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# MULTITELESCOPIC GATE MANUFACTURING AND INSTALLATION MANUAL.

Telescopic gates have been manufactured for many years essentially in the same way they are largely today. In recent years hardware suppliers have developed telescopic kits which in the main is a box of all the components that we have always used. Some are complicated and fancy and cost as much as the gate itself but still work on the exact same principle.

The kit you are reading about today is about as simple as we could make it .  
The aim is a low cost and simple to build and install kit using the same principles that we have for many years.

In addition to this kit you will require the following components -

- Track - available in three metre lengths

- Wheels - Six WHEELRND90

- Gate stops and receivers

- Automation kit

Automatic Gate Solutions can manufacture your frames as well as supply your hardware kit and automation kit.

Contact [sales@automaticsolutions.com.au](mailto:sales@automaticsolutions.com.au) with your panels sizes and numbers. We can provide frames only ready for your infill or complete gate leaves fabricated.

Our sales team will bundle and save \$\$\$ for you.



# Setup In Photos





# Setup In Photos

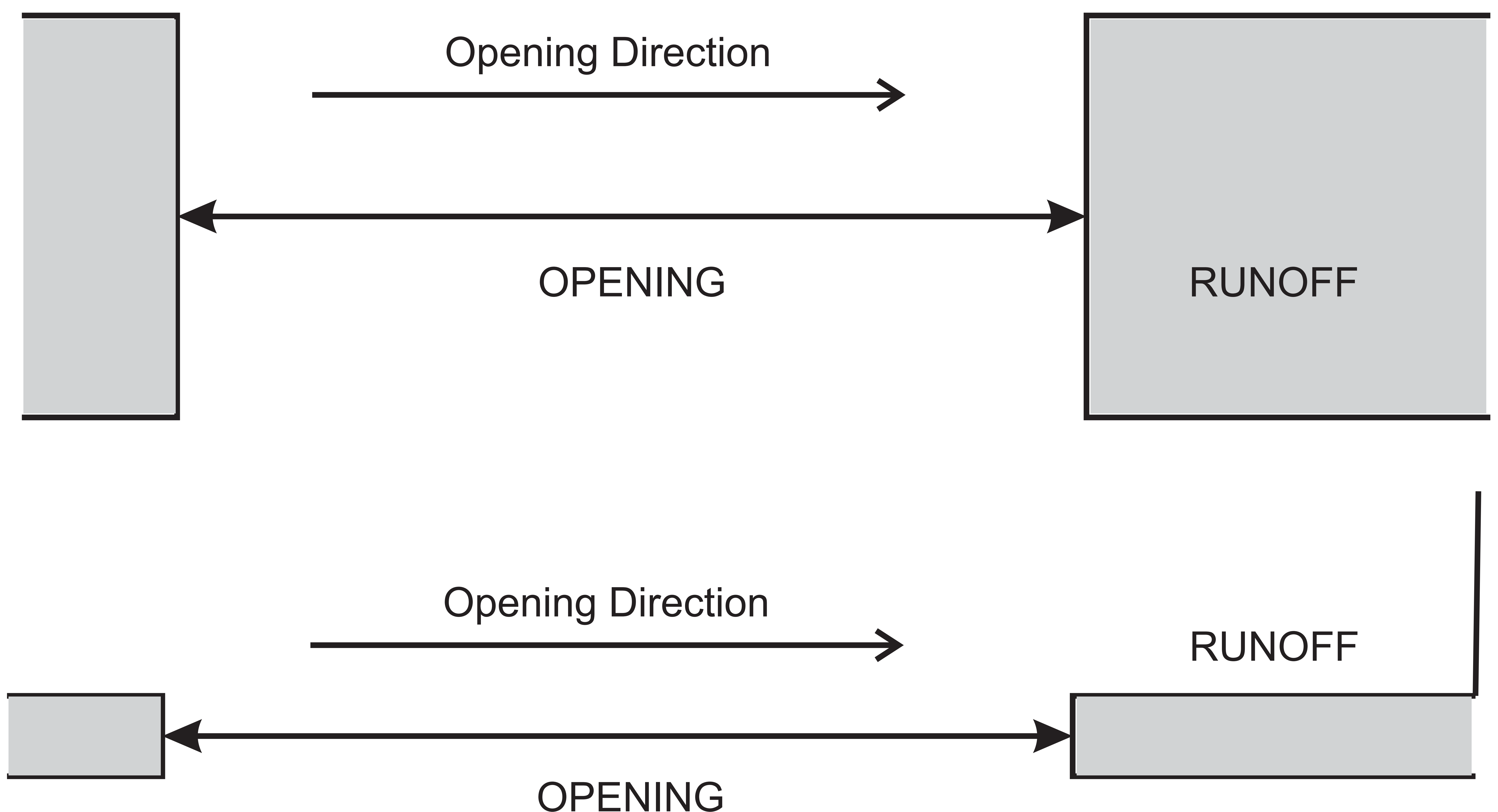




## Step 1 - Will Multi-Telescopic Work for me?

Gate Leaf Size = Opening / Three + Leg.  
Leg minimum = 350mm.

(NOTE: Many motors require a leg greater than 350mm.  
In this situation you need to increase the leg dimension  
therefore and the run off area required.)

