

# THUMP

TH-15A

owner's manual

**TAPCO<sup>®</sup>**

[www.tapcoworld.com](http://www.tapcoworld.com)

**CAUTION AVIS**



RISK OF ELECTRIC SHOCK  
DO NOT OPEN  
RISQUE DE CHOC ELECTRIQUE  
NE PAS OUVRIR



**CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK  
DO NOT REMOVE COVER (OR BACK)  
NO USER-SERVICEABLE PARTS INSIDE  
REFER SERVICING TO QUALIFIED PERSONNEL**

ATTENTION: POUR EVITER LES RISQUES DE CHOC  
ELECTRIQUE, NE PAS ENLEVER LE COUVERCLE. AUCUN  
ENTRETIEN DE PIECES INTERIEURES PAR L'USAGER. CONFIER  
L'ENTRETIEN AU PERSONNEL QUALIFIE.

AVIS: POUR EVITER LES RISQUES D'INCENDIE OU  
D'ELECTROCUTION, N'EXPOSEZ PAS CET ARTICLE  
A LA PLUIE OU A L'HUMIDITE



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 electric shock to persons.

Le symbole éclair avec point de flèche à l'intérieur d'un triangle équilatéral est utilisé pour avertir l'utilisateur de la présence à l'intérieur du coffret de "voltage dangereux" non isolé d'ampleur suffisante pour constituer un risque d'électrocution.



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

Le point d'exclamation à l'intérieur d'un triangle équilatéral est employé pour avertir les utilisateurs de la présence d'instructions importantes pour le fonctionnement et l'entretien (service) dans le livret d'instruction accompagnant l'appareil.

## 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 a dry 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. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as when the power-supply cord or plug has been damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

15. This apparatus shall not be exposed to dripping or splashing, and no object filled with liquids, such as vases, shall be placed on the apparatus.
16. This apparatus has been designed with Class-I construction and must be connected to a mains socket outlet with a protective earthing connection (the third grounding prong).
17. The MAINS plug or an appliance coupler is used as the disconnect device, so the disconnect device shall remain readily operable.
18. This apparatus has been equipped with a double-pole AC mains power switch. This switch is located on the rear panel and should remain readily accessible to the user.
19. NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
  - Reorient or relocate the receiving antenna.
  - Increase the separation between the equipment and the receiver.
  - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
  - Consult the dealer or an experienced radio/TV technician for help.

CAUTION: Changes or modifications to this device not expressly approved by LOUD Technologies Inc. could void the user's authority to operate the equipment under FCC rules.

20. This apparatus does not exceed the Class A/Class B (whichever is applicable) limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of the Canadian Department of Communications.

ATTENTION —Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de class A/de class B (selon le cas) prescrites dans le règlement sur le brouillage radioélectrique édicté par les ministere des communications du Canada.

21. Exposure to extremely high noise levels may cause permanent hearing loss. Individuals vary considerably in susceptibility to noise-induced hearing loss, but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a period of time. The U.S. Government's Occupational Safety and Health Administration (OSHA) has specified the permissible noise level exposures shown in the following chart. According to OSHA, any exposure in excess of these permissible limits could result in some hearing loss. To ensure against potentially dangerous exposure to high sound pressure levels, it is recommended that all persons exposed to equipment capable of producing high sound pressure levels use hearing protectors while the equipment is in operation. Ear plugs or protectors in the ear canals or over the ears must be worn when operating the equipment in order to prevent permanent hearing loss if exposure is in excess of the limits set forth here:

Duration Per Day In Hours	Sound Level dBA, Slow Response	Typical Example
8	90	Packed garage concert
6	92	
4	95	VW Bus Peace Train
3	97	
2	100	Cranked psychedelic tunes
1.5	102	
1	105	High speed chase on C.H.I.P.s
0.5	110	
0.25 or less	115	Loudest parts at a Heavy Metal concert

**WARNING — To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.**

## PORTABLE CART WARNING



Carts and stands - The Component should be used only with a cart or stand that is recommended by the manufacturer. A Component and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the Component and cart combination to overturn.

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Don't forget to visit our website at [www.tapcoworld.com](http://www.tapcoworld.com) for more information about this and other TAPCO products.

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## What me, read a manual?

Before you begin, please make sure you read the Safety Instructions on page 2 and Getting Started on page 4.

Your new TAPCO® TH-15A active loudspeakers are designed to set up quickly and operate easily. We know it's often seen as a sign of weakness to read a manual, along with asking for directions when lost, but we hope you will read the rest of the manual, at least while nobody is looking.

It is important to keep your receipt in a safe place, and not a bad idea to write your product information here for future reference (i.e., insurance claims, tech support, return authorization, etc.).

**Product Serial #:**

**Purchased at:**

**Date of purchase:**

# Getting Started



The following steps will help you set up your loudspeakers quickly.

## INITIAL SETTINGS:

1. Turn the LEVEL control on the rear panel all the way down.
2. Set the DIRECT/EQ switch out (DIRECT).
3. Turn the POWER switch OFF.

## CONNECTIONS:

1. Connect the line-level signal from your mixer (or other signal source) to the IN jack on the TH-15A rear panel (XLR connector).
2. Connect the supplied AC power cord to the IEC socket on the back of the loudspeaker. Plug the other end into an AC outlet properly configured with the correct voltage as indicated just below the IEC socket.

## TURN IT ON:

1. Turn the POWER switch ON.
2. Start your signal source (tape deck, CD, DAW, or whatever), but leave the master level control on your mixer down.
3. Slowly turn up the LEVEL control on the TH-15A to the "U" (unity gain) mark at the center position.
4. Adjust the master volume on your mixer to a comfortably loud listening level. If the volume from the speakers gets really loud, really fast, try turning down the LEVEL control on the TH-15As a bit. If the speakers don't get loud enough, turn up the LEVEL control to achieve a good balance of master volume control and loudness from the speaker.

