SECTION 26 05 19 - LOW VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes:

1. **KROGER DIRECT BUY PROGRAM**: Owner supplied/Contractor installed.

   a. The Kroger Company will supply the following items:

      1) Building wires and cables rated 600 V and less.
      2) Building wires and cables rated higher than 600V as identified on Drawings.

   b. Comply with requirements in Division 00 Section “General Conditions.”

2. Contractor supplied items:

   a. Energy management system (EMS) control wiring:
   b. Multiconductor Portable Cable (SO cord).
   c. Connectors, splices, and terminations rated 600 V and less.
   d. Sleeves and sleeve seals for cables.

3. Contractor installed items:

   a. Building wires and cables.
   b. EMS control wiring.
   c. Multiconductor Portable Cable (SO cord).
   d. Connectors, splices, and terminations rated 600 V and less.
   e. Sleeves and sleeve seals for cables.

B. Security wiring is specified in Division 28 Section "Fire Alarm/Security System."

C. Direct Buy Wiring Quantity Determination:

1. Complete the Electrical Wire (Cuts) Order Form (See attached sample form at the end of this Section). Order may be broken down into a maximum of two deliveries, additional deliveries are at Contractor’s expense. Submit via email to the Direct Buy Wire Supplier:

   Graybar Electric
   CIOHKroger@gbe.com
   Attention Renee Miller

2. Include wiring from Division 26 Section "Grounding And Bonding For Electrical Systems."
3. Report any discrepancies between the Electrical Wire (Cuts) Order Form and actual product received to the Direct Buy Wire Supplier and copy Kroger within the allotted time frame as established by the Direct Buy Wire Supplier. Coordinate delivery

schedule, cut lengths, colors, location and date with the Direct Buy Wire Supplier. Upon receipt, the electrical wire becomes the property of the Contractor.

4. Notify Direct Buy Wire Supplier of any delivery date change with copies to Kroger's Procurement Department and Kroger's Project Manager. Notification must take place a minimum of two weeks prior to requested delivery date and change must be a minimum of plus or minus two weeks.
5. Adjustments may be made between the Electrical Wire Bid Takeoff Form and the Electrical Wire (Cuts) Order Form as long as the adjustments do not exceed the value of the total wire price originally calculated on the Electrical Wire Bid Takeoff Form. Provide at no additional cost to the Owner, any additional electrical wire; equal in quality to Kroger supplied wiring, required to complete the project. Kroger will pay for pricing increases in wire due to inflation.
6. Manage any warranty claims directly with the Direct Buy Wire Supplier and copy Kroger.

1.2 SUBMITTALS

A. The Owner will provide the following submittals for the Contractor's review. The Contractor shall review and return submittals as specified in Division 00 Section "General Conditions."

1. Product Data: For each type of Owner furnished product.

B. Provide the following submittals for Owner's and Architect's review:

1. Product Data: For each type of Contractor furnished product.
2. Field quality-control test reports.
3. Electrical Wire (Cuts) Order Form: Submit as defined above.

1.3 QUALITY ASSURANCE

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

B. Comply with NFPA 70.

PART 2 - PRODUCTS

2.1 CONDUCTORS AND CABLES (OWNER SUPPLIED)

A. Refer to Division 01 Section "Vendor Contact List."

1. Building Wires: Conductors, conductor insulation, and multi-conductor cable to comply with NEMA WC70. Except where copper conductors are specifically noted on Drawings for 100 ampere and larger feeders, aluminum alloy AA-8000 compact stranded conductors will be installed.
2. Metal Clad Cable (Type MC) to comply with National Electrical Code (NEC) and authorities having jurisdiction.

2.2 CONDUCTORS AND CABLES (CONTRACTOR SUPPLIED)

A. Multiconductor Portable Cable (SO Cord): Comply with NEMA WC 70/ICEA S-95-658 for Type SO with ground wire.

1. Manufacturers:

a. Allied Wire and Cable, Inc.
b. General Cable Technologies Corporation.
c. Southwire Company, LLC.

2. Description: Stranded bare copper conductor, separator, CPE Rubber or EPR insulation, suitable fillers, separator and CPE jacket with a temperature range of minus 40 degrees F (40 degrees C) to plus 140 degrees F (60 degrees C).

a. Provide stainless-steel, wire-mesh, strain relief device at terminations.