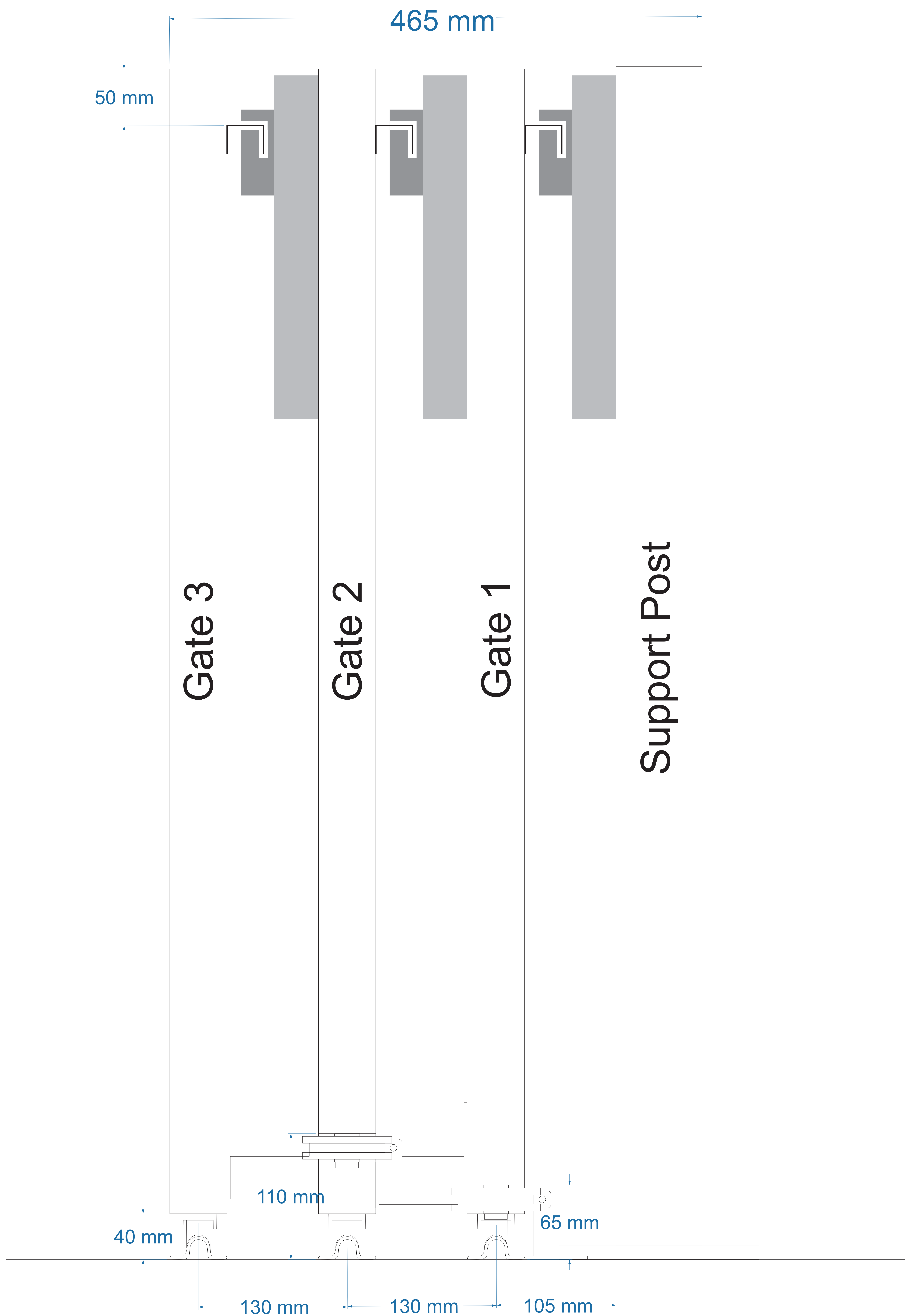


Example - Opening is 6000mm (6 Metres)  
Leg will be 400mm.  
Runoff is 2500mm

$$6000 / 3 = 2000 + 400 = 2400.$$

Each leaf is 2400mm and will fit into my runoff area.

Step 2 - Side view layout. Room required.  
Gate Leaf Size = 50mm. Post 75x75mm.  
Overall width required = 465mm.





# GATE DESIGN

Multi-Telescopic Gates can be different from a typical sliding gate. We will cover the differences here and how to deal with them.

## GATE FRAME

A minimum of 100x50x3mm RHS is needed for the frame on all leaves. 100mm is needed for the pulley hardware on the bottom rail. Also the top guide & incline guide need 100mm to work together. Because the hardware is bolted to the gate 3mm thickness is preferred.

## GATE INFILL

Gate infill is personal preference but a good idea is to keep weight down. Multi-Telescopic gates rely on pulleys and cables and the more weight the extra strain. Using Aluminium rather than steel to construct your gate is a good start.

## MOTOR

You will need a motor with a manufacturer's rating of five times the leaf weight. Why? One gate travels three times as fast as the others creating a lot of load and when adding the pulley system. The effective gate weight is five times the leaf weight.

## WHEELS

Multi-Telescopic gates are designed to be used with recessed wheels. You will need three sets or six wheels in total. Ask for WHEELRND90.

## TRACK

Multi-Telescopic uses three runs of track, one for each gate. Gate 1 requires a track only one third the driveway width whilst gate 2 track needs two thirds and gate 3 runs the entire driveway width. It is neater and easier to run three full length tracks. The bolt down item is TRACKBOLT and comes in three metre lengths or you can choose to concrete in with TRACKCONC also in three metre lengths.

