

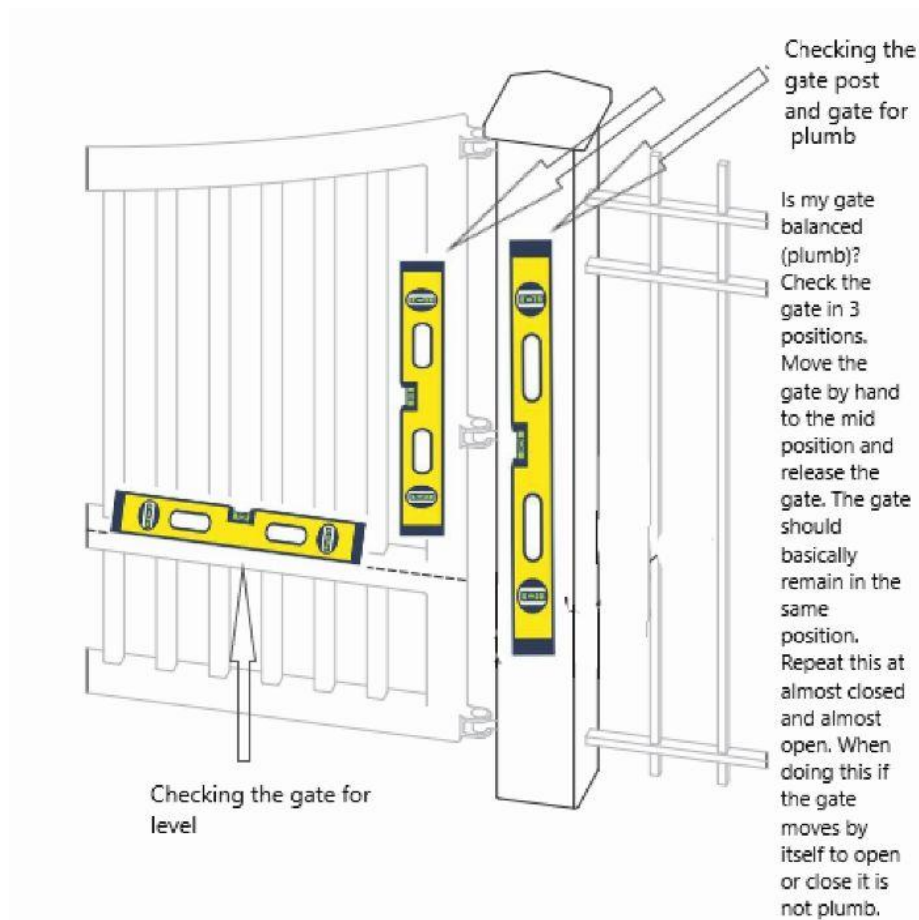


WHAT TO KNOW BEFORE YOU INSTALL

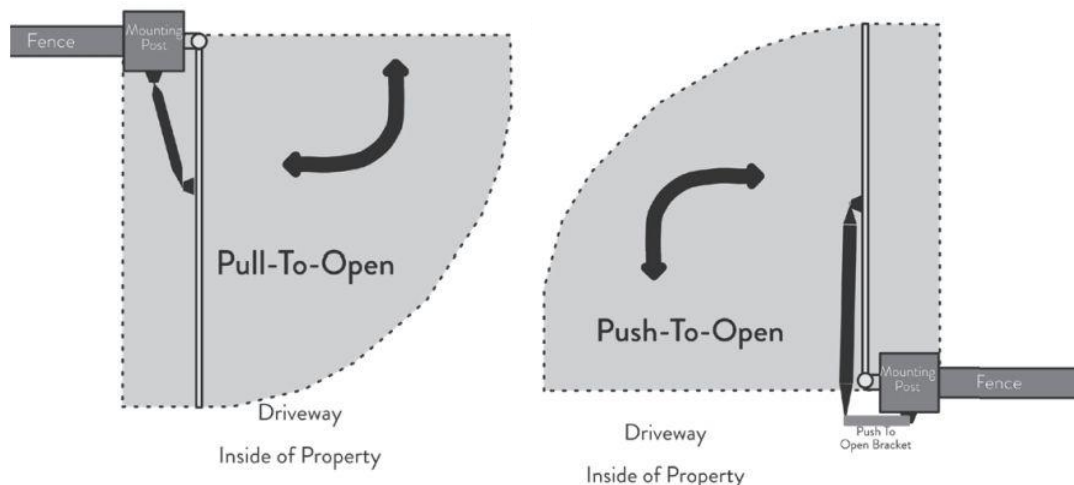
Ghost Controls' Automatic Gate Openers are meant to be used in agricultural and single-family residential applications.

