



HOME FORUMS ▾ ACTIVE TOPICS TODAY'S POSTS NEWS REVIEWS ▾ GALLERY REGISTER

User Name [ ] [ ] LOG IN  Remember Me?

Notices

Welcome to Home Theater Shack forums... a home theater forum for discussion of home theater systems, recommendations, setup and connection, room design, construction and anything to do with audio and video electronics. Check out our popular DIY forums for subwoofers, speakers and projector screens. We also have some of the best equipment reviews and Blu-ray movie reviews you will find on the Internet. You are currently viewing our forums as a guest which limits features and access to certain areas. Please login or register for more access and less ads. Registration is fast, simple and absolutely free... so why not join the Shack today!

Home Theater Forum and Systems - HomeTheaterShack.com > General Shack Area > Home Theater, Audio and Video Equipment Reviews > Speaker and Subwoofer Reviews > MartinLogan Classic ESL 9 Review

Closed Thread Like 5 Custom Search SEARCH

Thread Tools ▾

02-02-17, 06:24 PM Thread Starter post #1 of

AudiocRaver Elite Shackster Wayne Myers

Join Date: Jun 2012 Location: Lincoln, NE Posts: 4,838 My Photo Gallery

MartinLogan Classic ESL 9 Review



It is no secret that I like MartinLogan speakers. To be more specific, I like electrostatic speakers, of which MartinLogan produces some of the finest on the planet. I have published in depth reviews of several MartinLogan L/R pairs and one Center Channel model. They never disappoint.

My main reference speakers are MartinLogan's Electromotion ESL, their entry-level hybrid electrostatic, which were recently joined in their lineup by a new dual-woofer model, the Electromotion ESL X. When I asked MartinLogan for a pair of ESL X to review, it was suggested that I move up the line a notch and evaluate another new model, the MartinLogan Classic ESL 9, priced at \$6495 per pair, and featuring a larger electrostatic panel and numerous other evolutionary advances. Who was I to argue? Having lived with a pair of the newer Classic ESL 9 speakers for several weeks, I can report that they deliver the same effortless electrostatic sound, or lack of sound, that I have learned to appreciate from electrostatics. I is as though their effortless delivery says, "Relax, we'll do the rest," and for me that sound is Home!

Premium Vendor Showcase

G+ Tweet

The Classic ESL 9 is a hybrid electrostatic design, meaning that each speaker is made up of components from two very different speaker technology families. The upper electrostatic panel is a dipole, a thin membrane with sound radiating from its front and rear surfaces, those wavefronts equal in strength but, as a matter of physics, out of phase. The electrostatic panel handles the frequency range from 380 Hz on up to 23 kHz +/- 3 dB in the [case](#) of the Classic ESL 9. The woofers, "two 8-inch (20.3 cm) cast basket, high excursion, rigid aluminium cone woofers with extended throw drive assembly, non-resonance asymmetrical chamber format," cover from the 380 Hz crossover frequency down to 34 Hz +/- 3 dB.

Making the two driver types work together seamlessly as an *integrated* design is no small matter, and the team at [MartinLogan](#) has been refining their integration chops for many years. The Precision-Built Advanced-Topology Vojtko Crossover, the dual opposed-motion woofers, the woofer enclosure, the XStat Transducer, Curvilinear Line Source design with Generation 2 diaphragm, MicroPerf Stator, Vacuum Bonding, and Ultra-Rigid AirFrame Technology, all work together presenting a unified sound that refuses to be picked apart by any program material. With each [MartinLogan](#) model I have reviewed, it has been a priority to poke and prod for potential weakness in the area of integration, and I have not been able to discover any such flaw in any of those models. The Classic ESL 9 had some interesting surprises to offer up as I delved into this topic.

The Advanced AirFrame Design caught my interest right away as an important design advance for Soundstage and Imaging (SS&I) performance, a top priority for me personally. While the older design of my original ESL pair has always seemed more than adequate and they deliver outstanding SS&I, the super-rigid Advanced AirFrame for the Classic ESL 9 looks and feels very tough, almost industrial, yet attractive at the same time, providing an extra measure of rigidity in a critical area of the design where compromise becomes a term not to be invoked lightly, if at all.