## INCLINE GUIDE CHANNEL

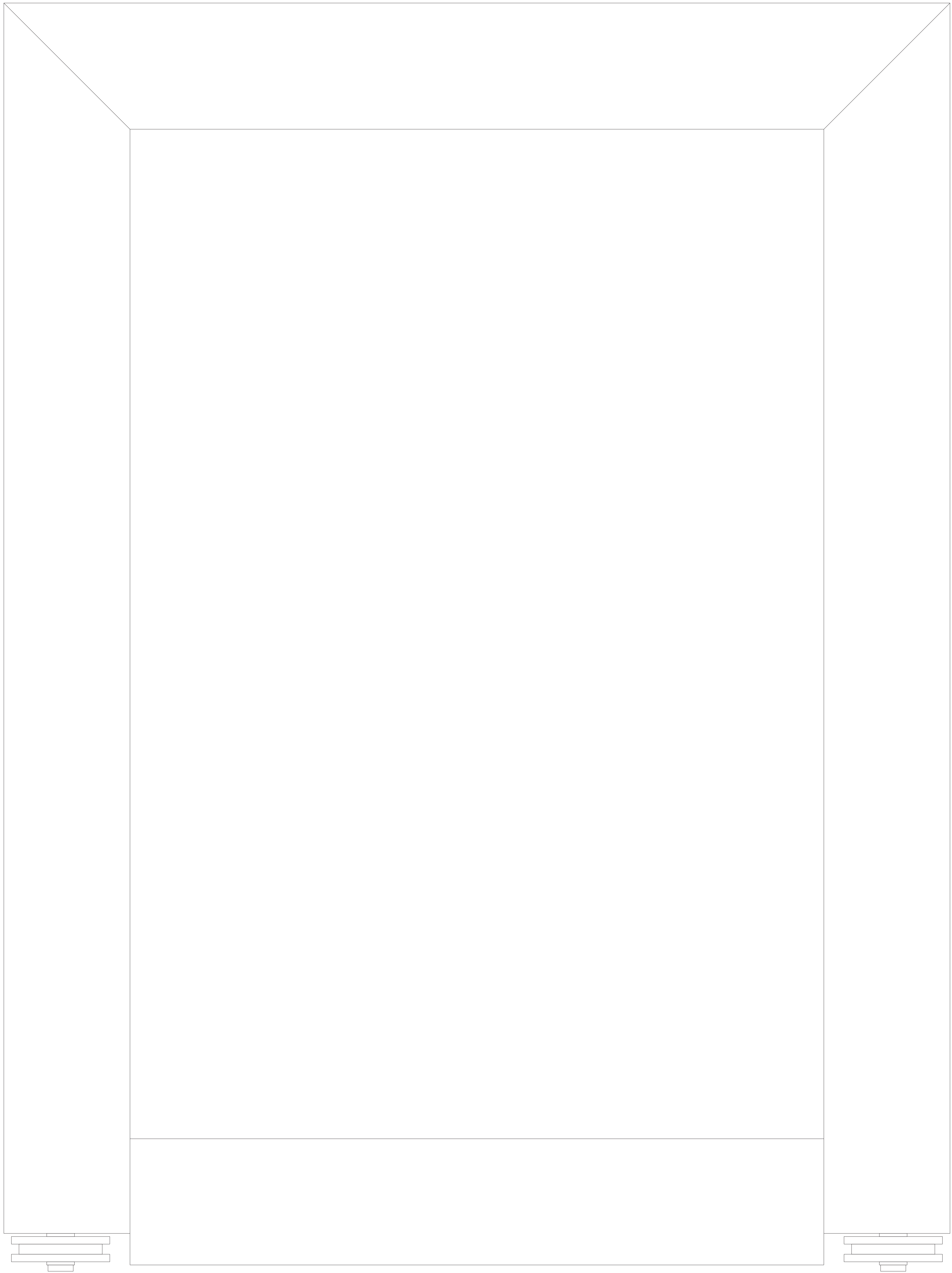
When fabricating your gate you will require a U-channel or angle for the incline block guide. The channel needs to be 25x32x25 x 2.5 to 3mm thickness. You will require enough for all gate widths.

## SUPPORT POST

A 75x75mm support post is required to keep the gate/s upright. This post can be concreted in or bolted to a hardstand area but is usually the same height as your gates. If you choose to bolt down use POSTPLATE75.

