

TDFM44

OWNER'S MANUAL

MAXITROL [®]  **company**

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IMPORTANT

1 Read the entire installation section of this Owner's Manual thoroughly before you begin to install or operate your Maxitrol Thermostat.

- Remove the mylar label from the display window.

INSTALLATION

2 All installation is normally performed at your thermostat.

PROGRAMMING

3 You can practice programming before installing your thermostat by inserting and connecting the batteries and following the instructions on page 10.

OPERATION

4 Your Maxitrol Selector is designed to operate with DFM/DFME 44 systems only.

TEMPERATURE RANGE

5 Your Selector can be programmed between 40°F and 95°F (5°C and 35°C). However, it will display room temperatures from 32°F to 99°F (0°C and 37°C).

BATTERY WARNING

6 When the batteries are low, the "LOW BATT" indicator on the display will flash. When this happens, install new batteries immediately. Once the "LOW BATT" indicator appears, the thermostat will continue to operate for approximately 30 days. (Only alkaline batteries should be used in your thermostat. Rechargeable batteries have different properties which may cause the thermostat to not operate properly. Do not use old batteries.) The batteries should last one year.

CAUTION: The batteries are the only source of power used to operate your thermostat. If you do not replace the batteries, the display will dim and your system will operate on the last programmed temperature or the factory default.

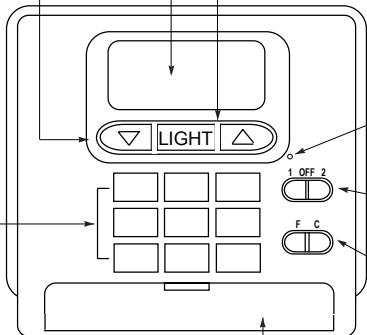
NOTE: If you plan to be away from the premises more than 30 days, we recommend that you replace the old batteries with new alkaline batteries prior to leaving.



Display shows time, day, temperature, program number, hold, usage and low battery indicator.

Individual pushbuttons for raising or lowering temperature settings.

Display backlight for viewing in the dark.



Reset button for resetting computer back to 12:00A.M. and clearing all programs.

Manual switches
Customer Auxiliary Switch

Manual switches for F°/C°

Soft touch programming buttons (see below)

Battery door for easy access.

For entering minute of day.

For entering day of week.

For entering
hour of day.**HOUR****MIN****DAY**For reviewing
and changing
weekday or
weekend
programs**PROG****AUTO
PROGRAM****12/24HRS**Changes
the clock
into 12 or
24 hour
(military)
mode.Picks the
day/days
for
programs**PROG
DAY****HOLD/
CLEAR****RETURN**Automatically
programs thermostat
for weekday and
weekend program
settings.Provides permanent
temperature setting by
overriding stored programs.
Also, clears manual override
and returns to current program.Returns display
to current time
and temperature.

What You Need

This thermostat comes with two #8 slotted screws and two wall anchors for mounting. To install your unit, you should have the following tools and materials.

- Small slotted screwdriver
- Hammer
- Electric drill and 3/16" bit
- Two 1.5V (AA) Size Alkaline batteries

Mount Wallplate & Thermostat

Snap open the wallplate from your thermostat by pressing the release tab on the bottom of the thermostat.

Position wallplate on wall and pull wire with RJ45 connector and any additional wires through large opening. Then level for appearance. Mark holes for plastic anchors provided.

Drill holes with 3/16" bit and gently tap anchors into the holes until flush with wall.

Reposition wallplate to wall, pulling wires through large opening. Insert mounting screws provided into wall anchor and tighten. (See Figure 1.)

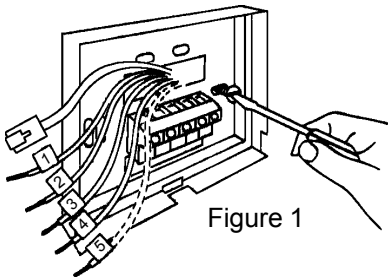


Figure 1

Selector Switches

The °F/°C selector switch is located on the front.

■ °F/°C selector (Fahrenheit/Centigrade)

Your thermostat is set for °F mode from the factory. In order to change to °C mode, slide the switch to °C.



Connect Wires & Mount Thermostat Cover to Wall Plate

- Insert RJ45 Connector.
- If remote temperature sensor is used: remove existing RTD Sensor from Terminals 1 & 2 and replace with remote temperature sensor wires.
- Be sure to tighten the terminal screws securely, otherwise a loose wire could cause operational problems with your system or thermostat.
- Push excess wire back into hole to prevent interference with mounting of the thermostat cover.
- Customer Choice switches are accessed through terminals 3, 4 & 5. Switch #1 is accessed through terminals 3 & 4. Switch #2 is accessed through terminals 4 & 5, with terminal #4 being common.
- Insert the bottom tab on the thermostat body into the slot at the bottom of the wallplate. Press top of the thermostat body to snap it into the wallplate. **(NOTE: Do not force the thermostat onto the wallplate, as the terminal pins may be damaged. If it does not snap properly, the thermostat may not work.)**
- Insert the two AA size batteries, observing the polarity marked on the unit.

