

IW-155 LCR Speaker

THX Ultra2 In-Wall Thin Bezel LCR Speaker



Instruction Manual



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Model IW-155 LCR

In Wall THX Ultra2 Theater System Speaker

Thank you for purchasing Atlantic Technology products. Our speaker systems have been designed to deliver exceptional sound and value. We hope you like what you hear from them, and are happy with your decision to buy them.

Please take a few moments to read these instructions. They're intended not only to tell you how to mount the speakers, but how to get the best performance from them.

What's THX?

THX is a series of standards and technologies originally developed by LucasFilm Ltd. (of Star Wars fame) and now an entity unto itself. These technologies and standards are intended to ensure that what you hear and see on your A/V system, as closely as possible, matches what the director/ artist/engineer heard and saw during the final mixing of the source material. THX standards are intended to enhance every type of viewing and listening experience including the latest discrete multi-channel digital formats. Please note however that, although there is proprietary THX electronic processing, THX is not a surround format.

THX Ultra2 standards are based on a 3000 cubic foot room (L x W x H = cu. ft.). This does not mean Ultra2 certified components must be used in rooms this exact size. The room sizes simply provide a frame of reference, as the standards specify that the system must deliver certain performance minimums (volume, frequency response, etc.) in the specified space. For more information, see the THX website at www.thx.com.

For Future Reference

Record your serial numbers and date of purchase here:

Model Number _____

Serial Number _____

Date of Purchase _____

The serial number is found on the back panel.

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Important Considerations Before Installation

Recommended Wire Sizes

The longer the wire run, the heavier the wire should be. Use the following recommendations as a guide for your installation. And if you're in doubt, remember that it never hurts to get the next heavier grade of wire. Also note that lower gauge numbers equal heavier wire sizes.

Wire Run Wire Gauge:

- <15 ft. 16 ga.
- 15 to 30 ft. 14 ga.
- >30 to 50 ft. 12 ga.

Location Considerations

A major determinant of any speaker's sound quality is its location in the room. With in-wall speakers there are fewer placement options than with free-standing speakers, so giving some thought to location can really pay off. Our In-Wall Theater Systems have been designed to minimize the detrimental effects wall mounting can have on sound, so they sound better than conventional in-wall speakers.

Room Acoustics

Hard surfaces create lots of sound reflections in the room while soft surfaces tend to absorb sound. Note the speakers' location in terms of proximity to glass and other highly sound reflective or absorptive surfaces. A simple set of curtains or an area rug can make a major difference in sound quality and intelligibility by reducing excessive reflections.

Speaker Placement

For all the following situations, it's recommended that you first place small box speakers in the proposed locations, just to get a good idea of how that location will sound. In-wall speakers are tough to move once they're installed!

