

J.E.M. POLYDOOR

*The ultimate
translucent, sectional overhead door,
that provides you with solar heat and a beautiful
exterior finish*

A photograph of a red commercial building with a large translucent sectional overhead door. The door is partially open, showing the interior. The building has a gabled roof and a small window above the door. The text "COMMERICAL INSTALLATION INSTRUCTIONS for the POLYDOOR" is overlaid on the image.

COMMERICAL INSTALLATION INSTRUCTIONS for the POLYDOOR

J.E.M. DOOR CO. LTD.

3019 Queen Street, Fordwich, Ontario N0G 1V0 CANADA

Phone: 519-335-6368 email: jempolydoor@netscape.net

VISIT US ONLINE - www.polydoor.com



Congratulations *on the purchase of your* **POLYDOOR.**

ONE YEAR WARRANTY **ON ALL PARTS & SERVICE**

The warranty on the door starts the day the door is installed. There is a one year warranty on all parts and service for the POLYDOOR.

LIFETIME WARRANTY - There is a lifetime warranty for the polycarbonate, and a lifetime warranty on the aluminum rails. If damage does occur to the door, all components of the door sections are replaceable.

What you need to know about
your POLYDOOR:

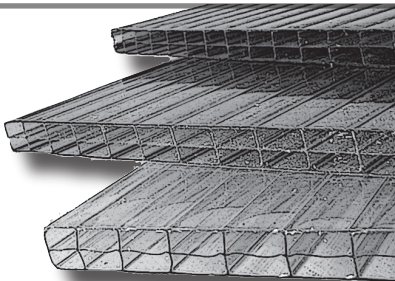
Date of Purchase:

Door Size:

Number of Sections:

Spring Measurements:

This limited warranty excludes damage caused by error or owner, such as: scratching; damage resulting from exposure to corrosive chemicals, corrosive fumes, condensation, water or fire; damages caused by accident, improper use, negligent operation, improper installation, improper maintenance or normal wear; shipping, installation or labour charges; any product or component which is modified, altered, or not part of the original door damages resulting from any circumstances beyond the direct control of J.E.M.



J.E.M. DOOR CO. LTD.

TABLE OF CONTENTS:

HOW TO INSTALL YOUR POLYDOOR:

Preparing the Opening	2
Stacking the Panels	3
Panel & Vertical Track Installation	4
Horizontal Tracks.....	5
Assembly of the Shaft	6
Winding the Torsion Spring.....	7
Cable Installation to Drum	8
Installing the Rear Hangers	8
Test the door.....	9
Slide Lock.....	9

Are You Ready ...

Knowledge and preparation is required for this install. We highly recommend you hire a professional door installer who has the experience and understanding of the mechanisms. In order to be safe, secure and trouble free for a long time - you must ensure it is installed properly.

The installation instructions are to be considered as guidelines. The manufacturer cannot be held liable in the event of any damage which can occur before, during and after installing a residential Polydoor.

The illustrations in this guide are as precise as possible.

LIST OF TOOLS & MATERIAL THAT YOU WILL NEED THAT'S NOT INCLUDED:

- clamps or locking pliers
- a stepladder
- screwdrivers
- a level
- a hammer
- a tape measure
- a square
- a hacksaw
- saw horses
- driver bits
- socket and wrenches, 3/8", 7/16", 1/2" and 9/16" socket bits
- two steel winding rods (diam.: 1/2", length: 18")
- perforated steel angle for horizontal tracks hanger with bolts and nuts





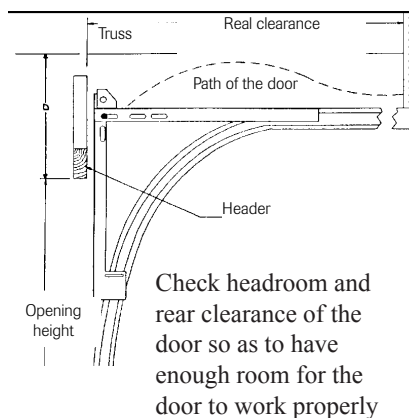
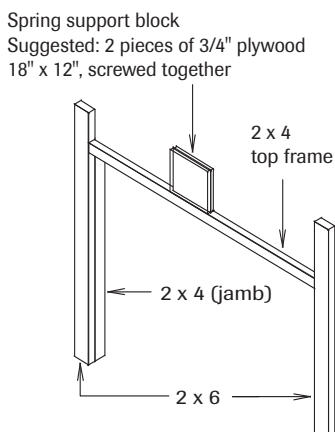
PREPARING THE OPENING

Make sure that the size of the opening matches the size of the door.

