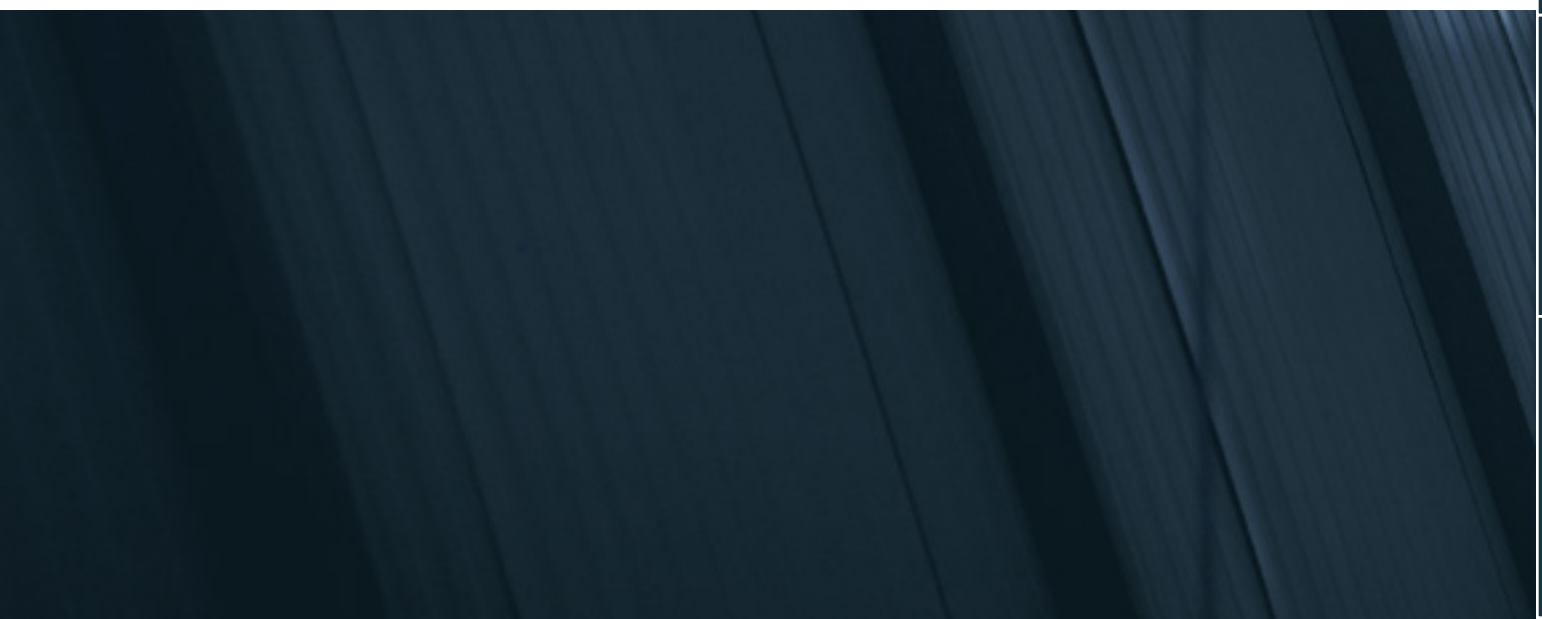
DIAMOND DOORS

Dealer Binder

Resources and Product Information



Introduction & Staff

Cover Letter

To Our Valued Dealers,

We hope this Dealer Binder will equip you in selling and promoting Diamond Doors.

Customers have come to expect quality and functionality from Diamond bi-fold doors, and we strive to continue to be an innovative leader in the industry. We are continually designing new ideas and features for our doors, and would like to encourage you to ask any questions you may have regarding any aspect of our doors and their applications.

Our knowledgeable sales staff can help you find a solution to your door problems. We can be reached by phone, toll free (866)-325-7600, by fax (204) 325-0908, or by email, info@diamonddoors.com. If you wish to place an order via email, please feel free to email one of our sales representatives or use our online quote request form.

We wish you and your company the very best and thank you for your continued patronage. It is an honour to partner with you and your success is our success.

Sincerely,

The Diamond Doors Team

Letter From The Founder

Building bi-fold doors was something I did to help support my family during the off season while working as a commercial pilot. Diamond Doors was a company born because people had a need, and I knew I could provide what they needed: bi-fold doors engineered for quality, convenience, and longevity.

In the open sunshine, with my previous steel manufacturing experience and some ingenuity, I built my first bi-fold door. It took me a month. Once I had built my first door people started coming to me for help. I started building hangar doors for guys I flew with, then bi-fold doors for machine sheds and barns. Living in an agricultural community continued to bring new opportunities.

There came a time where I had to choose. Do I continue flying commercially or build doors full time? I could not do both. That is when I decided to create Diamond Doors. My wife thought the name had a nice sound to it. We went full time manufacturing in 1998, building custom bi-fold doors for hangars, machine shops, quonsets, storage buildings, architectural projects, and industrial applications.

My idea had been that when we build a door, the buyer should be able to install it with ease. Often customers would have to hire extra help to put up a door. It would take days to install. There were many components to assemble. This cost them extra money. Why not have all that assembly done in manufacturing? The Diamond Door comes completely assembled, pre-wired, and all electrical components are tested before it goes to the customer. It should take about 3 hours if you have never installed one before.

Diamond Doors uses a triple internal truss design, high strength tubular steel, maintenance free hinges, a UL 325/CSA 22.2 certified electrical box, and aircraft grade lift cables with a 10X safety factor. There are many industry leading features that come standard on a Diamond Bi-fold Door because we want our customers to experience quality and have an exceptional door.

We operate on the values of honesty, integrity, and value. It has never been about the money for me. Our measure of success has always been customer satisfaction. We serve our customers long after the sale is made. That is what I have told my sons. As a family business, they have helped our company grow and become an industry leader. I would never have dreamed the Lord would bless our venture in the ways He has.

As long as people continue to ask for our doors, Diamond Doors will continue making them.

Sincerely, Dick Suderman
Founder Diamond Doors

Meet the Team

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TERENCE SUDERMAN
(COO)
Chief Operating Officer

JIM SUDERMAN
(CBO)
Chief Business Officer

DICK SUDERMAN
Founder, Diamond Doors

Brand Standards

Brand Colours

These are the colours that are associated with the Diamond Doors brand. Quality Blue represents the confidence our customers have in our products. Innovative White speaks to our industry leading options and features. Simple Leather produces a personable and approachable feel to our brand. Timeless Grey speaks to the longevity of Diamond Doors.

Quality Blue

HEX #173747
RGB 23, 55, 71
CMYK 91, 69, 51, 46

Simple Leather

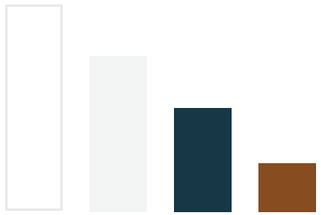
HEX #8B4B1D
RGB 139, 75, 29
CMYK 32, 72, 100, 28

Innovative White

HEX #FFFFFF
RGB 255, 255, 255
CMYK 0, 0, 0, 0

Timeless Grey

HEX #F3F5F5
RGB 243,245,245
CMYK 4, 2, 2, 0



This image represents the percentage of each colour that should be used in web and document mediums. Simple Leather should only be used to highlight, emphasize, or accent.

Brand Fonts

Canela is the main header font for bold statements, titles, and headlines. Use Canela only in letter-case. Graphik Semibold is an alternative header font. Use Graphik Semibold in letter-case or capitols. Graphik regular is an all purpose font used only in letter-case.

Canela Medium

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
0123456789

Graphik Semibold

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
0123456789

Graphik Regular

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
0123456789

Brand Values

Diamond Doors' brand voice should align with our mission statement, values, and practices. We aim to balance professionalism and person-ability. Our voice across all platforms and medias should be sincere and helpful, avoiding any vulgar language, cliches, and slang.

Providing quality custom bi-fold doors engineered for convenience, innovation, and longevity.

Quality
As a company, we are committed to creating exceptional products, never sacrificing quality. The doors are produced with precision, from materials that are greater than industry standard.

Excellence
As a company we operate on the values of honesty and integrity. Safety in both our manufacturing facilities and product operation is important to us.

Innovation
Diamond Doors strives to be the leader in today's bi-fold market. We are committed to the research and development of product improvements so that we stay competitive and set the bar for bi-fold door manufacturing.

Service
We serve our customers to the highest standard and their satisfaction is our measure of success. Diamond Doors aims to be professional, helpful, and sincere in their customer service.

Convenience
The customer experience with our door should be that of ease and effortlessness. Designed for low maintenance, the Diamond Door is not another piece of equipment the customer needs to look after, but a tool that makes their life easier.

Simplicity
The Diamond Door was born from the concept that a customer should be able to install their door themselves, easily and accurately. We are committed to doing as much as we can in factory as possible.

Logo and Icon Use

Primary Logo and Icon

Logo and Icon Spacing

Black Logo and Icon (Transparent Background)

White Logo and Icon (Solid or Transparent Background)

Logo and Image Guidelines

Maintaining consistency with our brand is important. Please do not alter the logo/icon or use it outside of our acceptable brand standards. Here are some examples of incorrect logo/icon use.

Do not change colour or use retired colours or designs.

Do not add effects, outlines or any additional design elements.

Do not remove, separate, or distort logo/icon elements.

When using our logo on images, logos/icons should be placed on non-busy areas of the photo where they would be easily readable. The door should not compete with the logo/icon and remain the focal point of the photo. Colour overlays should not deviate drastically from the brand colour, even at varied opacity.

Information Sheets

CABLE ANCHOR KIT

INFORMATION SHEET

OVERVIEW

The cable anchor kit is offered for wood buildings and retrofit projects. These cables attach to the backside of the door's header and are anchored either into the side wall at a 45-degree angle or straight back into a braced section of the structure. The purpose of the cable anchor kit is to transfer the outward pull from the header that is created when the door is opened.

TECHNICAL SPECS

Length: 30'
Diameter: ¼"
Hardware: Turn buckles, cable clamps, and mounting brackets.

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

FREQUENTLY ASKED QUESTIONS

How do the cables attach to my wood building?

Cables are attached to the backside of the door header. They are attached by the second from outside hinge bolts. These cables are typically strung at no more than a 45° angle to the top plate / post of the side wall.

How do the cables attach to my steel quonset?

Cables are attached to the backside of the self-supporting header system. These headers typically extend upward past the roofline allowing the cables to be attached to the exterior of the building. They are strung back and anchored into a braced section of the quonset.

How do I tension the cables?

Included with the cable anchor kit are turn buckles which are located directly behind the header. To tension the cables, turn the buckles.

CLADDING

INFORMATION SHEET

OVERVIEW

Diamond Doors offers an optional cladding package. Our standard cladding is 28 gauge ¾" profile, with the ¾" rib spaced every nine inches. Each sheet provides 36" wide coverage and is cut to length prior to shipping for easy installation.

We offer a wide variety of standard cladding colours for each project. Custom colours to match your building are available upon request when provided with a colour code or QC number.

If you are purchasing a door for a new build, Diamond Doors recommends providing cladding to match your building. We will provide a detailed cut-list with your quote. This cut-list specifies the number of sheets required, along with the required length to install your cladding.

TECHNICAL SPECS

Standard Cladding Gauge: 28
Standard Cladding Profile: ¾"
Standard Cladding Rib Spacing: 9"

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

FREQUENTLY ASKED QUESTIONS

Do I need to provide my own door cladding?

We offer an optional cladding package for your bi-fold door. We can match your building colours when provided with a colour code. You can also provide your own if you want to use the same cladding as your building.

CLADDING & TRIM

COLOUR CHART

White White
QC28317

Brite White
QC28783

Bone White
QC28273

Slate Blue
QC28260

Melcher's Green
QC28307

Forest Green
QC28329

Heron Blue
QC28330

Burgundy
QC28011

Tile Red
QC28259

Barn Red
QC28250

Bright Red
QC386

Light Stone
QC28086

Black
QC28262

Gold
QC28276

Antique Linen
QC28696

Taupe
QC28058

Buckskin
QC28055

Burnished Slate
QC28056

Tan
QC28315

CLADDING & TRIM

COLOUR CHART

Dark Brown
QC28229

Coffee Brown
QC28326

Charcoal
QC28306

MS Charcoal
QC28053

Zinc Grey
QC28054

Stone Grey
QC28305

Regent Grey
QC28730

Galvalume Plus

Galvanized Plus

Please note that the colour and finish represented in this document while produced as accurately as possible, are for sample purposes only. Final cladding colour may vary from sample shown.

COLUMN FOLLOWERS

INFORMATION SHEET

OVERVIEW

Column followers are a wind protection option used for steel building applications. The column followers are located at the bottom inside corners of the door and slide along the inside flange of the building columns or the self-supporting header. They prevent the bi-fold door from pushing out from the building when a significant positive air pressure is present inside.

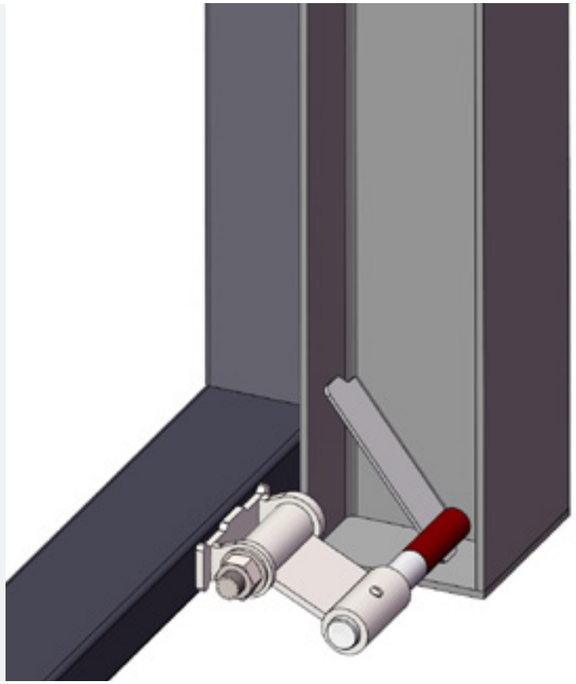
The column follower pin is sleeved in a nylon bushing to reduce noise and provide a smooth quiet operation. The column followers are installed to the steel frame in factory and are easily adjustable to accommodate different flange depths.

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

TECHNICAL SPECS

Material: Solid steel
Shaft Diameter: ¾”



FREQUENTLY ASKED QUESTIONS

What is the proper overlap of my column follower to the column flange?

The column follower pin should overlap the flange by a minimum of 1” and should be spaced from the web of the column by a minimum of ¾”.

How do I adjust my column follower?

You can easily adjust the column follower by loosening the set screw to the pin. Once adjusted tighten the set screw to 8ftlbs.

COLUMN SUPPORT ANGLES

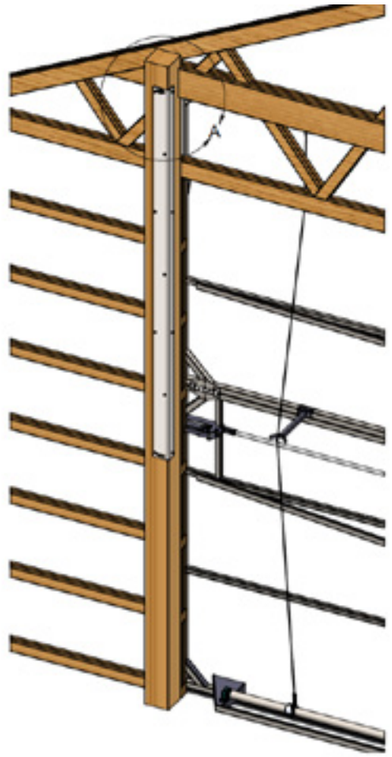
INFORMATION SHEET

OVERVIEW

Column support angles are designed for straight wall wood buildings. When a bifold door is open, the rollers push on the post. Over time, wood has the tendency to bow under the repeated pressure. The column support angles brace the top inside of the post where the roller loads are the greatest, preventing warping of the wood post. With the “J” channel roller track on the outside of the post, and the column support angles on the inside, this provides excellent structural support for the wood posts.

Column support angles consist of a pre-drilled, 10’ long angle which is fastened to the top 10’ of the building post. They are located inside the corner to provide support and ensure post longevity. The top of the column support angle is attached to the posts by the ½” outer hinge mounting bolts. The rest of the column support is fastened to the post by the provided structural screws.

The column support angles are factory finished in a white, two-part polyurethane paint.



TECHNICAL SPECS

Material: 5x3 angle (thickness varies depending on roller loads)
Length: 10’
Finish: Two-part polyurethane paint
Colour: White
Hardware: Provided

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

FREQUENTLY ASKED QUESTIONS

Where are the column support angles located on the building?

The column support angles are located on the inside of the wood building posts. They cap the top 10’ of the building post.

Is the mounting hardware included?

Wood grip fasteners for each pre-drilled hole are included with the column support angles.

Is there a top and bottom (right way) to the column support angles?

There is no top or bottom when installing the column support angles.

CUSTOM CORNERS

INFORMATION SHEET

OVERVIEW

Miter cut corners are typically used on wood frame buildings. They are used to maximize your clear opening height or width without having the door extend past the roofline. Each miter is custom cut to match the pitch of your roof. Our custom flashing attaches to your building and caps off the mitered corner. The flashing also protects the corner from rain and snow.

Square cut corners are used on wood buildings with overhangs. Like the mitered cut corners, they are used to maximize your clear opening height or width without having the door frame extend past the roofline or interfering with your building's overhang.

TECHNICAL SPECS

Miter Corner Angle: 2:12 – 12: 12 roof pitches
Custom Corner Lengths: 24" – 60"
Door Size: Available for doors <1000 sq/ft

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

FREQUENTLY ASKED QUESTIONS

Is it difficult to seal the custom corners?

With a miter corner, Diamond Doors provides an "L" angle trim that attaches to the building. This trim caps off the miter which prevents any rain from penetrating. For square cut corners, we recommend using drip flashing along the full length of the horizontal edge.

Does my wood building need additional bracing with a mitered corner?

Yes, because the corner hinge is not in line with the buildings vertical post, the truss must be designed to withstand the doors weight and loads.

DRIVELINE

INFORMATION SHEET

OVERVIEW

The Diamond Doors exclusive driveline design provides a low maintenance, smooth operation. Unlike competitor systems, our cables never overlap. (Overlap is the primary reason for shortened cable life). This innovative system provides offset during lift, guiding the cables around the driveline like a candy cane.

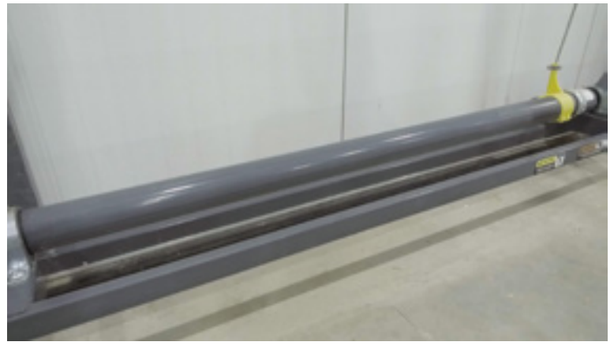
Driveline diameter is dependant on door size, gear ratio, and the required lifting speed you would prefer. The driveline is coupled to the lower internal truss by a series of industrial grade pillow block bearings and Teflon bushings.

TECHNICAL SPECS

Lift System: Cables
Finish: Standard two-part polyurethane paint in charcoal grey
Opening Speed: Standard 18/ft per min

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.



FREQUENTLY ASKED QUESTIONS

What maintenance do I have to perform on the driveline?

Our driveline is designed for low maintenance. The only required maintenance is greasing your pillow block bearings and bushings. Please refer to the owner's manual for periodic maintenance procedures.

Do the cables wrap up on drums?

Unlike a cable drum, our design has a continuous diameter. The cables wrap onto the driveline itself, instead of overlapping onto a drum.

ELECTRIC AUTO-LOCK

INFORMATION SHEET

OVERVIEW

Using the electric auto-lock system allows for a complete remote access door, as the lock engages automatically when the door closes and releases when the door is opened. The auto lock system consists of an independent electric motor to lock and unlock the door. It is governed by mechanical limit switches. These limit switches are pre-set in the factory and never require adjustment.

When the system is engaged (the door is locked), the locking fingers press against the locking catches pulling the door tight against the building. The system is designed to create an exceptional seal from the outside environment.

Other options for the auto-lock system include remote opener and keypad access with a personalized four-digit entry code for your convenience.

TECHNICAL SPECS

Motor Size: 3/4HP, 1/2HP, 1HP, 1.5HP
Gearbox Size: 216:1 gear reduction

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

FREQUENTLY ASKED QUESTIONS

Can I upgrade my existing Diamond door with a manual lock to an auto-lock?

You can upgrade your existing Diamond door to an auto-lock by contacting our office for a quote.

Does my auto-lock need adjusting or to be set after installation?

The Electric Auto-lock is installed and pre-set in factory. No further adjustments are needed after you install the door.

What kind of maintenance is required for the Electric Auto-lock?

The Electric Auto-lock is virtually maintenance free. It is recommended to check the gear box for oil residue every three months.

ELECTRIC LIFT MOTOR

INFORMATION SHEET

OVERVIEW

Every Diamond door comes standard with an electric lifting motor. This electric motor is coupled to the industrial grade gearbox, creating a reliable electric lifting system.

The motor size is determined by door weight, door size, and opener speed required. We ensure our motors are paired to the gearbox specifications. Motor size and power should be aligned with gearbox specifications to ensure the gearbox is not under strain.

Our electric motors are available in single phase 230V, 3 phase 208V, and 3 phase 460V.

All electric motors are coupled to an electric brake to ensure safety. The brake is equipped with a lever to disengage the brake for manual operation. If the power is cut to the door, the brake is automatically engaged. This means you can trust your door to stay in the open position during a power outage.

TECHNICAL SPECS

Motor Sizes: 3/4HP, 1HP, 1.5HP, 2HP, 3HP, 5HP, and 7.5HP
Motor Voltage: Single phase 230V, 3 phase 208V, and 3 phase 460V. 60Hz
Motor Type: AC induction brake motor
Motor Classification: TENV

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

FREQUENTLY ASKED QUESTIONS

What happens if the power is cut to the door?

Our electric lift motors are coupled to an electric brake to ensure safety and will keep the door in the open position during a power outage.

During installation, do I need to install the motor and wire it?

All motors are installed, pre-wired, and tested in factory to ensure your door operates correctly when you receive it.

EMERGENCY MANUAL OPENER

INFORMATION SHEET

OVERVIEW

The emergency manual opener is designed as a back-up to open and close the door in case of a power outage. Each custom designed electric motor is equipped with a hex shaft located on the top side of the motor. With the appropriate socket, you can conveniently spin the motor shaft to open or close the bi-fold door manually. Refer to your owner's manual for proper procedure.

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

FREQUENTLY ASKED QUESTIONS

Can I open the door when there is a power outage?

Yes, our motors are equipped with a hex shaft on the top side of the motor to operate the door manually. Please refer to the owner's manual for proper operating procedure.

What can I use on the hex shaft to manually operate the door?

You can use a cordless drill or socket wrench to turn the hex shaft. An impact driver is never recommended as it can cause damage to the motor.

FASTENERS

INFORMATION SHEET

OVERVIEW

Fasteners attach the cladding and insulation panels to the door frame. Diamond Doors recommends and offers fasteners that are a self-drilling #10-16 or #12-16 tek screw. For non-insulated doors, either a ¾" or 1" tek screw is required.

Insulated doors will require either a 3" or 4" tek screw depending on the thickness of insulation used. (We offer a 2" and 3" insulation panel.) These tek screws are available in all Diamond Doors standard colours. The tek screw is fastened through the cladding, through the insulation, and drilled into the frame of the door. The same order is used for non-insulated doors, with the exception of the insulation panel.

The fasteners are powder coated to prevent paint chipping when installed. It is recommended to use a drill instead of an impact to prevent unnecessary paint chipping.

TECHNICAL SPECS

Fastener Type: Self drilling tek screw
Screw Size: #10-16, #12-16, ¾", 1", 3", or 4"
Fastener Colour: See colour chart
Fastener Finish: Powder coating

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

FREQUENTLY ASKED QUESTIONS

Can I provide my own fasteners?

If you prefer to supply your own fasteners, Diamond Doors will provide you with the required amounts.

FRAME FINISHING

INFORMATION SHEET

OVERVIEW

All Diamond doors come standard with our two-part urethane finish paint. Two-part polyurethane finishes provide excellent resistance to everyday damage like scratches and dings. This finish also provides superior gloss and shine for a long lasting and attractive finish. Known to withstand radiation, this paint finish holds up against the sun's UV rays, reducing results like fading and flaking.

Doors come standard in the traditional Diamond Doors charcoal gray. However, we offer a wide variety of colours upon request to match the aesthetic specifications of your building. To specify a custom colour, all we require is a RAL or QC number.

In addition to the two-part polyurethane paint, Diamond Doors offers a powder coated finish. The powder coating is available in varying textures, colours, and sheens of your choice. This finish is aesthetically pleasing and extremely durable. This application is suitable for projects with a greater focus on design and those located in harsh environments.

Diamond Doors also offers a stainless steel frame. This frame requires no finishing, as the raw stainless steel is desirable for design and is exceptionally durable for corrosive environments. This frame is also ideal for coastal locations.

TECHNICAL SPECS

Finish: Two-part polyurethane paint
Standard Colour: Charcoal gray
Colour Code: QC 28053

Finish: Powder coating
Standard Colour: Custom
Colour Code: RAL

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

FREQUENTLY ASKED QUESTIONS

Does the door come in a primer or a finish paint?

Each door comes standard in our signature charcoal two-part polyurethane finish paint.

Are there other colours available other than charcoal?

There are many colours available to suit the aesthetics of your building. Custom colours can be requested as an optional upgrade.

Is the paint you use a high-quality finish?

Two-part polyurethane finishes provide excellent resistance to everyday damage like scratches and dings. This finish also provides superior gloss and shine, for a long lasting and attractive finish.

GEARBOX

INFORMATION SHEET

OVERVIEW

Diamond doors operate with an industrial grade gearbox determined by door size, weight, and opener speed. These gear boxes are oil-bath lubricated and come factory filled.

Our gearbox (in combination with the driveline, electric lift motor, standard lift cables, and "Y" pushers), provides a standard open rate of 18ft per minute. The gearbox ratio ranges from 32:1 up to 90:1, providing customers with the industry's fastest opening bi-fold door. Our drive system speed can be further increased with our speed increase kit. This option will increase the opening rate by 20-25%.

Door safety is especially important to us at Diamond Doors, which is why we engineer our doors with an overrated gearbox. Our gearboxes are rated for continuous use, which is significantly above the requirements for even the most frequently used doors.

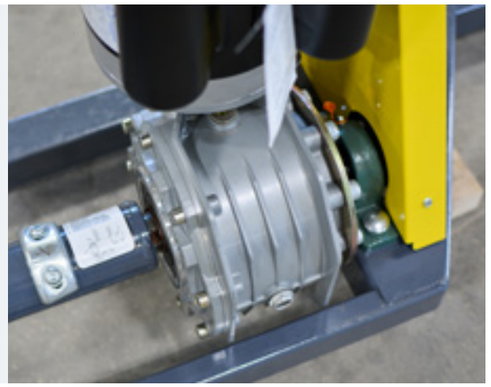
Our sidewinder mounted gear boxes have a direct drive system. This simple design is exclusive to Diamond Doors. Not only is it effective, but using a simplified system eliminates the likelihood of chain failure and reduces maintenance. This drive system is used on doors of 600sq/ft or less. Center mounted gear boxes are placed in the middle of the door, coupling the two drivelines together.

