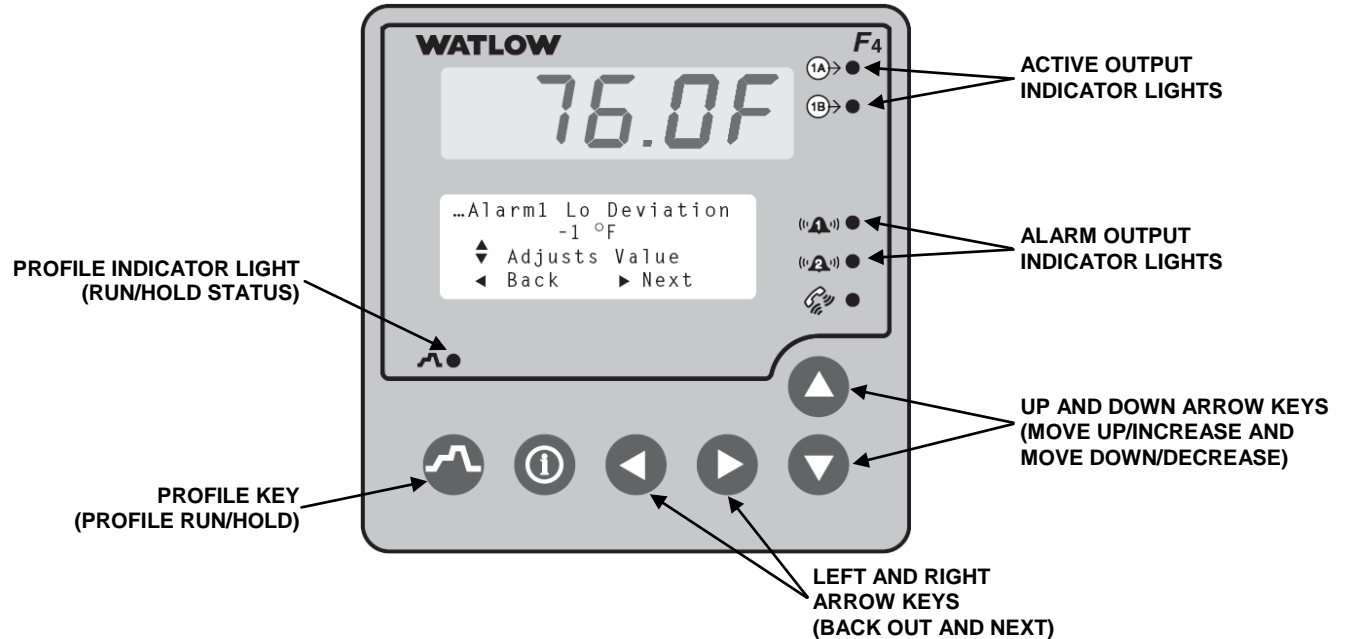











## WATLOW F4 KEYS









### A. BASIC OPERATION

1. If you ever reach a point on the controller where you do not want to be, press  repeatedly to return to the **Main Page**.
2. If prompted to “Save changes or restore values?”, press  to save any changes made or press  to discard the changes.
3. If the Profile Indicator Light is on, a profile is running. If it is off, no profile is running.







### B. STATIC SET POINT OPERATION

1. Press  or  until cursor is next to **SP1** on lower display.
2. Press  to enter **SP1**.
3. Press  or  to change set point.
4. Press  to accept change.




### C. RUNNING A PROFILE

1. Press  .
2. Press  to start a profile.
3. Press  until cursor is next to desired profile on lower display.
4. Press  to select profile.
5. Press  until cursor is next to desired Start Step (usually Step 1) on lower display.
6. Press  to begin profile. Profile Indicator Light will be on.

### D. TO HOLD A PROFILE










1. While a profile is running, press  .
2. Press  until cursor is next to **Hold** on lower display.
3. Press  to hold profile. Profile Indicator Light will be off.
4. To resume profile, press  .
5. Press  until cursor is next to **Resume** on lower display.
6. Press  to resume profile. Profile Indicator Light will be on.

### E. TO TERMINATE A PROFILE

1. While a profile is running or on hold, press  .
2. Press  until cursor is next to **Terminate** on lower display.
3. Press  to terminate profile. Profile Indicator Light will be off.

