For example: a door of 9' X 7' (2743 X 2134 mm) needs an opening of 9 feet (2,743 mm) wide by 7 feet (2,134 mm) high.

The header must be flush (on the same plane) with back jambs

The back jambs must be perpendicular, plumb, and square.



REQUIRED HEADROOM AND SIDEROOM FOR ELECTRIC OPENER

(free space available between the top jamb and trusses)

Radius	10"	12"	15"	Low headroom Rear mounted	Low headroom Front mounted
Residential Extension	8 1/2"	10"	n.a.	4"	n.a.
Residential Torsion		12"	15"	4"	8"

Add 2" if you install an electrical operator

required rear clearance for the door:

$h + 28"$ (711 mm)

required rear clearance with an operator:

$h + 40"$ (1016 mm)

(h = height of the door)

- minimum space between the door jamb and wall:

6" (13 cm)

- minimum space between two doors installed side by side:

12" (26 cm)



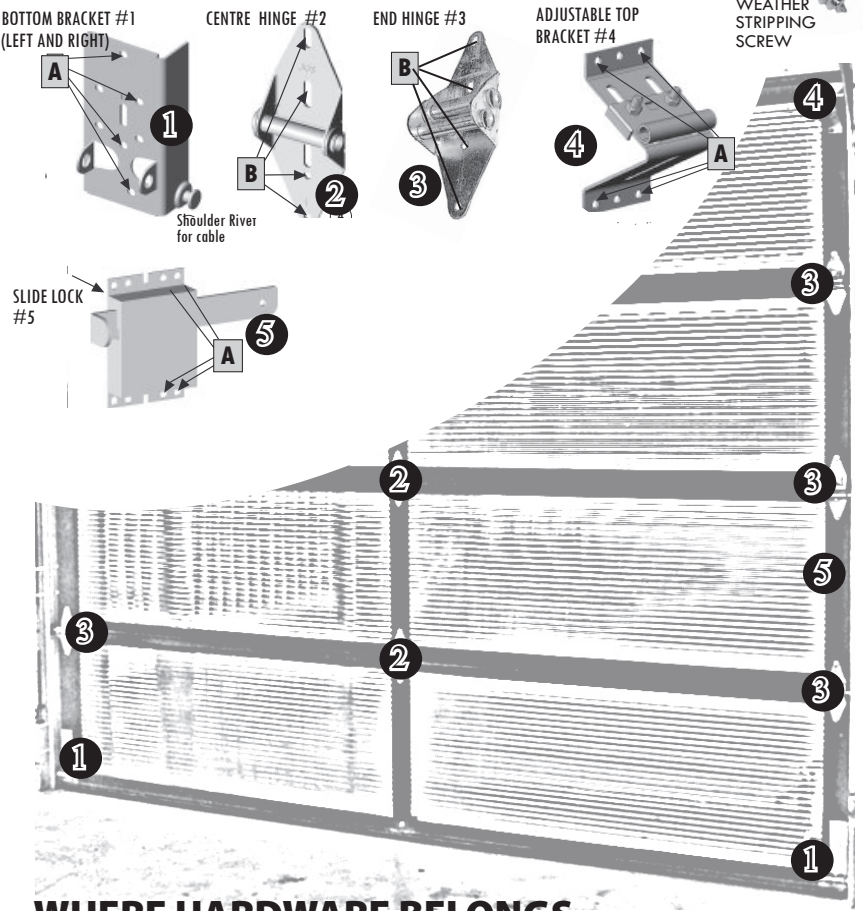
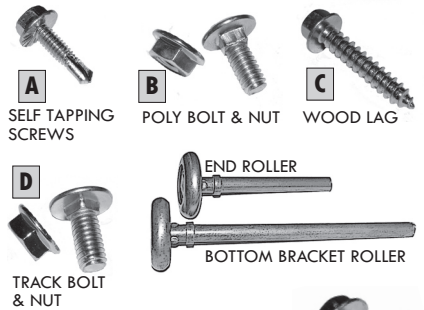
STACKING PANELS

Place panels on a set of saw horses with their exterior side facing down and in the same order as they will be once the door is installed:

- #1=Bottom (with rubber),
- #2, #3, etc Intermediate sections
- #4= Top (with top bar)

Make sure you have all the hardware laid out and use the proper screws, bolts and lags.