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

TECHNICAL SPECS

Oil Application System: Oil bath
Standard Opening Speed: 18ft per minute
Gear Ratio: 32:1 - 90:1



FREQUENTLY ASKED QUESTIONS

How often do I have to change the gearbox oil?

Unless there is evidence that oil has been leaking out, the oil in the gear box should be checked every three months. Low usage doors typically need the oil changed after several years. You can refer to the owner's manual for oil change procedure.

Do I need to add oil to the gearbox?

The gearbox comes oil-bath lubricated and factory filled. When it comes time to top up the oil, refer to the owners manual for oil recommendations specific to your climate.

What type of gear system does your gearbox have?

Our Gearboxes utilize a worm gear system. These gear systems are unlikely to turn backwards, creating a natural brake – another safety precaution we have implemented.

GENESYS ELECTRICAL BOX

INFORMATION SHEET

OVERVIEW

The Diamond Genesys electrical box is the first ever UL325/CSA 22.2 certified bi-fold door operator on the market. Our innovative Genesys circuit board features plug-n-play installation on future upgrades, onboard diagnostics, built in emergency override controls, and more. We supply all power and control wires, and they are factory installed to the door frame so you can get your door up and running quickly and efficiently. This means our doors require no onsite electrical connections on the door frame and have a watertight junction box for control wire connections.

The Genesys control box meets NEMA 4/4X/12 and IP64 specifications. This control box is also watertight, eliminating the risk of environmental hazards like dust and water. It is factory wired and tested, and all electrical components are pre-set to factory specifications. Every Diamond door comes standard with open-close limit switches. The limit switch determines how far the door opens and closes. These limit switches are located inside the main electrical box. The closed limit switch is pre-set in the factory, while the open limit switch requires final adjustment on-site once the door is installed. This procedure can be found in the owner's manual or install manual. The main fuses are located inside the Genesys electrical box. They provide security to other electrical components by protecting them from high voltage power surges. The thermal overloads are also located inside the electrical box. They are sized according to each door and provide protection against a large amp draw. These overloads to the electric lift system come with an auto-matic reset system which will reset within 30 seconds if an overload occurs.

TECHNICAL SPECS

Electrical Box Certifications: UL325 / CSA 22.2
Control Box Specifications: NEMA 4/4X/12 / IP64
Low Voltage Connection Box Specifications: NEMA 4/4X/12 / IP64

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

FREQUENTLY ASKED QUESTIONS

Does the door require onsite electrical wiring?

The doors come fully wired with high voltage (power) and low voltage (control) wiring. The wiring is brought to the top of the door for easy building connection. The high voltage connection box is to be provided by others, whereas the low voltage box is provided by Diamond Doors.

Does the door require an electrical inspection after installation?

Our doors are UL325 / CSA 22.2 certified, meaning you do not need an electrician to sign off on installation and connection. Doors come completely pre-wired in factory; no inspection needed.

If something goes wrong with the electrical components, do I have to wait for an electrician to fix it?

Our doors come with onboard diagnostics. This means that if there is a problem with the door, a light on the circuit board will light up indicating the problem. Often there is a simple solution you can apply yourself. When more support is needed, we have a service team available to walk you through door troubleshooting over the phone.

HINGES

INFORMATION SHEET

OVERVIEW

Our hinge knuckles are cold roll formed. This means each side of the hinge is a solid piece of metal. Compared to hinges assembled with multiple components welded together, our one piece design increases hinge longevity. The more knuckles there are on a hinge, the better the loads are distributed. Each hinge has multiple knuckles, depending on the door size and hinge location.

Steel is prepared in an acid wash bath, which removes any oil and debris before being attached to the door by a certified CWB (Canadian Welding Bureau) welder.

Our exclusive hinge design is completely maintenance free. The hinge bushings eliminate any creaking or screeching, creating a hinge that functions smoothly and quietly without regular greasing.

TECHNICAL SPECS

Hinge Type: Cold roll formed
Finish: Two-part Polyurethane paint
Standard Colour: Charcoal grey
Colour Code: QC
Knuckle Quantity: 4-14, depending on door size and hinge location.
Bushing Type: Greaseless nylon

WARRANTY

Lifetime warranty on hinge bushings. The entire door is free of defect for two years. The door will not warp, crack, or buckle under normal intended use as a door.

FREQUENTLY ASKED QUESTIONS

Do I need to grease my hinges?

No, the nylon hinge bushing provides a smooth and quiet opening and is completely greaseless.

Are these hinges sufficient if my door is being installed in a high humidity or corrosive environment?

For doors installed in high humidity or corrosive environments, we have a stainless-steel hinge, frame, and motor package available.

Are the hinges welded or bolted onto the building?

This depends on the building type. For steel buildings, the hinges can be bolted or welded on. However, on wood buildings, the door must be bolted on. Mounting hardware is included and bolts come in 1/2" x 8", 1/2" x 12", and 1/2" x 16" sizes.

INSULATION PACKAGE

INFORMATION SHEET

OVERVIEW

Insulation packages are available in a 2" or 3" thick type 1 rigid board polystyrene. These panels include a mylar reflective material which is laminated to the exterior of the panel by a heat melt process. The panels have a R value of R12 (2") and R16 (3"). Each panel is ship-lapped to provide a continuous thermal break. The interior side of each panel is lined with a cosmetically appealing, 26-gauge, white aluminum embossed liner. The liner is adhered to the insulation panels in the factory. Different liner styles can be special ordered to match the aesthetic of your building. Another feature included with each insulation package is an L trim which is fastened to the bottom of the top section of the door. This L trim caps off the insulation so the insulation is not visible when the door is in the open position. All insulation panels are pre-cut in factory for quick installation.

The insulation panels are placed vertically on the exterior of the door frame and secured to the door frame by the Fasteners (Tek Screws). Having the panel fastened to the exterior of the door frame provides a full thermal break. This way the entire door frame is insulated rather than just in between the door frame members. In addition, the foam weather seal kit is included with each insulation package. This kit consists of a closed cell, neoprene foam tape. It is fastened to the inside perimeter of the frame to seal the door against the building. The foam weather seals are also applied along the center hinge and to the exterior of the door frame, sealing any potential gaps between the door frame and insulation panel.

TECHNICAL SPECS

Insulation Type: Type 1 ridged board polystyrene
Panel R-value: R12, R16
(2" and 3" thicknesses respectively)
Colour: White

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

FREQUENTLY ASKED QUESTIONS

Can I add insulation panels to my existing Diamond Door?

The Insulation Package can be added to an existing Diamond Door. Your trims and fasteners will need to be replaced to accommodate for the added width of the panels. The cladding can be reused.

Can I provide my own insulation?

Yes, all we need to know is the weight per square foot of the insulation you choose so we can ensure the additional weight is accounted for in the drive.

Can I spray foam my door?

Spray foam is not recommended for the interior of the door as it often interferes with the locking system and moving parts of the door.

J CHANNEL ROLLER TRACKS (J-TRACKS)

INFORMATION SHEET

OVERVIEW

The J channel roller track is a continuous, smooth surface for the bottom roller to glide on.
They are typically used on wood buildings (but can also be used on other building types) and fastened directly to the building's post. This design is exclusive to Diamond Doors.

The J-track is in the form of a "J" (hence the name) which is designed to continually keep the door rollers against the building. This prevents the door from pushing out when a large positive air pressure is present inside. In the event where the rollers are forced off the building, the "J" shape will stop the door from flipping. These tracks come galvanised and pre-drilled for ease of installation. Necessary installation hardware is included in your purchase. The tracks ship in 12' pieces, except for an access hatch at the bottom of the door, which is cut to length. This hatch gives you easy access to the rollers in the event they need replacing.

Nylon roller wedges are installed at the bottom of the J-track and guides the rollers into a pocket when closed. This is another feature that helps to force the door to stay against the building.

TECHNICAL SPECS

Material: Galvanised Steel
Hardware: WS Flathead Screw 14x3
Track Lengths: 12', cut to length

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

FREQUENTLY ASKED QUESTIONS

Do the J-tracks require any cutting or drilling onsite during install?

The J-tracks come pre-drilled, and the bottom piece is cut to length.

I want to check my bottom roller, do I need to remove the entire track to access it?

We have designed an entry hatch into the bottom piece of the J-track for easy access.

I do not like the look of galvanized metal; can I paint the J-track to match my aesthetic preferences?

Diamond Doors has designed a trim profile that caps the J track and matches the colour of your building.

LIFT CABLES

INFORMATION SHEET

OVERVIEW

Diamond Doors uses highly specialized cables that utilize an extremely fine weave and fiber core for exceptional lifespan. These cables have 18 braids of 7 stands per braid and a flexible nylon rope center. Common competitor door cables use a 7x19 cable, which is 7 braids with 19 strands per braid.
Our design has increased flexibility and longevity. Our unique cable lift system creates an offset during lift, preventing the cable from ever "overlapping" or coming into contact with itself (the primary reason for shortened cable life). Our innovative system guides the cables around the driveline like a candy cane. Our cables are not affected by wind and wrap consistently every time.

We are committed to creating quality products, which is why we go above and beyond, engineering our doors with a 10x cable safety factor. Using more cables translates to less loading per cable, helping to better distribute door loads and extend cable life.

Lift cables have their first initial stretch upon install. Because of this, they rarely need tensioning. This low maintenance design is preferred to other competitor designs that need tensioning more frequently. When tensioning is required on a Diamond door, cables can be adjusted at ground level.

TECHNICAL SPECS

Lift System: Cables and driveline
Safety Factor: 10x
Cable Type: FC-18x7
Cable Diameter: 3/16", 1/4", 3/8", 5/16"
(dependant on door loads)

WARRANTY

We believe in our cable design and back our quality product with a hassle-free 10-year cable warranty. The entire door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

FREQUENTLY ASKED QUESTIONS

How easy are cables to install?
Diamond Doors' latest cable anchoring system can be installed in minutes. No cables to cut. Clean finished look.

How safe are bi-fold doors with cables?
We implement multiple redundancies to ensure the safety of our doors. Doors have an overrated gear box, 10x cable safety factor, and have an emergency electric brake. Theoretically, you could cut every cable but one on our doors and it would still stay up when open.

Why don't you use a strap lift design?
We believe our system is safer, easier, simpler, and faster. Our cable lift design lifts at a constant gear ratio, does not require frequent tensioning, is engineered to a 10x cable safety factor, is installed in minutes, and is not susceptible to wind, buffeting, or double wrapping. Simple, reliable performance.

MOUNTING HARDWARE

INFORMATION SHEET

OVERVIEW

All necessary mounting hardware is provided with each Diamond door. The hardware provided is based on the type of building to which the door will be mounted, such as a fabric quonset, wood straight wall, or steel rigid frame.

TECHNICAL SPECS

Wood Building Hardware: 8"x1/2",12"x1/2", 16"x1/2" hinge bolts
Steel Building Hardware: 2"x1/2" hinge bolts or hinge backer plates if welding
Fabric Quonset: Custom hinge brackets to accommodate 4" HSS tubing

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

FREQUENTLY ASKED QUESTIONS

Do I need to provide my own mounting hardware for my door?
All necessary mounting hardware for your building type is provided with each Diamond door.

I have a unique header on my building, can you provide custom mounting hardware?
We can provide custom hardware solutions for unique header designs. Upon ordering, please specify the header type so we can provide you with the appropriate hardware.

PEDESTRIAN DOOR

INFORMATION SHEET

OVERVIEW

Diamond Doors offers a commercial, insulated pedestrian door for easy access to your building through the bi-fold. Standard sizes are 82”x36” and 72”x36” with custom sizes available upon request. The doors are outward swinging and can be located on either the left or right side of the bi-fold door.

All pedestrian doors come pre-installed from factory and are complete with a lock set.

TECHNICAL SPECS

Brand: Plyco
Sizes: 82”x36”, 72”x36”
Model: 99-MFST3068

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

FREQUENTLY ASKED QUESTIONS

Does the door come with a lock set?

All doors come with a standard exterior lock set.

Can I choose where my pedestrian door is located on the bifold?

Most door designs allow you to have the door positioned to the left or right. Simply request the side you would prefer, and we will work with our engineers to accommodate this. (In some cases, the door design will not allow for certain door positions.)

PHOTO ELECTRIC SENSORS

INFORMATION SHEET

OVERVIEW

The photo electric safety sensors (photo eyes) prevent the door from closing if any obstacles are present within the door’s opening. These safety sensors can be used in multiples to create a photo curtain. This option is highly recommended for commercial and public buildings.

We take the safety of our doors very seriously, which is why our photo electric sensors come standard with every door, as is required by code. Our up/down/stop controller allow our customers to push a button and walk away while the door operates, in contrast to competitor designs that require the button be held for the entire cycle. With this added convenience comes the added security that your door will operate safely.

TECHNICAL SPECS

Standard Number of Sensors: 2
Standard Sensor Location: Bottom corners of door
Sensor Manufacturer: Banner
Sensor Model: Q40SP

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

FREQUENTLY ASKED QUESTIONS

How many sensors come with a standard door?

Two sensors come standard with every door. This is much like a residential garage door.

How many sensors are added to create a photo curtain?

Sensor quantity is determined by door size. Anywhere from 4-8 sensors can be added to create a full photo curtain.

Does the wiring come with the photo electric sensors?

The sensor wiring that is to be attached to the building is included with your door purchase.

What do I do when a sensor breaks, and my door is stuck open?

Our Genesys circuit boards are equipped with a safety sensor override, simply press the down button on the Up/Down/Stop controller five times and on the fifth time continue to hold to override all safety sensors.

How do I know if my sensors are aligned?

Both sensors have a green LED light showing power to the sensor. One sensor is receiving, and one is transmitting. The receiving sensor will also have an orange light that will be illuminated when the sensors are aligned.

POLYCARBONATE SHEETING

INFORMATION SHEET

OVERVIEW

Diamond Doors offers two types of polycarbonate sheeting, Therma Vu (30mm) and Diamond Vu (10mm). The polycarbonate sheeting is one of our options to allow natural light to penetrate through the door into the building. They are translucent, and therefore let only a percentage of the light in. This is a great option for dimly lit shops or applications that require privacy from passersby.

We have polycarbonate options for both insulated and non-insulated buildings. The Therma Vu polycarbonate is great for insulated building applications. It is also fire rated. The Therma Vu sheeting is available in two colours, clear and smoked (grey). Our Diamond Vu polycarbonate sheeting is great for non-insulated buildings. Both panel types are equipped with a protective coating that prevents UV damage and discolouration.

For easy installation, the Therma Vu sheets snap together much like a tongue-and-groove joint connection. They can be cut to size or purchased by the sheet.

TECHNICAL SPECS

THERMA VU

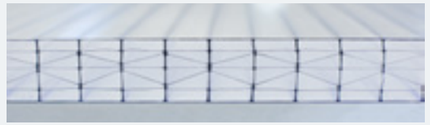
Internal Structure: 5 Wall
Panel Coverage: 21" wide 12' long / cut to size
Thickness: 30 mm
Weight: 3.6 Kg/m
Light Transmission (Clear): 50%-56%
Light Transmission (Smoked): 15%-30%
U-value: 1.3W/m².K
Tensile Strength: >60Mpa
Fire Rating: B1

DIAMOND VU

Internal Structure: Twin wall
Panel Coverage: 7' wide 12' long / cut to size
Thickness: 10 mm
Light Transmission (clear): 88%
U-value: 3.2W/m².K

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.



FREQUENTLY ASKED QUESTIONS

Can I add polycarbonate sheeting to my existing Diamond door?

Our sales team would be happy to provide you pricing for adding polycarbonate to an existing door. All we require is your door serial number.

How much of the bi-fold door can I cover with polycarbonate sheeting?

Our polycarbonate sheeting can be installed as a row, half the door, or a full door application.

Is the sheeting difficult to install?

Polycarbonate sheeting is basic to install, and the included manual includes step-by-step instructions. Each sheet is cut to length in factory.

REMOTE OPENER PACKAGE

INFORMATION SHEET

OVERVIEW

The optional remote opener package is available in two different wireless types; a three button visor or key chain remote. The electric auto-lock option can be used in conjunction with the remote opener option to create a complete remote access door.

This remote package comes with 2 transmitters, the receiver, and necessary photo-eyes. Additional remotes are available and sold separately.

TECHNICAL SPECS

Remote Brand: LiftMaster
Visor Model: 893MAX
Key Chain Model: 890MAX
Receiver Model: 850LM

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

FREQUENTLY ASKED QUESTIONS

How do I add multiple remotes to one door?

With the 850LM receiver you can pair an unlimited amount of remotes.

The power in my building went out and now my remotes don't work. What do I do?

Check the receiver inside the Genesys electrical box to see if the remotes are paired. If not, refer to the owner's manual for remote diagnostics and troubleshooting. If you need assistance, our service team can happily walk you through this over the phone.

Can I use the remote to stop the door halfway through an open or closing cycle?

There are buttons for Stop, Open, and Close. Once stopped, the door will resume the cycle upon pressing open/close.

ROLLERS

INFORMATION SHEET

OVERVIEW

Located on the bottom corners of the door, the rollers run vertically on the door track as the door opens and closes. Our roller design is not just a simple bearing. The bearing itself is double sealed industrial grade. We press the bearing into a CNC stainless steel machined beveled sleeve. The result is a roller with superior longevity, no maintenance, and smooth operation. Diamond Doors offers two roller styles, the cantilever roller and inset roller. During the door design process, the roller type is chosen based on door application and roller loads.

The cantilever roller design is the standard roller for doors less than 60' wide. It is new and improved for easier install, operation reliability, and improved bottom seal of the door. This exclusive roller design allows the bottom rubber seal to extend further into the column, creating a superior seal. The roller wear cap on the face of the roller provides a low friction surface, so even with minor building shift or track misalignment, the door will continue to open and close with ease. This is to avoid damage to the roller itself and provide a low maintenance replacement option. Since the roller is cantilevered, installers are no longer required to trim sheeting or insulation upon installation.

The inset roller design is used on doors larger than 60' wide. The roller is inset to better transfer loads into the door frame. This design has been tested to be effective for larger applications.

ROLLER COMPARISON	CANTILEVER	INSET
J-Track (Wind Protection)	Yes	Yes
Nylon Wear Disk	Yes	No
Trim Sheeting During Install	No	Yes
Access Hatch in J-Track	Yes	No
Bottom Roller Wedge	Yes	Yes

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

FREQUENTLY ASKED QUESTIONS

Is the roller replacement process difficult?

If you ever need to replace your roller, the bottom section of the J-track is an access hatch. To remove the roller, simply loosen the set screws and slide it off the shaft. Replace with the new roller, simply and efficiently.

What makes Diamond Doors' roller design unique?

Our roller design is not just a simple bearing. The bearing itself is double sealed industrial grade. We press the berring into a CNC machined beveled sleeve. The result is a roller with superior longevity, no maintenance, and smooth operation

SELF-SUPPORTING HEADER

INFORMATION SHEET

OVERVIEW

The self-supporting header is used for applications where the building does not have the strength to hold the door's weight and loads and/or is used to extend the clear opening past the roofline, increasing available overhead space. This option is available for all door sizes. The self-supporting header comes factory painted to match the bi-fold door frame. All necessary fasteners are included. The system consists of two wide flange vertical columns and a web truss header system. The header comes attached to the door with a simple 4 bolt connection to the pre-drilled vertical columns. This system is typically mounted to the exterior of the building and anchored into the building's foundation. The header can also be set into the building for a flush exterior look (depending on building clearances). All necessary mounting hardware and foundation mounting brackets are included.

Insulation caps are provided to insulate the header system when ordered with the Insulation Package. They are inserted into the vertical columns and fastened to the underside of the header. All insulation caps are covered in a 26-gauge charcoal sheeting to match the door frame.

TECHNICAL SPECS

Steel Type: ASTM A500
Grade: C
Finish: Two-part polyurethane paint
Standard Colour: Charcoal gray

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

FREQUENTLY ASKED QUESTIONS

I have an existing building that is not designed to withstand the weight of a bi-fold door. Is the self-supporting header a suitable option for me?

The self-supporting header was originally designed for retrofit applications where modifying the building becomes cost prohibitive. This system allows you to mount the door and self-supporting frame to the face of the building.

Are any loads or weights transferred into the building with this system?

The self-supporting header is designed to handle all weight and loads of the door. The only load that is transferred back into the building is the outward pull which is created when the door is in the open position. Tie-back cables are provided to transfer this outward pull.

How can I maximize the overhead space in my building?

This system allows the door to be mounted past the roofline. Installed to the outside of the building, this creates a larger clear opening. We can create any size opening that your building will allow.

SINGLE LEVER LOCKING SYSTEM

INFORMATION SHEET

OVERVIEW

The single lever locking system comes standard with every door. Our design is maintenance free, simple to use, and customizable. Rather than the two-latch system used by many companies, the Diamond Doors manual locking system uses a single lever to operate. This means that the lever unlocks both sides of the door simultaneously, which makes getting in and out of your building quick and easy. When the system is engaged, the locking fingers press against the locking catches pulling the door tight against the building. The system is designed to create an exceptional seal from the outside environment. This locking handle car be positioned on either side of door for quick and easy access. The locking systems are installed and set up in the factory. No onsite adjustment is required.

Every door is equipped with a safety single point lock switch for manual locking doors. For the door opener to operate, the safety switch must be completely engaged. This switch prevents operation of the bi-fold door while the door is locked, preventing structural damage to your door, locking system, and building. It also prevents the door opener from straining against a locked door and burning out.

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

FREQUENTLY ASKED QUESTIONS

Can I specify which side of the door the locking handle is on?

Yes, you can choose if you want the handle on the left or right side of the door. Customers often position the handle next to their pedestrian door.

Will the door still open if it is locked?

We equip our doors with a safety single point lock switch which prevents the door from opening when locked.

SPEED INCREASE PACKAGE

INFORMATION SHEET

OVERVIEW

Diamond Doors has an industry leading standard operating speed of 18 ft/min. With the speed increase package, you can improve the speed of your door for added convenience. This will boost the opening speed an additional 20% - 25%.

TECHNICAL SPECS

Standard Operating Speed: 18 ft/min
Speed with Increase Package: 21-24ft/min

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

FREQUENTLY ASKED QUESTIONS

Can I increase the operating speed of my door?

Diamond Doors offers a speed increase package that will increase operating speed by 20% - 25%.

What does the speed increase package entail?

The package increases the electric lift motor and gear box ratio.

STAINLESS STEEL PACKAGE

INFORMATION SHEET

OVERVIEW

The stainless-steel frame option is a great option for high humidity or corrosive environments such as dairy barns and poultry barns. Diamond Doors offers many different grades of stainless steel. Most common is the 300 series in 304, 304L, 316 and 316L. Also included are stainless steel hinges, hinge pins, and lifting cables.

Stainless steel is a good choice for many reasons. It has a relatively low thermal conductivity, improving heat retention in the building. It has an improved surface finish, resisting cracking. Added chromium protects against rust by oxidizing on the surface, creating a barrier between metal and air. These qualities improve door longevity and result in less maintenance long term.

Diamond Doors also offers a sealed stainless motor which provides assurance of the door's operation in the harshest environments. These motors are available in most standard HP and voltages. A wash-guard brake kit is included. Due to the motor being sealed, the emergency manual opener is not available.

TECHNICAL SPECS

Stainless Steel Grade: 300 series 304, 304L, 316, 316L
Motor HP: 3/4HP, 1HP, 1.5HP, 2HP, 3HP.
Motor Type: AC induction brake motor
Motor Voltage: Single phase 230V, 3 phase 208V, and 3 phase 460V. 60Hz.

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

FREQUENTLY ASKED QUESTIONS

Does the exterior cladding get attached to the frame in the same way as the standard steel frame?
It is recommended to pre-drill the fastener holes first, as stainless steel is a harder material than the standard steel. Otherwise, the process is the same.

Does the frame ship to site in one piece?
Doors that are less than 20ft tall and 60ft wide arrive completely assembled and pre-wired. The door frame arrives folded in an "A" frame position. Larger doors are typically shipped split vertically or horizontally. Split doors do require minimal onsite assembly.

STEEL FRAME

INFORMATION SHEET

OVERVIEW

Each frame is manufactured with HSS tubular steel. The doors are designed with a variety of tube sizes. Sizing is determined by door size, wind loads, and weight of the exterior finishing. Thicker steel is used in areas where loads are greater, and steel is minimized in areas (where applicable) to reduce weight and loads on the building. This maximizes strength while maintaining a lightweight design.

The triple internal truss is designed to prevent deflection of the door by strengthening the frame to withstand the wind loads of your location. All three trusses are strategically placed on the inside of the door frame to provide the door with a polished exterior look.

Steel is prepared in an acid wash bath, which removes any oil and debris before being assembled by a certified CWB (Canadian Welding Bureau) welder. The frame is painted with a quality two-part urethane finish paint. The standard colour is charcoal gray. This finish is extremely durable and weather resistant.

TECHNICAL SPECS

Steel Type: ASTM A500
Grade: C
Wall Thicknesses: 0.083"-0.250"
Finish: Two-part polyurethane paint
Standard Colour: Charcoal gray
Colour Code: QC

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

FREQUENTLY ASKED QUESTIONS

What wind loads is the door frame designed to?
Each door frame is specifically designed for the 1/50 (the highest wind speed in a 50-year span) wind speeds of the building's location.

Can you customize the spacing between frame members?
We can adjust the frame's member spacing to accommodate our customers' needs. For example, with custom exterior finishes, fastener attachment points are often pre-specified. In this case we can adjust the frame members to align accordingly.

Does the frame ship to site in one piece?
Doors that are less than 20ft tall and 60ft wide arrive completely assembled and pre-wired. The door frame arrives folded in an "A" frame position. Larger doors are typically shipped split vertically or horizontally. Split doors do require minimal onsite assembly.

TRIM PACKAGE

INFORMATION SHEET

OVERVIEW

The trim package covers the edges of the cladding and is both aesthetically pleasing and functional. Each Diamond door requires 3 types of trims; “J” trim, center trim, and drip trim. The “J” trim runs along both sides of the door and along the top. The center trim is placed on the top of the bottom section of the door (it works with the ¾” cladding overlap). The drip flashing is fastened to the bottom of the door providing proper moisture shed.

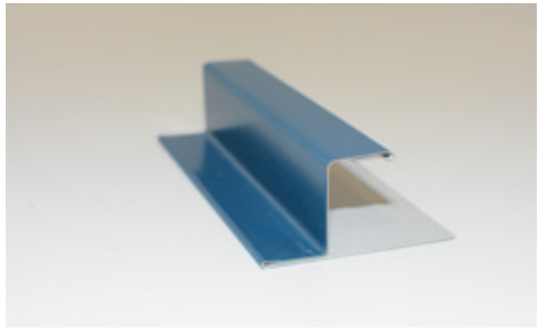
The trims are typically made from 26-gauge material. Trim depth is determined by the thickness of the insulation and profile of cladding used. For standard trim colours available, please refer to the Diamond Doors colour chart. Custom colours are available upon request. If you prefer to supply your own trims to better match your building colours, Diamond Doors provides the trim profiles and required amounts on each order.