The Dark Cherry enclosure is beautiful and boasts first-rate workmanship. Gloss Black and Walnut are other standard options. Edges and corners are sharp and might be a concern in a room where a toddler could fall and suffer a head-bonk on a furniture edge, but this can be said of many speaker and furniture designs. Overall, although *different*, I find the look of the current MartinLogan line very attractive, even elegant in its simplicity. Guests never call them ugly. *Interesting* or even *beautiful* are more likely descriptors.

A custom 5-way connection terminal on the rear allows for bi-wiring if desired. The spacing does not accommodate standard-spaced dual-banana connectors. The bias voltage for the two electrostatic panels comes from a pair of small 120V [power supplies](#), each providing a low-current DC output.

The supplied hard rubber feet are adjustable for leveling and are easy on flooring. Energy Transfer Coupling (ETC) spikes are provided for use as needed to tighten Image Clarity. I did not need them or try them out with the Classic ESL 9.

Sensitivity (90 dB) is a little lower than with my ESL (91 dB), but hardly worth mentioning. While these speakers can soak up some power, I have driven my ESL pair with a humble AVR and been very satisfied, although high volumes felt strained. With the Classic ESL 9, a pair of large stereo power amps (don't ask, their identity is being withheld pending a future study/review) in stereo mode (to keep damping factor at max, rather than bridged mode, which doubles output impedance) could drive the Classic ESL 9 to blistering volumes and make it sound like a walk in the park. I started out with just one of them in stereo mode driving the pair.

MartinLogan specifies amplifier wattages in the range of 50 to 400 W per channel into 4 ohms, and states the nominal impedance is 4 ohms, dipping down to 0.8 ohm at 20 kHz. The listener who plans on high volumes will benefit from an amplifier with drive capability that increases with lowering load


### Gear Reviews

No Threads to Display.

### Blu-Ray Reviews

No Threads to Display.

### Tweets by @HTShack

 **Home Theater Shack**  
@HTShack  
Sonotube build with SI HT18v2 help and clarification  
<fb.me/y0zGGsv3> 22h

Embed View on Twitter

SEARCH



### Recent Discussions

- 3 Midbass & midrange... Today 09:40 AM by [ajinfla](#)
- 4 DIY Dayton Soundbar Today 05:26 AM by [jororaitchev](#)
- 0 Hello, Nancy from TESTEX Today 02:50 AM by [Nancy12](#)
- 20 Post Padding Thread Today 02:22 AM by [bipod21](#)
- 1 KEF model Identification Yesterday 10:58 PM by [dickfantastic](#)

### Recent Discussions SC

- 0 Yesterday 05:49 PM by [Headstill](#)
- 0 Anyone listen to a... Yesterday 05:28 PM by [loudogp250](#)
- 1 7.1 Audio Testing Yesterday 03:35 PM by [JohnM](#)
- 0 handshake issues Yesterday 09:28 AM by [ryeguy14](#)
- 0 Yamaha Flashing... Yesterday 07:24 AM by [Grimm Spector](#)



Tweet

some  
g a

capacitive load such as an electrostatic panel.

My amps paired well with the ESL, and performed without a single hiccup. From late-night-quiet to peel-the-paint-loud, the Classic ESL 9 made it all seem embarrassingly easy.

