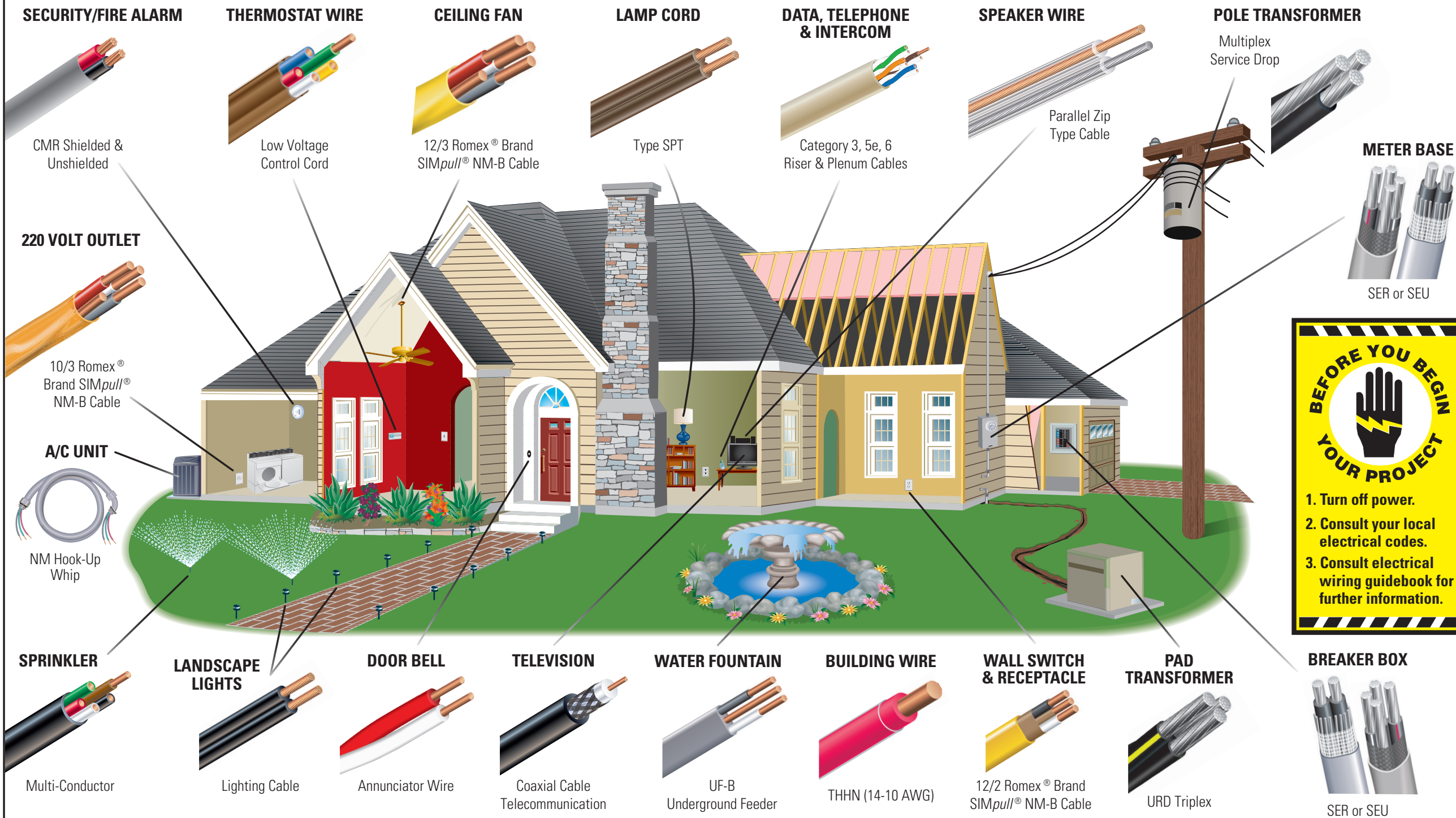


# ALL AROUND THE HOUSE



**BEFORE YOU BEGIN YOUR PROJECT**

1. Turn off power.
2. Consult your local electrical codes.
3. Consult electrical wiring guidebook for further information.



# CHOOSE THE RIGHT WIRE FOR THE JOB

INDOOR WIRE ( NM - B )	
APPLICATIONS	GAUGE / COND.
CEILING FAN WITH LIGHT	12/3
CENTRAL AIR CONDITIONER 30 AMPS	10/3
CENTRAL AIR CONDITIONER 40 AMPS	8/3
COMBINATION SWITCH & OUTLET	14/2
COOK TOP APT. SIZE - UP TO 30 AMPS	10/3
DISHWASHER	12/2
DISPOSAL	12/2
DOUBLE OVEN APT. SIZE - UP TO 30 AMPS	6/3
DOUBLE OVEN RANGE UP TO 45 AMPS - COPPER	8/3
DOUBLE OVEN RANGE UP TO 55 AMPS - COPPER	6/3
ELECTRIC DRYER UP TO 30 AMPS	10/3
ELECTRIC RANGE UP TO 50 AMPS	6/3
ELECTRIC WALL HEATER UP TO 1650 WATTS	12/2
ELECTRIC WALL HEATER OVER 1650 WATTS	10/2
EXHAUST FAN	14/2
FURNACE	14/2
GROUNDING OUTLET SMALL APPLIANCES	12/2
LIGHTED MEDICINE CABINET	14/2
LIGHTING FIXTURE	14/2
LIGHTING FIXTURE WITH OUTLETS	14/2
PORTABLE AIR COMPRESSOR	12/2
ROOM AIR CONDITIONER	12/2
SINGLE OVEN BUILT-IN UP TO 30 AMPS	8/3
WALL LIGHT SWITCH	12/2
WATER HEATER	10/2
3-WAY LIGHT SWITCH UP TO 15 AMPS	14/3
3-WAY LIGHT SWITCH UP TO 20 AMPS	12/3
USE 12/2W/GROUND WITH WALL SWITCHES AND GROUND OUTLETS WHERE LOCAL CODES REQUIRE	

