

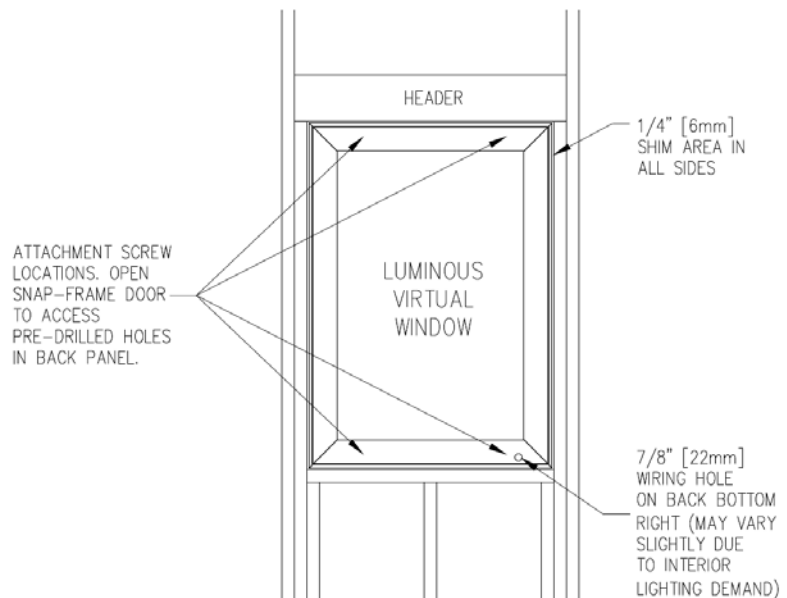
## LED Luminous Virtual Window Recessed Installation Instructions (Non-MRI) (Imperial)

**CAUTION:** Care must be taken while handling and installing the LVW.

- The light panel is mounted on the back of the LVW frame. It is composed of a thin white reflective panel, a 1/4" diffusion panel and side lit LED's in a 5/16" aluminum frame. The white reflective panel is exposed and can be torn or damaged during installation.
- The image and image cover can remain in the LVW while installing. See Step 3. However, the image cover scratches easily and scratches show up when the LVW is lit.