- The LCD display indicates the current room temperature. If it shows random numbers or partial digits, press the reset button.
- The installation is now complete. Continue reading Owner's Manual for complete operating instructions.

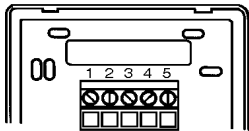


Figure 2

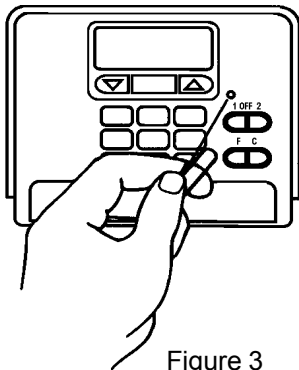


Figure 3

- 1 Remove mylar label covering display window.
- 2 If power is interrupted the batteries will keep all programs.
- 3 If "LOW BATT" indicator appears on the display, replace the batteries.

Setting the Time and Day of Week

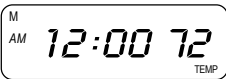
When you first install the two AA batteries, the thermostat automatically sets the day and time to Monday, 12:00 a.m., shows the current room temperature and is programmed for 68°. Press the reset button after installing new batteries.

The first data you should enter is the current time and day of week. As the keys are pressed, the display will show the data being entered.

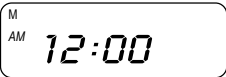
EXAMPLE:

If the unit is being installed at 9:15 p.m., Saturday, to set the thermostat you would press the keys in the shown sequence.

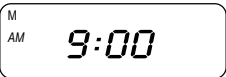
- Initial read-out after pressing reset button.
- Current room temperature is 72°
- No indication of program number.

**HOUR**

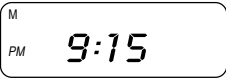
- Press once. Temperature digits disappear, show time set mode.

**HOUR**

- Press and hold until current hour appears on display.

**MIN**

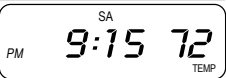
- Press and hold until current minutes appear on display.

**DAY**

- Press and hold until current day appears on display.

**RETURN**

- Returns to normal time and temperature.
- If return is not pressed, it will return automatically in 10 seconds.



Typical Suggested Programs

Your thermostat is capable of holding up to 4 separate programs for each day of the week. You can program all weekdays, Monday to Friday, to the same 4 programs as shown in the table, or each weekday can have a different set of 4 programs. Similarly weekend programs, Saturday and Sunday, can be the same 4 programs or each weekend day can have a different set of 4 programs. A typical set of programs is shown in Table 1.

NOTE: The thermostat program will NOT take effect immediately after programming of your thermostat but at the next programmed time/temperature change.

Use the temporary manual override feature (described on page 23) to enter your desired temperature setting.

**MO
to
FR**

| PROG # | TIME | TEMP IN F° (C°) |
|--------|---------|-----------------|
| 1 | 5:00AM | 68 (20) |
| 2 | 7:00AM | 60 (15) |
| 3 | 3:00PM | 68 (20) |
| 4 | 10:00PM | 62 (16) |

**SA
to
SUN**

| PROG # | TIME | TEMP IN F° (C°) |
|--------|---------|-----------------|
| 1 | 5:00AM | 68 (20) |
| 2 | 10:00AM | 62 (16) |
| 3 | 3:00PM | 68 (20) |
| 4 | 10:00PM | 62 (16) |

TABLE 1

When your program becomes effective at the next time/temperature setting, the appropriate corresponding program number will appear on the display.

Personal Program Schedule

Before programming or changing the program, use this Personal Program Schedule to determine which times and temperature settings will best satisfy both your comfort and energy requirements.

Use a pencil so you can revise your records each time you change your temperature settings.