3. Color: Black.

2.3 ENERGY MANAGEMENT SYSTEM (EMS) CONTROL WIRING: (CONTRACTOR SUPPLIED)

A. Manufacturers:

1. Anixter; 800-264-9837
2. Beldon CDT, Inc., 800- 235-3361
3. Walker; Division of Butler Manufacturing; 816-968-3000
4. Harvey Hubbel Incorporated; 203-882-4900

B. Basis of Design: Beldon CDT, Inc., 800- 235-3361

2.4 CONNECTORS AND SPLICES (CONTRACTOR SUPPLIED)

A. Manufacturers:

1. AMP, Inc.; 800-468-2023
2. Burndy Corp.; 800-346-4175
3. Eagle Electric Manufacturing Co., Inc.
4. Ideal Industries, Inc.; 800-435-0705
5. Joslyn Manufacturing and Supply Co.; 317-848-5127
6. OZ/Gedney Co.; 847-268-6000
7. Pyle National Co.; 804-798-8390
8. Thomas and Betts Co.; 800-816-7809

B. Description: Factory-fabricated connectors and splices of size, ampacity rating, material, type, and class for application and service indicated.

2.5 SLEEVES FOR CABLES (CONTRACTOR SUPPLIED)

A. Steel Pipe Sleeves: ASTM A 53/A 53M, Type E, Grade B, Schedule 40, galvanized steel, plain ends.

2.6 SLEEVE SEALS (CONTRACTOR SUPPLIED)

A. Basis-of-Design Product: Subject to compliance with requirements, provide the product indicated on Drawings or a comparable product by one of the following:

1. Advance Products & Systems, Inc.; 800-315-6009
2. Calpico, Inc.; 800-255-1032
3. Metraflex Co.; 800-621-4347
4. Pipeline Seal and Insulator, Inc.; 713-747-6948

B. Description: Modular sealing device, designed for field assembly, to fill annular space between sleeve and cable.

1. Refer to Division 26 Section “Common Work Results for Electrical” for more information on sealing materials.

2.7 CONNECTIONS: (CONTRACTOR SUPPLIED)

A. Provide UL type factory fabricated, connectors of sizes, ampacity ratings, materials, types and classes for applications and for services indicated. Where not indicated, provide proper selection as determined by Installer to comply with project's installation requirements, NEC and NEMA standards. Select from following, those type, classes, kinds and styles of connectors to fulfill project requirements.

1. Type:

a. Pressure
b. Crimp
c. Threaded

2. Class:

a. Insulated
b. Non-insulated

3. Kind:

a. Copper (for copper to copper connection)
b. AL/CU Dual-Rated for use with aluminum and copper conductors (for copper to aluminum connection and for aluminum to aluminum connection). Properly wire brush conductor surface and utilize Listed anti-oxidation joint compound. Wipe away excess compound. All connection/termination materials shall be UL Listed and Labeled for the specific application and applied accordingly.

4. Style:

a. Butt Connection
b. Elbow Connection
c. Combined "T" and Straight Connection
d. "T" Connection
e. Parallel Connection
f. Tap Connection

PART 3 - EXECUTION

3.1 CONDUCTOR MATERIAL APPLICATIONS

A. Metal-Clad Cable (Type MC): Type MC cable may be used to the extent permitted by the National Electrical Code (NEC) and by authorities having jurisdiction. Install in strict compliance with NEC Article 330, including all references therein to other articles and sections of NEC, and in strict compliance with all other authorities having jurisdiction and the following:

1. See Division 26 Section "Raceways and Boxes for Electrical Systems" for information related to flexible metal conduit.
2. Unlimited length of MC cable may be used for branch circuits where entire run is concealed, such as in walls, above accessible ceilings, or in unoccupied attic areas.
3. Do not use MC cable where subject to physical damage, such as unfinished areas at heights of 5 feet (1.52 m) above finished floor or less.
4. Where metal clad (Type MC) cable branch circuit is visible, limit installation of cable to 25 feet (7.62 m) maximum length from junction boxes to connect to devices as required.

    a. Install exposed MC cable runs parallel with walls or structural elements and tight to structural elements where possible. Vertical runs shall be plumb; horizontal runs level and parallel or perpendicular with structure, as appropriate. Groups shall be racked together neatly with both straight runs and bends parallel and uniformly spaced.
    b. Install only Type MC cable with stranded #12 and #10 copper conductors, Type THHN insulation twisted and covered with polyester tape.
    c. Connect paired lighting units (those sharing ballasts as in a master satellite system) with 25 feet (7.62 m) fixture whips unless directed otherwise through unit manufacturer’s recommendations.