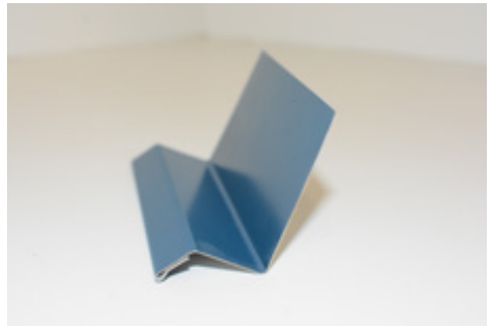
TECHNICAL SPECS

Colour: See colour chart
Trim Thickness: 26-guage

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.





FREQUENTLY ASKED QUESTIONS

Can I provide my own trims?

Yes, you can get your door trims from your building supplier. Diamond Doors can provide the trim profiles and required amounts.

Can I customize my trim colours?

We have a variety of colours available (see colour chart). Custom colours are also available upon request. We can match your trims to your cladding colour, or help you select a contrasting colour for aesthetic appeal.

UP/DOWN/STOP/ CONTROLLER

INFORMATION SHEET

OVERVIEW

The master up/down/stop controller is wired directly into the door’s Genesys electrical box. This controller can be positioned on either side of the door and is mounted to the building. The controller comes prewired from factory. Our controller meets both Canadian and American electrical standards and is a NEMA 4/12 (sealed enclosure, dust-proof), CSA/UL certified controller.

Our up/down/stop controller allows the user to push the button and walk away while the door cycles, compared to other competitor door systems that require users to press and hold the button during the entire opening/closing sequence.

TECHNICAL SPECS

Certification: NEMA 4/12, CSA/UL

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

FREQUENTLY ASKED QUESTIONS

Is the wiring included with the Up/Down/Stop Controller?

Enough wiring is provided to attach the controller to either side of the building.

Do I need an electrician to install the Up/Down/Stop Controller?

The controller is wired directly into the door’s Genesys Electrical Box and an electrician is required to complete the wiring.

WEATHER SEALS

INFORMATION SHEET

OVERVIEW

The weather seal kit comes with top and bottom seals and come standard with every door.

The top weather seal is a rubberized canvas, covering the hinges and sealing the connection between the door and the building. This seal is fastened in between the door frame and top door trim. The other side is fastened to the building behind the cladding. The top seal comes standard in white but is available in black and charcoal upon request.

The bottom rubber seal is fastened to the bottom of the door by an aluminum track, sealing the space between the lower door frame and your finished floor. The rubber seal is designed with ribs to prevent the seal from freezing to the ground. These seals are available in different sizes to accommodate any fluctuation in your finished floor elevation or deflection of the building.

TECHNICAL SPECS

Standard Top Seal Colour: White
Standard Bottom Seal Colour: Black
Bottom Seal Size: 9” and 6”

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

FREQUENTLY ASKED QUESTIONS

Is it difficult to replace the bottom seal if needed?

The seal can easily be replaced by sliding the bottom seal out from the aluminum track. The new seal slides in. On larger doors this process is easier with two people.

WINDOW PACKAGE

INFORMATION SHEET

OVERVIEW

Windows are one of the options we offer for natural light. The window package allows customers to look outside of the building with a clear transparent view (in contrast to the polycarbonate panel option which is translucent.) Standard windows are 36” wide by 18” tall and come with a dual pane PVC frame and nailing fin for installation. These windows are available with brick mold to accommodate ¾” profile cladding. The windows come preinstalled from the factory to save you time and money with installation.

Custom windows come in many different sizes, from 24”x12” security windows to full row glazing. The most common custom window design is a row of windows across the door. The glass is available in tempered, mirrored and tinted.

TECHNICAL SPECS

Brand: Humphrey Products
Standard Size: 36”x18”
Transparency: 100%

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

FREQUENTLY ASKED QUESTIONS

How many windows can I put in my bi-fold door?

The number of windows the door can hold is dictated by the size of the door and number of vertical frame members. A 30ft wide door has 6 vertical door members which would allow for 5 windows. A 40ft door has 7 members, allowing for 6 windows. 50 ft doors have 8 members which would allow for 7 windows and a 60ft door has 10 members, which would allow for a maximum of 9 windows.

I don’t want people to see into my building, but I am interested in the window package. Can the windows be placed higher on the door?

For natural light the windows can be placed in the top section of the door. When placing windows for natural light, the higher the windows are placed in the door, the further the light will reach into the building.

I want to be able to see the view in front of my door from inside the building before I open it. What height should the windows be placed?

When placing windows in the bottom section, we aim to put the bottom of the window at 4’9”. At this height the top of the window would reach to 6’3”, placing the center of the window at the average height for most North Americans.

WIRELESS KEYPAD

INFORMATION SHEET

OVERVIEW

The Wireless Keypad is an additional option to the Remote Opener package. The keypad allows you to operate the door with your personal 4-digit security code. Because the keypad is wireless, it can be mounted to your building, or any other surface that is convenient for you.

TECHNICAL SPECS

Brand: LiftMaster
Model:877MAX

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

FREQUENTLY ASKED QUESTIONS

Can I change my 4-digit access code?

Yes, you can change the code to any 4-digit combination of your choosing. Press and hold the # sign button until the light flashes twice, enter your new 4-digit pin, press and hold enter, and your new pin is assigned.

My keypad is not working, what do I do?

If your keypad is not working, the batteries may have died. Replace them and try again. For further diagnostics refer to your owner's manual.

"Y" PUSHERS

INFORMATION SHEET

OVERVIEW

The "Y" pushers are located on the center fold of the door. The number of Y pushers is determined by the number of lift cables, one pusher for every cable. They provide the initial outward push from the center hinge for a smooth opening and closing motion.

The shaft of the Y pushers consists of a galvanized steel tube which is attached to the door frame with a roller bearing hinge. This hinge allows the Y pushers to swivel during the opening sequence.

Y pusher ends are made from a high-quality plastic. This is to prevent cable wear, create a smooth surface for the cable to glide on, and allow for simple replacement if needed. We have made them yellow for clearance visibility.

TECHNICAL SPECS

Material: Galvanized steel tube shaft, plastic end.
Quantity: Dependant on cable quantity.

WARRANTY

The door is free of manufacturing defects in material and workmanship for a period of two years. The door will not warp, crack, or buckle under normal intended use as a door.

FREQUENTLY ASKED QUESTIONS

Can I operate the door if I accidentally broke a Y pusher?

The door is still operable with as few as one Y pusher. It is highly recommended to replace the broken pushers as soon as possible. While awaiting replacement, operate the door with caution.

I have an older door with the previous pusher design. Can I retrofit the new design on my old door?

The new design is a direct replacement and can be retrofitted to all older models. Contact our parts and service department to request the new design.

Are there different sizes of Y pushers?

The length of the Y pusher is determined by the height of the door. The pushers range from 12" – 30".

Manuals

DIAMOND DOORS

DOOR OPERATOR
OWNERS MANUAL

This document contains important maintenance and safety information to be reviewed after Installing and Operating the door.

Retain this document for future reference

Table of Contents

Introduction

Congratulations on your purchase of a Diamond Door quality bi-fold door system. Following a few simple steps will help ensure you get years of trouble free operation.

IMPORTANT INSTALLATION INSTRUCTIONS

WARNING

To reduce the risk of SEVERE INJURY or DEATH:

1. READ AND FOLLOW ALL INSTALLATION WARNINGS AND INSTRUCTIONS.
2. Refer to the electrical installation manual for details on hooking up the door to line power.
3. NEVER let children play with or operate the door, keep remote controls (where applicable) out of the reach of children.
4. Keep people and equipment clear of a door that is in motion and keep the moving door in sight until it is completely closed or opened. NO ONE SHOULD CROSS THE PATH OF A MOVING DOOR.
5. Test and check the doors safety features once a month, adjust the upper and lower limits as needed. Failure to adjust the operator properly may cause severe injury or death.
5. Power connection to the door should be made by a qualified electrician after the door has been securely mounted onto the building.
6. Locate the up/down/stop wall station within sight of the door and at a minimum height of 5 feet to keep it out of the reach of children.
7. Ensure all guards are in place before operating door.
8. Ensure all warning labels are visible and intact prior to operating the door.
9. Follow the maintenance schedules outlined in this manual.
10. SAVE THIS INSTALLATION AND OWNERS MANUAL FOR FUTURE REFERENCE

Door Wiring and Controller Hookup

All Electrical connections and wiring should be performed only by qualified electricians, refer to the Electrical Installation Manual.

Glossary of Terms

Brake Test - a method of testing the safety system that prevents a bi-fold door from closing by gravity when the motor is not running.

Door Operator - overall opener system; motor, control box and lifting mechanism.

Input Screw (ref. gear box) - part of the gear box that attaches to the motor. The motor turns the input screw (shaft) of the gearbox. The input screw is threaded, and turns the gear within the gearbox.

Limit Switch(es) - generally refers to the limit switches found inside the black electrical box, which control the limits of how far the door is allowed to open and close.

Overall Units - entire door system.

Photo Electric Sensors - safety sensors (like photo eyes) which are intended to cut electrical power and stop the door if activated. Typically installed on either side of the door frame near the floor, to prevent the door from closing if an object or person is in the doorway.

Pillow Block Bearings - main drive shaft bearings, in a cast steel pillow block housing (end of main drive shaft) attached to door with 2 bolts.

Sight Glass - clear window on the gearbox, allowing you to see the oil level

The Overload - electrical circuit breaker, sometimes referred to as the overload switch. Usually found on the side of the black electrical box. Note: for 3 Phase doors, the overload is found on the inside of the box, with controls to adjust the amperage.

Track Angles - steel angle-iron tracks attached to building columns, on which the door travels up and down. (usually a 3x3 or 3/4 angle-iron)

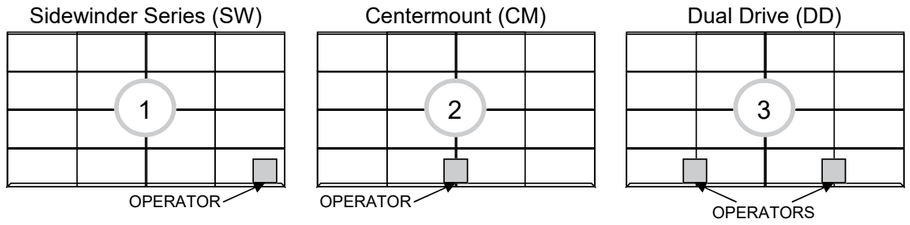
Column Follower - hinged safety catches found on buildings that have I-beam building columns. Wind catches track along inside of building column to prevent the door from swinging outwards, away from building, in the event of operation in high winds.

Drive Types

Your bi-fold door will have one of the following drive types:

1. Single motor mounted at one side of the door (Sidewinder), attached directly to the drive shaft.
2. Single motor center mounted with a chain reduction, coupled to the drive shaft.
3. Multiple motors with chain reduction, coupled to the drive shaft.

Please reference the following diagrams to determine your drive type.



Operating Conditions

DO NOT OPERATE YOUR DOOR WHEN:

a Proper maintenance has not been preformed or door is clearly unsafe to operate.

b Strong or excessive wind is blowing towards the door.
In some cases, winds may blow in a direction and speed that may cause the door to lift away from the building. If this occurs:
- Close all other doors and windows on the building (Keep other windows and doors closed while operating the Bi-Fold door.
- Close Bi-Fold door immediately.
- Check that the door rollers are resting next to the building before locking the door.
- Make sure the locking fingers both catch the yellow latch brackets when locking.
- Only open the door as much as is required to move equipment in or out and then close and lock the door.

c The area around and under an open door is not clear.

d Objects or people are in front of the door opening, obstructing door travel.

e There is inadequate or improper electrical supply (Damage may occur).

IMPORTANT

Do not leave the door open when it is raining or snowing. Electrical components may be exposed to moisture and corrode or freeze causing the door to operate improperly or not at all.

Maintenance Checklist

Check Every	3 Months	12 Months
Overall Door Inspection	X	
Gear Box(s)	X	
Drive and Limit Chain	X	
Lift Cables	X	
Photo Eyes	X	
Main Roller Bearings	X	
Drive Shaft		X
Electrical		X
Center Mount Electric Brake		X
Sidewinder Electric Brake		X
Warning and Safety Labels		X
Adjusting Limits		X
Locking System		X
Autolock		X
Hinges		X
Exterior Cladding-OPTIONAL		X
Weather Seals		X
Column Follower-OPTIONAL		X

Cleaning the Door

Power to the door should be turned off before cleaning

Wash the exterior of your door with a garden hose and clear water.
Be cautious when using high-pressure washing systems or chemicals for cleaning as they may cause damage to door components.

Use care when cleaning the interior of the door. Avoid liquid contact with electrical components and moving parts.
An air hose and blower may be sufficient to remove dust build-up.
Hand-wash hard surfaces with a mild detergent to remove dirt and/or grease build-up.

Door Wiring and Controller Hookup

All Electrical connections, repairs, wiring, and maintenance should be performed only by qualified electricians, refer to the Electrical Installation Manual.

IMPORTANT

Always disconnect the power to the door before performing any maintenance or cleaning

Overall Door Inspection

1 Visually inspect general door condition (walk-around).
2 Fully cycle of door from open to close.
   a Listen for abnormal sounds.
   b Check that the door stops at its upper and lower limits, if not, adjust the limits as needed as described on page 10.
   c Examine the cable as they spool around the driveline, they should not overlap as the door raises up.
   d Compare the rollers on both sides of the door. They should tracking evenly and be relatively centered on the track angles.
   e Watch for any signs of binding or hooking as the door opens and closes.
3 Ensure the chain guard(s) and cable guards are in place and not damaged and that the electrical enclosure is closed and secured.
4 Check for and remove any debris on the door.

Gear Box(s)

Unless there is evidence that oil has been leaking out, the oil in the gear box should be checked every 3 months. Look for visible residue, or a stain on the floor.

Normal break-in period for a gearbox would be 200-500 cycles.

To Check the Gear Box:
1. Disconnect electrical power to the door.
2. Remove safety shields on CM, and DD doors to uncover the sprockets and chains.
3. For gear boxes with a sight glass, check to see if oil level is adequate.
4. For gear boxes not equipped with a sight glass, remove vent plug and visually note oil level.
   a. For SW doors, fill up to the plug opening.
   b. For all other doors, fill the oil to a minimum of the center line of the output shaft with the door in the closed position.
5. Reinsert plugs, and attach all safety guards.
6. Turn on electrical power.

Low usage doors typically need the oil changed after several years. When changing the oil, be sure to use a good quality, Full Synthetic 75W90 Gear Oil.

Match up your gear box part number with the chart below to determine the amount of oil to put in.

Drive Type	Size	Volume
Auto-Lock Only	45 Series	100ml
Sidewinder	63 Series	300ml
Sidewinder	85 Series	750ml
Center Mount/Dual Drive	300 Series	2400ml
Center Mount/Dual Drive	325 Series	2400ml
Center Mount/Dual Drive	100 Series	2600ml
Center Mount/Dual Drive	120 Series	3000ml

IMPORTANT

Always disconnect the power to the door before performing any maintenance or cleaning

Drive and Limit Chain

Check:
1. For even tension.
2. For chain wear.
3. Chain alignment between upper and lower sprockets
4. Sprocket set screws are snug.
5. That all safety shields are in place.
6. Limit switches after any major drive chain adjustments *(see pg.10).*
7. That the chain is properly lubricated with chain lube spray or lightweight motor oil. *(Never use grease or silicone spray).*

Lift Cables

With the door in the closed and locked position, check that the lift cables are not under tension and that they are not so loose that they may fall away from the Y-Pushers.

Check for consistent cable tension:
Unlock and open the door ≈2 feet.
Check each cable by hand for similar tension.
Close and lock the door.
Adjust cables as needed so they have similar tension.

Visually inspect the cables for any frays or kinks. Damaged cables should be replaced.

Cable replacement:
Close and lock the door, then disconnect electrical power.
Remove damaged cable(s).
Replace with new cable(s).
Check for consistent tension between cables.
Verify all safety guards are in place.
Reconnect electrical power.

USE ONLY A GENUINE DIAMOND DOORS REPLACEMENT CABLE
Use of an Incorrect Cable Size or Type May Be Dangerous and may Result in Premature Component Failure.
Contact Diamond Doors for pricing and availability of replacement cable(s).

Photo Eyes

For doors equipped with Photo Eyes, check that the close cycle stops when something obstructs the path between sensors. Pass a broom or shovel through the optical path, if the door does not stop have the system checked. DO NOT stand in the door way when the door is in operation.

IMPORTANT

Always disconnect the power to the door before performing any maintenance or cleaning

Main Roller Bearings

To Visually Inspect:

1. Unlock and open the door ≈2 feet.
2. Check that the snap rings securing the inner bearing to the outer sleeve are in place.
3. The roller bearing should roll smooth and quiet.
4. Inspect the grease seals, they should not be leaking.
5. Verify the set screws holding the bearing on the shaft are snug. If the bearing has shifted, move the bearing so the outer face of the bearing aligns with the outer face of the drive shaft and tighten the set screws.
6. Close and lock the door.

Drive Shafts

Visually Inspect:

1. Drive Line Bushings-Check for wear and grease if applicable with a full synthetic grease.
2. Pillow Block Bearings-Check for wear and damage, and that the set crews are secure. Do not grease sealed units.
3. Connection Bolts-Check that all bearing and bushing mounting

If any bushings or bearings are tightened or replaced, check the chain alignment—the sprockets should be in line vertically.

Electrical

1. Disconnect electrical power to the door system……
2. Inspect wiring, it should be...
   - Free of kinks, cracks, and breaks.
   - Free to bend and move at hinge locations.
   - Secure at all connection points.
3. Check wall station control.
   - Up / Down / Stop buttons should move freely and not stick.
   - It should be cleaned inside and out (carefully use compressed air).
4. Inspect the limit switch nuts located inside the electrical box.
   - Look for wear and make sure they are secure.
   - Threaded shaft should have a light amount of grease applied if the it is dry.
   - Adjust as needed (See Page 11 for instructions).
5. Check Safety Switch on manual locking doors (found in the handles cradle in the locked position).
   - The switch should have ≈1/4” of travel when depressed.
   - The handle should securely hold the switch in the depressed position.
6. Reconnect electrical power & perform voltage check (should $^{+}/_{-}$ 3 volts of designed operators rating.

IMPORTANT

Always disconnect the power to the door before performing any maintenance or cleaning

Electric Brake

The Electric Brake on top of each motor on Center Mount Doors (CM)

Fig 1

—Electric Brake Test:

1. Connect and turn on electric power to test the brake.
2. Open the door about half way and begin closing the door, then press the stop button. The door should come to a stop almost immediately.
3. If the door free wheels more then a few inches, the brake may need to be serviced.

—Brake Inspection:

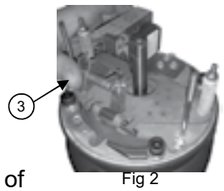


Fig 2

1. Disconnect power to the door.
2. Remove the 3/8” hex nuts that hold the cover in place (see Fig 1).
3. Push plunger by hand, it should move easily and come back out on its own (see Fig 2). While depressed, the center shaft should rotate easily and when released, the shaft will not turn.
4. Connect power and cycle the door a few inches. Watch the operation of the plunger to verify that it travels fully into the brake coil (A second person may be required for this step).
5. Replace brake if it fails to cycle or move properly.

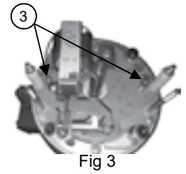


Fig 3

—Adjusting Brake Tension:

1. Disconnect electrical power to the door.
2. Remove the 3/8” hex nuts that hold the cover in place (see Fig 1).
3. Tighten evenly both black socket-head cap screws with a 3/16” allen key 1/8 of a turn at a time.
4. Reconnect power to the door and perform Brake Inspection above, the brake should be completely disengaged during operation and may need to be adjusted.
5. Repeat steps 1 through 4 as needed.

IMPORTANT

Always disconnect the power to the door before performing any maintenance or cleaning

The Electric Brake is between the motor and the gearbox on Sidwinder (SW) doors,

—Electric Brake Test:

1. Connect and turn on electric power to test the brake.
2. Open the door about half way and begin closing the door, then press the stop button. The door should come to a stop almost immediately.
3. If the door free wheels more then a few inches, the brake may need to be serviced.

—Brake Inspection:

1. Disconnect power to the door.
2. Remove the 4 nuts that hold the 3 components together and separate the housing and base of the brake assembly (see Fig 1).
3. Push plunger by hand, it should move easily and come back out on its own (see Fig 2). While depressed, the center shaft should rotate easily and when released, the shaft will not turn.
4. Replace brake if it fails to cycle or move properly.
5. Reassemble the drive assembly, connect power and perform a Brake Test.

Fig 1

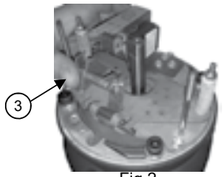


Fig 2

—Adjusting Brake Tension:

1. Disconnect electrical power to the door.
2. Remove the 4 nuts that hold the 3 components together and separate the housing and base of the brake assembly (see Fig 1).
3. Tighten evenly both black socket-head cap screws with a 3/16” allen key 1/8 of a turn at a time.
4. Reassemble the drive assembly, connect power and perform a Brake Test.
5. Repeat steps 1 through 4 as needed.

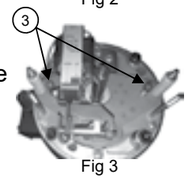


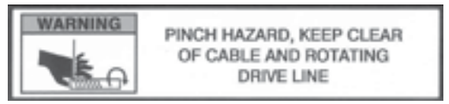
Fig 3

IMPORTANT

Always disconnect the power to the door before performing any maintenance or cleaning

Warning and Safety Labels

All Warning and Safety Labels should be in place. They should be periodically wiped with a damp cloth and kept visible at all times. Contact Diamond Doors for replacement labels.



Affixed to the Bottom Truss
(one by every cable location)

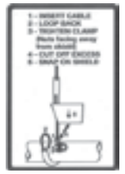
Affixed to Front Cover of Black Electrical Control Box

Affixed to the Safety Shield on the Operator

Affixed to Bottom Truss
(centrally located near locking handle)

Affixed to Yellow Handle of Locking Mechanism
(manual locking systems only)

Affixed to Auto Lock Front Cover
(Auto Lock System equipped doors only)

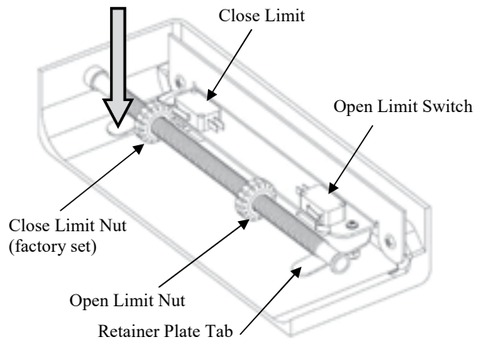

Affixed to Drive Line

Should be affixed near door controls
(likely located on the building column)

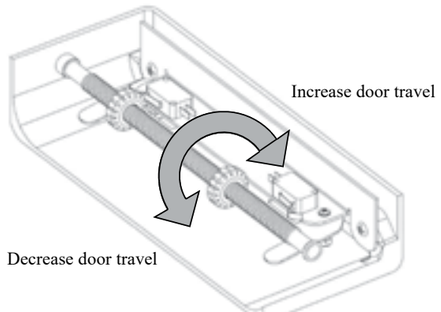
Adjusting Limits

- Limit switches in the control panel determine the limits of door travel.
- The lower limit or closed limit is set at the factory and will need little or no adjustment.
- The upper limit or open limit switch is set at only a few feet and will need to be set once the door is installed. Further slight adjustment may be required over the life of the door.
- Any adjustments should be made in small increments to prevent door sections contacting each other.

1 Press down on retaining plate tab.



2 Adjust OPEN limit to set height. CLOSE limit is factory set and should need no adjustment.



3 Release retaining plate and verify that it is fully seated into the notches of BOTH limit nuts.
Watch movement of limit nuts during testing cycles to be sure everything is in place.

4 When door is fully closed, the cables should be slightly loose. The upper limit should be set so the door bridges DO NOT touch the frame. The door should stop at it's MAXIMUM opening.
Cycle several times to ensure limits are correctly set.

IMPORTANT INSTRUCTIONS

WARNING

Do Not Allow the Door to Travel Beyond the Design Limits

Locking System

1 Inspect pillow block bearing seals and set screws.
2 Check that locking system secures the door to the building.
3 Adjust yellow latch bracket if the door does not close tight to the building (The galvanized lock pipes are factory set and should not require adjustment).
4 Check Safety Switch on manual locking doors (found in the handles cradle in the locked position).
   a The switch should have ≈1/4" of travel when depressed.
   b The handle should securely hold the switch in the depressed position.

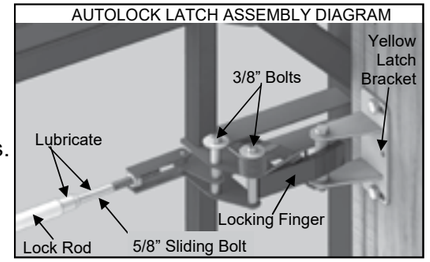
IMPORTANT

Always disconnect the power to the door before performing any maintenance or cleaning

Autolock

1. Open the door, stopping it approximately 6"-12" off the ground, allowing the AutoLock system to fully cycle to the unlocked position.
2. DISCONNECT THE POWER.
3. Check for any cracks in the gearbox housing.
4. Check for any loose hardware.
5. Check the wiring.
   a. Tighten any loose wires, and connectors.
   b. Zip-tie wires to keep them clear of moving parts.
6. Check horizontal locking rods.
   a. Lubricate the sliding bolts with synthetic grease, and check for freedom of movement by forcing the locking finger into the locked position.
   b. Check that the springs are intact and functioning by forcing the locking finger into the locked position. The spring should return the locking finger to the open position when released.
7. Lubricate cam & latch assemblies by removing the 3/8" bolts in the cam and latch assemblies. Use synthetic grease and then snugly reinstall hardware. Check the components for binding.
8. Reinstall Cover.
9. Reconnect the power.
10. Lower the door and visually observe the locking system as it cycles closed.

AUTOLOCK LATCH ASSEMBLY DIAGRAM



Hinges

Inspect hinges for cracks, broken welds, and for overall condition, check that the pins are in place and secured with snap rings. Lubricate them if necessary.

Exterior Cladding-OPTIONAL

1. Inspect overall condition of sheeting.
2. Tighten any fasteners that have come loose and replace any that are missing.

IMPORTANT

Always disconnect the power to the door before performing any maintenance or cleaning

Weather Seals

1. Check the Bottom Rubber Seal:
   a. For any damage.
   b. That is has not contracted and spans the clear opening width.

   If gaps at the outer ends occur:
   i. Open the door a few feet.
   ii. Work the rubber to one side and pinch the rubber into the aluminum track at that end.
   iii. If it has contracted to much to pull the other side to the edge of the door, contact Diamond Doors for a short piece and insert it in to create a slip joint. Splice the small piece in by
   trimming 3" of the 'T' on the rubber seal that inserts into the aluminum extrusion. This will allow the end of the segment to slide into the existing seal.