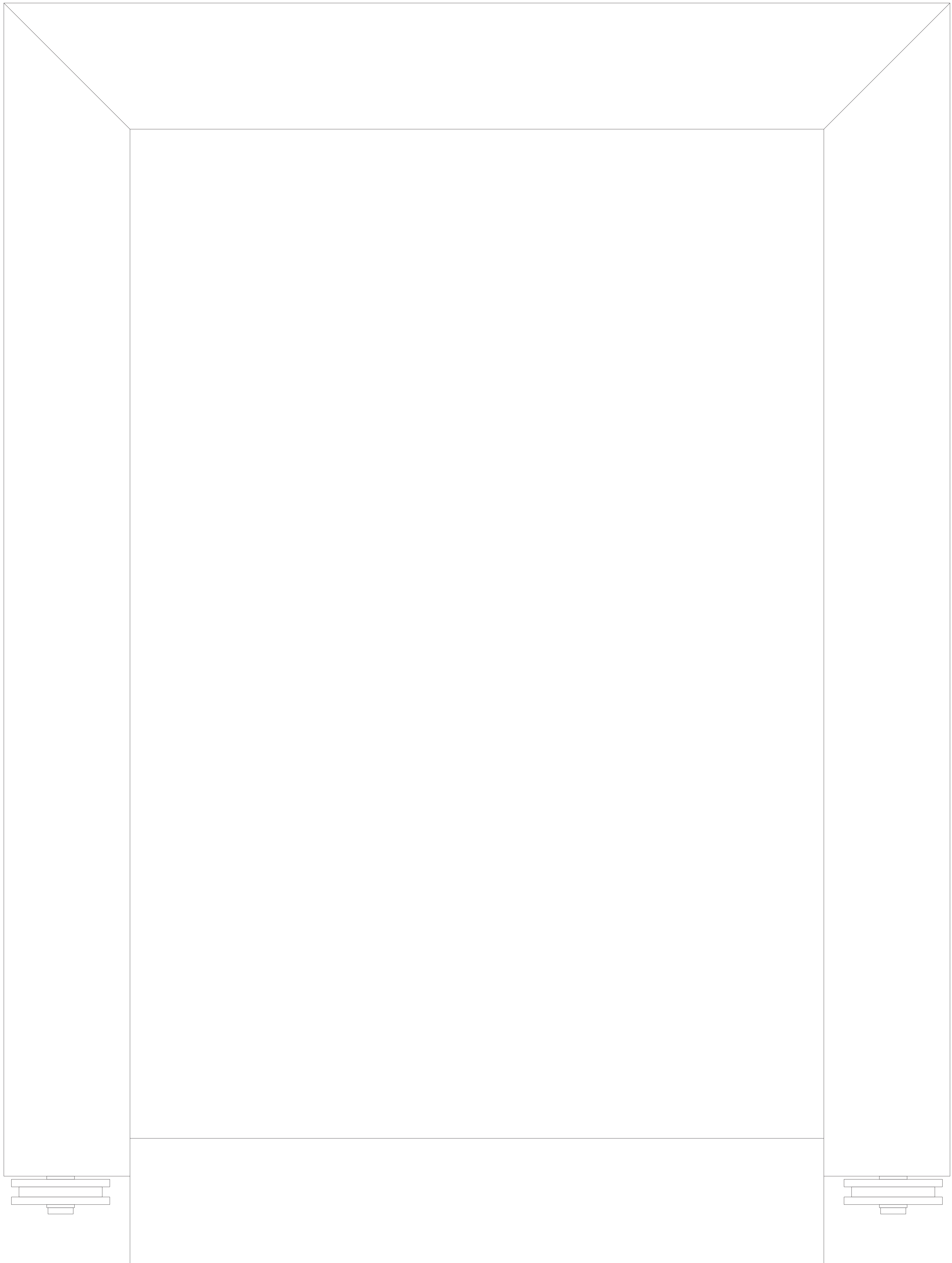


Gate 1 - Pulley cut outs required.



Gate 1 - Pulley cut outs - 100mm x 25mm.

Gate 2 - Pulley cut outs required.



Gate 2 - Pulley cut outs - 100mm x 70mm.



Gate 3 - No pulley cut outs required.

