Building Preparation Manual
Standard Style Metal Frame
Outside Mount

July 2017

SAFETY **You are responsible for the safe use of this product. Unsafe use could result in property damage, serious personal injury, serious injury to others or a fatality.**

Do not operate the door until you understand all the safety instructions. If you have any questions, contact your door provider or go to www.powerliftdoors.com for assistance.

Recognize safety information and labels:

- The labels are located on the pump and at eye level at each door frame jamb.
- Understand the label's meaning and the potential risk it identifies
- Follow all information on the label
- Keep the labels in good condition
- Replace unreadable labels by contacting:
  your door installer or www.powerliftdoors.com

Follow all safety instructions:

- Read and understand all safety, operation and maintenance instructions
- Allow only those persons who have read and understand the instructions to operate the door
- Turn off power when making electrical connections or conducting any electrical work
- Install all electrical connections per state and local codes
- Do not re-adjust or modify the settings completed by the door installer
- Avoid electrical shock by not operating controls with wet hands or standing on a wet surface
- Operate the door only for the door's intended purpose
- Inspect and verify that the area in the path of the door swing is free of equipment, vehicles or obstructions.
- Stay alert and watch during the door's operation
- Keep fingers and extremities away from pinch points located between the door and door frame
- Keep children and pets away from the door while door is operating
- Maintain the door in good operating condition
- Wear safety glasses when using hydraulic connections
- If a remote control is ordered, do not leave the remote transmitter where unauthorized persons could operate the control
- If cane bolts are provided, verify the bolts are not engaged prior to door operation.

Maintenance

Yearly inspect hoses, lines and connectors for signs of deterioration. Contact your door installer if deterioration is detected.
In high moisture buildings, (dairy buildings, livestock confinements) replace the hydraulic oil to prevent moisture accumulation. Protect motor from excessive moisture.

Installation Instructions for Metal Buildings

PowerLift Hydraulic Doors is delighted to be providing our product on your project. We look forward to working with you and arranging for a quick and trouble-free installation. All PowerLift Hydraulic Doors will only be installed by our company representatives. By cooperating together we can provide an expedited project schedule. Several procedures should be completed for a trouble free installation.

Prior to door fabrication and installation:

The rough opening should be completed with the side columns plumb and the header level and straight. To eliminate any building movement, installation of roof framing, wall girts, and cross bracing should be concluded.

The Project must have drivable access to the project site and door rough opening.

Door installation is preferred to be completed prior to concrete floor placement. By allowing our door frame posts to extend and the concrete placed around them, the post are soundly secured. For completed concrete floors, the PowerLift door installer will install anchor bolts and anchor plates.

Door side jamb trim installed prior to door installation. This method is quicker and less problematic for the builder than installing the trim after the door is installed.

PowerLift hydraulic doors field weld tabs to the bottom of the header. Bracing should not extend into the rough opening.

The door purchaser is responsible to provide a telehandler, or other acceptable equipment capable of lifting the door from the trailer and carrying the door to the building opening.

Four to five gallons of hydraulic oil, compatible to the Owner's equipment, available for pump installation. ISO 32 hydraulic oil is recommended.

Permanent electrical power is not required for the door installation. However, a 220v and 30 amp breaker is required for permanent door operation.

Door arrival:

The door will arrive on a trailer pulled by our delivery truck with at least one door installer. The door and frame will arrive as one painted component. All horizontal wood girts, cylinders and hydraulic lines will be installed with the door. Metal girts can be provide in lieu of the wood girts if noted during the planning process

The door will be moved from the trailer to the door rough opening with the help of the contractor supplied equipment. The PowerLift Installer, will then position, adjust and field weld the door to the building by means of tabs. Fastening is completed in two stages. First stage is by welding the door frame leg tabs to the side post of the building. The second stage is by welding the door header tabs to the building header.

Upon completion of securing the door, the hydraulic pump and connecting hydraulic hoses will be installed on the designated door side. Field framing should be provided for the installation of the pump. If the pump requires to be removed (for the example, for lining the building interior) fasteners of the same diameter but of longer length can be used. The height of the pump controls should located at 72” off finished floor. This discourages young or unauthorized individuals from operating the door.