Now that you have your loudspeakers working, it's time to hunker down and read the rest of this manual...especially the following:

## ADDITIONAL TIDBITS OF WISDOM:

- Never listen to loud music for prolonged periods. Please see the Safety Instructions on page 2 for information on hearing protection.
- When you shut down your equipment, turn off the TH-15A loudspeakers first to prevent thumps and other noises generated by any upstream equipment from coming out the speakers. When powering up, turn on the TH-15As last.
- Save the shipping boxes and packing materials! You may need them someday. Besides, your cat will love playing in them and jumping out at you unexpectedly. Remember to pretend like you are surprised!
- Save your sales receipt in a safe place.
- Record the serial number in the space provided on page 3, along with where and when you bought it.

# Introduction

Thank you for choosing the TAPCO TH-15A active loudspeakers. The TAPCO product line hails back to the days of TAPCO Corporation, Greg Mackie's first company. TAPCO revolutionized the audio industry back in 1969 with the very first 6-channel mixer specifically designed for keyboards and rock 'n' roll. In essence, TAPCO redefined the price/performance ratio and made high-quality professional audio equipment accessible to virtually anyone. Today, TAPCO shares the same ideals, and is backed by the world-class engineering and manufacturing horsepower of LOUD Technologies.

The TH-15A active loudspeakers are packed with features and designed to produce transparent and uncolored sound for PA systems and sound reinforcement. The two-way bass reflex (ported) design provides an amazingly flat frequency response from 40 Hz to 20 kHz. These versatile compact loudspeakers can be used in a variety of applications, and when combined with the TAPCO TH-18s active subwoofers, they form an amazing system. The durable, lightweight enclosure is designed with a socket in the bottom for pole-mounting on a stand or with the TAPCO TH-18s. In addition, the TH-15A loudspeakers can be placed on their side for use as floor monitors.

There are many benefits to integrating an active crossover, power amplifiers, and drivers into a single cabinet, and we've taken full advantage of these benefits in the design of the TH-15A.

- The crossover point is designed so that the high and low-frequency drivers are fed only the frequencies that they are best able to reproduce.
- The amplifiers are designed to provide maximum acoustic output from the speakers, yet minimize the danger of speaker damage due to overdriving.
- The length of the connecting wires between the amplifier outputs and the drivers are kept to an absolute minimum so the damping factor of the amplifier isn't compromised by the resistance of long speaker cables.
- The acoustic sum of the outputs from the two drivers are optimized electronically, as well as physically, so the amplitude response is unity and the phase difference is minimal.

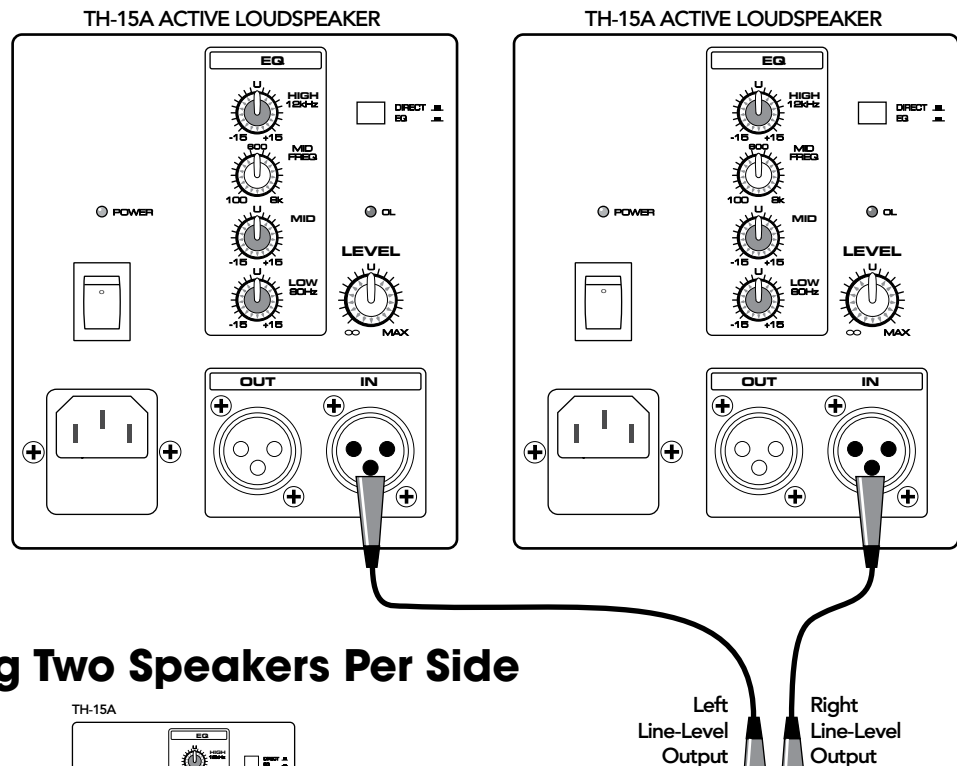
In short, all the complex interconnected components in the system are designed to work in harmony with each other to produce the best possible sound.