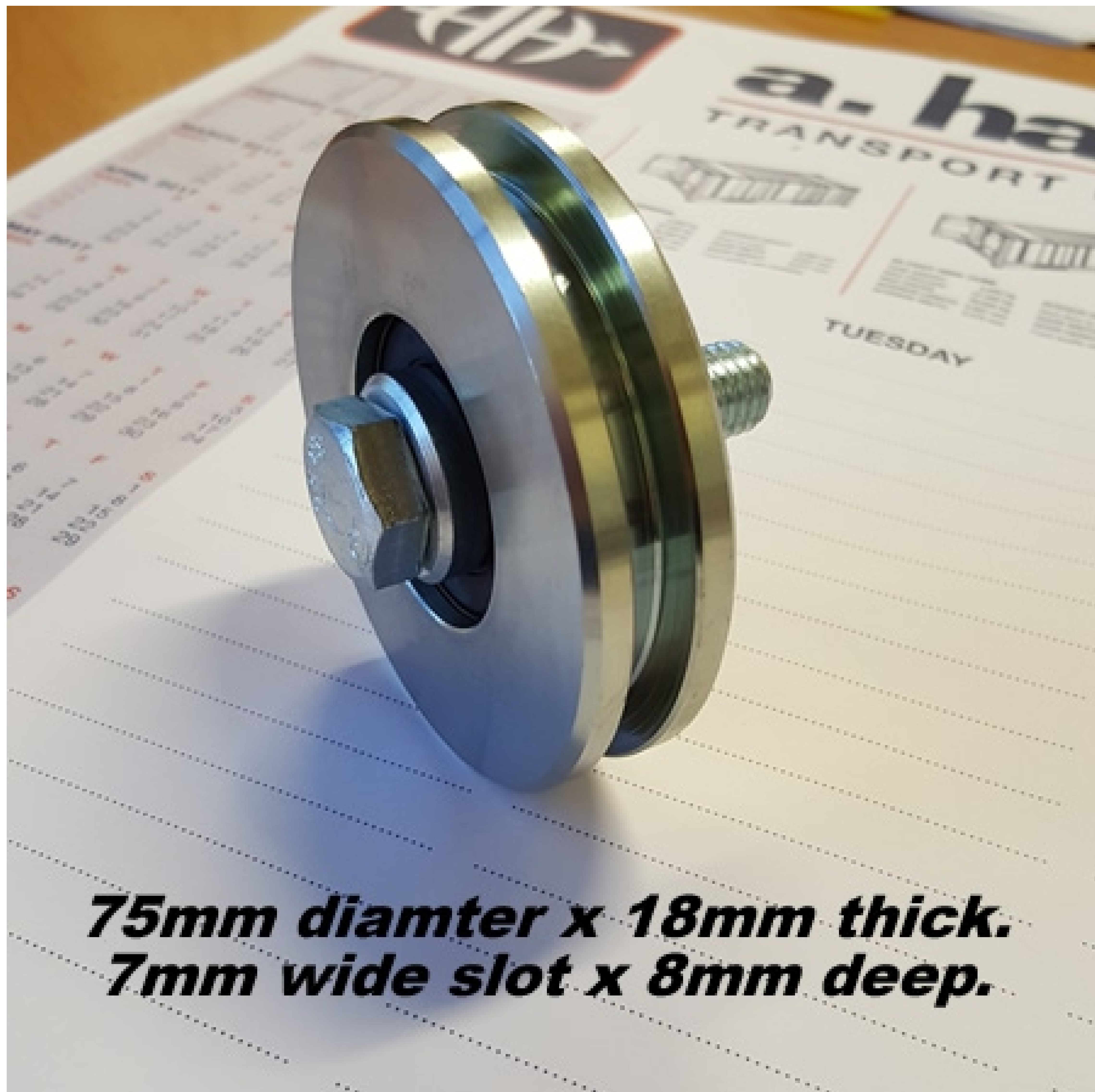


Gate 3 - No pulley cut outs required.



# Components in the multi telescopic kit.

Cable guide wheels (4) - Two each to be fitted to gate one and gate two.





# Components in the multi telescopic kit.

Incline block (3) - One for each gate.



Incline channel (3) - One for the guide post and one each for gate one and gate two.