The Powerlift Installer will connect temporary power and pour the hydraulic oil (supplied by others) into the pump reservoir. The door will be temporarily operated through several cycles. Any final adjustments will be completed prior to the installer leaving the project. If the Owner is available, operating instructions will be provided by the installer.

A rubber membrane is provided as a weatherstripping to cover the hinges at the top of the door. The weatherstripping is fastened prior to door cladding installation. The weatherstripping should be placed on the building behind the steel above the door, approximately 2” in height. The weatherstripping will lay across the hinges, and be fastened to the door. Care should be taken to remove wrinkles and provide a smooth neat appearance when installing the weatherstripping. The weatherstripping is fastened on the outside of the door cladding. In the case of steel panels, fasten the weatherstripping with screws in every raised rib location through the J-channel. (See Typical Outside Mount Header Detail drawing) Any door trim and cladding must be sealed with a good quality sealant to prevent moisture from penetrating the door envelope.

Inspect the door to verify that the vertical margins are equal between the door and the building jambs. Window framing, windows and service doors can now be installed.

Door cladding can now be installed.

The door bottom weatherstripping has been left long at each end of the door. Verify that the weaterstripping provides a good door seal.

Seal the door frame to building jamb materials with a color matching sealant.

PowerLift Hydraulic Doors are fabricated with the anticipation that the door will be insulated and completed with a liner panel. No additional door modifications are required if this application is undertaken in the future.

Wainscoting

If wainscoting is scheduled, the bottom of the lowest girt will be the top of the wainscot height from the finished floor. Filed framing members are fastened vertically under the girt by the builder. This results in 5” of fastening space for the wainscot and trims.

Wiring Connections

Both the pump and the remote control option can be wired by the same power supply. A 220v 30 amp breaker is required. All wiring is completed using the color coded wiring located in the pump switch box. (See Typical Electrical Connections drawing)

ELECTRICAL WIRING SHALL BE INSTALLED BY AN ELECTRICAL CONTRACTOR AND MEET FEDERAL, STATE AND LOCAL CODES.

Operating the door temporarily until permanent power is provided.

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

The door is provided with pioneer type hydraulic nipples. These are located on the hydraulic lines directly above the locking valve. Tractors or other hydraulic equipment can operate the door using these connections. Hydraulic connections should left attached for the entire door cycle to prevent pressure buildup.

If a generator will supply temporary power for door operation, wiring, connections and power must be of adequate size. Do NOT starve the pump unit of electrical power. This will adversely affect the lifetime of the power unit and void the warranty. **Use a generator that can provide 10,000 watts.** PowerLift Hydraulic Doors cannot be responsible for field conditions or temporary connections associated with temporary generators.

Suggested Framing Requirements

DUE TO FIELD CONDITIONS AND VARYING BUILDING PRACTICES POWERLIFT HYDRAULIC DOORS CAN ONLY MAKE RECOMMENDATIONS BASED UPON PAST EXPERIENCE. THE BUILDING SUPPLIER IS RESPONSIBLE FOR INCORPORATING ANY REACTIONS OR STRESSES IMPOSED BY POWERLIFT HYDRAULIC DOORS INTO THE BUILDING DESIGN. THE FINAL BUILDING STRUCTURE'S INTEGRITY IS THE RESPONSIBILITY OF THE BUILDING SUPPLIER.

Steel Buildings:

Side Jamb: Minimum one 8" wide, full length 10 gauge c-channel securely anchored to the foundation and fastened to intermediate supports and rough opening framing. Jamb material shall run the entire height of the wall. Provide diagonal bracing (45 degree) at the vertical jamb at the top of the door opening to roofing members.

Header: Minimum one 8" wide, full header length 10 gauge c-channel securely fastened or welded to side vertical supports. Provide diagonal bracing from header top to roofing members every hinge location or as specified by the building supplier. Recommended diagonal bracing angle is 45 degrees.

Windows:

Windows can be installed in our doors. The window type selected is restricted to awning, fixed or sliding. The recommended rough opening or total size can be no larger than 5' wide or 4' high with no individual pane of glass being larger than 9 square feet (width multiplied by height). Recommended window mounting is by continuous molded or permanently attached window nail flange lapping the rough opening at least 1" at each edge and permanently fastened per manufactures instructions. All windows shall be installed per applicable building codes. Window supplier is responsible for: (a) providing windows of the correct glazing type, (b) sufficient framing and track depth so windows

remain intact for door movement or varying horizontal positions, (c) installation of windows per manufacturer's instructions and (d) warranty for installation conditions. Due to varying conditions, PowerLift Hydraulic Doors cannot be held liable for any conditions or circumstances resulting from window installation.