## F. ADVANCING PROFILE

\*\*\*NOT REQUIRED FOR NORMAL OPERATION






















1. While a profile is running, press .
2. Press  until cursor is next to **Terminate** on lower display.
3. Press  to terminate profile. Profile Indicator Light will be off.
4. Press .
5. Press  to start a profile.
6. Press  until cursor is next to desired profile on lower display.
7. Press  to select profile.
8. Press  until cursor is next to desired step on lower display.
9. Press  to begin profile. Profile Indicator Light will be on.

## G. HOW TO PASSWORD PROTECT


















\*\*\*NOT REQUIRED FOR NORMAL OPERATION

1. Once controller is powered on, press  until **Go to Factory** is displayed.  
Press  to select **Go to Factory**.
2. Press  or  until cursor is next to **Set Lockout**. Press  to select **Set Lockout**.
3. Press  or  until cursor is next to desired menu to lockout (ex. Profile). Press  to select menu.
4. Press  or  until cursor is next to **Password**. Press  to confirm.
5. If no password is set, you will be asked to enter one. Press  or  to modify each digit of the password. Press  to confirm each digit. Once entered, press  to accept.
6. Once completed, press  twice to return to **Main Page**.











**H. HOW TO CHANGE PASSWORD****\*\*\*NOT REQUIRED FOR NORMAL OPERATION**

1. Once controller is powered on, press  until **Go to Factory** is displayed.  
Press  to select **Go to Factory**.
2. Press  or  until cursor is next to **Set Lockout**. Press  to select **Set Lockout**.
3. Press  or  until cursor is next to **Change Password**. Press  to select **Change Password**.
4. Press  or  to enter each digit of the current password. Press  to confirm each digit. Once entered, press  to accept.
5. Press  or  to enter each digit of the new password. Press  to confirm each digit. Once entered, press  to accept.
6. Press  or  to confirm each digit of the new password. Press  to confirm each digit. Once entered, press  to accept.
7. Once completed, press  twice to return to **Main Page**.
















**I. HOW TO AUTOTUNE****\*\*\*NOT REQUIRED FOR NORMAL OPERATION**

1. Once oven is powered on, load parts into oven.
2. Press  or  until cursor is next to **SP1** on lower display. Press  to select **SP1**.
3. Press  or  to change current set point to desired set point. Press  to accept change
4. Press  or  until cursor is next to **Go to Operations**. Press  to select **Go to Operations**.
5. Press  or  until cursor is next to **Autotune PID**. Press  to select **Autotune PID**.
6. Press  to select **Channel 1 Autotune**.
7. Press  or  until cursor is next to **PID Set 1**. Press  to select **PID Set 1**.
8. Press  twice to return to **Main Page**. Controller will now perform Autotune. Once complete, the controller will fill in the values in the PID Set 1.













**J. HOW TO FORCE ON EVENT OUTPUTS****\*\*\*NOT REQUIRED FOR NORMAL OPERATION**

1. Press  or  until cursor is next to **DigitalOut** on lower display.
2. Press  to enter **DigitalOut**.
3. Press  or  until the cursor is next to the desired **Event Output**. Press  enter desired **Event Output**.
4. Press  or  until the cursor is next to **On**. Press  to accept.
5. Once completed, press  once to return to **Main Page**.

**K. HOW TO CHANGE SET POINT LIMITS****\*\*\*NOT REQUIRED FOR NORMAL OPERATION**

1. Press  or  until cursor is next to **Go to Setup** on lower display.
2. Press  to select **Go to Setup**.
3. Press  or  until the cursor is next to the **Analog Input1**. Press  to enter **Analog Input1**.
4. Press  until **Enter SP Low Limit** is shown on the lower display. Press  or  to increase or decrease the set point lower limit.
5. Press  until **Enter SP High Limit** is shown on the lower display. Press  or  to increase or decrease the set point High limit.
6. Press  until **Choose to Setup** is shown on the lower display. Press  to exit.
7. When prompted, press  to save changes.

**L. HOW TO CHANGE OUTPUT CYCLE TIME****\*\*\*NOT REQUIRED FOR NORMAL OPERATION**

1. Press  or  until cursor is next to **Go to Setup** on lower display.
2. Press  to select **Go to Setup**.
3. Press  or  until the cursor is next to the **Control Output 1A**. Press  to enter **Control Output 1A**.
4. Press  until **Enter Cycle Time** is shown on the lower display. Press  or  to increase or decrease the cycle time.
5. Press  until **Choose to Setup** is shown on the lower display. Press  to exit.
6. When prompted, press  to save changes.