

### KLIPSCH PROFESSIONAL IN-CEILING LOUDSPEAKERS

IC-400-T | IC-500-T-SC | IC-525-T | IC-650-T | IC-800-T | OWNER'S MANUAL



#### **IMPORTANT SAFETY INSTRUCTIONS**

- 1. READ these instructions.
- 2. KEEP these instructions.
- 3. HEED all warnings.
- 4. FOLLOW all instructions.
- 5. DO NOT use this apparatus near water.
- 6. CLEAN ONLY with dry cloth or lightly damped cloth.
- 7. DO NOT block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8. DO NOT install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9. ONLY USE attachments/accessories specifically designed for this application
- 10. USE only with a cart, stand, tripod, bracket, or table specifically designed for this application, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 11. DO NOT expose this apparatus to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the apparatus.
- 12. DO NOT modify or alter in any way.
- 13. SWITCH OFF amplifier prior to connecting speakers.
- 14. DO NOT hang or suspend any items from this apparatus.

The exclamation point, within an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electrical shock to persons.

**WARNING:** To reduce the risk of fire or electrical shock, do not expose this apparatus to rain or moisture.

**WARNING:** No naked flame sources – such as candles – should be placed on the product.

**WARNING:** The apparatus is not designed to be used for any type of moving or lifting installation.

WARNING: For Indoor use only.

**WARNING:** Installation must be done by qualified personnel to appropriate standards and/or building codes.

WARNING: Neglect to follow the safety and installation instructions may cause malfunctions resulting in property damage and personal injury.



#### CAUTION RISK OF ELECTRIC SHOCK.



AVIS: RISQUE DE CHOC ÉLECTRIQUE - NE PAS OUVRIR

WARNING: Do Not Open! Risk of Electrical Shock. Voltages in this equipment are hazardous to life. No user-serviceable parts inside. Refer all servicing to qualified service personnel.



Klipsch recommends that only qualified personnel install its loudspeaker systems. At all times, be sure that adequate safety factors are observed. Due to the weight and size of the components involved, potential damage could occur if devices were to become unattached.

The included tile-bridge must be used when installing into suspended ceilings. Use the seismic tab as a secondary means of support. In some areas, using the seismic tab is required by code.

FR - Manuel en Français: KLIPSCH.COM/PRO/IC-SERIES-MANUAL

SP - Manual en Español: KLIPSCH.COM/PRO/IC-SERIES-MANUAL

GR - Handbuch in Deutsch: KLIPSCH.COM/PRO/IC-SERIES-MANUAL

PR - Manual em Português: KLIPSCH.COM/PRO/IC-SERIES-MANUAL

IT - Manuale in Italiano: KLIPSCH.COM/PRO/IC-SERIES-MANUAL

SC - 中文使用手冊 (中國): KLIPSCH.COM/PRO/IC-SERIES-MANUAL

#### **KLIPSCH PROFESSIONAL IN-CEILING SPEAKERS**

# IC-400-T IC-500-T-SC IC-650-T

#### **CONTENTS**

- X2 Speaker Modules
- x2 Grilles
- **X2** Reinforcement Rings
- x4 Rails
- X2 Cardboard Cutout Template and Paint Mask
  - X8 SCrews (Attach Rails to Reinforcement Ring)
- **X2** 3/4" Adapter fittings



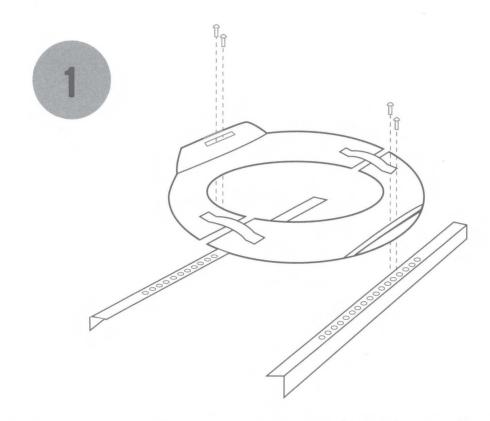
IC-800-T

- X1 Speaker Module
- X1 Grille
- X1 Reinforcement Ring
- x2 Rails

- X1 Cardboard Cutout Template and Paint Mask
- X4 Screws (Attach Rails to Reinforcement Ring)
- X1 3/4" Adapter fitting

#### INSTALLATION

All Klipsch Professional In-Ceiling speakers include a tilebridge for use when installing the loudspeaker into suspended ceiling or wherever additional reinforcement of the ceiling material is required. The tilebridge and loudspeaker are designed such that installation may be accomplished where access above the ceiling is not possible or may be difficult.