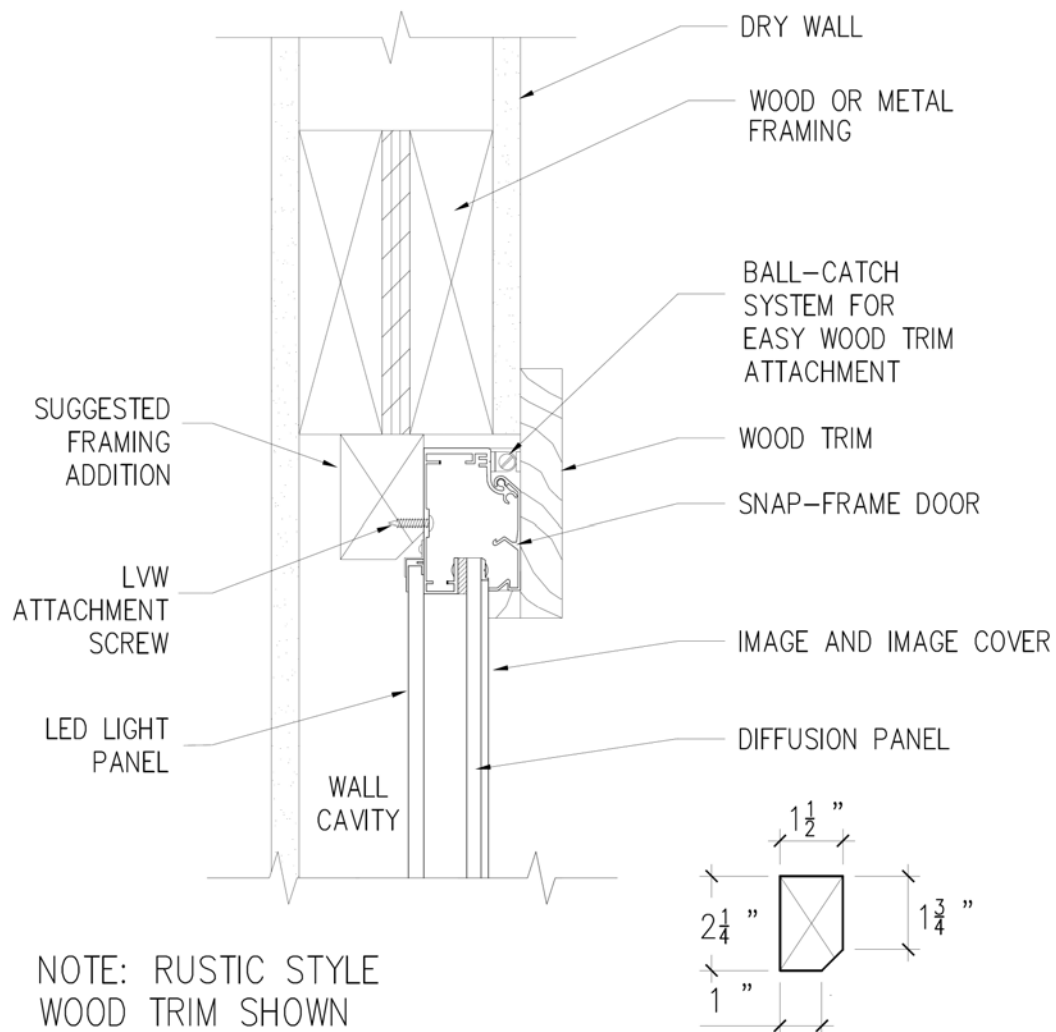
Figure 1.1

Frame the rough opening for the LVW one half inch larger than actual outside dimensions of the LVW extruded aluminum body and at least 2 1/4" deep. See Figure 1.1 for typical framing details and Figure 1.2 for suggested framing additions. For Twin and Triple LVW installations, see Drawing W1 for suggested spacing.



2. If your order included wood or aluminum trim, remove it and set aside. The trim is held by ball-catch hardware. Using both hands, grasp the trim and pull directly outward.
3. The clear polycarbonate image cover and image can be left in place during installation. To do so, open top and bottom snap-frame doors only. **Keep both side doors closed to hold image cover and image in place.** Doors are hinged on the outside; to open, hook thumb in the v-groove on the inside edge of the door, gently slide the door toward the outside edge of the LVW, then flip up and out. **If image cover and image need to be removed, see LVW LED Maintenance document.**
4. See Figure 1.2 for suggested framing additions for attaching LVW. Framing additions should be installed on two sides corresponding to predrilled installation holes only, and allow for easy access to wiring. Location of 7/8" wiring access hole may vary slightly due to interior demands of lighting.

**Figure 1.2**

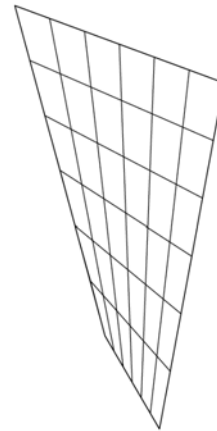


5. **IMPORTANT:** Framing additions must sit **no more than 1 11/16"** back from finish wall surface for the ball catches to work.
6. **IMPORTANT:** Framing additions must allow LVW to sit in a single plane.

**Figure 1.3**

Any excessive twist in the body front to back (see Figure 1.3) once it is installed may keep some of the ball catches from firmly seating and allow the trim to pop loose.

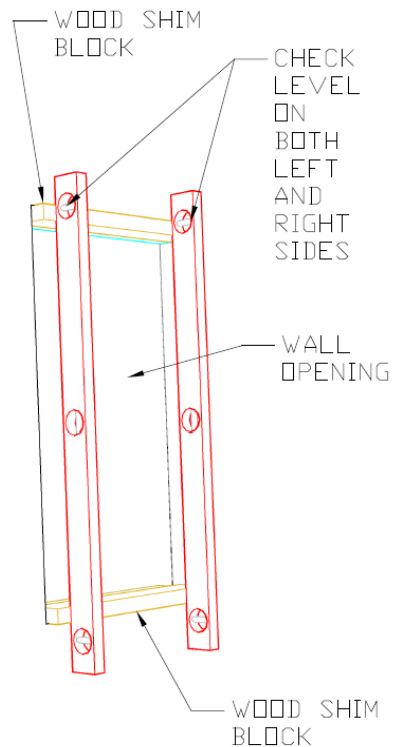
Any excessive twist in the body front to back (see Figure 1.3) once it is installed may force the white back panel to touch the diffusion panel and cause dull spots to appear in the illuminated image.



