




AM01 Amplifier
and TDM01-A
Controller Interface

'm Series' Programmable Temperature Controller

- For use with Selectra® gas modulation systems
- Microprocessor-based logic
- Four set points
- Available ramping function



Maxitrol's new M-Series programmable temperature controller provides a higher level of functionality for our Selectra® electronic gas modulation systems. The microprocessor logic gives you a digital option, a next-generation upgrade from our popular series of analog controls.

This microprocessor-based control is designed and built by Maxitrol® and its Paktronics® Division - custom engineered for integral compatibility with other Selectra system components, such as the modulator or modulator-regulator (M/MR) valve.

Selectra systems maintain stable, precise temperatures. The superior alternative to mod motors and butterfly valves - M/MR valves provide instantaneous response and continual pressure adjustment.

Present microprocessor system configurations are designed for applications such as direct-fired make-up air equipment like paint spray booths. Subsequent systems will be configured for process and HVAC applications.

The TDM01-A interface connects to the AM01 amplifier by a ribbon cable. Other connections to the amplifier include an RTD temperature sensor, an M/MR valve, and a 24VAC/40VA capacity power source.

Features

- Compact modular design - 1/4 DIN panel mount controller, amplifier connects with ribbon cable
- Soft-touch keypad
- 2-line by 16-character alpha/numeric display for easy user interface
- Blue vacuum fluorescent display
- Display field programmable for Fahrenheit or Centigrade
- Programmable bandwidth
- Four user-programmable setpoints
- Offset adjustment for each setpoint
- Ramping function available (if needed) - user programmable
- EEPROM (non-volatile) memory for status of all programmed parameters - eliminates the need for a battery backup
- Short circuit (valve output) protected
- Open or shorted temperature sensor (RTD) detection
- Water resistant cover

CAUTION: Operation of combustion equipment can be hazardous resulting in bodily injury or equipment damage. Each burner should be supervised by a combustion safeguard and only qualified personnel should install, make system adjustments and perform any required service.



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NOTICE: Maxitrol practices a policy of continuous improvement in the design of its products. It reserves the right to change the specifications at any time without prior notice.

Specifications and Dimensions

Power Requirements:

Independent 24VAC, 40VA capacity transformer

Ambient Limits:

TDM01-A Controller and AM01 Amplifier

Operating.....32° to 131° F / 0° to 55° C

Non-operating.....-4° to 158° F / -20° to 70° C

Controller Dimensions - 1/4 DIN panel mount:

Cover - 4.06" W x 4.06" H

Rear Mounting Box Cutout - 3.531" W x 3.531" H

Rear Mounting Box Depth - 1.08" D

Dimensions - Amplifier:

7.5" W x 3.38" H x 1.89" D

Valves:

M411, M511, M611, MR212

Cannot control automatic (safety shut-off) valve

Sensor:

1,000 ohm RTD such as TS394-3B-48FQ or

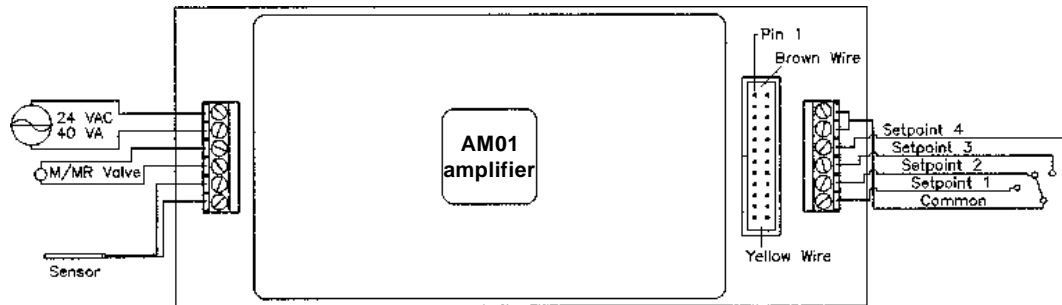
TS194 (w/mixing tube)

Notes:

- Under high noise conditions, extra shielding may be required.
- All wiring to and from the amplifier and display should BE distanced from any other wires to minimize noise and interference.



