

The background of the lower half of the page features several overlapping images of wheel hubs. There are three large, dark grey hubs and one smaller, white hub on the right side. The hubs are shown from a top-down perspective, highlighting their circular shape and the arrangement of mounting holes.

# CATALOG

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**The ultimate "On Board" balancing system**



## Company History

**CENTRAMATIC**, established in 1985, began by supplying the heavy-duty trucking industry in the United States and Canada with a unique “**On-Board**” balancing system for steer, drive and trailer axles. In the late 1980’s, **CENTRAMATIC** acquired Perma-Balance, a company that manufactured balancers for light-duty vehicles and automobiles. Their products were well known having been distributed by companies such as Montgomery Wards and Sears. This acquisition gave **CENTRAMATIC** a complete line of products from cars to pick-ups and as large as 18 wheelers. Over the years, business has grown to over 2800 dealers nationwide and some very prominent distributors as well. Paccar Parts (Kenworth and Peterbilt), Freightliner, Sterling, Petro’s, Travel Centers of America, Goodyear Wingfoot, TDS, GCR Tire Centers and Camping World are just some of the names you know and trust.

With this growth and many years of experience, quality and reliability are of utmost importance, which is why we back our balancers with a Five-Year Unlimited Mile Warranty. Over 1,000,000 balancers have been produced and many are still in service with over one million miles of operation. On display at Corporate Headquarters is a balancer with 1,439,716 confirmed miles and there have been reports of balancers with even more miles on them that are still in working condition. Maximizing tire life is a primary goal for **CENTRAMATIC**, which is why we proudly display a 24.5” steer tire with 221,325 miles and 4 drive tires with 436,235 miles on the original tread. We have testimonials abound!

**CENTRAMATIC** holds over 10 design and utility patents on this unique balancing concept and has other worldwide patents pending. Most heavy application balancers are made of 20 gauge galvanized steel with an aluminum balancing tube. One of our new processes actually forms a balancer from a single piece of aluminum. Anti-magnetic weights are suspended in synthetic oil and are automatically redistributed as the wheel rotates. Centrifugal force places the weights in exactly the correct position, down to 1/10<sup>th</sup> of an ounce. This produces a continual dynamic balance. It also compensates for out of balance conditions created by tire distortion, forced radial variation and other factors that greatly increase with 70-75 mph speed limits. Centramatic balancers have proven to increase tread life up to 50%, reduce tire cupping, minimize damaging vibration and improve tire tracking. It is not necessary to pre-balance wheels with Centramatics, but it is recommended in some severe cases. **CENTRAMATIC** balancers fit 16”, 16.5”, 19.5”, 22.5” & 24.5” wheel applications and contain no components that negatively impact the environment.



Building on success with the heavy-duty market, **CENTRAMATIC** introduced balancers for recreational vehicle applications in the early 90's and are now available through the nation's largest recreational vehicle retail chains as well as numerous catalog publications. In early 1997, **CENTRAMATIC** successfully developed balancers for the American General Corporation's "**HUMMER**", which further lead to development of balancers for M-35 and M-5 military tactical vehicles. After testing and evaluating our balancers in 1998, American General wrote a recommendation for the use of **CENTRAMATICS** on all military tactical vehicles.

In 2001, new developments included balancers for Prevost and MCI coaches, new designs for 19.5" wheels and balancers specifically designed for the Detroit "Life-Cycle" school buses manufactured by Thomas Built. New designs and developments are a large part of **CENTRAMATIC'S** efforts to improve our products and remain on the leading edge of this technology. The year 2001 also brought about developments and the manufacture of balancers for large (over 5 feet in diameter) centrifuges and similar types of equipment.

2005 has seen the development of balancers for European Trucks and Buses, with many more designs and innovations in the works.

Whatever the future holds, depend on **CENTRAMATIC** to lead the way.



