

TECH **3** SERIES

FURNACES  
iQ Drive® Modulating



TOUGH.  
SMART.  
TAPPAN.™



**TAPPAN**

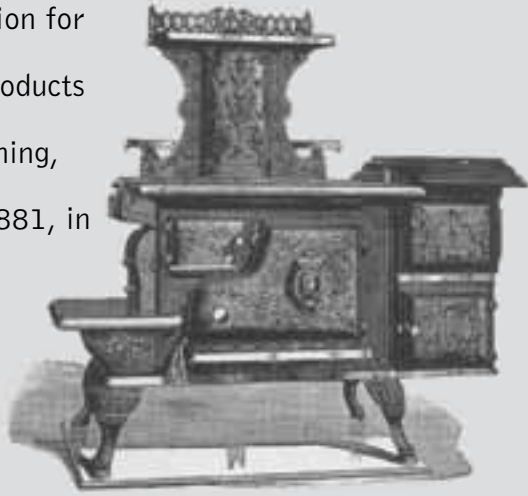
## Built Tank-Tough.

Tappan's reputation for tough, durable products was, in the beginning, cast in iron. In 1881, in Bellaire, Ohio, W. J. (Bill)

Tappan sold his wood- and coal-burning stoves door-to-door from a horse-drawn wagon. But it wasn't until World Wars I and II, when Tappan supplied cooking equipment to the U.S. armed forces, that the name gained well-deserved national recognition.

The Tappan name has always stood for appliances that are durable and innovative. Tappan's introduction of the microwave in 1955 revolutionized cooking. Then, just five years later, pilot lights in furnaces and stoves became a thing of the past with Tappan's invention of electronic ignition.

Today, our line of heating and cooling equipment is still just as solidly-built as our tank-tough stoves built for the military in World War I and II. In fact, our furnaces offer an industry-leading all-parts warranty including a limited lifetime warranty on the heat exchanger. Even more, they're Tappan smart. Packed with precision-engineered components that deliver extended service life, plus state-of-the-art efficiency and comfort.



## Tough, Because We're Tough On Ourselves.

When you purchase a Tappan furnace, you can be confident it's passed the toughest manufacturing standards in the industry: Our own. By the end of the line, each piece of equipment will undergo 234 inspections.

It's part of a unique quality control program called Demand Flow Technology™ (DFT), where consistency and workflow achieve near-zero tolerance for imperfection. Associates are trained in multiple workstation skill sets so they can check assembly from the preceding station, double-check their own work, then pass it on. Then in the exceedingly small likelihood there may be a defect, all units and each component (both mechanical and electrical) are 100% fired and tested on the line.

In the final balance, we stand behind quality workmanship because we do more to stand watch over it.



## The Tappan Tough™ Quality Pledge.

Because Tappan equipment is built-tough for the long run, the most critical heating component—the heat exchanger—is backed by the Tappan Tough Quality Pledge. We'll replace your Tappan furnace should the heat



exchanger fail during the first 10 years of ownership, when registered. For even greater peace of mind, internal working parts of every Tappan unit feature a limited warranty for parts replacement up to 10 full years, registration required.



## iQ Drive® Performance. Strictly Top-Of-The-Line.

Tappan's iQ Drive modulating furnaces are up-to-speed with the expectations of today's comfort-minded and energy-conscious consumer. Providing the latest fully modulating technology, it stands to reason that these furnaces will cost more up front. But over the lifetime of your initial investment, they'll provide unparalleled comfort, the quietest operation and significant improvements in indoor air quality. Likewise, they'll pay back dividends providing energy savings worth hundreds of dollars per year along with reduced maintenance costs.