Here's a quick look at all the features packed into the TH-15A loudspeakers:

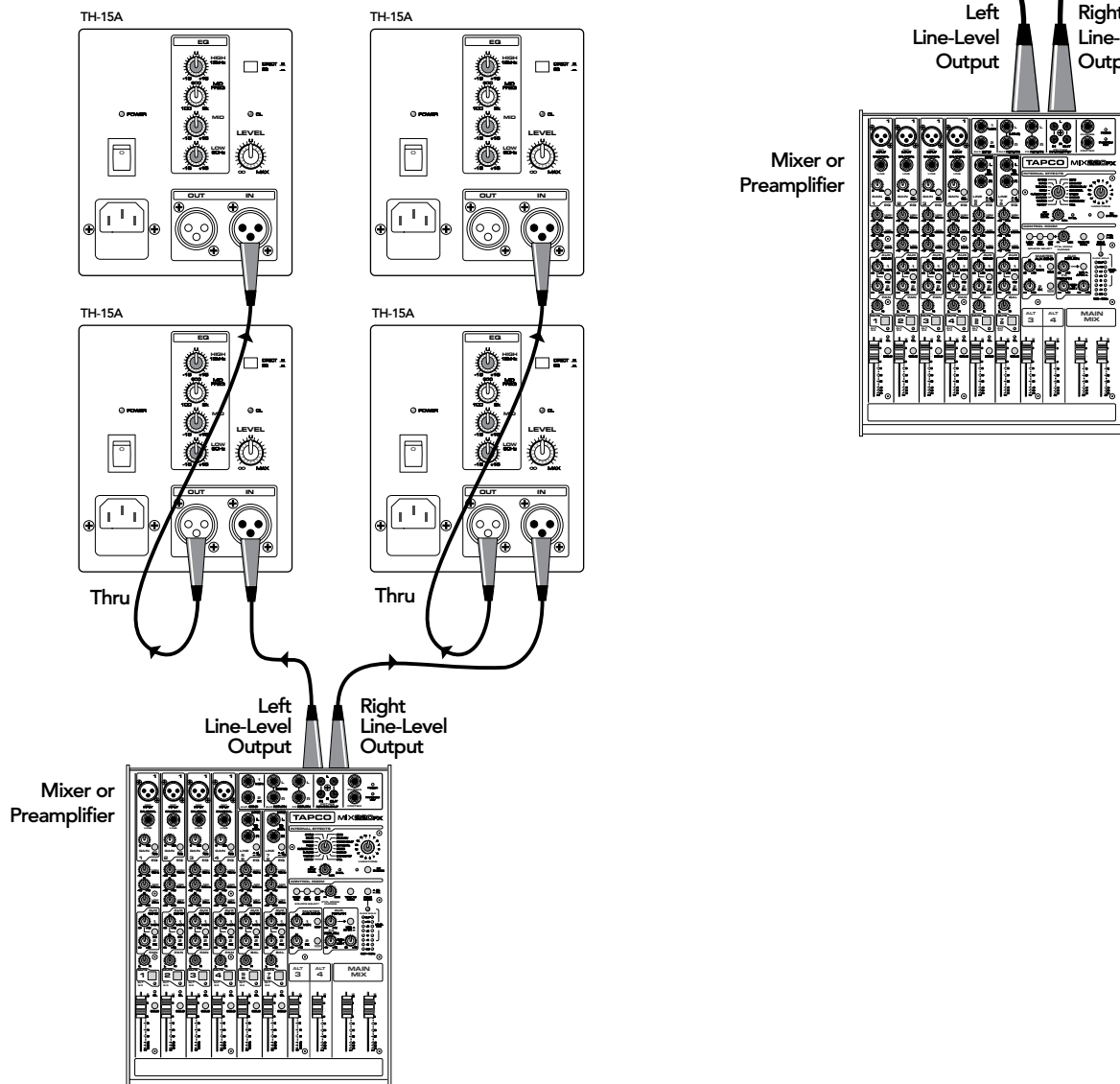
- Flat frequency response (-10 dB, 40 Hz to 20 kHz)
- 1" high-frequency compression driver
- 15" low-frequency woofer
- Convenient portable design, with integrated handles in both sides and top
- Ported, bass reflex design for enhanced bass performance
- 99 watt HF and 298 watt LF power amplifiers (peak)
- Low-frequency over-excursion protection
- High-strength lightweight cabinet constructed of polypropylene
- High-density adiabatic fiberfill absorbs internal reflections
- Balanced Mic/Line XLR input and thru connectors
- 24 dB/octave crossover at 3 kHz
- Adjustable input level control
- LF equalization provides  $\pm 15$  dB at 80 Hz and below
- MF equalization provides  $\pm 15$  dB with sweepable frequency from 100 Hz to 8 kHz
- HF equalization provides  $\pm 15$  dB at 12 kHz and above
- EQ bypass (DIRECT) switch
- Rear panel power switch
- Pole-mount socket

