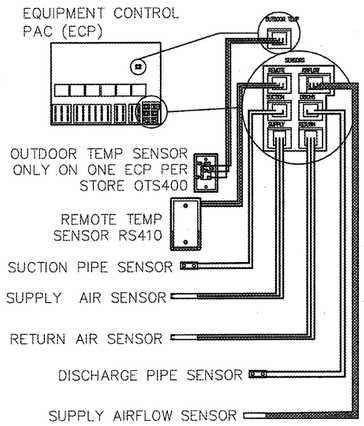
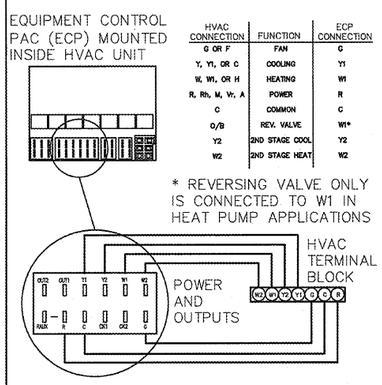
RECEIVED
SEP 16 2016
1736 E. SUNSHINE ST. SUITE 417
SPRINGFIELD, MO

EQUIPMENT CONTROL PAC (ECP) SENSORS



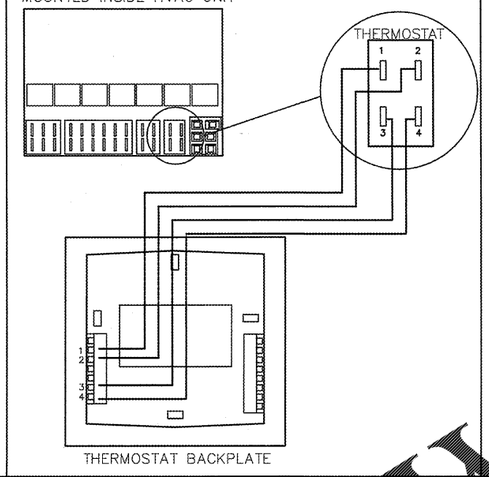
HVAC CONTROL WIRING



HVAC CONNECTION	FUNCTION	ECP CONNECTION
G OR F	FAN	G
Y, Y1, OR C	COOLING	Y1
W, W1, OR H	HEATING	W1
R, Rh, M, Vr, A	POWER	R
C	COMMON	C
O/B	REV. VALVE	W1*
Y2	2ND STAGE COOL	Y2
W2	2ND STAGE HEAT	W2

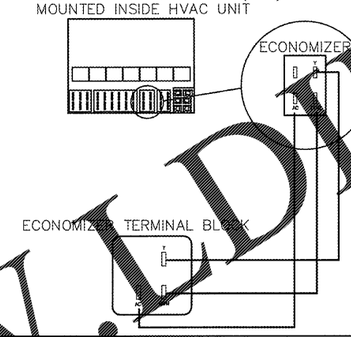
* REVERSING VALVE ONLY IS CONNECTED TO W1 IN HEAT PUMP APPLICATIONS

THERMOSTAT WIRING



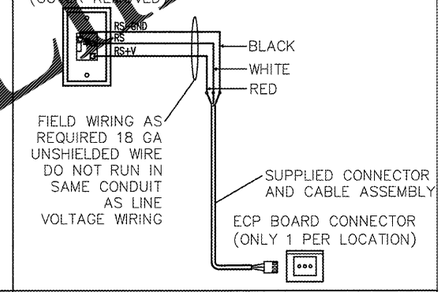
ECONOMIZER WIRING

WHEN EQUIPPED, CONNECT 0–12VDC MODULATING ECONOMIZER DAMPER MOTOR AS SHOWN. HVAC UNITS WITH SURVEYOR FACTORY INSTALLED MAY HAVE THIS WIRING PRE–CONNECTED, DEPENDING ON THE ECONOMIZER OPTIONS.