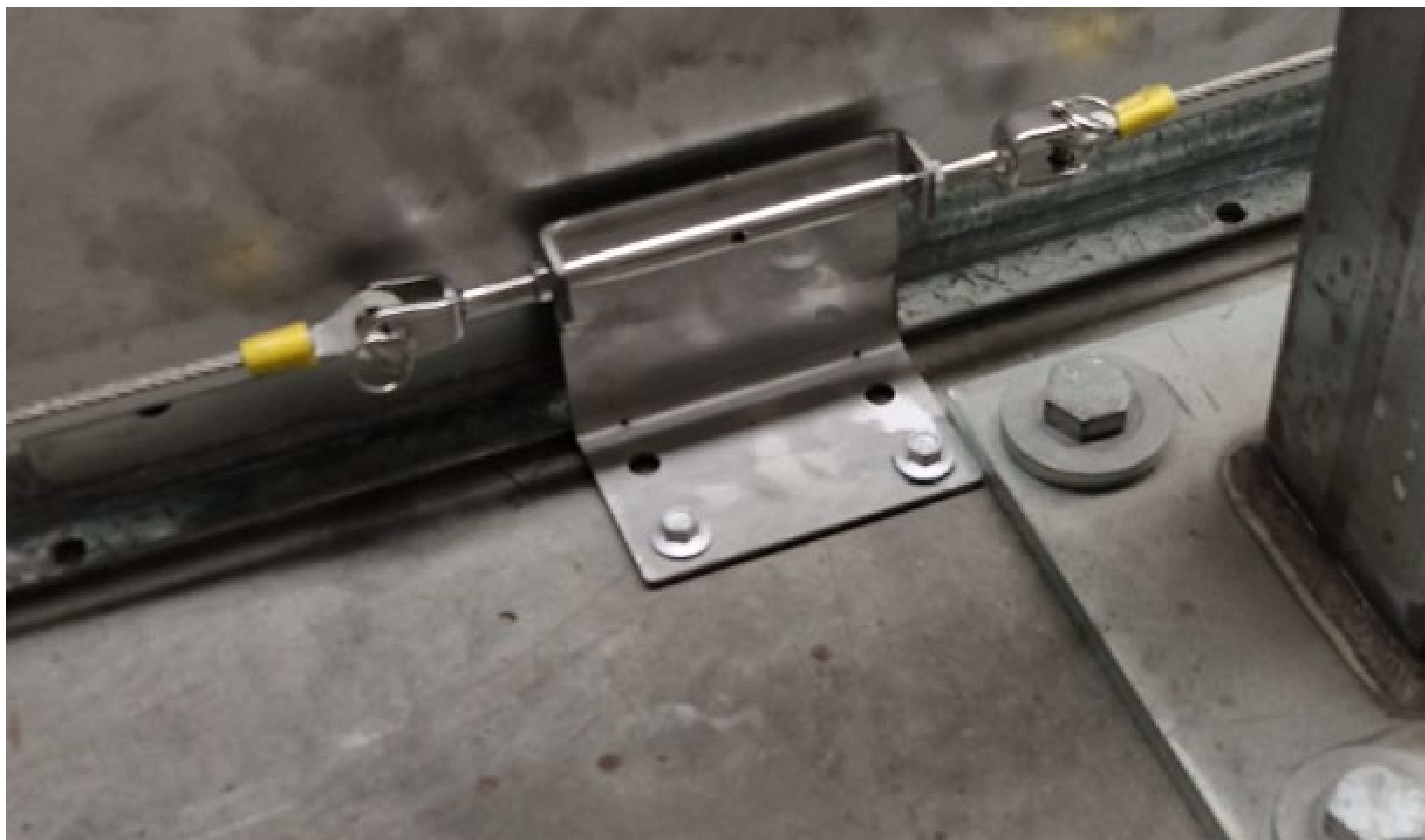


## Components in the multi telescopic kit.

Tension plate (2) - One is floor mounted near the guide post and gate one and the other (larger) is mounted on the other side of gate one.

Wire cable tension adjuster (2) - One for each tension plate.

Wire cable eyelets (4) - Crimp each end of your cable to connect to each end of the tension adjuster.





# Components in the multi telescopic kit.

Cable clamp plate (2) - Fixes to gates two and gate three.

Cable clamp bolts (4) - Two for each clamp plate.



Cable (22 Metres)





# Putting it all together.

You have arrived at the part that can be fiddly and frustrating depending on the infill of your gate. Closed style gates mean tight working spaces and lots of swearing but take your time and check things as you go.