### Specifications

- System Frequency Response: 34–23,000 Hz ± 3db
- Recommended Amplifier Power: 50–400 watts per channel at 4 Ohms
- Dispersion:
  - Horizontal: 30 Degrees
  - Vertical: 44" (112 cm) line source
- Sensitivity: 90 dB/2.83 volts/meter
- Impedance: Nominal: 4 ohms, 0.8 ohms @ 20 kHz
- Crossover Frequency: 380 Hz
- High/Mid Frequency Driver: 44" x 9.2" (112 x 23.4 cm) CLS XStat electrostatic (405 in<sup>2</sup>/2,621 cm<sup>2</sup>)
- Woofers: 2x 8" (20.3cm) cast basket, high excursion, rigid aluminum cone with extended throw drive assembly, non-resonance asymmetrical chamber format.
- Components: Custom-wound audio transformer, air core coils, low DCR steel laminate coils, polyester [capacitors](#)
- Signal Inputs: Custom 5-way bi-wire tool-less binding posts
- Power Draw Max: 2W per channel Standby: [i]1W per channel
- Weight: 78 lbs. each (35.4 kg)
- Size (H x W x D): 59.8" x 10.4" x 25.4" (152 x 36.4 x 64.6 cm)

### Unboxing

The Classic ESL 9 arrived in a semi with a lift gate, packaged in two tall cartons plastic-wrapped together and strapped onto a pallet. This makes for a 200-pound-range pallet delivery which must be planned for. In my [case](#), the pallet had to be taken apart at the end of the front sidewalk, where a single step prevented the pallet jack from getting closer to the front porch, where there are three additional steps.

Straps were cut, plastic shrink-wrap was removed, and each box was carried by two muscular men, the driver and myself, to the front porch. After a break, the speakers were carried indoors - two people will be required for any significant moving around, they weigh 78 lb. each when unboxed and ready for play - and set in their intended audition spots.

The cartons, when flattened, are very large. A corner of the garage might be the best shelter they can be provided in many homes.

### Setup

The Classic ESL 9 had, according to the paperwork, been burned in and tested before shipment, so they were ready for immediate service. They never made it to my downstairs laboratory, this review took place entirely in the living room. A midfield Listening Position (LP) was determined with the chair pulled forward to find the soundstage and imaging (SS&I) sweet spot without and with optional Dirac Live (DL) calibration applied by miniDSP's DDRC-22D. I also found a more typical listening spot across the room on the couch (no DL).

The manual from MartinLogan contains a wealth of information pertinent to proper setup of their speakers. Their approach seeks to guide the listener to the finest possible SS&I with minimum sacrifice in frequency response (FR). This will put the LP at a somewhat off-axis listening angle. My own LP ended a little forward of that shown by their approach, but I applaud the documentation for being thorough and giving the kind of guidance most likely to bring sonic satisfaction in most rooms. This is unusual among speaker manufacturers, although becoming less so, I am happy to report. I usually recommend the included setup instructions be discarded forthwith for most



Home Theater Shack

7,350 likes

Like Page

Sign Up



Tweet

by  
hey

don't want to see it again from that point forward. The best way to ensure that is to help the listener make the speaker perform at its best in his room. The supplied setup instructions will help you get there, and I recommend you trust their directions.

Having worked with numerous dipole speakers, I can say that speakers like the Classic ESL 9 are not difficult to set up for good SS&I performance. But the symmetry of dimensions and angles, when refined to ¼-inch or less precision, can yield results that are so good they "mess with your head," to quote another listener. As the MartinLogan team state in the well-written Manual, experimentation and tweaking are usually needed to get to that kind of result.

Optimal SS&I setup generally means more HF rolloff, a result of the off-axis listening angle needed for decent SS&I performance. The HF loss was less than I expected with the Classic ESL 9, and I hardly noticed the loss. The HF-flattening boost with Dirac Live was welcome but not necessary, although depth acuity of image location was definitely enhanced with Dirac applied.

After evaluation, when taking some in-room measurements, I was pleasantly surprised by the consistency of the frequency response over a range of distances and listening angles relative to the Classic ESL 9. I had to check my rig to be sure those measurements were valid, and even ran a few sweeps with the measurement mic in a ridiculous position as a sanity check. A later addendum to this review will explore those characteristics in detail.

### Dirac Live

Early on, I noticed two specific qualities in the music, (1) the slight spreading of the highest sibilance in the vocals, detrimental to image clarity, and (2) what sounded like a slight flabbiness in the low bass. That flabbiness especially was worse with Dirac Live applied, not better, as I expected it to be. The chosen DL [target](#) curve was found to contribute to the bass problem.