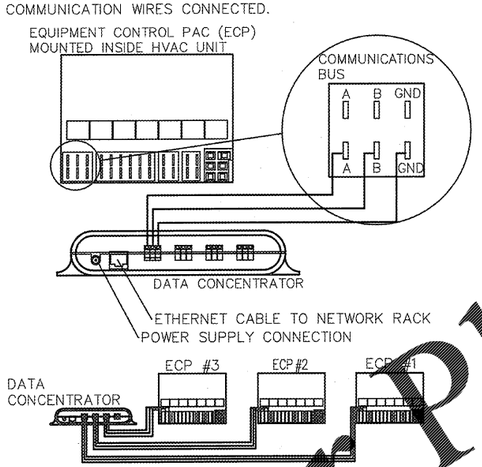
OUTDOOR TEMPERATURE SENSOR

MOUNT THE OUTDOOR SENSOR (OTS400) ON A NORTH FACING, VERTICAL SURFACE NEAR THE TOP OF ONE HVAC UNIT PER STORE. ASSURE THE SENSOR IS NOT LOCATED WHERE IT WILL NOT BE AFFECTED BY HEATED CONDENSER AIRFLOW.



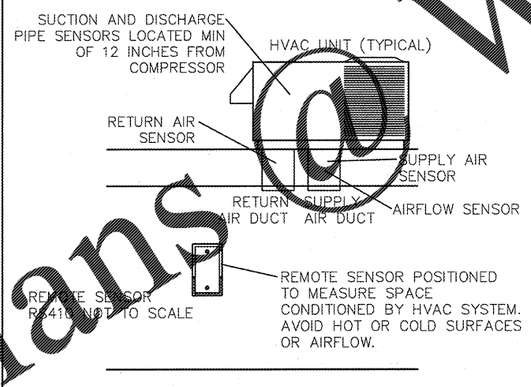
COMMUNICATION WIRING

WIRE EACH ECP WITH INDIVIDUAL 'HOME RUN' COMMUNICATION WIRING TO THE DATA CONCENTRATOR, TO A SEPARATE CONNECTOR WHEN POSSIBLE. WHEN MORE THAN THREE ECP'S ARE USED (3 PORTS FOR ECP'S PLUS ONE FOR THE LIGHTING CONTROL PANEL) ADDITIONAL UNITS CAN BE WIRED TO A PORT ON THE DATA CONCENTRATOR THAT ALREADY HAS COMMUNICATION WIRES CONNECTED.



ECP SENSOR POSITIONS

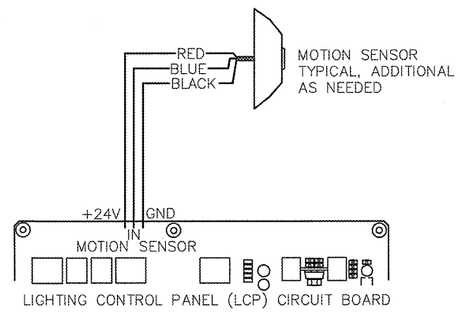
THE HVAC UNIT MAY COME WITH THE SURVEYOR ECP AND SENSORS FACTORY INSTALLED. FACTORY INSTALLED UNITS STILL REQUIRE FIELD CONNECTION OF THE REMOTE SENSORS, OUTSIDE SENSOR (ONE ONE HVAC UNIT PER STORE), THERMOSTAT WIRING, AND COMMUNICATION WIRING. FOR NON–FACTORY INSTALLED ECP'S, THE ECP MUST BE MOUNTED INSIDE THE HVAC UNIT. ALL ECP'S REQUIRE FIELD SETTING OF THE EQUIPMENT NUMBER SWITCHES (SEE INSTALLATION MANUAL).



