

# USAI RECESS 4.5 INSTALLATION INSTRUCTIONS NM Housing

## Required tools:

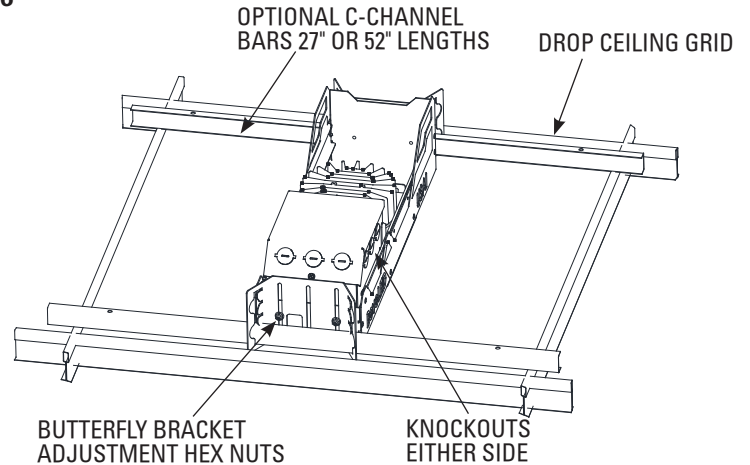
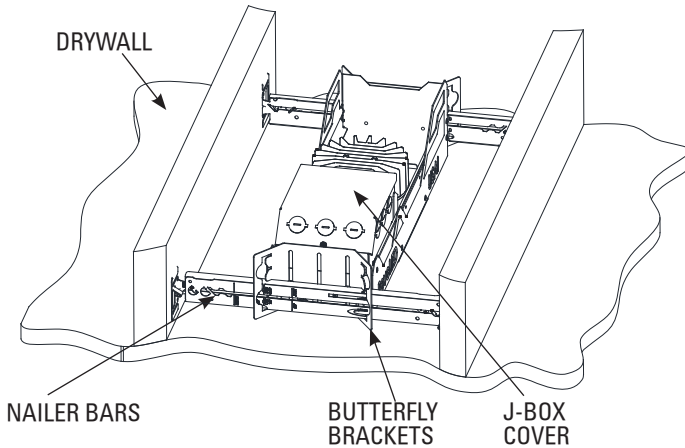
- #2 Phillips driver
- 11/32" Combo wrench or hex driver
- 1/4" hex driver (optional)

## Ceiling Cutout:

- Round Flanged:  5-1/16"Ø    Square Flanged:  5-1/16"  
 Round Trimless:  5-1/2"Ø    Square Trimless:  5-1/2"  
 Round Millwork:  4-15/16"Ø    Square Millwork:  4-15/16"

