

AERCO T7300 CONTROL PANEL OPERATIONAL OVERVIEW

On the Front of the panel the thermostats are mounted along with a Day Operation button, a Night Override Button and an On/Off Switch

Day Operation

When the Day Operation button is depressed, the R-2 relay will latch "on" during the occupied times that are programmed. This timed operation is controlled by a DIGI 42 time clock inside the control panel. All kitchen exhaust fans, cooking equipment, HVAC Units, electric heaters, AABS system and washroom exhaust fans will be operational. The Thermostats on the front of the control panel indicate occupied.

Night Override

The Night Override button energized the exhaust fans, HVAC supply fans and damper motors for a timed period of one (1) hour. There is a separate time clock inside the control panel that controls this function and it is adjustable up to 3 Hours. This is to provide the cleaning staff with additional equipment "run" time to complete the after hours clean up.

Heating, Ventilation and Air Conditioning (HVAC) Units

When the Day Operation function is engaged, the HVAC Unit supply fans will operate continuously (via relays labeled R-3, R-4, R-5), the economizer dampers will drive open to their minimum position or vary accordingly with the AABS board. The unit will cycle the heat and cool stages depending on the thermostat set points. During the "unoccupied" times (after regular hours), the units will maintain set back temperatures and the supply fans will only operate on a call for heating or cooling.

Kitchen Exhaust Fans

The kitchen and washroom exhaust fans and the cooking equipment (cooking equipment and kitchen exhaust fans are from the same power circuit) are all controlled by the C-1 contactor found inside the control panel. The contactor is controlled by the times programmed in the DIGI 42 time clock. When the exhaust fans are on, the HVAC unit supply fans and AABS system (if applicable) are on as well to provide make up air for the exhaust. This is very important if you have Gas Fired cooking equipment.

Auto Air Balance System (Optional)

The AABS is designed to limit the energy used to operate the restaurant by regulating the dampers on the HVAC units to correspond with the air being removed by the exhaust fans. The AABS operates only during "occupied" times when the Day Operation button is pressed or the Night Override is pressed. The AABS board is energized via the R-2 relay and begins to control the rooftop economizer dampers.

Time Clocks inside the Aerco T7300 Control Panel

The time clock with controls the Day Operation function is a DIGI 42 120V programmable time clock. It is referred to as T1. See Time Clock Operation instructions for programming. The normal settings for this time clock are one (1) hour prior to restaurant opening and one (1) hour after restaurant closing. ie: Restaurant opens at 6:00am - set clock to come on at 5:00am. This is referred to as the "Occupied" time. If the restaurant closes at 11:00pm - set clock to go off at 12:00am. This is referred to as the "Unoccupied" time.

The second timer inside the control panel is T2 and this is the timer for the Night Override feature of the panel. This clock is normally set for a timed override period of one (1) hour.

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AABS/WIRING Inside the Aerco T7300 Control Panel

The low voltage wiring from the thermostats on the door is wired into the terminal strips in the control panel as follows:

R	Red (24 volt hot)	Y	Yellow (Stg 1 cool)
Y2	Orange (Stg 2 cool)	W1	White (Stg 1 heat)
W2	Blue (Stg 2 heat)	GS	Green (Fan from Tstat on door)
C	Brown (24 volt common)		

The low voltage wiring from the HVAC Units is wired into the terminal strips in the control panel as follows:

R	Red (24 volt hot)	Y	Yellow (Stg 1 cool)
Y2	Orange (Stg 2 cool)	W1	White (Stg 1 heat)
W2	Blue (Stg 2 heat)	GU	Green (Fan from HVAC Unit)
C	Brown (24 volt common)	P	Purple (AABS 0 to 10 volts DC)
Black	Spare		

****Important****

Note the GU and GS wiring difference. GS goes to Tstat and GU goes to HVAC Unit

AERCO SMALL STORE EXTERIOR LIGHTING CONTROL PANEL

OVERVIEW / OPERATION

The Aerco Small Store Lighting Control panel is designed to control the operation of the restaurant's exterior Security and Signage lights.

A roof mounted (adjustable) photocell, 7 day (programmable) digital timer* and a 3 position "Hand/O/Auto" illuminated switch, mounted on the small store lighting panel cover, determine the system operation.

*When the restaurant is equipped with an Aerco McD7300F Interlock control panel in conjunction with the Small Store Lighting Control panel, the digital timer is located in the McD7300F Interlock panel.

The Small Store Lighting Control Panel is divided into two separate circuits:

C1 - Security Lights Contactor - controlled by photocell (exterior light level) ONLY.

C3 - Signage Lights Contactor(s) - controlled by switch position selection ->photocell->photocell and timer.

Mounted on the outside of the lighting control panel is an illuminated three position selector switch labeled "**Hand / O / Auto**". The selector switch is illuminated when it is placed in the "Hand" position - this is "manual on" or "override".

"Auto" Switch Position - C1-3 (Security-Signage) lighting circuits are energized when the exterior light level is below the photocell set point and the timer* contacts are closed. Selected when the restaurant is operated on a scheduled open/closed basis.

