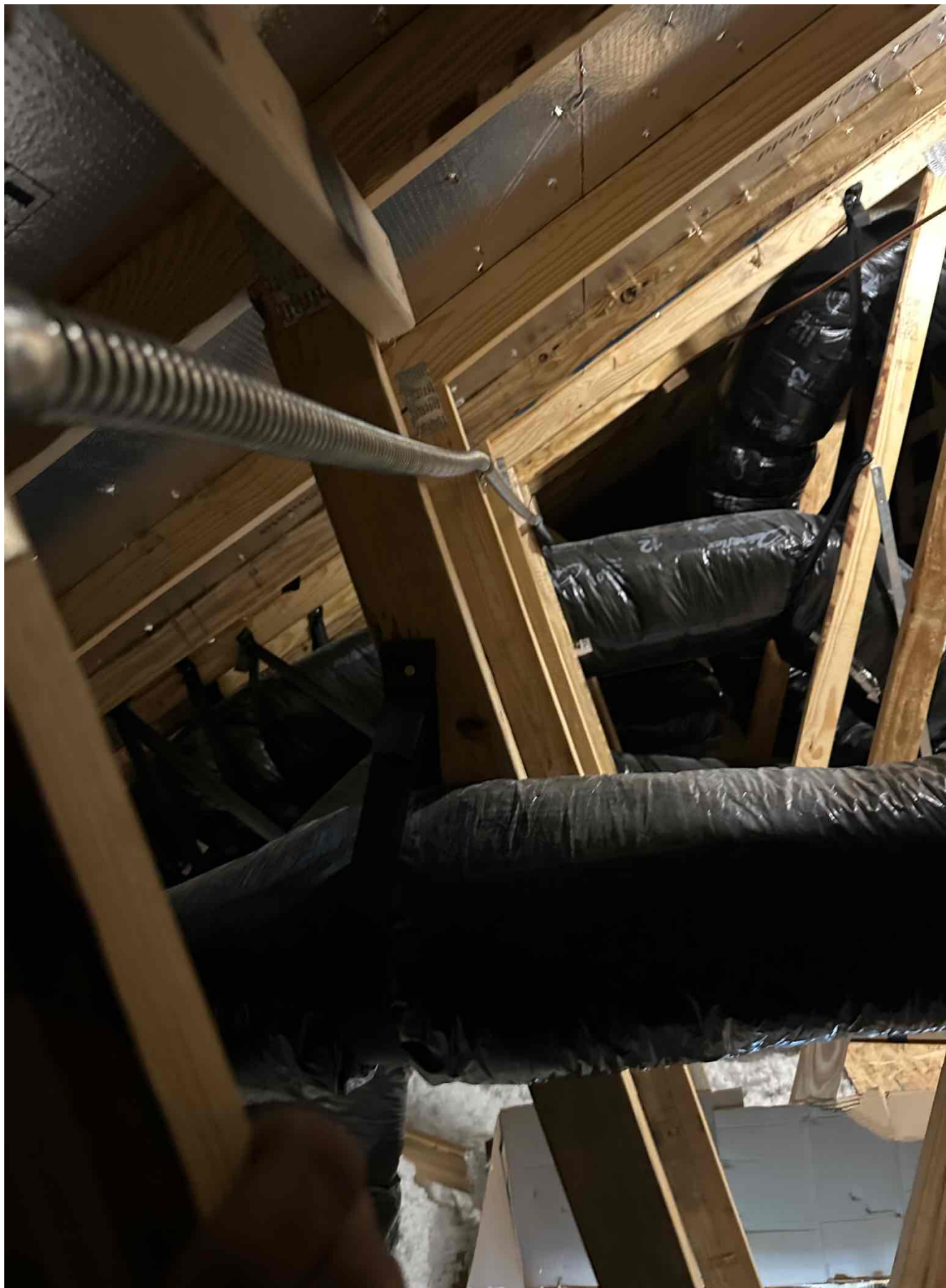


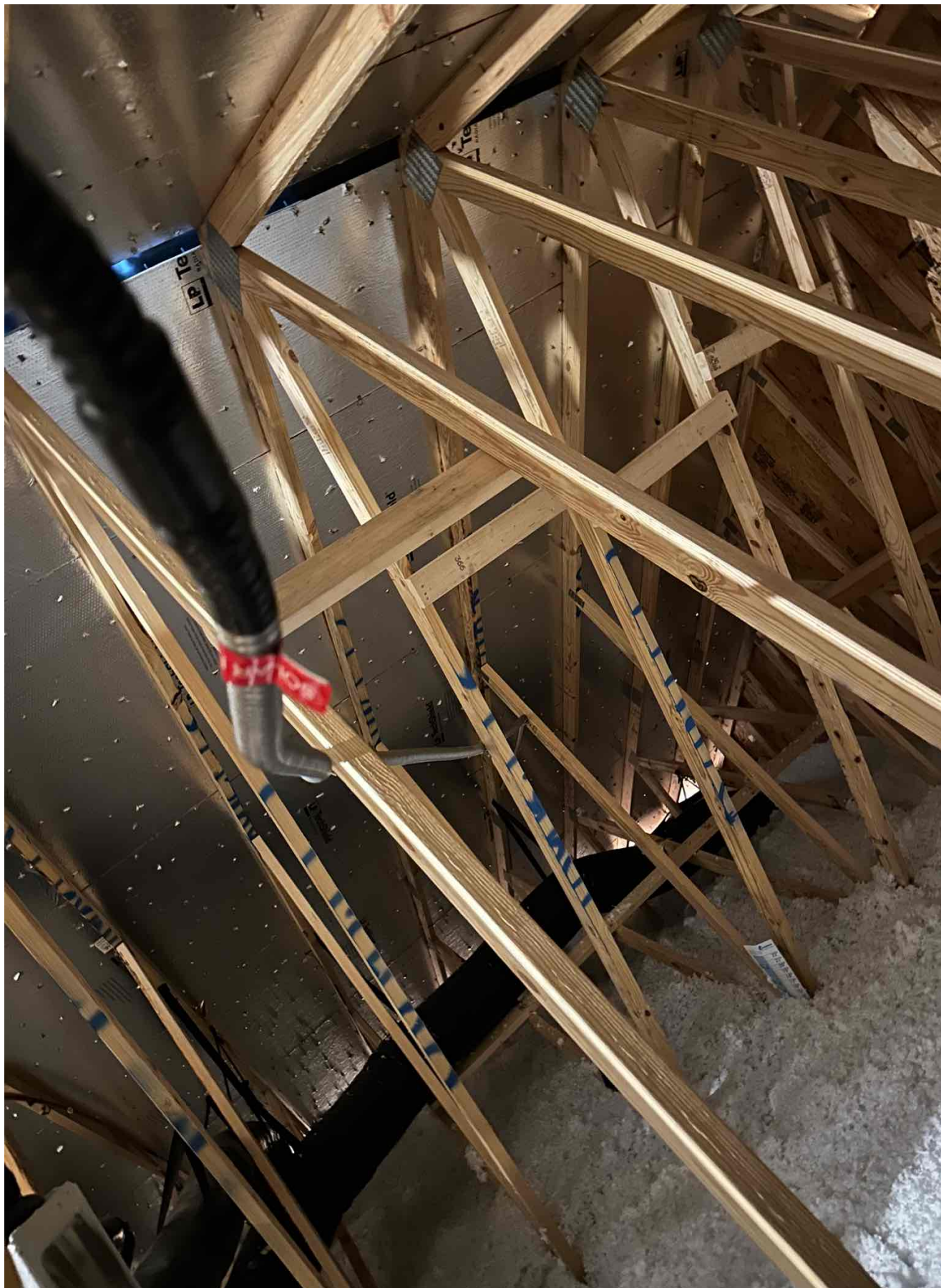
Internal Installers



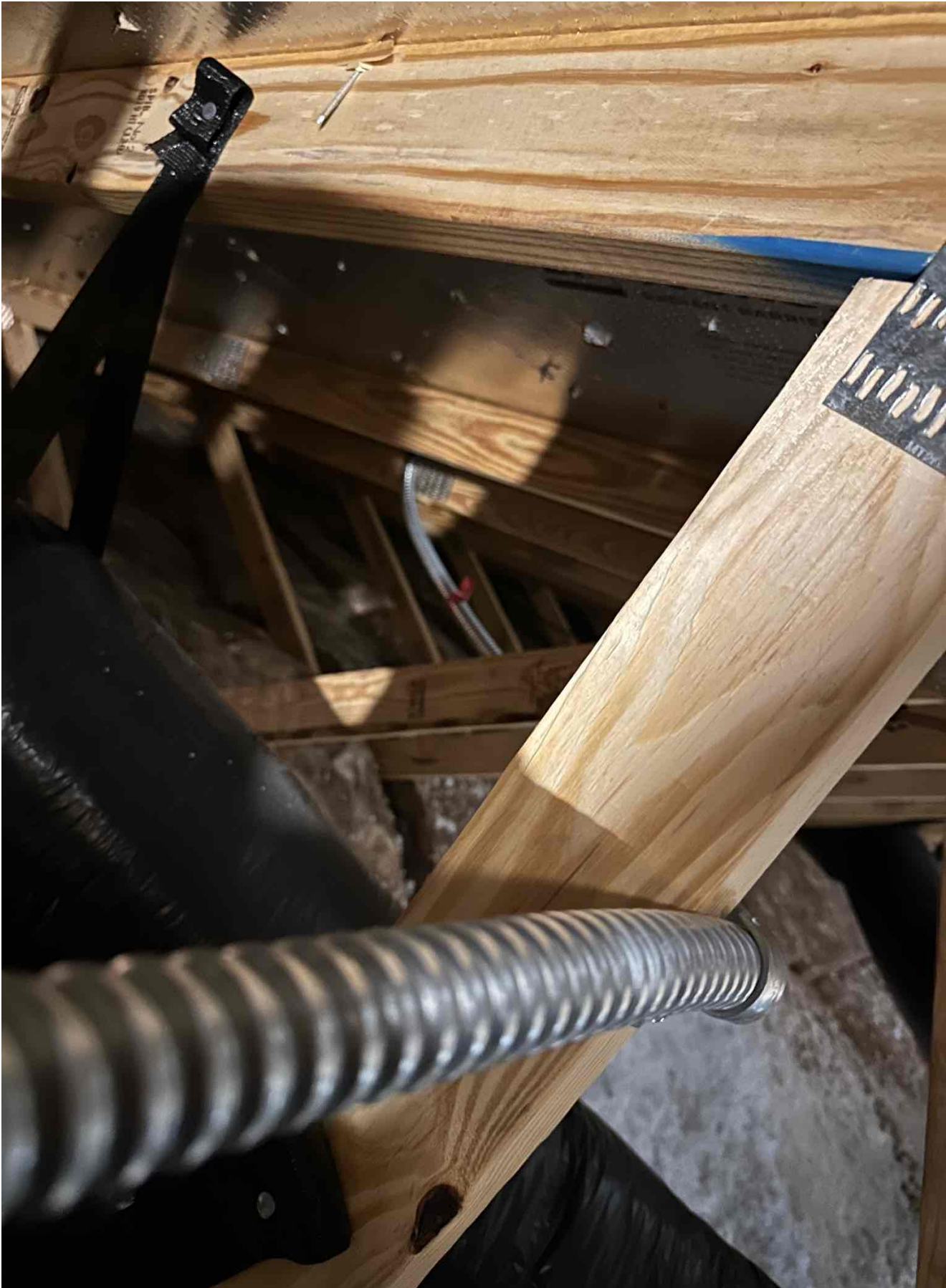
Internal Installers



Internal Installers



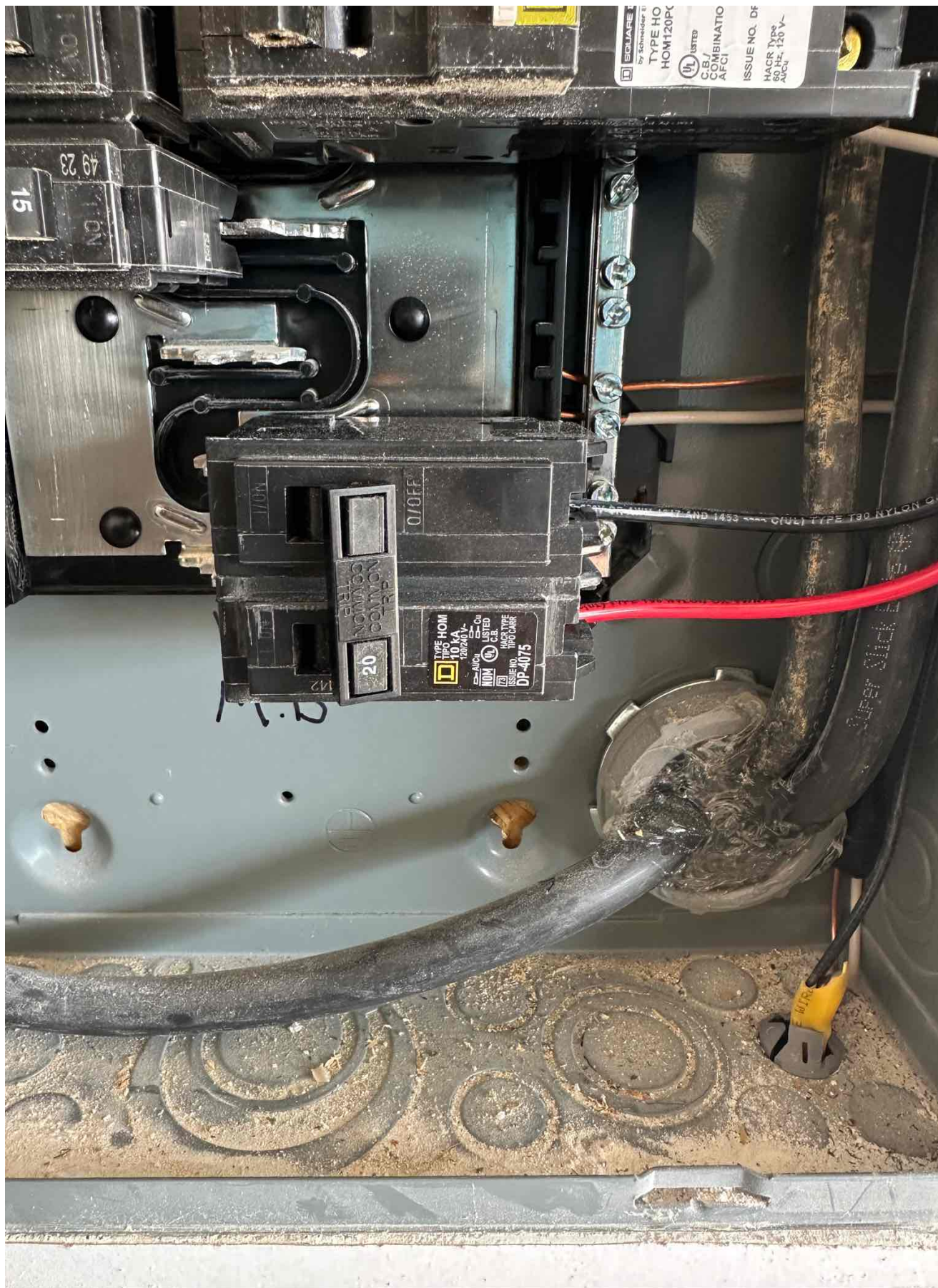
Internal Installers



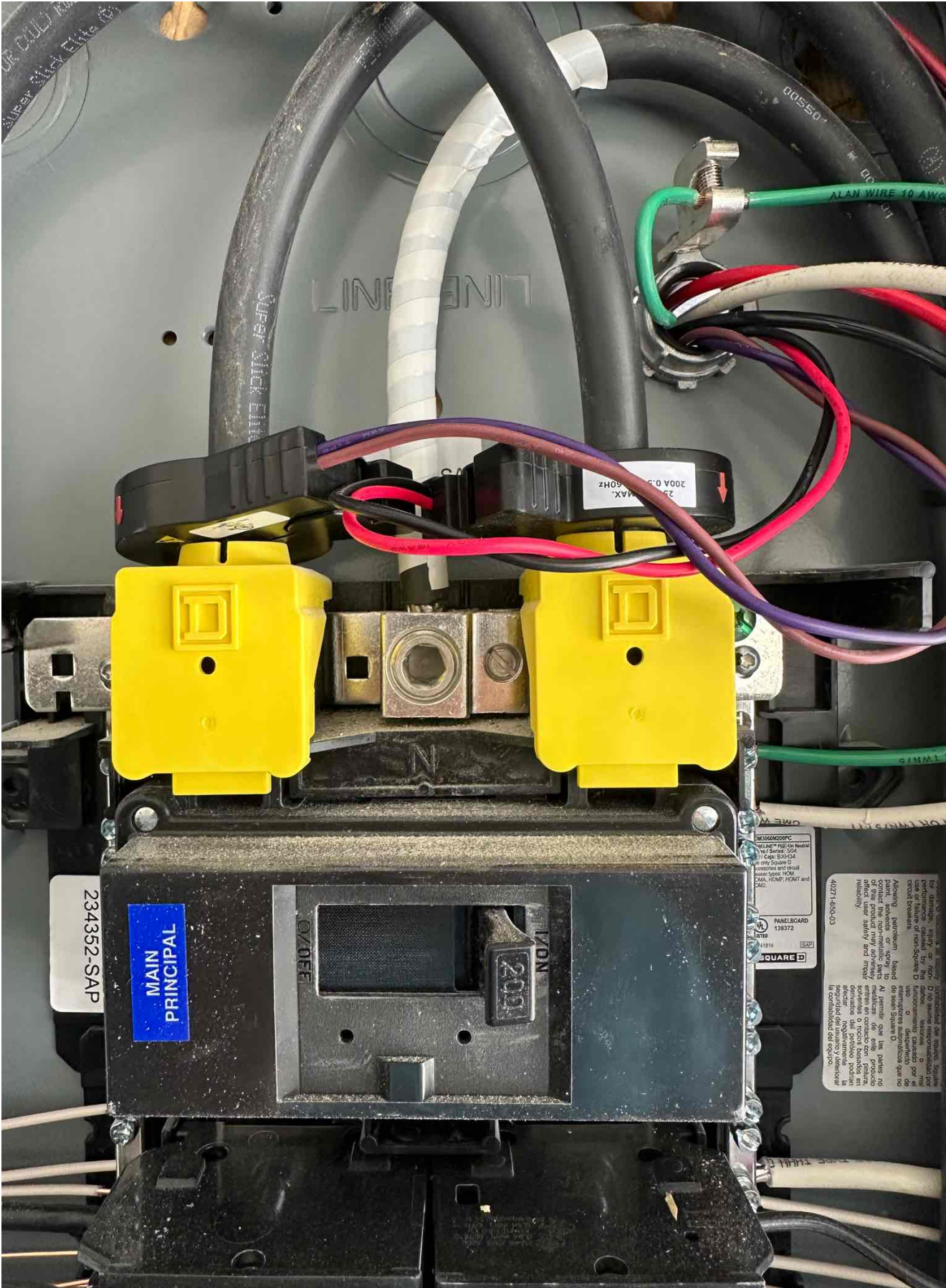
Internal Installers



Internal Installers



Internal Installers



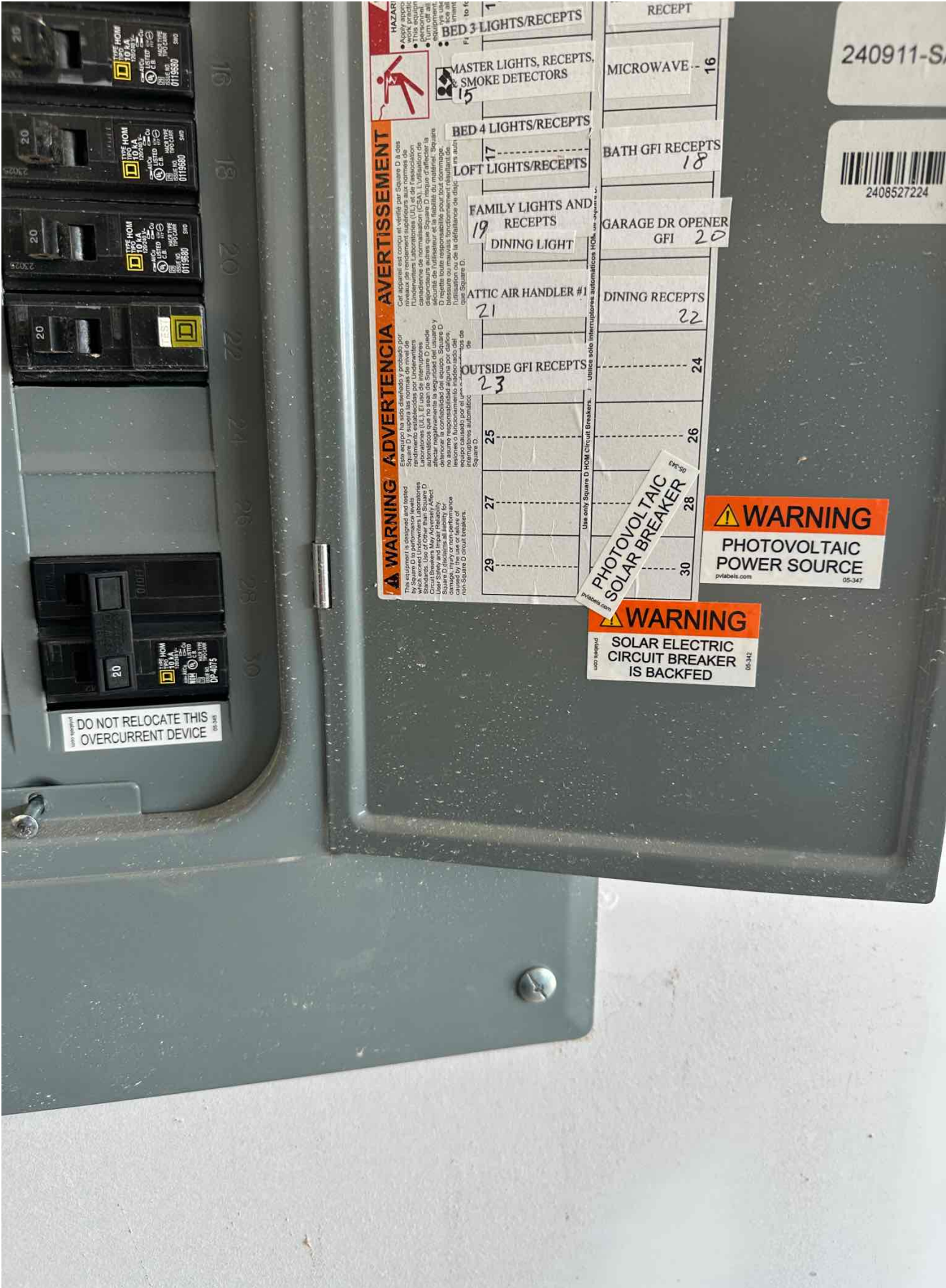
Internal Installers



Internal Installers



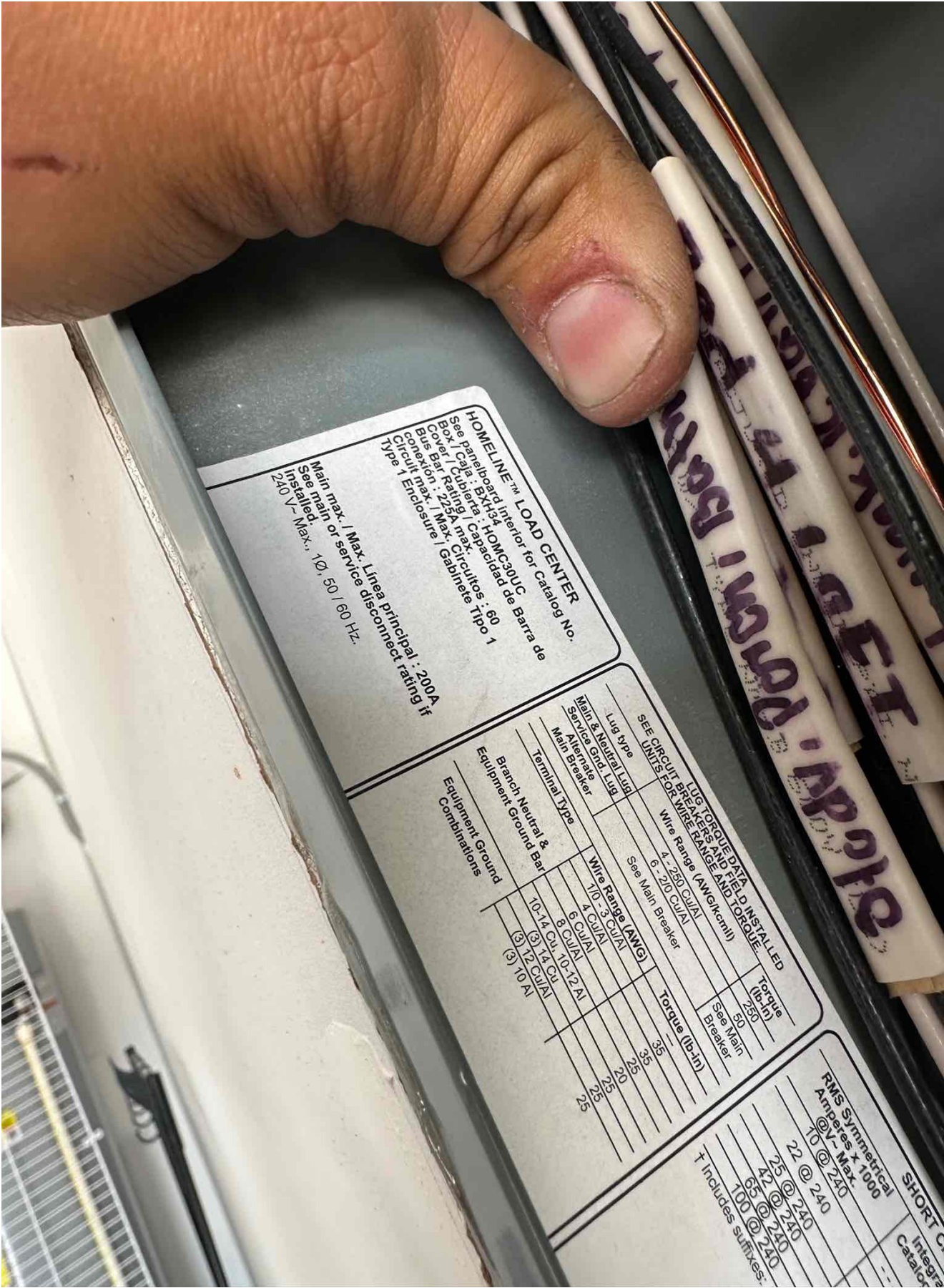
Internal Installers



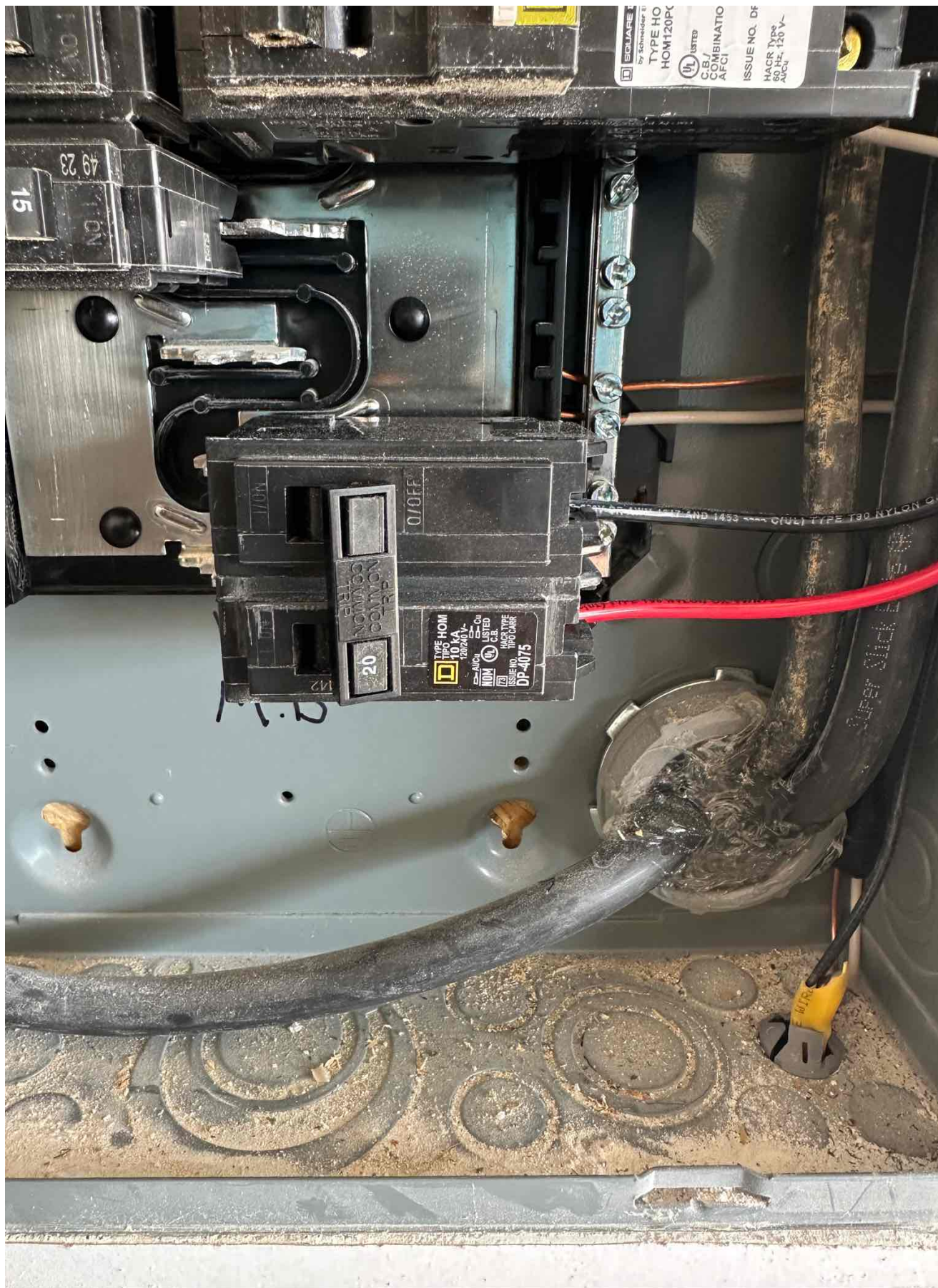
Internal Installers



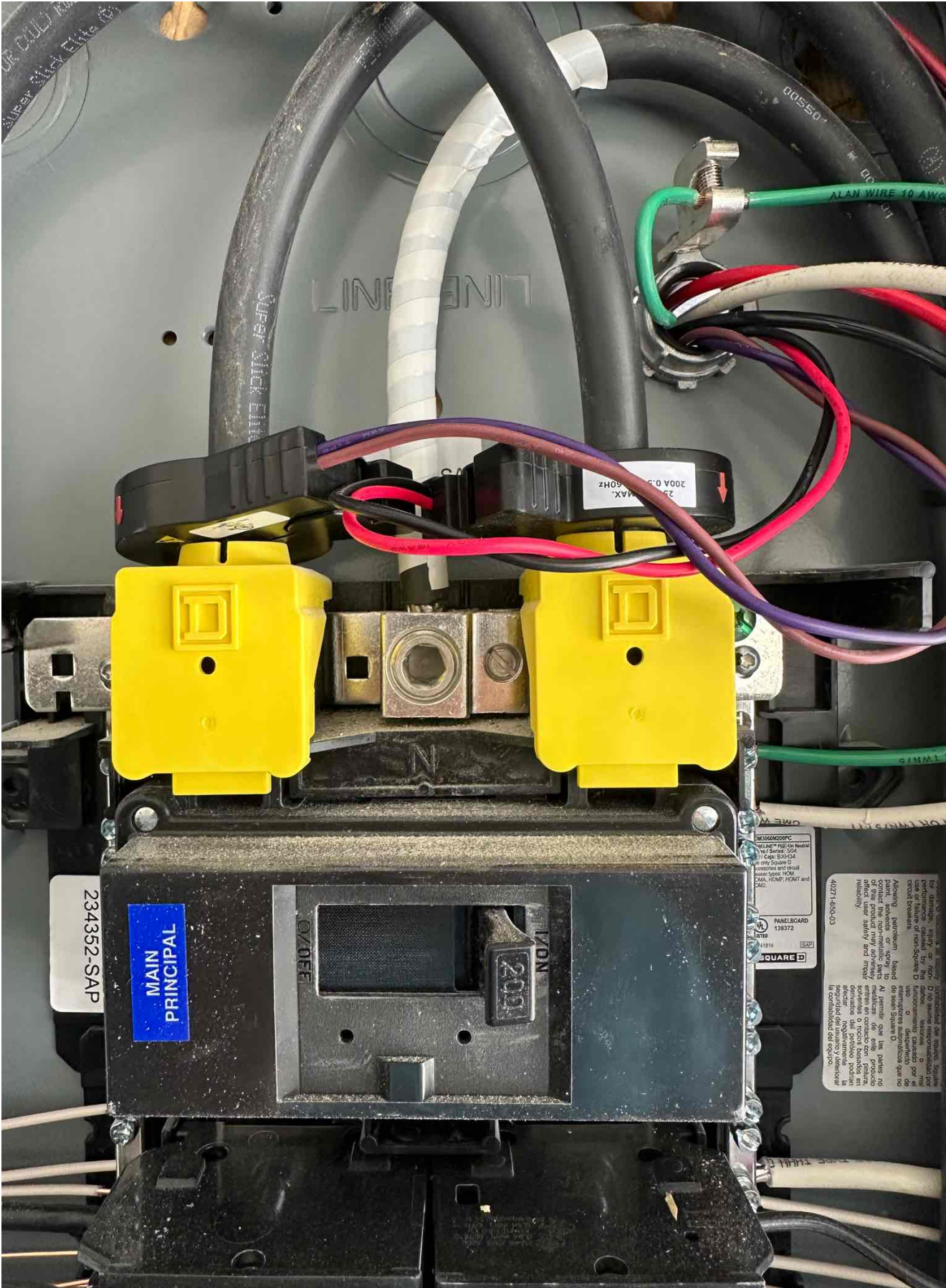
Internal Installers



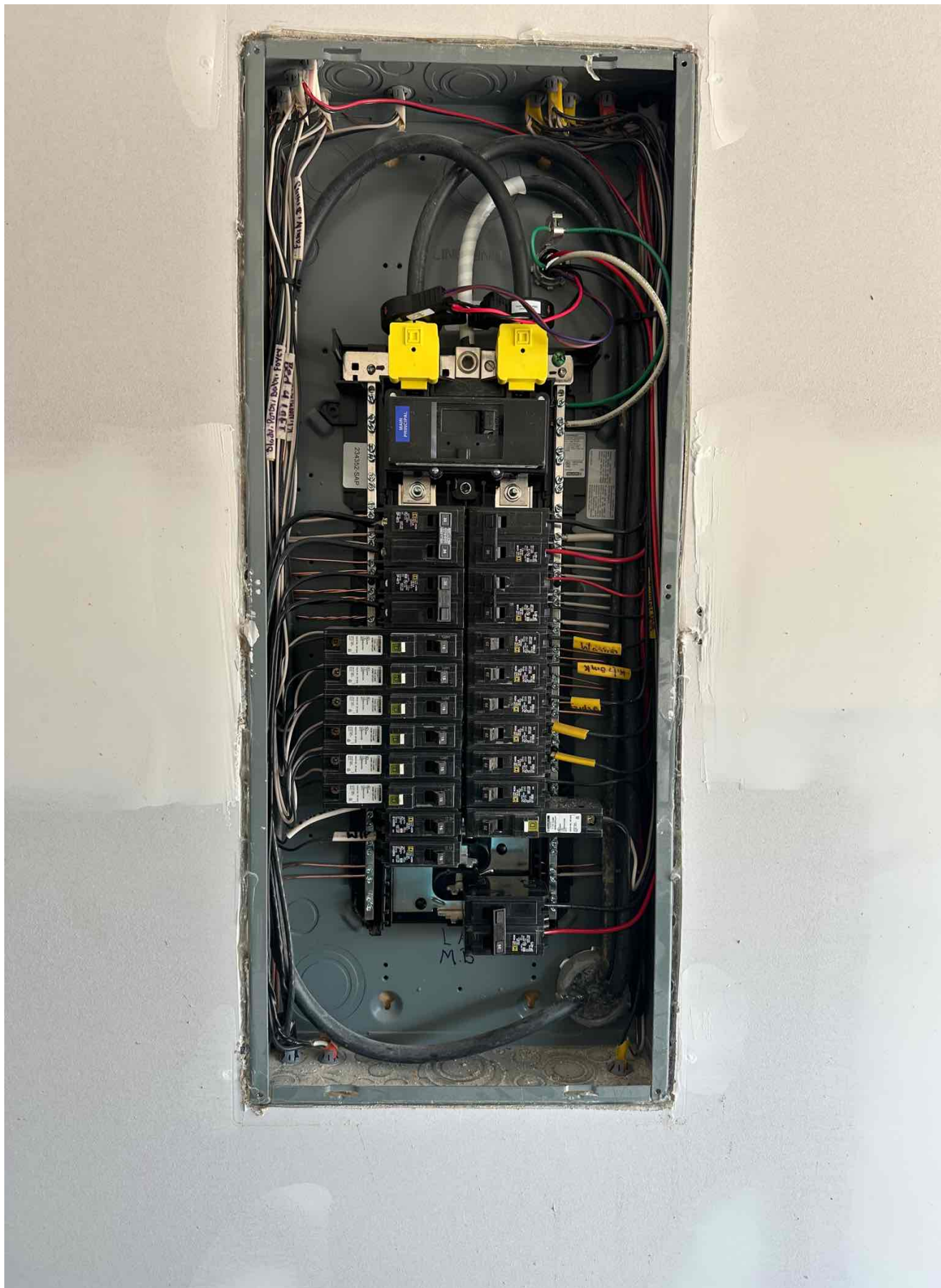
Internal Installers



Internal Installers



Internal Installers



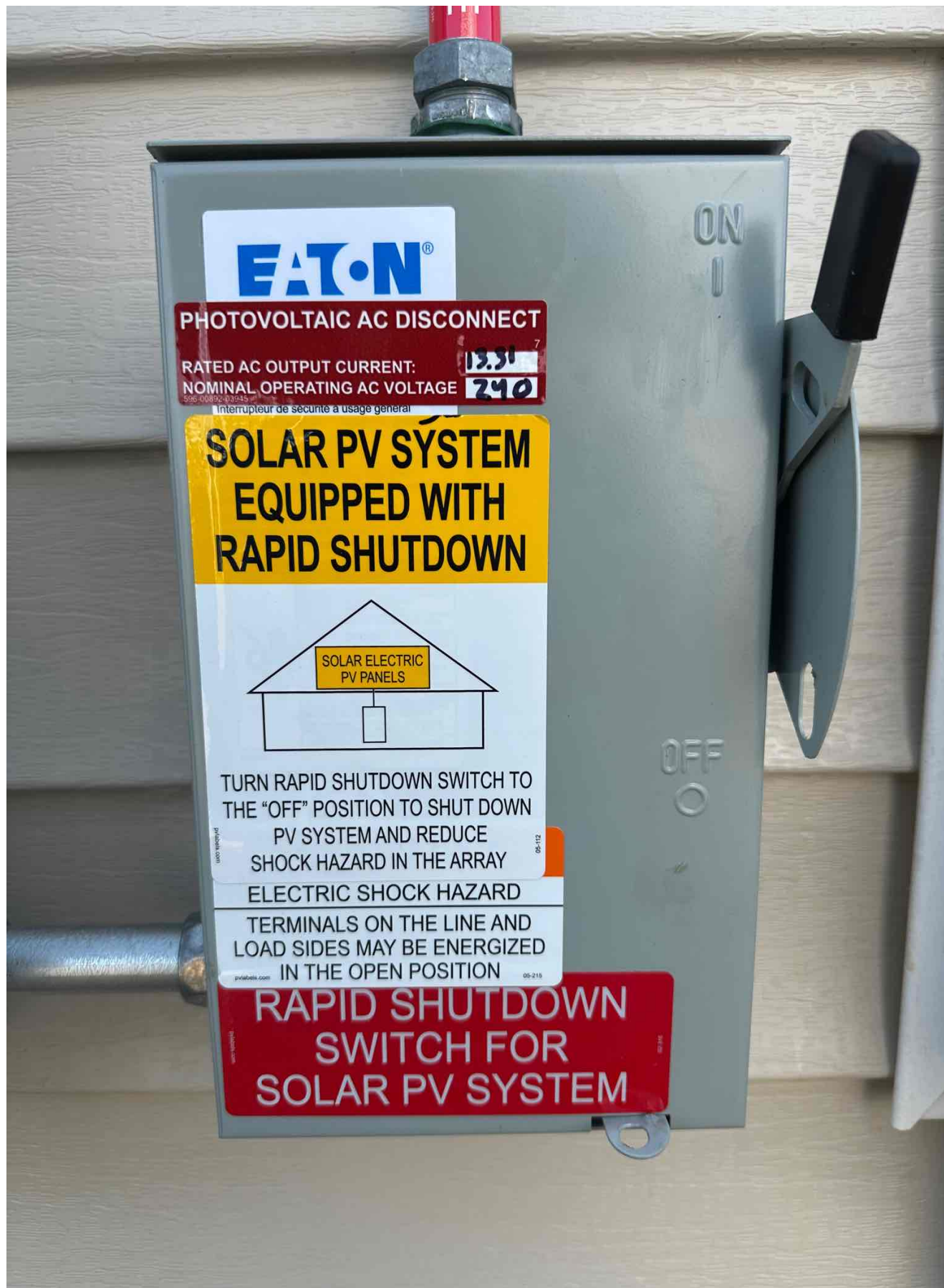