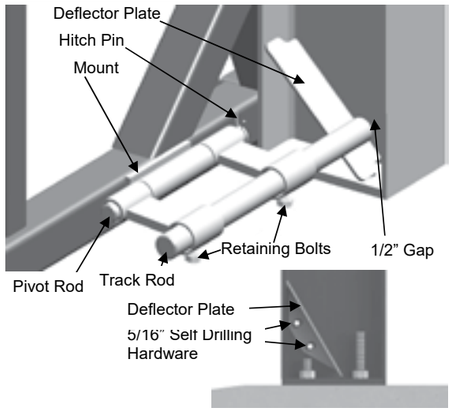
1.
2. Check the top White Canvas Weather Strip:
   a. For any damage or holes.
   b. That the silicone bead is present and intact along the outer edge by the top trim.
3. Check Foam Weather seals (Optional):
   a. The seals should not have any gaps.
   b. The seals should be firmly stuck to the door.

IMPORTANT

Repair damaged seals to prevent moisture related damage to the door and door components

Column Follower-OPTIONAL

1. Check if Column Follower moves freely on the pivot rod.
2. Confirm the cotter pins are intact.
3. Check for interference and freedom of travel as they travel up and down.
4. Make sure the retaining bolts are tight.
5. Verify that the deflector plate is secure at a position that deflects the column follower when the door closes.



IMPORTANT

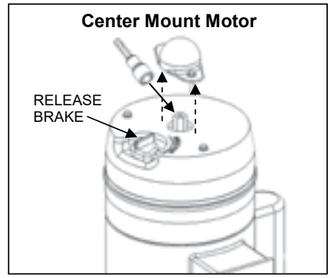
Always disconnect the power to the door before performing any maintenance or cleaning

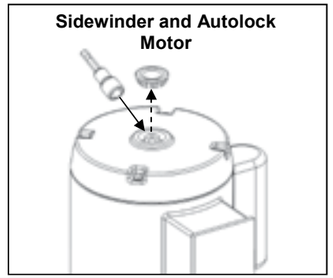
Manual Operation

Open and close the door without power

If you experience a power outage to the door, electrical problems, or don't have electricity on-site, it is possible to operate the door manually. Follow these steps carefully to avoid potential injury.

1. TURN OFF MAIN POWER TO DOOR.
2. Unlock the door (if it is in the closed and locked position).
   - ***Manual Lock*** - rotate yellow locking handle 180° to unlock.
   - ***Auto Lock*** - Remove the dust cover on the end of the AutoLock motor to access the ½" Hex shaft.
3. Remove dust cover from top center of motor to access the ½" Hex shaft.
4. Use the ½" socket driver (supplied with door) and a drill or a ½" socket with a hand ratchet to cycle the autolock motor (if so equipped) to the unlocked or open position.
5. Manually release the brake on doors so equipped by clicking the dial into the released position.
6. Use the ½" socket driver (supplied with door) and a drill or a ½" socket with a hand ratchet to cycle the lift motor to open the door.
7. Re-engage the electric brake (if equipped) before removing the drill.
8. Replace all dust caps to their original position.





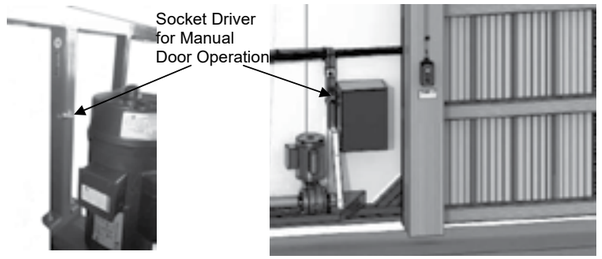
IMPORTANT

Never use an impact or hammer drill to cycle the door manaully

IMPORTANT INSTRUCTIONS

WARNING

- **Use caution when releasing the brake, the door could start to freewheel down if the hex shaft is not held firmly. Reengage the brake to stop the door if needed.**
- **NEVER use an impact to open/close door.**
- **When manually operating the door, check that the open limit nut has NOT gone past the open limit switch.**
- **Never stand on a door when opening / closing it.**



IMPORTANT

Always disconnect the power to the door before performing any maintenance or cleaning

Diamond Doors Inc. Limited Warranty

Subject to the limitations and conditions set forth below, Diamond Doors Inc. warrants from the date of original invoice, (a) the door system will be free of manufacturing defects in material and workmanship for a period of two (2) years in Canada, one (1) year in the United States of America; and (b) our doors will not warp, crack or buckle under normal intended use as a door, and for no other purposes, during the period of this limited warranty. Upon purchase of a Diamond Doors product, the buyer accepts this warranty and agrees it is the only official warranty, thereby excluding any other representation, warranty or condition, whether written or implied, except if stated in writing by an authorized Diamond Doors agent.

These warranties are subject to the following restrictions:

- Warranty is void if any modifications are made to the door system that change the weight and/or structural integrity of the door system, unless approved in writing by an authorized Diamond Doors agent. Examples may include any addition or removal from the door structure, adding windows/doors, using a heavier exterior sheeting/insulation, etc.
- Warranty is void if any modifications are made to the door system using after-market parts, unless approved in writing by an authorized Diamond Doors agent.
- Warranty is void if the door system is used for anything other than its intended use as a door, or other than normal/intended service conditions.
- Warranty applies only to doors that have been properly installed, and Diamond Doors reserves the right for itself or any authorized agent to inspect the door before approving a warranty claim.
- The buyer shall inspect material received from the Seller prior to installation so as to mitigate expenses involved in repairing, repainting, modifying or replacing product.
- **Any claim must be submitted in writing to the manufacturer within 30 days after discovery of the defect, describing the alleged defect, and must be received by Diamond Doors Inc. within the period of the warranty, otherwise the warranty shall be deemed null and void.**
- After receiving a written claim of alleged defect(s), Diamond Doors Inc. shall then have reasonable opportunity to inspect the product before any further action shall be taken.

These warranties expressly exclude:

- Defects or damage to the door or door components after delivery by Diamond Doors Inc., resulting from handling, shipping, transit, processing, improper storage or installation, or prolonged moisture contact or with corrosives and/or similar materials.
- Damage to the door resulting from any accident due to inadequate or defective building design, material or workmanship.
- Damage as a result of Acts of Nature (fire, flood, wind, earthquake, etc.), falling objects, external forces, explosions, or damage as a result of the actions of persons outside of Diamond Doors Inc. control.
- Problems due to misuse, abuse, or failure to follow care and maintenance instructions as found in the owners manual.
- Problems due to inadequate or incorrect power supply, including but not limited to; undersize electrical supply, undersize generator.
- Problems due to water and/or air infiltration due to improper or inadequate building construction/design, or improper installation of door system.
- Any costs related to the transportation of the replacement product.
- Any installation and labor charges related to the replacement product.
- Any non-factory customization or modifications made to the door by the buyer.
- Diamond Doors Inc. shall not be liable for any losses, damages or expenses whether direct, indirect, or consequential, caused by or resulting from the use of a defective or non-conforming door system, or for any other incidental or consequential damages. The total liability of Diamond Doors Inc. is expressly limited to the purchase price of the door system. Without limiting the generality of the foregoing, this warranty pertains to product only, and the seller shall not be liable for damages for or relating to labor or loss of use of structure or damage to contents of structure.

Diamond Doors Inc. reserves the right to provide products of similar quality and function, but of a different type or color in order to fulfill its obligations in the event it could not provide products of the original type/color, or if in its opinion, an alternate replacement could prevent the problem from reoccurring. Diamond Doors Inc. reserves the right to claim ownership of a replaced product, and may request that the replaced product be returned to the manufacturer at the buyers expense.

Maintenance to be done by the buyer

The buyer commits to carry-out regular maintenance as recommended by Diamond Doors Inc. in the Owners Manual

DISCLAIMER

EXCEPT FOR THE WARRANTY EXPRESSLY SET FORTH HEREIN, DIAMOND DOORS INC. HEREBY DISCLAIMS AND EXCLUDES ALL REPRESENTATIONS, WARRANTIES AND CONDITIONS, WHETHER WRITTEN OR ORAL, IMPLIED, STATUTORY OR OTHERWISE WITH RESPECT TO ITS PRODUCTS AND ALL COMPONENTS AND ELEMENTS THEREOF, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES AND CONDITIONS OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE INCLUDING ANY AND ALL WARRANTIES AND CONDITIONS FOUND IN THE APPLICABLE SALE OF GOODS ACTS.

This warranty policy is effective as of April 2011

DIAMOND DOORS

VERSION # 2.1.1

400 AIRPORT DRIVE
WINKLER MB R6W 0J9 | CANADA
PHONE 866.325.7600 | FAX 204.325.0908

DIAMOND DOORS

DOOR OPERATOR

INSTALLATION MANUAL

This document contains important installation and safety information to be reviewed prior to Installing and Operating the door.

Retain this document for future reference

Table of Contents

Introduction

Congratulations on your purchase of a Diamond Door quality bi-fold door system. Following a few simple steps will help ensure you get years of trouble free operation.

Safety Information

IMPORTANT INSTALLATION INSTRUCTIONS

WARNING

To reduce the risk of SEVERE INJURY or DEATH:

1. READ AND FOLLOW ALL INSTALLATION WARNINGS AND INSTRUCTIONS.
2. Refer to the electrical installation manual for details on hooking up the door to line power.
3. NEVER let children play with or operate the door, keep remote controls (where applicable) out of the reach of children.
4. Keep people and equipment clear of a door that is in motion and keep the moving door in sight until it is completely closed or opened. NO ONE SHOULD CROSS THE PATH OF A MOVING DOOR.
5. Test and check the doors safety features once a month, adjust the upper and lower limits as needed. Failure to adjust the operator properly may cause severe injury or death.
5. Power connection to the door should be made by a qualified electrician after the door has been securely mounted onto the building.
6. Locate the up/down/stop wall station within sight of the door and at a minimum height of 5 feet to keep it out of the reach of children.
7. Ensure all guards are in place before operating door.
8. Ensure all warning labels are visible and intact prior to operating the door.
9. Follow the maintenance schedules outlined in this manual.
10. SAVE THIS INSTALLATION AND OWNERS MANUAL FOR FUTURE REFERENCE

Door Wiring and Controller Hookup

All Electrical connections and wiring should be performed only by qualified electricians, refer to the Electrical Installation Manual.

Tools and Equipment Required for Installation

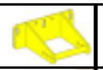
- Hammer
- Measuring Tape
- Utility Knife
- Level
- Work Platform (ie. scissor lift, scaffolding, or similar)
- Lifting Equipment (ie. forklift, crane, or similar)
- Electric Drill
  - Drill Bits
    1/2” bit at least 12” long *(for drilling rafters + columns)*
    3/16” bit *(for pre-drilling holes in exterior cladding)*
    3/8” bit for steel buildings or metal quonsets
- Impact Driver
  - Nut Driver Bits
    1/4” - black electrical control box (or flat screwdriver)
    5/16” - TEK screws to attach exterior cladding
    1/2” - lag bolts for yellow lock brackets
- #3 Robertson screwdriver and impact bit
- #2 Phillips screwdriver and impact bit
- Wrenches: 3/4” and 9/16”
- Hand ratchet with the following sockets; 3/4", 1/2”, 7/16”
- Large Pry Bar
- Cable Cutter or similar
- Tin Snips *(for cutting flashings and exterior sheeting)*
- 2 Large F-Clamps 12” or longer
- WD-40 Lubricant or similiar *(for installing bottom black rubber weather seal)*
- Exterior Grade Silicone (1-2 tubes) & Silicone Gun *(for top canvas seal)*

Door Identification

On the face of the electrical box next to the lift motor, there is a label. This label contains important information that is specific to your door.

The door S/N: (Serial Number) is unique to each door and will be needed when calling customer service or ordering any replacement parts you may need.

Glossary of Parts

Yellow Latch 	Insulation Cap Flashing 2" x 2" 	Header Columns 
Top Canvas Seal 	Cable Clamp 	J-Track Angle 
Bottom Rubber Seal 	Tek Screw #10 x 3/4" 	Column Support Angle 
Aluminum Track 	Flat-Head Stove Bolt 1/4" x 3/4" Long (For Roller Catch) 	Header 
Roller Catch 	Flat-Head Screw (For Trims) 	Columns 
Extension Bracket 	1/2" Flat Washer 	Header Mount Clip 
Cable Guard (Left and Right) 	1/2" Hex Nut 	Trims 
Wall Station Control Box 	L-Track Angle Bracket 	Miter Corner Flashing 
Photo Electric Eyes (Optional) 	Hinge Bolt 1/2" x 8" 	2" Header Insulation Caps 
Remote Control (Visor Style-Optional) 	Hinge Bolt 1/2" x 12" 	
Remote Control (Keychain Style-Optional) 	Lag Bolt and Washer 	
Liftmaster Remote Reciever (Optional) 	Lag Bolt 	
Extension Bracket 	Wood Screws 	
Standard Lockset 	Cable Anchor Kit (Includes Cable, Hinge Mount, and Turnbuckle) 	
Remote Keypad (Optional) 	Lift Cable 	
Tuck Tape 	Hinge Adaptor Plate	
Column Follower (Optional)	5/16" x 1" Hex Bolts (For Deflector Plate)	
Deflector Plate (Optional)		

Unload the Door

Unloading and installing of the door is best accomplished with 2 or more people.

Whether the door is shipped as shown with center hinge up or if it is shipped center hinges down:

a. Lift off the trailer from the side of the door with the drive system facing the lift.

b. Lift from the highest horizontals after a safety strap has been attached between the door and the lift.

c. **Lift slowly** and be careful not to let the door swing or make contact with anything if it shifts or slides.

d. Lower the door on to wood blocks so that the motor section is closest to the ground. Do not let the rollers hit the ground.

e. Ensure that the forks do not damage any door components while lowering it onto the wood blocks.

f. Remove track angles, aluminum channel and any other loose door parts that have been wrapped to the door frame.

Install the Lift Cables

Lift cables arrive factory crimped with a 1/2" bolt and bushing on one end.
Insert 1/2" bolt and bushing into the cable brackets located at the top horizontal of the door.

Tighten the nut and bolt.

Leave the cables spooled and hanging for now.

Install the Weather Seals (Bottom Seal)

Bottom Rubber Seal

The bottom rubber seal consists of a black rubber seal, extruded aluminum track, and hardware. Installing the bottom seal is easier with at least 2 people.

It is easiest and most efficient to install the bottom seal while the door is on the ground.

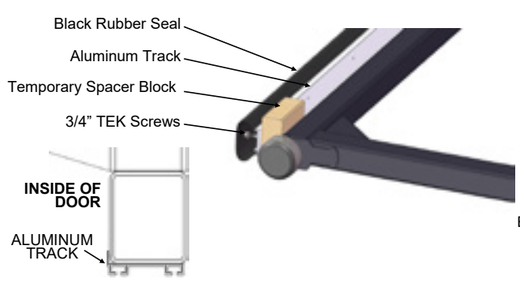
1. Attach aluminum retainer to bottom of door using the provided #10x3/4" galvanized TEK screws at 8" on center. Do not insert screws in the last 12" at this time.
   a) The aluminum retainer should be aligned with the inner edge of the door frame and should terminate 1/4" away from the outer posts.
   b) Start at one edge and mount the retainers butting one against another. Ensure the ends line up and are free of burrs. Cut the last piece to length as required.

Note: When installing screws within 12" of each end, it may be necessary to insert screws at an angle or near corner of tube to avoid hitting the roller shaft.

2. Install temporary spacer block between aluminum retainer and the door frame (see image below). This will provide clearance to install the rubber past the bottom roller.
3. Roll out the rubber beside the door to allow it to flatten and relax for installation.
4. Spray the aluminum track with WD-40.
5. Starting by the spacer block, guide the rubber into the 2 channels while another person gently pulls the rubber seal the width of the door. Pull the rubber about 1/8" past aluminum retainer.

Note: Do NOT cut excess rubber...work the rubber across the door to remove any tension.

6. Using a hammer and punch, slightly crimp the flanges of retainer where the rubber has been inserted. This must be done at both ends of the door.
7. Cut rubber seal at both ends in line with the vertical edge of the door. The rubber should be flush with the frame.
8. Remove temporary spacer block and install the last screws.



Install the Weather Seals (Top Seal)

Top Canvas Seal

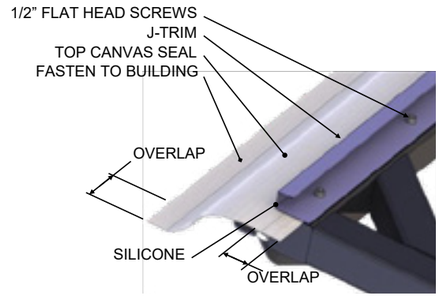
The top weather stripping is a canvas type material.

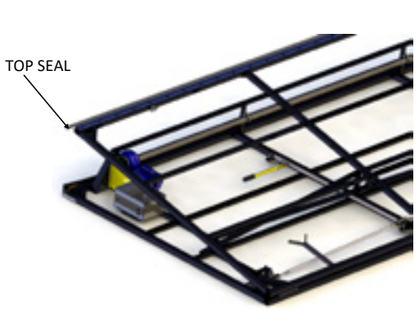
It is easiest and most efficient to install the bottom seal while the door is on the ground.

1. Lay out canvas across the top of the door so it extends 6" past the right and left sides.
2. Create a 3" overlap at one end with the excess and temporarily secure the canvas across the header with staples or flat head screws.
3. Create a 3" overlap at the ending with the excess.
4. Install J-Trim molding at top edge of the door over top of the canvas while overlapping the canvas 2". Use flat-head screws to secure the trim through the canvas

Notes:
   a) Hardware is supplied with the door.
   b) Hardware used to temporarily secure the canvas for installation may need to be removed. Trim should sit flat against the canvas and the door.
   c) Place screws approx. every 2' o/c (exterior sheeting will further secure trims once installed) .

5. Apply a bead of silicone at corner of weather strip and J trim across the full width of the door to prevent moisture entry to the inside of door.
6. After the Door is mounted on the building, the top edge of the canvas will be fastened to the building face behind the drip flashing and above the door.





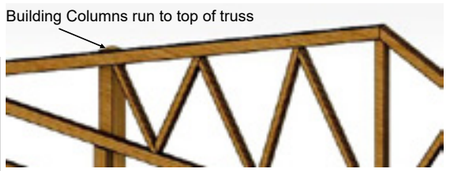
Prepare the Building (Wood Building)

Building Columns

The posts forming each column run to the top of the truss.

IMPORTANT

Door Columns must extend or be extended to the top of the roof truss.



Front View of Building

Building Header

The Header is the part of the end-wall truss from which the door will hang.

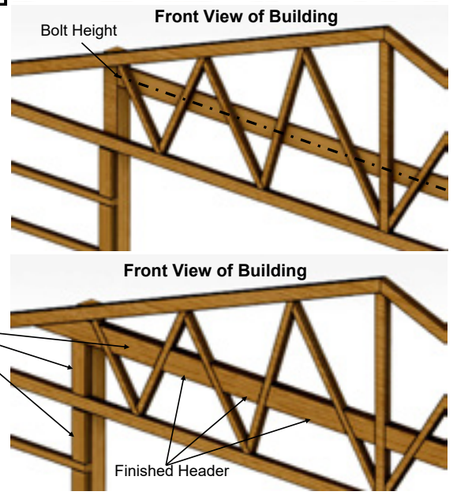
For most wood buildings, the Header will need to be built by reinforcing the end-wall truss as follows;

1. Horiozontaly attach a 2x10 (or similar) to the inside (back) of the end-wall truss.

   It should span the entire clear opening, attaching to the building column on either side.

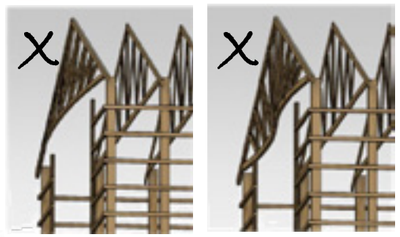
   Make sure it is vertically centered at the height where the hinges of the door will be attached.

2. Fill the angles between the webbing with blocking



IMPORTANT

It is very important that the building face is flat and true



Make Sure the Building Face is Straight

It is very important that the building face is flat and true.

Any warping or bowing will impede door from operating properly.

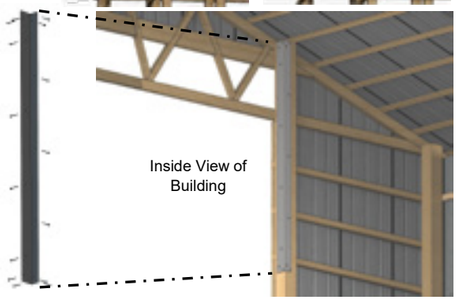
Column Support Angles-OPTIONAL

Upon request, optional column support angles can be included to strengthen the vertical column on wood buildings.

Mount support angles so that the top edge is as high or higher then the hinge bolts.

If possible, the top corner hinge bolts for the door should be extended through the support angle.

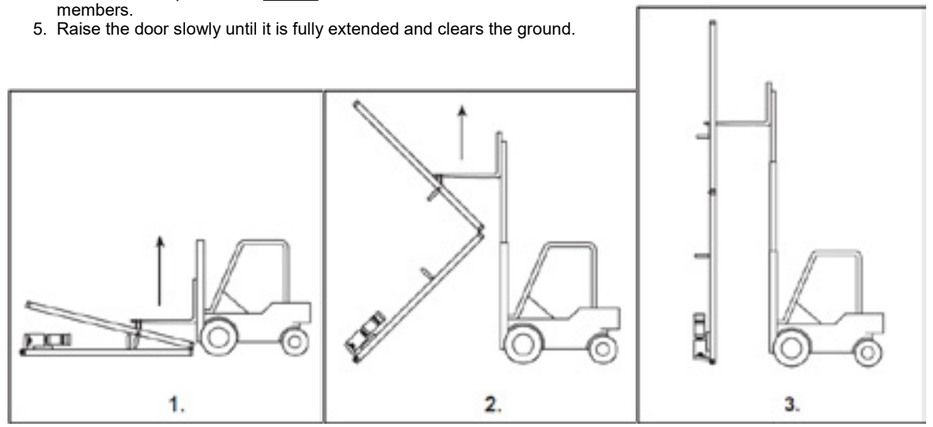
Use supplied 5/16 x 4” Lag Bolts for mounting.



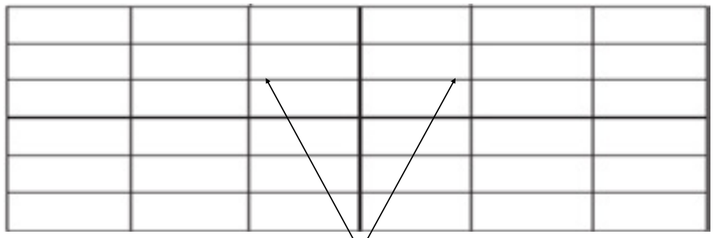
Lift the Door

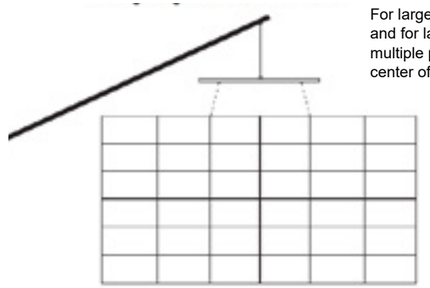
Use caution when raising the door to a fully extended position. Lift the door from the highest frame steel member possible on the top section.

1. Lift door at its center.
2. Attach a chain or lift strap.
3. For forklifts, fasten the a safety strap so that ≈6” extends inside the door.
4. Lift as close as possible to vertical members, do not lift in the middle of horizontal members.
5. Raise the door slowly until it is fully extended and clears the ground.



Top of Door

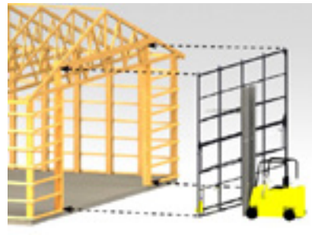




For larger lifting machines and for larger doors, lift at multiple points on the top center of the door.

Place the Door Against the Building (Wood Building)

1. With the door fully extended and clearing the ground, move the door gently against the building.
2. Be sure the door is centered on the building opening.
3. A second person should help stabilize the door and guide the driver.
4. Use blocking to locate the door in a level position and at the right height
5. Slowly lower the door until it is supported on the wood blocking.
6. The door must be centered on the opening with the locks spaced evenly on both sides.
7. The bi-fold door should overlap each side of the door frame equally.
8. Sight along the top hinge line of the door to ensure it is straight.



CAUTION

Door may shift or slide when being lifted, damage may occur from contact, move slowly

Seal Space (gap between door & finished floor)

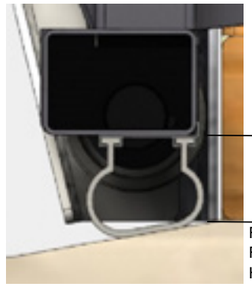
Standard seal spacing is determined by the size of your door.

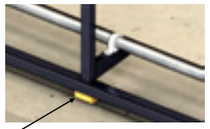
DOORS UP TO 40 FEET WIDE	1.75" GAP (RECOMMENDED)
DOORS OVER 40 FEET WIDE	2.25" GAP (RECOMMENDED)

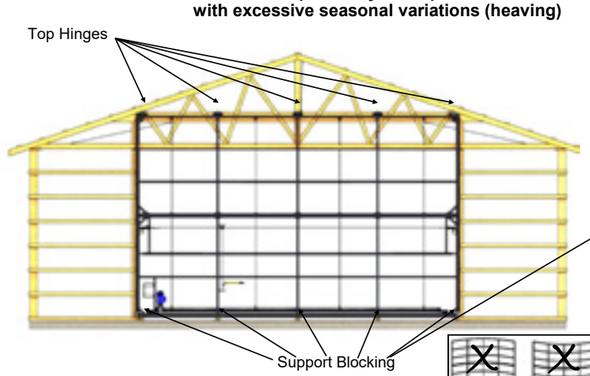
The vertical placement of the bi-fold door on the building should result in a uniform gap between the bottom of the door and the floor.

Seal space is measured from the bottom of the door frame to the finished floor height.

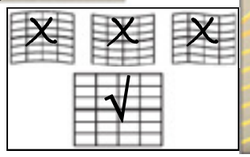
***Additional space may be required for areas with excessive seasonal variations (heaving)**







Hold the door in location with 2 F-Clamps.



Place wood blocking below each vertical member to support and keep the hinges level at the predetermined bolt height

NOTE: Make sure the door is not sagging or heaving

Secure the Hinges (Wood Building)

The hinges at every vertical member need to be attached to the building header. Begin by fastening a J-track mounting bracket to the first outer hinge, then, continue working along the length of the door.

Wood Structures

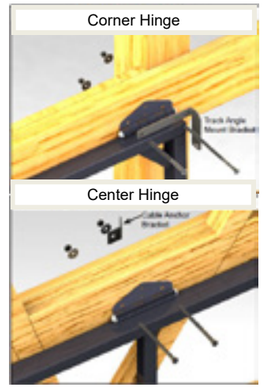
The hinges have 1/2" holes for fastening to the building header.