Gate Considerations:

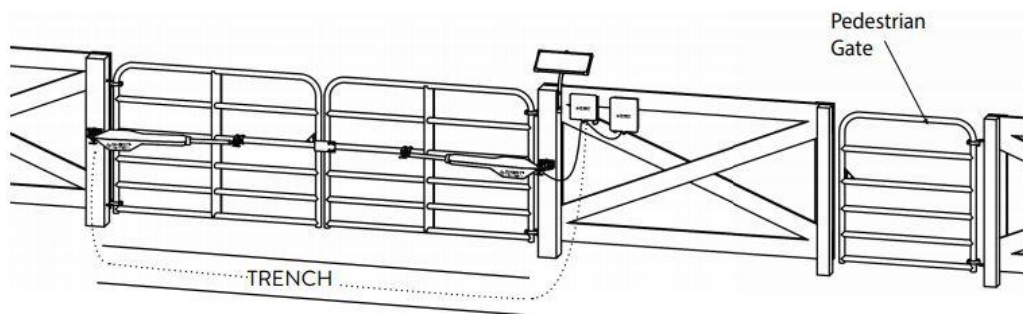
- Make sure the gate swings level, plumb, and freely throughout the full opening and closing range of motion. (Level is horizontal and plumb is vertical)
 - This may require making sure the gate post is plumb and/or adjusting/positioning the gate hinges to be aligned vertically.
 - When a gate/post is not plumb it may surge/hesitate in a particular direction of its travel and possibly not function.
 - When a gate is not level it may drag the ground or cause a bind in some manner.



- Freely swinging gates are crucial to ensuring that your gate opener system works correctly.
 - If the gate(s) weighs more than 200lbs, bearing-type hinges should be used.
 - If your ball-bearing/bearing type gate hinges are binding, out of grease, or have become difficult to move, your gate opener system may treat this as an obstruction.
 - This can likely be resolved by lubricating your gate hinges.
 - If the hinges are worn or damaged replace them.
- The use of guy wires and or wheels to help support/facilitate gate movement is **not** recommended.
 - These cause the control arm(s) to encounter different amounts of resistance during motion and may cause the unit to believe it has come in contact with an obstruction and momentarily reverse direction.
- If the unit is being installed on a tube-style gate, our [AXTB Universal Tube Bracket Kit](#) can make the installation a bit easier.
 - Some kits already include these brackets. Please read the list of hardware included with your kit, and assess your individual needs.
- Direction of Gate Travel
 - Pull to Open means the Gate(s) opens to the inside of the property.
 - Push to Open means the Gate(s) opens to the outside of the property, and the purchase of our [AXPO Push-To-Open Brackets](#) will be required
 - The AXPO is a set of 2.
 - For dual gate applications, two sets will need to be purchased.



