



**A TUCKER AUTO-MATION HOLDINGS COMPANY**

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## **8825-3 SUPER-DRIVE**

### **Mounted DC Commercial Sectional Door Operator**

**Tucker ZAP PATENT NUMBER / TITLE / REGISTRATION DATE:**

USA 8,182,381 | Drive arrangement | May 22, 2012  
USA 8,115,438 | Aperture closure member control arrangements | Feb. 14, 2012  
USA 8,033,374 | Drive arrangement | Oct. 11, 2011  
USA 7,633,253 | Control and monitoring arrangements for an aperture closure member | Dec. 15, 2009  
USA 7,437,971 | Drive arrangement | Oct. 21, 2008  
USA 7,333,308 | Control arrangement | Feb. 19, 2008  
USA 7,005,884 | Monitoring apparatus for monitoring electrical drive current for an electric motor | Feb. 28, 2006  
USA 6,188,198 | Aperture closures | Feb. 13, 2001

Mexico 243645 | Aparato de monitoreo | Feb. 6, 2007  
Canada 2445152 | Monitoring apparatus | June 25, 2013  
Canada 2440772 | Control arrangement | June 21, 2011  
Canada 2560530 | Drive arrangement | May 21, 2013  
Canada 2641641 | Aperture closures | April 26, 2011  
Canada 2445123 | Drive arrangement | Feb. 16, 2010  
Canada 2338191 | Aperture closures | Dec. 30, 2008



## 8825-3 Super-Drive

**Medium Duty** Torsion Shaft  
Mounted DC **Commercial**  
Sectional Door Operator.

Patented  
Design

### SAFETY MEETS SIMPLICITY

TUCKER ZAP has designed and developed a patented range of DC motor drives and controllers that operate without limit switches or a safety edge using a single phase supply. The operation of commercial sectional and sheet steel doors is now **safer, smoother and exceptionally quiet** using the compact and **easy to install** DC motors and controllers.

#### 8825-3 Super-Drive | **Safety**

- NEMA 4X compliance for the controller as a standard feature.
- Compact size reduces potential for lifting injuries during installation.
- Universal torsion shaft mounting system reduces the potential for unsafe work practices during installation.
- Fully adjustable automatic obstruction sensing system detects obstructions on any part of the door in the open or close direction while monitoring the entire door movement for unsafe operation or service conditions.
- Inherent soft start-soft stop, safety stop-reverse eliminates the mechanical stress damage to the door when the door reverses.
- Self determining limit system prevents thrown cables from debris, ice, and snow left in the door opening.





## Product Description

ZAP 8825-Series 3 Super Drive

### 8825-3 Super-Drive | Value

- Continuous duty rated low voltage motor.
- Ultra-Quiet DC Motor, will not thermally overload.
- No extra costs to have controller achieve NEMA 4/IP 66 rating.
- Built in Service Due reminder may be activated to ensure regular maintenance based on cycles of usage.
- Fully programmable Timer-to-close.
- Built in interlock terminals to prevent door operation.
- Programmable mid-stop.



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- Motor maximum amperage draw 3.2 Amps reducing number circuits required for multiple door applications
- Automatic obstruction sensing system surpasses the capabilities of a sensing edge detecting obstructions on any part of the door, eliminating the cost of a safety edge and associated wiring
- Reduces the occurrence of catastrophic damage to the door

### 8825-3 Super-Drive | Simplicity

- Simple one person installation that eliminate steel build ups, back hangs, welding, and specialty anchors.
- Simplistic maintenance design concept.
- PCB based system controller eliminates the cost of servicing electrical contactors, limit systems, and countless other parts.
- When the operator emergency release lever is disengaged the door easily operates by hand.
- Operates all lifts of sectional doors with counter-weights or torsion springs, including rear mount torsion.
- Versatile sectional door application mounting. May be mounted vertically, horizontally, upside down, inside the cable drum, remount torsion, all without requiring wall or ceiling mount.
- Simple wiring configurations and accessory modules that eliminate external limit relays to achieve various interlock configurations.

### 8825-3 Super-Drive | Reliability

- Industrial components ensure years of service.
- Long life phosphor bronze worm drive gear system.
- DC Motor and controller eliminates the problem of stuck motor switches, limit system failures, burned out starting capacitors and A/C motor malfunctions.