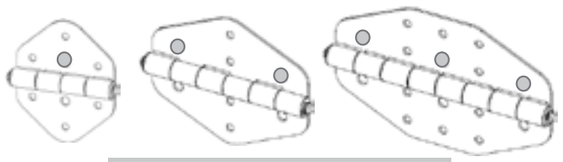
1. Ensure that the door is aligned and firmly against the building.
2. Drill through the building header with a 1/2" drill for hinge holes.
3. The J-track mounting brackets are mounted on both corner hinges only. The holes in the brackets will only align and fit one way.
4. Insert a 1/2" bolt through the hole, and secure with a washer and nut.

Repeat this procedure for each hinge plate.

Notes:

a. For most wood buildings, longer bolts are needed on the outermost hinges. Be sure to use the longer bolts for these locations.
b. If Cable Anchor Kit(s) have been included with the order, include cable anchor brackets under the nut and washer. Typically Cable Anchor Brackets are attached to the second hinge from each end, and the middle hinge (depending on how many kits were included).
c. The J-track Mounting Brackets need to be mounted to the outermost hinges. (Does not apply to mitered doors).





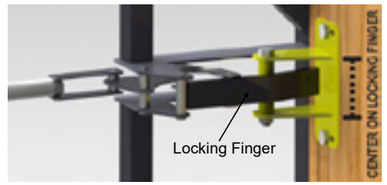
4 Knuckle Hinge will have 1 Bolt
6 Knuckle Hinge will have 2 Bolts
8 Knuckle Hinge will have 3 Bolts

Install Latches for Locking System (Wood Building)

1. For doors equipped with the manual locking system, set the locking handle into the locked position.

   For Autolock equipped doors, cycle the door into the locked position. If power has not been hooked up, cycle manually
2. Place the Yellow Latch against the building column and center on the locking finger.
3. Mark the location of the slotted holes
4. Cycle to the unlocked position.
5. Secure the Yellow Latches to the building column with the supplied lag bolts
6. Lock the door, there should be some resistance close to locked position to secure door against the building. If there is no resistance or too much resistance, the Yellow Latches may need to be adjusted. Adjust the yellow locking brackets by loosening lag bolts, sliding latch bracket in or out, and re-tightening bolts.

   Note: If the Track Angles have not yet been installed, the Yellow Latches may require further adjustment.



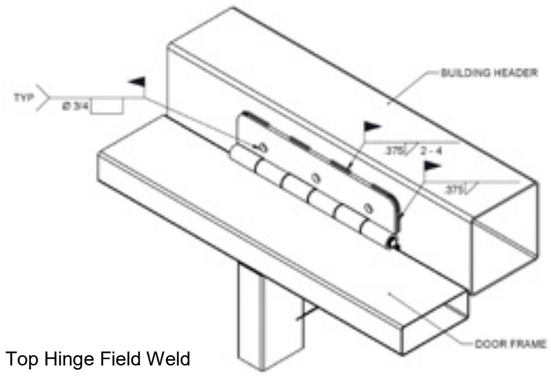
IMPORTANT

The threaded lock rod is factory set and should not be adjusted or damage to the door may occur

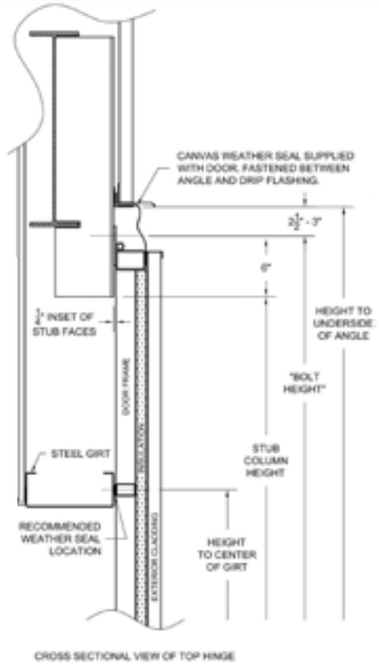
Secure the Hinges (Steel Columns)

Steel Structures

1. Generally hinges are welded directly to the framing of steel structures, and should only be performed by a qualified welder.
2. Drilling 1/2” holes and using bolts is also an option for securing doors to steel structures *(Hardware NOT included for mounting to steel structures)*.
3. Usually steel structures do not require track angles, and will therefore not have a track angle mounting bracket on the outer hinges.
4. If Top Weather Seal (canvas) has already been installed, use caution when welding, to prevent burning holes into the canvas.



Top Hinge Field Weld



CROSS SECTIONAL VIEW OF TOP HINGE

Seal Space (gap between door & finished floor)

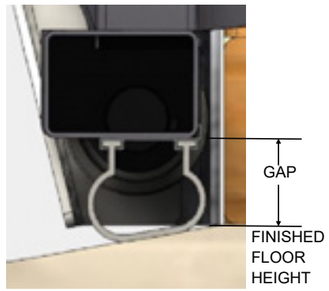
Standard seal spacing is determined by the size of your door.

DOORS UP TO 40 FEET WIDE	1.75" GAP (RECOMMENDED)
DOORS OVER 40 FEET WIDE	2.25" GAP (RECOMMENDED)

The vertical placement of the bi-fold door on the building should result in a uniform gap between the bottom of the door and the floor.

Seal space is measured from the bottom of the door frame to the finished floor height.

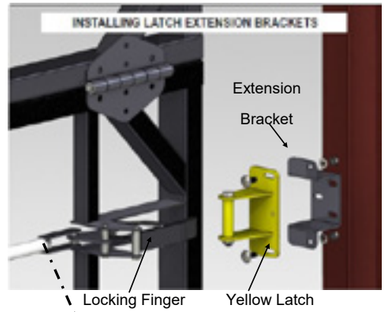
***Additional space may be required for areas with excessive seasonal variations (heaving)**



Install Latches for Locking System (Steel Columns)

1. (For Auto-lock equipped doors.) From factory, lock motors are shipped in the locked position. If they are not in the locked position, cycle the motor using the 1/2” hex shaft on the end of the motor until Locking Fingers are in the locked position as shown in the diagram.
2. Installing the extension brackets:
   a. Temporarily bold the Yellow Latch and Extension Bracket together.
   b. Place behind the Locking Finger and center vertically.
   c. Mark the inner portion of the slot for drill locations on the inside (web) of the steel column. (Factory steel headers will be pre-drilled).
   d. Remove the Extension Bracket and drill 13/32 holes in the marked locations.
   e. Reinstall Extension Bracket using supplied 3/8” x 1” carriage bolts.
3. Install Yellow Latch using the same 3/8” x 1” Carriage Bolts.
4. Cycle the door into the unlocked position.
5. Lock the door, there should be some resistance while locking the door. Ensure a tight seal between steel column and vertical door member. If not, the Yellow Latches may need to be adjusted. Adjust the Yellow Latches by loosening 3/8” carriage bolts, sliding Latch Bracket in or out, and re-tightening bolts.

   NOTE: Any adjustment for door seal to building should be done by sliding Yellow Latches in our out.



IMPORTANT

The threaded lock rod is factory set and should not be adjusted or damage to the door may occur

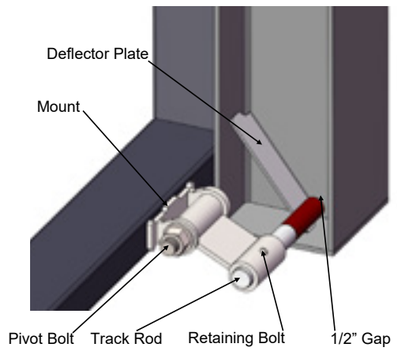
Install Column Followers (Steel Columns)

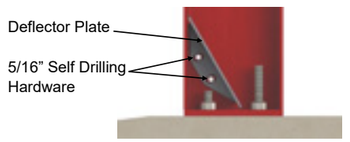
For doors mounted on structures with Steel “I” Beam columns, Column Followers are required.
Column followers aid in keeping the door located next to the building in windy situations.

1. Insert the Pivot Rod through the Mount that is welded to the door and secure with a Hitch Pin.
2. Adjust the Track Rod location so it is about 1/2” from the face of the I-Beam, then tighten the retaining set screw using a 5/32” allen wrench.

   NOTE: The Track Rod runs up the inside of the column and it is essential that the range of travel up the column be clear of obstruction. The Track Rod must be able to clear the Yellow Latch.

   NOTE: The Deflector Plate must be installed for the door before it will close properly.
3. Repeat this process on the other side of the door.





Install Cable Anchors (Wood Building)

This step is only required for doors supplied with Cable Anchor Kit(s). Cable Anchors provide additional support to the building structure when doors are in open positions and are typically only required for wood or quonset-style buildings

1. Run the cable back at ≈45° to a **structurally sound location** such as the sidewall, main building pole, or top structural part of a rafter.

Note: Direct the cable end with a factory crimped bracket, through the rafters from the door toward the anchor point.

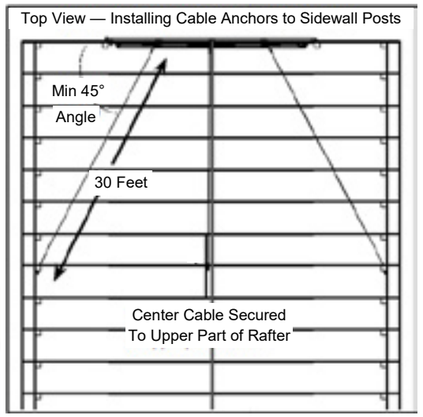
2. The cable should not contact or interfere with any rafter webbing or other structure when it is tightened.
3. At the hinge location of the door, insert a turnbuckle in the slot of the cable anchor bracket.

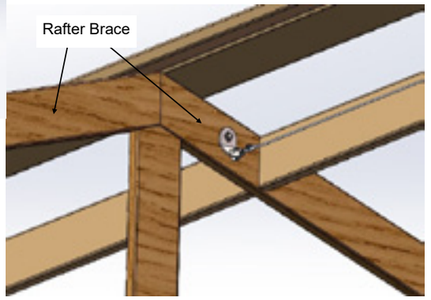
Note: Thread both ends of the turnbuckle out before inserting the cable.

4. Feed the cable through the ring end of the turnbuckle and pull as tight as possible. Tighten both cable clamps.
5. Rotate the turnbuckle to tighten the cable until snug; do not over tighten the cable.

For installing anchors to sidewall post:

1. Drill a 1/2” hole through the center of the sidewall post at a location that is clear of obstruction to the cable (when the cable is tensioned).
2. Insert a 1/2” bolt through the hole, and fasten the cable anchor bracket with a 1/2” nut and washer.
3. Repeat procedure as needed.





For installing anchors to Rafters:

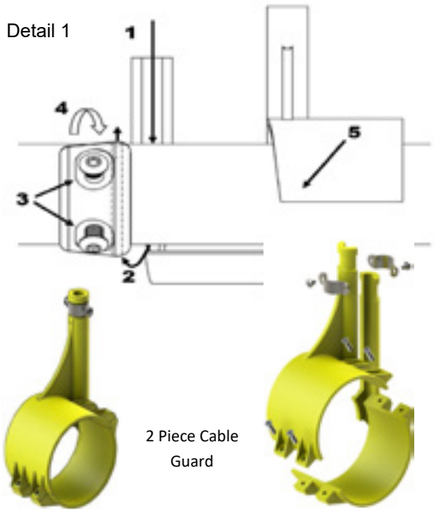
Center bracing is to the mid top area of the rafter.

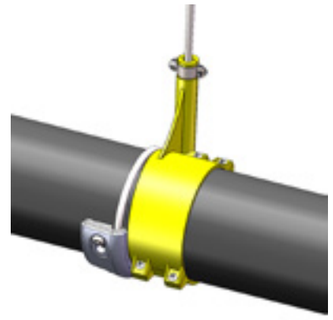
1. Drill a 1/2” hole through the rafter at a location that allows a clear path for the cable to pass from the header to the rafter.
2. Insert a 1/2” bolt through the hole, and fasten the cable anchor bracket with a 1/2” nut and washer.
3. Repeat as necessary.
4. Brace adjoining rafters at the anchor point as shown to trans-

Connect Cables to Driveline

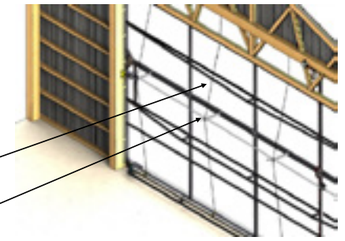
1. Partially loosen both cap screws from the cable clamp using an allen key. Do not completely remove the screw. Loosen just enough so the cable can slide beneath the clamp. Wrap cable around the driveshaft starting from the rear, and coming around the front. Slide cable beneath clamp. See Detail 1.
2. Pull up on cable until hand tight. Ensure cable is routed over the Yellow Y-pusher at the center hinge of the door.
3. Re-tighten cap screws on the cable clamp. Alternate between both screws to put even force on the clamp. Torque each screw to 13 ft-lb.
4. Feed excess cable into hole in driveline until all remaining cable is fully stored. Fully depress cable into hole leaving no loop or protrusion of cable. Feeding the cable into the drive shaft may require several attempts or a twisting action to allow the cable to pass by the internal support washer.
5. Install 2-piece yellow colored Cable Guard over each cable.
6. Cycle the door several times, then re-torque both cap screws on each clamp.
7. With the door closed, check that each lift cable is tensioned equally by pulling gently on each one and comparing it to the next. Re-adjust if necessary to ensure proper tracking of door.

Detail 1





8. Select the correct cable guard (left or right) and remove only the screws indicated in the diagram
9. Open the cable guard and place around the driveline as shown
10. Re-attach the hardware that was removed in step 5
11. Repeat steps 8-10 until all cable guards are installed



J-Track Channel (Roller Track) - Optional

1. Determine the J-track location and orientation for installation (J-tracks are labelled). **J-track mounting brackets and top hinge bolts should be installed before proceeding. (Mounting brackets are not used on doors with miter or square-cut corners).**
2. Secure J-tracks to the Mounting Brackets with the 3/8" x1" carriage bolts on both sides of the door. J-tracks should be to the outside of the mounting brackets. The carriage bolt nut should be to the outside of the J-track.
3. Maintain a consistent gap between the door frame and the J-track. J-tracks are shipped in sections. Only the bottom section will be less than 12' long, all other sections will be 12'. It is important that the sections are aligned as they are being installed. The wind pin or roller may hook on misaligned sections.
4. Fasten J-tracks to the building with the supplied #12 x 3" mounting screws, maintaining a consistent space between the door frame and J track.

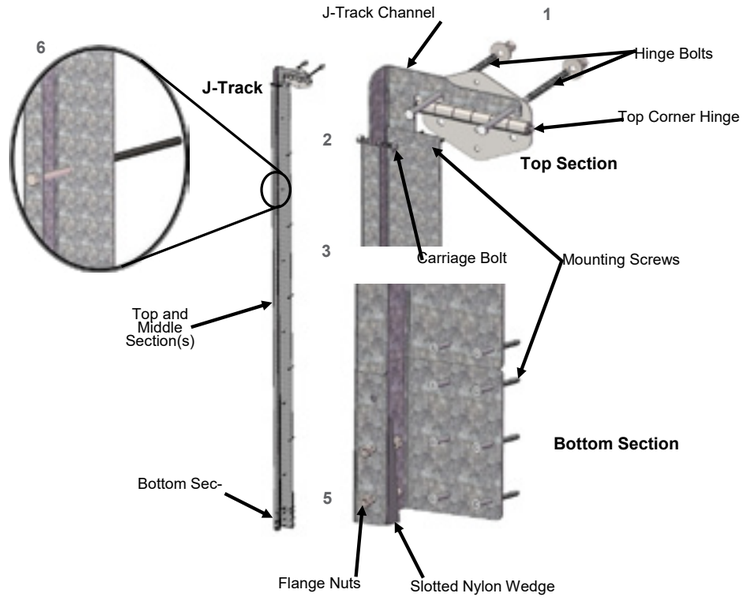
   A) Door must be partially opened to access countersink holes in the J-track. Open the door 3 or 4 feet. Refer to page 18 for manually opening your door.

   B) Use a level or other straight edge to align J-track sections.

   C) Each screw must be inserted straight and sunk flush with the face of the track.

5. Adjust the slotted nylon wedges until they contact the wind pin/roller and tighten the flange nuts. The door may need to be raised to tighten the hardware.
6. Drill a 1/2" hole through the post for the 1/2" x 16" anchor bolts and secure the J-tracks with the anchor hardware.
7. Close the door and lock it. Check for consistent gaps between the door frame and the J-tracks on both sides.

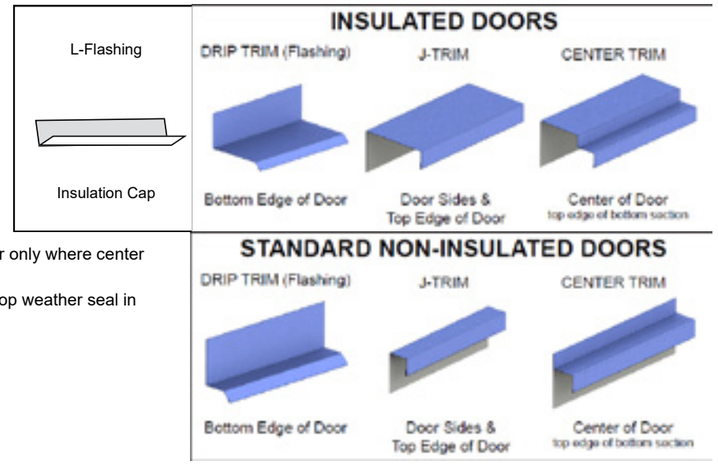
Left Outside J-Track Channel



Install the Trims

Notes:

1. Close and lock the door before installing trims, insulation or cladding.
2. Install trims before insulation or sheeting.
3. Fasten trims ≈24" o/c with supplied 1/2" flat-head screws.
4. Insulated & Non-Insulated options differ only where center trims meet side J-trim.
5. Top J-Trim holds the top weather seal in place.

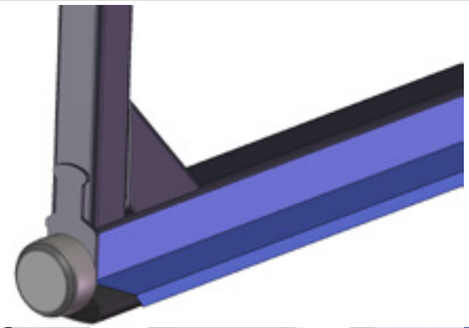


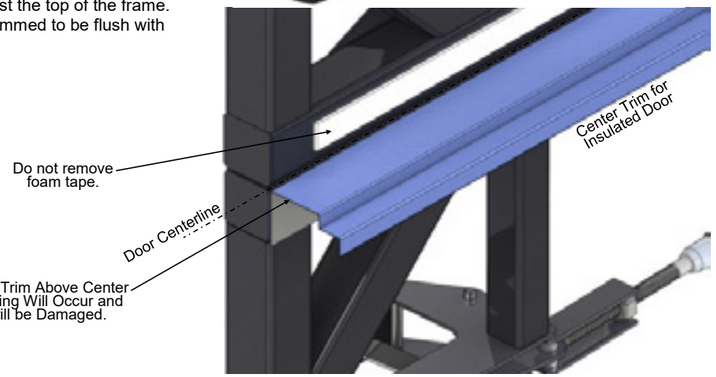
Installation

1. Staple the top seal to the building leaving ≈2" overlap at the top of the door to cover the top frame.

2. Install the Drip Trim along the bottom exterior edge of the door.
   a. Bottom of trim should be flush with the bottom edge of door the frame.
   b. Trim will need to be adapted at each end to accommodate the bottom roller assembly.

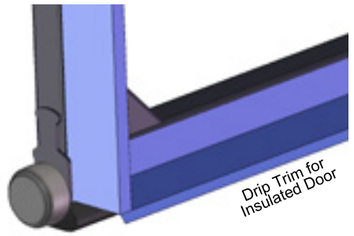
3. Install the Center Trim along the top edge of the bottom half of the door.
   a. Center trim should be flush with top of frame, and not extend past the top of the frame.
   b. Ends should be trimmed to be flush with sides of frame.



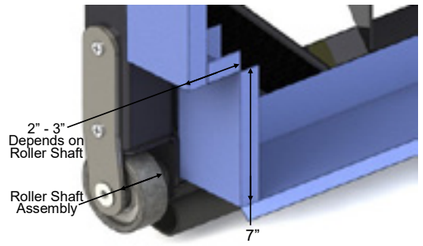


4. Install J-Trim along both sides of the bottom half of door.

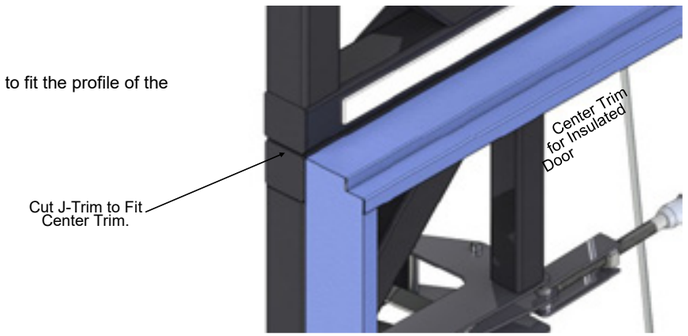
Cantilevered Roller



Inset Roller

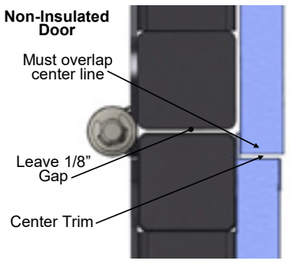


5. Cut the top end of the J-trim to fit the profile of the center trim (See Diagram).

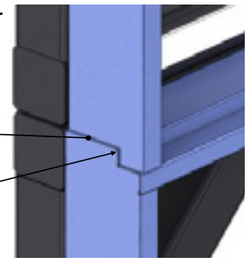


6. Install J-Trim along both sides on top half of door.
   a. At top ends of the door, J-trim should be installed flush with the top of door frame. (Refer to page 8).
   b. At the center of door, J-trim should run PAST the center line of the door, leaving only a 1/8” gap between top J-trims and center trim on the bottom section.
   c. Repeat a and b for the other side of the door.

Non-Insulated Door



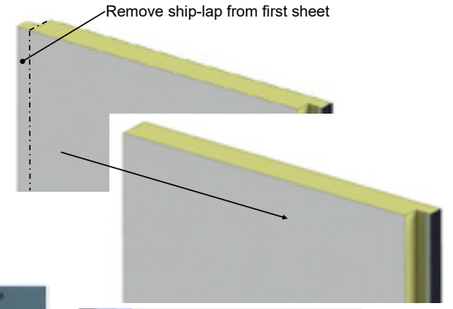
Insulated Door

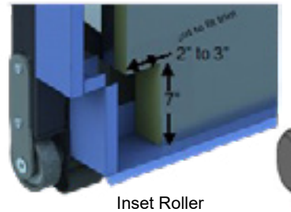


Insulate the Door – Optional

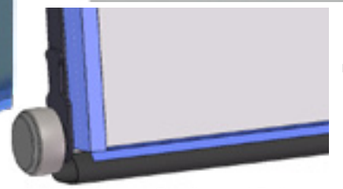
Notes:
   a. Install insulation on the exterior side of the door.
   b. Insulation sheets come in standard widths and may require some trimming for fitment.
   c. Openings for windows and man doors must be cut out of the insulation.
   d. White finished side of the panel faces into the inside and the reflective silver side faces to the outside.
   e. Length of Insulation is the same for top and bottom sections of the door.

1. Insert the first sheet of insulation at the **bottom left** and slide up against J-Trim. Work from left to right.
   a) Remove the Ship-Lap from the first piece of insulation.
   b) Watch the Drip Trim for any deflection while installing insulation panels.
2. Locate with a minimum quantity of flat head screws. Cladding applied later will fasten panels securely.
3. Butt the second sheet snugly against the first, and fasten as in previous point.
4. Seal the joint between insulation panels on the outside face using the Red Tuck Tape provided.
5. Continue this process for the entire width of the door, trimming the last sheet as required to fit.



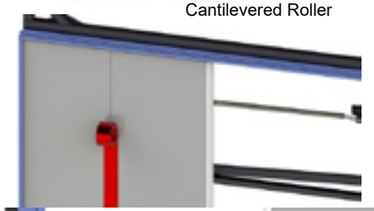


Inset Roller



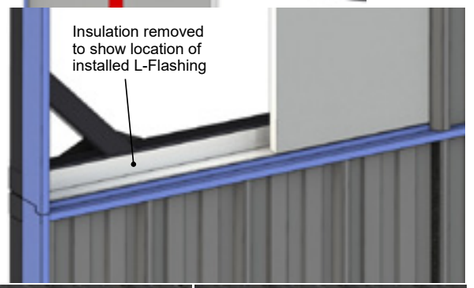
Be careful not to bend the Drip Trim at the bottom of the door with too much

Cantilevered Roller



Note: Insulated doors include a white L-Flashing to finish the appearance of the exposed edge when in the door is in the opened position

7. Remove any screws along the bottom edge of the top section so that the flashing may be inserted without interference.
8. Insert the flashing along the bottom of the insulation. Make sure it is snug against insulation panels.
9. Screw the L-Flashing in place with the insulation when the cladding is being installed.

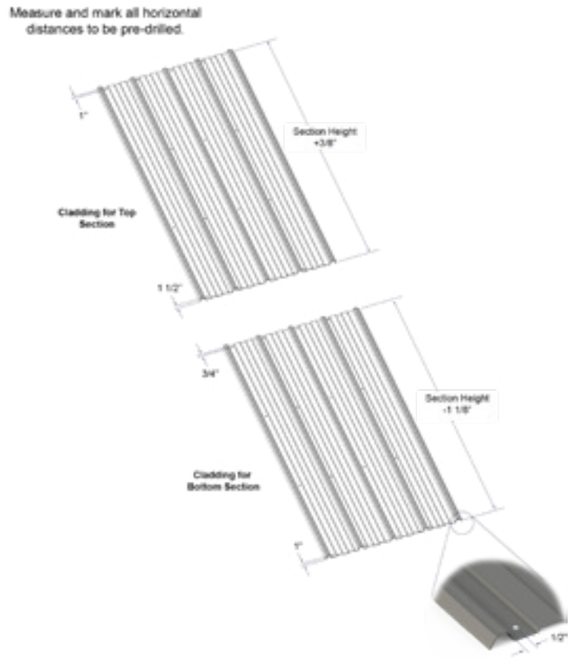


Attach Cladding

Notes:

a. Cladding purchased from Diamond Doors is shipped cut to length.
b. Match the sheeting rib pattern of the top with the bottom of the door.
c. Overlap sheeting to secure against winds.
d. Instructions for sheeting are given for sheeting a door from left-to-right.