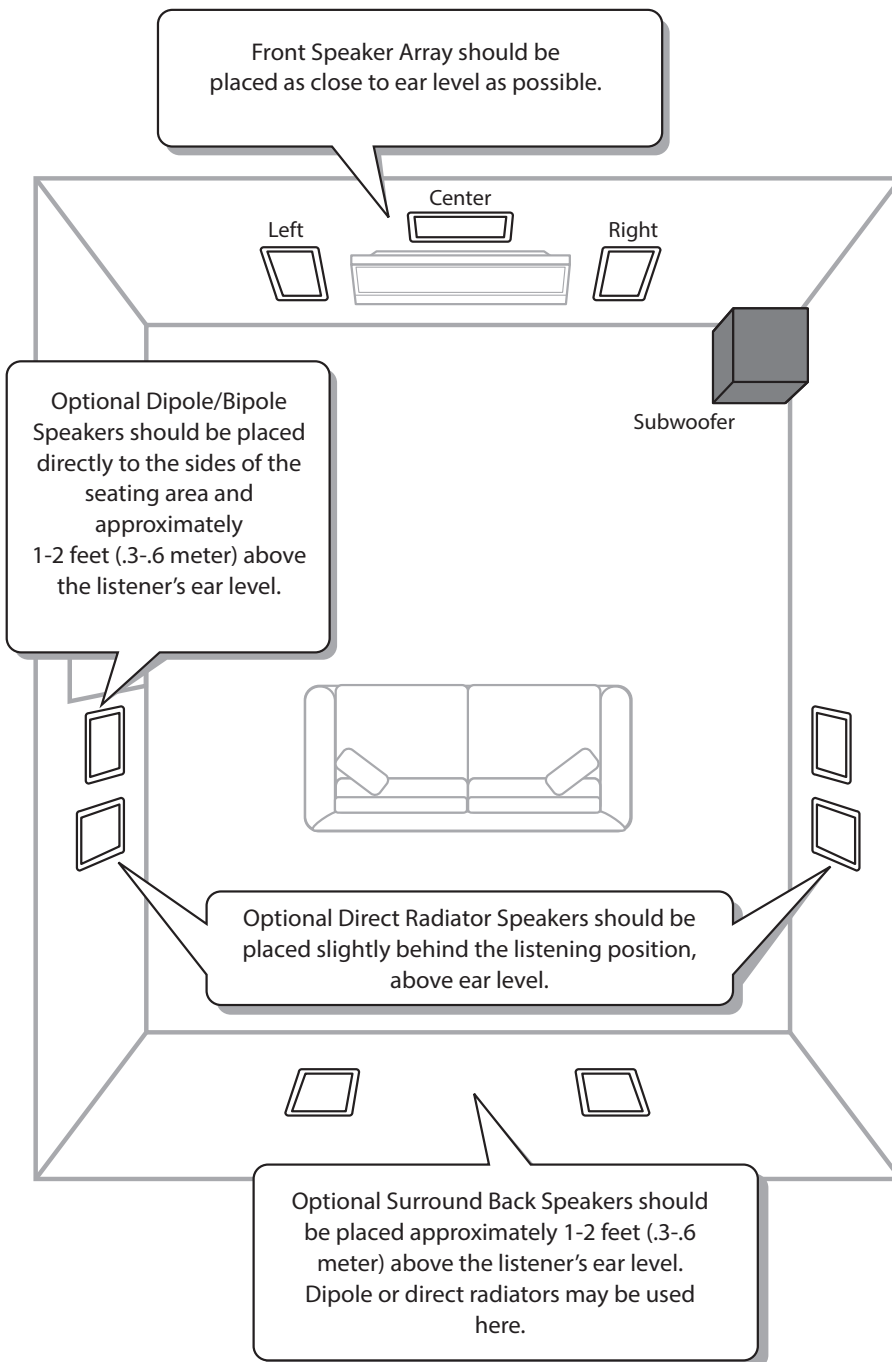
For all the following placement instructions, it's important to bear in mind that for aesthetic considerations, many people prefer to mount their in-wall speakers well above seated ear level, as doing so minimizes the speakers' visual intrusion on the room.

The IW-155 LCR uses Atlantic's renowned 1" soft-dome Low Resonance Tweeter (LRT™). Because of its low crossover point, this remarkable tweeter allows the IW-155 LCR to deliver much wider midrange dispersion than conventional in-wall speakers for greater placement flexibility, without the severe acoustic and mechanical drawbacks of the so-called "pivoting tweeter."

Stereo Music Listening

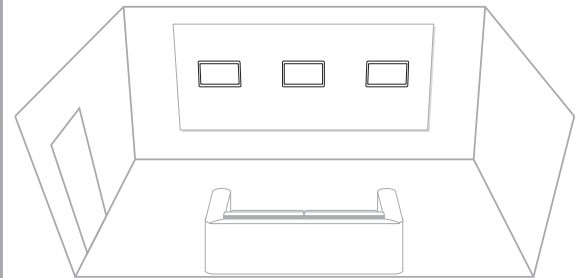
For stereo music reproduction, place the speakers at approximately ear level when seated, with both speakers on the same wall facing the prime listening location. A separation of approximately 6 to 8 feet between the left and right speakers is usually good. Ideally, the distance between the two speakers will be close to the same as the distance from the speakers to the listening position.

Home Theater Systems



Today's home theater systems require you to place six or more speakers in your room. For the most convincing theater effects, speaker placement must be very carefully thought out. This is especially true with in-wall speakers, since their installation is permanent!

Left/Center/Right Locations The tweeter in the front three speakers should be at or just above ear height when seated, just as with stereo speakers. Try to keep the vertical position of the three front speakers within 18 inches of each other, as this will maintain smooth, believable left-center-right pans.