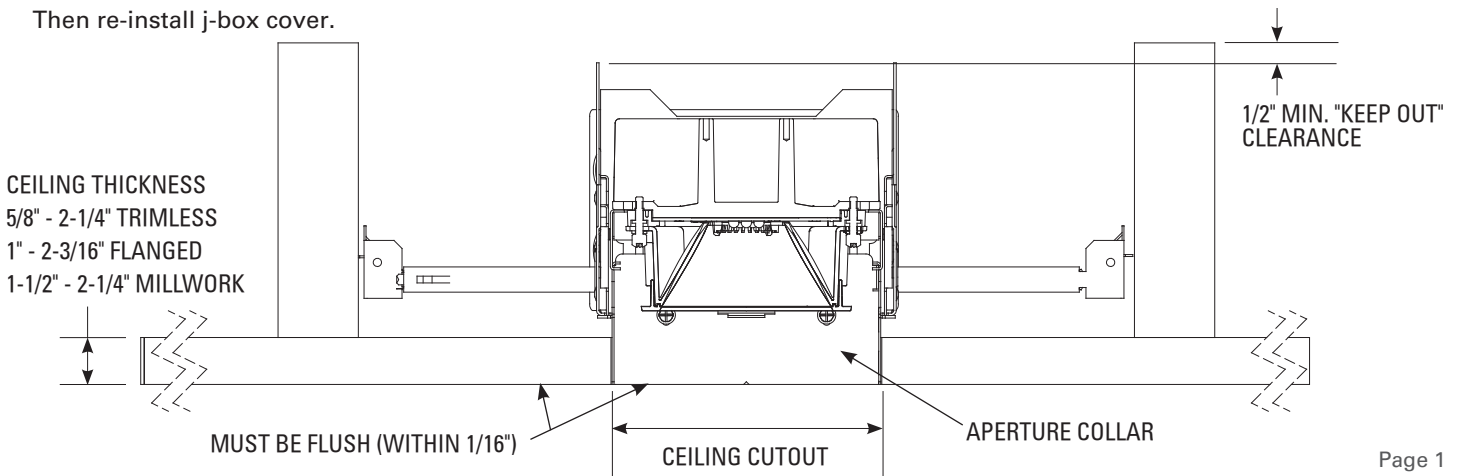
**CAUTION READ BEFORE INSTALLATION**

- Retain these instructions for future reference. This product must be installed by a person familiar with the construction and operation of the product and the hazards involved, in accordance with applicable NEC code.
- Switch off main power before beginning installation.
- Install per national installation and accident prevention regulations.
- Clearance between sides of luminaire and parts of building to be 1/2 inch minimum; clearance to insulating materials to be 3 inch minimum, unless luminaire is IC rated.
- Fixtures must be installed in applications where the ambient temperature does not exceed 40° C during normal operation.
- **DO NOT** connect or disconnect LED board wire connector when the fixture is energized. This may result in permanent damage to the LED array.
- Warranty claims will not be accepted if incorrect driver or light engine is used.



## HOUSING INSTALLATION:

1. Fixture housing mounting may vary by ceiling type:
  - Nailer bars are supplied as the standard mounting means and are typically used in drywall applications. These are extendible from 14 - 24" centers. To install, attach pairs together then slide bars through slots in butterfly brackets -- squeeze brackets together and then lock bars in place by releasing them.
  - C-channels, shown in right view, are optional and are typically used in drop-ceiling applications.
2. Adjust height of fixture so that the aperture collar is flush with room side of ceiling. Use 11/32" combo wrench or hex driver to loosen hex nuts holding butterfly brackets in place. Set proper height, then re-tighten nuts until secure. The aperture collar can be adjusted to varying ceiling heights, shown below, and is dependant on ceiling installation type. See following sheets for specific aperture collar adjustment instructions.
3. Install power feed through knockouts provided in j-box compartment indicated above.
4. Use Phillips driver or 1/4" hex driver to loosen j-box compartment screws and slide cover off. Make necessary power supply connections inside, ensuring conduit slack allows for minimum of 6" travel for below ceiling servicing. Then re-install j-box cover.



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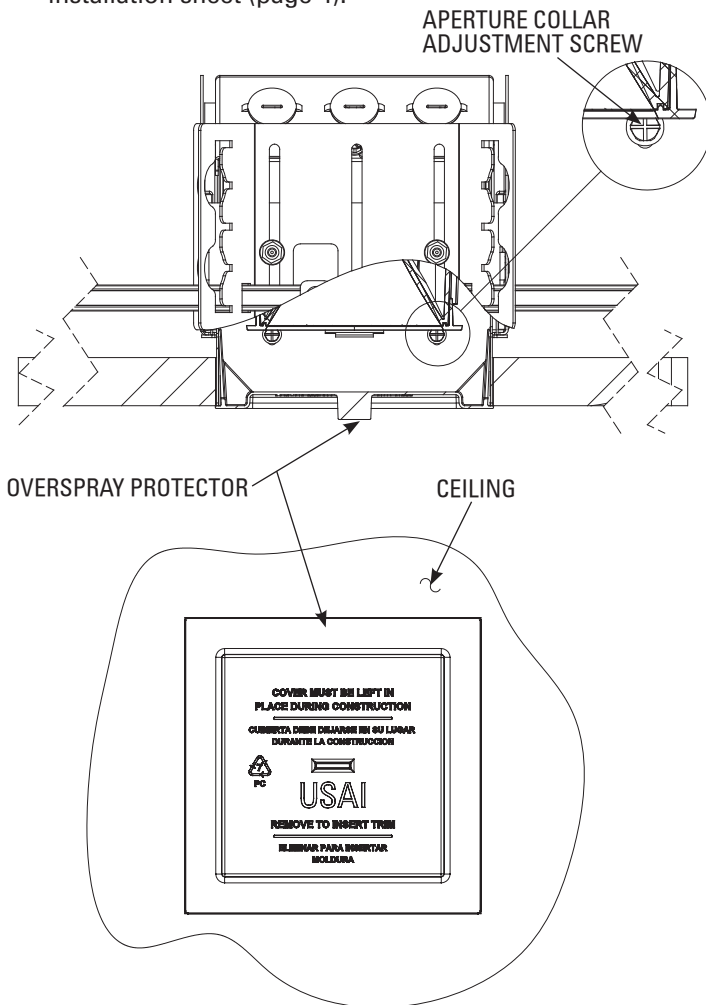
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Fixture housing mounting may vary by ceiling type:

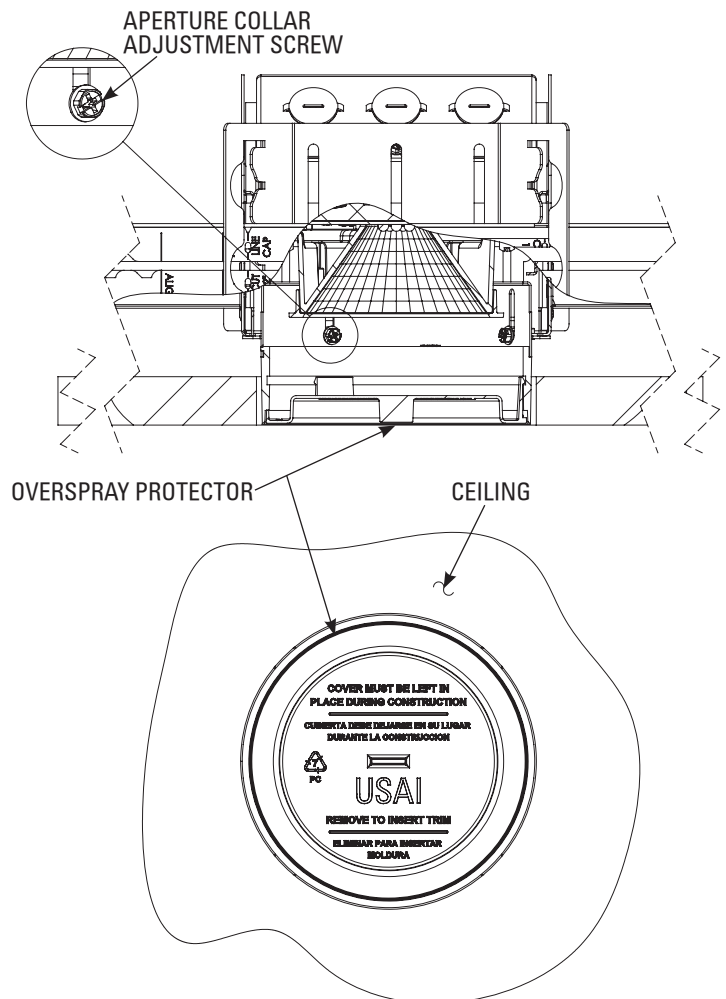
### FLANGED HOUSING INSTALLATION:

1. Ensure the housing has been properly secured. To adjust the aperture collar, loosen but do not remove, adjust screws with Phillips or hex driver. Now adjust the height so it is flush with the ceiling and retighten the screws until secure.
2. Ensure the plastic, in-use, overspray/spackle protectors are in place and properly covering the aperture (see below).
3. Once the ceiling has been painted, then the overspray protector can be removed and recycled. Next see trim installation sheet (page 4).



### MILLWORK HOUSING INSTALLATION:

1. Ensure the housing has been properly secured. To adjust the aperture collar, loosen, but do not remove, adjust screws with Phillips or hex driver. Now adjust the height so it is flush with the ceiling and retighten the screws until secure.
2. Ensure the plastic, in-use, overspray/spackle protectors are in place and properly covering the aperture (see below).
3. Once the ceiling has been painted, then the overspray protector can be removed and recycled. Next see trim installation sheet (page 4).



# USAI RECESS 4.5 INSTALLATION INSTRUCTIONS NM Housing

## Required tools:

- Power drill
- 1/4" drill bit
- #2 Phillips driver

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- Install per national installation and accident prevention regulations.
- Clearance between sides of luminaire and parts of building to be 1/2 inch minimum; clearance to insulating materials to be 3 inch minimum, unless luminaire is IC rated.
- Fixtures must be installed in applications where the ambient temperature does not exceed 40° C during normal operation.
- **DO NOT** connect or disconnect LED board wire connector when the fixture is energized. This may result in permanent damage to the LED array.
- Warranty claims will not be accepted if incorrect driver or light engine is used.

## TRIMLESS SPACKLE FRAME INSTALLATION:

1. Before starting, ensure the housing has been properly secured. The aperture collar will be loose, but must be able to be set flush with the room side of the ceiling. The flat head screws in step 4 will lock it in place.
2. Using the spackle frame provided, position the frame into the aperture collar and mark the 1/4" mounting hole locations on the ceiling to ensure proper alignment to the fixture.
  - Round spackle frames have two alignment posts, on opposite ends of the frame, that fit inside the slots on the aperture collar.