1. Separate cladding for top and bottom sections into two piles.
   a. Sheets for the top section are 1” longer than the sheets for the bottom section.
   b. Top Sheets should be stacked flush at the top
   c. Bottom Sheets should be flush at the bottom
2. Measure and mark the locations of the holes on the top sheet of each stack for pre-drilling. Mark screw locations as per the diagram below.
3. Measure the location of the door horizontal supports and mark them on the top sheets for pre-drilling.
4. Clamp the cladding together to prevent shifting.
5. Drill screw locations with a 3/16” drill bit.
6. Trim the first sheet at the bottom corner to fit the trim



For Cladding Not Supplied by Diamond Doors

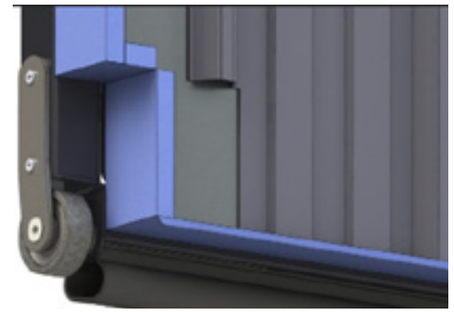
To Determine Cladding Lengths:

a. Top Cladding Length—Measure the vertical length of the top half of the door frame and add 1/8”.
b. Bottom Cladding Length—Measure the vertical length of the bottom half of the door frame and minus 7/8”.
c. Measure the width of the door to determine the number of sheets required and consider the desired overlap.
d. Sheets may need to be trimmed to fit.

7. Install Bottom Sheeting.
   a) Insert the first piece of cladding into the bottom left hand corner of the door, lowering it down until it is 1/8" above the drip trim.

Note: Do not apply pressure on the bottom trim. Watch for any deflection.

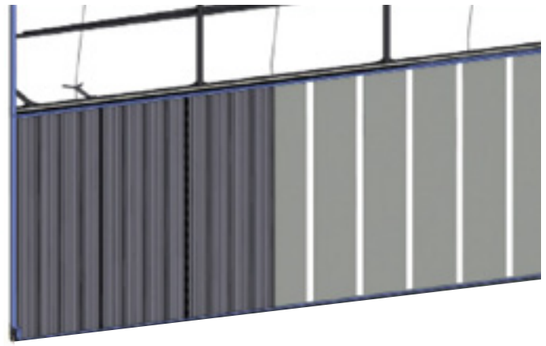
   b) Secure using TEK screws (3/4-1” screws for standard doors and 3” or 4” for insulated doors).
   c) Keep cladding aligned with the edge of the door.
   d) Install remaining cladding checking for square alignment.
   e) Trim the last sheet of cladding to fit.
   f) Install the last bottom piece of cladding.
8. Repeat installation process for the top section.



Cut bottom corner of cladding to fit trims

Cantilevered Roller

Inset Roller



Begin installing cladding at the bottom left of the door.

Foam Tape creates a gap between cladding and trims to prevent binding. DO NOT REMOVE FOAM TAPE and do not over tighten the screws on this edge.

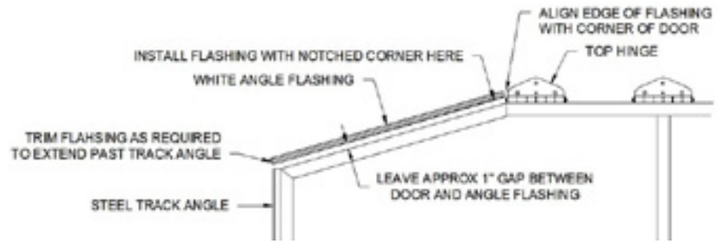
CAUTION

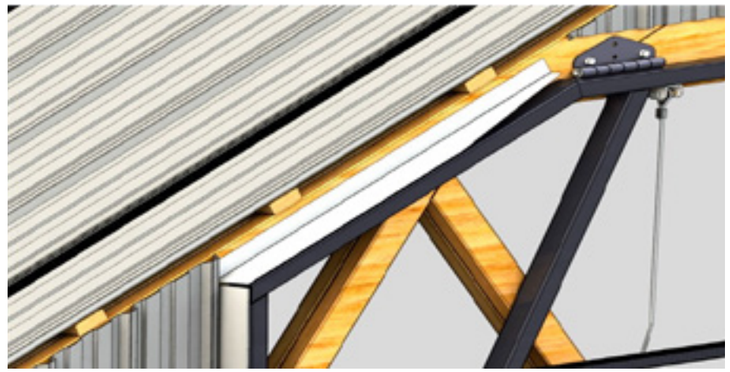
When Installing hardware to attach cladding at the bottom edge of the top section, only tighten the screws until the make contact. DO NOT OVER TIGHTEN or binding will occur causing damage to trims and cladding.

Miter Corner Flashing - Optional

Note: Doors built with Mitered Corners need a special flashing along the miter to assist in redirecting moisture away from the building. The mitered flashings are side specific.

1. Install the mitered flashing with the tapered edge facing the hinge as shown.
2. Fasten the flashing with a 3/4" to 1" gap between the door frame and the flashing. Secure it to the end wall prior to installing the cladding.
3. Excess flashing will need to be trimmed at the track angle.

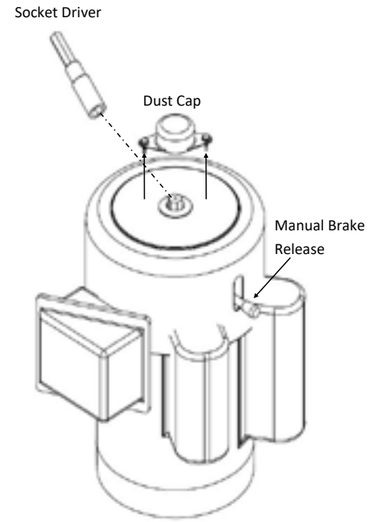




Manually Opening The Door

Diamond Bi-Fold doors can be operated manually by following these steps. Use caution to avoid potential injury or damage to door.

1. Turn OFF main power to the door.
2. For doors equipped with a manual locking system, cycle the door into the unlocked position
3. For doors equipped with the Autolock system, remove the dust cap at the back of the Autolock motor.
4. Use a socket driver and a drill or ratchet to cycle the Autolock system into the unlocked position.
5. Remove dust cover from top center of motor to access hex shaft.
6. Release electric brake by lifting up on the Manual Brake Release handle.
7. Use a socket driver and a drill or ratchet to cycle the lift motor and open the door.
8. Limit switches are factory set. If the upper limit switch has not been adjusted, it must be checked when raising the door manually. See details on setting the upper limit.
9. Engage drill slowly to verify that the door is going in the proper direction, reverse if necessary.
10. When manual operation is complete, re-engage the electric brake by releasing brake handle.
11. Remove socket driver and replace dust caps.



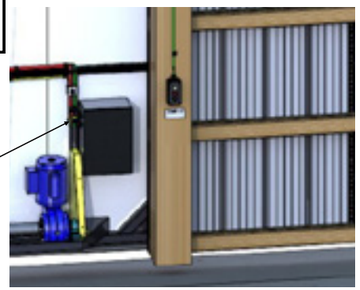
NOTE: 2HP motors and smaller will have a 1/2" hex shaft. 3HP motors will have a 5/8" hex shaft.

IMPORTANT INSTRUCTIONS

WARNING

- **Use caution when releasing the brake, the door could start to freewheel down if the hex shaft is not held firmly. Reengage the brake to stop the door if needed.**
- **NEVER use an impact to open/close door.**
- **When manually operating the door, check that the open limit nut has NOT gone past the open limit switch.**
- **Never stand on a door when opening / closing it.**

Socket Driver for Manual Door Operation

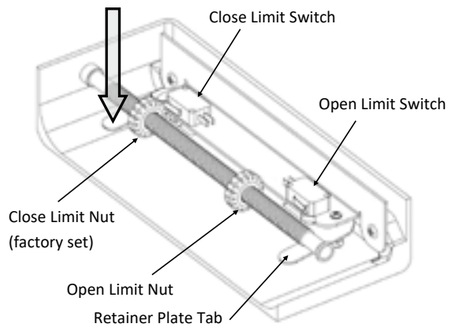


Set the Limits

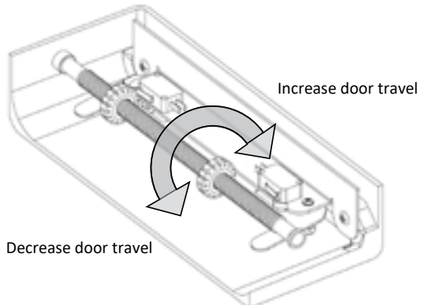
Limit Switches

- Limit switches in the control panel determine the limits of door travel.
- The lower limit or closed limit is set at the factory and will need little or no adjustment.
- The upper limit or open limit switch is set at only a few feet and will need to be set once the door is installed. Further slight adjustment may be required over the life of the door.
- Any adjustments should be made in small increments to prevent door sections contacting each other.

1 Press down on retaining plate tab.



2 Adjust OPEN limit to set height. CLOSE limit is factory set and should need no adjustment.



3 Release retaining plate and verify that it is fully seated into the notches of BOTH limit nuts.

Watch movement of limit nuts during testing cycles to be sure everything is in place.

4 When door is fully closed, the cables should be slightly loose. The upper limit should be set so the door bridges DO NOT touch the frame. The door should stop at it's MAXIMUM opening.

Cycle several times to ensure limits are correctly set.

Running the Door for the First Time

1. Clear the doorway and area of obstructions.
2. Check your progress.
   a. The door hardware has been properly installed
   b. The building structure is prepped for the additional outward pull when the door opens.
3. **For 3-Phase powered doors** ensure proper phasing of the power supply for correct motor direction.
   a. Run motor(s) momentarily to confirm motor direction.
   b. To revers direction, change any two of the three power leads. For more information, refer to the motor wiring diagram located on the inside of the electrical control box.
4. Check all electrical cables that there is no strain or risk of pinching at the hinge locations.
5. Adjust the limit nuts to ensure the door turns off at the appropriate top and bottom limits.
6. Cycle the door several times and pay attention to the drive and overall function of the door.

IMPORTANT INSTRUCTIONS

WARNING

Do Not Allow the Door to Travel Beyond the Design Limits

DIAMOND DOORS

VERSION # 2.1.1

400 AIRPORT DRIVE
WINKLER MB R6W 0J9 | CANADA
PHONE 866.325.7600 | FAX 204.325.0908
www.DiamondDoors.com

DIAMOND DOORS

DOOR OPERATOR
ELECTRICAL & USER MANUAL

This document contains important installation and safety information to be reviewed prior to Installing and Operating the door.

Retain this document for future reference

TABLE OF CONTENTS

SAFETY INFORMATION

WARNING

Mechanical

WARNING

Electrical

IMPORTANT INSTALLATION INSTRUCTIONS

WARNING

To reduce the risk of SEVERE INJURY or DEATH:

1. READ AND FOLLOW ALL INSTALLATION WARNINGS AND INSTRUCTIONS.
2. NEVER let children play with or operate the door, keep remote controls (where applicable) out of the reach of children.
3. Keep people and equipment clear of a door that is in motion and keep the moving door in sight until it is completely closed or opened. NO ONE SHOULD CROSS THE PATH OF A MOVING DOOR.
4. Test and check the doors safety features once a month, adjust the upper and lower limits as needed. Failure to adjust the operator properly may cause severe injury or death.
5. Power connection to the door should be made by a qualified electrician after the door has been securely mounted onto the building.
6. Locate the up/down/stop wall station within sight of the door and at a minimum height of 5 feet to keep it out of the reach of children.
7. Ensure all guards are in place before operating door.
8. Ensure all warning labels are visible and intact prior to operating the door.
9. Follow the maintenance schedules outlined in this manual.
10. SAVE THIS INSTALLATION AND OWNERS MANUAL FOR FUTURE REFERENCE

POWER AND GROUND WIRING

WARNING

To reduce the risk of SEVERE INJURY or DEATH:

- Disconnect power at the electrical panel BEFORE proceeding. Operator MUST be properly grounded and connected in accordance with local electrical codes. The operator should be on a separate fused line of adequate capacity.
- ALL electrical connections MUST be made by a qualified individual.
- DO NOT install ANY wiring or attempt to run the operator without consulting the wiring diagram.
- ALL power wiring should be on a dedicated circuit and be well protected. The location of the power disconnect should be visible and clearly labeled.
- ALL power and control wiring MUST be run in a separate conduit.
- DO NOT turn power on until you have finished making ALL power and control wiring connections
- A MINIMUM of 14 AWG wire or larger must be used for all power wiring. Use conduit knockouts for wiring as indicated on the electrical box labels.

(1Ø) SINGLE PHASE - 110V					
	DISTANCE - OPERATOR TO PANEL (FEET)				
HP	100	150	200	300	500
3/4	6 AWG	6 AWG	4 AWG	2 AWG	1 AWG
1	6 AWG	4 AWG	4 AWG	2 AWG	1 AWG

(1Ø) SINGLE PHASE MOTOR - 230V					
	DISTANCE - OPERATOR TO PANEL (FEET)				
HP	100	150	200	300	500
3/4	14 AWG	12 AWG	10 AWG	8 AWG	6 AWG
1	12 AWG	10 AWG	10 AWG	8 AWG	6 AWG
1.5	10 AWG	8 AWG	8 AWG	6 AWG	4 AWG
2	10 AWG	8 AWG	8 AWG	6 AWG	4 AWG
3	8 AWG	8 AWG	6 AWG	4 AWG	2 AWG
4	8 AWG	6 AWG	4 AWG	2 AWG	1 AWG
5	8 AWG	6 AWG	6 AWG	4 AWG	2 AWG

CAUTION

- WARRANTY does NOT cover improper wire sizing, incorrect power supply or use of a generator.
- Wire tables are the recommended MINIMUM wire gauge required for the horsepower application, using less than recommended will limit load abilities of the motor.
- It is NOT RECOMMENDED to use a generator with any door installations.
- Use COPPER wire ONLY.

POWER AND GROUND WIRING

WARNING

To reduce the risk of SEVERE INJURY or DEATH:

- Disconnect power at the electrical panel BEFORE proceeding. Operator MUST be properly grounded and connected in accordance with local electrical codes. The operator should be on a separate fused line of adequate capacity.
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- ALL power and control wiring MUST be run in a separate conduit.
- DO NOT turn power on until you have finished making ALL power and control wiring connections
- A MINIMUM of 14 AWG wire or larger must be used for all power wiring. Use conduit knockouts for wiring as indicated on the electrical box labels.

(3Ø) THREE PHASE MOTOR - 208/230V					
	DISTANCE - OPERATOR TO PANEL (FEET)				
HP	100	150	200	300	500
3/4	14 AWG	14 AWG	14 AWG	12 AWG	10 AWG
1	14 AWG	14 AWG	12 AWG	10 AWG	8 AWG
1.5	12 AWG	12 AWG	12 AWG	10 AWG	8 AWG
2	12 AWG	10 AWG	10 AWG	8 AWG	6 AWG
3	10 AWG	10 AWG	8 AWG	6 AWG	4 AWG
4	10 AWG	8 AWG	8 AWG	6 AWG	4 AWG
5	10 AWG	8 AWG	6 AWG	6 AWG	2 AWG
6	8 AWG	6 AWG	6 AWG	4 AWG	2 AWG
7.5	8 AWG	6 AWG	4 AWG	2 AWG	2 AWG
10	8 AWG	6 AWG	4 AWG	2 AWG	1 AWG

(3Ø) THREE PHASE MOTOR - 460V					
	DISTANCE - OPERATOR TO PANEL (FEET)				
HP	100	150	200	300	500
3/4	14 AWG	14 AWG	14 AWG	14 AWG	12 AWG
1	14 AWG	14 AWG	14 AWG	14 AWG	12 AWG
1.5	14 AWG	14 AWG	12 AWG	12 AWG	10 AWG
2	14 AWG	14 AWG	12 AWG	12 AWG	10 AWG
3	14 AWG	12 AWG	12 AWG	10 AWG	8 AWG
4	12 AWG	12 AWG	10 AWG	8 AWG	6 AWG
5	12 AWG	12 AWG	10 AWG	8 AWG	6 AWG
6	12 AWG	10 AWG	10 AWG	8 AWG	6 AWG
7.5	12 AWG	10 AWG	8 AWG	6 AWG	4 AWG
10	10 AWG	8 AWG	6 AWG	4 AWG	2 AWG
15	8 AWG	6 AWG	6 AWG	4 AWG	2 AWG

(3Ø) THREE PHASE MOTOR - 575V					
	DISTANCE - OPERATOR TO PANEL (FEET)				
HP	100	150	200	300	500
3/4	14 AWG	14 AWG	14 AWG	14 AWG	14 AWG
1	14 AWG	14 AWG	14 AWG	14 AWG	14 AWG
1.5	14 AWG	14 AWG	14 AWG	14 AWG	14 AWG
2	14 AWG	14 AWG	14 AWG	14 AWG	12 AWG
3	14 AWG	14 AWG	14 AWG	14 AWG	12 AWG
4	14 AWG	14 AWG	14 AWG	12 AWG	10 AWG
5	14 AWG	14 AWG	14 AWG	12 AWG	10 AWG
6	14 AWG	14 AWG	12 AWG	10 AWG	8 AWG
10	12 AWG	10 AWG	10 AWG	8 AWG	6 AWG

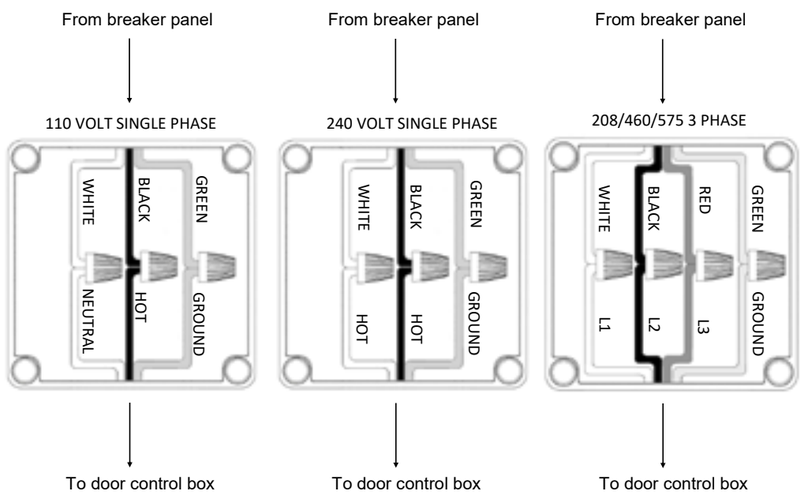
POWER AND GROUND WIRING

CAUTION

- Refer to electrical diagram located inside the electrical control wiring junction box for all connections.
- Verify the power supply is of proper voltage, phase, and amperage to supply the operator. Refer to the operator name plate on the electrical control wiring junction box cover.
- All wiring in controller and motor come factory set. Do NOT modify wiring in controller or motor(s).
- USE COPPER WIRE ONLY

1 Run factory provided power wires up to a junction box located above the door.

2 Run power wires from fuse panel to junction box according to national and local electrical codes. Refer to wire charts for proper gauge.



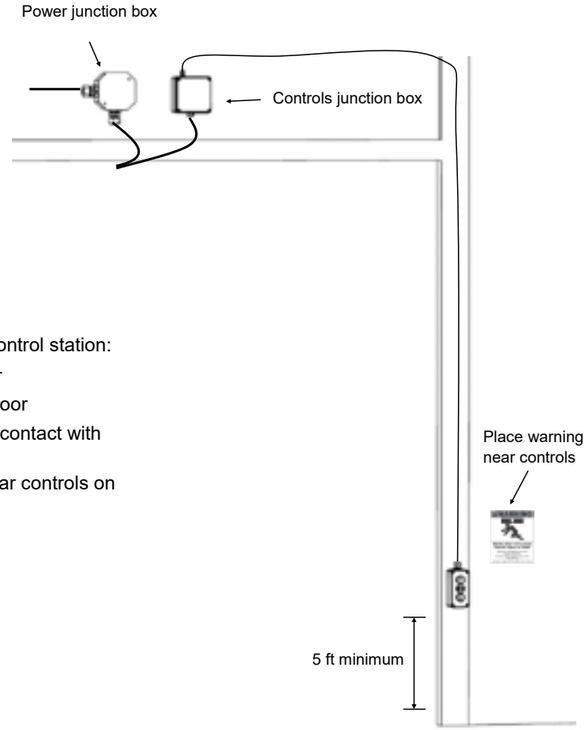
Page 7

3-BUTTON CONTROL STATION

The control wiring junction box should be mounted centered above the door. Use four #8 x 1" wood screws provided to mount it. Be sure to leave EXTRA WIRE looped at the top of the door for opening and closing.

1 Bring the control wire (4 or 6 conductor) from the door into the junction box. Match the color of the wires. Refer to page 8 for a detailed diagram of wiring.

2 Run wire across the building header and down the building column to the desired location.



3 Install the 3-button control station:

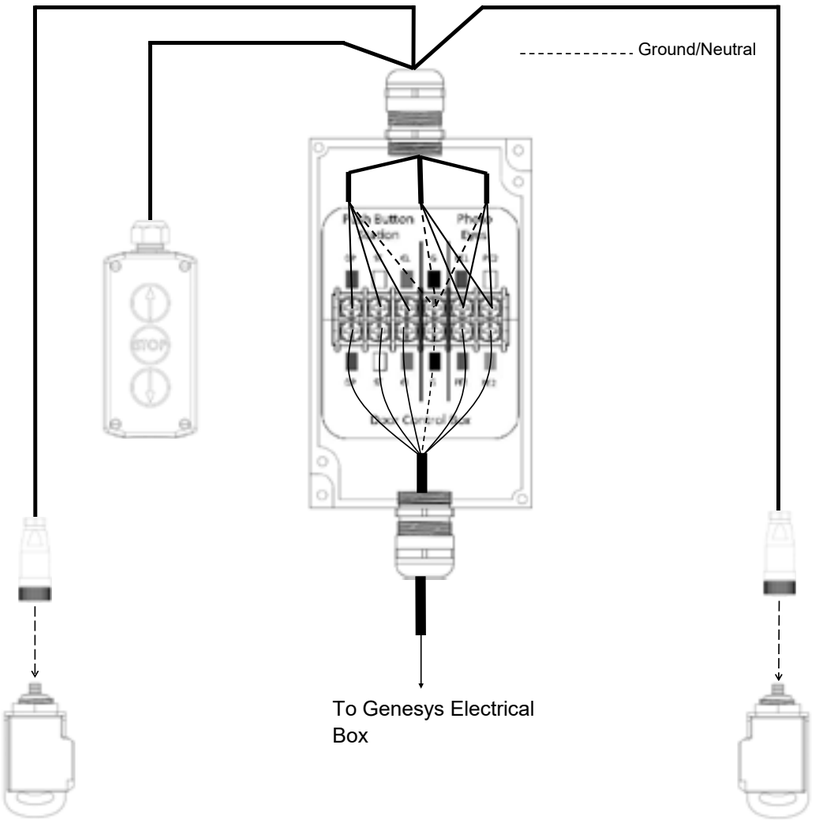
- Within sight of the door
- Minimum 5 feet off of floor
- Far enough to prevent contact with door while operating
- Place warning label near controls on wall or door column

Page 8

CONTROL WIRING

DISCONNECT POWER BEFORE WIRING THE CONTROL WIRING JUNCTION BOX.

The control wiring junction box has a 6-conductor cable for standard doors and a 6-conductor cable if photo-eyes were requested. Run the control cable through the bottom of the control box and wire as shown matching up wire colors. If there are no photo eyes, ignore PE1 and PE2 in the control box. Both photo-eyes and lift station come with a length of wire suitable for your door.



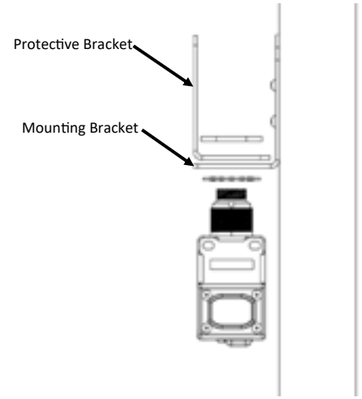
PHOTOEYE SENSOR INSTALLATION (OPTION)

CAUTION

- If your door was ordered with the eye option, they MUST be installed for the door to operate correctly.
- Follow directions carefully to ensure door works properly.
- Do NOT put eyes higher than 6” or lower than 4” from the floor surface.
- Eyes MUST be installed for packages that include wireless remote.
- Do NOT mount eyes in direct sunlight.

1 Drill pilot holes into wall for installing supplied mounting bracket for eyes 4-6” above the ground. Center of photo eye beam should not exceed 6” from ground level.

2 Bolt bracket onto wall, ensure that it is mounted to allow eyes to face correct direction.



3 Install photo eye through mounting bracket and protective bracket (for wire connection), fasten with supplied nut.

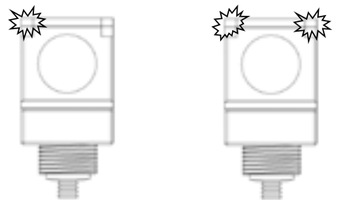
PHOTOEYE SENSOR INSTALLATION (OPTION)

CAUTION

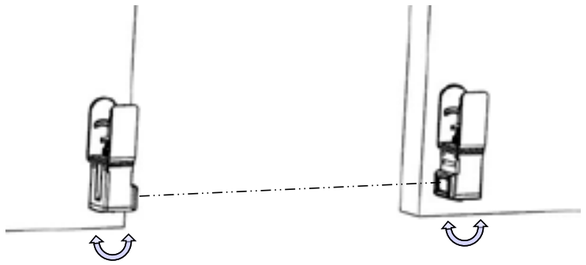
- If your door was ordered with the eye option, they MUST be installed for the door to operate correctly.
- Follow directions carefully to ensure door works properly.
- Do NOT put eyes higher than 6” or lower than 4” from the floor surface.
- Eyes MUST be installed for packages that include wireless remote.
- Do NOT mount eyes in direct sunlight.

4 Thread Quick-Connect fittings to eyes and run wiring to the control wiring junction box. Refer to Page 8 for wiring diagram.

5 Once both eyes have been connected and wired, power on the Genesys Electrical Box to ensure the eyes have power. Each eye will have a green light for power. One has a yellow light to show they ‘seeing’ each other.



6 Using the top screw, tilt one or both eyes until the Yellow light comes on to indicate the eyes are connected. **Refer to Page 12 for board setup with photo-eyes.**



Page 11

RUNNING YOUR DOOR THE FIRST TIME

CAUTION

- Ensure that all tools, wires, switches, and the like are not still on door.
- Clear doorway and area of any obstructions
- Make sure that all electrical connections are firmly fastened

1 Clear doorway and area of obstructions

2 **3-Phase Powered Doors:**

Ensure proper phasing of the power supply for correct motor direction.

a. Run motor(s) momentarily to confirm motor direction.
b. To reverse direction, change any 2 of the 3 power leads. Refer to wiring diagram in control box for more info.

3 Check all electrical cables that there is no strain or risk of pinching at hinge locations.

4 The lower limit has been factory set. Upper limits have NOT been set yet. Do NOT allow door to go all the way up until you are setting limits (see next section).

5 If your door came with Photo-eyes, be sure the jumper on the board has been moved from “C2” to “B2” under the options column. After it has been moved, the board MUST be turned off and back on again.

6 Begin opening door to ensure normal operation. During close cycle, test eyes by blocking the beam and the door should go back up again.