MOTION SENSORS

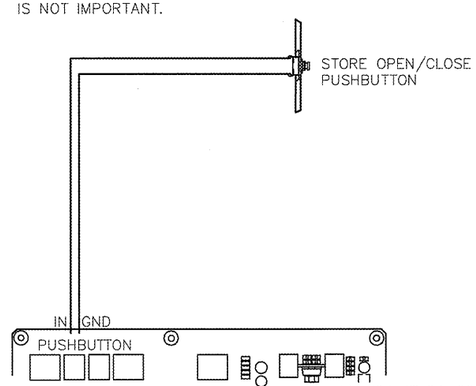
MOUNT MOTION SENSOR DIRECTLY ON CEILING FACING DOWN. AVOID PLACEMENT NEAR MOVING ITEMS SUCH AS HANGING BANNERS. POSITION SENSORS TO PROVIDE BEST COVERAGE OF EMPLOYEES ENTERING THE STORE AND WORKING LATE.

WHEN WIRING MULTIPLE MOTION DECTECTORS, RUN SEPARATE WIRES FROM EACH DETECTOR AND COMBINE THEM AT THE LCP TERMINAL BLOCK.



STORE OPEN/CLOSE PUSHBUTTON

PUSH BUTTON MOUNTED IN 2X4 JUNCTION BOX, TYPICALLY IN MANAGER'S OFFICE. WIRING POLARITY IS NOT IMPORTANT.



GENERAL NOTES:

1. DRAWING FOR GENERAL INFORMATION ONLY.
2. LOCAL BUILDING CODES AND BUILDING PLANS, AND STORE TAKE PRECEDENCE OVER THIS DOCUMENT.
3. REFER TO THE SURVEYOR MANUAL, AND INSTALLATION INSTRUCTIONS FOR EACH COMPONENT FOR ADDITIONAL CRITICAL INFORMATION.
4. SOME HVAC UNITS ARE AVAILABLE WITH THE SURVEYOR ECP AND SENSORS PRE–INSTALLED. THE REMOTE SENSOR AND ONE OUTSIDE SENSOR PER STORE WILL NEED TO BE CONNECTED IN THE FIELD TO THE ECP.
5. ECP'S REQUIRE SETTING OF THE EQUIPMENT NUMBER DIP SWITCHES, AND HEAT PUMP JUMPERS AS APPROPRIATE. REFER TO THE EQUIPMENT CONTROL PAC INSTALLATION INSTRUCTIONS FOR FURTHER INFORMATION.
6. ALL WIRING 18 GA UNSHIELDED, OR TWISTED PAIR.
7. WIRING MAY BE RUN IN CONDUIT OR WIRE TIED IN BUNDLES.
8. DO NOT RUN COMMUNICATION AND SENSOR WIRES IN THE SAME CONDUIT OR BUNDLE WITH CONTROL AND LINE VOLTAGE WIRING.
9. CAUTION! INSTALLATION REQUIRES REMOVAL OF SAFETY COVERS AND EXPOSE THE INSTALLER TO ELECTRICAL HAZARDS. USE OF A LICENSED ELECTRICIAN IS REQUIRED. FOLLOW ALL APPROPRIATE SAFETY PRECAUTIONS. ADDITIONAL SAFETY INFORMATION IS IN THE SURVEYOR INSTALLATION MANUALS.

VENSTAR INC.

TITLE: SURVEYOR

O'REILLY INSTALLATION DETAILS

SIZE	DATE	DWG NO	REV
D	9–13–13	S13–002	-
SCALE: NONE	DRAWN: C. GODWIN	SHEET: 2 OF 3	

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Mahaffey Finkelstein Eckhardt & Collins, Inc.
CIVIL STRUCTURAL MECHANICAL ELECTRICAL PLUMBING FIRE PROTECTION

PROJECT:
NEW O'REILLY AUTO PARTS STORE
EAST MAIN STREET
FREEPORT, FL
VENSTAR O'REILLY DETAILS

O'Reilly AUTO PARTS
CORPORATE OFFICES
233 SOUTH PATTERSON
SPRINGFIELD, MISSOURI 65802
(417) 862-2674 TELEPHONE

COMM #	3924
DATE:	9-16-16
REVISION DATE:	

VS2 of 3

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