5. MC cable (aluminum alloy) may be installed for feeder applications from switchboard to panelboards or disconnects for feeders 100A or larger as sized on the Drawings.

    a. Feeders: Provide aluminum alloy AA-8000 compact stranded conductors for 100 ampere and larger feeders unless noted otherwise on the Drawings.
    b. Comply with the routing of conduit as described in Article "Installation of Conductors and Cables" of this Section. Failure to do so may result in a shorter cable run and larger potential fault current (for which the system may not be designed).
    c. Do not use MC cable for underground applications.
    d. See Division 26 Section "Raceways and Boxes for Electrical Systems" for allowable/limiting lengths.

e. Feeder and subfeeder descriptions shown on Drawings are based on traditional conduit/wire type installation; however, the Contractor may, at it's option, run feeder MC cable (20 feet (6 m) maximum length) from service entrance switchboard or distributions panels to panelboards rated 100 A or larger.

B. Branch circuit MC cable is permitted in limited use conditions only as indicated in this Article. Homeruns to departments or areas where a large number of branch circuits are being installed shall be in conduit. From junction boxes installed above the ceiling in a space, MC shall be permitted to connect to devices as required.

C. Do not install conductors of sizes less than indicated. Minimum size for branch circuits shall be No. 12 AWG; for #12; for Class 1 remote control and signal, circuits to be No. 14 stranded; for Class 2 low-energy remote control and signal, circuits to be No. 16 AWG stranded conductors.

D. EMS Control Conductors:

1. Provide wiring for CPC Systems applications:

Description	Wire Type	
	Plenum	Non-Plenum
WAN Connection	#24-8 Cat-5 Cable	#24-5 Cat-8 Cable
RS-485 Network	1 #22-2 Shielded Cable	#22-2 Shielded Cable
Analog/Digital Temperature Sensor/Input	#22-2 Shielded Cable	#22-2 Shielded Cable
Defrost Termination Sensor	#22-2 Shielded Cable	#22-2 Shielded Cable
Relative Humidity Sensor	#22-3 Shielded Cable	#22-2 Shielded Cable
Low Light Sensor	#22-4 Shielded Cable	#22-4 Shielded Cable
Outdoor Temperature Sensor/Drop Leg Sensor	#22-2 Shielded Cable	#22-2 Shielded Cable
Lighting Control	#14 Twisted Pair per Lighting Contactor (Plenum Rated)	#14 Twisted Pair per Lighting Contactor
Refrigeration Solenoid Valve	#14 Twisted Pair (Plenum Rated)	#14 Twisted Pair
HVAC Staging Control	2-#16-10 Multi-Conductor Cable (Plenum Rated)	2-#16-10 Multi-Conductor Cable
Unit Heater Control	#14 Twisted Pair (Plenum Rated)	#14 Twisted Pair
Line Voltage in Conduit	Per NEC and Mfr's Guidelines	Per NEC and Mfr's Guidelines