Internal Installers



Internal Installers



Internal Installers



Internal Installers



Internal Installers



Internal Installers



Internal Installers



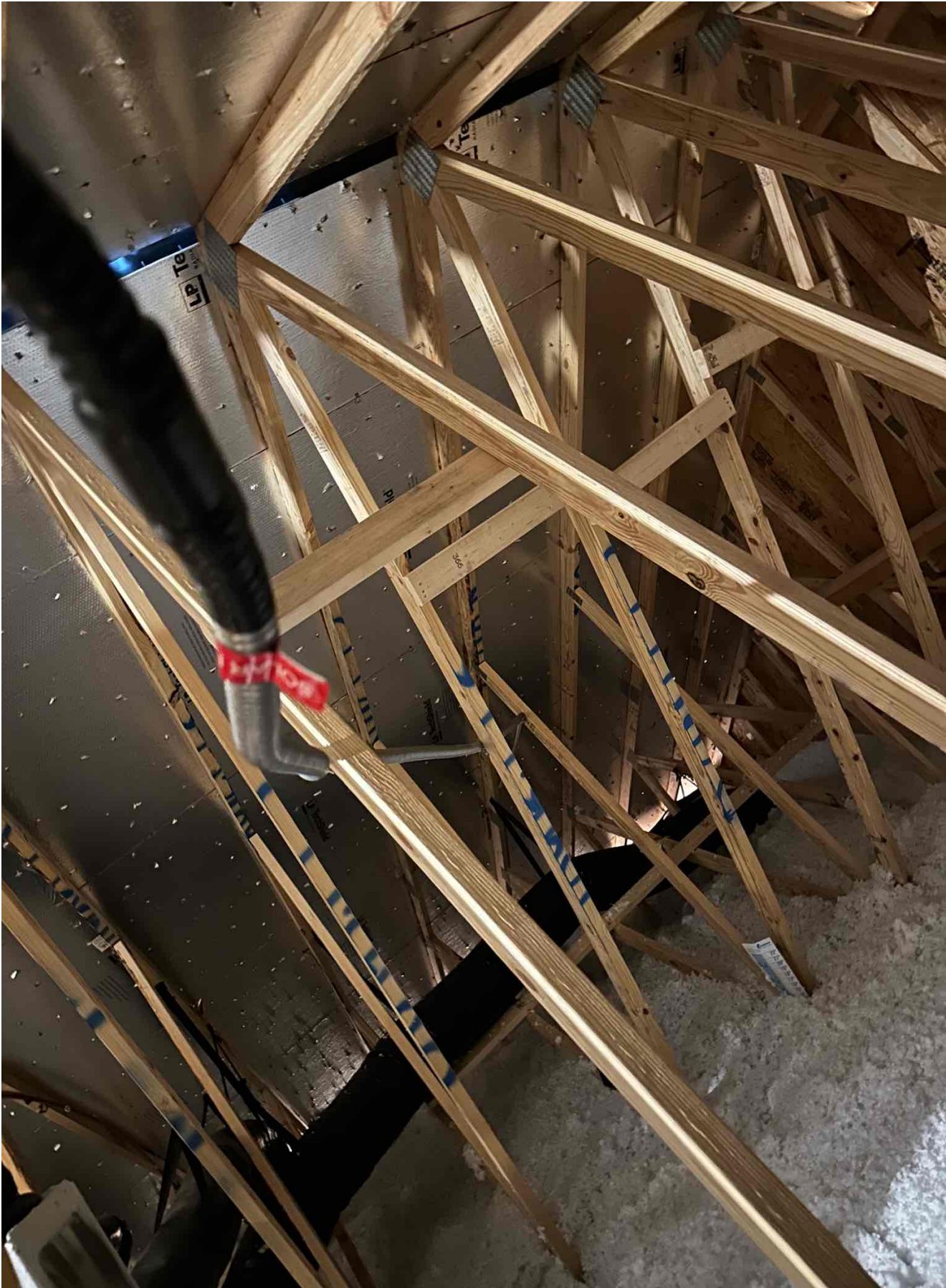
Internal Installers



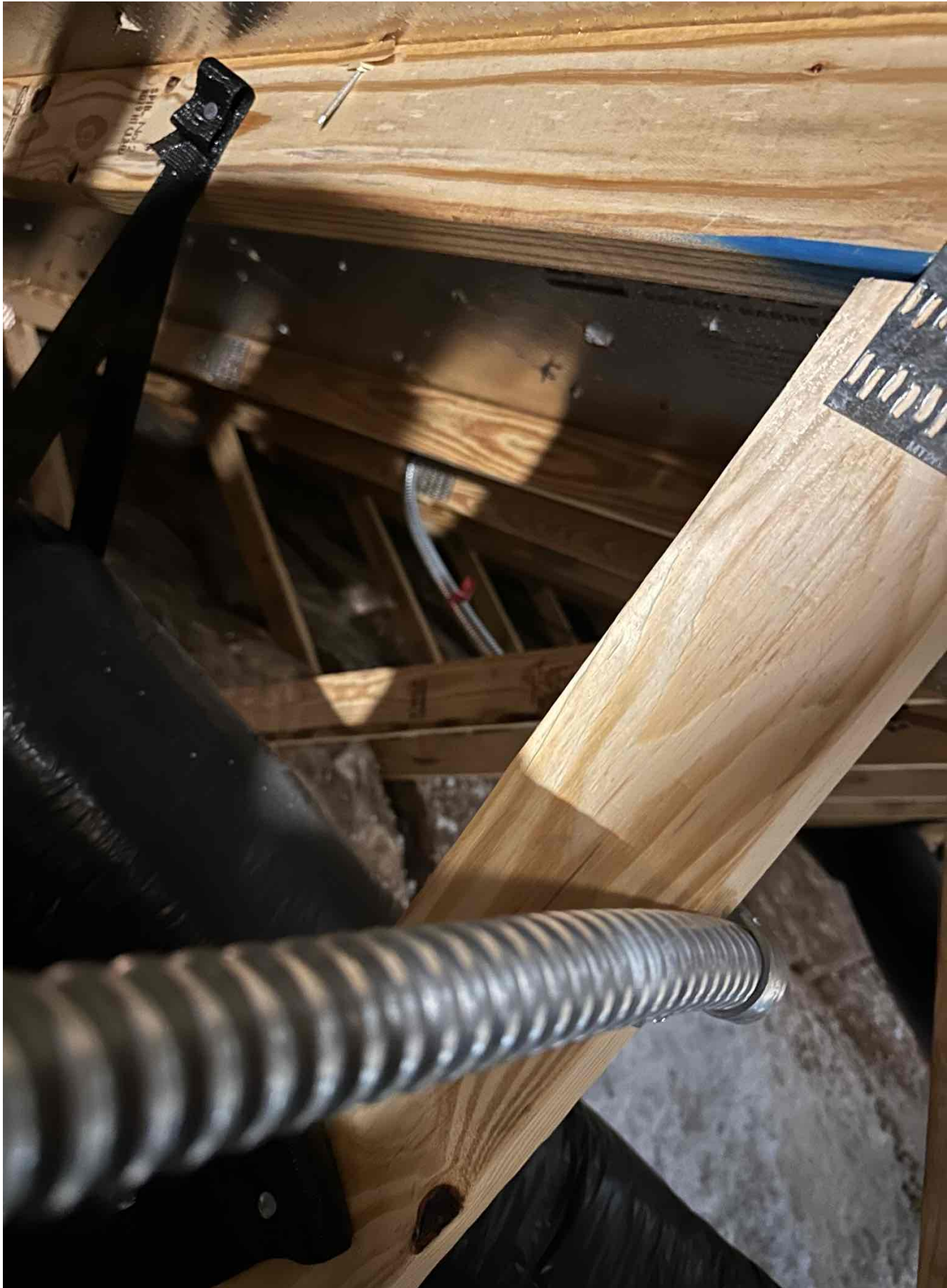
Internal Installers



Internal Installers



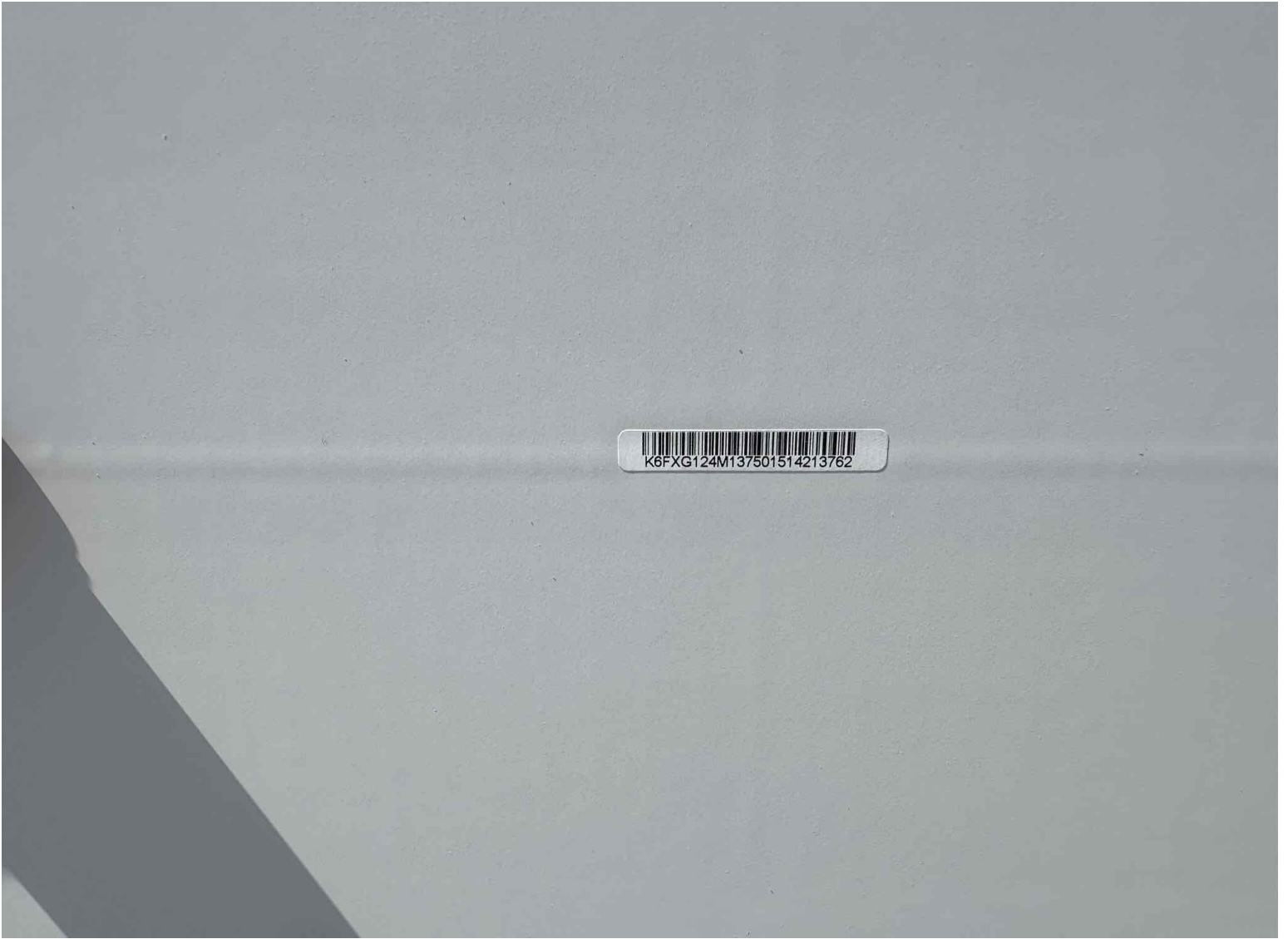
Internal Installers



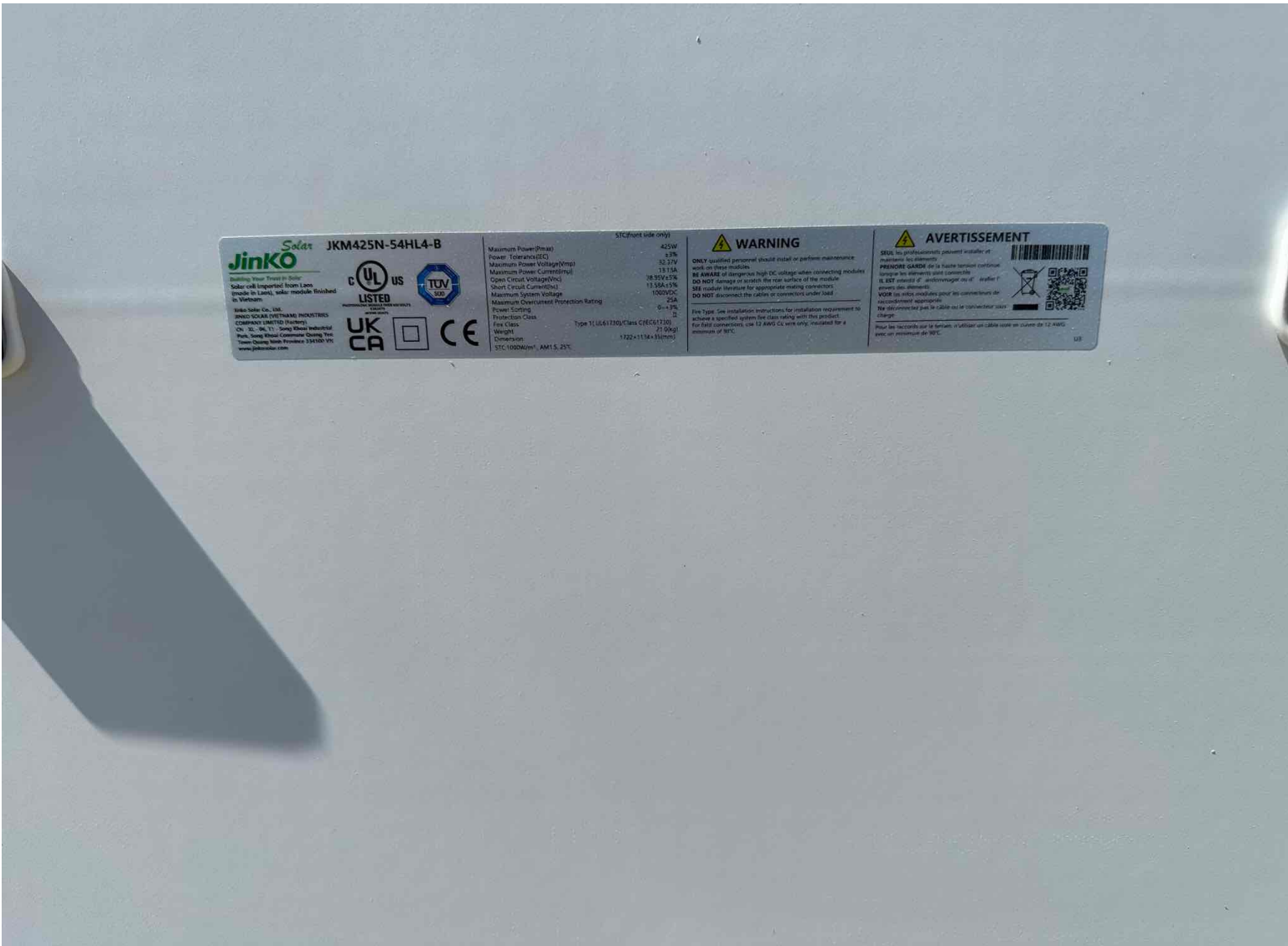
Internal Installers



Internal Installers



Internal Installers



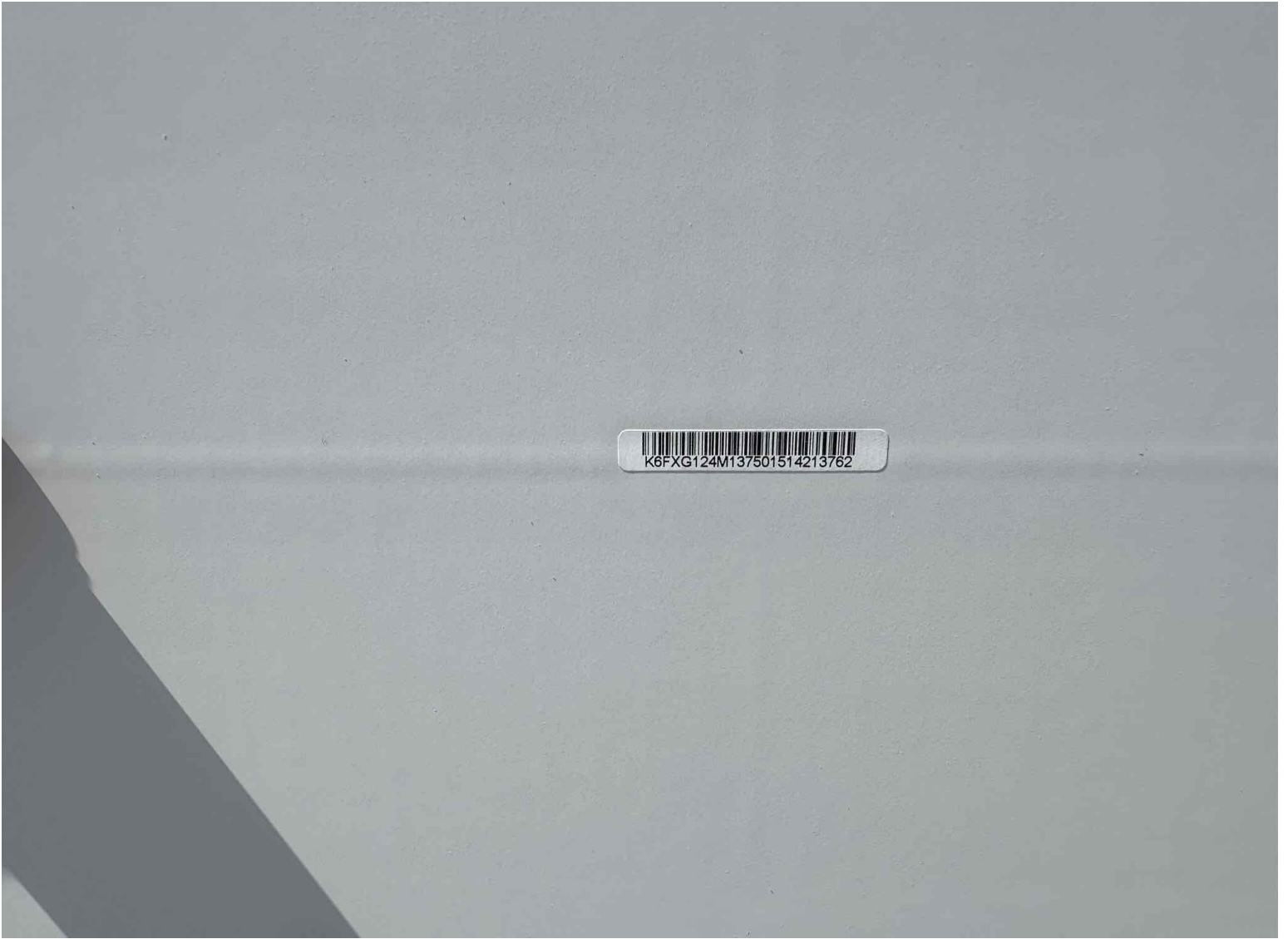
Internal Installers



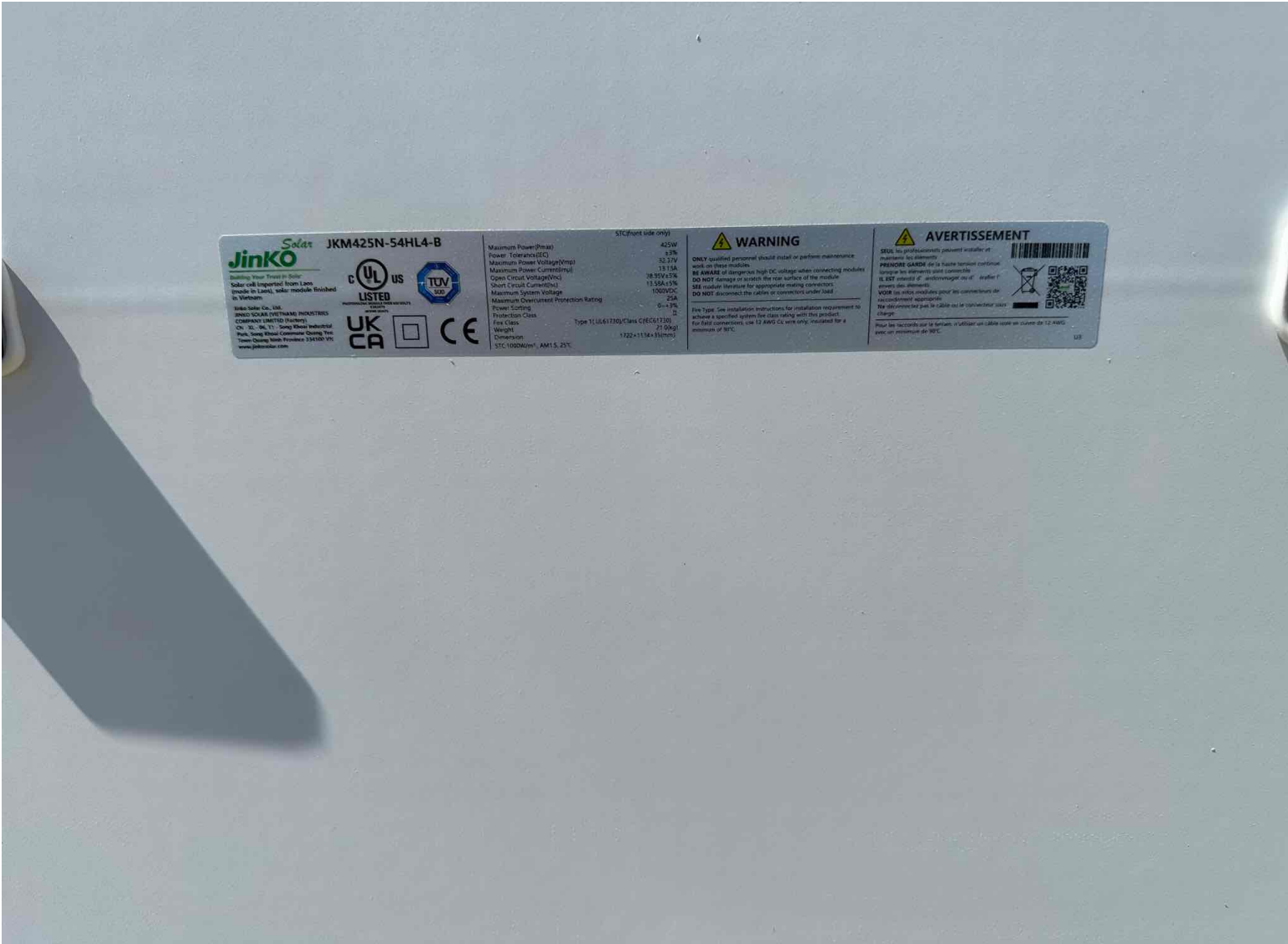
Internal Installers



Internal Installers



Internal Installers



Internal Installers



Internal Installers

IQ Combiner LED & buttons quick reference guide

Enphase Installer Platform (EIP) communication LED

