

CTECK

CTECK Overview & FAQs

Revision 1.0



**Low Carbon
Accelerator**

2022/23 Finalist

What is CTECK - CTECK is a small electrical device installed into the outdoor unit of your Air Conditioning system (Condenser), the device is a microprocessor (Smart little computer),

What Does it do? - the smart little computer saves you Energy when you run your AC system **reducing power consumption by up to 25%** (this can be hundreds \$ per year), it also reduces carbon emissions (GHG) by using less energy we **reduce emissions by up to 25%**

- *Typically, AC systems can be 50% (or more of your energy costs!*

How does it do it? -

- The first step - CTECK learns how you use your Air Con unit, and how your unit performs relative to the conditions outside, as outside conditions change all the time typically you want to maintain the indoor temp (Stay comfy), the means your AC unit uses more or less energy to keep you comfy! *we call this the LOAD profile*
- The second step - CTECK analyses the load profile and identifies points in the load profile where your system can reduce its energy consumption without affecting your comfy indoor conditions,
- Third step - CTECK talks to your AC unit and together they make the micro-savings (reduce energy usage). in most cases, your system can save up to 25% of its normal energy usage, without affecting your comfort levels.

Simply - your Air Con unit has a compressor that uses energy (power or kWhs) to create heating & Cooling for you, the harder this system runs the more energy it uses and the less efficient it becomes.

- For example, this is no different to your Car engine, the faster you accelerate the more fuel (energy) you consume, and the less efficiently your engine performs! if you suddenly break to reduce fuel use, your efficiency becomes even worse. **HOWEVER**, if you accelerate/decelerate smoothly and consistently you will use less fuel (Energy) and the engine is more efficient.... some cars show you with this an ECO mode light when you're driving in this efficient range!!

Let's see how this related to CTECK - Think of CTECK as a super-efficient economy driver for your AC unit, each one of the micro-saving adjustments it identifies is like adjusting the accelerator in your car, CTECK keeps your AC unit in the ECO / Efficient range more often than "standard" operations...

This is how you save energy Consumption and reduces operating costs...

CTECK Savings typically provides an ROI of 12 - 18 months!!

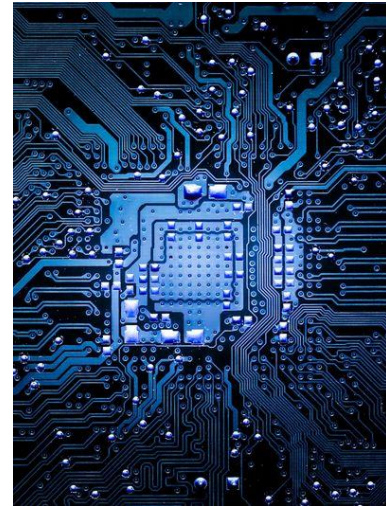
LET'S GET A LITTLE MORE TECHNICAL

Surely my AC unit can control effectively and efficiently?

Most modern AC units are manufactured to meet mandatory minimum energy efficiency performance standards (MEPS), you will see these ratings on the unit when you purchase them or in the marketing brochures, they are often shown as star ratings.

Manufacturers do a fantastic job creating systems that operate and control to these standards, and in some cases exceed them, especially with the advanced technology such as Inverter compressors, Finite control, and Smart AC platforms, the downside is most manufacturers produce 10's and 100's of thousands of units to operate all over the globe in many climates and operational uses.

CTECK comes into its own with Proprietary control logic, AI (Artificial Intelligence) and Machine learning algorithms to advance these smart systems further and ensure that when CTECK is paired to any compatible AC unit they become even smarter, with smoother operations and refined efficiency to its specific environment and application and operational load profile, as your load profile changes so does the CTECK micro saving profile to ensure continuous savings in all applications.



Optimising your Compressor has never been this easy!

CTEK has been created from our many years of experience in the Energy Efficiency & Compressor optimisation technology fields with a concentrated focus on Inverter Air Conditioning systems specifically for Residential / SME markets to produce the platform we have today, incorporating AI & Machine learning technology to ensure that Micro savings are the most efficient and advanced as your system changes operation so does CTECK, giving you peace of mind that savings are always maximised.

FREQUENTLY ASKED QUESTIONS

Please reach us at hello@cteck.com.au if you cannot find an answer to your question.

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Who Can Install CTECK?

- CTECK must be installed by a Qualified Electrical tradesperson, Installation of each CTECK unit should take approx. 30-45 Minutes
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When will CTECK start saving \$\$\$?

- Your CTECK unit will take approx. 30min - 1hr to start making micro adjustments and saving energy consumed by your AC unit

Will the CTECK unit void any warranty of my AC system?

- The CTECK unit is installed to your AC condenser through a DRED interface, your manufacturer provides this interface for 3rd party control/optimisation devices, we do not guarantee no impact to warranty it is our experience that manufacturers are generally acceptable to us installing CTECK Via the DRED interface please check with your manufacturer.

What is a DRED interface?

- DRED (Demand Response Enabled Device) - all Air conditioning systems in the residential / SME market must have a DRED interface in their unit or be available for retrofit, a DRED interface is a mandatory interface found in most AC units to meet minimum Energy Performance Standards and used by energy network retailers to conduct Loads heeding / peak demand reduction programs.

How long is the CTECK warranty?

- All CTECK units are provided with a 12 Month warranty period.

Is CTECK Compatible with my AC unit?

[CTECK Compatibility Request Click to Find out More](#)

CTECK is suited to many Commercial / industrial applications.

CTECK commercial site suitability assessment
Commercial Clients, Electrical contractors & Mechanical contractors, please follow the below link to assess the suitability of CTECK for your site or unit.

[Find out more](#)