

NORTHEASTERN REMC



ELECTRIC STANDARDS MANUAL

NORTHEASTERN REMC

A Touchstone Energy® Cooperative



WARNING
Before digging or
trenching...

Call 811
Indiana Underground
Protection Service
1-800-382-5544

AVOID BURIED
POWER CABLES

NORTHEASTERN REMC

A Touchstone Energy® Cooperative



4901 East Park 30 Drive
P.O. Box 171 Columbia City, IN 46725
(260) 244-6111 (260) 625-3700
Fax (260) 625-3407
www.nremc.com

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100 or 200 AMP RESIDENTIAL SERVICES

1. The location of the meter base must be approved by Northeastern REMC. The electrician is to install an approved meter base on the house or meter stub as part of the service entrance. Approved meter bases shall be UL listed, have a ringless cover, a means for bypass (horns or lever) and be the proper size for the service (exception 320Amp can be used for a 400Amp service). Meter bases with an offset configuration (lugs to the side of the socket) will not be allowed, Meter socket / breaker combination cabinets must be in a side by side configuration meter socket / breaker combination cabinets with the meter socket over the main breaker will not be allowed unless the service is fed overhead.
2. No customer-owned facilities are allowed on Northeastern's poles. If found by Northeastern, facilities will be removed without notice.
3. Meter bases:
 - All four corners of the meter base must be secured. Use #10 galvanized screws or lag bolts.
 - Meter base must be mounted approximately 5 feet to center from final grade and level.
 - If a backboard is used, it must be solid wood material (cedar or pine).
 - Must have adequate working space in front of meter base. Air conditioners, furnace exhaust systems, and gas meters must be a minimum of 3 feet away from the meter base.
 - Repairs to the meter base and socket are the responsibility of the member. If the repairs cannot return the meter base to its original condition, the member will be notified in writing to replace the damaged meter base within 30 days to avoid the service being disconnected.
4. Aluminum electrical joint compound must be applied to all aluminum conductors when installed in the meter base and service panel.
5. On an underground meter base, install wire on bottom lugs only. On overhead services, install wires on both top and bottom lugs of meter base. Identify neutral wires with white or gray tape.

6. Underground down pipe (entrance pipe) must be 2-1/2 inch PVC schedule 80 or rigid galvanized pipe, and must extend 12 - 18 inches below ground. DO NOT use the center knock-out of an underground meter base for the 2-1/2 inch utility down pipe. PVC pipe must either be reamed or have bushings installed at both ends. If steel pipe is used, provide a plastic or fiber bushing at the lower end and a grounding bushing at the upper end. Bonding jumper from the bushing to the neutral lug in the meter base or ground lug shall be sized per the National Electrical Code. At the base of the entrance pipe, use a metal strap or hanger for support. Remove all concrete at the bottom of the riser pipe. If unable to remove concrete, install a 45 degree fitting, extending out past the concrete. **NOTE:** *If any decking, patios, sidewalks or other obstacles prohibit future accessibility to the bottom of the riser pipe, a 90 degree elbow must be installed, 2 feet below grade and conduit (furnished by contractor) must be extended out past obstacles for accessibility. Down pipe for 400 Amp services must be 4 inch schedule 80 PVC. Down pipes on underground services installed in concrete or asphalt must have an oversized sleeve around the conduit.*
7. Overhead risers must be 2 inch rigid galvanized conduit when extending through the roof line. If riser pipes are over 37 inches above the roof line, a guy support is needed (see REMC for details). Wires must extend 18 to 24 inches out past service head. Identify neutral conductor with white or gray tape.
 - Wire holder (house knob) must be installed by the member to a suitable structure capable of withstanding a force of 1,500 pounds and at a height that maintains required clearances.
 - Minimum 18 inch clearance for drip loop (NESC 234c3d(i))
 - (1) no more than 4 feet from the roof edge
 - (2) install no closer than 3 feet from a window
8. Grounding:

All services must have two (1/2 inch x 8 feet or larger) ground rods. Ground rods must not be installed within 16 inches of the down pipe. Ground rods are to be spaced no less than 6 feet apart, and driven below grade level. A #6 copper wire (solid or stranded) must be installed continuously from the meter base or service panel neutral to each ground rod. No splices are allowed

in the ground wire. Use acorn type ground clamps approved for direct burial. If the ground wire is exposed to possible damage, install wire in 1/2 inch PVC conduit and securely strap. If metallic conduit is used to cover ground wire, both ends of raceway must be bonded to the grounding conductor. **When using a concrete encased grounding system, County inspection is required before footers are poured.**

9. Bonding:

The service panel must be bonded to the service neutral with approved screws or straps. Water systems and gas systems must be bonded according to the National Electric Code.

- All metal raceways, enclosures and/or conduits containing service conductors must be bonded in accordance with the National Electrical Code.
- A water line shall not be the sole means of grounding.

10. When either lightning rods or telephone ground rods are within 6 feet of the service ground, they must be bonded together with #6 stranded copper wire with approved clamps.

11. The main service equipment must have a main breaker or main breakers, be readily accessible, and grouped together. Thirty-six inches of working space in front of the main service equipment must be provided.

12. 2-1/2 inch PVC schedule 40 is required for a 200-Amp service under driveways and concrete areas. 4 inch PVC schedule 40 is required for a 400-Amp service. All conduits must be furnished by the customer and installed by Northeastern (unless inaccessible by trencher). If a 90-degree fitting is used, see note #6. If underground service wires **will pass within 5 feet of a well or an in-ground pool, customer must provide 2-1/2 inch or 4 inch schedule 80 PVC conduit for protection of that portion of buried wire.**

13. No underground services will be run under roads unless conduit is installed by the developer of a subdivision prior to acceptance of the roads by a public authority.

14. Manufactured Homes:

- If installed on pad only, service must be installed within 30 feet of the home (see meter stub details).
- If installed on concrete walls and pulling device removed, service is allowed on the home.
- If service panel is not adjacent to the meter base, then a service disconnect will be required.
- Manufactured homes with a meter stub are required to have a 4-wire cable from the meter stub disconnect to the home with a separate ground conductor with the bonding taking place only at the meter stub equipment disconnect.

15. Consult your county building department for local codes and requirements.

SERVICES – SINGLE FAMILY DWELLING

AMPACITY – DWELLING SERVICES AND FEEDERS*
120/240, VOLTS, THREE–WIRE, SINGLE-PHASE
RHW/THW/THWN/THHN/XHWE/USE

SIZE AWG OR kcmil	CONDUCTORS PERMITTED RATING IN AMPS	
	COPPER CONDUCTORS	ALUMINUM CONDUCTORS
4	100	–
3	110	–
2	125	100
1	150	110
1/0	175	125
2/0	200	150
3/0	225	175
4/0	250	200
250	300	225
300	–	250
350	350	300
400	450	–
500	–	350
600	–	400