

# IGU Testing Guide

All IGUs must be tested prior to being connected to the Window Controller using the 4-state controller provided by View. (Part# 010-101543)

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## Scope:

This manual will guide the Glazier or Low-Voltage Electrician on how to properly test an IGU after installing and connecting the IGU Smart Window Connector to the IGU Cable. All IGUs MUST be tested individually prior to being connected to the Window Controller.

This test will verify that IGU cables are properly connected and the IGU is properly working. Once the testing is complete, the IGU Cable is ready to be connected to the Window Controller by the Low-Voltage Electrician. If you are having an issues using this tester, please call your View Project Manager ASAP.

## What's in the box:

- IGU tester
- DC power supply
- 4" IGU cable adapter
- European AC power adapters
- Operation instructions

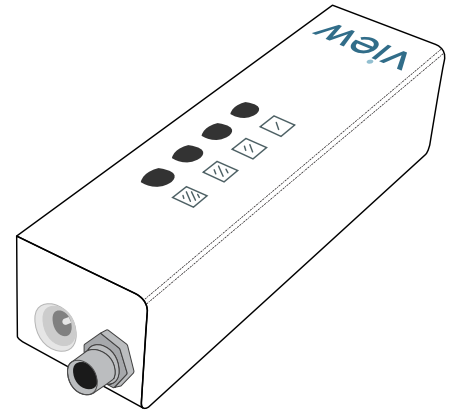
## Procedures:

### Preparation

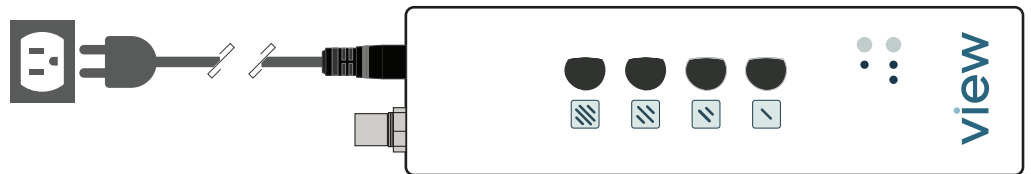
Ensure the IGU Smart Window Connector has been properly connected to the IGU Cable and routed for easy access to the Window Controller. Ensure no cables are pinched or damaged.

### Testing Procedures

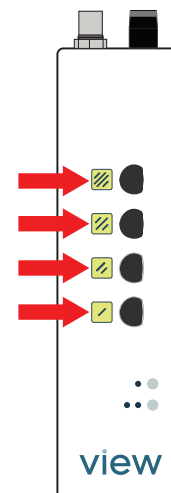
STEP 1: Remove IGU tester from shipping box.



STEP 2: Plug in the power cord to the handheld tester.



STEP 3: Plug in the power cord to an AC power source. You will notice all the lights on the controller illuminate and continue to blink.



STEP 4: Locate the 4” adapter in the box and attach to the IGU tester as shown.

Properly align the 4” adapter to the handheld tester and attach. Be sure the arrow on the IGU tester and the arrow on the 4” adapter line up. Do NOT force the connectors together. This can cause damage and misalignment of the keys leading to a failed test and possibly parts replacement. The connectors should be very easy to line up and secure together.