# Hookup Diagrams

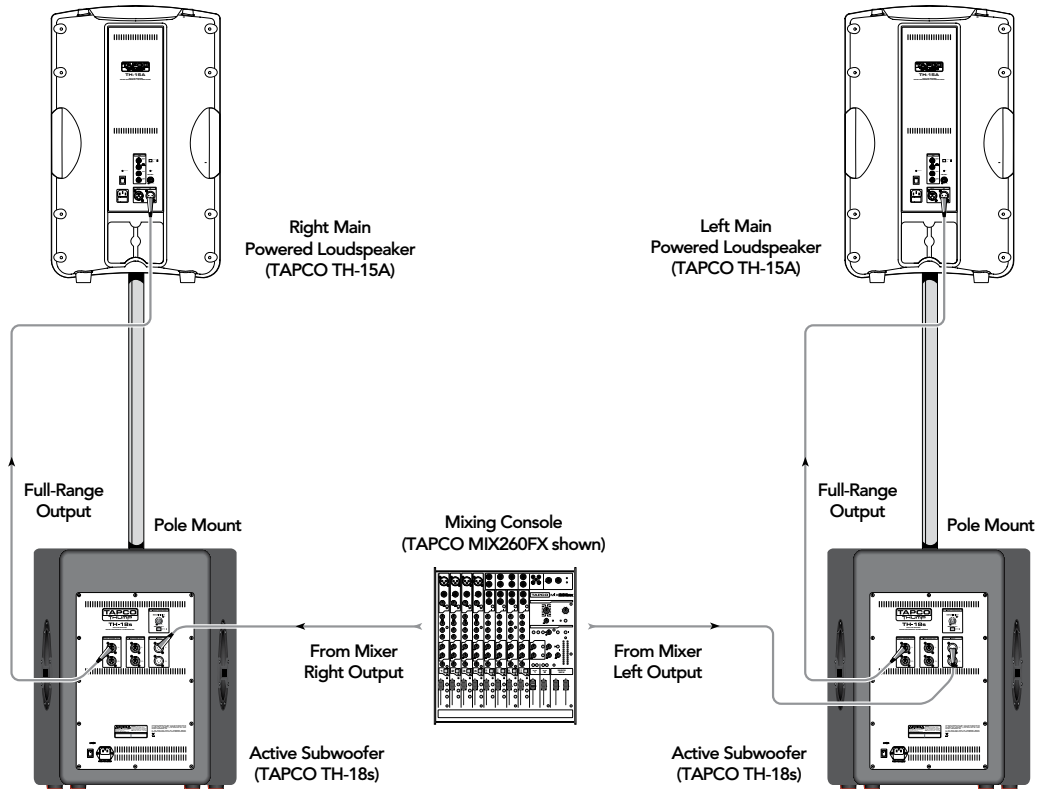
## Stereo Speaker Hookup



## Daisy-Chaining Two Speakers Per Side



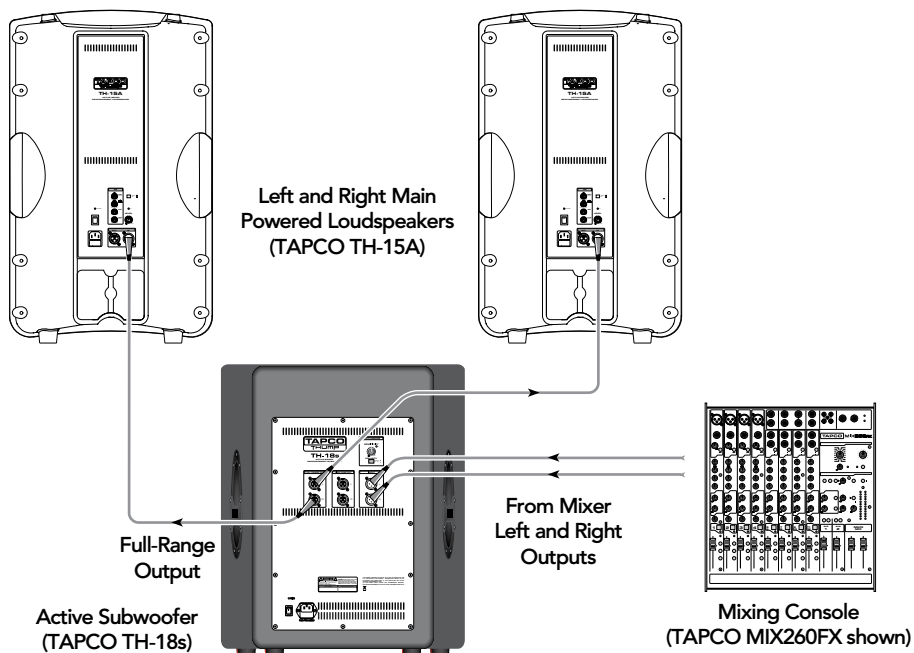
## Main PA System with two TH-18s active subwoofers



The left and right line-level outputs from a mixer feed the inputs of two TAPCO TH-18s subwoofers. The full-range line-level outputs of the subwoofers feed the inputs of the TH-15A loudspeakers, so these play the full range in stereo, and the subs provide bass reinforcement.

Alternatively, you can use the high-pass line-level outputs of the subwoofers to feed the loudspeakers, then the subs will handle all the lows, while the TH-15A loudspeakers handle the mids and highs.

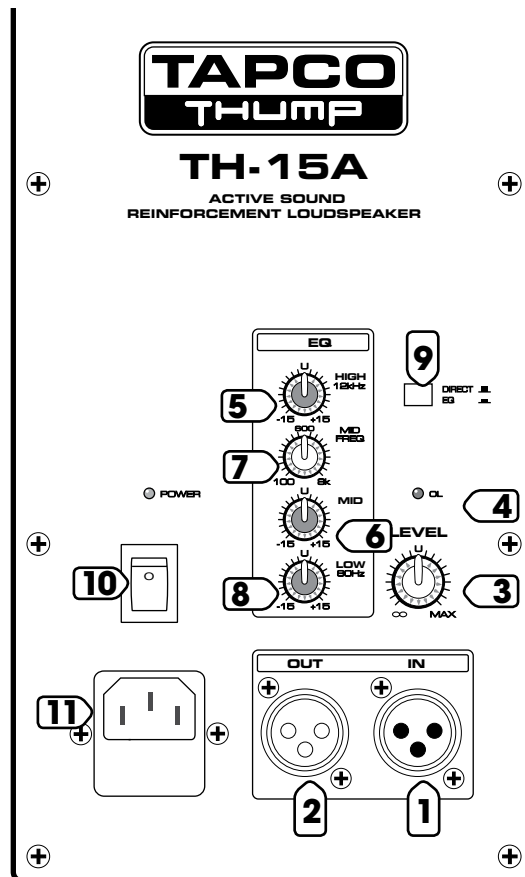
## Using one TH-18s active subwoofer



The left and right line-level outputs from a mixer feed the inputs of a TH-18s active subwoofer. The full-range line-level outputs of the subwoofer feed the inputs of the TH-15A loudspeakers, so these play the full range in stereo, and the sub provides bass reinforcement.

# TAPCO TH-15A Features

## REAR PANEL DESCRIPTION



This is where you connect your signal to the loudspeaker and make adjustments to the frequency response of the speaker to match the loudspeaker's location and your room's environment.

### 1. INPUT

This is a female XLR-type connector that accepts a balanced mic or line-level signal from a mixing console or other signal source.

### 2. OUTPUT

This is a male XLR-type connector that produces exactly the same signal that is connected to the input jack. Use it to daisy-chain several TH-15A's together off the same signal source.

