

ENERGYWISE BURGER KING RESTAURANT CONTROL SYSTEM – TYPICAL EQUIPMENT WIRING & LAYOUT

ELECTRICAL CONTRACTOR NOTES

THE ENERGYWISE RESTAURANT CONTROL SYSTEM IS DESIGNED TO CONTROL ON/OFF SCHEDULES FOR EXTERNAL LIGHTING, KITCHEN EQUIPMENT & HVAC AT THIS LOCATION.

**POWER SUPPLY**  
THE ENERGYWISE CONTROL PANEL REQUIRES A 3 PHASE POWER SUPPLY. THIS MUST BE ALLOWED FOR DURING BREAKER PANEL ASSEMBLY (USUALLY PANEL A-22)

THE FOLLOWING CIRCUITS SHOULD ALL BE ROUTED THROUGH THE ENERGYWISE CONTROL PANEL CONNECTING TO THE "LINE" SIDE FROM THE RELEVANT BREAKER AND TO THE "LOAD" SIDE FROM THE FINAL LOAD CIRCUIT.

**LIGHTING CIRCUITS**  
ALL PARKING LOT & AREA LIGHT CIRCUITS.  
ALL SIGN/FAÇADE/EXTERIOR BUILDING LIGHTS.

**KITCHEN EQUIPMENT CIRCUITS**  
PREP LINE SUB PANEL (PANEL D).  
BROILER EXHAUST HOOD.  
BROILER & CIRCUITS FOR ALL OTHER EQUIPMENT BELOW BROILER HOOD.  
FRYER EXHAUST HOOD.  
IF GAS FRYERS ARE INSTALLED:  
CIRCUITS FOR FRYERS & ALL OTHER EQUIPT BENEATH THE FRYER HOOD  
IF ELECTRIC FRYERS ARE INSTALLED:  
A REMOTE CONTACTOR BOX IS REQUIRED  
120V AC CONTROL SIGNAL CONNECTS TO CONTACTOR BOX (TERMINALS F1/F2)  
CIRCUITS FOR ALL OTHER EQUIPMENT LOCATED BENEATH THE FRYER HOOD

**HVAC (CONTROLS ONLY)**  
HVAC POWER WIRES ARE RUN DIRECTLY FROM BREAKER PANEL TO RTU'S. THERMOSTATS ARE NOT REQUIRED.  
RUN ONE (1) CONDUCTOR 18 GAUGE THERMOSTAT CABLE FROM EACH ROOFTOP AIR CONDITIONING UNIT TO THE ENERGYWISE CONTROL PANEL.  
RUN ONE (2) CONDUCTOR 18 GAUGE THERMOSTAT WIRE FROM EACH HVAC RETURN AIR DUCT TO THE ENERGYWISE CONTROL PANEL.

TERMINATION OF ALL 24 VOLT HVAC CONTROL WIRING SHALL BE DONE BY THE MECHANICAL CONTRACTOR.

ELECTRICAL CONTRACTOR SHALL PROVIDE ONE SINGLE-GANG RECEPTACLE TEST STATION FOR THE T-STAT, AND ONE DOUBLE-GANG RECEPTACLE TEST STATION FOR THE ANNUNCIATOR, WITH GREEN AND RED LIGHT INDICATORS.  
THE FIRE AND MECHANICAL INSPECTORS WILL DETERMINE SUITABLE LOCATION FOR TEST STATIONS. ANNUNCIATORS AND TEST STATION WILL BE LOOPED IN CIRCUITRY OF THE SMOKE DETECTION DEVICES. WIRING WILL BE SUPPLIED AND COMPLETED BY ELECTRICAL CONTRACTOR.

**REFRIGERATION MONITORING**  
RUN ONE (2) CONDUCTOR 18 GAUGE THERMOSTAT WIRE FROM THE REMOTE WALK-IN COOLER SENSOR LOCATION TO THE ENERGYWISE CONTROL PANEL.  
RUN ONE (2) CONDUCTOR 18 GAUGE THERMOSTAT WIRE FROM THE REMOTE WALK-IN COOLER SENSOR LOCATION TO THE ENERGYWISE CONTROL PANEL.