The spacing of the left-right speakers can be a little wider than with 2-channel stereo speakers, since in a theater system, the center channel speaker reproduces the on-screen effects and anchors the center image. Left-right spacing of about 8 to 10 feet usually works well.

NOTE: The IW-155 LCR is not magnetically shielded. If you are using it with an old-styled CRT-type television, be sure the speakers are located at least 12 inches away from the picture tube to prevent video interference.

Surround Speakers In order to achieve optimum performance we strongly recommend Atlantic Technology Dipole or TriVector™ surround speakers. If you are using our dedicated surround speakers please follow the placement recommendations included in their installation instructions.

Non-Dipole Surrounds The most realistic surround effects occur when the listener can't localize the actual location of the surround speaker. If you decide to use the In-Wall Theater System speakers as surround speakers, mount them above the listeners' ears, slightly behind the listening area either on the side or rear walls.

Mounting the IW-155 LCR Speaker

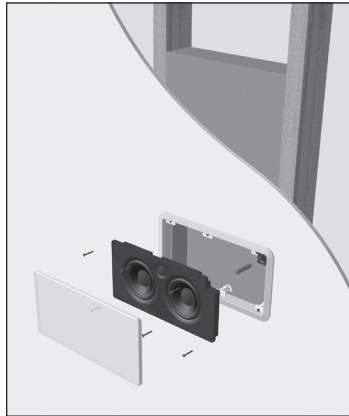
NOTE: We always recommend a professional be involved in the installation of the IW-155 LCR, if at all possible.

The IW-155 LCR can be easily mounted in most any standard wall material, from ½ to 1½ inches thick. The rotating wall clamps firmly fix it to the wall surface after the proper cutout has been made. An important precaution to take before mounting:

Keep the sides of the actual mounting hole at least ½ inch away from beams or studs to ensure that the clamps have adequate room to rotate. A stud or other obstruction that's too close will stop them from properly doing their job.

Installation of the IW-155 LCR in New Construction with Optional Back Box

For new construction, we highly recommend that you use the optional Back Box IN-BOX-155. The Back Box provides the correct acoustic environment for the 155 LCR and ensures its THX-level performance. The rotator clamps (sometimes called "dog legs") will easily grab the combined thickness of 5/8" sheetrock and the 3/8" back box's front panel. The sheetrock must be adhered to the front panel of the back box very solidly and positively. Use very liberal amounts of a high-quality construction adhesive,

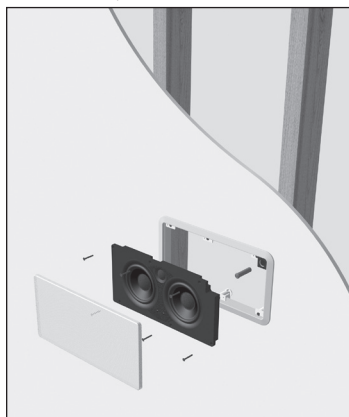


such as *Liquid Nails*, to ensure a secure, vibration-free bond.

Please see the installation instructions that come with the IN-BOX-155 for more details.

Installation of the IW-155 LCR in New Construction without Optional Back Box

There may be new construction situations where the Back Box IN-BOX-155 is either not desired or not feasible. For those situations, Atlantic Technology offers an optional Rough-in Frame Kit IN-NC-155 to ease installation in new construction. Instructions for its use are included with this kit. Ask your Atlantic dealer for more details.



IMPORTANT: If the IN-BOX-155 is not used in New Construction situations, it's recommended that the wall cavity be treated with acoustic filler and that all extraneous wires, etc. in the wall cavity are securely "buttoned down" so there is no unwanted vibration or rattling after the speaker is installed. Try to make the wall cavity as airtight as possible by sealing all the stud-to-drywall seams with a flexible silicon caulk or similar substance.

It is also recommended that you create an 'enclosure' by installing cross studs between the existing vertical studs. Space these cross studs approximately 30-36" apart. That will enclose the proper amount of air volume needed for the IW-155 LCR to achieve its optimal performance. Again, take care to seal these cross studs to the sheetrock.