FOR WINTER

| NUMBER | PROGRAM 1 | PROGRAM 2 | PROGRAM 3 | PROGRAM 4 |
|-----------|--------------|--------------|--------------|--------------|
| MONDAY | TIME TEMP | TIME TEMP | TIME TEMP | TIME TEMP |
| TUESDAY | TIME TEMP | TIME TEMP | TIME TEMP | TIME TEMP |
| WEDNESDAY | TIME TEMP | TIME TEMP | TIME TEMP | TIME TEMP |
| THURSDAY | TIME TEMP | TIME TEMP | TIME TEMP | TIME TEMP |
| FRIDAY | TIME TEMP | TIME TEMP | TIME TEMP | TIME TEMP |
| SATURDAY | TIME TEMP | TIME TEMP | TIME TEMP | TIME TEMP |
| SUNDAY | TIME TEMP | TIME TEMP | TIME TEMP | TIME TEMP |

FOR SUMMER

| NUMBER | PROGRAM 1 | PROGRAM 2 | PROGRAM 3 | PROGRAM 4 |
|-----------|--------------|--------------|--------------|--------------|
| MONDAY | TIME TEMP | TIME TEMP | TIME TEMP | TIME TEMP |
| TUESDAY | TIME TEMP | TIME TEMP | TIME TEMP | TIME TEMP |
| WEDNESDAY | TIME TEMP | TIME TEMP | TIME TEMP | TIME TEMP |
| THURSDAY | TIME TEMP | TIME TEMP | TIME TEMP | TIME TEMP |
| FRIDAY | TIME TEMP | TIME TEMP | TIME TEMP | TIME TEMP |
| SATURDAY | TIME TEMP | TIME TEMP | TIME TEMP | TIME TEMP |
| SUNDAY | TIME TEMP | TIME TEMP | TIME TEMP | TIME TEMP |

Programming Your Thermostat

Your thermostat can be programmed in two different ways.

1. Auto-program method
2. Manual method

Auto-program method

In auto-program method, you can program your thermostat instantly for the entire week by simply pressing "Auto Prog" key once. When this key is pressed, the standard program gets activated and your thermostat is programmed automatically. The standard program is shown in table 2.

If you wish to change this program to suit your life style, you can do so by changing the time and the temperatures of those programs which you want to be different than standard programs. The method is explained in the manual method of programming.

Press  Your thermostat

will be programmed automatically according to Table 2.

MON.-
FRI

SAT.-
SUN.

TABLE 2

| Program Number | TIME | TEMP in F°(C°) |
|----------------|---------|----------------|
| HEAT | | |
| 1 | 5:00AM | 68 (20) |
| 2 | 7:00AM | 60 (15) |
| 3 | 3:00PM | 68 (20) |
| 4 | 10:00PM | 62 (16) |
| 1 | 5:00AM | 68 (20) |
| 2 | 7:00AM | 60 (15) |
| 3 | 3:00PM | 68 (20) |
| 4 | 10:00PM | 62 (16) |

Manual method

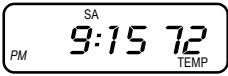






In this method, each program is inserted according to your personal programming schedule.

When the battery is first inserted, the thermostat is programmed for 68°F (20°C). Familiarize yourself with manual programming. The following example demonstrates the manual programming method. You can program or change the program of weekdays, weekends, or individual days.

EXAMPLE:

- NOTE:** 1) This program time is set in increments of 10 minutes.
2) The program temperature is set in increments of 1° F.

- 3) When setting PM time, make sure the “PM” indicator appears on the display.

| Weekday Programs | Press | Display Reads | |
|------------------|---|---|--|
| | |  | <ul style="list-style-type: none"> Normal display of time, temperature, and day of the week. |
| Step 1 |  |  | <ul style="list-style-type: none"> Select days M to F for same set of 4 programs each day. |
| Step 2 |  |  | <ul style="list-style-type: none"> Program indicator (1) is displayed. 68°F is displayed. 0:00 space for time is displayed. M to F is displayed. |
| Step 3 |  |  | <ul style="list-style-type: none"> Press and hold until 6:00 is displayed. Note AM/PM. |

Programming Your Thermostat (*Continued*)

Press Display Reads

Step 4



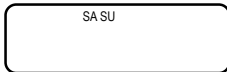
- Press once to change temperature to 69°F.
 - Weekday program 1 is complete.
 - Press PROG to move to program 2, 3, and 4 and follow the same steps.
-

Use



to insert or change time and temperatures of other programs.

Continue for Weekend Programs



- Selects weekend days SA, SU for same set of 2 programs each weekend day.
 - Follow steps 2-4 to enter programs.
-

Similar to weekday programming.



to insert weekend programs.

Individual Day Programming

To program for each individual day separately by a different set of programs, first select day by displaying the day of program, then insert the desired times and temperatures.

Press

Display Reads

**PROG
DAY**

M T W TH F

■ M to F are selected. M to F will have same programs.

**PROG
DAY**

SA SU

■ SA and SU will have same program.

**PROG
DAY**

M

■ M is selected, program for M only.

Use

PROG

HOURL

MIN

▽

△

to enter programs for Monday.

Individual Day Programming (*Continued*)

Similarly

PROG
DAY

T

■ T is selected.

PROG
DAY

W

■ W is selected.

Display the day to be programmed and use

PROG

HOURL

MIN



to enter programs.