### 3. LEVEL

The LEVEL control adjusts the overall signal level at the input to the built-in power amplifiers. It ranges from Off (∞) to MAX (maximum gain), with unity gain at the center position (12 o'clock).

- The TH-15A is designed to operate with a +4 dBu signal when the LEVEL control is at the U (center) position.
- The TH-15A can accept up to a +20 dBu signal by turning down the INPUT LEVEL control accordingly.
- NEVER connect the output of an amplifier directly to the input of the TH-15A. This could damage the active input circuitry of the loudspeaker.

### 4. OL Indicator

The OL (overload) indicator lights when the amplifiers in the TH-15A are near the clipping point. It is okay if the OL indicator blinks occasionally, because this means that the transient peaks are just reaching the maximum output of the amplifiers and you are getting the most from your TH-15As.

If the OL indicator is blinking frequently or lighting continuously, turn down the LEVEL control (3) on the TH15A or turn down the signal at its source (e.g., the mixing console) until the OL indicator blinks occasionally or not at all.



## 5. HIGH EQ

This control gives you up to 15 dB boost or cut above 12 kHz, and it is also flat at the center position (U). Use it to add sizzle to cymbals, and an overall sense of transparency or edge to the keyboards, vocals, guitar, and bacon frying. Turn it down a little to reduce sibilance, or to hide tape hiss.

## 6. MID EQ

This is a midrange EQ control that provides 15 dB of boost or cut centered at any frequency between 100 Hz and 8 kHz. The MID EQ circuit is flat (no boost or cut) at the center position. This frequency range includes most vocals (male at the lower end of the range and female at the upper end of the range), and the fundamentals and harmonics for many instruments.

## 7. MID FREQ

This knob ranges from 100 Hz to 8 kHz and determines the center frequency for the MID EQ filter. This allows you to zero in on the precise narrow band of frequencies you want to have affected by the MID EQ.

## 8. LOW EQ

This control gives you up to 15 dB of boost or cut below 80 Hz. The circuit is flat (no boost or cut) at the center position. This frequency range represents the punch in bass drums, bass guitar, fat synth patches, and some really serious male singers.

## 9. DIRECT/EQ Switch

This switch allows you to bypass the EQ section. When the switch is out (DIRECT), the EQ section is bypassed and the EQ knobs have no effect on the signal. When the switch is pushed in (EQ), the EQ controls can be used to tailor the frequency response of the TH-15As.

## 10. POWER Switch

Use this switch to turn the active loudspeakers on and off. The indicating LED above the POWER switch lights when the POWER switch is on and AC power is available at the linecord socket. A second power indicator is located on the front of the cabinet.

## 11. Line Cord Socket and Fuse

Connect the detachable line cord to this IEC socket securely, and plug the other end into your AC outlet. Make sure the AC power is matched to the AC power indicated on the rear panel (under the IEC socket).

The fuse is located behind the fuse cover, at the bottom of the IEC socket. See the "Troubleshooting" section on page 9 for information about replacing the fuse.

## Protection Circuits

There are several protection mechanisms designed into the TH-15A to safeguard the loudspeakers and amplifiers from inadvertent damage.



**CAUTION:** The protection circuits are designed to protect the loudspeakers under reasonable and sensible conditions. Should you choose to ignore the warning signs (i.e., frequent OL LED indications, excessive distortion), you can still damage the speakers in the TH-15A by overdriving them past the point of amplifier clipping. Such damage is beyond the scope of the warranty.

### Overexcursion Protection

A 12 dB/octave high-pass filter at 40 Hz just prior to the low-frequency amplifier prevents very low frequencies from being amplified. Excessive low-frequency energy below 40 Hz can damage the woofer by causing it to “bottom out,” also known as overexcursion, which is equivalent to a mechanical form of clipping.

### Thermal Protection

All amplifiers produce heat. The TH-15A is designed to be efficient both electrically and thermally.

The amplifier module is mounted on a large heatsink, which is cooled by convection where cool air is drawn through it’s fins, carrying the heat away. In order for this convection cooling to work efficiently, it is important to provide adequate airspace behind the loudspeaker. When you position the TH-15A, we recommend leaving at least six inches of air space behind it.

- If for some reason the heatsink gets too hot, a built-in thermal switch activates and turns off the amplifier. This protection operates independently for the low-frequency and high-frequency amplifiers. Therefore, it is possible for only the low frequency or high frequency amplifier to shut down while the other remains on.
- When the heatsink cools down to a safe temperature, the thermal switch resets and normal operation resumes.

- If the heatsink temperature again gets too hot, the shutdown process repeats. Should this happen, make sure that airflow to the rear of the cabinet is not restricted. If the ambient air temperature is very warm, try pointing a small fan toward the heatsink to increase the airflow through the fins.

### Driver Protection

Each driver has its own compression circuit, which helps protect them from damaging transient peaks. The compressors are designed to be transparent and are not noticeable under normal operating conditions.

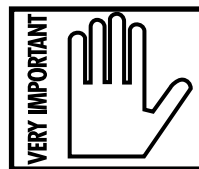
## Input Signal Wiring

You should use high-quality, shielded cable to connect the signal source to the IN jack on the TH-15A.

- Foil shielded cables, such as Belden 8451, 8761, or 9501 are commonly used for studio wiring.
- Microphone cables work well.
- The better the shield, the better the immunity from externally induced noise (like EMI and RFI). Route the cable away from AC power cords and outlets. These are common sources for hum in an audio signal. You can purchase quality cables from your Mackie dealer.

## Placement

The TH-15A loudspeaker is designed to sit on the floor or stage. It can be pole-mounted via the built-in socket on the bottom of the cabinet. Be sure the pole is capable of supporting the weight of the TH-15A.



**WARNING:** The cabinet has no rigging points and is not suitable for rigging. **NEVER** attempt to suspend the TH-15A by its handles.

