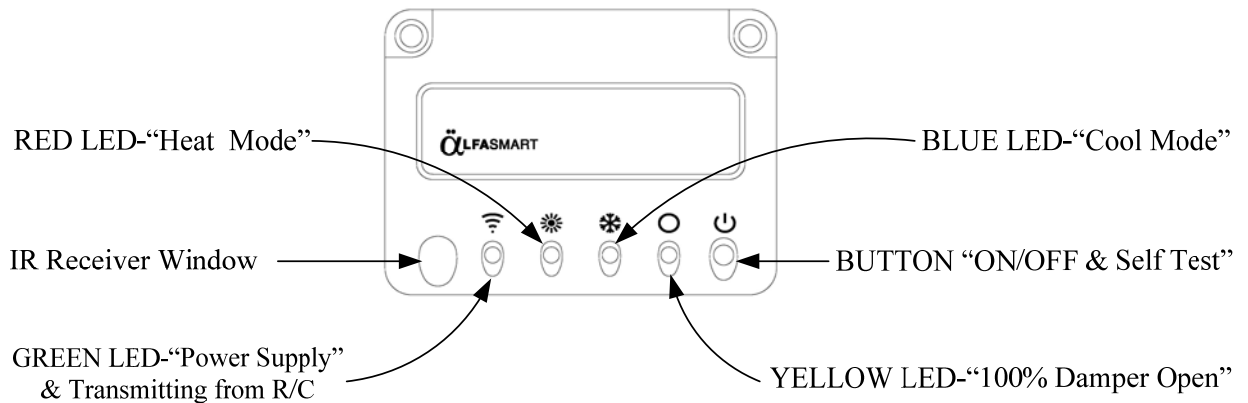


IR Receiver Unit ATDC-1:

This unit is designed to receive commands from R/C Thermostat to control the motorized damper. It will display operation modes of the air damper assembly and perform a self- test of the system. The IR Receiver is connected to the damper's frame by 6 wires telephone cable (quick-connect).



Task

1. Displays operation modes by LED light at the IR Receiver.
2. Indication of R/C thermostat signals reception by buzzer at IR Receiver.
3. Push-button for manual start at IR Receiver, for full opening & shutting of damper without R/C thermostat. R/C operation eliminates this button's function.
4. Pace of updating data from R/C thermostat to IR Receiver - every 3 minutes.

Operation Modes:

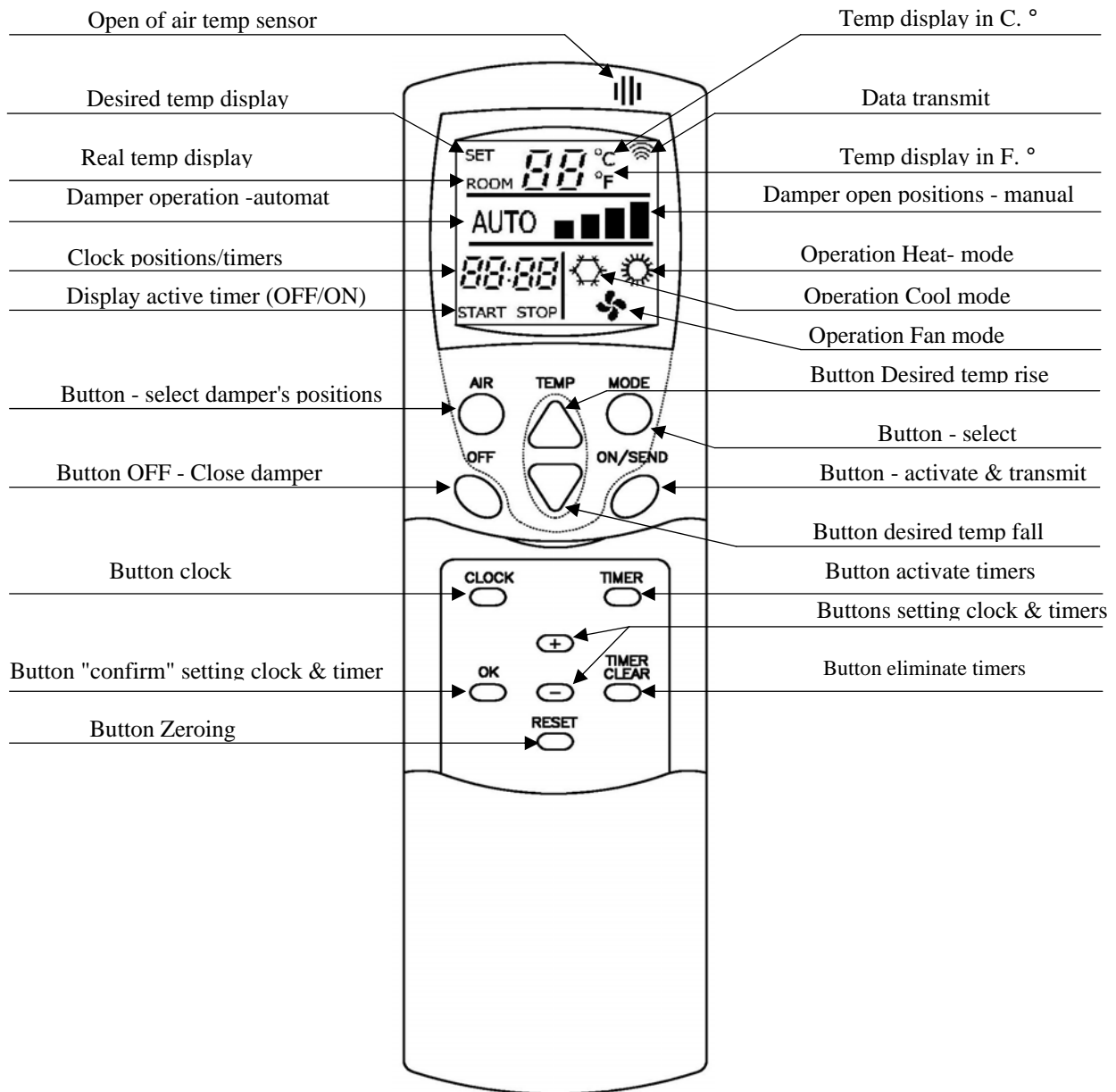
1. Cool - blue LED- ON.
2. Heat - red LED- ON.
3. Damper fully open - yellow LED- ON.
4. Feed power proper - green LED- ON continuously.
5. After 23 continuous minutes without contact to R/C - green LED flashing and damper fully opens (communication failure). Upon receiving command from R/C green LED ON continuously and the system will operate as per last R/C thermostat command.
6. Push-button ON/OFF, Self-Test:
 - a. Short push on button will shut-off system (damper closed) or activate system (damper fully opened).
Note: Once a command is received from R/C thermostat at this status, the system will operate as per R/C command.
 - b. Continuous push 3 seconds will start SELF-TEST procedure. At beginning of the SELF-TEST a long "beep" is heard and damper will fully open (100%). All LED lights turn ON. SELF-TEST procedure will proceed while closing of damper in 4 stages accompanied by short "beep" (75%, 50%, and 25%) every 10 seconds. At end of each stage one LED light will shut-off up to full closing (0%), all LED lights OFF upon end of SELF-TEST. A long "beep" is heard and the damper will return to the last position of the R/C thermostat before SELF-TEST began. The R/C has no effect on the system during SELF-TEST.
 - c. **Note:** Refrain from hiding the IR Receiver in a conduit, to avoid it being heated by the hot air (at HEAT). The IR Receiver must be exposed on the wall for "eye-contact" with R/C thermostat.
 - d. For installment of IR Receiver use the screws and anchors provided.

R/C (Remote Control) Thermostat ATRC-D:

R/C thermostat with temp sensor built-in transmits in two ways; one is manual by the operator, or automatically every 3 minutes to the IR Receiver located in the room itself.

The R/C includes a real-time clock and 2 timers (START, STOP) allowing pre-programming ON and OFF.

Important: For proper communication, it is necessary to locate R/C thermostat at eye-sight with IR Receiver. Normal range is approximately 23 ft (7 meters).