1. Start by bolting your track down, your inside track sits 105mm to the centre of the outside edge of the post as per the earlier diagram. The next two tracks go down at 130mm from centre to centre. Your inside track runs from the back end of your run off end to 1/3rd in on your driveway. Middle track runs from the same starting point 2/3rd in on the driveway and your front track runs the full length from the back end of your run off all the way to the closing side. (You can run three full length tracks)
2. Install the first incline channel to the front face of your guide post at the height which correlates to the height of your gate frame and the guide channel.
3. Starting with Gate 1 on the inner most track slide the incline block down into the incline channel on the support post and then slide gate one into the incline block. The gate will now stand by itself and in fact slide along the track. Do not let go of the gate whilst sliding at this point. Bring the gate to the closed position and leave (minimum) 450mm of gate behind the front edge of the support post (the rear overlap).
4. Install your cable tensioner into the smaller cable tension bracket, leaving the adjustment close to its outer limits.



## Putting it all together.

5. Crimp one end of your cable with an eyelet using the crimping tool, there can be some tension on these during the run so always good to do a double crimp if you can.

6. Connect this eyelet to one end of your tensioner, run the cable around both pulleys circling the bottom of the gate. Mark the cable to be cut to length so that you can install the second crimp on this end and connect up to the other end of the tensioner.

7. Cut the cable, crimp the eyelet and connect and tension to the tensioner.

8. Position the cable tensioner bracket as close as you can to your support post (rear overlap side of the post).

9. Keeping it in a nice alignment bolt down to concrete.

10. Test the run of Gate 1.

11. Install the next incline channel to the front face and leading edge of Gate 1. Slide the incline block down into the channel and slide Gate 2 onto the centre track and into the block.

12. Install your cable tensioner into the larger cable tension bracket, leaving the adjustment closer to its outer limits.

13. Repeat steps 5/6/7.

14. Position Gate 1 in the closed position with the correct overlap for your setup. (example 450mm)



## Putting it all together.

15. Position Gate 2 midway across the driveway with the correct overlap to Gate 1 for your setup. (example 450mm)

16. Position the cable tensioner bracket in the centre of the 450mm overlap and mark position to screw to Gate 1. This sits at a height to align with the cable running Gate 2 pulleys.

17. Un-tension Gate 2, disconnect one side of the cable. This will allow you to separate Gate 1 and 2 to be able to better access and screw the tensioner bracket to Gate 1 as previously marked.

18. Reconnect cable and re-tension.

19. Install the next incline channel to the front face and leading edge of Gate 2. Slide the incline block down into the channel and slide Gate 3 onto the outside track and into the block.

20. Taking care of gates not separating, push all three gates back into the open position aligning the front edges with the inside edge of the support post.

21. With the gates in this position take your cable clamp plates and mark them up for installation. These plates screw to inside face at the backend of Gate 2 and 3, these can be centred in the back overlap (example 450mm) so for our example centred 225mm in from the back edge. The heights of the plates should have the front of the plate resting just underneath the cable of Gate 1 and 2.



## Putting it all together.

22. You may need to mark these in position and then untension disconnect cables to install these and then re-connect and tension back together.

23. Once they are screwed to the gates, reposition the gates in the open position as previously in step 20, Screw the two cable clamp screws into the two outer holes of the cable clamp plate, run the cable crossing over between the two screw heads and clamp the cable into position at this point.

24. Slowly test the gates by pushing along holding onto Gate1. The gates should run back and forth closing up to your closing side and opening flush with your opening posts. If you need you can adjust the positions by loosening the cable clamp screws, shifting slightly and reclamping.

25. Always make sure to have physical open and closing stops.



# Testing the installation.

If everything has gone to plan you can now test the system by manually sliding gate one. There should be no need to touch gate two or three as they will simply follow gate one.

Once happy with your manual installation you can proceed to the automation phase of the installation. That phase is not covered by this manual but good practice is to install the motor and rack and program this first before adding any accessories.

## Questions

If you have further questions please contact your local branch or email the service department at - [service@automaticsolutions.com.au](mailto:service@automaticsolutions.com.au)