- Green when connected to Enphase's EIP cloud.
- Flashing green when connecting to EIP or WiFi router.
- Red when connected to local network only i.e., no internet.
- Off if no network is available.

AP mode LED

- Green when AP mode is enabled, and IQ Gateway Wi-Fi network is available.
- Off when AP mode is disabled.
- Off by default unless installer is using AP mode.

AP mode button

Only used by installer during installation or to configure the system. Starts IQ Gateway's wireless Access Point (AP) to connect mobile phone directly.

Power production LED

- Green light when all microinverters are producing power.
- Flashing green when an upgrade of the microinverters is in progress.
- Red if one or more microinverters stop producing power.
- Flashing red when microinverters are not yet detected.
- Off if all the microinverters stop producing or communicating.
- Usually red at dawn/dusk, off at night & flashing red after IQ Gateway restarts.

Device communication LED

- Flashing green when IQ Gateway is scanning for microinverters.
- Green when all provisioned microinverters are communicating with IQ Gateway.
- Red if one or more microinverters are not communicating with IQ Gateway.
- Off if all microinverters are not communicating with IQ Gateway.
- Usually red during dawn/dusk and off at night.

Device scan button

Only used by installer during installation or to configure the system. Starts a 15-minute scan for devices over the power line.

All LEDs

- Flashing green when software upgrade is in progress.
- Flashing red when IQ Gateway is booting up.