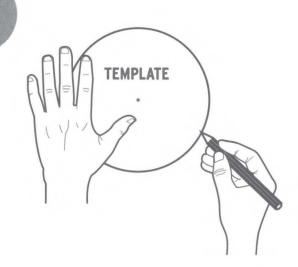
The tilebridge is composed of three parts: a reinforcement ring and two rails. The two rails should be attached to the reinforcement ring using the four included screws as shown



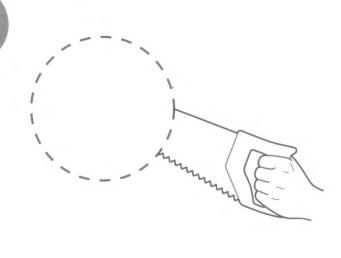
BE SURE TO COMPLY WITH ANY AND ALL BUILDING CODES IN YOUR AREA

#### **INSTALLATION**



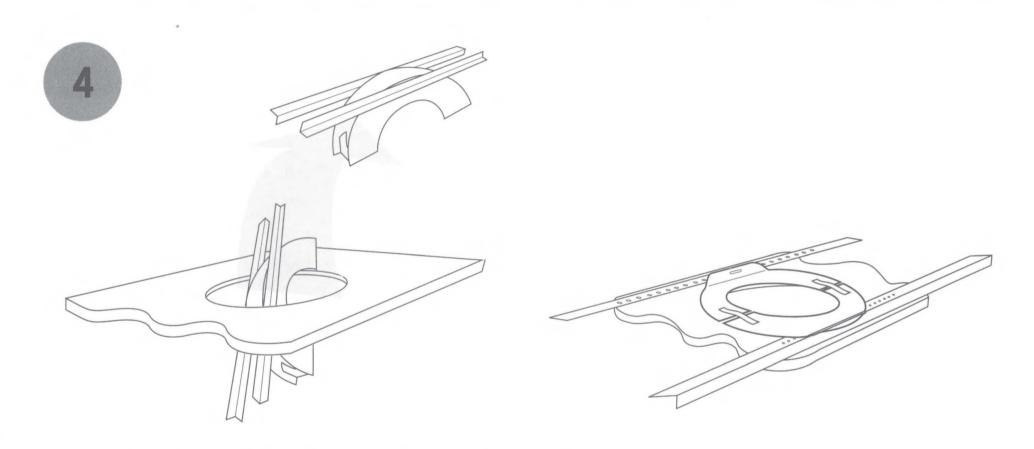






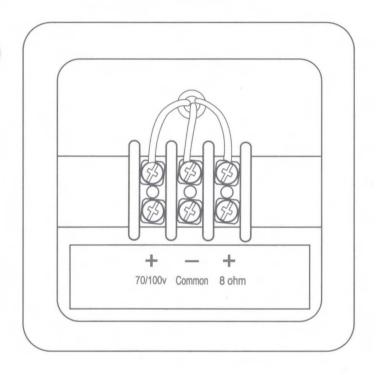
To install your speaker cut a hole in the ceiling using either the cardboard cutout template provided with your speakers or consult the measurements shown. Pull wiring through hole.

IC-400-T, IC-525-T, IC-500-T		ø9.125''	
	IC-650-T	ø10.125″	
	IC-800-T	ø12.625''	

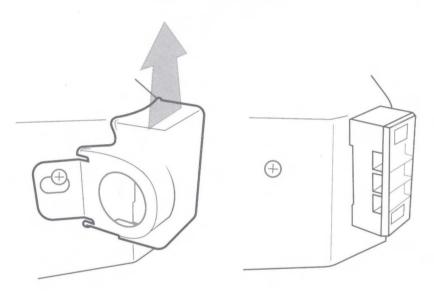


To Install the tilebridge, fold the rail side of the ring back upon itself using the spring tensioner on the reinforcement ring to allow insertion into the cutout hole. Once it is inserted into the cutout hole, release the reinforcement ring such that it unfolds back to its normal position. Position tilebridge over cutout hole, and insure that the tile rails rest on the t-grid struts.

