

# A City Never Sleeps

## Neither Should Your Transit Fleet

# StartSentry®

## Ultra Capacitors

The modern transit service is a 24/7 non-stop commuter ballet where timing is everything.

Whether it means getting an entire city to work on time or sending its people out for a night on the town, your buses need to be ready and waiting - not back at the garage tied to a jump cart.

Vanner StartSentry® Ultra Capacitors are the onboard solution to fast and reliable starts. The StartSentry® assists OEM starting battery configurations by providing up to 80kJ of starting power - regardless of battery charge state.

Immune to parasitic loads the StartSentry® starts your bus even if the starting batteries are drained. Its microprocessor automatically energizes the multiplex enabling restarts while en route and dampens charging system electrical surges.

A StartSentry® monitors and responds to battery shorts preventing thermal occurrences and can even reduce battery quantities needed.

Vanner StartSentry® Ultra Capacitors. The power solution for a fresh start.



**VANNER**®  
Power Management For Transit  
www.vanner.com

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# VANNER®

## Four Models

- Positive Sense Start
- Ground Sense Start
- Positive w/CAN
- Ground w/CAN

- Assists starting batteries on every start

- Electrical system surge suppression

- Microprocessor monitors and responds to shorted batteries preventing thermal events

- Enables the starting batteries to be converted to deep cycle batteries to provide additional ampere hours

- StartSentry may replace up to 100+ lbs (45Kgm) of starting batteries

- Clean, self-contained design

- Simple installation

- Great retrofit solution

## Multi-Vocational:

- Transit and Coach
- Buses
- Fire & Rescue
- Off-Road Equipment
- Critical-Start Vehicles

- Microprocessor and contactor energize multiplex for wakeup

**No More Dead Battery Buses!**



## Spec.

Operating Voltage	7.0VDC to 30VDC
Max. Input Voltage	36VDC
Operating Temperature	-40° C to +60° C, -40° F to +140° F
Storage Temperature	-40° C to +70° C, -40° F to +158° F
Peak Power	25kW at -18° C for 1 second
Cold Cranking Amps	1800A at -18° C for 1 second
Capacitance	250 Farad
Storage Energy	80kJ
Energy Storage Window	12VDC - 28VDC
Life Cycle	200,000 Cycles
Leakage Current	10mA
Self Discharge Time	10 days to 80% at 27° C
Charging Time (Initial Install)	15 Minutes
Designed Operation	Self Controlled
Contents	Capacitors, Controls, Contactor
Chassis	Black Powder Coated Aluminum
Dimensions	32H x 56D x 19W cm (12.5 x 22 x 7.5 in)
Weight	18kg (40 lbs.)

## Tech.

### Typical Bus Installation