2. Provide the following wiring for Danfoss System applications:

Description	Wire Type	
	Plenum	Non-Plenum

W.A.N. Connection	Belden #1533P #24-8 Category-5 Cable or approved equal	Belden #1533R #24-8 Category-5 Cable or approved equal
RS-485 Network	Windy City Wire #043006AL Shielded cable or approved equal	Windy City Wire #043006AL Shielded cable or approved equal
Echelon Network	Belden #88760 #18-2 Shielded Cable or approved equal	Belden #8760 #18-2 Shielded Cable or approved equal
Analog/Digital Temperature Sensor/Input:	Belden #88760 #18-2 Shielded Cable or approved equal	Belden #8760 #18-2 Shielded Cable or approved equal
Defrost Termination Thermostat (Dry Contact):	Belden #88760 #18-2 Shielded Cable or approved equal	Belden #8760 #18-2 Shielded Cable or approved equal
Relative Humidity/Temp Sensor:	Belden #88770 #18-3 Shielded Cable or approved equal	Belden #8770#18-3 Shielded Cable or approved equal
Light Level Sensor:	Belden #88770#18-3 Shielded Cable or approved equal	Belden #8770 #18-3 Shielded Cable or approved equal
0 – 10V Signal	Belden #88760 #18-2 Shielded Cable or approved equal	Belden #8760 #18-2 Shielded Cable or approved equal
Lighting Control	#14 Twisted Pair Per Lighting Contactor (Plenum Rated)	#14 Twisted Pair Per Lighting Contactor
Refrigeration Solenoid Valve (208V)	Per NEC and Manufacturer's Guidelines	
HVAC Staging Control	2-#16-10 Multi-Conductor Cable (Plenum Rated)	2-#16-10 Multi-Conductor Cable
Unit Heater Control	#14 Twisted Pair (Plenum Rated)	#14 Twisted Pair
Line Voltage In Conduit	Per NEC and Manufacturer's Guidelines	
Drive Healthy	Belden #88760#18-2 Shielded Cable or approved equal	Belden #8760 #18-2 Shielded Cable or approved equal
Drive Enable	Belden #88770 #18-3 Shielded Cable or approved equal	Belden #8770 #18-3 Shielded Cable or approved equal

E. Color Coding:

1. Wire #10 AWG and smaller to be factory color-coded. Where factory color is not available for sizes larger than #10 AWG, mark conductors on each end with 1-inch (25.4-mm) band of colored pressure sensitive plastic tape.
2. Color for each phase and neutral to be consistent throughout the system color code to be as follows:

	208Y/120V System	277/480V System
Phase A	Black	Brown
Phase B	Red	Orange
Phase C	Blue	Yellow
Neutral	White	Gray
Grounding Conductor	Green	Green
Isolated Grounding Conductor	Green with Yellow Stripe	

a. The same color to be used for each phase throughout system of feeders, subfeeders and branches.

3.2 CONDUCTOR INSULATION AND MULTICONDUCTOR CABLE APPLICATIONS AND WIRING METHODS

A. General: Install electrical cables, wires and wiring connectors as indicated in compliance with applicable requirement so NEC, NEMA, UL and NECA's "Standard of Installation", and in accordance with recognized industry practices.

B. Provide circuitry conductors, cable, wire and connectors required on the project for:

1. Power Distribution
2. Lighting
3. Appliances
4. Equipment
5. Motor Branches
6. HVAC Control
7. EMS wiring

C. Sprinkler/Fire Alarm

D. Coordinate wire/cable installation work including electrical raceway and equipment installation work, as necessary to properly interface installation of wires/cables with other work and in accordance with proper phasing.

E. Swab out all raceways before any wires are pulled.

F. Install UL Type XHHW wire for underground service, underground feeder, and underground branch circuit conductors as well as other exterior branch circuits.

G. Install UL Type THHN or THWN wiring in conduit, for feeders and branch circuits in all interior building areas above grade.

H. Pull conductors simultaneously where more than one is being installed in same raceway. Use pulling compound or lubricant, where necessary; compound used must not deteriorate conductor or insulation. Use pulling means including, fish tape, cable rope and basket weave wire/cable grips that will not damage cables or raceway.

I. Where outlets only are indicated, 12-inch (305-mm) conductor leads to be provided for connection of Owner's equipment. All conductors to be identified at terminals and junctions with circuit numbers.

J. Cord Drops for Outlet and Equipment Connections (SO Cord):

1. Install to suit application for the following uses:

a. Cord drops to prep room equipment per ESD-16.
b. Cord drops to electrical outlets in prep areas per ESD-16A.
c. Cord drops to mobile refrigerated display cases.
d. Do not use cord drops for permanent power to building light fixtures.