"Hand" Switch Position - C1&3 (Security & Signage) lighting circuits are energized when the exterior light level is below the photocell set point. Selected when the restaurant is operated on an open 24 Hr. basis.

"O" Switch Position - C1 (Security) lighting circuits only, are energized when the exterior light level is below the photocell set point. Selected when the restaurant is vacant, i.e. Christmas Day.

Photocell Set Point Adjustment:

Lights on sooner (on at a higher exterior light level) - slide the metal band to block more of the photoelectric "eye"
Lights on later (on at a lower exterior light level) - slide the metal band to expose more of the photoelectric "eye"

Timer Program - CHANNEL 2

ON - (n.o. contacts close) - Restaurant is open to the public - C3 lights enabled.

OFF - (n.o. contacts open) - Restaurant and/or drive-thru closed to public - C3 lights disabled.

DANGER: RISK OF ELECTRICAL SHOCK INJURY OR DEATH.

Multiple power sources. Disconnect all electrical power sources before accessing control panels.

AERCO EXTERIOR LIGHTING CONTROL PANEL

OVERVIEW / OPERATION

The Aerco lighting control panel is designed to operate the restaurant's exterior lighting and signs in a fully automatic manner using a digital photo cell/controller and a programmable timer. The exterior lighting is divided into three separate circuits:

C1 - Security **C2** - Parking **C3** - Signage

The exterior light level and the time at which each circuit is (de)energized is adjustable.

Mounted on the outside of the lighting control panel is an illuminated three position selector switch labeled "**Hand / O / Auto**" and a green indicator light mounted beside the selector switch. The selector switch is illuminated when it is placed in the "Hand" or "Auto" positions and the panel's control power is available. The green indicator light is illuminated when the C3 (Signage) circuits are energized.

"Auto" Switch Position - C1-2-3 (Security-Parking-Signage) lighting circuits are energized when the exterior light level is below their respective adjustable set points and the timer* contacts are closed. Selected when the restaurant is operated on a scheduled open/closed basis.

"Hand" Switch Position - C1-2-3 (Security-Parking-Signage) lighting circuits are energized when the exterior light level is below their respective adjustable set points. Selected when the restaurant is operated on an open 24 Hr. basis.

"O" Switch Position - C1 (Security) lighting circuits only, are energized when the exterior light level is below the adjustable set point. Selected when the restaurant is vacant, i.e. Christmas Day.

Exterior light level set point adjustment dials are located down the left side of the GE control board (located inside the lighting control panel).

Security	(C1)	Level - 2 FC / Increment	Set 5 = 10 FC
Parking	(C2)	Level - 2 FC / Increment	Set 5 = 10 FC
Parking Egress	(C2)	Level - 15 Min. / Increment	Set 4 = 60 Minutes (Time period after the timer contacts open that the C2 circuits remain energized)
Signage	(C3)	Level - 20 FC / Increment	Set 3 = 60 FC

***Timing** - The **Channel 2** contacts of a digital timer (located inside the HVAC control panel) are programmed to close (on) when the restaurant is scheduled to be open to the public. The contacts are programmed to open (off) when restaurant and/or drive-thru are scheduled to be closed to the public.

-or-

D-1 (Front Dining) HVAC programmable thermostat auxiliary contacts (A1-A2) close (on) at the programmed Occupied Start time when the restaurant is scheduled to be open to the public. The contacts open (off) at the programmed "Unoccupied Start" time when the restaurant and/or drive-thru are scheduled to be closed to the public.

An **optional** two position "**Off/On**" switch (installed below the three position switch) will energize the C3 (Signage) circuits continuously, regardless of the timer contacts position or the exterior light level when it is placed in the On position.

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LENNOX ECTO INFORMATION

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Lennox ECTO Parameter Field Settings

Lennox Gas Heat Units/LGA & LGC Units IMC Control board 4.10 and higher.

3.01	Warm up Delay	Set to "0"
4.04	Max Freeze Stat Occurrences	Set to "4"
4.15	Max Low Pressure Occurrences	Set to "8"
6.20	Fresh Air Tempering	Set to "176" for Kitchen units=45 deg F Set to "147" for Dining units= 65 deg F
6.21	FAT Deadband	Set to "15" = 10 deg F
6.22	FAT Min Cycle	Set to "15" = 2 mins
6.23	Free Cooling Set Point	Set to "176" for Kitchen units=45 deg F Set to "161" for Dining units= 55 deg F
8.20	Stage 1 SP Power exhaust (if installed)	Set to 75

All other parameters remain at default settings.

To Change ECTO Setting.

- 1 Slide ECTO switch on.
- 2 Push Button to desired Parameter
Short push advances Parameter
Long push advances block
- 3 Slide SHIFT switch on to read present ECTO value
- 4 Change value with push button
- 5 Turn off SHIFT switch. For multiple changes repeat steps 2 through 5
- 6 Wait for Parameter number to reappear. Turn off ECTO switch.

Aerco Technician _____

Date Completed _____