EC1000

9"x 8.5"

TO CUSTOMER LAN

CAT5E

NOTE:
PLUG THE ETHERNET CABLE INTO THE LEFT PLUG ON THE EC-1000

WIRING ENTERING THE CONTROLLER CABINET THAT IS USED FOR POWER AND/OR METERING VOLTAGE SHALL ONLY USE KNOCKOUTS ABOVE THE BOTTOM PORTION OF THE DISPLAY — CLASS 1 WIRING

WIRING ENTERING THE CONTROLLER CABINET THAT IS USED FOR SIGNAL AND/OR RS-485 COMMUNICATIONS SHALL ONLY USE KNOCKOUTS BELOW THE DISPLAY — CLASS 2 WIRING

ORANGE
ORANGE/WHITE
GREEN

600V RATED WIRE

INPUT	LOAD DESCRIPTION	PHASE	CT SIZE
1	MAIN	A	600
2	MAIN	B	600
3	MAIN	C	600
4	RTU 1	A	150
5	RTU 2	A	150
6	RTU 3	A	150

CT INPUT LIST

POWER FOR THE CONTROLLER HAS BEEN SHARED WITH THE A PHASE OF THE REFERENCE VOLTAGE. IN THE EVENT THE SITE SERVICE IS GREATER THAN 120V A SEPARATE 120V 15-20 AMP SINGLE POLE BREAKER WILL BE NEEDED TO PROVIDE POWER TO THE CONTROLLER.

FOR ANY SITES WITH SINGLE PHASE SERVICE TERMINAL V3/C WILL NOT HAVE A WIRE CONNECTED. ALL OTHER CONNECTIONS WILL REMAIN THE SAME.

TO GROUND LUG

MM1204-EX
9.5"x13"

CURRENT TRANSFORMER WIRING IS POLARITY SESITIVE AS WELL AS ORIENTATION SPECIFIC, SO CONFIRMATION OF SPLICES AND COLOR CODING AT THE CONTROLLER IS VITAL.
WHITE = POSITIVE
BLACK = NEGATIVE

METERING SOURCE MUST COME FROM A 15-20 AMP 3 POLE BREAKER

3/4 CONDUIT BETWEEN ELECTRICAL PANEL AND CONTROLLER CABINET

CONFIRM APPROPRIATE AWG IS USED DEPENDING ON THE SIZE OF THE BREAKER USED FOR METERING

GREEN
ORANGE/WHITE
ORANGE
GREEN
ORANGE/WHITE
ORANGE

CAT5E

CAT5E

CAT5E

CAT5E

THE USE OF APPROPRIATE SPLICES AND STRAIN RELIEF SHOULD BE UTILIZED IN THE JUNCTION BOX.

1-1/2" DEEP, 4" SQUARE ELECTRICAL JUNCTION BOX SHOULD BE USED WHEN EXTENDING CURRENT TRANSFORMER WIRING TO THE CONTROLLER

EXAMPLE ELECTRICAL PANEL

CONFIRM THE CURRENT TRANSFORMER IS FACING THE PROPER DIRECTION

GROUNDING LUG
NEUTRAL LUG
PHASE A
PHASE B
PHASE C

GREEN
WHITE
BLACK
RED
BLUE

RTU 1
RTU 2
RTU 3

600V RATED

600V RATED PIGTAIL LEADS FROM CURRENT TRANSFORMERS

CURRENT TRANSFORMER WIRING SHOULD BE DRESSED WITHIN THE PANEL USING ZIP TIES

GRIDPOINT PROVIDED 24VAC TRANSFORMER

120VAC POWER SOURCE MUST COME FROM A 15-20A SINGLE POLE BREAKER

BLUE
YELLOW
BLACK
WHITE
T1

TO MOTION SENSOR 1
TO MOTION SENSOR 2
TO MOTION SENSOR 3

600V RATED WIRE

8"X8"X4" J-BOX (INSTALLER PROVIDED)

CAT5E

ORANGE
ORANGE/WHITE
GREEN

HUB-1

CHAIN 3
CHAIN 1
CHAIN 2
HOST

ORANGE
ORANGE/WHITE

TO LCP-2

2-WIRE HUB MODULE CONNECTIONS	
HOST	FROM MM1204-EX
CHAIN 1	TS101 THERMOSTATS
CHAIN 2	LCP-2
CHAIN 3	N/A
R1/C1	N/A
R2/C2	N/A
R3/C3	N/A

8"X8"X4" J-BOX (INSTALLER PROVIDED)

T-STAT/CO2 SENSOR MOUNTING

- MOUNT SHOWROOM'S T-STATS AND SENSORS AT 7'-3" ABOVE FINISHED FLOOR.
- MOUNT HARD PARTS T-STATS AND SENSORS AT 5'-6" ABOVE FINISHED FLOOR.