**Note: these frames are unidirectional and must be aligned correctly.**

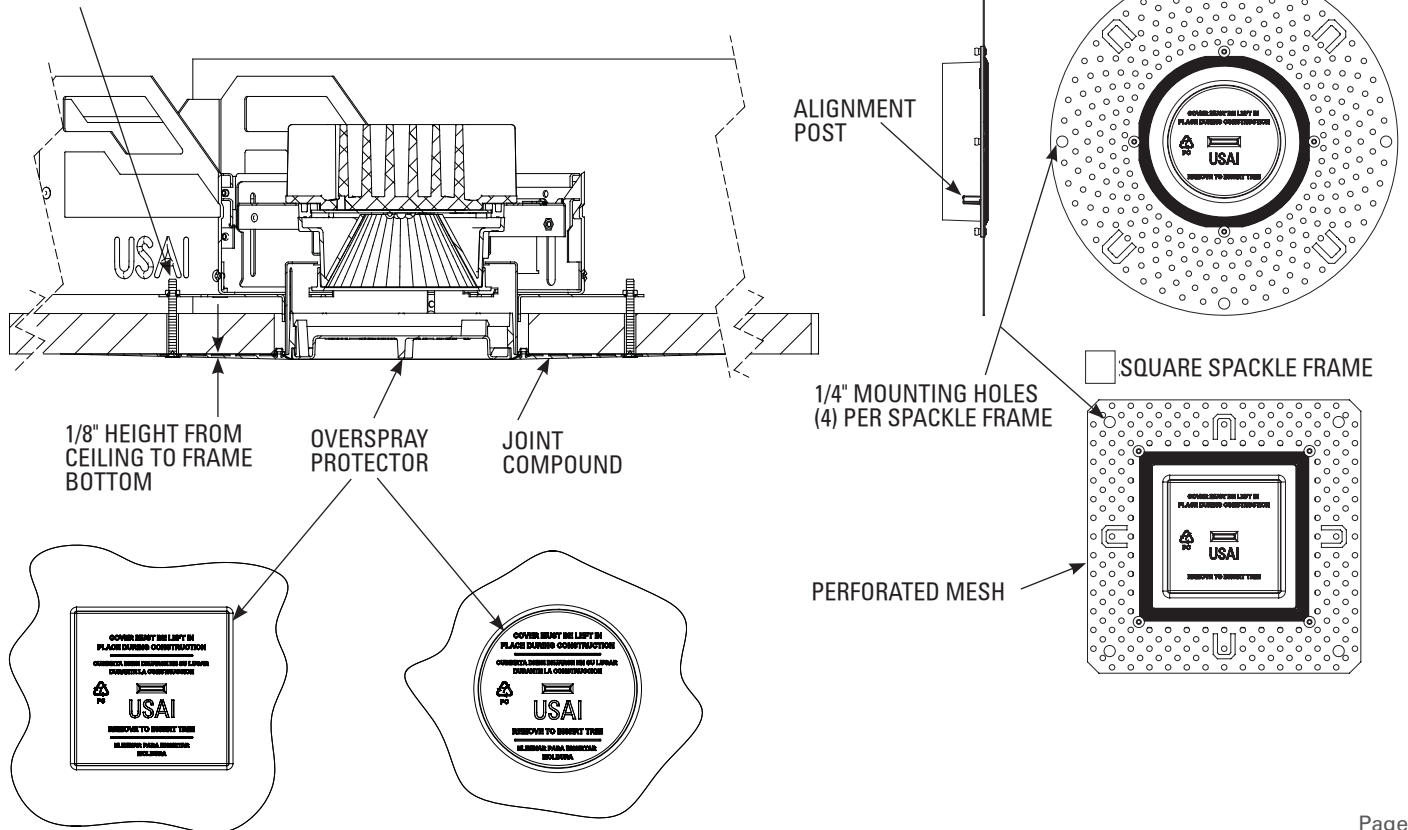
  - Square frames are self-aligning.
3. Using a 1/4" drill bit, carefully drill the mounting holes, 90° to ceiling plane, through the ceiling depth only.
4. Reposition the frame in the aperture collar and secure to fixture housing using the four (4) 8-32 undercut countersink screws provided. (**must be used, do not substitute**). Only tighten screws until frame is flush with ceiling.
5. Ensure the plastic, in-use, overspray/spackle protectors are in place and properly covering the aperture.
6. Apply joint compound to the perforated mesh and feather out for a clean finish.
7. Once the ceiling has been sanded and painted, then the overspray protector can be removed and recycled.

Next see trim installation sheet (page 4).

(4) 8-32 X 1-3/4" SCREWS (USE FOR CEILINGS UNDER 1-1/4")

(4) 8-32 X 2-3/4" SCREWS (USE FOR CEILINGS OVER 1-1/4")

**DO NOT SUBSTITUTE**



○ ROUND SPACKLE FRAME

□ SQUARE SPACKLE FRAME

1/4" MOUNTING HOLES  
(4) PER SPACKLE FRAME

PERFORATED MESH

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## Required tools:

- #2 Phillips driver

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## TRIM INSTALLATION:

1. Trims should be installed only after the ceiling installation is completed, including sanding and painting.
2. Remove the plastic overspray protector and please recycle.
3. For trimless and millwork trims, attach safety cables to the thumbscrew inside aperture before inserting trims.  
(Note: the reflector may need to be removed to access the thumbscrew. Twist the reflector, in orientation shown on the reflector, to unlock).
4. Insert trim into aperture. See specific trim installation instructions by type, included in trim boxes, for complete installation guidelines.