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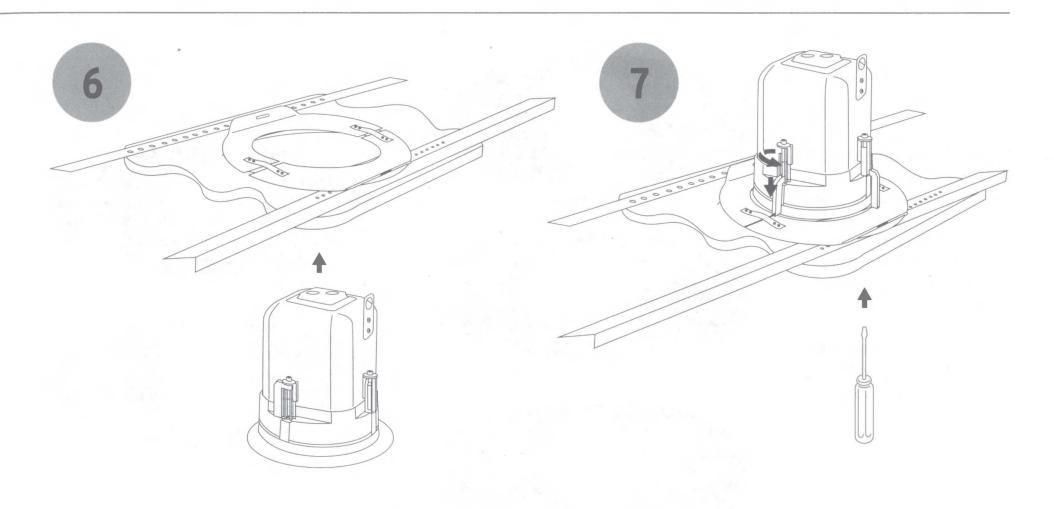
FOR IC-500-T-SC ONLY



The wiring compartment is intended as a termination point for the audio circuit. Access to the compartment is gained by removing the terminal cover located on the back of the speaker. (For the IC-500-T-SC, the terminal is located on the side of the speaker) The terminal cover will accept the appropriate conduit/wire adapter. Feed wires through conduit/wire adapter and connect to the input terminal according to the desired operation mode. Be sure to observe proper polarity. Replace the terminal cover and tighten the conduit/wire adapter to secure the wire.



WHEN CONNECTING 70V OR 100V
DISTRIBUTED LINE SYSTEMS, TAKE CARE TO
ENSURE PROPER TERMINAL CONNECTION.
CONNECTION TO THE LOW IMPEDANCE
TERMINAL COULD RESULT IN SPEAKER
DAMAGE, AMPLIFIER DAMAGE, OR BOTH.



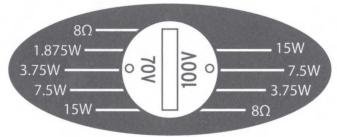
Insert the speaker into the cutout hole. With a #2 Phillips screwdriver, tighten the four dog clamps until they are seated securely against the ceiling surface. Do not overtighten.

#### INSTALLATION

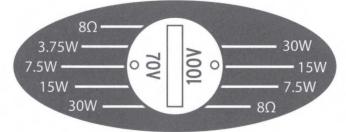


For installations using 70V/100V input connection, set the switch on the front panel to the desired setting. For applications where 8 Ohm impedance is desired, the switch should be set to 8 Ohms (or 6.5/7.5 ohm for the IC-800-T/IC-650-T).

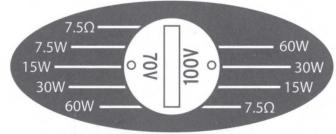
Note: The speaker comes from the factory set at the lowest output setting (high impedance).