THE ENERGYWISE CONTROL PANEL REQUIRES A DATA CONNECTION.  
RUN ONE CATEGORY 5 DATA CABLE FROM THE ENERGYWISE CONTROL PANEL TO THE DATA PATCH PANEL (USUALLY IN MANAGERS OFFICE)

PLEASE NOTE:  
THE ENERGYWISE CONTROL PANEL IS SHIPPED TO THE JOBSITE COMPLETE. NO INTERNAL WIRING IS REQUIRED. MAKE EXTERNAL WIRING CONNECTIONS AS REQUIRED.

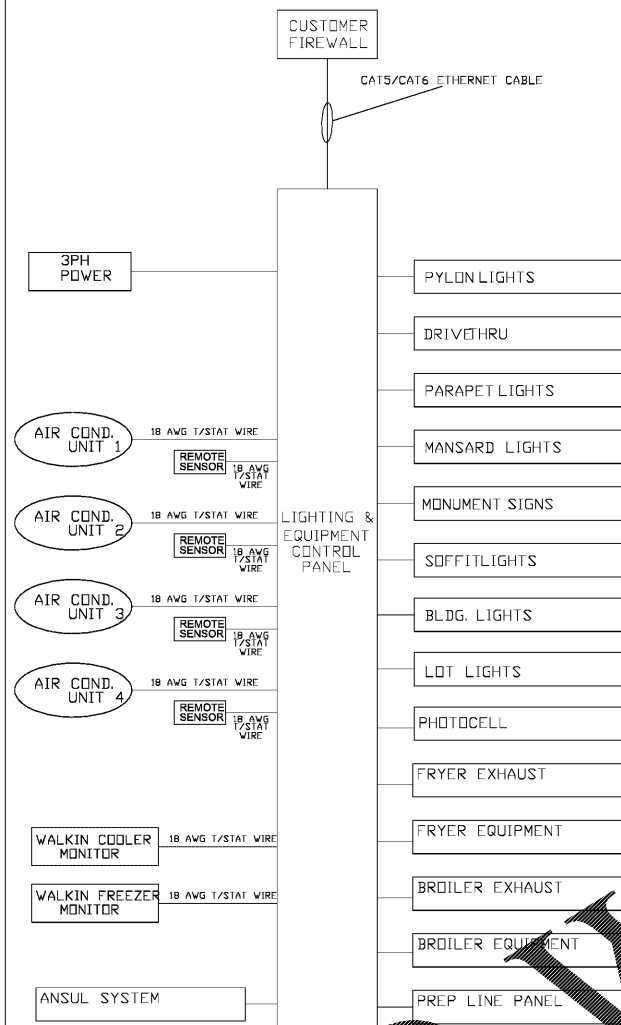
**HOOD VENTILATION SYSTEM NOTE**  
EACH EXHAUST HOOD IS MONITORED BY A CURRENT SENSOR. WHEN THE HOOD EXHAUST FAN CURRENT SENSOR DETECTS A DROP IN AMPERAGE (SUCH AS BELT BREAKING) IT WILL DISABLE THE LINE VOLTAGE TO THE EXHAUST FANS) AND ANY EQUIPMENT UNDERNEATH THE RELEVANT HOOD.  
THE EXHAUST FAN SWITCH SHOULD BE PLACED IN THE OFF POSITION AND THE FAN SHOULD BE CHECKED AND/OR REPAIRED BEFORE TURNING THE SWITCH TO THE ON POSITION

**HOOD FIRE SUPPRESSION SYSTEM**  
ACTIVATION OF THE HOOD FIRE SUPPRESSION SYSTEM SHALL DE-ENERGIZE THE MAKE UP AIR UNIT, ALL A/C UNITS AND THE CONTROLLED COOKING EQUIPMENT.  
THE BROILER AND THE FRYER EXHAUST SYSTEM SHALL CONTINUE TO OPERATE. THE FIRE SUPPRESSION SYSTEM SHALL BE MANUALLY RESET.