## Signs of the times.

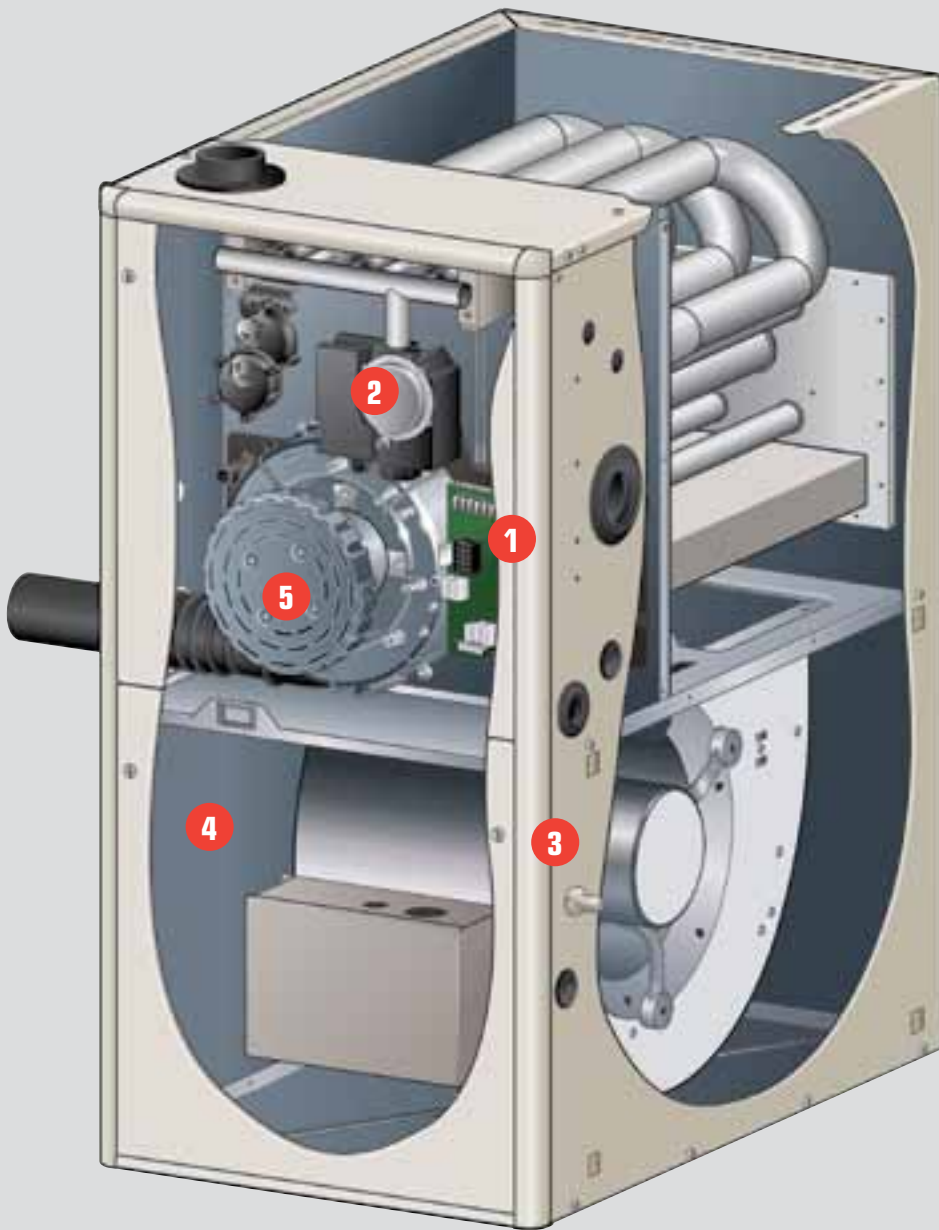
Awarded by the U.S. Department of Energy and the Environmental Protection Agency for helping to conserve energy, promote cleaner air and prevent global warming.

With even more stringent efficiency requirement than ENERGY STAR, the ecoLogic® seal is your sign of environmentally friendly, high-efficiency heating and cooling products. Only the most energy-efficient, most environmentally responsible units receive our ecoLogic seal of quality.



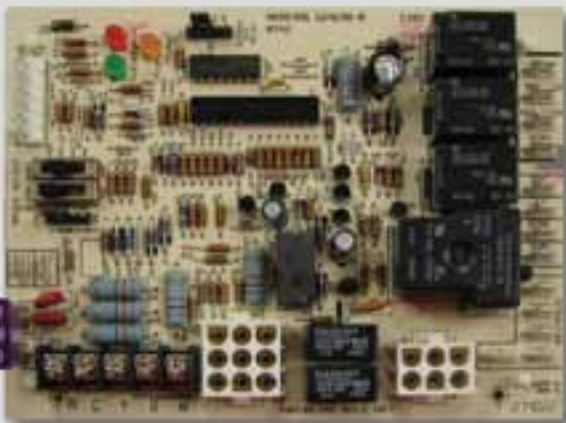


## Taking Tough And Smart To The Nth Degree.



**Modulating technology provides maximum efficiency with improved comfort, indoor air quality and humidity control.**

- 1** SmartLite® control board  
programs igniter to adapt to  
furnace's heat-up characteristics  
extending igniter life
- 2** Advanced gas valve technology  
combined with iQ Drive® controller  
provides 15% to 100% modulation  
range providing superior comfort
- 3** Galvanized steel cabinet for added  
strength and durability
- 4** Fully insulated cabinet and blower  
compartment for quieter operation
- 5** Variable speed inducer provides  
ultra-quiet operation