THERMOSTAT LABELING

LABEL EACH THERMOSTAT PER O'REILLY TERMINOLOGY WITH EXACTLY THE SAME UNIQUE IDENTIFYING "CODE" AS SHOWN ON THE "HVAC PLAN" ON SHEET M1 (FOR EXAMPLE: RTU-1, RTU-2, ETC. OR FURN-1, FURN-2, ETC.).

CONNECT THE HVAC WIRES TO THEIR RESPECTIVE TERMINALS AT THE TS101. USE ORIGIONAL THERMOSTAT AS A REFERENCE WHILE LANDING INDIVIDUAL CONDUCTORS. FOLLOW COLOR CODE USED PRIOR TO TS101 INSTALLATION.

LAND THE 24VAC AND COMMON WIRES FROM THE HVAC UNIT ON TB1 TERMINALS R AND C. AT THE TS101 INSTALL A JUMPER FROM TERMINAL R TO TB6 TERMINAL RH THEN JUMP TERMINALS RH AND RC TOGETHER.

TSTAT-1

TO NEXT TSTAT IN CHAIN

GRIDPOINT
T5-10016-2 REV.#

RH
RC
W1
W2/O
Y1
Y2
G
D
DC

HVAC CONTROL

-R
-C
A/+
B/-
REF
T1-
T1+
T2-
T2+

SENSORS

TO HVAC

ORANGE
ORANGE/WHITE
GREEN

22-24 AWG STP

SHIELD

RED
BLACK

NOTE:
7 CONDUCTOR 18 AWG IS SUFFICIENT. THIS CABLE IS GENERALLY PRE-EXISTING.

NOTE:
SHIELD WIRE SHALL BE LANDED ON THE NEGATIVE TERMINALS (I.E. T2-) OF THE HOST DEVICE FOR THE SUPPLY PROBE

SUPPLY PROBE 1

RED
BLACK

CAT5E

CAT5E

CAT5E

CAT5E

GRIDPOINT CONTACT

PLEASE CONTACT GRIDPOINT INSTALLATION MANAGEMENT @ 866-800-8906 FOR INSTALLATION CONTACT BASED ON THE STORE LOCATION.
EMAIL: SUPPORT@GRIDPOINT.COM

PRINTS ARE FOR: DESIGN [X] REVIEW [ ] PERMIT [ ] BIDDING [X] CONSTRUCTION [ ]

REVISIONS DESCRIPTION:	DATE:	BY:

CONFIDENTIAL AND PROPRIETARY

SHEET TITLE:
FULL SYSTEM MINUS LIGHTING/MOTION SENSORS

FILE NAME:
O'REILLY PREFERRED ONE LINE DIAGRAM

DATE: 2/27/2018
DRAWN BY: DAVID COLWELL

SHEET NO:
EM 1.0

O'REILLY PREFERRED ONE LINE DIAGRAM

5305 VALLEY PARK DRIVE SUITE # 2 ROANOKE, VA 24019

CASCO + R5
12 Sunnen Drive, Suite 100,
St. Louis, MO 63143
314.821.1100

REVISIONS:

O'Reilly AUTO PARTS

CORPORATE OFFICES
233 S. PATTERSON AVE.
SPRINGFIELD, MISSOURI 65802
417-862-2674 PHONE

PROJECT:
RE-MODEL O'REILLY AUTO PARTS STORE
103 E. GORDON AVE.
GORDONSVILLE, VA 22942

GRIDPOINT EMS

FOR REFERENCE ONLY

Professional of Record

DRAWN:	BJG
CHECKED:	HJA
DATE:	10-17-2018
JOB NO.:	118168 (GDV)
SHEET:	EM 1.0

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