IDENTIFYING THE DOOR HARDWARE

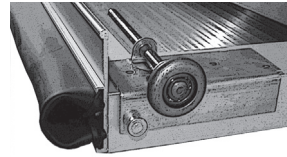


WHERE HARDWARE BELONGS



PANEL AND VERTICAL TRACK INSTALLATION

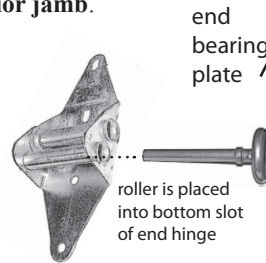
BOTTOM PANEL - Attach the left and right corner brackets using the self-tapping screws, and lower parts of the No#1 hinges. Use the punch marks to align and center the hinges with the poly bolt. Make sure you are using the proper hinges. Put the rollers into the ends.



Center the bottom panel in the opening by pressing it firmly against the ground and by making sure that the top of the panel is level. If needed, place a wooden wedge to keep the panel level.

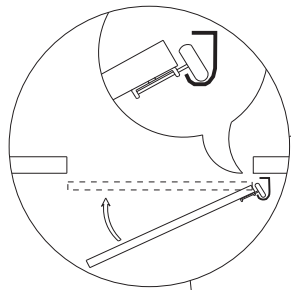
PRE-ASSEMBLED VERTICAL TRACK - Centering the panel enables you to locate the exact place where you should screw the pre-assembled vertical track into the interior jamb.

It's important that the top ends of the vertical tracks be level. In order to achieve this, you might have to lift one of the vertical tracks or cut the other. You must execute this step at this point, before screwing in the track. Using the **wood lag**, fasten the vertical track to jamb leaving 1/4" (6 mm) between the track and the end of the panel.



Lift the panel, ease the rollers into the track, and place the panel parallel to the opening, on the ground, at the exact location it will be at the end of the installation. Make sure everything is square with the tracks.

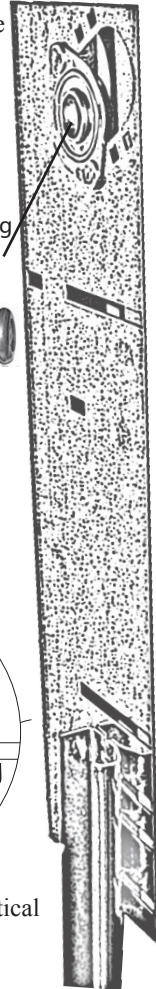
Place the second vertical track in its exact location, and temporarily fasten it to the jamb for security, anytime before the top panel is placed.



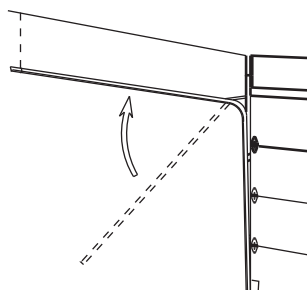
CABLE: Thread the cable from the bottom bracket up through the vertical track as you place each panel.

REPEAT STEPS:

Attach hinges to next panel, put the rollers into the End Hinges located in the top corner of the next panel. Lift the panel, ease the roller into the track. Then lay the panel on the previous one and screw the top of the hinges into the newly placed panel. **Repeat the same steps for the remaining panels.**

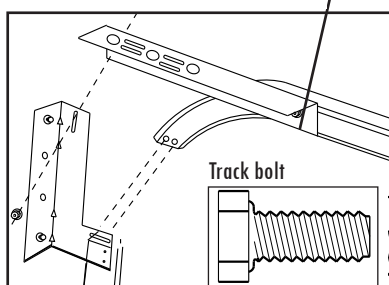


INSTALLING THE HORIZONTAL TRACKS

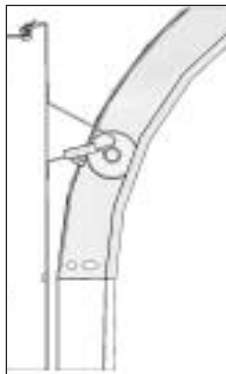


Lift horizontal track and fasten into vertical track. Position horizontal track as shown. It needs to stay in place until you fasten bracing hangers (steel pre-punched angle) to ceiling

Fasten (see pic below, left) the steel angle of the horizontal track to the specially designed bracket of the vertical track with the track bolts.