### **The technology inside: SmartLite® control board.**

Tappan gas furnaces with SmartLite control boards provide extended life to igniters in furnaces using hot surface ignition technology. They are programmed to learn the heat-up characteristics of the igniter, then adapt the ignition time to the characteristics of the furnace so the igniter is energized appropriately. The result is an extended life for the igniter.

## Totally convenient.



Technically it's a thermostat, although "power center" would be a more appropriate name. The iQ Drive®

furnace is controlled by the iQ Drive thermostat, which means you have complete control over your home's indoor environment.

With the iQ Drive controller, you can:

- Program times to automatically increase or decrease temperature settings based on when you're home, an energy-efficient way to manage your comfort.
- Control a whole-home humidifier. Ask your contractor about a coordinating Tappan humidifier.
- Set reminders for changing the air filter. Your contractor can also program indoor air quality component maintenance reminders.
- Manage maintenance or servicing issues. The thermostat will flash red if the system needs to be serviced. Once at your home, your Tappan contractor can use the thermostat to identify the error, saving time on the service call.

iQ Drive

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## Constantly comfortable.

The Tappan iQ Drive furnace operates anywhere from 15% to 100% of its capacity, based on your home's needs. The furnace analyzes the indoor temperature every 60 seconds and adjusts its percentage of firing accordingly. You'll notice a more uniform mix of air throughout your home, with virtually no hot or cold spots.

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## Energy Definitions.

### **SEER—Seasonal Energy Efficiency Ratio**

Measures cooling performance on air conditioners, heat pumps and gas/electric package product.

### **HSPF—Heating Seasonal Performance Factor**

It is a measure of the average number of Btu of heat delivered for every Watt-hour of electricity used by the heat pump over the heating season.

### **AFUE—Annual Fuel Utilization Efficiency**

It measures the amount of heat actually delivered to your house compared to the amount of fuel that you must supply to the furnace. Thus, a furnace that has an 80% AFUE rating converts 80% of the fuel that you supply to heat—the other 20% is lost out of the chimney.

As ratings increase, so does unit efficiency.

**So smart, your home will be constantly comfortable. So tough, your energy bills won't know what hit 'em.**

The iQ Drive® fully modulating gas furnace by Tappan is the epitome of comfort, convenience and quiet. It continuously adjusts its heat output to exactly match the needs of your home - so you maximize your energy efficiency while enjoying constant comfort.

### **Modulating vs. Single-Stage vs. Two-Stage.**

To understand modulating technology, just think of your car. A modulating furnace operates much like your cruise control, constantly making small adjustments to keep the car at its desired speed. It's a fuel-efficient way to drive, and also more comfortable than the lurching that comes with rapid acceleration and deceleration.

A single-stage system shuts on and off at full output only, similar to driving with either a lead foot or completely off the accelerator.

A two-stage system operates at two heat inputs, similar to driving at one of two available constant

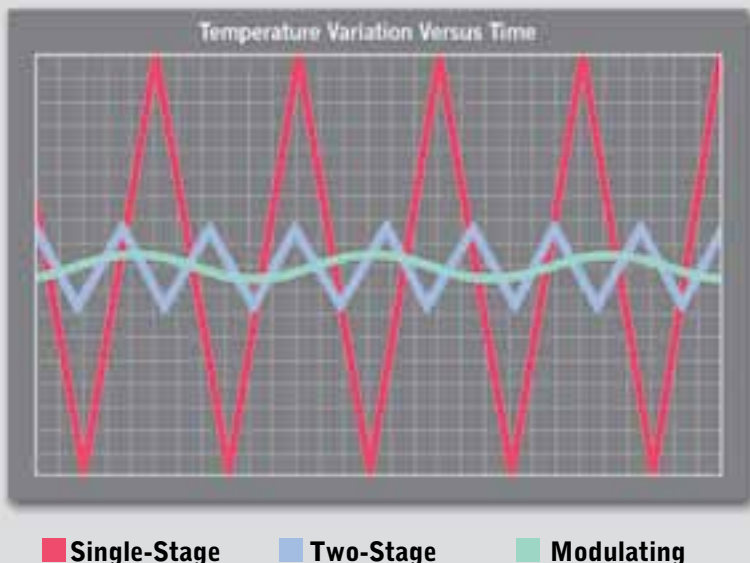
speeds. Two-stage heat is more comfortable than single-stage heat, but a fully modulating system provides the best comfort solution.