K. Class 1 Control Circuits: Type THHN-THWN wiring.

L. Class 2 Control Circuits: Type THHN-THWN wiring.

3.3 SPLICES AND TAPS:

A. For splice and tap connections for wire sizes #10 AWG and smaller, provide joints in conductors by twisting the conductors and then connector in sizes and quantity of conductors as catalog rated by manufacturer. In no case will wire nuts be permitted. Connector to be Scotchlok Type Y, R, G or B.

B. For splicing wire sizes larger than #10 AWG, provide UL-listed insulated copper compression connectors. Provide AL/CU-rated connectors only where aluminum conductors are specifically noted on drawings for feeders rated 100A or greater.. Compression to be either indent or crimp type hydraulic. Burndy Type YS for splices. Tap connections larger than #8 AWG to be copper mechanical connectors Burndy Type KVS and Type QPX. Keep conductor splices to a minimum.

C. Install splices and tapes which possess equivalent, or better, mechanical strength and insulation ratings than conductors being spliced.

3.4 INSTALLATION OF CONDUCTORS AND CABLES

A. Conceal cables in finished walls, ceilings, and floors, unless otherwise indicated.

B. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.

C. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips that will not damage cables or raceway.

D. Route cables perpendicular and parallel to the building architectural lines/surfaces/structural members, keeping offsets to a minimum and following surface contours where possible.

1. Maintain a uniform elevation for cable runs wherever possible.
2. Support/Anchor cables at maximum 6-foot (1.8 m) intervals and within 12 inches (305 mm) of box or outlet without sag.
3. Install cables in a manner that prevents overheating.
4. Fasten cables directly to the structural steel using factory clamps/clips specifically designed for the respective cable. Do not attach cables to metal deck.

E. Install exposed runs of cables down walls to surface mounted panelboards by one of the following methods:

1. Within a partition chase wall (constructed by the electrical installer in manner approved by Architect).
2. Within appropriately sized steel raceway(s)
3. Within a custom fabricated heavy-gage painted sheet metal chase approved in advance by the Owner’s Representative.

F. Install chases and wireways in a manner that fully conceals and protects cables, prevents any overheating of cables and is approved by the local authority having jurisdiction.

G. Seismic-restraint devices are specified in Division 20 Section "Vibration and Seismic Controls for Facility Services."

H. Support cables according to Division 20 Section "Hangers and Supports for Facility Services" and Division 20 Section "Vibration and Seismic Controls for Facility Services."

I. Identify and color-code conductors and cables according to Division 26 Section "Electrical Identification."

J. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A (copper) and UL 486B (aluminum).

K. Wiring at Outlets: Install conductor at each outlet, with at least 12 inches (305 mm) of slack.

3.5 SLEEVE-SEAL INSTALLATION

A. Install to seal underground exterior-wall penetrations.

B. Use type and number of sealing elements recommended by manufacturer for cable material and size. Position cable in center of sleeve. Assemble mechanical sleeve seals and install in annular space between cable and sleeve. Tighten bolts against pressure plates that cause sealing elements to expand and make watertight seal.

3.6 FIELD QUALITY CONTROL

A. Perform tests and inspections and prepare test reports.

B. Tests and Inspections:

1. After installing conductors and cables and before electrical circuitry has been energized, test and service entrance and feeder conductors for compliance with requirements.

2. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.

C. Test Reports: Prepare a written report to record the following:

1. Test procedures used.
2. Test results that comply with requirements.
3. Test results that do not comply with requirements and corrective action taken to achieve compliance with requirements.

D. Remove and replace malfunctioning units and retest as specified above.

3.7 ELECTRICAL WIRE (CUTS) ORDER FORM

A. Complete the Electrical Wire (Cuts) Order Form (following this page) and submit via email to the Direct Buy Wire Supplier as specified in Part 1. Kroger will e-mail a copy of the electronic from to each of the Invited Bidders.