PLACING THE TOP PANEL -



Screw the **Adjustable Top Brackets** in top corners of the top panel, put the rollers in ; ease the rollers into the track and slide down the bracket. Fasten these brackets in order to have the axle of the rollers at about 6" (150 mm) from the top of the section, and leaving the same space between the door and the track as for the hinges.

Fasten centre hinges.

Remember to pull cable through top bracket.

TIGHTEN THE HARDWARE -

Using your drill, secure door by tightening all screws and nuts - now secure the vertical track to the jamb.

SPECIAL SAFETY MEASURES

There is extreme tension in the springs that support the entire weight of the door. Please note - that any sudden and uncontrolled release of these springs is dangerous and could cause serious injuries. Always use clamps or locking pliers to block the door and prevent it from moving.

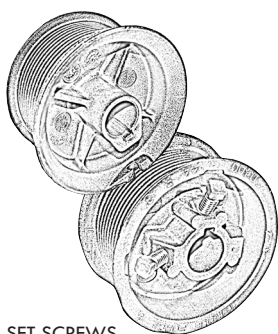
Torsion springs require the use a solid steel **winding rod** of 1/2" X 18" (12 X 457 mm) to add or release tension; never use a screwdriver because it could easily slip and cause an accident or injury.

If using a wood block as a base for the torsion spring anchor plate (as mentioned on page 2) it must be solidly fastened to the wall because it will be supporting the tension of the springs. Never try to move or modify this block while there is tension in the springs because a sudden release of tension could cause serious injuries.

TORSION SPRING SHAFT ASSEMBLY

Keep the door closed.

Slid the cable drums onto the shaft that has already been mounted with its spring as shown below. Make sure shaft is positioned correctly with the spring on the proper side. *You will be ensured by checking that the end of the spring faces up.*



SET SCREWS
TO INSIDE
OF SHAFT

The drums are marked L and R;

L goes on the left side and R goes on the right side, as seen from the inside of the garage.

They are also identified by colored paint

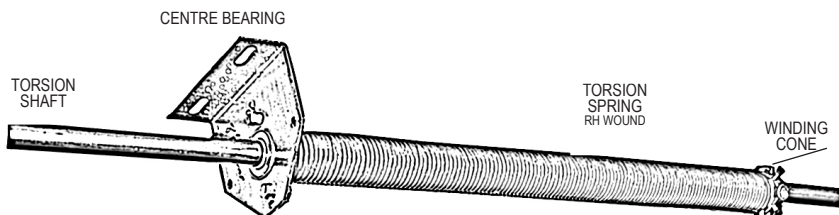
red paint = left side; black paint = right side.

Raise the torsion spring assembly above the tracks. Place ends of shaft into pre-assembled end plates of vertical track. Firmly fasten the spring anchor bracket to the header / back wall; this is the base for the tension of the springs.

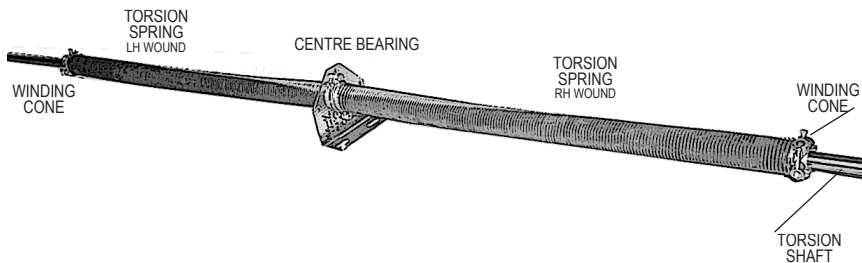
The shaft has to be CENTRED between end bearing plates - and straight and level.