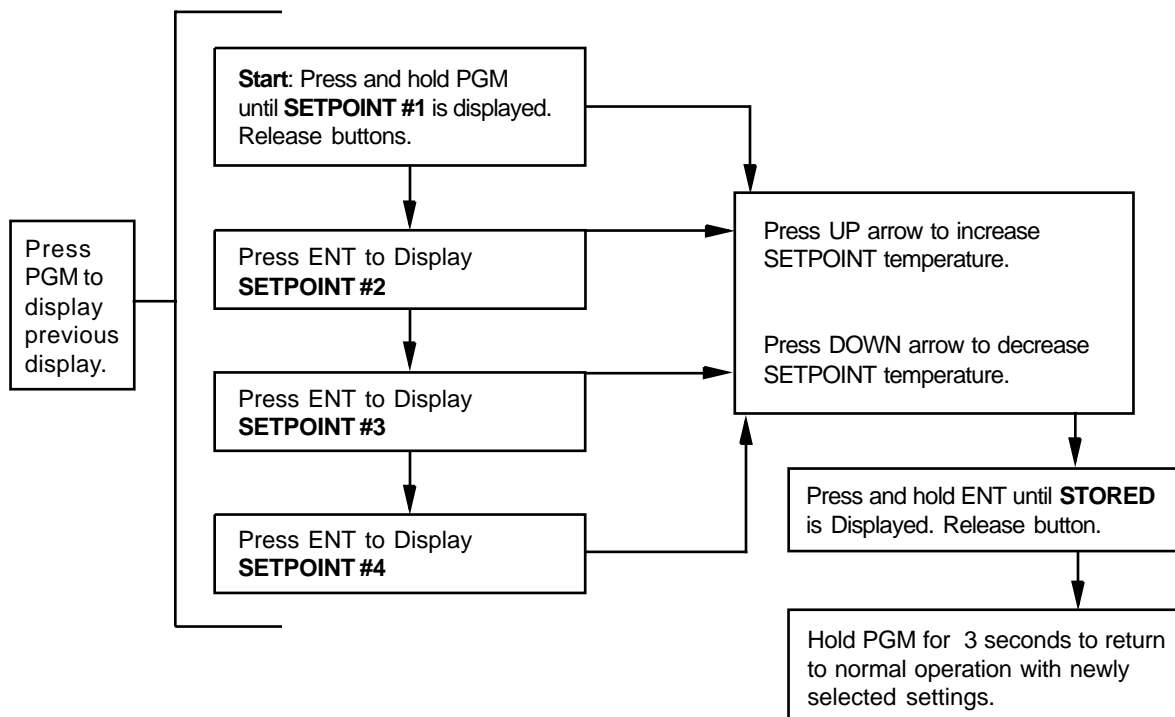
Amplifier Wiring Diagram



Controller Programming Flowchart

Setpoints 1 thru 4

(once programming begins, user has 12 seconds between key entries before controller will drop back to normal operation)



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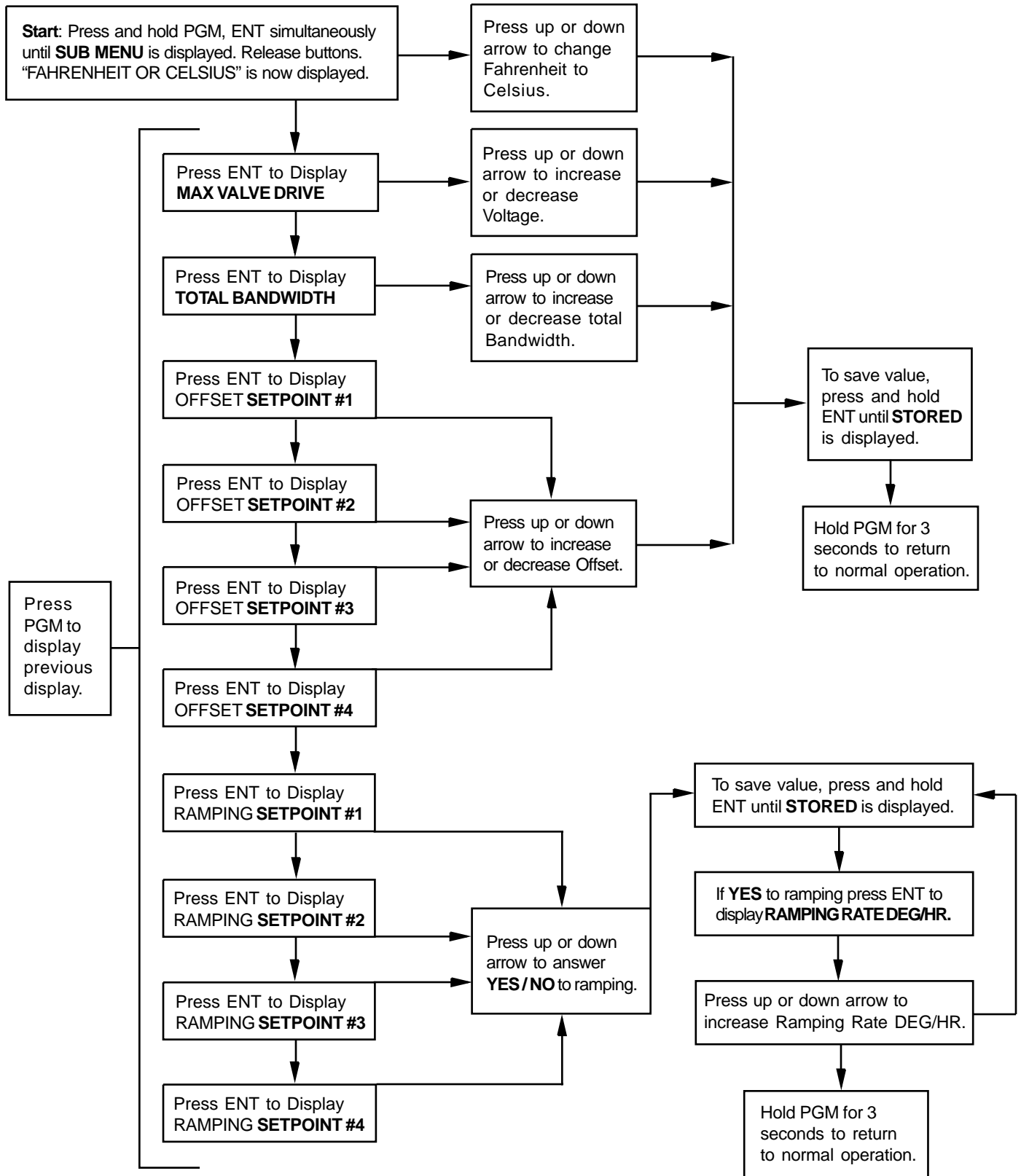
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Controller Programming Flowchart