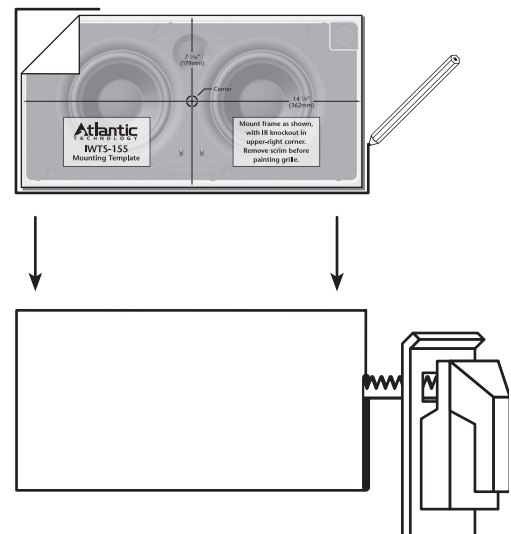
Installation of the IW-155 LCR in Existing Construction

Removing and Installing the Grille

Remove the grille from the speaker using the supplied tool, an awl or the point of a drywall screw in a grille opening near one of the grille corners. Slowly pry the grille out, being careful not to damage the speaker's frame or its finish.

To re-install the grille later, press it carefully into the appropriate opening in the frame assembly. Since it's designed to be held in with magnets and to fit snugly, please take your time and use care when installing the grille.

Cutting the Opening



After determining the best location for the speaker as outlined above, use the enclosed template to cut the proper size hole.

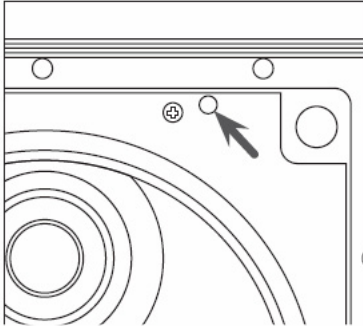
IW-155 LCR **14 ¼" x 7 ⅛"**

WARNING: Exercise extreme care before making any wall cuts to ensure that you will not cut through any wires, pipes, or other items that may be in the wall. You may sometimes, but not always, be able to determine the approximate location of wires and pipes by looking at the locations of nearby outlets and plumbing. But their location or absence is never an assurance that there is not something within the wall cavity.

Installing the Speaker

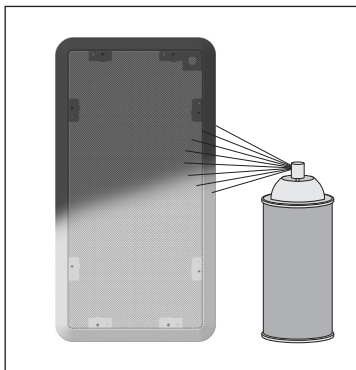


The clamping mechanism allows the wall material to range from ½ to 1½ inches (13 to 38 mm) in thickness. There must be a minimum depth behind the wall face of 3 ⅝" (92 mm). As noted above, be sure to keep the edges of the cutout at least ½ inch (13 mm) away from any stud or obstruction, as the rotating clamps will not operate properly if you don't. There are holes in the baffle to allow access to the rotating clamp screws (see adjacent illustration.) There is no need to disassemble the speaker before installation. The rotating clamps have a Phillips #2 head.



Insert the speaker assembly into the cutout and using a level or square carefully align it so it is level. Tighten the rotating clamp screws, which will cause the attached clamps to rotate and position themselves properly behind the wall.

Continue to tighten until the frame is snug in the wall. You want the frame to conform to the wallboard, and not rattle from the speaker's vibration, **but be very careful not to overtighten the screws.**