- To determine whether the LVW body **WILL SIT in a single plane:**

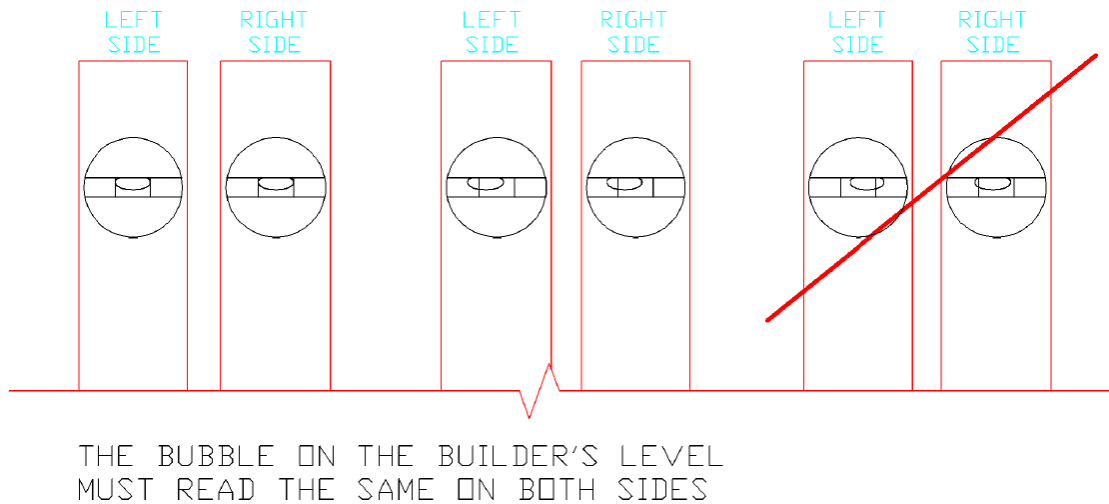
**Figure 1.4**

Use blocks of equal thickness to extend the framing additions out past the finished wall. Then hold a builder's level against the blocks to make sure the two vertical sides have equal plumb. See Figure 1.4



NOTE: The window does not have to sit plumb in the opening to function properly, but must sit in a single plane, which means the bubble on the builder's level must read the same for both vertical sides. See Figure 1.5

Figure 1.5



If the two sides do not read the same, re-install one of the framing additions or shim it out so they do.

- **To determine whether the LVW body IS SITTING in a single plane:**

Once the LVW body is in place and before the trim is re-installed, use a builder's level against the face of the doors to make sure the two vertical sides have equal plumb. NOTE: Make sure the doors are completely closed before checking for equal plumb.

7. While inserting LVW into rough opening, pass wiring through 1/2" cable clamp (enclosed) in predrilled 7/8" hole on the backside. See **Wiring** section.
8. Holes for attaching LVW to framing are located on back wall of LVW frame.
9. Shim LVW to center and level within rough opening.
10. Before attaching LVW, hold firmly in place, and using straight-edge check to see that the most forward point of the wall surface is 1/16" back of the snap-frame door.
11. Attach LVW and close top snap-frame door.
12. Make wiring connections. See **Wiring** section.
13. If image and image cover have been removed for installation, replace them now:
  - a. See **LVW LED Maintenance** document for directions
15. Install LVW trim:
  - a. Close all four snap-frame doors.

- b. Installing the LVW wood trim is easiest with two people. Have one person lift the trim up so the eye screws in the back of the trim are at the same height as the safety cables on the LVW frame. Have the second person attach the quick links to the eyes and screw the gates closed.
- c. Then lower the trim until the ball-catches line up and press the ball-catch locations.
- d. To adjust holding strength of a ball catch, loosen or tighten adjustment screws on the two ends of the half attached to the LVW frame.

## Wiring

The image cover and image panel can remain in the LVW while making the power connection.

**If the image cover and image panel need to be removed, see the LVW LED Maintenance document on how to safely remove and re-install them.**

1. Each LVW has internal power supplies which have been wired together in the factory. To access the leads to the power supplies, open the bottom snap-frame door, leaving the other three doors closed to hold the image cover and image panel in place. To open the door, hook thumb in the v-groove on the inside edge of the door, gently slide the door toward the outside edge of the LVW, then flip up and out.
2. AC power is connected to the black and white leads inside the aluminum frame, bottom right (as viewed from the front) unless otherwise specified. Ground is connected to green ground screw in bottom right.
3. Fasten a 1/2" cable clamp in the 7/8" hole on the back in the bottom right corner of the LVW frame (unless otherwise specified) and make the electrical connection inside the LVW.
4. Connect power (100 – 240AC) in conformance to local and national Electrical Codes.

**IMPORTANT: The LED light fixtures are DC ONLY.  
AC VOLTAGE BY-PASSING THE POWER SUPPLIES AND  
CONNECTED DIRECTLY TO THE LIGHT FIXTURES WILL  
PERMANENTLY DAMAGE THE LED'S.**

5. **IN MRI APPLICATIONS, AN RF FILTER IS OPTIONAL AND IF USED, SUPPLIED BY THE SHIELDING COMPANY.**
6. Once the lighting has been tested, return to Step 13 of the Recessed Installation.

For technical support please call us toll free at 866-759-3228. We want your installation to go as smoothly as possible. Thank you for choosing The Sky Factory.