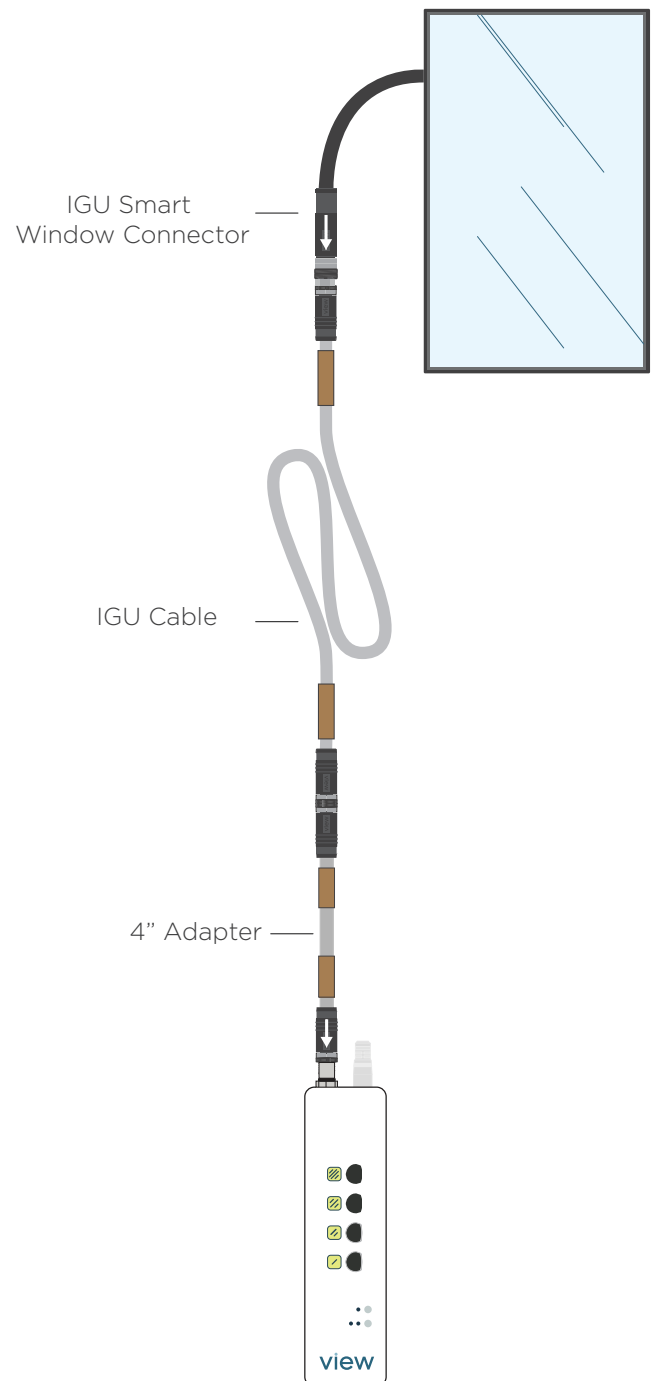
STEP 5: Connect the 4” adaptor to the IGU cable that is attached to the Smart Window Connector on the IGU.

STEP 6: Once the IGU Cable is attached, the tint state lights will stop blinking and be permanently illuminated for about 10 seconds and then go off. Once they go off, they will remain off until the next step.

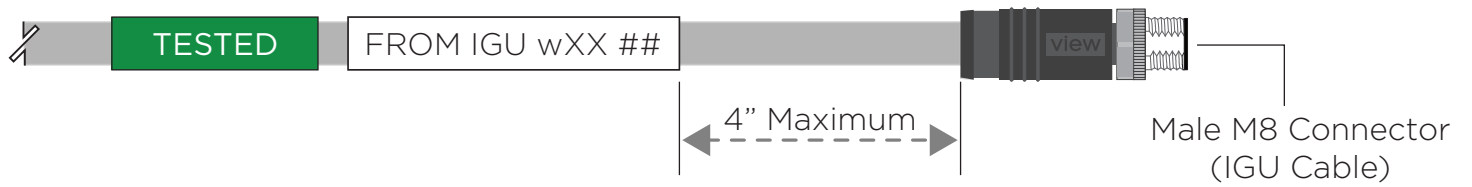
STEP 7: With the lights off, press Tint State 4 (🟡). The LED will begin to blink. Wait 1 minute while this light continues to blink. At the 1 minute marker, you should have a:

- Good Reading — Tint State 4 LED will continue to flash. (PASS)
- Bad Reading — All LEDs will start flashing. (FAIL)

If you have a bad reading, refer to the “Troubleshooting” Table below.



STEP 8: After the IGU and IGU cables have passed this test, apply green “TESTED” sticker to the cable as shown in diagram below, (stickers provided by View).



## IGU Testing Protocol - Unitized System

### Work Performed By:

Glazing Contractor

### Tools and Supplies Needed:

- 4-state controller
- Green TESTED stickers
- Test validation worksheet available from View project manager

### Work Breakdown Structure:

1. Receive IGUs at shipping dock
2. Test each IGU before fabrication process using 4-state controller, document results
3. Set IGU into frame; connect Smart Window Connector to IGU cable; apply window ID sticker per View interconnect drawings
4. Test each IGU again using 4-state controller; document results
5. If PASS, apply green TESTED sticker to IGU cable; If FAIL, see troubleshooting below
6. Pack frames and ship to job site (all cables should be wrapped for protection)
7. Set frames on building
8. If Pressure Plate system: Test each IGU after pressure plates are installed; document results
9. If Window Wall system: Test each IGU after Caps and Stops are installed; document results
10. If SSG system: Test each IGU before caulking; document results
11. Send test results to View PM

## IGU Testing Protocol - Stick Built

### Work Performed By:

Glazing Contractor

### Tools Needed:

- 4-state controller
- Green TESTED stickers
- Test validation worksheet available from View project manager