As with any powered components, protect them from moisture. If you are setting them up outdoors, make sure they are under cover if you expect rain.

# Appendix A: Service Information

If you think your TAPCO product has a problem, please check out the following troubleshooting tips and do your best to confirm the problem. Visit the “Talk To Us” section of our website ([www.tapcoworld.com](http://www.tapcoworld.com)) to contact our technical support heroes and get some ideas. You may find the answer to the problem without having to send your TAPCO product away.

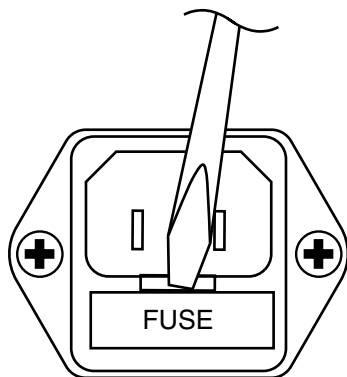
## Troubleshooting

### No Power

- Our favorite question: Is it plugged in?
- Make sure the line cord is securely seated in the line cord socket and plugged all the way into the AC outlet.
- Make sure the AC outlet is live (check with a tester or lamp).
- Is the POWER switch in the ON position?
- Are the power LEDs on the front and rear panel illuminated? If not, make sure the AC outlet is live. If so, refer to “No Sound” below.
- If the power LEDs are not illuminated, and you are certain that the AC outlet is live, it is possible the fuse has blown.

### To remove and replace the fuse:

1. Disconnect the power cord from the IEC socket.
2. Remove the fuse drawer by prying it open with a small screwdriver. It will slide all the way out.



3. Remove the fuse and replace it with an equivalent-type fuse.  
115 VAC unit: 6 amp slo-blo (T6AL/250 V)  
230 VAC unit: 3.15 amp slo-blo (T3.15AL/250 V)

4. Replace the fuse drawer by pushing it all the way back into the IEC socket.

If two fuses blow in a row, then something is very wrong. See the “Repair” section on the next page to find out what to do.

### No Sound

- Are the power LEDs on the front and rear panel illuminated?
- Is the LEVEL control turned up?
- Is the signal source turned up? Make sure the signal level from the mixing console (or whatever device immediately precedes the loudspeaker) is high enough to produce sound.
- If it's a stereo pair, try switching them around. For example, if a left speaker is presumed dead, switch the left and right cords at the speakers. If the problem switches sides, it's not the TH-15A. It could be a bad cable, or no signal from the mixer.

### Bad Sound

- Is the input connector plugged completely into the IN jack?
- Is something connected to the OUT jack? Try unplugging it. If the sound improves, whatever was plugged into the OUT jack may have affected the signal.
- Is it loud and distorted? Reduce the signal level at the mixer.
- If possible, listen to the signal source with headphones plugged into the preamp stage. If it sounds bad there, it's not the loudspeaker.
- Too much bass or not enough bass? Move around the room and see if the bass response changes. It's possible your listening position coincides with a room mode where the low frequencies either become exaggerated or nulled. If so, try moving the loudspeakers to a different position, or moving your listening position.

## Noise/Hum

- Check the signal cable between the mixer and the loudspeaker. Make sure all connections are secure. These problems usually produce crackling noises or hum.
- If you are using two or more TH-15A active loudspeakers, try plugging them all into the same AC outlet panel or outlet strip. The purpose for this is to connect them all to the same earth ground point and reduce the possibility of creating a ground loop.
- If connecting an unbalanced output to the TH-15A balanced input, make sure the shield is connected to the unbalanced ground and to pin 1 of the XLR.

## Repair

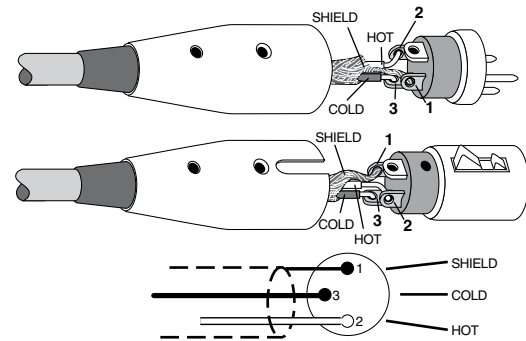
For warranty repair or replacement, refer to the warranty information on page 15.

Non-warranty repair for TAPCO products is available at a factory-authorized service center. To locate your nearest service center, call our Tech Support department at 1-877-827-2669, Monday-Friday, 7 am to 5 pm Pacific Time, to explain the problem. Tech Support will tell you where the nearest factory-authorized service center is located in your area.

# Appendix B: Connections

## XLR Connectors

XLR connectors are used to make balanced input and through connections to the TH-15A. They are wired as follows, according to standards specified by the AES (Audio Engineering Society).



### XLR Balanced Wiring

Pin 1 = Shield

Pin 2 = Hot (+)

Pin 3 = Cold (-)

### Lonely? Looking for that special someone? Do you have a question about your TAPCO loudspeaker?

Please call our Technical Support chaps at **1-877-827-2669**, Monday to Friday, from 7 AM to 5 PM PST. After hours, visit [www.tapcogear.com](http://www.tapcogear.com) and look under **Talk To Us**, or e-mail us at [techmail@tapcogear.com](mailto:techmail@tapcogear.com)

# Appendix C: TH-15A Specifications

## Acoustic Performance

Frequency Range (-10 dB):	40 Hz – 20 kHz
Frequency Response (-3 dB):	50 Hz – 18.5 kHz
Horizontal Coverage Angle:	90°
Vertical Coverage Angle:	60°
Maximum SPL Long-Term:	113 dB SPL @ 1m
Maximum SPL Peak:	116 dB SPL @ 1m