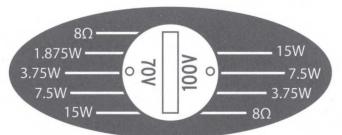
IC-400-T tap selectable



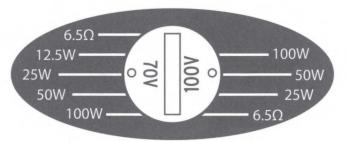
IC-525-T tap selectable



IC-650-T tap selectable



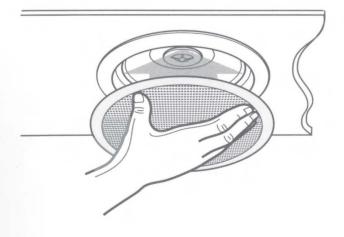
IC-500-T-SC tap selectable



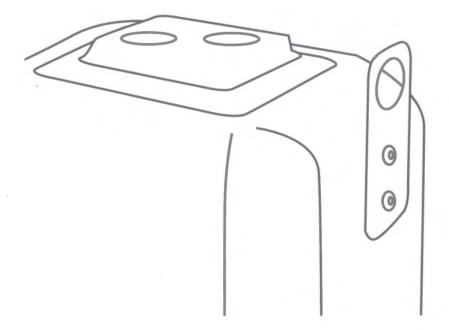
IC-800-T tap selectable

#### **SEISMIC TAB**





Using the flat of your hand, insert grille into speaker frame making sure it is securely seated and flush.



A seismic tab, located on the back of the speaker, is used as a secondary security point. Some construction codes may require its use. To utilize the seismic tab, run a support wire from a secure point in the ceiling and attach it to the tab. Be sure to consult the construction codes in your area. Klipsch recommends the use of this tab in all installations as a secondary means of support.



#### IC-650-T

FREQUENCY RESPONSE	50-20k Hz +/- 4 dB
CONT. POWER HAND.	80 watts (18.8 V)
CALC MAX CONT. OUTPUT @ 1M	106 dB
SENSITIVITY 2.83 V/1M	90dB
COVERAGE	105 degrees
DI	6.5 dB
Q	4.5
NOMINAL IMPEDANCE	8 ohms, min 4.4 ohms; switch set in 8 ohm position
DIAMETER	10"
CUTOUT DIAMETER	10.125"
OVERALL DEPTH	10.938"
MOUNTING DEPTH	10.625"
WEIGHT	11.25 lbs.
INPUT CONNECTORS	Terminal Strip
TRANSFORMER TAPS	70V: 60W, 30W, 15W, 7.5W 100V: 60W, 30W, 15W
FINISHES	Black and White
TRANSDUCERS	6.5" WOOFER AND 1" TITANIUM DIAPHRAGM COMPRESSION
	DRIVER ON A 3.5" ROUND XT MODIFIED TRACTRIX HORN
ENCLOSURE TUNING	Vented Via A 1" Tractrix port

#### Klipsch Limited Warranty

KLIPSCH, AUDIO TECHNOLOGIES ("KLIPSCH") warrants this product to be free from defects in materials and workmanship (subject to the terms set forth below) for a period of five (5) years from the date of purchase. During the Warranty period, KLIPSCH will repair or replace (at KLIPSCH's option) this product or any defective parts (excluding electronics and amplifiers). For products that have electronics or amplifiers, the Warranty on those parts is for a period of two (2) years from the date of purchase.

To obtain Warranty service, please contact the KLIPSCH authorized dealer from which you purchased this product. If your dealer is not equipped to perform the repair of your KLIPSCH product, it can be returned, freight paid, to KLIPSCH for repair. Please call KLIPSCH at 1-800-KLIPSCH for instructions. You will need to ship this product in either its original packaging or packaging affording an equal degree of protection.

Proof of purchase in the form of a bill of sale or receipted invoice, which is evidence that this product is within the Warranty period, must be presented or included to obtain Warranty service.

This Warranty is invalid if (a) the factory-applied serial number has been altered or removed from this product or (b) this product was not purchased from a KLIPSCH authorized dealer. You may call 1-800-KLIPSCH to confirm that you have an unaltered serial number and/or you purchased from a KLIPSCH authorized dealer.

This Warranty does not cover cosmetic damage or damage due to misuse, abuse, negligence, acts of God, accident, commercial use or modification of, or to any part of, the product. This Warranty does not cover damage due to improper operation, maintenance or installation, or attempted repair by anyone other than KLIPSCH or a KLIPSCH dealer which is authorized to do KLIPSCH warranty work. Any unauthorized repairs will void this Warranty. This Warranty does not cover product sold AS IS or WITH ALL FAULTS.

REPAIRS OR REPLACEMENTS AS PROVIDED UNDER THIS WARRANTY ARE THE EXCLUSIVE REMEDY OF THE CONSUMER. KLIPSCH SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT. EXCEPT TO THE EXTENT PROHIBITED BY LAW, THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS AND IMPLIED WARRANTIES WHATSOEVER, INCLUDING BUT NOT LIMITED TO, THE WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PRACTICAL PURPOSE.