On Power Up, LEDs can take up to 30 seconds to glow. While booting, wait for 2 minutes after powering off the IQ Gateway, before powering it back on.

GRID-TIED SYSTEMS

RECOMMENDED ROUTING FOR ETHERNET CABLE

CT on IQ Battery L2
CT on consumption L2
CT on consumption L1
CT on PV L1

Jumper

TO PV
TO MAIN LOAD CENTER

ENPHASE.

IQ Combiner 5

Photovoltaic Combiner Box

X-IQ-AM1-240-5-HDK

Electrical ratings

Voltage 240V ~, 60Hz

DG Breakers 80A MAX (combined)

DG Inputs 64A MAX (combined)

Output 65A MAX, 90A MAX feeder OCPD

Temperature 46°C MAX ambient

UL CERTIFIED

EMC166

Scan for QIG

202449018245

P/N: 883-02025 17

Dedicated solar and DG Combiner Box - do not add loads

10 AMP or 15 AMP IQ Gateway Breaker not used for backfeed

Connection	Wire sizes	Torque
DG Breaker (1, 2, 3, 4)	14-10 AWG	2.2 Nm (20 lb-in)
	8 AWG	2.8 Nm (25 lb-in)
	6-4 AWG	3.0 Nm (27 lb-in)
60A Circuit Breaker only	4-1/0 AWG	5.0 Nm (45 lb-in)
IQ Gateway Breaker (5)	14-10 AWG	2.2 Nm (20 lb-in)
IQ Gateway Power Terminals	14-10 AWG	1.4 Nm (12.4 lb-in)
Neutral and ground	2-1/0 AWG	5.6 Nm (50 lb-in)
	14-9 AWG	5.1 Nm (45 lb-in)
	6 AWG	3.6 Nm (32 lb-in)
	9 AWG	2.6 Nm (23 lb-in)
	10-14 AWG	2.3 Nm (20 lb-in)
Main lug	10-4 AWG	5.0 Nm (45 lb-in)
	3-2/0 AWG	5.6 Nm (50 lb-in)
CTRL Connectors	18 AWG	0.2 Nm (1.77 lb-in)
	18 AWG	0.2 Nm (1.77 lb-in)

Copper conductors only, rated min. 75°C. Follow NFPA 70 (NEC), or CSA C22.1 part 1, and all local codes. For DG Breakers larger than 20A, use wire insulated for 90°C based on 75°C ampacity.

Designed in California and India. Made in Mexico

GRID-FORMING SYSTEMS

RECOMMENDED ROUTING FOR ETHERNET CABLE

CT on IQ Battery L2
CT on consumption L2
CT on consumption L1
CT on PV L1

Jumper

To IQ System Controller 3/3G

TO PV
TO MAIN LOAD CENTER/ IQ SYSTEM CONTROLLER/ IQ BATTERY SP

WARNING: For Grid-Forming Systems, IQ Gateway must be powered from IQ Combiner's Breaker. For Grid-Forming Systems, IQ Gateway must be powered from IQ System controller.

Non terminating node : CTRL(CONTROL) Wiring

When IQ System Controller 3/3G and IQ Battery SP are on both sides of IQ Combiner and both CTRL terminals are used.

CTRL L (BLUE)
CTRL H (ORANGE)
CTRL G (BLACK)
NA
DRAIN

CTRL L (BLUE)
CTRL H (ORANGE)
CTRL G (BLACK)
NA
DRAIN

WARNING: WIRE THE DRAIN ONLY ON ONE END OF THE CONTROL CABLE

Terminating node : CTRL(CONTROL) Wiring

When IQ System Controller 3/3G and IQ Battery SP are on only one side of IQ Combiner and only one CTRL terminal is used.