### Work Breakdown Structure:

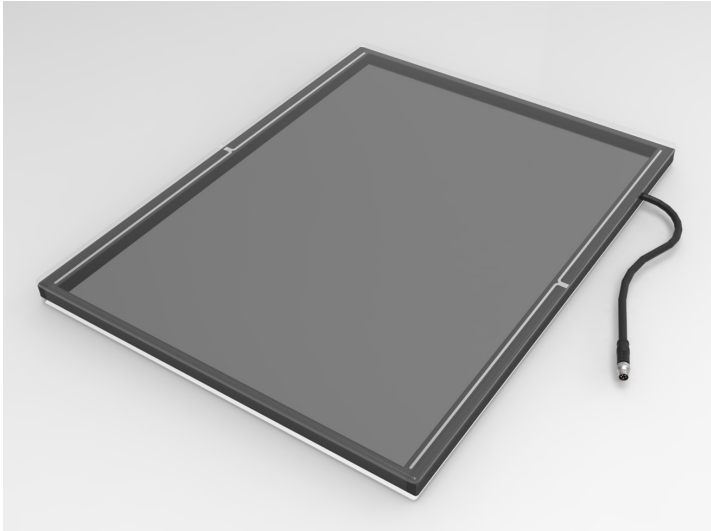
1. Receive IGUs at shipping dock
2. Test each IGU before fabrication process using 4-state controller, document results
3. Install IGU extension cables into frames per View interconnect drawings
4. Set IGU into frames; connect each Smart Window Connector to IGU cable; apply window ID sticker per View interconnect drawings
5. Test each IGU again using 4-state controller; document results
6. If PASS, apply green TESTED sticker to IGU cable; If FAIL, see troubleshooting below; document results
7. If Pressure Plate system: Test each IGU after pressure plates installed; document results
8. If Window Wall system: Test each IGU after Caps and Stops installed; document results
9. If SSG system: Test each IGU before caulking; document results
10. Send test results to View PM

Document ALL test results and submit to View PM (see below for sample).

Date	Mark ID	Lite ID from bar scanner	4-Step Testing Protocol			LVE	Technician Name	Notes
			Test 1: Receiving	Test 2: Unitized	Test 3: Installed	Test 4: FHT		

Date	Mark ID	Lite ID from bar scanner	4-Step Testing Protocol			LVE	Technician Name	Notes
			Test 1: Receiving	Test 2: Unitized	Test 3: Installed	Test 4: FHT		
2/11/20 6:55	GL-1	16275'0110'0071'0017'00	Pass				Glazier Tech #1	Receiving
3/11/20 6:55	GL-1	16275'0110'0071'0017'00		Pass			Glazier Tech #2	Assembly line
6/11/20 6:55	GL-1	16275'0110'0071'0017'00			Pass		Glazier Tech #3	Job site; After installation of pressure plates, before final caulking
7/11/20 6:55	GL-1	16275'0110'0071'0017'00				Pass	LVE Tech	Job site; After installation of pressure plates, before final caulking
2/11/20 6:55	GL-2	16306'0239'0071'0017'00	Pass				Glazier Tech #1	Receiving
3/11/20 6:55	GL-2	16306'0239'0071'0017'00		Pass			Glazier Tech #2	Assembly line
6/11/20 6:55	GL-2	16306'0239'0071'0017'00			Pass		Glazier Tech #3	Job site; After installation of pressure plates, before final caulking
7/11/20 6:55	GL-2	16306'0239'0071'0017'00				Pass	LVE Tech	Job site; After installation of pressure plates, before final caulking
2/11/20 6:55	GL-3	16275'0124'0071'0017'00	Pass				Glazier Tech #1	Receiving
3/11/20 6:55	GL-3	16275'0124'0071'0017'00		Pass			Glazier Tech #2	Assembly line
6/11/20 6:55	GL-3	16275'0124'0071'0017'00			Pass		Glazier Tech #3	Job site; After installation of pressure plates, before final caulking
7/11/20 6:55	GL-3	16275'0124'0071'0017'00				Pass	LVE Tech	Job site; After installation of pressure plates, before final caulking

View IGU with SWC (Smart Window Connector)