Cane Bolts:

On larger width doors, cane bolts may be added to the inside of the truss near the center of the door. While the PowerLift door can withstand significant wind loads, the use of cane bolts adds additional strength at the door truss location. If severe or abnormal weather is anticipated the cane bolt can be engaged by lowering the bolt into a hole in the floor slab. This procedure may aid in preventing unwanted building or door damage. Under normal weather conditions the cane bolt may be left in the raised or unengaged position.
Never operate the door when the cane bolt is in the engaged or lowered position.

POWERLIFT™ Hydraulic Doors

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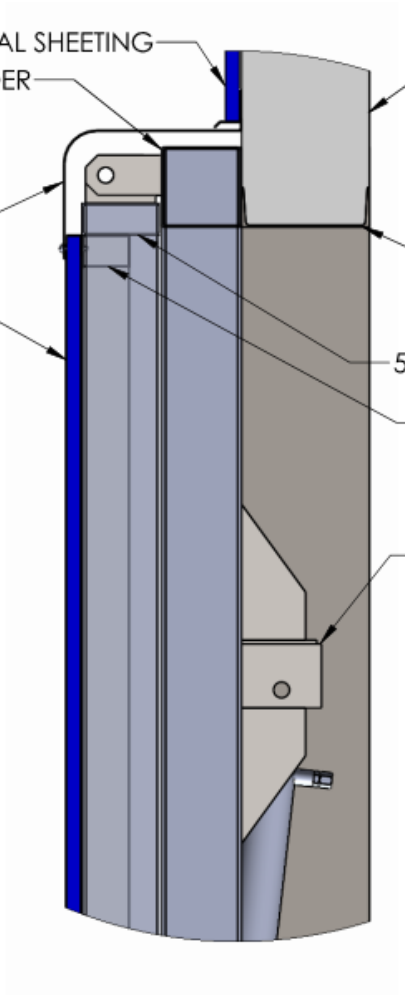
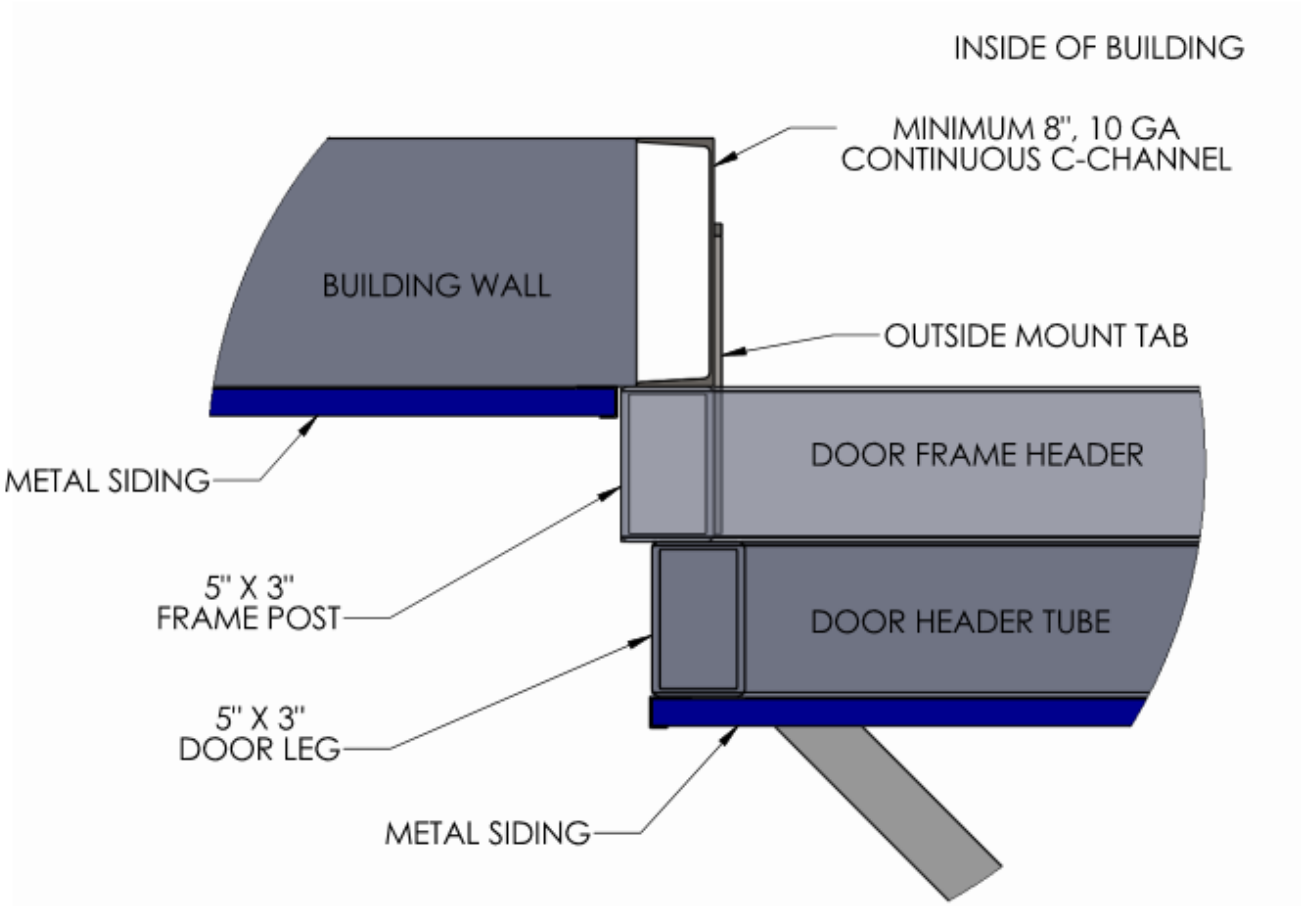
Typical Outside Mount Header Detail