Press the **drums on the end bearing plates without tightening them.**

Note: The cable is run thru the drums after winding the springs - page 8



single torsion spring & shaft comes assembled as above



Double torsion spring & shaft comes assembled as above

WINDING THE TORSION SPRING

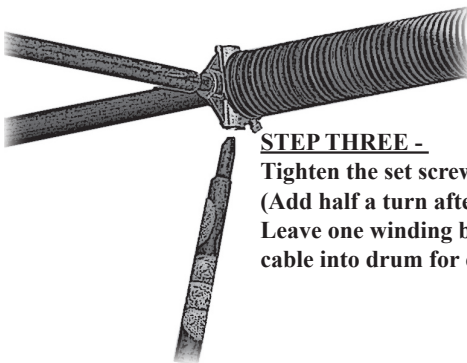
READ OVER THIS SECTION BEFORE YOU BEGIN

STEP ONE - While leaving the lock-grip pliers tightened to the shaft and braced to the header, lock the door in closed position with lock-grip pliers fixed to a vertical track just above a roller.



STEP TWO -

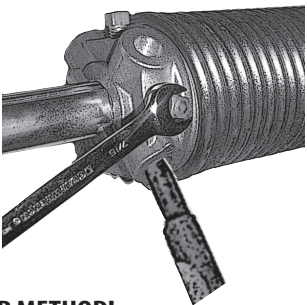
Loosen the set screws on the winding cone of the spring, and using the winding bar to wind the spring by turning the winding cone **TOWARD THE CEILING** the number of turns as stated on the label affixed on the spring plate. (SEE CHART BELOW).



STEP THREE -

Tighten the set screws of the winding cone (Add half a turn after feeling the pressure on the shaft). Leave one winding bar in place as you install cable into drum for extra support.

NEVER REMOVE A WINDING BAR OF ITS HOLE UNTIL THE OTHER WINDING BAR IS IN PLACE AND THAT YOU ARE HOLDING IT FIRMLY.



The winding bars must be 1/2" diameter (13 mm) x 18" long only.

DO NOT ATTEMPT TO WIND SPRINGS BY ANY OTHER METHOD!

If there are two springs, proceed the same way for the second, with the same number of turns.

EXTREME CAUTION:
CARELESSNESS COULD LEAD TO SERIOUS INJURIES.

TURNS REQUIRED ON SPRINGS for 400 drums

Door Height	12"	15"	Low Hdrm
6'-6"	7 1/4	7 1/2	6 3/4
6'-9"	7 1/2	7 3/4	7
7'-0"	7 3/4	8	7 1/4
7'-3"	8	8 1/4	7 1/2
7'-6"	8	8 1/2	7 3/4
7'-9"	8 1/4	8 1/2	8
8'-0"	8 1/2	9	8 1/4

HELPFUL HINT:

A chalk mark or paint line is along entire length of spring to help in counting the turns when winding the springs.

Using the winding rods, wind each spring in an upward direction.

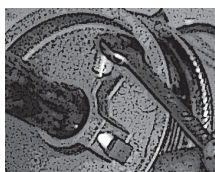
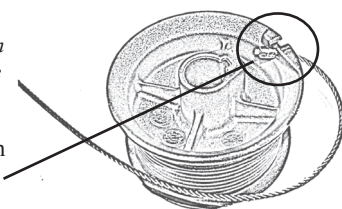
See chart for total turns, according to your door size.

CABLE INSTALLATION TO DRUM

FAILURE TO PROPERLY INSERT THE LOOPED ENDS OF THE CABLES CAN RESULT IN SEVERE INJURY WHEN SPRING TENSION IS APPLIED - SO THIS IS ALREADY DONE FOR YOU

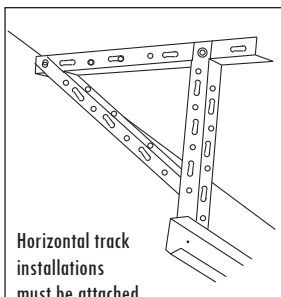
The loop of the steel cable was fastened at the attach point on the shoulder rivet of bottom panel corner bracket and you've already run it between the door and up the track.

Once the torsion spring have been wound and locked in place - hook the end of the cable with a stop sleeve to the special notch on the drum.



NOTE: It is important to have identical tension on both cables. Turn the drums manually until there is tension in the cables, lock them with the specially designed pressure set screws on the drum.
Repeat this step for the other cable.

Once the cable is on the drum, remove the pliers and winding bar carefully. Open the door slightly (about 2.5 feet) to feel how it's running on the track - and then install the rear hangers. The support of the hangers is required for testing the door.