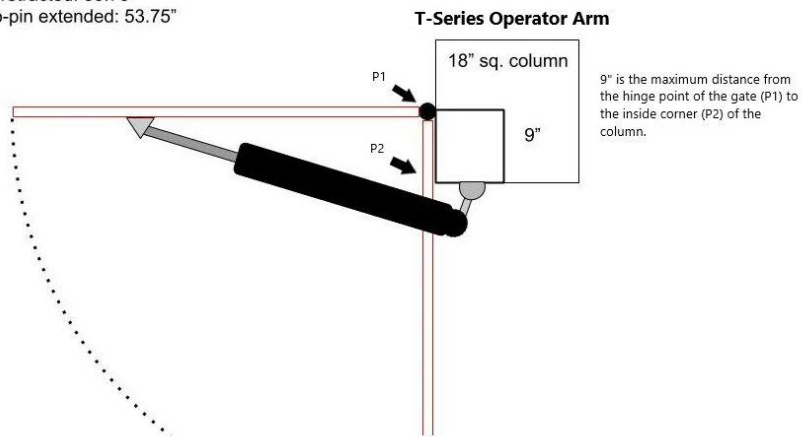
- Do you have a solid panel gate (which is considered to be any gate with more than 30% surface coverage)?
 - We **do not** recommend using our gate operators on gates of this kind, because any full panel gate with a swing operator attached has the potential to catch a gust of wind and cause irreparable damage to the gate and gate operator.
 - If you still choose to install our system on a full panel gate, we will honor the warranty for your accessories and control board, BUT we will NOT be able to honor the warranty on your gate opener arm and mounting hardware.
 - Please give us a call if you have further questions.
- Running the secondary operator arm in conduit makes maintenance and any future service issues much easier.



- Gate Posts
 - All posts need to be secured with concrete.
 - Wooden gate posts should be at least 6x6".
 - Metal Round posts should be at least 3" in diameter.
 - Metal Square posts should be at least 4x4".
 - **Column considerations:** The below diagrams concern gates that open to the inside of the property.
 - If your column and the manner in which the gate is hinged exceed the below guidelines, you can install the system as a Push to Open.
 - If your gate is already a push to open style or you intend to make it so, the purchase of our [AXPO Push-To-Open Brackets](#) will be required.
 - If you are unable to configure your gate as a Push to Open system, give us a call at 850-558-5520 for assistance.

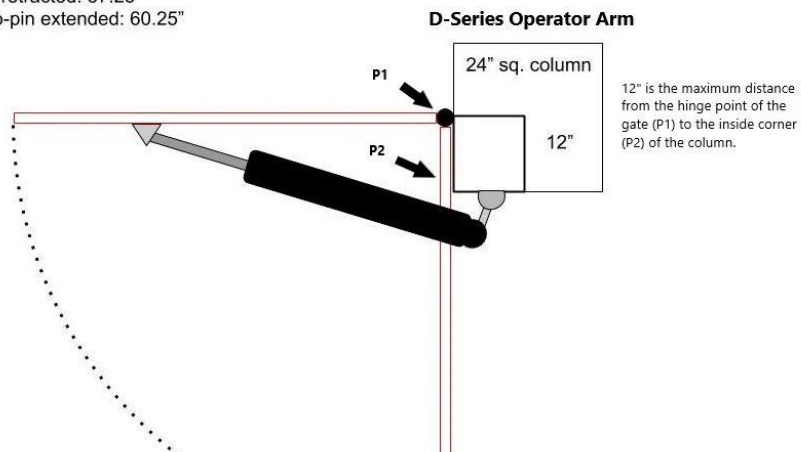
T-Series Column Mount Guidelines

Pin-to-pin retracted: 33.75"
Max pin-to-pin extended: 53.75"