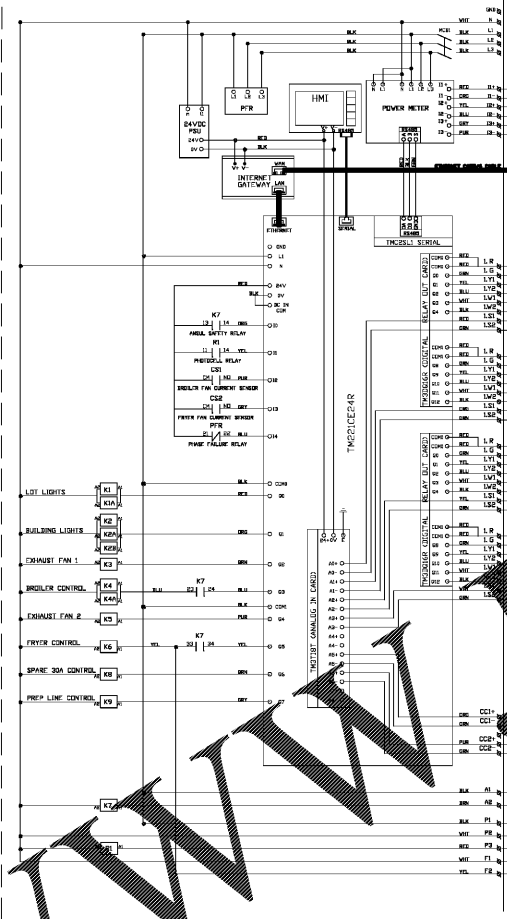
NOTE: IF IT IS NECESSARY TO ADJUST THE AMPERAGE OF THE BROILER EXHAUST HOOD FAN MOTOR, THE FAN MOTOR CURRENT SENSOR MUST BE RESET AS FOLLOWS:  
ADJUST UNDERCURRENT POTENTIOMETER TO MAXIMUM (CLOCKWISE IS MAXIMUM). APPLY CURRENT. UNCE CURRENT IS STABILIZED, DECREASE UNDERCURRENT POT UNTIL RED LIGHT TURNS OFF.  
WITHIN SEVEN SECONDS TURN UP UNTIL RED LIGHT TURNS ON. IF A LIGHT REMAINS OFF FOR MORE THEN TEN SECONDS, DISCONNECT SUPPLY VOLTAGE TO RESET.