## Input/Output

Input Type:	Female XLR Balanced/Unbalanced
Input Impedance:	20 k $\Omega$ balanced bridging; 10 k $\Omega$ unbalanced
Loop-through:	Male XLR Balanced/Unbalanced (parallel with input)
Level Control:	Rotating knob 0 dB at center
Sensitivity:	+4 dBu for full output (Level Control @ Center) -36 dBu for full output (Level Control @ Max)

## Transducers

Low Frequency:	15 in/381 mm with steel frame, paper cone woofer
High Frequency:	Horn-loaded 1 in/25 mm exit compression driver

## Power Amplifiers

Low Frequency Power Amplifier	
Rated Power:	150 watts, 8 ohm load 298 watts peak
THD:	<0.1%
Signal-to-Noise Ratio:	> -94 dB, 20 Hz to 20 kHz, unweighted, referenced to 138 watts into 8 ohms
Design:	BTL Class D
High Frequency Power Amplifier	
Rated Power:	50 watts, 4 ohm load 99 watts peak
THD:	<0.1 %
Signal-to-Noise Ratio:	> -97 dB, 20 Hz to 20 kHz, unweighted, referenced to 50 watts into 4 ohms
Design:	Class AB

## Electronic Crossover

Crossover Type:	24 dB/octave
Crossover Frequency:	3 kHz

## Equalization

Low Frequency EQ:	$\pm$ 15 dB @ 80 Hz, shelving
Mid Frequency EQ:	$\pm$ 15 dB, bandpass, sweepable from 100 Hz to 8 kHz
High Frequency EQ:	$\pm$ 15 dB @ 12 kHz, shelving
Direct/EQ Switch:	Bypasses EQ section

## Protection Features

Over-excursion Protection:	Second-order sub-sonic filter
Thermal Protection:	Independent amplifier shutdown, auto reset
Driver Protection:	Independent HF and LF compressors

## AC Power Requirements

US:	120 VAC, 60 Hz
Europe:	240 VAC, 50 Hz
Korea:	220 VAC, 60 Hz
Japan:	100 VAC, 50/60 Hz
AC Connector:	3-pin IEC 250 VAC, 20 A male
Fuse:	115 VAC: T 6 AL/250 V 230 VAC: T 3.15 AL/250 V
Power Consumption:	320 watts with music, loud mix 20 watts quiescent (idle)

## Construction Features

Basic Design:	Asymmetrical Trapezoidal
Material:	Polypropylene
Finish:	Textured
Handles:	One on each side, one on top
Grille:	Perforated metal with weather-resistant coating
Display LEDs	
Front:	Power ON
Rear:	Power ON, OL (overload)

## Physical Dimensions and Weight

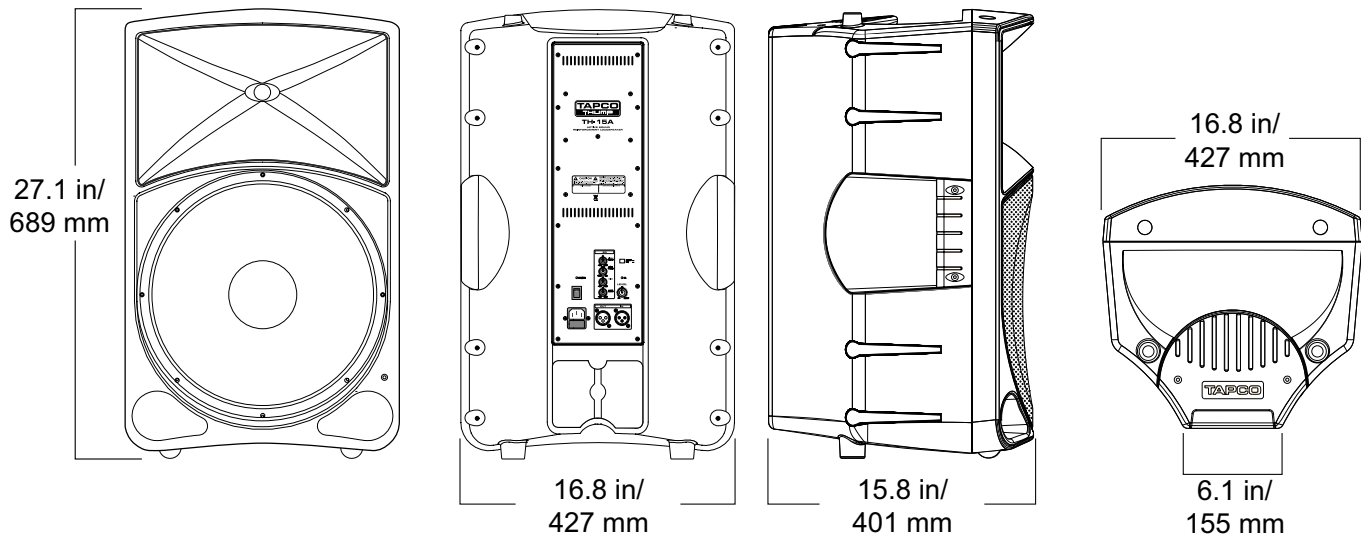
Dimensions	
Height:	27.1 in/689 mm
Width:	16.8 in/427 mm
Depth:	15.8 in/401 mm
Weight:	36 lb/16.3 kg

Mounting Methods:  
Pole-mountable via the built-in socket on the bottom of the cabinet. Be sure the pole is capable of supporting the weight of the TH-15A.

## Disclaimer

Since we are always striving to make our products better by incorporating new and improved materials, components, and manufacturing methods, we reserve the right to change these specifications at any time without notice.

## TH-15A Dimensions



**Correct Disposal of this product:** This symbol indicates that this product should not be disposed of with your household waste, according to the WEEE Directive (2002/96/EC) and your national law. This product should be handed over to an authorized collection site for recycling waste electrical and electronic equipment (WEEE). Improper handling of this type of waste could have a possible negative impact on the environment and human health due to potentially hazardous substances that are generally associated with WEEE. At the same time, your cooperation in the correct disposal of this product will contribute to the effective usage of natural resources. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, waste authority, or your household waste disposal service.