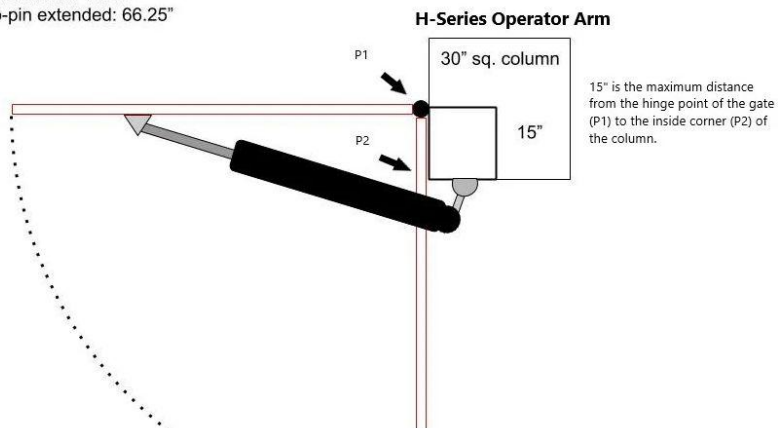
D-Series Column Mount Guidelines

Pin-to-pin retracted: 37.25"
Max pin-to-pin extended: 60.25"



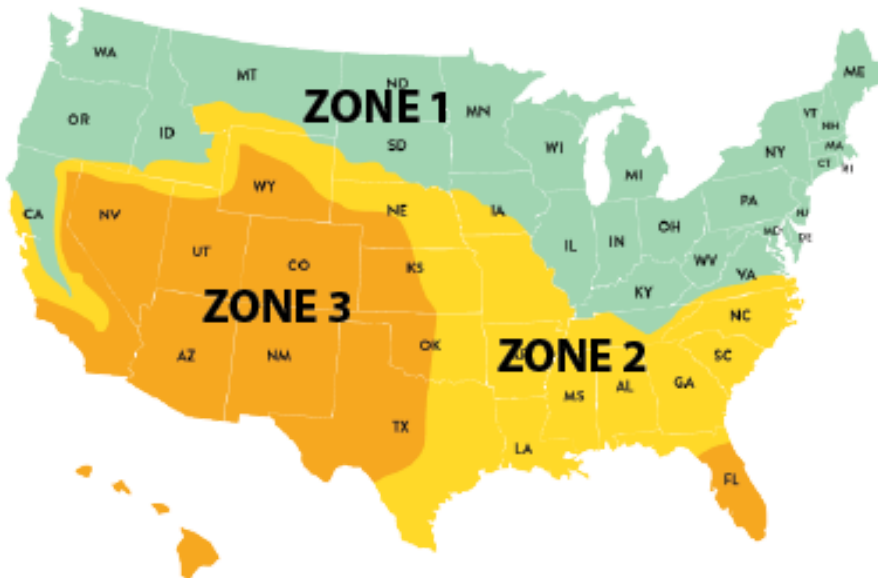
H-Series Column Mount Guidelines

Pin-to-pin retracted: 40.25"
Max pin-to-pin extended: 66.25"



