

Elevator Control Systems



NEMA 4 VVVF Elevator Controller

For almost a century C.J. Anderson & Company has been manufacturing controllers for both national and international markets. As a pioneer in the field, CJA has manufactured thousands of controllers, from tiller rope and car switch to the present day microprocessor. With this vast number of controllers in the field, most elevator constructors or mechanics are familiar with CJA's design, operation and construction. It is our policy to retain the familiar design principles while incorporating modern technology into the control systems.

We specialize in providing complete fixture/control system packages for ease of installation. You don't have to worry about coordinating schedules and lead times and will receive a completed package on time with all the features for your project. We also can provide serial link wiring for CJA Fixture/Control System packages which can greatly decrease your installation time.

All of the controllers shown can be manufactured to meet the following standards.

- Water Resistant - NEMA 4
- Corrosion Resistant - N4X
- Hazardous Location - N7/9
- Dust Proof - NEMA 12
- Conventional - NEMA 1

With the advent of computer logic into the elevator industry there have been a vast number of new companies promoting their control systems. Many of these new companies no longer exist. With C.J. Anderson Control Systems you have the assurance that technical assistance, wiring diagrams and replacement parts will be available for years to come. With CJA you enjoy the benefits of "today's system's" coupled with years of proven reliability, and the confidence that we will be here in the future.

CJA's objective is to utilize the best available technology, equipment selection and design which will suit the contractor's needs for performance and cost. This includes the selection of the processor, computer software, programming, control equipment, drives, relays,

resistors, etc. which go into the final design. The overriding goal of the entire system is that the final product must be reliable and cost effective.

Reliability is insured by pre-adjusting at CJA's factory and then completely testing the finished product prior to shipping.

Cost effectiveness is realized by ease of installation, adjustment and maintenance after completion.

Controller Types

VVVF Variable Voltage Variable Frequency

For traction elevators traveling faster than 100 FPM. Solid State controls, dynamic braking and force guided relays make our controllers the most solid state in the industry. For elevators that are under 150 feet per minute no encoder feedback from the motor is required. For speeds 150 feet per minute and above we recommend that you use encoder feedback. We can provide a new motor and encoder for your elevator system along with a new controller.

RTC-1 - Soft Start For One Speed Motors

For traction elevators that travel less than 90 FPM. With this system, stopping of the elevator occurs when the elevator comes to the floor and the door zone sensor is activated. The brake sets and the elevator stops. The slower the elevator travels the better this controller stops. Motor control is by Power Electronics Smooth Control or soft start from one of the other soft start manufacturers.

RTC-2 - Soft Start For Two Speed Motors

For traction elevators with speeds less than 180 feet per minute. This is a very good alternative for older elevators. Soft start units are controlled by the Power Electronics 2 Speed Smooth Move. It slowly ramps up into the first motor winding and then the second and it also has the ability to slow down when a selector is added to your elevator. We can provide this as a PLC Based system or relay logic without Fire Service for repair or like for like replacements.

Hydraulic - Soft Start, Wye Delta or SOL

Our CJA controllers for hydraulic projects are ideal for direct replacement or new installations and have solid state industry type PLC and components that are readily available and off the shelf in the event of a shut down. Available with Soft Start, Wye Delta or Straight Accross The Line, we can build a controller to meet your specifications.

VVVF Line Regen

Line Regeneration with elevator controllers is being specified for more and more projects. Instead of energy transforming into heat when the elevator stops and dissipating into a resistor bank, the energy that's created when the elevator stops gets pushed back into the AC line through a REGEN unit. The upfront cost associated with line regenerative drives is more than a traditional VVVF controller. However over time you'll know that your elevator is conserving what used to be wasted energy and helping in your effort to keep your building green.

SCR - For DC Motors

They are still out there, elevators running with DC motors. We still build elevator controllers for these types of applications utilizing a solid state SCR Drive. We also use PLC Based logic, encoder feed back and recommend you installing a new line isolation transformer to ensure that noise and interference is kept to a minimum. There's still a market for DC controllers, it's just not as large as for VVVF AC elevators.

Features & Options

Microprocessor Control (PLC)

CJA utilizes the best software and PLC's to achieve the best performance for your elevator. Each Control System has a "brain" which contains a non volatile memory program that cannot be erased in the event of a power outage.

Microprocessor control allows CJA to upgrade programs in the future to allow for code changes and new elevator requirements. We also manufacture controllers using PLC's that are industrial type. One of the most popular among the ones we build with is Allen Bradley.

Relay Logic

Need Relay Logic? We still make them. Keep in mind that the price of a Relay based system when compared to a Microprocessor based system is actually more due to an increased number of relays and time involved with manufacturing and testing the controller. Also note that certain Fire Service Codes are not available with this type of logic, and Single Automatic Pushbutton operation can only be accommodated with elevators over three floors. Ideal for elevator speeds under 100 Feet Per Minute and using motor controls that are anything but VVVF. Perfect in some cases for like for like repair replacements.

Touchscreen Diagnostics

CJA Microprocessor control systems come equipped with touch screen controls for monitoring the elevator and reporting faults of the system, such as bad door interlock contacts. Each LCD screen is easy to navigate through and also allows the mechanic the ability to change simple parameters such as door timing and alternative floor for fire service. This is a standard feature on all PLC based controllers.

Easy to Wire Terminal Blocks

Easy to view and wire terminal blocks make wiring a breeze. We specifically use easy to wire blocks to help with wiring.

Controller Air Conditioners & Heaters

We can upon request provide cabinet cooled air conditioners to prevent damage to both microprocessor and solid state motor controls for excessively hot machine rooms. Available in NEMA 1, 4/12 and 4X, we can easily provide them should you require one. Each unit is wired directly in to the control system and comes with a manually adjusted thermostat. Heaters are also available for colder climates as well.

Motor Control

Constant Pressure, Car Switch, Single Speed, Two Speed, Hydraulic, Variable Frequency Variable Voltage or DC SCR Applications. We can manufacture your controller for any horsepower or elevator speed you need. This is dependent upon what type of system you have.

These are just a few of the many features available to you when you purchase a CJA Control System. Each control system is built to your job specifications and tested prior to shipping. Call today for controller pricing on your next project.