# TAPCO LIMITED WARRANTY

- A.** LOUD Technologies Inc. warrants all materials, workmanship and proper operation of this product for a period of one year from the original date of purchase. You may purchase an additional 24-month Extended Warranty (for a total of 36 months of coverage). Visit our website and follow the "Register It" links for details ([www.tapcoworld.com](http://www.tapcoworld.com)). If any defects are found in the materials or workmanship or if the product fails to function properly during the applicable warranty period, LOUD Technologies, at its option, will repair or replace the product. This warranty applies only to equipment sold and delivered within the U.S. and Canada by LOUD Technologies Inc. or its authorized dealers.
- B.** For faster processing, please register online, or you can mail in the product registration card.
- C.** Unauthorized service, repairs, or modification of TAPCO products will void this warranty. To obtain repairs or replacement under warranty, you must have a copy of your sales receipt from the authorized TAPCO dealer where you purchased the product. It is necessary to establish purchase date and determine whether your TAPCO product is within the warranty period.
- D.** To obtain warranty repair or replacement:
- 1.** Call TAPCO Technical Support at 877/827-2669, 7 AM to 5 PM Monday through Friday (Pacific Time) to get authorization for repair or replacement. Alternately, go to the TAPCO website, click "Talk To Us," and follow the instructions for reporting a warranty issue and submitting a request for an advance replacement.
  - 2. Advance Replacement:** TAPCO will ship a replacement unit to you along with an invoice for the suggested retail price of the replacement unit. You must return the defective unit immediately to cancel the invoice. If you do not return the defective unit within 30 days, you must pay the full amount stated in the invoice to satisfy your debt.
  - 3. Repair:** When you call TAPCO Technical Support, explain the problem and obtain a Service Request Number. Have your TAPCO product's serial number ready. **You must have a Service Request Number before you can obtain factory-authorized service.**
- Pack the product in its original shipping carton. Also include a note explaining exactly how to duplicate the problem, a copy of the sales receipt with price and date showing, your daytime phone number and return street address (no P.O. boxes or route numbers, please!), and the Service Request Number. If we cannot duplicate the problem or establish the starting date of your Limited Warranty, we may, at our option, charge for service time and parts.
  - Ship the product in its original shipping carton, **freight prepaid** to the authorized service center. Write the Service Request Number in **BIG PRINT** on top of the box. The address of your closest authorized service center will be given to you by Technical Support, or it may be obtained from our website. Once it's repaired, the authorized service center will ship it back by ground shipping, pre-paid (if it qualified as a warranty repair).

**Note:** Under the terms of the warranty, you must ship or drop-off the unit to an authorized service center. The return ground shipment is covered for those units deemed by us to be under warranty.

**Note:** You must have a sales receipt from an authorized TAPCO dealer for your unit to be considered for warranty repair.
- IMPORTANT: Make sure that the Service Request Number is plainly written on the shipping carton. No receipt, no warranty service.**
- E.** LOUD Technologies reserves the right to inspect any products that may be the subject of any warranty claims before repair or replacement is carried out. LOUD Technologies may, at our option, require proof of the original date of purchase in the form of a dated copy of the original dealer's invoice or sales receipt. Final determination of warranty coverage lies solely with LOUD Technologies.
- F.** Any products returned to one of the LOUD Technologies factory-authorized service centers, and deemed eligible for repair or replacement under the terms of this warranty will be repaired or replaced. LOUD Technologies and its authorized service centers may use refurbished parts for repair or replacement of any product. Products returned to LOUD Technologies that do not meet the terms of this Warranty will not be repaired unless payment is received for labor, materials, return freight, and insurance. Products repaired under warranty will be returned freight prepaid by LOUD Technologies to any location within the boundaries of the USA or Canada.
- G.** LOUD Technologies warrants all repairs performed for 90 days or for the remainder of the warranty period. This warranty does not extend to damage resulting from improper installation, misuse, neglect or abuse, or to exterior appearance. This warranty is recognized only if the inspection seals and serial number on the unit have not been defaced or removed.
- H.** LOUD Technologies assumes no responsibility for the timeliness of repairs performed by an authorized service center.
- I.** This warranty is extended to the original purchaser. This warranty may be transferred to anyone who may subsequently purchase this product within the applicable warranty period for a nominal fee (extended warranties are not transferable). A copy of the original sales receipt is required to obtain warranty repairs or replacement.
- J.** This is your sole warranty. LOUD Technologies does not authorize any third party, including any dealer or sales representative, to assume any liability on behalf of LOUD Technologies or to make any warranty for LOUD Technologies Inc.
- K.** THE WARRANTY GIVEN ON THIS PAGE IS THE SOLE WARRANTY GIVEN BY LOUD TECHNOLOGIES INC. AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS AND IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE WARRANTY GIVEN ON THIS PAGE SHALL BE STRICTLY LIMITED IN DURATION TO ONE YEAR FROM THE DATE OF ORIGINAL PURCHASE FROM AN AUTHORIZED TAPCO DEALER. UPON EXPIRATION OF THE APPLICABLE WARRANTY PERIOD, LOUD TECHNOLOGIES INC. SHALL HAVE NO FURTHER WARRANTY OBLIGATION OF ANY KIND. LOUD TECHNOLOGIES INC. SHALL NOT BE LIABLE FOR ANY INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES THAT MAY RESULT FROM ANY DEFECT IN THE TAPCO PRODUCT OR ANY WARRANTY CLAIM. Some states do not allow exclusion or limitation of incidental, special, or consequential damages or a limitation on how long warranties last, so some of the above limitations and exclusions may not apply to you. This warranty provides specific legal rights and you may have other rights, which vary from state to state.

**Please keep your sales receipt in a safe place.**



**TAPCO<sup>®</sup>**

[www.tapcoworld.com](http://www.tapcoworld.com)