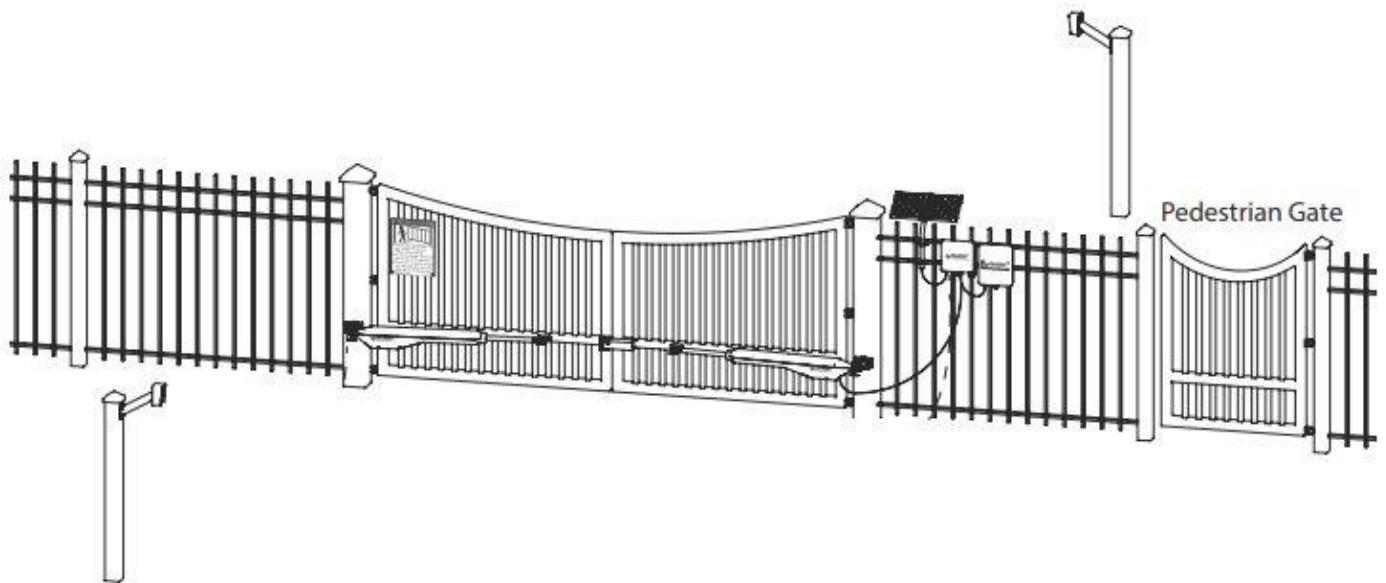
- System Power Requirements

- This is a battery-operated system. 12 Volt Battery(s) are **required**.
 - You choose how you will maintain the battery(s):
Solar **OR** Transformer.
- For units being installed with solar panels:
 - The minimum recommendation is Two 12V, 7AH batteries.
 - The best option - to remain operational during intermittent long unusual periods with little or no sunlight - is a Marine Deep Cycle type battery.
 - Marine-type batteries differ in ways that allow them to continue to work longer under adverse conditions.
 - However, this is **not** a cure for lack of direct sunlight due to panel placement or an obstruction (trees, shrubs, etc.).
 - Chronic low battery issues stem from the lack of enough consistent charge. This is overcome by:
 - Panel placement.
 - Receiving the minimal direct sunlight requirements.
 - Having the right amount of panels based on your location and application. Please see our Solar Panel Chart for more details.
 - If needed, the solar panel(s) can be positioned up to 100' away from the control box by extending the wire using 16 gauge stranded, 2-conductor low voltage wire.
 - If extended, the splices will need to be weatherproof.



NUMBER OF 10W PANELS	ZONE 1	ZONE 2	ZONE 3
1=10W SINGLE	8 cycles	16 cycles	24 cycles
1=10W DUAL	4 cycles	8 cycles	12 cycles
2=20W SINGLE	14 cycles	28 cycles	38 cycles
2=20W DUAL	7 cycles	14 cycles	19 cycles
3=30W SINGLE	20 cycles	30 cycles	40 cycles
3=30W DUAL	10 cycles	15 cycles	20 cycles

- For units being installed with a transformer (AC Power):
 - One 12V, 7AH battery is the minimum requirement.
 - The transformer will be plugged into a 120-volt outlet.
 - The transformer must be protected from the weather indoors or in a weatherproof outdoor box/cover.
 - Once the transformer is plugged in, the wire from the transformer (not supplied) to the control box can not exceed 1000'. The recommended wire is a 16 gauge stranded, 2-conductor low voltage.
- Pedestrian Gate
 - We include the need for a pedestrian gate as a requirement because Ghost Controls systems are intended for vehicular access and not for pedestrian use.
 - Having a separate walk-through gate gives you easy access to your property, especially in the unfortunate event that your system does not open on command.
 - If this were to occur, use the pedestrian gate to enter the property and you can manually open or close your automatic gate opener as described in your installation manual.



- For further information or help choosing your perfect system, give us a call at **850-558-5520**