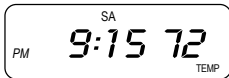
NOTE: Another approach to programming is to first program all weekdays M through F and SA and SU as same programs. Then, display and change the programs of only those days which will have different programs.

NOTE: If program time remains 0:00, that particular program will not be effective; e.g., if Program #2 has time 0:00, the thermostat will jump from Program #1 to Program #3.

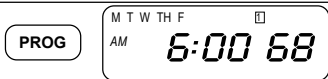
Reviewing Programs

You may want to review the programs to see that the settings are correct.

Weekday Programs



- Normal display of current time, temperature, and day of week.



- 1st weekday program is displayed.
- Program indicator (1) appears.
- M to F indication appears.

Continue pressing  to review programs.

NOTE: The temperatures you have entered will **NOT** take effect immediately, but at the next program time change. The thermostat is pre-set to 68°F.

If you want a temperature other than 68°F, you must use the manual override feature described below to enter the temperature you want. When your entered program becomes effective, the corresponding program number will appear on the display.

After programming, confirm the new programs by pressing .

If you are programming the thermostat while it is disconnected from the system, move the customer choice switch to the off position before reinstalling the thermostat.

To Review the Current Temperature Setting:



- Current time and temperature.

Press
for 2
seconds
or less:



or



- 70 indicates the current setting of the thermostat is 70°F. 68 shows the present room temperature as 68°F.
- If held for more than 2 seconds, you will manually override your present temperature to a new setting as explained below.

Manual Override of Program

If You Want to Change the Temperature Without Affecting Your Program:

Press and hold
to raise
temperature.



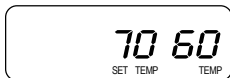
Press and hold
to lower
temperature.



The new temperature will hold until the next program time is reached.

Temporary Manual Override

In the following example, the present room temperature is 60°F and we want to raise the temperature to 70°F temporarily until the next program.



- Press arrow to display current set and room temperatures.
 - Continue pressing arrow. After 2 seconds, the set temperature digits will blink and begin to increase until the button is released at the desired setting (in this case 70°F)
 - Program number flashes.
 - Press return or in 10 seconds it will return to showing current time and temperature.
- To display a manual override setting, press either arrow for less than 2 seconds.
 - When arrow is released, the display will show current time and temperature.
 - Your thermostat is now in manual override mode to 70°F until the next program. Indicator number flashes until the next program time comes into effect.

Permanent Manual Override

HOLD
CLEAR



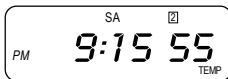
In the event you wish to hold your manual override for vacation or just an extended period of time, follow the temporary manual override instructions on page 23, then immediately press HOLD/CLEAR.

HOLD
CLEAR

This will maintain override setting indefinitely. "HOLD" will appear on the display.

To Return To Program*

HOLD
CLEAR



- To return immediately to the current program, press HOLD/CLEAR until program number appears. "HOLD" will disappear if you were in permanent manual override.

HOLD
CLEAR

(*From temporary or permanent manual override state)

NOTE: You can also return the current program by pressing "HOLD TEMP" once in permanent override mode.

Backlighting

Press

LIGHT

Your thermostat comes with an electroluminescent lamp for easy viewing of the display in the dark. To activate press the "light" button between the up and down arrow keys.

The display will remain backlit for approximately five (5) seconds. If another button is pushed, the five second timer will reset, and the light will turn off five seconds after the last button is pressed.

12/24 Hour Clock

The 12/24 hour switch is located on the Touch Pad. Pressing the 12/24 button alternates the clock between 12 or 24 hour (military) mode.

Problem

Solution

**SCRAMBLED OR DOUBLE DISPLAY
(numbers over numbers)**

- 1) Remove clear mylar sticker.
-

NO DISPLAY

- 1) Check battery connections and batteries.
 - 2) Press reset button once with a small pin and hold in for two seconds.
-

ENTIRE DISPLAY DIMS

- 1) Replace Batteries.
-

**PROGRAM DOES NOT CHANGE AT
YOUR DESIRED SETTING**

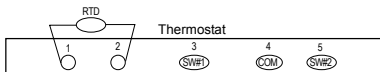
- 1) Check that time is set properly to "AM" or "PM."
 - 2) Check that thermostat is not in "HOLD" mode.
 - 3) Check for correct day setting.
-

ERRATIC DISPLAY

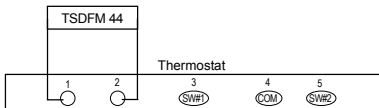
- 1) Press the reset button once with a small pin and hold in for two seconds. Then reprogram.
-

**THERMOSTAT READS HI, LO
PERMANENTLY**

- 1) Replace unit.
-



With Remote Sensor



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