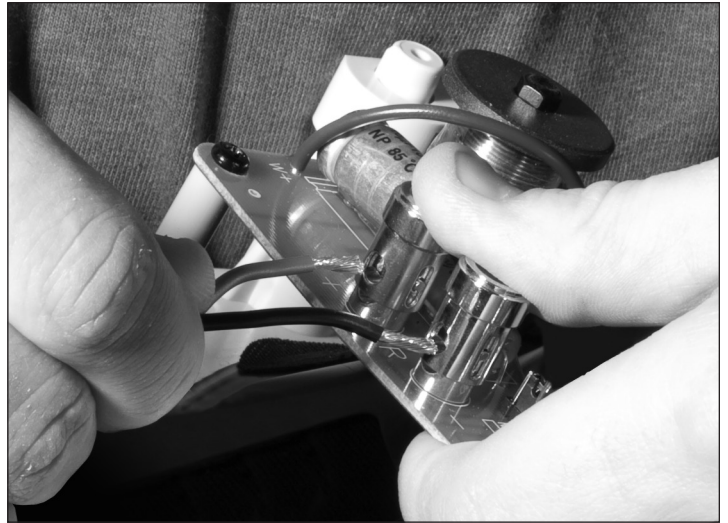


Painting the Speaker Assembly

The plastic frame and the metal grille may be left as is, or painted to match your décor. You can paint the frame before or after it is installed in the wall. Spray painting (using slightly thinned paint) is the best method to use

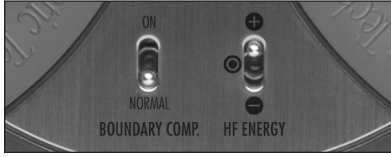
for painting the grille. **Before painting the grille, carefully peel off the cloth scrim from inside the grille.** After painting the grille, use air pressure to "blow out" any grille holes that are filled in with paint. Once the paint is dry, re-apply the scrim to the inside of the grille.

Speaker Connection and Assembly



Strip about ½" (13 mm) of insulation from the connecting wires. Connect them to the appropriate push terminal, being careful to observe polarity (positive to the red terminal, negative to the black terminal).

Front Panel Controls



The IW-155 LCR has two controls that help optimize the speaker's performance regardless of mounting location or room acoustics.

If it's necessary to mount the speaker closer than 12 inches to the ceiling or corner, you may find that by switching the Boundary Compensation control "on," the speaker sounds better. We recommend that you try the control in both positions and see if it helps in your particular installation.

HF (High Frequency) Level Control



This control adjusts the relative level of high frequency output to compensate for varying room acoustics or placement behind a screen.

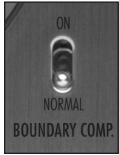
"+" is for absorptive, acoustically "dead" rooms (or when the speaker is behind a movie screen). Use this position to increase the HF level and restore the proper sparkle and liveliness to the sound.

"0" is for rooms of average absorptive characteristics.

"-" should be used in rooms that are highly reflective, with hard floors and exposed windows.

The setting of the HF control is mostly a matter of personal taste, so try it in all three positions and see which one is preferred.

Boundary Compensation Control



Large room boundaries, such as floors, walls, and ceilings, reinforce sound by acting essentially as acoustic "mirrors." When the speaker is mounted too close to the corner or a wall/ceiling intersection, this sonic "reinforcement" often results in an unnatural heaviness or coloration of the sound.



IR Knockout

There's an IR "knockout" plug in the upper right corner of the front baffle. If you are using a multi-room control system, you can install a standard IR receiver in the knockout hole.

Should you have any questions or problems please feel free to contact us at 781-762-6300 or through our web site, www.atlanticttechnology.com.

Specifications

IW-155 LCR

Type	2-way	
Drivers	Woofer	(2) 5 1/4" (135mm) GLH*
	Tweeter	1" (25mm) soft dome LRT™
Frequency Response	58Hz – 20kHz ±3dB	
Nominal Impedance	6 Ohms	
Crossover Frequency	2.1kHz, 3rd order	
Sensitivity	89dB	
Recommended Power	10 – 150 Watts RMS	
Dimensions (grill frame)	15 1/2 x 8 1/2 x 3 3/4"	
(W x H x D)	395 x 216 x 97mm	
Cutout Dimensions	14 1/4 x 7 1/8"	
(W x H)	362 x 181mm	
Net Weight	8lbs; 3.6kg each	

*Graphite Loaded Homopolymer

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Warranty

Thank you for purchasing an Atlantic Technology product. We wish you many years of enjoyment and satisfaction from it.

You do not need to send in anything to be covered by the Limited Warranty. All you need to do is keep your original Invoice or Bill of Sale for proof of purchase, meet the stated requirements, and follow the instructions listed within the Warranty. Please attach your Original Invoice or Bill of Sale to this manual as proof of purchase and keep them in a safe place.

