the panel is energised, BEWARE of the three phase motor supply and the single phase control circuit supply. This warning cannot be stressed enough.

2 **GENERAL**

The Metron-Eledyne Jockey Pump Electric Motor Controller type M15n is designed for across the line or Star / Delta starting of electric driven pumps. The unit is self contained and self monitoring, with volt free outputs to facilitate remote monitoring. It also has the option to control dual motors, with a Motor 1 / 2 Selector Switch.

3 **ENERGISING THE SYSTEM**

Ensure that the controller is connected in accordance with the circuit diagram.

Set the Mode switch to off.
Close the AC isolator.

Visual.

Control Circuit Healthy.

Volt free.

Control Circuit Healthy indicating.

4 **MANUAL CONTROL**

Set Mode switch to Hand.	Pump starts.
Visual.	Motor Running.
Volt free.	Motor Running indicating.
Turn the mode switch to the off position.	Pump stops immediately.
Visual.	Motor Running goes out.
Volt free.	Motor Running not indicating.

5 **AUTOMATIC CONTROL**

Set the Delay Start Timer T1, the Auto Stop (Minimum Run) Timer T2, and the Pressure Switch set point to suit the site operating conditions.

Set Mode Switch to Auto.

Visual.	Auto Mode.
Volt free.	Auto Mode.
If pressure falls below Pressure Switch set point.	Pump starts.
Visual.	Motor Running.
Volt free.	Motor Running indicating.

When pressure rises above the set point of the Pressure Switch and the delay time set by T2 the motor will stop.

Visual.	Motor Running goes out.
Volt free.	Motor Running not indicating.

When the Mode Switch is set to Auto and system pressure is above Pressure Switch set point, The pump will remain stopped until the system pressure falls below Pressure Switch set point.

6 **MOTOR OVERLOAD**

Motor running with excessive current due to a motor fault or a supply phase missing.

After a delay depending upon the degree of overload:

Overload unit trips and the motor stops.

Visual.

Motor Running goes out.
Motor Overload.

Volt free.

Motor Running not indicating.
Motor Overload.

Set the mode switch to Off.

The controllers Mode Switch can be switched back to Auto after the fault has been rectified, and if necessary the Overload unit has been reset.

Note: For Dual Motor controllers, visuals and volt frees are Motor Overload 1 and Motor Overload 2 respectively.

7 **OPTIONS**

- **ANTI-CONDENSATION HEATER**

.Ambient temperature below thermostat set point. The heater warms.

Ambient temperature above thermostat set point. The heater cools.

- **MOTOR HEATER**

The Motor Heater supply is only available when the motor is NOT running.

- **PRESSURE SWITCH**

- Standard (Danfoss Type RT5 or Allen Bradley of stainless steel type)

- Alco (Type FF444 – VDAF)

- Standard as above with Manual Drain Handle (MDV)

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