The woofers were being driven harder than normal to meet the target curve's demanded boost at frequencies below the natural LF rolloff. A woofer that is being driven extra hard at out-of-band frequencies to meet a target gain will probably not sound tightly controlled. Low synthesized bass and kick drums were especially loose. A minor adjustment was introduced to the bass end of the DL [target](#) curve and the low bass tightened right up.

Without Dirac Live, the proximity to the front wall gave a little room-coupling bass boost, as one would expect, but without that distinct flabbiness.

At high frequencies, the image smearing settled down after these setup changes:

- I upgraded to my best reference DAC, the Oppo HA-1, with very low ringing in the reconstruction filters, first step toward eliminating the HF smearing.
- I added the second [power amp](#). Initial setup had been with a single stereo amp. With two identical power amps, each amp was operating as a monoblock in normal operating mode (not bridged). So channel separation, or crosstalk, not specified by most AVR and amp makers these days, effectively became unmeasurable, and the HF smearing was tightened a little more.
- The DL [target](#) curve at high frequencies was modified. The HF slopes of the left and right speakers did not quite match in the rolloff area of the measured speaker curves (this is getting extremely picky on my part), and the gap between them meant that the left was ever-so-slightly hotter at the frequencies in question. A minor change closed the gap.

Is Dirac Live really needed? The more careful the setup, the less it is necessary. I spent many hours on my ESL setup before calibrating the Dirac Live, and SS&I are about as good



Tweet

se  
s

attained. And even though the Classic ESL 9 sounded good enough in my living room for critical sessions without it, its addition gave that polish and extra bit of SS&I clarity I love to hear. Improved depth acuity cues are usually the main noticeable enhancement.

### **Bi-Wiring**

The Classic ESL 9 is bi-wireable, with straps on the connection posts tying the two sections of the crossover together for normal use. Removing the straps and adding connections for vertical bi-wiring, according to MartinLogan instructions, I could tell no difference in the sound whatsoever. Another setup in a different room might reveal a difference, but I could not hear one with the Classic ESL 9. With a two-way speaker and crossover and passive vertical bi-wiring, it is in the region of the crossover frequency that a difference *might* be audible, with miniscule out-of-band signals to the wrong driver being eliminated. A slight sharpening of SS&I in that particular frequency region *might* be noticeable, giving an impression of enhanced integration of the drivers and an even smoother transition between the upper and lower frequency regions. In other words, an ultra-subtle difference at best,

Having the second channel of each of the two stereo [power amplifiers](#) in use allowed for the potential of a little more power output and an increase in maximum volume, but limited volume was of no concern during this testing.

### **Evaluation**

#### *Mutemath - Vitals*

I did a fair amount of album listening while auditioning the Classic ESL 9. A recent discovery, the Vitals album by Mutemath, was played twice through. This work covers a wide textural range - big, then small, raw and anechoic, then deep with huge reverb, all in support of Paul Meany's vocals with their own effortless clarity.

#### *Talking Heads - Tiny Creatures, Naked*

Listening through the last couple of Talking Heads studio albums, These tracks helped confirm the tightly controlled bass and the sharpened image clarity. The imaging made me think of razor blades hanging vertically in the air, with virtually no width to speak of.

The simple, natural recording of cymbals and vocals on the Talking Heads tracks allowed further confirmation of the unforced clarity delivered by the Classic ESL 9 electrostatic panels. Their ability to preserve subtle detail, like the complex sonics of cymbal or hi-hat strikes behind heavier sounds on a track, allows one to witness the clarity possible from an electrostatic panel. The details that most tweeters turn into mushy noise are preserved with ease, and sonic realism is maintained at all volume levels.

