

Features and Benefits

1. **Performance based design** which has been field proven on the most critical and sophisticated military, industrial and commercial electronics in the world. Currently all "other" residential panel mount surge suppression manufacturers design their products with "low cost" as the number one priority (electrical contractors are always looking for the lowest cost unit). This first cost/low cost focus significantly sacrifices performance and operational savings.
2. **The TTLP panel units** contain 100kA/phase strength which is over twice the strength of most residential units sold on the market.
3. **The TTLP panel units** contain performance based and listed (UL 1449 & UL 1283) surge suppression circuitry plus an **Enhanced Transient Filter** that cleans up the AC power and protects all electrical & electronic equipment. This filter minimizes equipment degradation to all loads connected to the breaker panel, thereby reducing downtime and extending the life of all equipment in the home. In addition to protecting your equipment, the **Enhanced Transient Filter** on the AC panel unit will prevent glitches, lock-ups and otherwise improve operation of the electronics and extend their useful life. This provides the homeowner a quicker payback on his or her investment. No competitor residential panel protectors as of the date of this article have any type of enhanced transient filter or effective sine wave tracking circuit that will give extra protection to the electronic equipment in the home.
4. **Over Current Component Level Fusing** to ensure maximum performance and safety. This fuse design is found only in the most advanced commercial and industrial units on the market. Although we recommend installing the TTLP panel mount unit on a spare 30 amp breaker, the **Over Current Component Level Fusing** allows for direct bus connection or installation on a non-fused disconnect switch.
5. **Unlimited Lifetime Free Replacement Warranty** on the Total Home Surge Protection Solution. Typical warranties for "other" hardwired home surge suppression products are 5 to 10 years and are limited in scope (i.e. workmanship and material defects) and therefore do not cover replacement of the surge suppression unit in the event a surge or lightning strike were to damage or destroy the unit. The owner is not required to send the failed unit back to the manufacturer (unless specifically requested by the manufacturer). Installation is the responsibility of owner.
6. **Security Systems**, at a cost of \$1500 or more plus a monthly monitoring fee, are being installed in many homes today. The Homeowner will probably (hopefully) never have to use it. It costs money every day. The Total Home Surge Protection Solution will be used every minute of every day and is one of the very few things that will save the homeowner money. Plus, the TPS panel and phone units will prevent the security system from being knocked out by a surge or lightning strike.
7. Assume that the **product cost to the homeowner** for the Total Home Surge Protection Solution is \$1500.00. For a 30 year mortgage at 6% interest, an extra \$1500 in the mortgage increases the monthly payment by approximately \$8.70. Certain power companies in the U.S. are leasing surge suppressors built into the electrical meter base for \$5.00 to \$8.00 per month without ownership and no real transient filtering (i.e. Low cost/quality). Finally, if the insurance company gives a premium reduction, that reduced premium will offset part or all of the added monthly cost for the surge protection.

Frequently Asked Questions

1. **Does the amperage of the panel matter?** No, the TTLP panel unit can be installed on a 200, 400, 800, or any amp panel since the unit is installed in parallel to the home's electrical system using a spare 30 amp breaker. Since the TTLP is not installed in series (in line) with the electrical system, steady state current does not run through the TTLP. Our unit is designed to shunt any excess voltage to ground, and it uses the same field proven technology that we have been using in our industrial and commercial panel mount units for years.
2. **Why is the "Total Home Surge Protection Solution" the best way to protect a home and its electronics?** The Total Home Surge Protection Solution uses the strategic approach of placing a quality surge suppressor and filtering system on the electrical breaker panel for the home. This system will not only protect the home from lightning and surges on the utility line but will also protect the entire home from internally generated transients. Equipment in the home produces transients and surges which affect and degrade other equipment in the home.

3. **How many AC panel mount units do I need?** One unit is needed per breaker panel. For larger homes with a higher amperage service entrance panel feeding multiple downstream breaker panels you need to order a unit for the service entrance panel plus additional units for each sub panel. A unit is needed for each sub panel to protect equipment fed by that panel from surges generated by other equipment fed by the same sub panel. We have three phase units available from our standard commercial/industrial product line (see TPS Application Guide).
4. **Who installs the AC panel unit?** The Integrator can give the panel mount unit to a licensed electrician, and he can install the unit. Or, the integrator can lug the unit to the panel (cutting a hole in the dry wall if necessary), and in essence do everything except connect the wires to the electrical system. The integrator can then assign the task to the electrician of clipping the wire leads as short as possible and making the final termination to the breaker and bus bars inside the panel.
5. **How many phone units will I need?** One phone unit protects an RJ11/14/45 up to 4 phone lines. If a home has more than 4 lines an additional phone protector will be needed. The unit will normally be installed in the low voltage cabinet before the phone lines are distributed throughout the home.
6. **How many coaxial units will I need?** One TV cable unit is required per coaxial line. One satellite coaxial unit is needed for every two incoming lines. Some satellite systems will have multiple incoming lines. Coaxial protector units will normally be installed in the low voltage cabinet before the coaxial lines are distributed throughout the home.
7. **What does the UNLIMITED LIFETIME FREE REPLACEMENT WARRANTY cover?** In the event that any unit from the SurgePack were to fail or be damaged by a surge or lightning a replacement unit will ship out free of charge to the original purchaser. Please refer to the lifetime warranty certificate.
8. **I have a UPS and plug-in strips. Do I still need "Total Home Surge Protection"?** Yes. Uninterruptible power supplies (UPS) are needed in the event of a power outage or brown out to make sure information is not lost on computers and other critical equipment. UPS units and plug-in strips are good for local protection and can be an excellent second stage in a quality suppression filter network. Although plug-in strips are a good thing to use there are many things in the home that go unprotected since they cannot be plugged into a surge strip. In order to protect all electronics in the home, in addition to plug-in strips and UPS devices the use of a whole house surge suppressor is recommended by IEEE and many insurance companies.
9. **Is this a "one shot" type surge suppressor?** No. Once the units are installed you are protected for life. This is a permanent upgrade to the home's electrical system supported by our UNLIMITED LIFETIME FREE REPLACEMENT WARRANTY. With 100,000 amps per phase strength, the unit will take hit after hit throughout the life of the home.
10. **What causes surges and where do they come from?** Surges and transient disturbances can enter a home through incoming utility and power lines. Equipment in the home also generates many transient disturbances of their own which affect and degrade other equipment in the home. With the quality TTLP surge suppressor with a high performance filter installed at the source (breaker panel) you can be assured that your home's power is treated at the source before it goes to your electronics and other equipment.
11. **How does this surge suppression save money and how does this compare to the typical "contractor" grade units available at every electrical supply house?** The key to the savings the homeowner can expect on an everyday long term basis is the performance of the true transient filter in the TTLP power panel device. The enhanced transient filter prevents all the internally generated transients and spikes (generated by operation of appliances and equipment) from degrading the other electrical and electronic equipment in the home. They are dissipated through the grounding system.

The various competitor residential panel mount units do not have this true transient filter design and have a much lower energy rating (i.e. 40,000 to 60,000 amps/phase vs. TTLP's 100,000 amps/phase). The reason for this is first cost. Their typical marketing and product design is channeled through the new construction/low first cost channel. The filtering and fuse design alone more than double the cost of the surge suppressor. It is this filtering and fusing design that provides safe, reliable, high-performance protection for many years to come.

12. **What about other units to cover other applications?** We have units to protect low voltage lighting controls, pool controls, amplifiers/outdoor speakers, lighting processors, RS232, RS485, CAT5E, and almost any residential or commercial application you have.