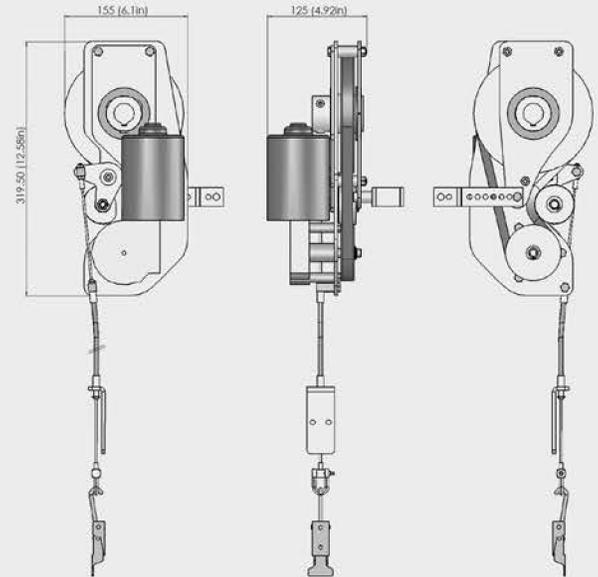
### 8825-3 Super-Drive | Standard Features

- Motor and controller Continuous duty rated DC Motor with controller, producing a powerful soft start/soft stop output of 1300 Newtons of force to drive commercial rolling sheet doors while reducing mechanical impacts that cause premature wear of door components.
- NEMA 4X rated controller case ZAP Controllers and push buttons are NEMA 4X compliant as a standard.
- Drive reduction Worm drive gearbox & V-belt reduction drive with floor level, adjustable belt tensioning /emergency release lever.
- Wiring type C2 (factory default), B2 failsafe is standard with the addition of approved photo eye.
- Terminal strip provided inside the controller to provide quick, convenient connections for adding external radio control receivers from any desired manufacturer.
- Bearings and belts Drive systems use industrial grade bearings and automotive grade long life v-belts. Our simplistic service design concept allows simple service of components in a matter of moments.
- Construction Heavy-duty 8-gauge electro-plate finish steel frame, industrial bearings, phosphor bronze worm drive gears, aluminum drive pulley, secured with key stock and set screw for simple servicing.

## ZAP 8825-3 Super-Drive



### Technical information for the 8825 Series 3



Controller case/push button:	<b>NEMA 4X/IP66</b>
Controller dimensions:	<b>8.7" H X 10.6" W X 4.5" D</b>
Single phase voltage:	<b>115V US, 208-230V US, 230V EU</b>
Three phase voltage:	<b>460V US (Special order) 8825(X)-3-460</b>
Amp draw:	<b>3.2A</b>
Power rating:	<b>1300 Newtons Equivalent to 1 HP</b>
Control circuit voltage:	<b>6VDC</b>
Limits determination:	<b>Physical/Self Calibrating</b>
Duty cycle rating:	<b>Continuous</b>
Operating temp range:	<b>-22 deg F to 212 deg F</b>
Overload protection:	<b>Inherent motor current sensing</b>
Lubrication:	<b>Permanent</b>
Torque Information:	<b>225Lbs/102kg: Max Torque 90Nm</b>
Torsion shaft type required:	<b>Solid w/keyway or hollow tube</b>
Torsion shaft length required:	<b>4.5" beyond outer edge of</b>
Fits torsion shafts diameter:	<b>track</b>
Side clearance required:	<b>1"</b>
Replacement red motor P/N:	<b>5" min for motor only</b>
Replacement belt size:	<b>600816 8825-B AX25.5 8825-C AX27</b>



# Product Description

ZAP 8825-Series 3 Super Drive

## 8825-3 Super-Drive | Standard Features

### Construction

Heavy-duty 8-gauge electro-plate finish steel frame, industrial bearings, phosphor bronze worm drive gears, aluminum drive pulley, secured with key stock and set screw for simple servicing.

### Push button station

Control unit acts as the standard 3-button station for open/close/stop functions. Controller may be mounted remotely up to 24 feet away from the operator, provided it is to be wired with other external control devices that are designed to function as the primary door controls. Power supply is wired directly to the controller not the motor. Low voltage motor cable is supplied for easy wiring of the motor.

Lift	Low Head	Standard	High Lift to 54"	High Lift above 54"	Vertical Lift
Door Size W X H					
8'-14'W X 8'6"-14' H	8825-3-B	8825-3-B	8825-3-C	8825-3-D	8825-3-D
14'-20'W X 8'6"-12'H	8825-3-B	8825-3-B	8825-3-C	8825-3-D	8825-3-D
20'-24'W X 8'6"-10'H	8825-3-B	8825-3-B	8825-3-C	8825-3-D	8825-3-D
Sectional Doors only Please read the instructions fully or attend training online before installation. Consult factory for door sizes beyond scope provided above. The maximum door weight for sizes listed above is 1200 Lbs. The minimum door height 8'6".					