#### *Todd Rundgren - Liars*

This album came next, and as I was focusing mostly on SS&I, the width of the panels came to mind. To have those big, wide panels delivering such razor-sharp images seems unnatural. The ear does some averaging to locate the precise source-center of those images, but only succeeds as it does with the Classic ESL 9 because of the consistency of top-to-bottom and side-to-side performance that those panels deliver. Again I envisioned individual images in the soundstage as razor blades slicing through the air. Higher frequencies, especially with the sibilance from vocals, where a portion of a syllable might smear left of right, or both, from the image center, can be very telling about a speaker and its interaction with the room. I found the Classic ESL 9 to be more immune to this distraction than my ESL pair, as one might expect.

#### *King Crimson - Power To Believe*

Those cymbals are so nicely recorded, their complex tonal nature preserved, and the Classic ESL 9 serves them up with no loss of fidelity. The soundstage is much wider than the speaker width and the Classic ESL 9 completely disappear



Tweet

#### Michael Hedges - *Breakfast In The Field*

The hybrid design of most electrostatic speaker models from MartinLogan is a tour de force of engineering. Integration of cone driver with electrostatic panel might worry the listener who has not spent time with a MartinLogan rig. Having not quite the focusing power of a point source speaker or small two-way, the hybrid design makes use of drivers, [crossovers](#), and enclosures wherein every angle, component, and vibration serves a purpose and plays a part in creating a whole that is much more tightly focused than the sum-total size of its parts. *Breakfast In The Field*, a guitar instrumental album by Michael Hedges, is a good test album for listening closely for artifacts indicating problems in the area of integration. I have not yet heard such a problem with a MartinLogan product, and the Classic ESL 9 adds another big set of data points to the assertion that the designers have driver integration *down*. Especially *Funky Avocado*, with funky bass accompanying Michael's guitar, gave me a chance to verify this. The bass image was even in height with the guitar. There was no impression that the deeper tones came from a lower angle.

Dynamics and impact really shine on these Windham Hill recordings. Anyone who tries to tell you that Electrostatics cannot deliver dynamics has not heard a proper pair properly set up, and properly driven with a proper test track. Given a chance, the Classic ESL 9 serve up impact like the crack of a whip. I submit the track *Breakfast In The Field* as proof.

These same tracks remind me of the main reason I consider MartinLogan electrostatics *home*. Their ease of delivery is simply second to none. When I sit to listen critically, *it only takes a moment* (yes, I even listened to parts of the Wall-E soundtrack) to be reminded of that ease of delivery - the result of a lot of attention to detail on the part of a lot of engineers and technicians back at the factory. It is very addicting.

#### [Philip Glass](#) - *Koyaanisqatsi*

Listening to the soundtrack album for *Koyaanisqatsi*, music by Philip Glass, trumpets, choir, organ, I am reminded of the twofold challenge of a MartinLogan review.

- With practically nothing negative about them to contrast with, it can be difficult to think of much positive to say.
- It is easy to forget what you are doing and sit enthralled by the music that pours from them. "Pour" seems like the right word, because the delivery is like music having been condensed to liquid form and poured into the express hearing port of the listener's psychoacoustical brain.

#### Devin Townsend - *Ki*

This is another test album with wide dynamic range and crunchy volume during densely mixed tracks offering little image separation with imperfect speakers. In contrast, the MartinLogan Classic ESL 9 is a natural when it comes to keeping those images straight, an imaging curator, insisting on precise placement and separation of all of the distinct images in the mix.

Compared to my original ESL pair, the falloff due to the off-axis LP is roughly equivalent, but response is smoother and definitely extends to higher frequencies. And the depth of the bass response is impressive. The dual-opposing 8-inch aluminum woofers do a superb job of keeping those low frequencies clean.

### **Conclusions**

I finish where I began, late at night with a third full listen-through to the Mutemath *Vitals* album on the Classic ESL 9, only feeling somewhat sonically enlightened. You know what they say about enlightenment. "Before enlightenment, chop wood, carry water. After enlightenment, chop wood, carry water." Your life is much the same, but you feel differently about almost all of it. Your perceptual standards for experience have been shifted and reset, and nothing feels quite like it used to.