(The Electrical Wire (Cuts) Order Form immediately follows this page)

ELECTRICAL WIRE (CUTS) ORDER FORM

Store Information	
Store #	
Street	
Street/City/Zip	
Kroger PM	
PM Phone	

Takeoff Date	

Store Type	Gross SF
New Store	0
Expansion Remodel - Existing	0
Expansion Remodel - New	0
WIW Remodel (With-In-Wall)	0
Total	

MEP Engineer	
Company Name	

General Contractor	
Company Name	
Contact Name	
Contact Phone	

Electrical Subcontractor	
Company Name	
Street	
City/State/Zip	
Contact Name	
Contact Phone	

Order of Shipment (Priority): _____

Circuit # (Marked on Each Reel) _____

Size/Color/Type _____ Put Up: _____
Size/Color/Type _____ Put Up: _____
Size/Color/Type _____ Put Up: _____
Size/Color/Type _____ Put Up: _____

Parallel (yes or no) _____ Parallel with Circuit # _____

Order of Shipment (Priority): _____

Circuit # (Marked on Each Reel) _____

Size/Color/Type _____ Put Up: _____
Size/Color/Type _____ Put Up: _____
Size/Color/Type _____ Put Up: _____
Size/Color/Type _____ Put Up: _____

Parallel (yes or no) _____ Parallel with Circuit # _____

ELECTRICAL WIRE (CUTS) ORDER FORM

Order of Shipment (Priority): ____________________

Circuit # (Marked on Each Reel) ____________________
Size/Color/Type ____________________ Put Up: ____________________
Size/Color/Type ____________________ Put Up: ____________________
Size/Color/Type ____________________ Put Up: ____________________
Size/Color/Type ____________________ Put Up: ____________________
Parallel (yes or no) ____________ Parallel with Circuit # ____________________

Order of Shipment (Priority): ____________________

Circuit # (Marked on Each Reel) ____________________
Size/Color/Type ____________________ Put Up: ____________________
Size/Color/Type ____________________ Put Up: ____________________
Size/Color/Type ____________________ Put Up: ____________________
Size/Color/Type ____________________ Put Up: ____________________
Parallel (yes or no) ____________ Parallel with Circuit # ____________________

Order of Shipment (Priority): ____________________

Circuit # (Marked on Each Reel) ____________________
Size/Color/Type ____________________ Put Up: ____________________
Size/Color/Type ____________________ Put Up: ____________________
Size/Color/Type ____________________ Put Up: ____________________
Size/Color/Type ____________________ Put Up: ____________________
Parallel (yes or no) ____________ Parallel with Circuit # ____________________

Order of Shipment (Priority): ____________________

Circuit # (Marked on Each Reel) ____________________
Size/Color/Type ____________________ Put Up: ____________________
Size/Color/Type ____________________ Put Up: ____________________
Size/Color/Type ____________________ Put Up: ____________________
Size/Color/Type ____________________ Put Up: ____________________
Parallel (yes or no) ____________ Parallel with Circuit # ____________________

ELECTRICAL WIRE (CUTS) ORDER FORM

Order of Shipment (Priority): ______________

Circuit # (Marked on Each Reel) ______________
Size/Color/Type ______________ Put Up: ______________
Size/Color/Type ______________ Put Up: ______________
Size/Color/Type ______________ Put Up: ______________
Size/Color/Type ______________ Put Up: ______________
Parallel (yes or no) ______________ Parallel with Circuit # ______________

Order of Shipment (Priority): ______________

Circuit # (Marked on Each Reel) ______________
Size/Color/Type ______________ Put Up: ______________
Size/Color/Type ______________ Put Up: ______________
Size/Color/Type ______________ Put Up: ______________
Size/Color/Type ______________ Put Up: ______________
Parallel (yes or no) ______________ Parallel with Circuit # ______________

Order of Shipment (Priority): ______________

Circuit # (Marked on Each Reel) ______________
Size/Color/Type ______________ Put Up: ______________
Size/Color/Type ______________ Put Up: ______________
Size/Color/Type ______________ Put Up: ______________
Size/Color/Type ______________ Put Up: ______________
Parallel (yes or no) ______________ Parallel with Circuit # ______________

Order of Shipment (Priority): ______________

Circuit # (Marked on Each Reel) ______________
Size/Color/Type ______________ Put Up: ______________
Size/Color/Type ______________ Put Up: ______________
Size/Color/Type ______________ Put Up: ______________
Size/Color/Type ______________ Put Up: ______________
Parallel (yes or no) ______________ Parallel with Circuit # ______________

END OF SECTION 26 05 19