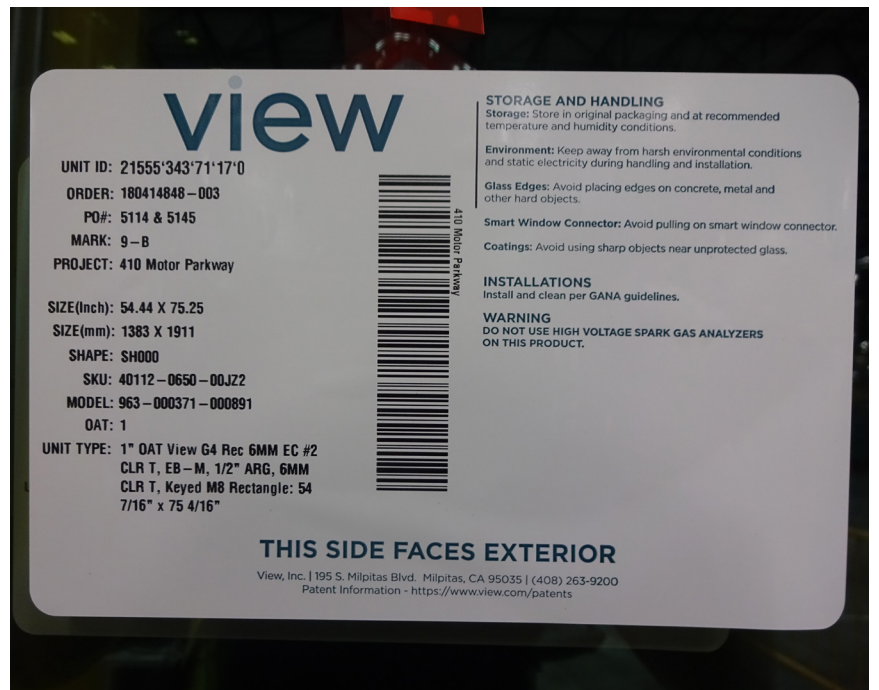
View Glass on A-frame



Lite ID on Smart Window Connector



Shipping label on Side 1 of IGU





## Troubleshooting - IGU Testing Protocols

### Upon arrival at your shop or jobsite

Failed test - Step 1 (IGU test on delivery)

1. Ensure proper connection of cables from Tester to IGU
2. Inspect IGU and IGU Smart Window Connector for visible damage, Test again
3. If IGU fails test - Contact View PM for next steps
4. PM action - If IGU fails out of the crate, send back to factory and file for RMA
5. Finally, document ALL test results and submit to View PM

### After glazed into unitized frames

Failed test - Step 2 (after IGU integration)

1. Ensure proper connection of cables from Tester to IGU
2. Inspect IGU and IGU SWC for visible damage
3. Replace IGU cable, as needed
4. Test again
5. If IGU fails test - Contact View PM for next steps
6. Replace NON-working IGU with attic stock, as needed
7. Set aside for advanced tests by View Rep
8. Determine if RMA is needed
9. Finally, document ALL test results and submit to View PM

### After installed into a building BEFORE FINAL CAULKING

Failed test - Step 3 (after installation, all caps and glazing completed. Most damage occurs when closing up pockets and pressure plates)

1. Ensure proper connection of cables from Tester to IGU
2. Inspect IGU and IGU SWC for visible damage, Test again
3. If IGU fails test - Contact View FSE / PM for next steps
4. FSE will provide Glazier guidance on any replacement cabling or other repairs
5. Any non-functioning IGU at installation will require glazier support to access Smart Window Connector
6. If IGU cannot be fixed, RMA will be needed
7. Finally, document ALL test results and submit to View PM

## Troubleshooting

### 4 State Controller (v.1.5) Legend Definitions

To be used in conjunction with legend on back of the 4-state tester. Provides brief description of each state:

LED	●	● ●
BOOTUP	RANDOM	RANDOM
READING Smart Window Connector	SOLID RED	SOLID RED
IDLE	SOLID BLUE	SOLID BLUE
TRANSITIONING	SOLID BLUE	BLINKING GREEN
TRANSMISSION COMPLETE	SOLID BLUE	SOLID GREEN
ERROR/NO Smart Window Connector	SOLID BLUE	BLINKING RED
BOOTLOADER	SOLID RED	SOLID GREEN
IGU OPEN	BLINKING RED	BLINKING GREEN

**Bootup** - Tool is booting up, allow 10 seconds for bootup cycle to complete

**Reading Smart Window Connector** - Both LEDs go SOLID RED for a moment - Tester is reading the parameters on the chip in the Smart Window Connector connector

**Idle** - Both LEDs are BLUE - the tester has read a Smart Window Connector and is waiting for a command

**Transitioning** - One LED is SOLID BLUE and the other is BLINKING GREEN - A tint button has been pressed and the tester is sending voltage to drive an IGU to a tint state

**Transmission Complete** - One LED is SOLID BLUE and the other is SOLID GREEN - Tint state reached and the tester is holding the IGU at a small voltage to keep the IGU tinted

**Error/No Smart Window Connector** - One LED is SOLID BLUE and the other is BLINKING RED - Tester is unable to read the Smart Window Connector connector due to not having a proper connection (nothing connected/cut IGU cable/miskey)

**Bootloader** - One LED is SOLID RED and the other is SOLID GREEN - Tester is stuck booting up. Try power cycling

**IGU Open** - One LED is BLINKING RED and the other is BLINKING GREEN - A tint button has been pressed and the tester is sending voltage to drive the IGU but is detecting an open voltage circuit (IGU cable partially cut/Smart Window Connector cut after connector causing no voltage to get through the IGU)