### **Incredibly energy efficient, even in the summer.**

Why spend money to heat the outdoors? With the Tappan iQ Drive modulating furnace, at least 97% of your energy cost goes into heating your home - instead of up the chimney.

The Tappan iQ Drive furnace works with any Tappan split-system air conditioner or heat pump and actually makes your outdoor unit more efficient. On a 13- or 14-SEER (Seasonal Energy Efficiency Ratio) air conditioner or heat pump, the iQ Drive furnace will increase SEER up to another point - in essence, boosting your outdoor unit's cooling efficiency by up to almost 8%.

Of course, for the ultimate in efficiency and home comfort, pair the iQ Drive modulating furnace with the Tappan iQ Drive air conditioner or heat pump. At up to 23 SEER, the iQ Drive air conditioner is an excellent choice for geographies where maximum cooling efficiency is needed. In areas where heating efficiency is also desired, consider the up to 20 SEER/10.0 HSPF (Heating Season Performance Factor) iQ Drive heat pump. It operates in the summer the same as an air conditioner, but also provides heat in the winter. The iQ Drive air conditioner or heat pump works similarly to the modulating furnace, adjusting its speed to meet the exact needs of your home. With this ultra-efficient system, you can be constantly comfortable no matter what the weather.



## Exceptionally quiet.

You shouldn't have to turn up the volume just because the furnace kicked on. With the iQ Drive fully modulating furnace, the quiet motor is encased in an insulated cabinet for ultimate sound reduction. The three-phase motor design produces a very low torque ripple, and because it ramps up to speed, it minimizes the abrupt change in sound found when a standard single-stage furnace motor cycles on and off. The overall effect is a furnace whose comfort is felt, but not heard.

## What AFUE means to your bottom line.

AFUE stands for Annual Fuel Utilization Efficiency and measures the amount of heat actually delivered to your house compared to the amount of fuel supplied to the furnace. For example, a furnace that has an 80% AFUE rating converts 80% of the fuel to heat - the other 20% is lost through the chimney. The higher the rating, the better the energy efficiency.

Most systems older than 10 years are rated around 65% AFUE. Upgrading to a Tappan iQ Drive modulating furnace rated at 97% AFUE can save



### 3-Year Heating Savings

Dollar amounts computed on natural gas costs at \$.092 ccf, for 2,000 full-load heating hours and a system rated at 60,000 Btuh. Actual savings may vary depending on climate conditions, fuel rates, and patterns of usage.

around \$560 a year on energy costs. And of course, as the cost of natural gas rises, so will your savings.