CTRL L (BLUE)
CTRL H (ORANGE)
CTRL G (BLACK)
NA
DRAIN

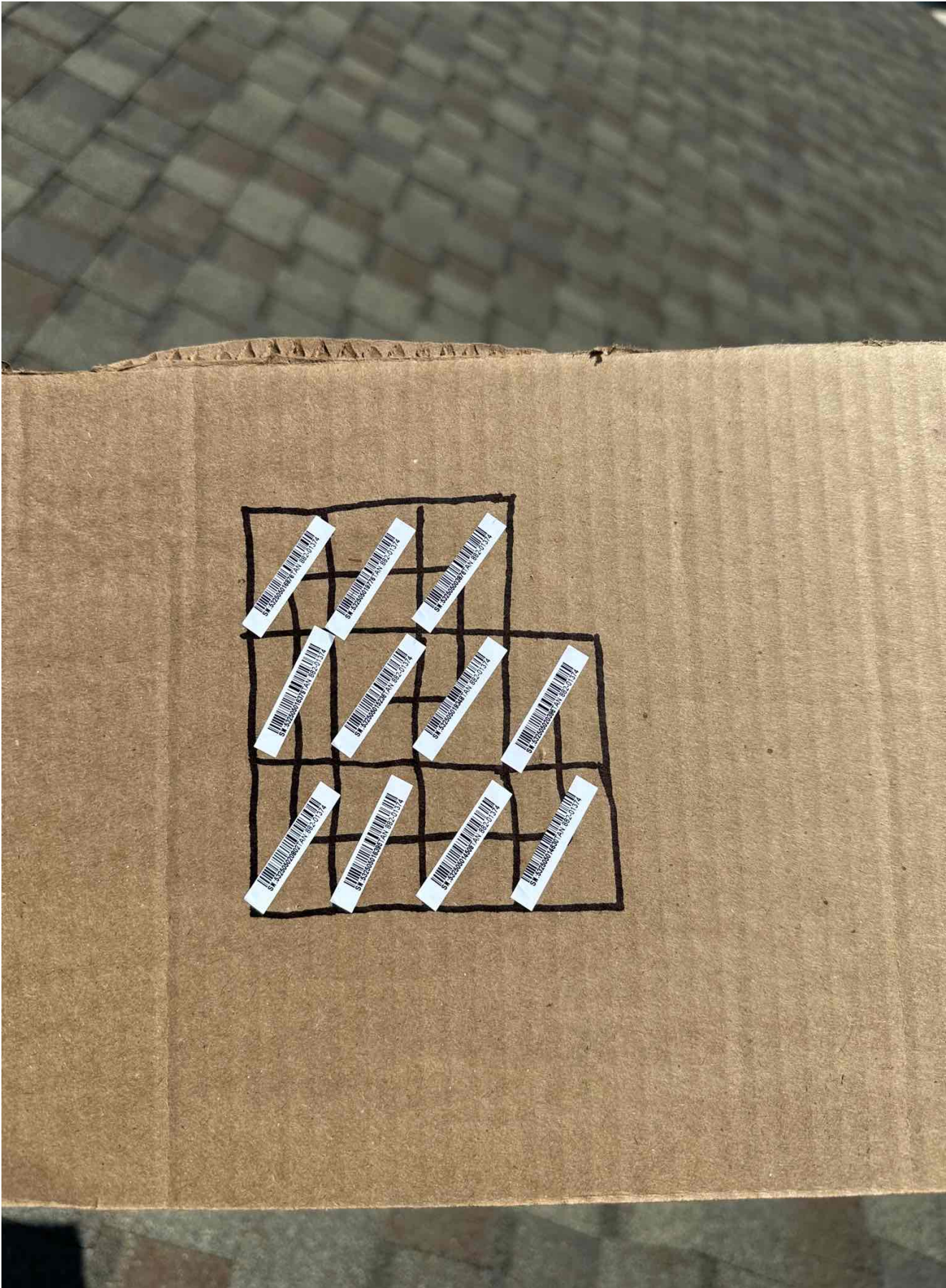
WARNING: WIRE THE DRAIN ONLY ON ONE END OF THE CONTROL CABLE

CTRL Wiring

CTRL H
CTRL L
GROUND
DRAIN
CTRL Shield

Strip Length
5/16"

Scale 1:1



Internal Installers



Internal Installers



Internal Installers

1:52

5

Time left
~2 mins

<

5. Validation

Summary Report

?

i

Share or download report



IQ Gateway Communications Report

28 Mar 2025, 01:52 PM

System

This system is capable of supporting a single local IEEE 2030.5 DER interface

Name	Installer Reference	Owner
Chong Ting - 66 Pecan Grv Ln	Chong Ting - 66 Pecan Grv Ln	ronbubbating@hotmail.com
Street 1	Street 2	
66 Pecan Grove Lane	NA	
City	State	
Fuquay-Varina	North Carolina	
Zip/Postal Code	Country	
27526	United States	

IQ Gateway

Serial number	Software version	Type
202449018246	D8.2.127 (b9a901)	IQ Gateway
Production Meter	Consumption Meter	Rate structure
Lifetime: 199.54 Wh Status: Normal	Lifetime: 144.56 Wh (Exporting) Status: Normal	Not Available
Connection to Enphase Cloud	Last report to Enphase Cloud	Grid Profile
Cellular	28 Mar 2025, 01:43 PM	Grid Profile : IEEE 1547 default 2015:1.0.11

11 IQ Microinverters

11 IQ Microinverters IQ8+

Serial number	Last report	Power	Grid Profile	Firmware Version
532505003876	28 Mar 2025, 01:42 PM	145 W	Set	521-00005-r06-v02.61.01
532505014508	28 Mar 2025, 01:42 PM	129 W	Set	521-00005-r06-v02.61.01
532505014630	28 Mar 2025, 01:42 PM	158 W	Set	521-00005-r06-v02.61.01
532505015236	28 Mar 2025, 01:42 PM	150 W	Set	521-00005-r06-v02.61.01
532505016379	28 Mar 2025, 01:44 PM	146 W	Set	521-00005-r06-v02.61.01

Next step: Post Commissioning

IQ Gateway: 202449018246

1:51

Step 2 of 6: Devices and Configuration

Device Details

?

2

Time left
~3 mins

i

All devices are scanned

Total device count: 12

Edit device count

IQ Gateway

>

✓ 202449018246

IQ Microinverter & Array

>

✓ Scanned

11/11

✓ Provisioned

11/11

✓ Detected

11/11

✓ Communicating

11/11

⚠ Array created

0

⚠ Producing power

10/11

✓ Profile set

11/11

Next: Site Configuration

IQ Gateway: 202449018246

1:45

5

Time left
~3 mins

<

Step 5 of 6: Validation

Meter Configuration

?

i

All meters communicating normally

Production Meter

>

Active Power

1.60 kW

Apparent Power

1.75 kVA

Selected Phase

L1(A) + L2(B)

Consumption Meter

>

Active Power

1.17 kW (Exporting to Grid)

Apparent Power

1.33 kVA

Selected Phase

L1(A) + L2(B)

Meter Location

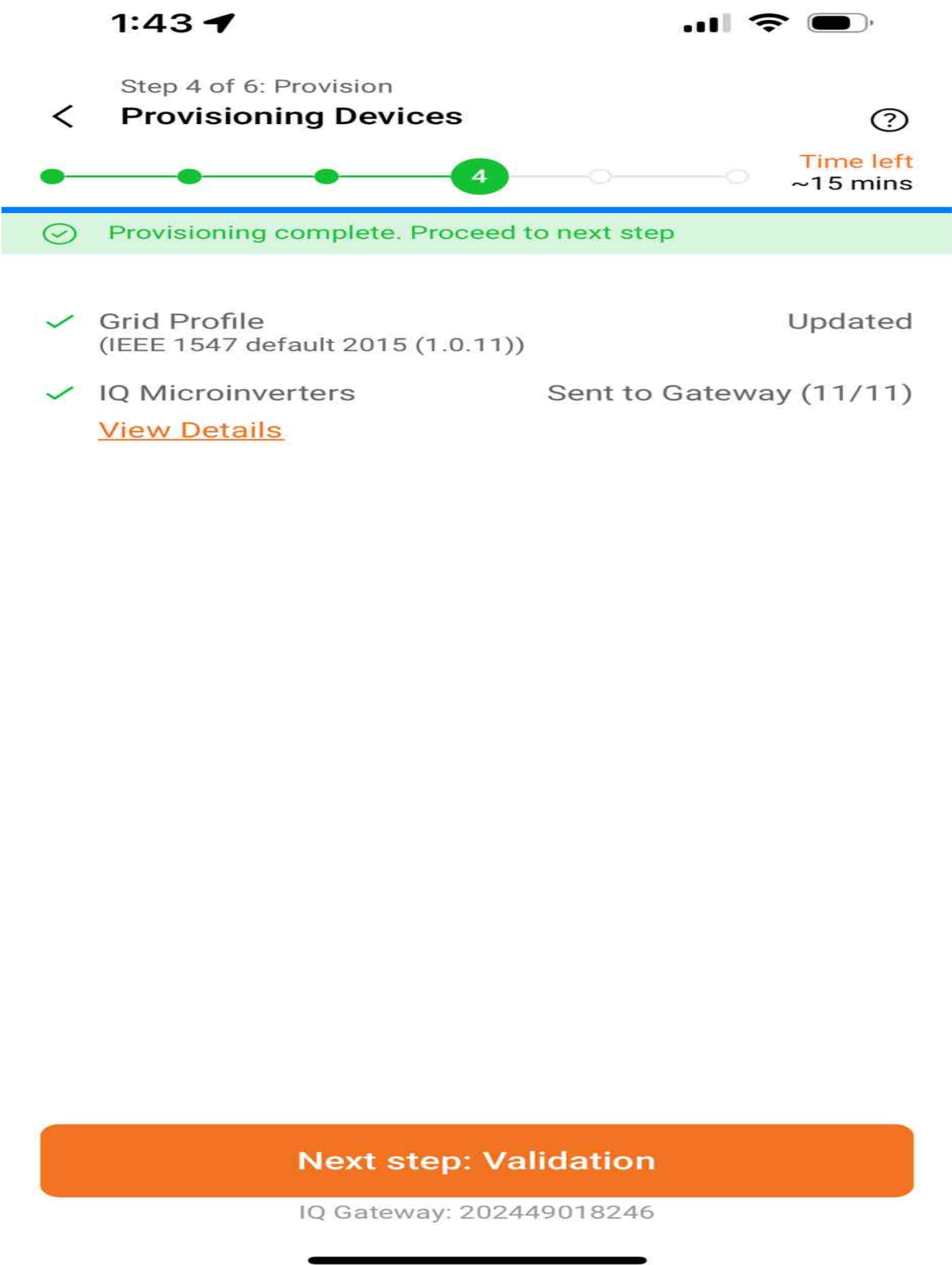
Load with Solar

Verify Production and Consumption CT

View Advanced Readings

Next: Generate Summary Report

IQ Gateway: 202449018246



1:45



Step 5 of 6: Validation

< **Set Up Consumption Meter**



Time left
~3 mins



Consumption meter enabled successfully



Congratulations

Commissioning process is complete

Next: Post Commissioning Checks

IQ Gateway: 202449018246

1:44

5

Time left
~15 mins

Step 5 of 6: Validation

<

Set Up Production Meter

?

Do not turn OFF the IQ Gateway

Current power production

28 Mar 2025, 01:40 pm

0.00 W

L1(A) 0.00 W

L2(B) 0.00 W

L3(C) 0.00 W

View Advanced Readings

Close Live Status

0 w

Producing

438 w

438 w

Switch OFF the PV breaker(s) and wait for all PVs to stop producing power..

Next: Enable Production Meter

IQ Gateway: 202449018246

Internal Installers

Page 76 of 76

Report Created: 04/03/2025