



## HOW TO MANAGE YOUR INSTALLATION

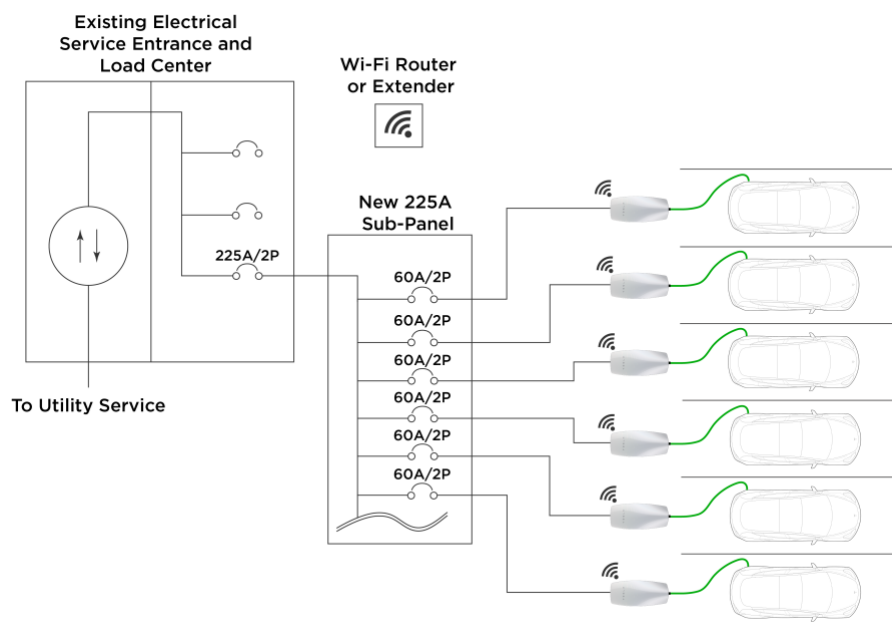
### Step 1: Determine Electrical Capacity & Parking Space Location

- Choose parking spaces within proximity to electrical infrastructure; less than 150ft away from main electrical room is ideal for cost effective projects.
- Install costs rise significantly with trenching and pedestals, look for parking that is adjacent to the building or a wall where conduit can run from the electrical room.

### Step 2: Design with Power-Sharing in mind

- Power sharing enables groups of up to 6 Tesla Connectors to automatically share a common load maximum.
- Power-sharing works through point-to-point wireless communication between Tesla Connectors; make sure each power-sharing follower has line-of-sight to the leader unit.
- When installing a power sharing network, the minimum charge rate should never go below 12 amps per unit, when all Wall Connectors are in use.

| Installation Setup         | Maximum # of Wall Connectors |
|----------------------------|------------------------------|
| Single 60A circuit         | 4                            |
| Dedicated 100A 1P EV panel | 6                            |
| Dedicated 200A 1P EV panel | 13                           |
| Dedicated 225A 1P EV panel | 15                           |





### Step 3: Ensure Internet Connectivity

- Strong house Wi-Fi, or an external 4G Cellular gateway are required, please ensure this is factored into the scope of work with your electrician. We recommend the [Outdoor Router](#) if cellular + Wi-Fi is needed.
  - WPA Password Protected
  - 2.4 Ghz Wi-Fi only
  - No 5Ghz
  - Not able to be hardwired
  - 1.5 Mb/s speed needed for firmware updates
  - Each Wall connector consumes ~4GB/month of data
- **Cellular**
  - Minimum -80db (2-bars) of cellular connectivity on cellular network
  - A boost antenna may be required if cellular signal is weak.
- **Wi-Fi Access Points (WAPs)**
  - Wi-Fi broadband range is ~300' (100m). Ethernet wifi extenders (WAPs) may be necessary for distributed wall connector arrays.
  - Design for installation of wall connectors in a group, and within 300' (100m) of cellular router installation location.

## New Development and Future Proofing

#### Project Guidance

In an **Apartment** setting, designate one or more EV charging transformers.

- Ensure transformer is sized to support at least 20% of total residential parking space count at 8kW per space.
- Stub 100% of spaces in development to take advantage of cost efficiencies during development, and EVSE as needed post occupancy.

In a **Condominium** setting with deeded parking and metering, developers can allocate less power per space; no less than 3kW to 100% of spaces.

- Power-sharing will not be needed in cases of dedicated metering per deeded condo.
- Let condo owners purchase Tesla Connector as needed, developer only needs to stub out conduit.

#### Example

| Type      | Units | Initial EV Spaces | kW  |
|-----------|-------|-------------------|-----|
| Apartment | 200   | 40                | 320 |
| Condo     | 75    | 75                | 300 |