NOTES:
RUBBER WEATHERSTRIPPING TO BE INSTALLED UNDER GABLE SHEETING. WEATHERSTRIPPING TO BE INSTALLED OVER DOOR TRIM AND UNDER BUILDING TRIM AND SHEETING.

DOOR TRIM SHEETING TO BE 2" DOWN FROM THE TOP OF THE SWINGING DOOR FRAME. THICKER PROFILES REQUIRE MORE DISTANCE. SEAL TOP TO PREVENT WATER PENETRATION.

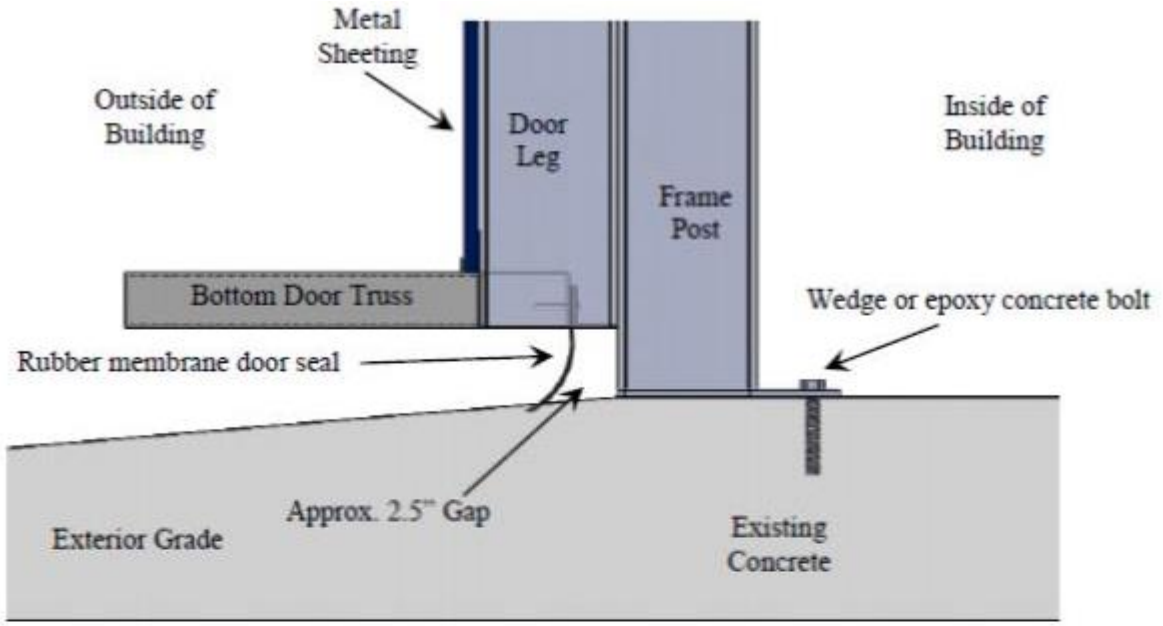
Typical Outside Mount Side Jamb Detail



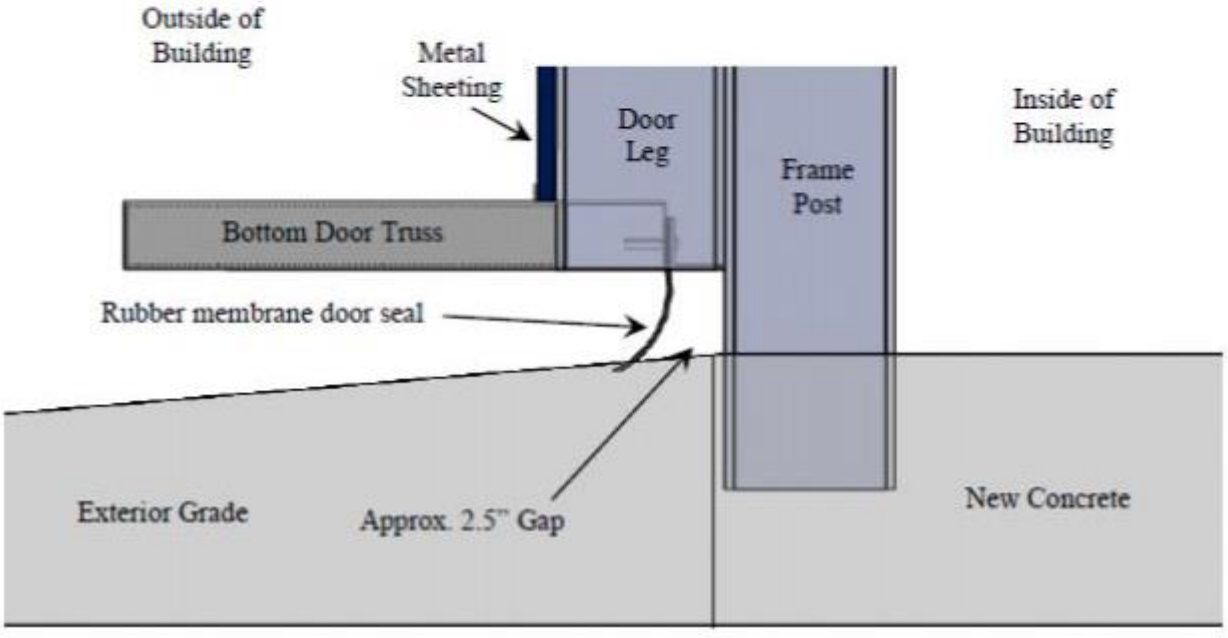
NOTES:
FRAME POST MUST REST AGAINST SOLID BACKING

SEAL DOOR FRAME TO PREVENT PENETRATION

Typical Outside Mount Threshold Detail w/Existing Concrete



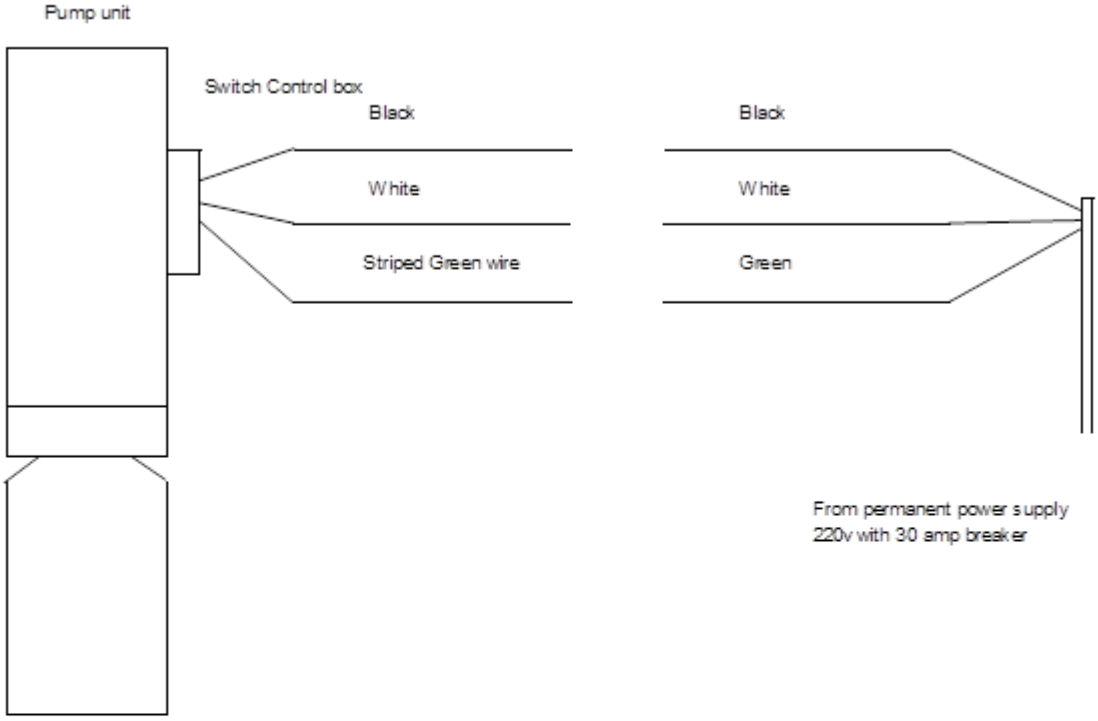