VERY IMPORTANT NOTE: PLEASE NOTE THAT ATLANTIC TECHNOLOGY PRODUCTS CARRY ONLY A 90 DAY LIMITED WARRANTY. YOU MUST MEET ALL THE BELOW REQUIREMENTS AND REGISTER ONLINE IN ORDER TO BE COVERED BY THE FREE EXTENDED SERVICE AGREEMENT TO ASSURE EXTENDED FREE PROTECTION!!

Free Extended Service Agreement

Atlantic Technology offers a free Extended Service Agreement that provides enhanced protection against product defects. In order to qualify for the free Extended Service Agreement you must:

1. Have purchased your Atlantic Technology products from an Authorized Atlantic Technology Reseller or Installer.
2. Go to www.atlantictechnology.com and click on Support>Register Your Warranty. Fill out the required information. Be sure to have your home address, name, address and invoice from the business you purchased, and the serial numbers of all Atlantic Technology products purchased. **THIS MUST BE DONE WITHIN 30 DAYS OF PURCHASE.**
3. If you purchased multiple Atlantic Technology products you will be able to enter them all using one online form. Model and Serial numbers can be found on the back of each unit and on the outside of their respective boxes.

Once all the criteria have been met, you qualify for a free Extended Service Agreement that entitles you to additional coverage against defects in workmanship and manufacturing for a period of up to 5 years on passive speakers and up to 1 year on powered speakers (including subwoofers). This coverage is in addition to the 90 Day Limited Warranty included with all Atlantic Technology products.

If you are not able to register your product using the internet, please call customer service at 781.762.6300.

Limited Warranty

Statement of Warranty: Atlantic Technology International Corp. warrants Atlantic Technology Products to be free from defects in material and workmanship for 90 days from the time of original purchase. This Warranty covers the original retail purchaser of this product only and is valid only in the Continental United States, Alaska, and Hawaii and all US Possessions.

Extended Service Agreement (only available in the Continental United States, Alaska, and Hawaii and all US Possessions): You must Register your Warranty online, and have purchased your product(s) from an authorized Atlantic Technology reseller to receive the Extended Service that covers your Atlantic Technology products beyond the standard 90 day Warranty.

To obtain Warranty service: Please contact your local Atlantic Technology reseller to determine if they are an Authorized Repair Center for Atlantic Technology products. You will need your original Invoice or Bill of Sale to prove Warranty eligibility. If your local dealer is not an Authorized Warranty Center you may contact us at 781-762-6300 for further help or to send the product back to us for service and repair. You must first get a Return Authorization Number from us to ship the product back, so it is imperative that you call us first.

What we are responsible for: We will pay for all labor and parts for covered items. If the repairs are eligible for coverage under the terms of this Warranty we will also pay for return shipping charges to you.

What you are responsible for: You must pack the product properly for safe shipping to your Authorized Dealer or us. You are responsible to pay for all packing, shipping, and insurance costs to get the unit(s) back to Atlantic Technology or your Authorized Dealer.

Optional replacement: We, at our option, may replace rather than repair your Atlantic Technology product with a new or reconditioned one of the same or similar design. The repair or replacement will be warranted for 90 days from date of receipt back to you. All details in terms of eligibility for an Extended Service Agreement will carry over from the original purchase to the replacement item.

What this Warranty does not cover: This Warranty does not cover defects resulting from accidents, damage while in transit, alterations, unauthorized repair, failure to follow instructions, misuse, fire, flood, and Acts of God. This Warranty will be void if the product's serial number has been altered or removed or if the product has been modified or defaced.

Exclusions and Limitations: Implied warranties, including those of fitness for a particular purpose and merchantability (an unwritten warranty that the product is fit for ordinary use) are limited to the period of any Warranty granted hereby. We will not pay for loss of time, inconvenience, loss of use, or property damage caused by your Atlantic Technology product or its failure to work, or any other incidental or consequential damages.

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

This Warranty is valid only when Atlantic Technology products are purchased from an Authorized Atlantic Technology Reseller in the Continental United States, Alaska, and Hawaii and all US Possessions. If you purchase Atlantic Technology products outside the United States please consult your local distributor or reseller for applicable Warranty coverage and restrictions.

Should you have any questions or problems please feel free to contact us at 781-762-6300 or through our web site, www.atlantictechnology.com.