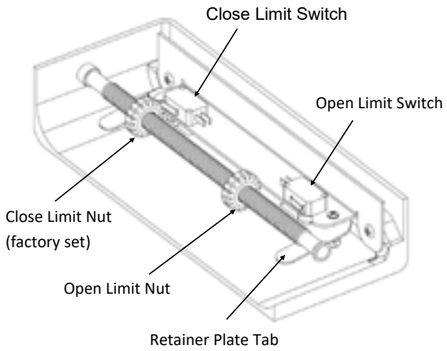
Page 12

ADJUSTING THE LIMIT SWITCHES

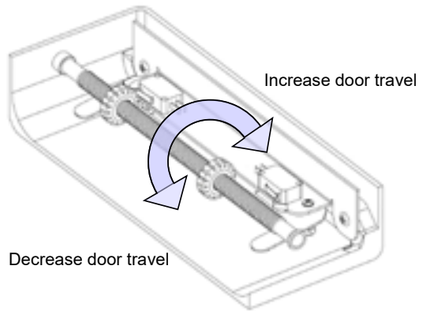
WARNING

- Disconnect electric power BEFORE performing ANY adjustments or maintenance.
- Do NOT allow door to travel beyond the designed limits
- Adjusting limits without careful monitoring can result in damage to both the door and frame.

1 Press down on retaining plate tab.



2 Adjust OPEN limit to set height. CLOSE limit is factory set and should need no adjustment.



3 Release retaining plate and verify that it is fully seated into the notches of BOTH limit nuts.

Watch movement of limit nuts during testing cycles to be sure everything is in place.

4 When door is fully closed, the cables should be slightly loose. The upper limit should be set so the door bridges DO NOT touch the frame. The door should stop at it's MAXIMUM opening.

Cycle several times to ensure limits are correctly set.

REMOTE TRANSMITTER

There may be a time when you have to reprogram the remote transmitter should the battery run out or if you replace it with a new unit. Below is the instructions on how to do this.

Programming

1 Press and release the CH1 Learn button on the receiver.

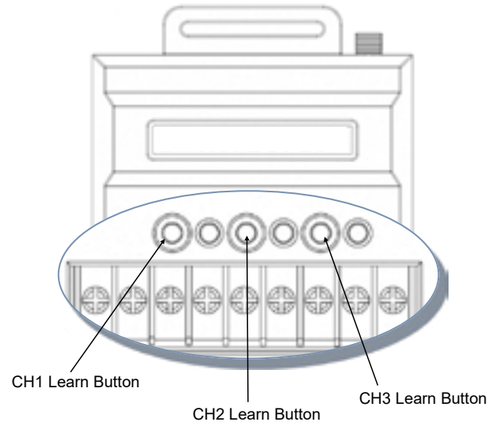
2 Within 30 seconds press the desired OPEN button on the remote control.

3 Press and release the CH2 Learn button on the receiver.

4 Within 30 seconds press the desired CLOSE button.

5 Press and release the CH3 Learn button on the receiver.

6 Within 30 seconds press the desired STOP button on the remote control.



Erasing the Memory

Press and hold the Learn button for the channel you want to erase. Release the button when the LED turns off; the memory for that button has been erased.

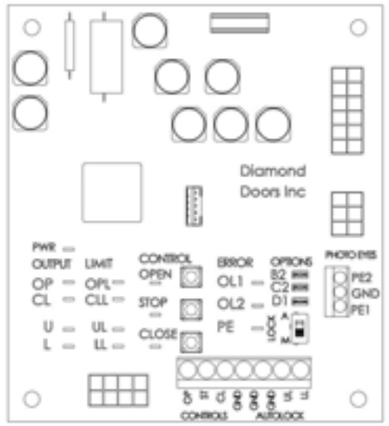
Compatible accessories

Remote controls: 811LM, 813LM, 891LM, 893LM, 890MAX, 893MAX, 895MAX, 892LT, 894LT

Keypads: 877LM, 877MAX

CONTROL BOARD FUNCTIONS

The functionality of this board is based on the wiring type found in the OPTIONS section. The control board is shipped from factory with C2 option wiring. This allows single press button for opening and hold-down for closing (remote control not allowed).



OPTIONS LEGEND

Use black jumper tab to move selection if necessary.

B2 — Single-push button for Open & Close. The board **MUST** be power cycled before this is operational. (ONLY with photo-eyes)

C2 — Single-push button for Open, but hold button to Close. (Remote control cannot be used)

D1 — Hold Open & Close (Remotes cannot be used)

Lock— Set from factory to match chosen lock style.

A — Autolock (option must be installed)

M — Manual Lock

INDICATOR LIGHT LEGEND		
OUTPUT	**Color**	**Function**
PWR	Green	Indicates control board has power.
OP	Green	OPEN contactor ON (Door opening).
CL	Green	CLOSE contactor ON (Door closing).
U	Green	UNLOCK contactor ON (Door unlocking)
L	Green	LOCK contactor ON (Door locking).
LIMIT	**Color**	**Function**
OPL	Yellow	OPEN limit reached.
CLL	Yellow	CLOSE limit reached.
UL	Yellow	UNLOCK limit reached.
LL	Yellow	LOCK limit reached.
CONTROL	**Color**	**Function**
OPEN	Yellow	ON when OPEN button pressed.
STOP	Green	OFF when STOP button pressed.
CLOSE	Yellow	ON when CLOSE button pressed.
ERROR	**Color**	**Function**
OL1	Red	ON when motor overload is tripped.
OL2	Red	ON when auto-lock motor overload is tripped.
PE	Yellow	ON when photo eyes are blocked/ misaligned.

TROUBLESHOOTING

Condition	Possible Cause	Solution
Door does not unlock (Auto-lock option).	Autolock switch position incorrect.	Red switch found on the controller board must be UP for Auto-Lock and DOWN for manual Lock
	Limit switches improperly set or faulty.	Lights on controller board, CCL & LL must be ON. Verify limit switches are properly set and working when pressed.
	No power to controller.	Verify there is power to controller board (PWR light will be ON). Verify that no breakers have been thrown or fuses blown.
Door will not open.	Limit switch being activated.	Verify that UL light is ON (Upper limit switch light).
	3-button control panel fault.	Verify that Stop button and Open button are working correctly. Have one person pressing buttons on 3-button panel while watching indicator lights on control board to verify which button is not operating correctly. Refer to light diagram on Page 15.
	Insufficient voltage or over-amped.	Check breaker switch in panel, verify correct wire size was chosen for application, and check that thermal overloads have not released inside E-Box.
Door will not close.	(Option) Photo-eye setting hasn't been set yet/Board not power cycled.	Ensure that the board jumper has been moved from C2 to B2 under the options column. Refer to Page 15 regarding board layout. Board **MUST** be rebooted (turned off and back on) before photo-eye function works correctly.
	(Option) Photo-eyes are blocked.	Check for any obstructions between eyes. Verify that the eyes are aligned with each other. Note: Yellow light on photo eye must be ON (PE light on the board must be OFF).
	3-button control panel fault.	Refer to instructions above regarding 3-button control panel.
	No power.	Verify that control board has power (check PWR light is ON). Check all related breakers and fuses (including one on control board) are not blown/thrown.
	Limit switch improperly set or faulty.	Verify that limit switches are not preventing door from lowering (LL light should be OFF).
Door does not lock (auto-lock option)	Autolock position switch	Verify that the red switch on the board is set to UP for Autolock and DOWN for manual lock
	Limit switch improperly set or faulty.	Ensure that CCL light is ON. Ensure that limit switches are not being prematurely pressed or latched shut.
	No Power.	Verify that control board has power (check PWR light is ON). Check all related breakers and fuses (including one on control board) are not blown/thrown.

EMERGENCY CLOSE PROCEDURE

In the event that the photo eyes are blocked by blowing snow, fog or the eyes have been damaged, the door can be closed using the following sequence:

1. **MAKE SURE THE DOORWAY IS CLEAR OF PEOPLE AND OBJECTS**.
2. Press the DOWN button 5 times and hold on the fifth push.
3. Keep holding the button in until the door starts to move. This will be about 4 seconds.
4. Release the button to stop the door.

DIAMOND DOORS

VERSION # 2.1.4

400 AIRPORT DRIVE
WINKLER MB R6W 0J9 | CANADA
PHONE 866.325.7600 | FAX 204.325.0908
www.DiamondDoors.com

Technical Information

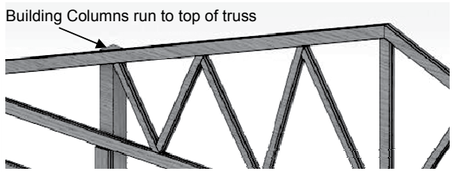
Prepare the Building (WOOD)

Building Columns

The posts forming each column run to the top of the truss.

IMPORTANT

Door Columns must extend or be extended to the top of the roof truss.

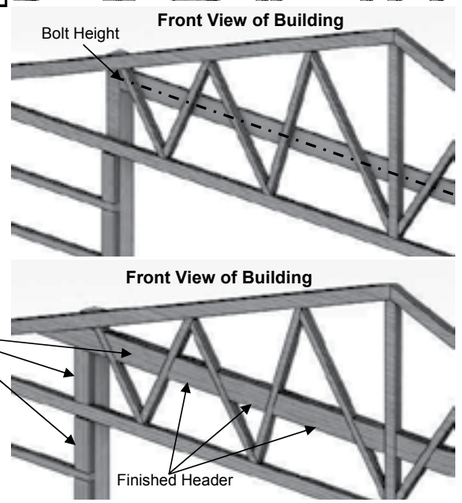


Building Header

The Header is the part of the end-wall truss from which the door will hang.

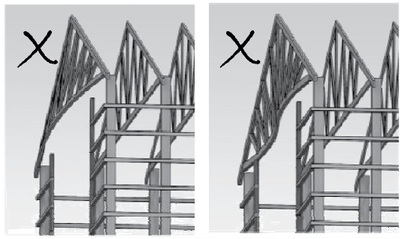
For most wood buildings, the Header will need to be built by reinforcing the end-wall truss as follows;

1. Horiozontaly attach a 2x10 (or similar) to the inside (back) of the end-wall truss.
   It should span the entire clear opening, attaching to the building column on either side.
   Make sure it is vertically centered at the height where the hinges of the door will be attached.
2. Fill the angles between the webbing with blocking



IMPORTANT

It is very important that the building face is flat and true



Make Sure the Building Face is Straight

It is very important that the building face is flat and true.

Any warping or bowing will impede door from operating properly.

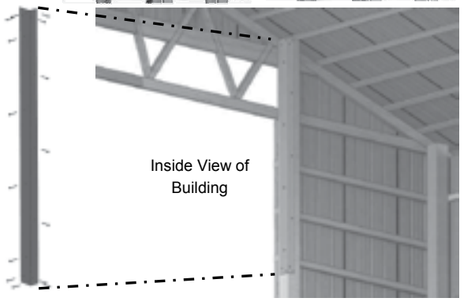
Column Support Angles-OPTIONAL

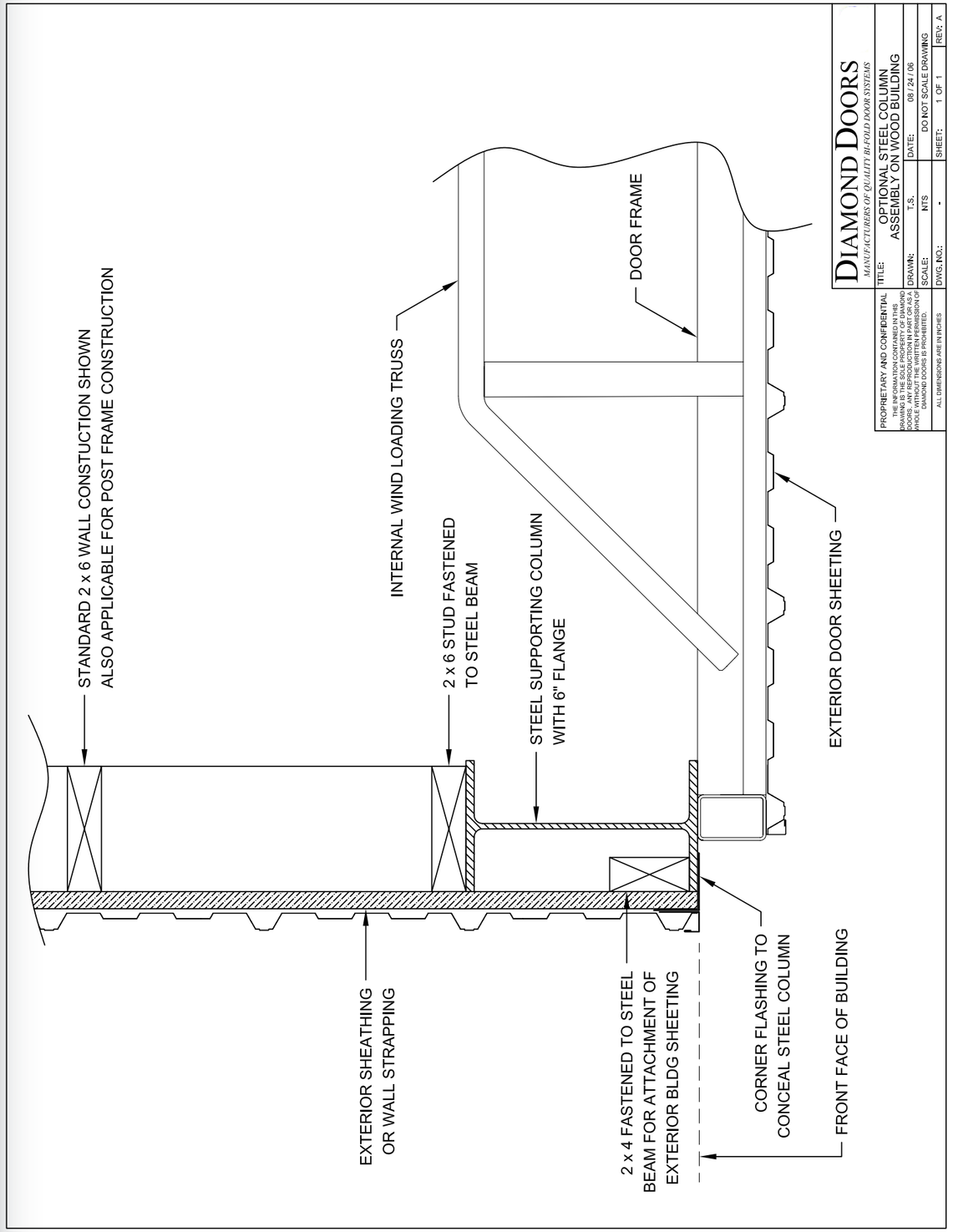
Upon request, optional column support angles can be included to strengthen the vertical column on wood buildings.

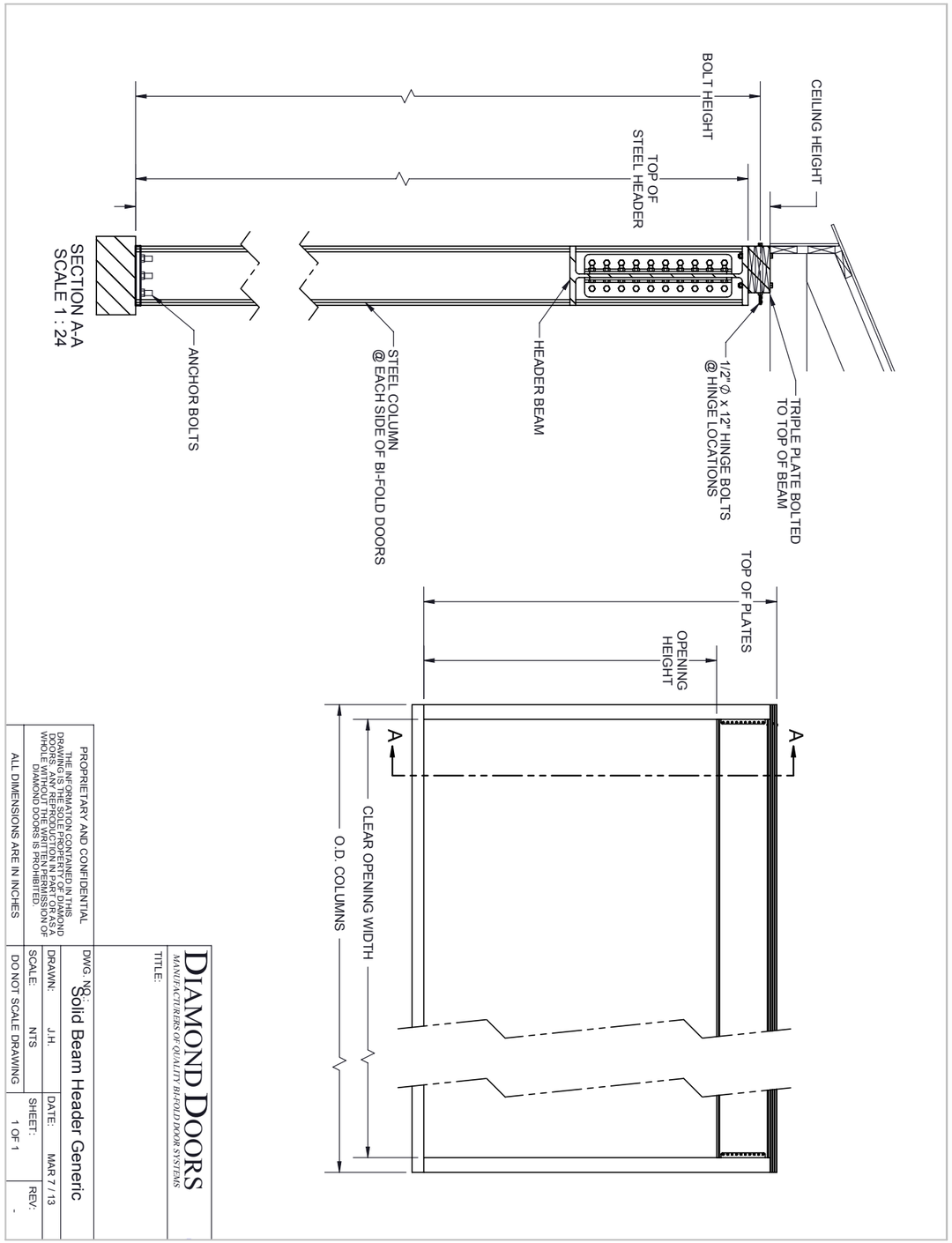
Mount support angles so that the top edge is as high or higher then the hinge bolts.

If possible, the top corner hinge bolts for the door should be extended through the support angle.

Use supplied 5/16 x 4” Lag Bolts for mounting.







DIAMOND DOORS

MANUFACTURERS OF QUALITY BI-FOLD DOOR SYSTEMS

TITLE:

DWG. NO.: Solid Beam Header Generic

DRAWN:	J.H.	DATE:	MAR 7 / 13
SCALE:	NTS	SHEET:	REV:
DO NOT SCALE DRAWING		1 OF 1	-

ALL DIMENSIONS ARE IN INCHES

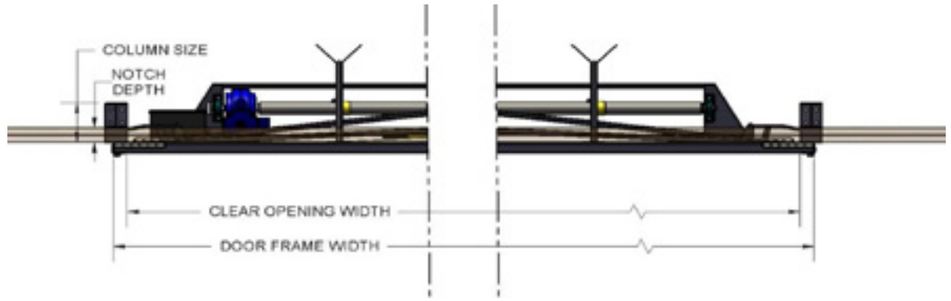
DIAMOND DOORS

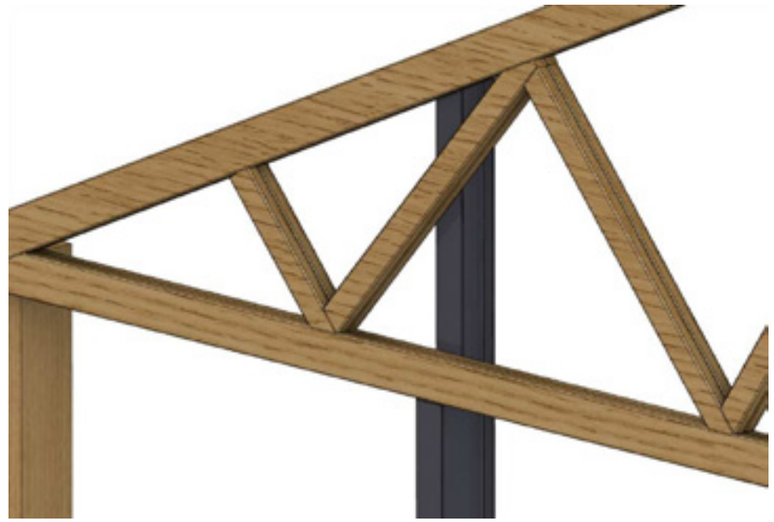
Notched Door Column

Door columns supplied by Diamond Doors:

Column arrives notched to fit your endwall.
Eliminates the need for wide built-up posts
Track Angles may be required (if door rolls onto truss)

6", 8", 10", and 12" Sizes available
Please specify notch depth (ex. 3" for double truss)





DIAMOND DOORS
MANUFACTURERS OF QUALITY BI-FOLD DOOR SYSTEMS

TITLE: GENERIC SIDEWINDER WOOD FRAME BUILDING PARTIAL FRONT VIEW - OPEN

DWG. NO.: S-001

DRAWN: J.H. | DATE: MAY 17,2011

SCALE: NTS | SHEET: 1 OF 3 | REV: -

ALL DIMENSIONS ARE IN INCHES | DO NOT SCALE DRAWING

DIAMOND DOORS
MANUFACTURERS OF QUALITY BI-FOLD DOOR SYSTEMS

TITLE: GENERIC SIDEWINDER WOOD FRAME BUILDING REAR VIEW - CLOSED

DWG. NO.: S-001

DRAWN: J.H. | DATE: MAY 17,2011

SCALE: NTS | SHEET: 2 OF 3 | REV: -

ALL DIMENSIONS ARE IN INCHES | DO NOT SCALE DRAWING

DIAMOND DOORS
MANUFACTURERS OF QUALITY BI-FOLD DOOR SYSTEMS

TITLE: GENERIC SIDEWINDER WOOD FRAME BUILDING DETAILS - CLOSED

DWG. NO.: S-001

DRAWN: J.H. | DATE: MAY 17 2011

SCALE: NTS | SHEET: 3 OF 3 | REV: -

DO NOT SCALE DRAWING

ALL DIMENSIONS ARE IN INCHES

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DIAMOND DOORS MANUFACTURING INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF DIAMOND DOORS IS PROHIBITED.

HEADER COLUMN DETAIL
STEEL QUONSET

DIAMOND DOORS
HIGH QUALITY CUSTOM ENGINEERED BI-FOLD DOORS SINCE 1998

TITLE: STEEL QUONSET

DWG. NO.: Header Column Details

DRAWN:	R.Q.	DATE:	/16
SCALE:	1:3	SHEET:	1 OF 3
REV:	-		

ALL DIMENSIONS ARE IN INCHES

DO NOT SCALE DRAWING

HEADER COLUMN DETAIL
STEEL BUILDING

DIAMOND DOORS
HIGH QUALITY CUSTOM ENGINEERED BI-FOLD DOORS SINCE 1998

TITLE: STEEL BUILDING

DWG. NO.: Header Column Details

DRAWN:	R.Q.	DATE:	/16
SCALE:	1:3	SHEET:	2 OF 3
REV:	-		

ALL DIMENSIONS ARE IN INCHES

DO NOT SCALE DRAWING

HEADER COLUMN DETAIL
STEEL BUILDING

DIAMOND DOORS
HIGH QUALITY CUSTOM ENGINEERED BI-FOLD DOORS SINCE 1998

TITLE:
STEEL BUILDING

DWG. NO.: Header Column Details

DRAWN:	R.Q.	DATE:	/16
SCALE:	1:3	SHEET:	REV:
DO NOT SCALE DRAWING		3 OF 3	-

ALL DIMENSIONS ARE IN INCHES

ALL DIMENSIONS AS MEASURED FROM FINISHED FLOOR LEVEL.

"BOLT HEIGHT" IS DEPENTDENT ON CLEAR OPENING SIZE AND WILL BE SPECIFIED BY DIAMOND DOORS. "STUB COLUMN HEIGHT" & "HEIGHT TO UNDERSIDE OF ANGLE" ARE DETERMINED BASED ON THE BOLT HEIGHT AS SHOWN.

HEADER BEAM TO BE FLUSH WITH MAIN OUTSIDE COLUMNS (EDGE OF CONCRETE).

IT IS THE RESPONSIBILITY OF THE BUILDING DESIGNER/MANUFACTURER TO ENSURE THE ENDWALL FRAME AND OTHER SUPPORTING STRUCTURES FOR THE BI-FOLD DOOR ARE ADEQUATELY SIZED BASED ON THE WEIGHT AND LOAD SPECIFICATIONS OF THE BI-FOLD DOOR.

DIAMOND DOORS
MANUFACTURERS OF QUALITY BI-FOLD DOOR SYSTEMS

TITLE:
STEEL BUILDING W/ STUB COLUMN DETAIL

DRAWN:	T.S.	DATE:	05-04-07
SCALE:	N.T.S		DO NOT SCALE DRAWING
DWG. NO.:	-	SHEET:	1 OF 1 REV: 2

ALL DIMENSIONS ARE IN INCHES

DIAMOND DOORS
MANUFACTURERS OF QUALITY BI-FOLD DOOR SYSTEMS

TITLE: CONNECTION DETAIL
STEEL CONSTRUCTION
DOOR JAMB 'C' CHANNEL

DWG. NO.:	-		
DRAWN:	J.H.	DATE:	MAY 5, 2011
SCALE:	AS SHOWN	SHEET:	REV: -
ALL DIMENSIONS ARE IN INCHES		DO NOT SCALE DRAWING	1 OF 1

DIAMOND DOORS
MANUFACTURERS OF QUALITY BI-FOLD DOOR SYSTEMS

TITLE: CONNECTION DETAIL
STEEL CONSTRUCTION
WIND COLUMN 'I' BEAM

DWG. NO.:	-		
DRAWN:	J.H.	DATE:	APRIL 18, 2011
SCALE:	AS SHOWN	SHEET:	REV: -
ALL DIMENSIONS ARE IN INCHES		DO NOT SCALE DRAWING	1 OF 1

TOP WEATHER SEAL INSTALLATION DIAGRAM
ON SELF SUPPORTING HEADER
1/4" x 1" TEK SCREWS @ 12" C/C
CAULK AROUND INSIDE BOLTS
NOTCH TRIM AS REQUIRED
CANVAS TRIM FLUSH WITH END
HEADER COLUMN
DOOR FRAME
OPTIONAL TIE BACK CABLE
(IF REQUIRED)
OPTIONAL FLAT STOCK
(IF REQUIRED)
PULL TRIM
CANVAS TRIM
CANVAS WEATHER SEAL
CAULK
DOOR CLADDING
DOOR FRAME
INSTALLATION INSTRUCTIONS
1. FASTEN CANVAS WEATHER SEAL TO DOOR FRAME
2. PULL CANVAS OVER HEADER FLANGE
3. INSERT TRIM OVER CANVAS
4. ADJUST TRIM AS NEEDED
5. FASTEN TRIM WITH TEK SCREWS

TIE-BACK CABLE INSTALLATION DIAGRAM
ON SELF SUPPORTING HEADER
TURNBUCKLE HOOKED
INTO TIE BACK ANGLE
(TIGHTEN AS REQUIRED)
CABLE CLAMP
TIE BACK ANGLE FASTENED
TO STRUCTURE
DETAIL B
SCALE 1 : 10
OPTIONAL TIE BACK CABLE
(IF REQUIRED)
OPTIONAL TIE BACK ANGLE
(IF REQUIRED)
CABLE ANCHOR BRACKET
BOLTED TO CORNER OF HEADER
FACTORY CRIMPED CABLE
DETAIL A

TOP VIEW

DIAMOND DOORS
MANUFACTURERS OF QUALITY BI-FOLD DOOR SYSTEMS

TITLE:	SHARED COLUMN DETAIL		
DRAWN:	T.S.	DATE:	MAY 11 / 06
SCALE:	N.T.S		DO NOT SCALE DRAWING
DWG. NO.:	6105a	SHEET:	1 OF 1 REV: A

CROSS SECTIONAL VIEW OF TOP HINGE

SHADED AREAS MUST BE FLUSH TO ACCOMADATE DOOR (HEADER BEAM WITH MAIN OUTSIDE COLUMNS)

ALL DIMENSIONS AS MEASURED FROM FINISHED FLOOR LEVEL.