Push-Buttons Characteristics and Time Clock

- Pushing red button **ON / SEND** activates the system. As well transmits all data displayed in the screen to the IR Receiver. Upon pushing the one of the desired temp buttons desired temp is automatically displayed, real room-temp returns 4 seconds after release of button.
- Pushing blue **"OFF"** button transmits shut off command to the system. At this stage the screen will show room temp and Clock only.
- Pushing **"MODE"** button selects work mode by flashing at the various icons on the screen. For selection and activation of Selected Work Mode you must push red **"ON/SEND"** button within 5 seconds from MODE selection to send signal to IR Receiver.
- Upon selecting of **"COOL"** mode desired temp is automatically preset at 72°F (22° C).
- Upon selecting of **"HEAT"** mode desired temp is automatically preset at 77°F (25° C).
- Upon selecting of **"VENTILATION"** mode the real temp will show. Desired temp unavailable.
- Upon setting desired temp - push **"ON/SEND"** within 5 seconds from release of temp buttons, to send signal to IR receiver.
- Change temperature display between °C. & °F by simultaneously pushing the 2 temp buttons for 4 seconds.

- Pushing button "**AIR**" is to select damper's position: one of four settings (25%, 50%, 75%, and 100%). Pushing **ON/SEND** button within 5 seconds after "**AIR**" mode selection to send signal to IR Receiver to confirm selection. This allows one to override automatic modulation and operate damper to a manually selected position in any mode; cool, heat or ventilation.
- **Setting of real-time clock:** Push on button "**CLOCK**" will cause clock display to flash. Push on button "+" will advance clock time by 1 minute each push. Upon continuous push on buttons "+" or "-" the clock's Advance will be forward or backward at 1 hour per 1 second. The clock is of "24 Hours". Setting of time - by push on orange Button "**OK**". If button "**OK**" is not pushed within 5 seconds from release of buttons "+" or "-", the clock will not be set and Time display will return to its last setting before beginning of setting.
- **Time Adjustment:**
Timing cycle of opening or closing of damper is available by R/C thermostat time clock. The operation depends on setting of clock to real time and setting "**ON**" and "**OFF**". The pre-set time cycle will transmit command **ON** and **OFF** to IR Receiver automatically. These transmitted commands are special that they do not activate the IR Receiver buzzer. Upon timers activation - display "START" and / or "STOP" show on screen.
NOTE: These displays will vanish at end of the pre-set timer's cycle, erasing the **ON** and **OFF** settings.
Push on button "**TIMER**" starts time clock for activating. "**START**" will flash. Setting of start time by pushing buttons "+" or "-" as in clock setting. Time setting must be confirmed by pushing button "**OK**". If button "**OK**" is not pushed within 5 seconds from release of "+" or "-" buttons, timing will not register in memory and timer's display will return to its former position, before beginning of setting. Upon request for setting timer to shut-off, same order of steps should be done as in start setting, but timer's screen should show "**STOP**" by double push on button "**TIMER**".
Timers erasing is performed by approach to proper timer by pushing button "**TIMER**" and erasing of the pre-programmed time by continuous push on "**TIMER CLEAR**".
The button "**RESET**" eliminates all data on screen, displays for 1 second all the icons of the screen and ends by leaving room temp display and 4 flashing lines at the clock display.
- "**Weak**" Batteries: Attention: Long operation time of R/C thermostat will cause low quality display at the LCD screen of the R/C. At this stage the batteries should be replaced. At the R/C back - a sliding cover. Remove it and change batteries.

Alkaline AAA. Install batteries at proper polarity. After change - re set clock to real time.

Specification:

- Operating voltage: Alkaline batteries - 2X1.5 V ($\pm 10\%$), AAA size.
- R/C thermostat Measuring room temp by at 1°F (0.5° C), resolution.
- Temp display in full figures.
- Measurement temperature rang: 46°F to 99°F (8°C to 37°C).
- Measurement resolution: 1°F (0.5°C).
- Operation modes: Cool, Heat, Ventilation.
- Programmable timer: 0 – 24 hr. On/Off operation.
- "I – Feel" Function. (Built in NTC Temperature sensor).
- 7 minutes data transmitting cycles.
- Functions, modes of operation and damper frame modulation LCD Display.
- Real Time clock.
- Silicon rubber push buttons.
- Operation Relative Humidity: 10% to 90% (Non-condensing).
- Storage Environment: -22°F to 185°F (-30°C to 85°C), with 5% to 95% RH (Non-condensing).
- Dimensions: 1.26"X2.05"X5.32", (32X52X135 mm).
- R/C enclosure ABS, UV-resistant.
- R/C Wall mounting holder, ABS, UV resistant.