Much of what I have heard through the MartinLogan Classic

G+ Tweet

sound is what they insist upon delivering, without compromise, at any volume, every time you sit down for a listen. And you find yourself sitting down to listen more and more.

In the price range inhabited by the main MartinLogan product line - up to about \$25,000 per pair - there are competing speakers of all types, shapes, configurations, and technologies. Some can claim serious bragging rights in certain categories, but I know of none that manage to put the *spark* in *speakers* like a good electrostatic, and no company that understands electrostatics and the listeners who love them better than MartinLogan. The Classic ESL 9 is a mighty addition to that line, and warrants a serious listen by the serious listener in you.

**[Go to the MartinLogan Classic ESL 9 Review Discussion Thread.](#)**



 Tweet



G+ Tweet



G+ Tweet



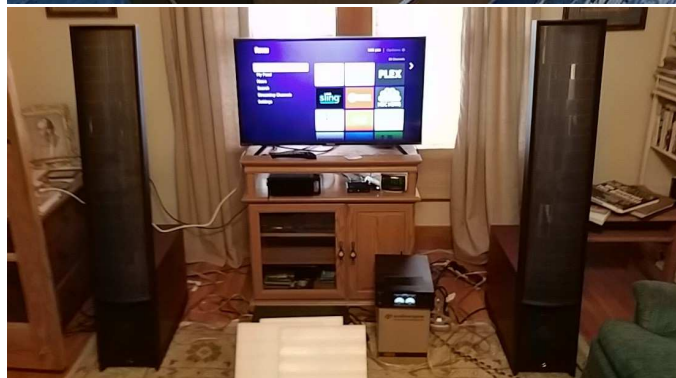
G+ Tweet



G+ Tweet



G+ Tweet



G+ Tweet

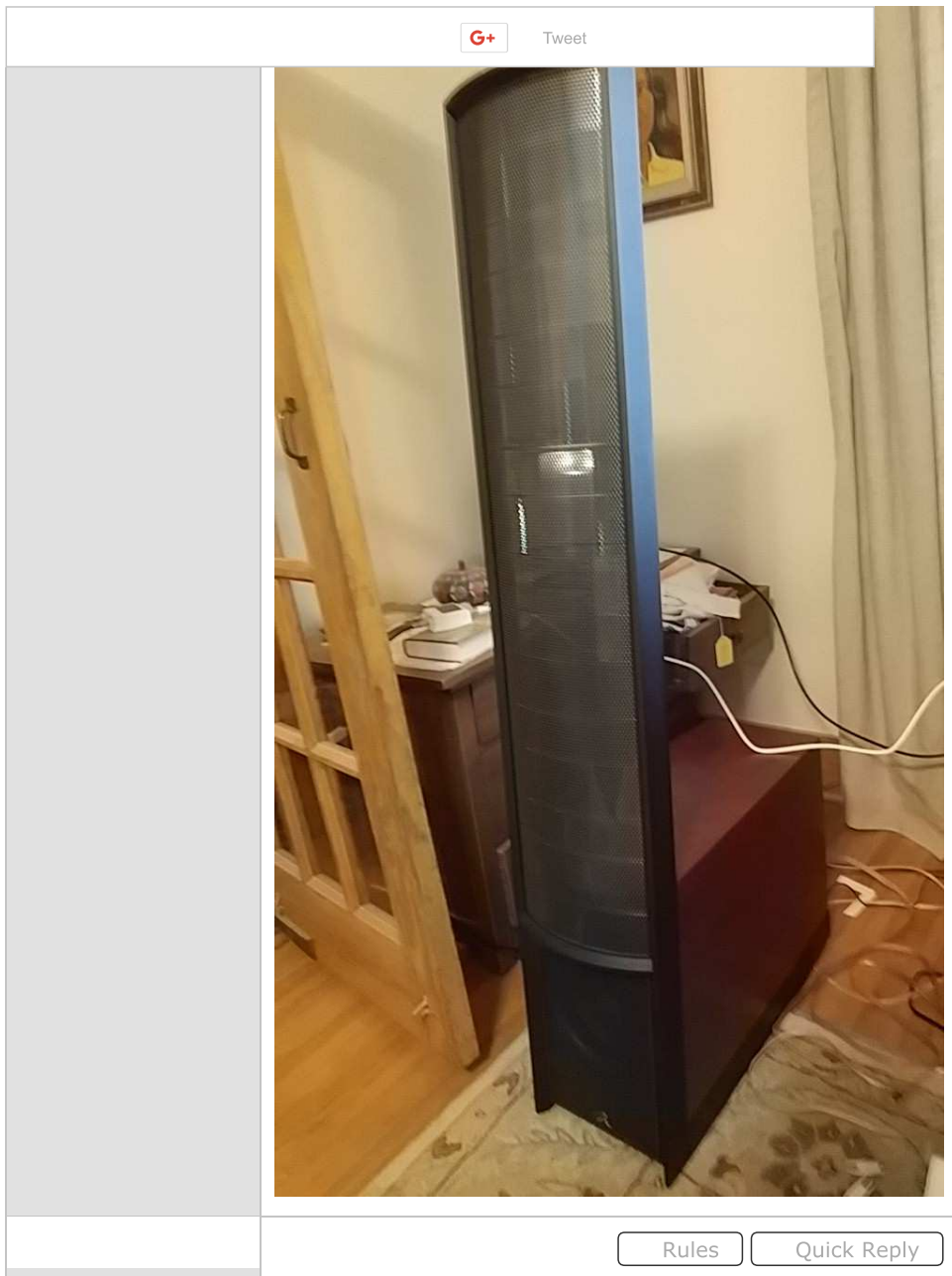


G+ Tweet



G+ Tweet





G+ Tweet

Rules Quick Reply

Closed Thread

**Bookmarks**

|          |             |             |
|----------|-------------|-------------|
| Digg     | del.icio.us | StumbleUpon |
| Facebook | Furl        | Google      |
|          |             | Reddit      |
|          |             | MyWeb Yahoo |

**Tags**

classic , esl , martinlogan , review

**You May Like** Sponsored Links by Taboola

17 Photos of Melania That Donald Trump Wishes We'd Forget  
LifeDaily.com

