USAI RECESS 4.5
INSTALLATION INSTRUCTIONS
NC and IC Housings

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”Ø |
| Round Trimless: | 5-1/2”Ø   | Square Trimless: | 5-1/2”Ø |
| Round Millwork: | 4-15/16”Ø | Square Millwork: | 4-15/16”Ø |

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.
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.

ALLWAYS SQUARE APERTURE COLLAR ADJUSTMENT (square apertures only):
Note: rotational alignment of the aperture plate must be completed prior to ceiling installation.
1. Remove red locking screw and loosen (4) aperture screws.
2. Rotate plate, either direction, to desired position and tighten (4) aperture screws. Discard the red locking screw.

Housing installation continued on next page
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 (continued):
5. Install ceiling as shown to right.
   Ceiling cutout size depends on ceiling installation type - see cutout sizes on previous page

FLANGED HOUSING INSTALLATION:
1. Ensure the housing has been properly secured and the aperture collar is flush with the room side of the ceiling.
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 and the aperture collar is flush with the room side of the ceiling.
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).
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- DO NOT connect or disconnect LED board wire connector when the fixture is energized. This may result in permanent damage to the LED array.
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Required tools:
- Power drill
- 1/4" drill bit
- #2 Phillips driver

TRIMLESS SPACKLE FRAME INSTALLATION:
1. Before starting, ensure the housing has been properly secured and the aperture collar is flush with the room side of the ceiling. Verify the plaster frame ceiling cutout size.
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).
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• 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.

Required tools:
• None

TILT ADJUSTMENT (0-40°):
1. Reach through the aperture and locate the rotating locking lever, then pull the lever toward aperture to unlock.
2. Grab the optical assembly and push to desired angle indicated on the fixed bracket.
3. Push locking lever back to locked position.
4. See following page for more adjustment settings.

ROTATIONAL ADJUSTMENT (0-362°):
1. Look into aperture and locate the rotation locking lever, then pull the lever toward aperture to unlock.
2. Grab the optical assembly, or fixed side brackets, and turn to desired position.
3. Push locking lever back into locked position.
4. See following page for more adjustment settings.

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, push safety cable eyelet into the bracket slot until it is looped on bracket (see right view)
4. Insert trim into aperture. See specific trim installation instructions by type, included in trim boxes, for complete installation guidelines.
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OPTICAL POSITIONING (HEIGHT & TILT):
1. Fixtures are shipped in required positions as ordered. If adjusting or converting, each optic and trim combination requires specific position.
2. To adjust the height, squeeze the locking springs toward aperture and push/pull down on the optical assembly until indicator rests on corresponding optic and trim combination.
3. Locking springs should self-lock on the indicator positions. Verify optical assembly is locked.
4. For wall wash reflector only: adjust tilt to max, unscrew red locking screw to about 1/4" from bracket, then tilt until it stops on screw and lock.