Some states do not allow the exclusion or limitation of incidental or consequential damages or implied warranties so the above exclusions may not apply to you. This Warranty gives you specific legal rights, and you may have other rights, which vary from state to state.



# KEEPERS OF THE SOUND

3502 WOODVIEW TRACE, INDIANAPOLIS, IN, USA
KLIPSCH.COM/PRO

#### In-Ceiling Loudspeaker



The IC-650-T packs proven materials and wide dispersion horn technology into an installer-friendly, UL-2043 and 1480 certified loudspeaker with an integrated back can and multi-tap transformer. IC-T Series speakers have been included in a number of major installations nationally, from Bloomingdale's in New York City to the Ron Jon Surf Shop in Orlando.

The two-way IC-650-T features a 6.5-inch woofer, and I-inch titanium diaphragm compression driver on a 3.5-inch round modified XT Tractrix® Horn for smooth response with constant directivity. A Tractrix port design helps to provide deeper, fuller bass with less compression and distortion. A new, more compact design simplifies low ceiling mounting.

For distributed line applications, the IC-650-T features a 70/100 volt multi-tap transformer. A single rotary switch for the 4-ohm bypass and multi-tap setting is conveniently located under the speaker grille. The IC-650-T is shipped complete with a tile bridge for installation in a suspended ceiling or wherever additional reinforcement of the ceiling material is required.

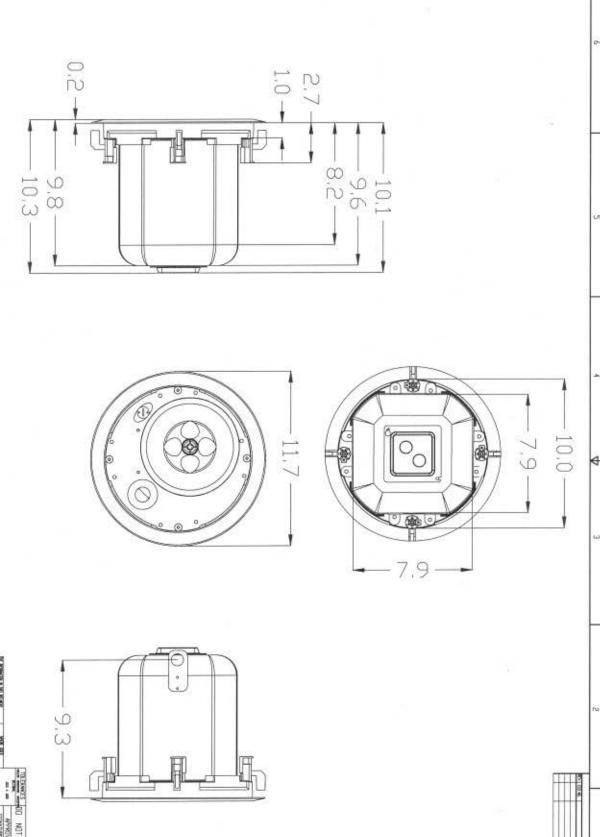
# IC-650-T

- Wider, shorter design to fit low ceilings; multi-tap transformer
- 70-volt, 100-volt, or 8-ohm operation selectable via front baffle switch
- Tractrix® Port design for deep bass with less compression
- Wide dispersion Tractrix<sup>®</sup> Horn tweeter with XT technology for clear sound in any location
- Designed to mix and match with Klipsch CA-T speakers

#### **SPECIFICATIONS**

Frequency response	50-20k Hz +/- 4 dB
Power handling	80 watts (18.8V) cont.
Sensitivity	90dB 2.83 V/1M
Nominal impedance	8 ohms, min 4.4 ohms when switch is set to 8 ohm position
Transformer taps	70V: 60W, 30W, 15W, 7.5W 100V: 60W, 30W, 15W
Maximum acoustic output	106 dB @ 1 M
Coverage Angle	105 degrees
Transducers	6.5" woofer and 1" titanium diaphragm compression driver on a 3.5" round XT modified Tractrix Horn
Enclosure tuning	Vented via a Tractrix port
Input connections	Terminal Strip
Thru hole width	10" diameter
Overall width	10.75" diameter
Overall width Overall depth	10.75" diameter 10.938"
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Overall depth  Mounting depth	10.938" 10.625"





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