"BOLT HEIGHT" IS DEPENTDENT ON CLEAR OPENING SIZE AND WILL BE SPECIFIED BY DIAMOND DOORS. "C/L OF HEADER BEAM" AND "HEIGHT TO UNDERSIDE OF GIRT" ARE DETERMINED FROM THE BOLT HEIGHT AS SHOWN.

HEADER BEAM TO BE FLUSH WITH MAIN OUTSIDE COLUMNS (EDGE OF CONCRETE).

IT IS THE RESPONSIBILITY OF THE BUILDING DESIGNER/MANUFACTURER TO ENSURE THE ENDWALL FRAME AND OTHER SUPPORTING STRUCTURES FOR THE BI-FOLD DOOR ARE ADEQUATELY SIZED BASED ON THE WEIGHT AND LOAD SPECIFICATIONS OF THE BI-FOLD DOOR.

COLUMN DETAIL

HINGE DETAIL

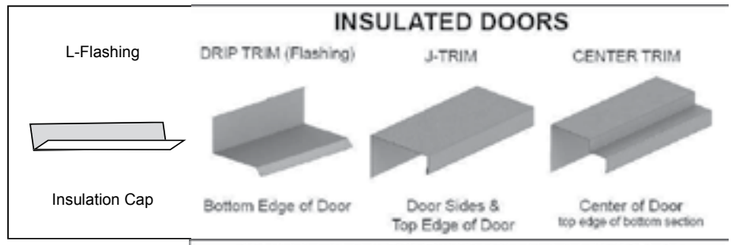
DIAMOND DOORS
MANUFACTURERS OF QUALITY BI-FOLD DOOR SYSTEMS

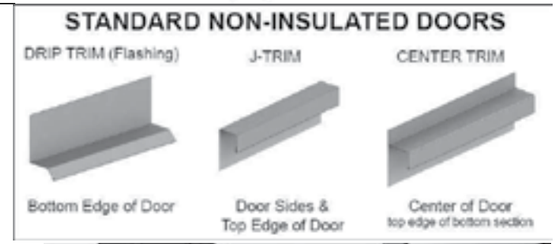
TITLE:	STEEL BUILDING W/ HOR. HEADER BEAM		
DRAWN:	T.S.; J.H.	DATE:	Nov 30 / 12
SCALE:	NTS		DO NOT SCALE DRAWING
DWG. NO.:	-	SHEET:	1 OF 1 REV: 2

Install the Trims

Notes:

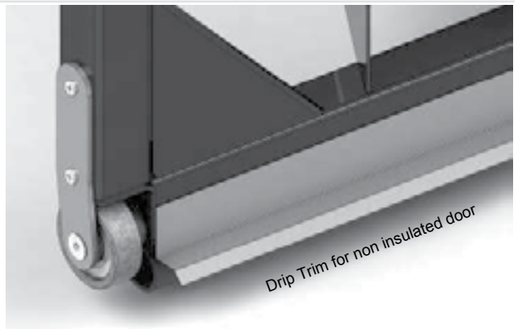
1. Close and lock the door before installing trims, insulation or cladding.
2. Install trims before insulation or sheeting.
3. Fasten trims ≈24” o/c with supplied 1/2” flat-head screws.
4. Insulated & Non-Insulated options differ only where center trims meet side J-trim.
5. Top J-Trim holds the top weather seal in place.

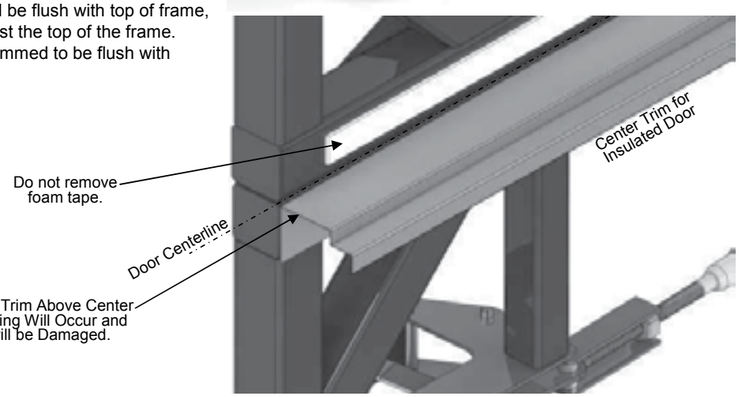




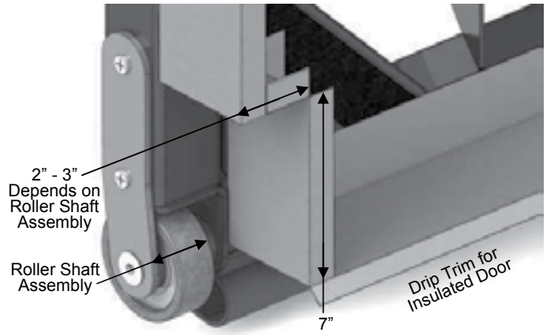
Installation

1. Staple the top seal to the building leaving ≈2” overlap at the top of the door to cover the top frame.
2. Install the Drip Trim along the bottom exterior edge of the door.
   a. Bottom of trim should be flush with the bottom edge of door the frame.
   b. Trim will need to be adapted at each end to accommodate the bottom roller assembly.
3. Install the Center Trim along the top edge of the bottom half of the door.
   a. Center trim should be flush with top of frame, and not extend past the top of the frame.
   b. Ends should be trimmed to be flush with sides of frame.

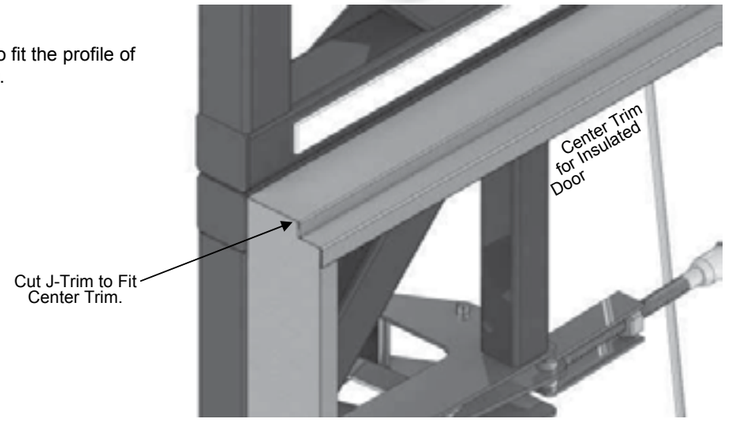




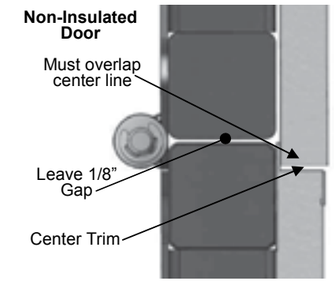
4. Install J-Trim along both sides of the bottom half of door.
   a. Start by notching and bending the J-trim as shown around bottom roller area.
   b. Leave enough clearance for the lower angle bracket (see diagram for dimensions).
   c. Repeat a and b for the other side of the door.

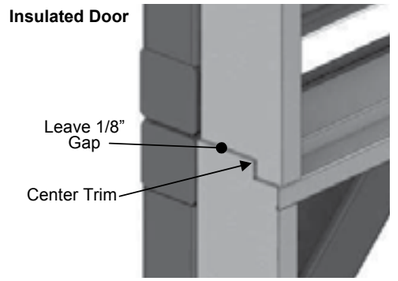


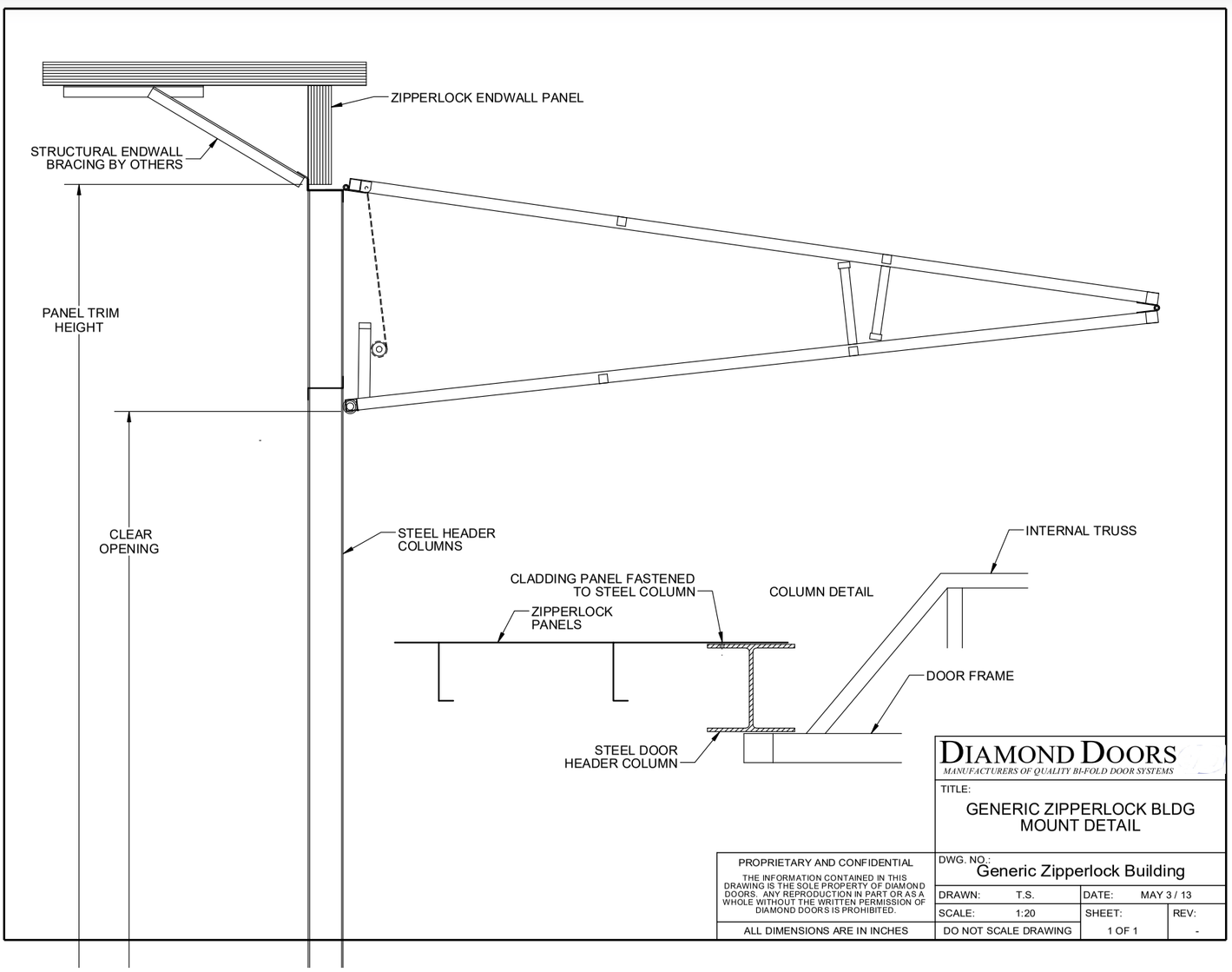
5. Cut the top end of the J-trim to fit the profile of the center trim (See Diagram).



6. Install J-Trim along both sides on top half of door.
   a. At top ends of the door, J-trim should be installed flush with the top of door frame.
   b. At the center of door, J-trim should run PAST the center line of the door, leaving only a 1/8” gap between top J-trims and center trim on the bottom section.
   c. Repeat a and b for the other side of the door.






ZIPPERLOCK ENDWALL PANEL
STRUCTURAL ENDWALL BRACING BY OTHERS
PANEL TRIM HEIGHT
CLEAR OPENING
STEEL HEADER COLUMNS
CLADDING PANEL FASTENED TO STEEL COLUMN
ZIPPERLOCK PANELS
COLUMN DETAIL
INTERNAL TRUSS
DOOR FRAME
STEEL DOOR HEADER COLUMN
DIAMOND DOORS
MANUFACTURERS OF QUALITY BI-FOLD DOOR SYSTEMS
TITLE:
GENERIC ZIPPERLOCK BLDG MOUNT DETAIL
PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DIAMOND DOORS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF DIAMOND DOORS IS PROHIBITED.
DWG. NO.: Generic Zipperlock Building
DRAWN: T.S.
DATE: MAY 3 / 13
SCALE: 1:20
SHEET: 1 OF 1
REV: -
ALL DIMENSIONS ARE IN INCHES
DO NOT SCALE DRAWING

Warranty

Diamond Doors Inc. Limited Warranty

Subject to the limitations and conditions set forth below, Diamond Doors Inc. warrants from the date of original invoice, (a) the door system will be free of manufacturing defects in material and workmanship for a period of two (2) years in Canada, one (1) year in the United States of America; and (b) our doors will not warp, crack or buckle under normal intended use as a door, and for no other purposes, during the period of this limited warranty. Upon purchase of a Diamond Doors product, the buyer accepts this warranty and agrees it is the only official warranty, thereby excluding any other representation, warranty or condition, whether written or implied, except if stated in writing by an authorized Diamond Doors agent.

These warranties are subject to the following restrictions:

- Warranty is void if any modifications are made to the door system that change the weight and/or structural integrity of the door system, unless approved in writing by an authorized Diamond Doors agent. Examples may include any addition or removal from the door structure, adding windows/doors, using a heavier exterior sheeting/insulation, etc.
- Warranty is void if any modifications are made to the door system using after-market parts, unless approved in writing by an authorized Diamond Doors agent.
- Warranty is void if the door system is used for anything other than its intended use as a door, or other than normal/intended service conditions.
- Warranty applies only to doors that have been properly installed, and Diamond Doors reserves the right for itself or any authorized agent to inspect the door before approving a warranty claim.
- The buyer shall inspect material received from the Seller prior to installation so as to mitigate expenses involved in repairing, repainting, modifying or replacing product.
- **Any claim must be submitted in writing to the manufacturer within 30 days after discovery of the defect, describing the alleged defect, and must be received by Diamond Doors Inc. within the period of the warranty, otherwise the warranty shall be deemed null and void.**
- After receiving a written claim of alleged defect(s), Diamond Doors Inc. shall then have reasonable opportunity to inspect the product before any further action shall be taken.

These warranties expressly exclude:

- Defects or damage to the door or door components after delivery by Diamond Doors Inc., resulting from handling, shipping, transit, processing, improper storage or installation, or prolonged moisture contact or with corrosives and/or similar materials.
- Damage to the door resulting from any accident due to inadequate or defective building design, material or workmanship.
- Damage as a result of Acts of Nature (fire, flood, wind, earthquake, etc.), falling objects, external forces, explosions, or damage as a result of the actions of persons outside of Diamond Doors Inc. control.
- Problems due to misuse, abuse, or failure to follow care and maintenance instructions as found in the owners manual.
- Problems due to inadequate or incorrect power supply, including but not limited to; undersize electrical supply, undersize generator.
- Problems due to water and/or air infiltration due to improper or inadequate building construction/design, or improper installation of door system.
- Any costs related to the transportation of the replacement product.
- Any installation and labor charges related to the replacement product.
- Any non-factory customization or modifications made to the door by the buyer.
- Diamond Doors Inc. shall not be liable for any losses, damages or expenses whether direct, indirect, or consequential, caused by or resulting from the use of a defective or non-conforming door system, or for any other incidental or consequential damages. The total liability of Diamond Doors Inc. is expressly limited to the purchase price of the door system. Without limiting the generality of the foregoing, this warranty pertains to product only, and the seller shall not be liable for damages for or relating to labor or loss of use of structure or damage to contents of structure.

Diamond Doors Inc. reserves the right to provide products of similar quality and function, but of a different type or color in order to fulfill its obligations in the event it could not provide products of the original type/color, or if in its opinion, an alternate replacement could prevent the problem from reoccurring. Diamond Doors Inc. reserves the right to claim ownership of a replaced product, and may request that the replaced product be returned to the manufacturer at the buyers expense.

Maintenance to be done by the buyer

The buyer commits to carry-out regular maintenance as recommended by Diamond Doors Inc. in the Owners Manual

DISCLAIMER

EXCEPT FOR THE WARRANTY EXPRESSLY SET FORTH HEREIN, DIAMOND DOORS INC. HEREBY DISCLAIMS AND EXCLUDES ALL REPRESENTATIONS, WARRANTIES AND CONDITIONS, WHETHER WRITTEN OR ORAL, IMPLIED, STATUTORY OR OTHERWISE WITH RESPECT TO ITS PRODUCTS AND ALL COMPONENTS AND ELEMENTS THEREOF, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES AND CONDITIONS OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE INCLUDING ANY AND ALL WARRANTIES AND CONDITIONS FOUND IN THE APPLICABLE SALE OF GOODS ACTS.

This warranty policy is effective as of April 2011

Co-operative Marketing Program

CO-OPERATIVE MARKETING PROGRAM INTRODUCTION

We want to help you sell the advantages of a bifold door to your customers.

That's why we introduced our co-operative marketing program. It provides marketing teams from different companies the opportunity to share marketing costs and efforts. When used effectively, this results in a higher return on investment, generates more sales leads, and provides greater value for participating companies and customers.

These programs can take on a variety of forms, but at Diamond Doors, we believe that simple is better – just like our doors. That is why we have streamlined the program to make it accessible and easy-to-use for all our dealers.

You are pre-approved to join the program, and project approval and cost reimbursement are quick and easy. The program is also flexible, meaning that it can easily accommodate your marketing needs and strategy. How will we do this? This program shares marketing costs for the Diamond Doors brand and our dealers based on project needs and details. Diamond Doors will reimburse (credit your account) up to 50% of project costs for pre-approved projects.

READY TO JOIN US?

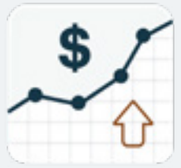
We would love to see you take advantage of this program. If you have questions about your program funding for the year, or about submitting a claim, reach out to us!

We are always here to answer any questions you may have at marketing@diamonddoors.com.

DIAMOND DOORS

PURPOSE AND ADVANTAGES

The primary purpose of the program is to help you reach a larger customer base, generate more sales leads, and increase bifold door sales. We designed the program for this purpose because we value the opportunity to work closely with you. In everything from sales to service, we want to build a partnership. This holds four main advantages for you beyond higher bifold door sales. The benefits include increased marketing budgets, cohesive branding, higher exposure, and free marketing tips, techniques, and content.



INCREASED MARKETING BUDGET

COHESIVE BRANDING & HIGHER EXPOSURE

OTHER ADVANTAGES

Increased Marketing Budget

Diamond Doors will cover up to 50% of pre-approved project costs. However, this doesn't include the free literature provided by Diamond Doors, the free marketing content designed for social media, print, or digital advertisement, and the marketing tips and techniques to help improve your marketing strategy.

Cohesive Branding and Higher Exposure

Customers are more likely to trust a brand they recognize. Utilizing the Diamond Doors co-operative marketing program encourages cohesive, consistent brand standards across a variety of platforms. This will improve customer recognition of the brand, making sales leads more likely and more profitable.

Other Advantages

We know that paperwork can be frustrating and time consuming. With that in mind, we designed our program to minimize paperwork and wait times.

Our claim forms only contain the information we need to make a decision or to process your credit. When your project is approved, we'll send you an email that contains all the information you need to finish the project and request a credit.

And, because we value integrity, there is no cost to join the program, no hidden fees associated with submitting a claim, and we will always be transparent with your funds.

PROGRAM GUIDELINES

Program Qualification and Budget

You are automatically eligible to join the co-operative marketing program. You will receive an email detailing your program budget at the beginning of each calendar year. There is no approval process necessary.
Your annual budget is calculated based on 1% of your total door sales in the past year, or $400.00 – whichever is higher. For clarity, this amount does not include shipping, work orders, or taxes.

Diamond Doors reserves the right to suspend the budget of any dealer with reasonable cause, including but not limited to overdue accounts, disagreements on advertising standards, and fraudulent claims on advertising costs. Diamond Doors may also adjust the budget amount within reason. Dealers will be notified immediately of any suspension or budget change and the reason for the change.

Dealer Responsibilites

You are responsible for the creation of advertising with the exception of pre-designed templates provided by Diamond Doors. These advertisements will be subject to approval by Diamond Doors prior to credit.
You must provide all project information (as outlined in the Co-operative Marketing Program – Dealer Guide) prior to claim approval. You must complete a claim form (Co-operative Marketing Program – Claim Sheets) to be credited for project expenses.

Diamond Doors Responsibilities

Diamond Doors must ensure that dealers are aware of their available budget and that accurate budget tracking is maintained. Diamond Doors must review all submitted preliminary ads within a reasonable period to ensure that projects are finished in a timely manner. Diamond Doors must communicate the approved percentage of ad spend and dollar amount that is covered for each marketing project. Diamond Doors must issue credit for the project within a reasonable period after receipt of the invoice.

OUR RESPONSIBILITIES

- ☑ Ensure dealers are aware of their available budget.
- ☑ Review and communicate approved dollar amount covered in a timely fashion.
- ☑ Issue credit for the project after receipt of the invoice.

DEALER RESPONSIBILITIES

- ☑ Responsible for the creation of advertising.
- ☑ Provide all project information prior to claim approval.
- ☑ Complete a claim form to be reimbursed for project expenses.

APPROVAL PROCESS

The approval process has been streamlined to make it easier for you to take advantage of the program. Checklists will be provided to you to make submission of paperwork simple. The approval process should take no more than 2 business days.

1. Submission of Preliminary Project

The dealer will submit a preliminary project design or written copy to the program manager. The included materials will depend on the project's category. For each category, the estimated cost of the project should be included.

2. Approval by the Program Manager

The program manager will review the preliminary project and evaluate it based on approval process guidelines. This will take no longer than 2 business days.

If the project is approved – the program manager will assign the approved project a project number, notify the dealer of the approval, the approved dollar amount (up to 50% of the total project cost), and any other relevant information.

At times, the project may be approved after suggested revisions have been made. The program manager will contact the dealer regarding these revisions and a plan will be outlined at that time.

If the project is NOT approved – the program manager will notify the dealer of the rejection and reasons for the rejection. The dealer may choose to make changes to the project and reapply at any time.

3. Reimbursement of the Dealer

After the project has been completed, the dealer will submit all necessary materials to be processed for the reimbursement. **Please note that "reimbursement" refers to a credit to your account with Diamond Doors.**

The program manager will verify that the projected has been completed correctly and will notify the accounting department of the reimbursement. You will receive a credit memo for your records.

ELIGIBLE MARKETING EXPENSES

This program covers expenses in three categories: print advertising, digital and radio advertising, and literature. For each category, the audience of the chosen marketing channel (e.g. radio station, magazine, etc.) should reflect the target market for Diamond Doors.

Print Advertising

This includes printed materials in newspapers, magazines, or direct mail. Other applicable forms of marketing may be considered.

These advertisements must have the Diamond Doors logo prominently displayed following applicable brand standards (as found in Co-operative Marketing Program – Dealer Guide). Other logos, excluding the dealer's logo, should not be displayed. Mentions of other brand names may result in denied reimbursement.

Digital and Radio Advertising

This includes any online marketing such as social media advertisements, Google Display Ads, email marketing, and other web-based advertisements, and radio advertisements.

For visual advertisements, the Diamond Doors logo should be easily recognizable and should follow applicable brand standards. Other logos, excluding the dealer's logo, should not be displayed. Mentions of other brand names may result in denied reimbursement.

For radio advertisements, the tone and voice must match that of Diamond Doors. Again, mentions of other brand names may result in denied reimbursement.

Literature

Banners, decals, and brochures are covered by the program and are always available free of charge. You will be provided with a claim sheet to request literature for your marketing needs.

ELIGIBLE EXPENSES

- NEWSPAPER ADS
- MAGAZINE ADS
- DIRECT MAIL
- EMAIL MARKETING
- GOOGLE DISPLAY ADS
- FACEBOOK ADS
- RADIO ADS

DESIGN APPROVAL GUIDELINES

Print and Digital Advertisements

All advertisements should have a professional and modern appearance.

Logo. The Diamond Doors logo must be prominently displayed in appropriate brand colours. It should be clearly visible against a contrasting background. Appropriate spacing should be used to prevent crowding. No effects should be applied to the Diamond Doors logo.

Voice. The language used in the copy must be both professional and personal. It should avoid any vulgar language, cliches, and slang.

Content. Any images used in the advertisement should feature a Diamond Door. The image must be of high quality and be professional looking. The content must appeal to the Diamond Doors target market. Images will be available in the provided marketing materials or upon request.

Marketing channel and format. The chosen marketing channel (i.e. distributor of the material, social media channel) and format (e.g. newspaper, magazine, etc.) must be relevant to the Diamond Doors target market.

Miscellaneous. Other brands, excluding the dealer's brand, must not be mentioned. This will result in a rejection of the project, except in rare cases where it will result in fewer funds being credited.

Radio Advertisements

All advertisements should be easy to understand, relevant, and have a clear marketing message.

Voice. The language used in the copy must be both professional and personal. It should avoid any vulgar language, cliches, and slang.

Radio station. The radio station chosen for the advertisement must have a large audience that fits the Diamond Doors target market.

Miscellaneous. Other brands, excluding the dealer's brand, must not be mentioned. This will result in a rejection of the project, except in rare cases where it will result in fewer funds being reimbursed.

Literature

Diamond Doors will provide dealers with pre-designed literature free of charge.

You can find templates and pre-designed content here. (New content will be added periodically)

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DIAMOND DOORS

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