## 8825-3 Super-Drive | Value Added Standard Features

### Automatic obstruction sensing system

Inherent motor current sensing system monitors the entire door system for obstructions and unsafe operating conditions in both directions of travel. The system provides protections unavailable with traditional commercial operators and can automatically sense obstructions like locks, broken springs, unsafe service conditions, and other obstructions that cannot be detected by reversing edges and photo cells.

### Safety stop and reverse

Inherent motor current sensing system automatically incorporates safety stop before reopening in soft start.

### Auto-close timer

Fully programmable auto-close timer automatically closes the door. (4 minutes) Requires the addition of approved photo cell.

### Part open programming (Programmable mid stop)

Programmable part open to stop door at predetermined height.

### Prevent door operation interlock

Built in interlock to prevent door operation, used with truck restraint systems, shared track applications or pass doors.

### Emergency egress manual operation

Emergency manual operation using a ground level over-ride lever disconnect. When lever is released, the door will operate manually by hand as if no operator is connected to the door. This unique system eliminates the need to electrically interlock the disconnect as the operator has no mechanical limits and physically disconnects from all drive systems when released. It also provides ground level adjustment of the motor drive belt.

### Max run time protection

Inherent motor current sensing system provides automatic max runtime protection.

### Service due reminder

May be activated to ensure regularly scheduled maintenance based on cycles of usage.

### Versatile mounting configurations

8825 may be mounted in standard vertical, horizontal, inverted, inverted center mount inside the cable drum, or rear mount torsion configurations. Some applications may require the use of a longer Bowden cable for proper installation.

## 8825-3 Super-Drive | Options & Accessories

### Fraba Optoeye UL 325 Compliant Monitored Entrapment Protection Device

401002 photo eye is a Nema 4X UL 325 Compliant Monitored Entrapment Device designed for durability in all commercial applications.

### Receivers and transmitters

2, 4, and 6 button handheld and permanently mounted forklift transmitters are available for use with the model 840 receiver. The 840 receiver module can use either an internal or optional external antenna. Terminals are provided inside the controller to facilitate the use of a 24VDC external receiver from any radio control manufacturer.

### Auto-Lock

8070 Auto-Lock provides integrated security with an electronic solenoid locking system that releases a shoot bolt above a roller when door is stopped and withdraws prior to door operation.

### Rear mount torsion kit

ZA1012 Bowden cable. 900005 Large offset torque arm.

### Battery back up

8830 Battery Back up systems allows operation of the operator during power outages.

## 8825-3 Super-Drive | Available Plug-in Modules

### Auxiliary input expansion module

871 module allows for expansion of input functions beyond the available connections on the controls board. It provides additional open, stop, close and cyclic operation input connections as well as an additional 24VDC supply.

### Fire station module

871 FS allows the incorporation of a second set of photo cells above man traffic height that will prevent the auto-close timer from timing out and closing a door before the vehicle has departed the facility. Once the vehicle has departed the opening fully, the timer is released.

### Dock interlock/Traffic light control w/adv. warning

82DTLM and the 822 Modules provide a N/O relay that closes when the door operator is in the fully opened position. It may be used as a dock interlock or to interlock a door that shares the same track system. Provides terminals to operate red/green driver communication lighting where mechanical dock levelers are used. 822 module provides advance warning of pending door closure with activation of the delay close programming. Terminals provided on 82DTLM may also be used to operate security, heating or other 5V to 240V devices up to 5 amps. Expansion port included for the addition of 8070 Auto-Lock, 871 FS, or 871 interface expansion modules.

### Closed interlock/Traffic light control w/adv. warning

82TLM and the 821 Modules provide a N/O relay that closes when the door operator is in the fully closed position. It may be used as a sally port interlock or to interlock any device that requires the door to be in the closed position. Provides terminals to operate red/green through traffic lights where it is desired to know the door is fully opened before proceeding through. 821 module provides advance warning of pending door closure with activation of the delay close programming. Terminals provided may also be used to operate security, heating or other 5V to 240V devices up to 5 amps. Expansion port is included for the addition of 8070 Auto-Lock, 871 FS, or 871 input expansion modules.

### Loop detectors

Both single, and twin loop detectors are available for either plug in or wall mount installation.

# ZAP

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## ZAP 8825-Series 3 Super Drive

ZAP CONTROLS  
88581B  
SUPERDRIVE

ZAP DC MOTOR PART No. 600816

TYPE: 76RB  
Max: 48 volts.

SERIAL No. \_\_\_\_\_

DATE OF MANUFACTURE 06/10

FOR USE WITH MODEL 8800 CONTROL UNIT

THE PRODUCT GUARANTEE IS INVALID  
IF THIS LABEL IS REMOVED



Not For Use In Residential Applications



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