Typical Inside Mount Threshold with New Concrete



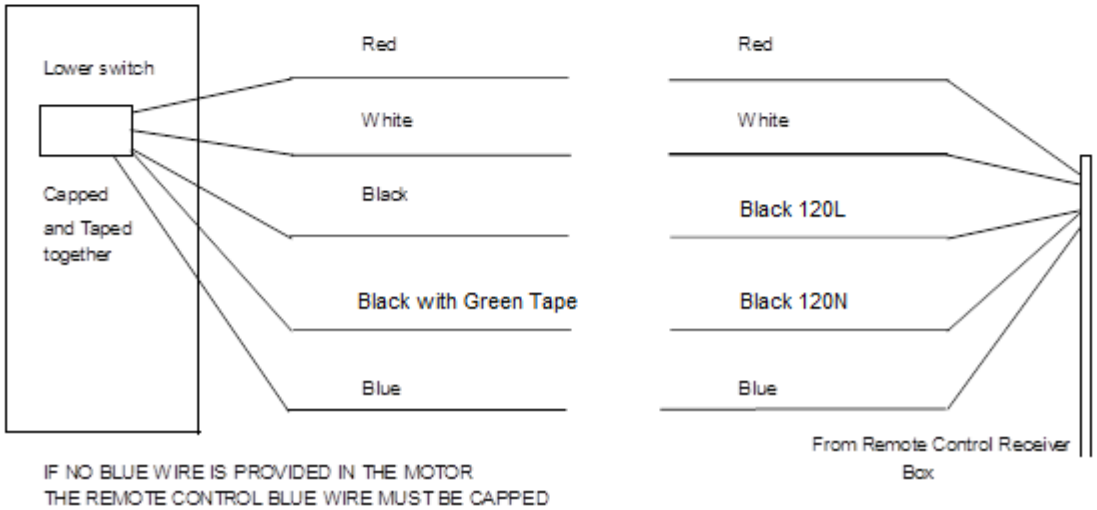
POWERLIFT™
Hydraulic Doors

Typical Electrical Connections

Typical Motor Power Connections



Typical Remote Control Electrical Connections



IF NO BLUE WIRE IS PROVIDED IN THE MOTOR
THE REMOTE CONTROL BLUE WIRE MUST BE CAPPED