Play this for 1 minute and see why everyone is addicted  
Vikings: Free Online Game

If You Drive a Yaris, You'll Be Happy to Know That This Was How Your Car Was Developed  
CNN International for TOYOTA GAZOO Racing

GearBest

### 9 Unbelievable Animals That Went Extinct

LockerRoomVIP

### 24 Celebs With IQs Too Bizarre To Believe

ZestVIP

### Learn to speak a new language in just 15 hours? This app makes it possible!

Babbel

### Trying to Lose Weight? Eat These 5 Things

Answer Mind

**Quick Reply**

**Message:**

**Options**

Disable smilies in text
  Quote message in reply?

---

**Human Verification**

In order to verify that you are a human and not a spam bot, please enter the answer into the following box below based on the instructions contained in the graphic.

Enter the following:

thumbs up

Your Answer SOLVS medic

[« Previous Thread](#) | [Next Thread »](#)

[Posting Rules](#)



Tweet

You **may not** post attachments  
You **may not** edit your posts

BB code is **On**  
Smilies are **On**  
[IMG] code is **On**  
HTML is **not** allowed!  
Trackbacks are **Off**  
Pingbacks are **Off**  
Refbacks are **Off**

[Forum Rules](#)

### DISCLAIMER

Home Theater Shack is not affiliated with RadioShack™, The Shack™ or Shack™.  
Home Theater Shack is not an electronics retailer, nor do we offer any products for sale.  
Home Theater Shack is strictly a discussion forum.

-- HomeTheaterShack.com (Full) ▼



[Contact Us](#) | [Advertise](#) | [Home Theater](#) | [Privacy Statement](#) | [Top](#)

[Terms of Use](#)