Sub-menu Programs

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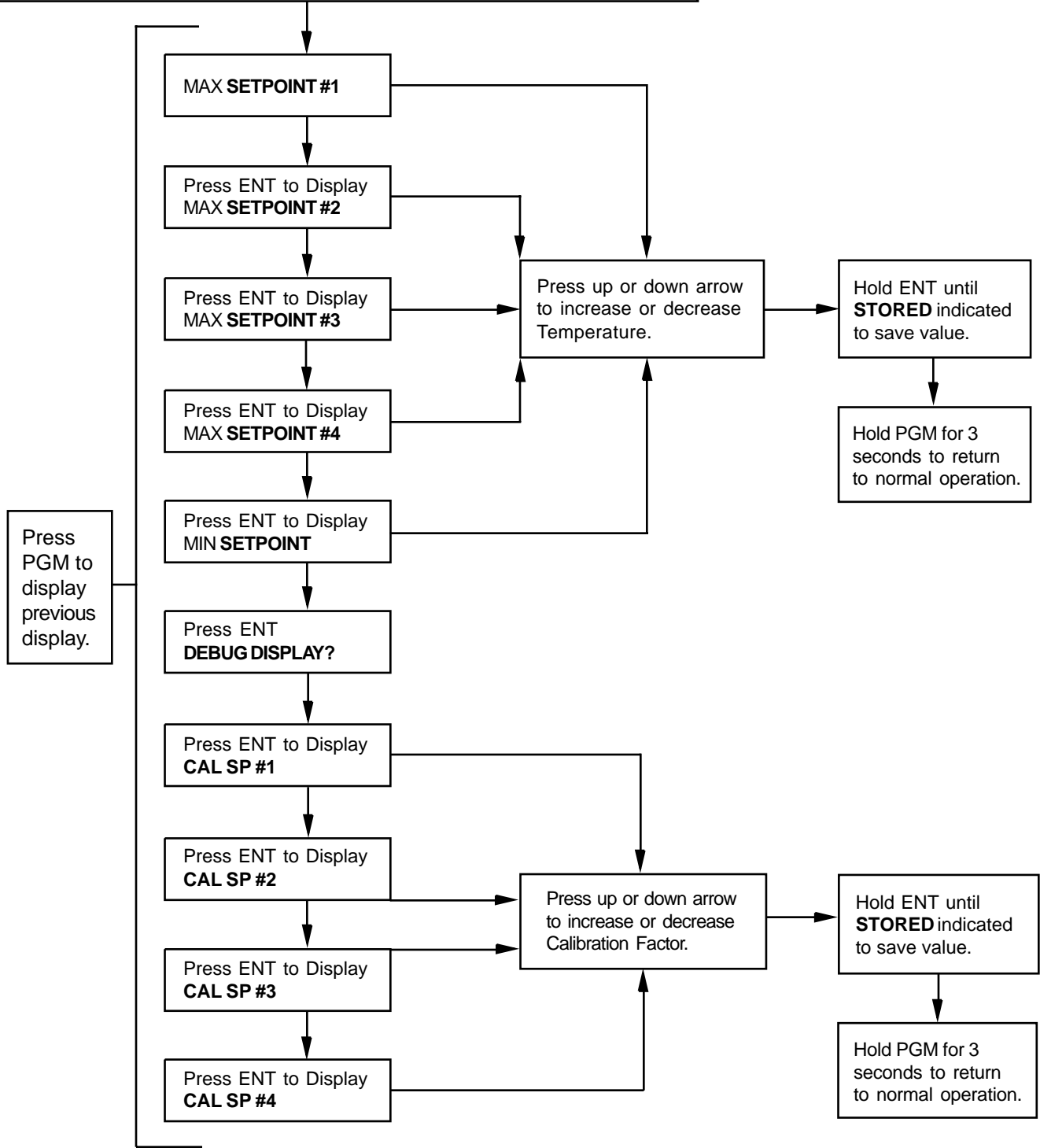
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Controller Programming Flowchart

Diagnostics

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Start: Press and hold PGM, ENT, and up arrow simultaneously until **DIAG MENU XXX** indicated. Release buttons. The software revision is indicated for 3 seconds.



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