DRAWING INFORMATION		
NO.	DESCRIPTION	BY
01/11/2018	CTRL SYS REV.11	DA

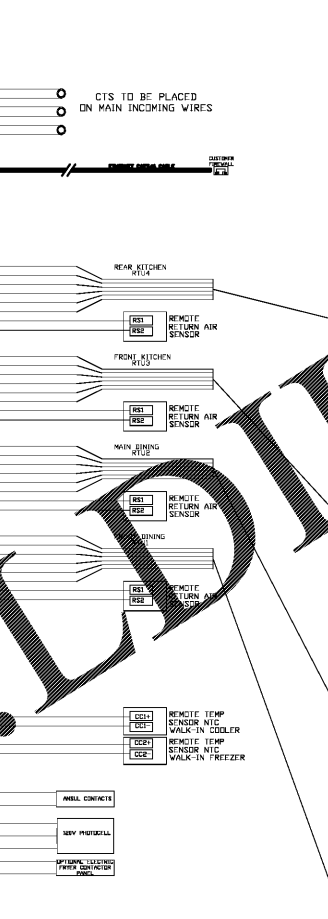
BUILDING CONTROL RISER DIAGRAM



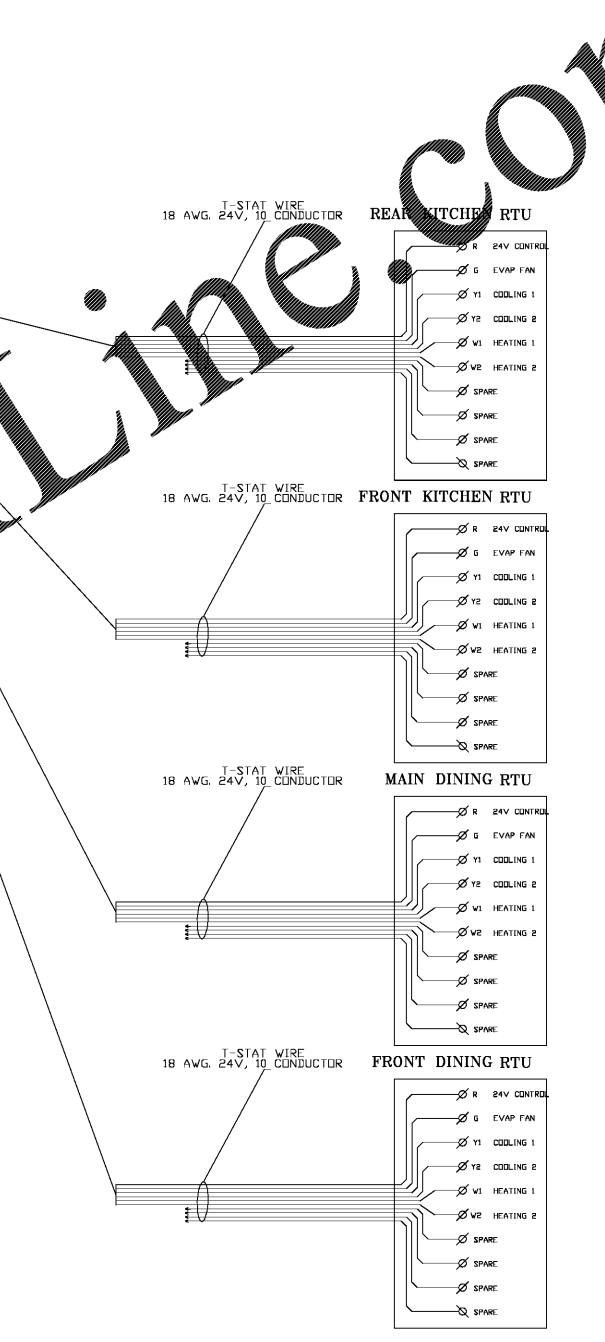
PRE-WIRED PANEL



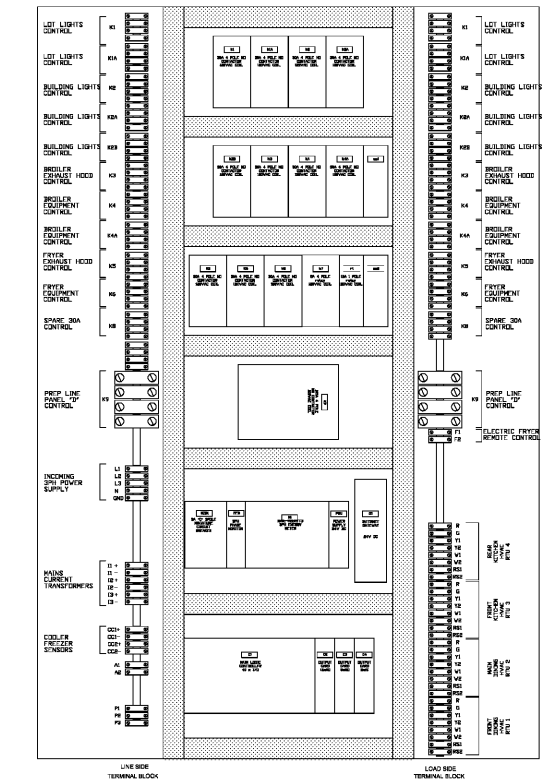
CONTRACTOR WIRING



LIGHTING & EQUIPMENT PANEL WIRING



LIGHTING & EQUIPMENT PANEL LAYOUT



**Important Notes:** The Control Panel Requires a 3 Phase Supply Breaker. Stores with Electric Fryers must use a suitably sized 4\*Contactor box for Fryer Switching

8550 United Plaza Blvd, Suite 702,  
Baton Rouge, LA 70809  
Tel: 225-612-4545  
[www.energywise.co](http://www.energywise.co)

24" x 36" ENCLOSURE

Order Plans @



SEE FURTHER INSTALLATION INSTRUCTIONS & GUIDE AT <http://www.installsupport/EnergyWise/>

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 R00-60 TALL 20/20 IMAGE: NOVEMBER 2018 DESIGN RELEASE  
**BURGER KING RESTAURANT**  
 STREET ADDRESS  
 HARPERVILLE, AL  
 MASTER CONTACTOR PANEL  
**E-5**