SOUTHWIRE COMPANY  
 ONE SOUTHWIRE DRIVE  
 CARROLLTON, GEORGIA 30119  
 866-706-9473  
 WWW.SOUTHWIRE.COM

OUTDOOR WIRE ( UF - B )	
APPLICATIONS	GAUGE / COND.
DETACHED BUILDING 120V TO OUTLETS OVER 100 FT. RUN	10/2
DETACHED BUILDING 240V TO OUTLETS OVER 100 FT. RUN	10/3
DUSK TO DAWN LIGHT	14/2
OUTDOOR POST LIGHT WITH OUTLET	12/2
PATIO-POOL WATER PROOF OUTLET	12/2
PATIO SPOTLIGHT	14/2
SUB PANEL 40 AMP FOR RUNS OVER 75 FT., USE ONE GAUGE SIZE LARGER	8/3
SUB PANEL 55 AMP FOR RUNS OVER 75 FT., USE ONE GAUGE SIZE LARGER	6/3
SWITCH & GROUND OUTLET	14/2
WATER FOUNTAIN	6/3
METALCLAD ( MC )	
APPLICATIONS	GAUGE / COND.
AIR CONDITIONER 30 AMPS	10/3
BRANCH CIRCUIT	10/2
ELECTRIC DRYER UP TO 30 AMPS	10/3
GROUNDING OUTLET	14/2
HOT TUB	10/2
LIGHTING SWITCH	12/2
OVEN/RANGE	6/3
WATER HEATER	10/3
CORD	
APPLICATIONS	GAUGE / CONDUCTOR & PRODUCT NAME
DATA, TELEPHONE & INTERCOM	CAT 6, 5e, or 4 PAIR RISER, PLENUM
DOOR BELL	18/2, 18/3, or 20/2 BELL WIRE
LAMP	18/2, or 16/2 SPT
LANDSCAPE LIGHT	12, 14, or 16 LANDSCAPE CORD
SECURITY/FIRE ALARM	18/2, 18/4, 22/2 or 22/4 SECURITY WIRE
SPEAKER	14 16 or IN-WALL SPEAKER WIRE
SPRINKLER SYSTEM	18/4, 18/5, or 18/7 SPRINKLER WIRE
TELEVISION	RG6 or RG6 QUAD SHIELD
THERMOSTAT	18/2, 3, 5 or 7 THERMOSTAT WIRE

HELPFUL WIRE CHARTS														
AMPERAGE RATINGS*														
WIRE SIZE (AWG OR Kcmil)	14	12	10	8	6	4	3	2	1	1/0	2/0	3/0	4/0	
COPPER	INDOOR & OUTDOOR WIRE	15	20	30	40	55	70	85	95					
	RHW, THHN, XHHW, SE, USE	15	20	30	50	65	85	100	115	130	150	175	200	230
	RHW, THHN, (XHHW & SE IN DRY LOCATIONS)	15	20	30	55	75	95	110	130	150	170	195	225	260
ALU	RHW, THHN, (XHHW & SE IN DRY LOCATIONS)		15	25	45	60	75	85	100	115	135	150	175	205
*Amperage ratings for insulated wire & cable rated 0-2000 volts, based on table 310-16 of the 2005 NEC for not more than 3 conductors in raceway or cable or earth (directory buried), & an ambient temperature of 30°C/86°F. Branch circuits only. Not Service Entrance.														
RECOMMENDED CIRCUIT LENGTHS FOR VOLTAGE DROP*														
WIRE SIZE (AWG)	15	20	30	40	50	60	70	80	90	100				
COPPER	14	50												
	12	65	50											
	10	105	80	55										
	8	160	120	80	60									
	6	260	195	130	100	80								
	4	410	305	205	155	120	100	85						
	2	665	500	330	250	200	165	140	125	110	100			
ALU	6	155	115	80	60	50								
	4	245	185	125	95	75	60	55						
	2	295	295	200	150	120	100	85	75	65	60			
AMPERAGE ALLOWANCE FOR 3-WIRE SINGLE PHASE DWELLING SERVICES														
COPPER SIZE (AWG) OR KCMIL	ALUMINUM SIZE (AWG) OR KCMIL		SERVICE RATING (AMPS)											
6	6		60											
3	2		100											
2	1/0		125											
1	2/0		150											
2/0	4/0		200											
3/0	250		225											
4/0	300		250											
250	350		300											
350	500		350											
400	600		400											

WARNING: Installation of electrical wire can be hazardous and, if done improperly, can result in personal injury or property damage. The above applications are general recommendations where special conditions may exist, consult a professional electrician. For safe wiring practices, consult the National Electrical Code and your local building/ electrical inspector.