## iQ Drive® 97+ Modulating 97+% AFUE Ultra High Efficiency



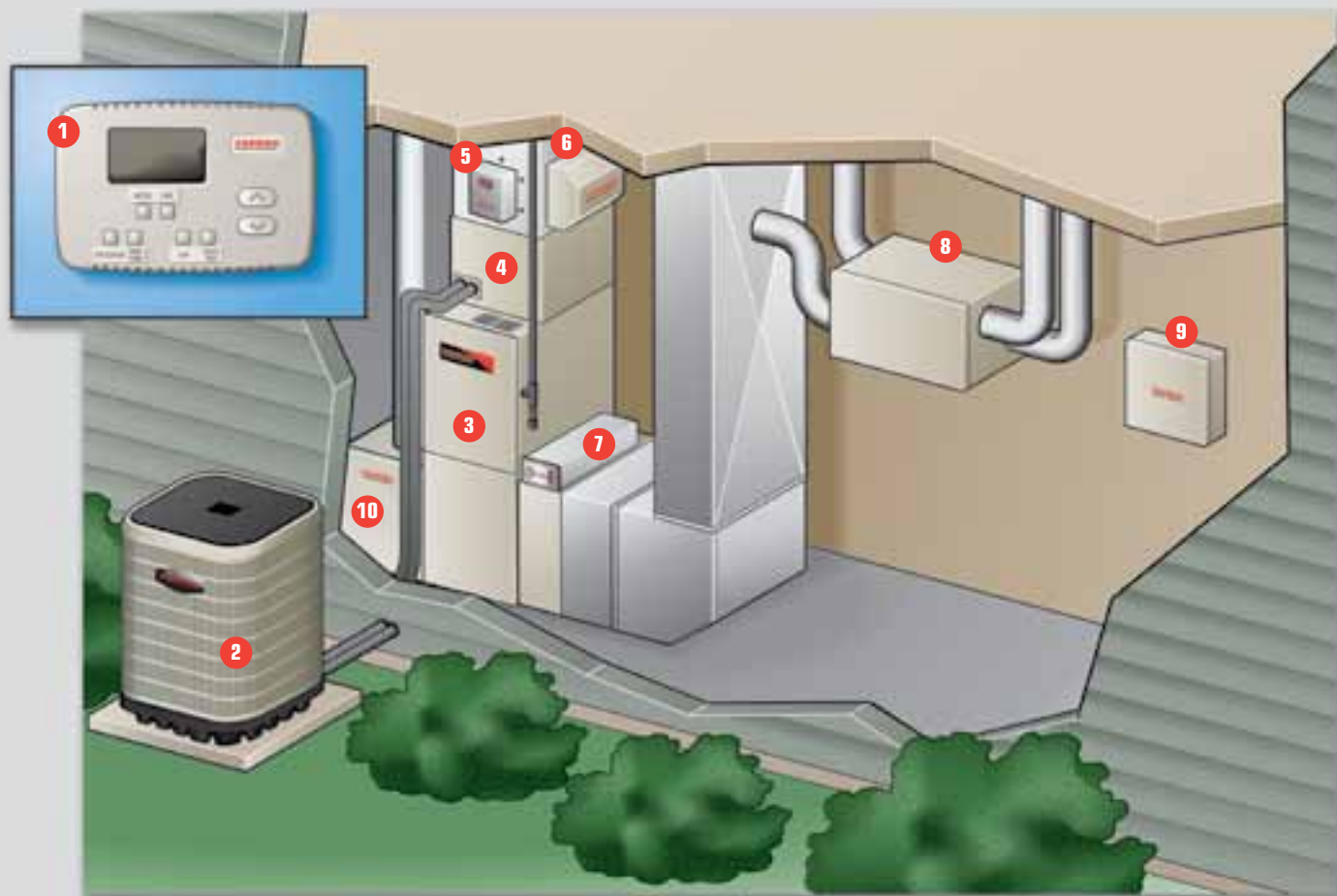
- Integrated Comfort Systems Efficiency  
*(Match with Tappan selected air conditioner or heat pump for year-round efficient performance)*
- Complete your comfort system with the most energy efficient outdoor air conditioner or heat pump available
  - Tappan's up to 23 SEER iQ Drive
  - Tappan's up to 20 SEER/10.0 HSPF iQ Drive
- Exceptional Warranty — Limited Lifetime Warranty On Heat Exchanger/10-Year Limited Parts Warranty/10-year Tappan Tough™ Quality Pledge when registered

Ask your Tappan contractor or go to [www.tappan.net](http://www.tappan.net) for warranty details.



## Putting It All Together With Quality Service.

To learn how you can get the most comfort—and biggest return in energy savings from a totally integrated indoor comfort system, talk to your Tappan contractor. From thermostats, to air cleaners, matched coils for new condensing units, humidity and zone control systems, and other indoor air quality accessories, you're sure to get tough, dependable technology that's built to last. All of which makes you one very smart customer. Tough. Smart. Tappan.™



- |                                |                          |                              |
|--------------------------------|--------------------------|------------------------------|
| 1 Programmable thermostat      | 5 UV air purifier        | 8 Energy recovery ventilator |
| 2 Air conditioner or heat pump | 6 Humidifier             | 9 Zone control panel         |
| 3 Gas furnace or air handler   | 7 Electronic air cleaner | 10 HEPA air cleaner          |
| 4 Evaporator coil              |                          |                              |

**TAPPAN**  
Heating and Cooling Products

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### Certifications