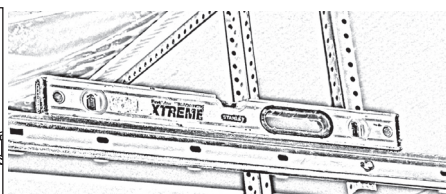
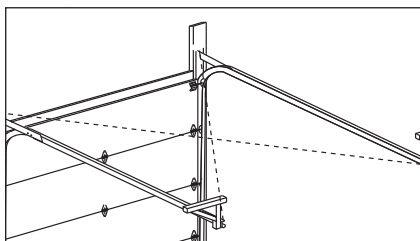
Horizontal track installations must be attached to pre-punch, to prevent sideways movement of the tracks

INSTALL THE REAR HANGERS

Align the horizontal tracks with the door header and keep exactly the same distance between the tracks.

There must be a slight upward slope in the horizontal tracks: 1/8" per foot in door height (10 mm per 1000 mm).

Note:
20" from end of track for 12" radius
24" from end of track for 15" radius



TEST THE DOOR

ONCE EVERYTHING IS IN IT'S PLACE - GO BACK AND TIGHTEN EVERYTHING WITH YOUR SCREWDRIVER

After having tightened everything carefully, remove the winding bars and the locking pliers. Open and close the door slowly manually.

Proceed to any spring adjustment by following the same procedure and same precautions.

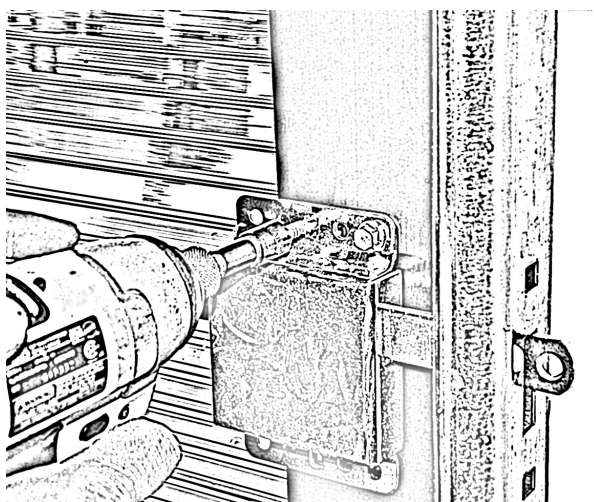
You can now check if the door is well-balanced; ideally, it should stabilize where you stop pushing it up or pulling it down. The “net” weight of a door, regardless of its size, should never exceed 10 pounds.

A slight tendency to go up or down does not matter. However, if the door opens by itself as soon as you let it go or if it closes too fast and hits the floor hard, you will have to adjust the spring accordingly.

Before proceeding the adjustment, close the door, lock the spring shaft with a pair of locking pliers, insert a winding bar into a hole of the winding cone, hold it tightly, and only then can you loosen the pressure screw of the winding cone. Make the winding bar go downward if the door goes up alone; or push the winding bar upward if the door goes down by itself.

Add or take off 1/2 a turn at a time, one spring at a time if there are two, and check. Most of all, do not forget to tighten the pressure screw before taking out the winding bars.

ADDING A SLIDE LOCK



The vertical track has locations for the slide lock at the intermediate sections.

Place the lock inside the section frame, keep to the inside, an extra 1/4 to 1/2” to avoid the lock jarring in the tracks. Use the self-tapping screws to fasten to frame.



ALUMINUM STRUTS

IF THE POLY DOOR HAS BEEN SUPPLIED WITH “A” SHAPED HORIZONTAL REINFORCING ALUMINUM STRUTS (1 PER SECTION)(SEE FIG 1), MARK 8” DOWN EACH PANEL, STARTING FROM THE TOP OF THE PANEL. MARK EACH END CAP AND MULLION WITH PENCIL. PLACE THE TOP OF THE STRUTS ON THE MARKINGS PERVIOUSLY MADE. SCREW 2 TAPPERS ON THE TOP OF THE STRUT AND ON THE BOTTOM.(SEE FIG 2) REPEAT FOR BOTH END CAPS AND EACH MULLION. (SEE FIG 3)

