

# PrimaLuna: European Design, Chinese Manufacture



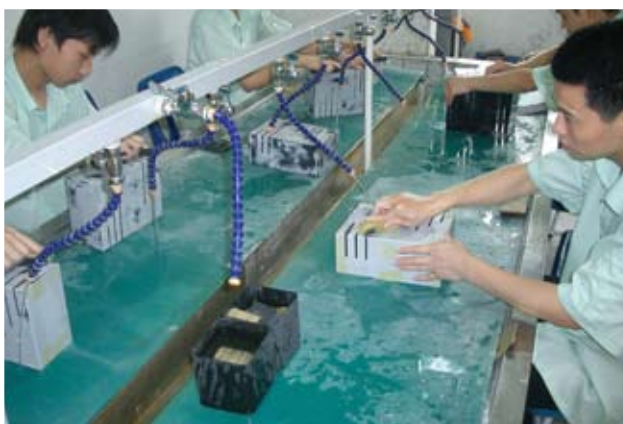
The PrimaLuna brand of tubed electronics has enjoyed tremendous success around the world because of its extremely high value. The gear sounds great, is built like a tank, and is filled with premium parts that wouldn't be out of place in products costing five times the price.

PrimaLuna's secret is audiophile design in The Netherlands (by Goldmund's former head designer) coupled with high-volume manufacturing in China. PrimaLuna, a Dutch company founded by high-end audio distributor Herman van den Dungen, contracts with five of China's larger electronics factories to build the gear. The PrimaLuna brand is sold all over the world, and is distributed in the U.S. by Upscale Audio. Upscale Audio's Kevin Deal had extensive experience with tubed gear, and required that the products be ultra-reliable and easy to use in addition to sounding great. PrimaLuna turned to China not just to realize lower manufacturing costs, but also because it could exert greater control over the final product. The company claims that the quality and workmanship of its products is as good as any in the world. Moreover, the low labor cost allows PrimaLuna to include labor-intensive build

techniques such as hand-soldered point-to-point wiring and five coats of finish on the chassis with hand-sanding between each coat—touches that would be prohibitively expensive if the products were made elsewhere.

The PrimaLuna story isn't all rosy, however. A Western company can't just turn over a schematic and a prototype to a Chinese factory and expect these results. PrimaLuna's high quality and solid reliability are achieved only by constant vigilance and a strict set of rules. Van den Dungen learned early on that the factories he dealt with could try to substitute the specified parts with cheaper (or counterfeit) parts and pocket the cost difference. Consequently, he developed processes that would assure his products' quality. One technique that has been especially effective is the requirement that the factory shut down all other production, remove components for other products from the shop floor, and start fresh building only PrimaLuna products for the duration of the production run. In effect, the factory is temporarily turned into an exclusively PrimaLuna factory. In addition, van den Dungen inspects the factory as a production run is about to begin, as well as the components that will go into the products. He spends weeks at a time in China each time the factory makes a PrimaLuna run, and even owns a house near one of the factories.

After catching a factory trying to substitute counterfeit Solen capacitors, van den Dungen began rigorous parts inspection, including X-raying parts. In some cases, van den Dungen buys the genuine parts himself and has them delivered to the factory. The European Union requires that an importer provide a certificate of authenticity assuring that none of the parts in that product is counterfeit. It's a constant cat-and-mouse game; one factory was caught sanding the labels off inferior semiconductor chips and silk-screening on the brand name and part number of the more expensive specified device. A provision of van den Dungen's contract with the factory imposes fines for substituting any part, down to the chassis screws. Finally, the entire operation is set up so that van den Dungen can easily move the production to another factory if he's not satisfied with the finished products.



China's low labor cost allows PrimaLuna to specify hand-sanding between the five coats of finish.



A factory floor during a production run of PrimaLuna amplifiers.