FIG 1

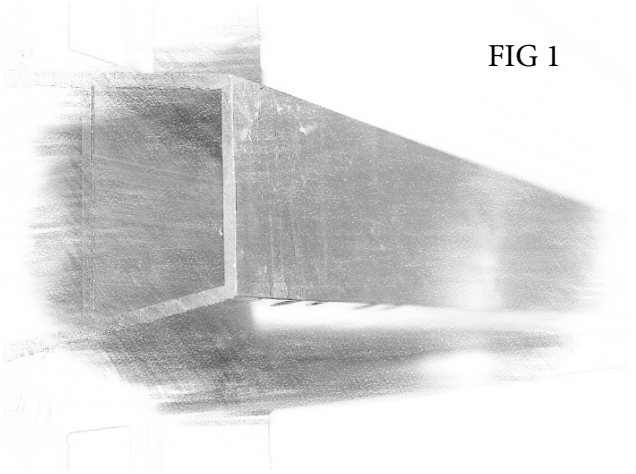


FIG 2

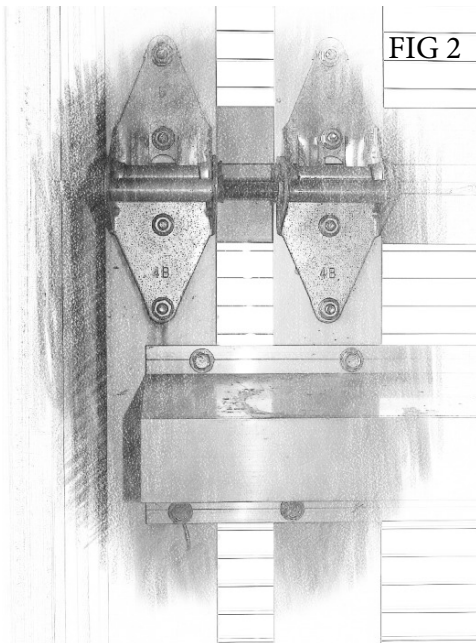
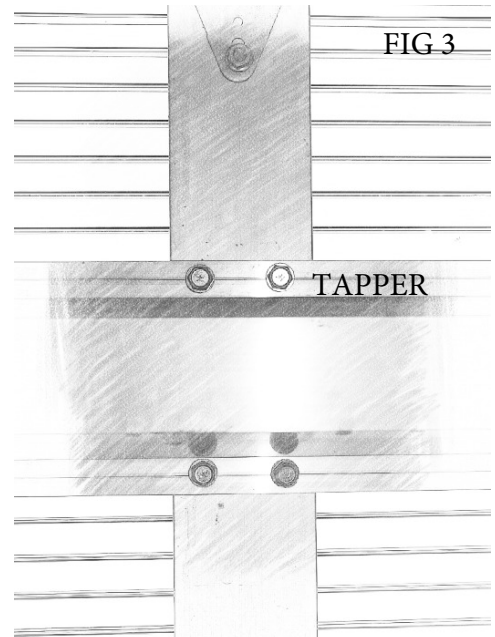
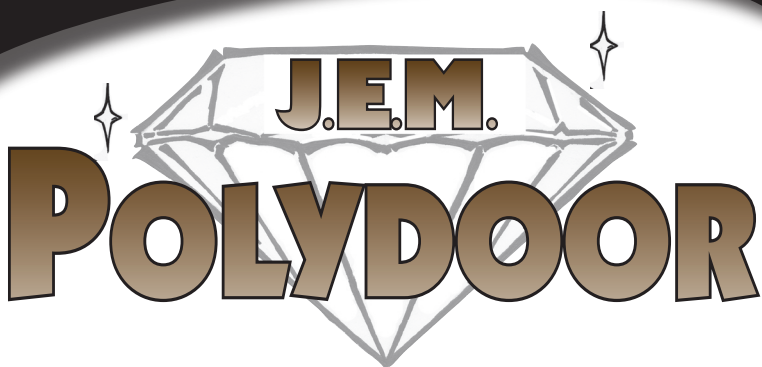


FIG 3





The ultimate overhead door, provides you with solar heat
and a beautiful exterior finish

J.E.M. DOOR CO. LTD.

3019 Queen Street, Fordwich, Ontario N0G 1V0 CANADA

Phone: 519-335-6368

email: jempolydoor@netscape.net

VISIT US ONLINE - www.polydoor.com