## Frequently Asked Questions

### **How do Centramatics work?**

By using centrifugal force, the free moving weights (durametal and synthetic fluid) sealed in the balancer automatically distributes to exactly where needed, placing the assembly in equilibrium or perfect balance. When a sprung assembly is out of balance, deflection is caused via the springs or tire sidewalls. These free moving weights sense this deflection and move opposite the heavy points to balance the entire assembly, wheels, tires, drums, hubs and even mud, snow or ice stuck to the wheels.

### **Should the tires/wheels be pre-balanced?**

In most cases, pre-balancing is not required. However, if a vibration still exists after installation, a computer balance of the problem position can indicate a mis-mounted or defective tire, a bent wheel or other “out of round” condition, which balancing alone cannot correct. Wheel bearings should also be checked and defective parts replaced.

### **What about mismounted tires or improperly seated beads?**

This problem can be found by inspecting the area where the wheel and tire meet. A guide rib or circumference ring is molded into the sidewall of the tire. Measure the distance from the wheel to the guide rib (approx. 1/4 inch depending on tire brand) at the top, bottom and both sides. A variance in this distance indicates a mismounted tire, which will roll out of round and leads to erratic tire wear and vibration, regardless of how well it is balanced. Reseating the bead properly corrects the problem.

### **What is inside the rings?**

Our balancing media consists of two parts. The first one is durametal, a hardened lead alloy similar to lead shot but 10 times harder. This is the primary balancing media because a solid cannot change shape or form under centrifugal force. It remains exactly where needed under high speed. The second part, the dampening fluid is proprietary synthetic oil, designed to operate in the most extreme environments. The rings are about 1/3 full of this fluid. Its function is to lubricate, dampen vibration and help balance. However, a liquid alone would merely flatten out under centrifugal force at high speed and be forced back around the ring to an undesirable position. That's why we use the benefits of both a solid and liquid.

### **Should the rear duals and trailers be balanced?**

Absolutely! The largest investment in tire dollars are on the rear. Typically, even when loaded, duals carry less weight per tire and are prone to pounding, which causes excessive heat build-up and erratic tire wear. CENTRAMATICS help cool the duals and one pair of balancers handles four tires, wheels, hubs and drums. Rear drums are a major cause of imbalance on dual assemblies.



### **Can Centramatics help tires that are already cupped?**

Depending on the severity, tires that are severely cupped will receive marginal results and tires that are slightly cupped will true out. The balancers cannot grow rubber back where it is gone nor will it make the deeper tread wear faster. One or the other would have to occur to be able to correct severe tire cupping.

### **How are they installed?**

Simply remove the wheel, use the bolt holes as guides and reinstall the wheel. Steer axle balancers mount between the hub and wheel, while balancers for the duals mount between the dual wheels.

### **At what speed do Centramatics start working?**

Most models start working at 20-22 mph depending on wheel diameter. This occurs long before vibration due to imbalance, which is at speeds in excess of 35 mph.

### **How long do they last?**

We have balancers with 1,439,716 miles on them and still in good working condition. That's why we have a Five-Year Unlimited Mile Warranty and offer unequaled service.

### **What about alignments?**

Alignments control the direction and travel of the tires. Vehicles must be aligned by a creditable alignment facility to exact specifications. If proper alignment is not maintained, irregular tire wear develops resulting in vibration and poor handling. Worn, loose or missing suspension components must be replaced. Centramatics balance the assembly, but cannot correct alignment issues.

# 300 Series Set of 4

## Light Duty Vehicles

WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	PART NO.
14"-15"	5	4.5"- 4.75"- 5"	200-221



WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	PART NO.
15"-16"-17"	5	4.5"	300-455

Jeep



WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	PART NO.
15"-16"-17"	5	5.5"	300-555



WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	PART NO.
15"-16"-17"	6	5.5"	300-556



- \* Due to the location of some Brake Calipers and/or the inside shape of some wheels, we may not fit the application
- \* Do not fit front wheel drive vehicles

# 300 Series Set of 4

3/4 Ton and 1 Ton Single Rear Wheel

WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	PART NO.
16"-17"	8	6.5" & 170mm	300-308



WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	PART NO.
16"-17"	8	6.5" & 170mm	300-308C

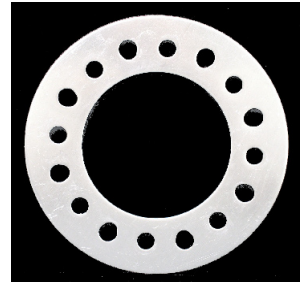
E-350 VAN



WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	PART NO.
16"-17"	8	6.5" & 170mm	300-308 Spr

Spacer

(Set of 2)



## Hummer H1

WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	PART NO.
16.5"	8	6.5"	370-800



\* Due to the location of some Brake Calipers and/or the inside shape of some wheels, we may not fit the application

\* Do not fit front wheel drive vehicles

# 400 Series Set of 2

Class 1, 2, 3, Light Truck

16"/16.5"/17" Rim; 8 and 10 Studs

WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	AXLE	PART NO.
16"/16.5"/17"	8"	6.5" & 170mm	Steer	400-408

1 Ton Dually

WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	AXLE	PART NO.
16"/16.5"	8	6.5" & 170mm	Drive	400-409

1 Ton Dually

WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	AXLE	PART NO.
17"	8	6.5"	Drive	400-448

1 Ton Dually Drive Axle 17"

WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	AXLE	PART NO.
16"	10	7.25"	Steer	400-410

F 53 Super Duty (1997 and older)

WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	AXLE	PART NO.
16"	10	7.25"	Drive	400-411

F 53 Super Duty (1997 and older)





# 400 Series Set of 2

Class 1, 2, 3, Light Truck

17.5"/19.5" Rim; 6, 8 and 10 Studs

WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	AXLE	PART NO.
19.5"	6 & 8	8.75"	Steer	400-418

F-450, F-550



WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	AXLE	PART NO.
19.5"	6 & 8	8.75"	Drive	400-419

F-450, F-550



WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	AXLE	PART NO.
19.5"	10	7.25"	Steer	400-406

P-30



WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	AXLE	PART NO.
19.5"	10	7.25"	Drive	400-417

P-30



WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	AXLE	PART NO.
17.5"	10	8.75"	Trailer Dual Only	400-420



# 600 Series Set of 2

Class 4, 5, 6 Medium Trucks, Motor Homes, Coaches

19.5" Rim; 8 and 10 Studs

WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	AXLE	PART NO.
19.5"	8	275mm	Steer	600-618



WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	AXLE	PART NO.
19.5"	8	275mm	Drive	600-628



WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	AXLE	PART NO.
19.5"	10	11.25"	Steer	600-610



WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	AXLE	PART NO.
19.5"	10	11.25"	Drive	600-620



## 600 Series Set of 2

Class 7 and 8 Trucks, Motor Homes, Coaches

22.5" Rim; 8 and 10 Studs

WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	AXLE	PART NO.
22.5"	8	275 mm	Steer	600-638



WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	AXLE	PART NO.
22.5"	8	275 mm	Drive	600-648



WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	AXLE	PART NO.
22.5"	10	11.25"	Steer	600-630



WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	AXLE	PART NO.
22.5"	10	11.25"	Drive	600-640



Note: Centramatic Balancers **WILL NOT** fit old-style goodyear wheel.

# 600 Series Set of 2

## Class 7 and 8 Trucks

### 24.5" Rim 8 and 10 Studs

WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	AXLE	PART NO.
24.5"	8	275 mm	Steer	600-658



WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	AXLE	PART NO.
24.5"	8	275 mm	Drive	600-648



WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	AXLE	PART NO.
24.5"	10	11.25"	Steer	600-650



WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	AXLE	PART NO.
24.5"	10	11.25"	Drive	600-660



Note: Centramatic Balancers **WILL NOT** fit old-style goodyear wheel.

# 600 Series Set of 2

Class 8 Trucks, Motor Homes, Coaches

22.5" Rim; 10 Studs

335 mm Bolt Circle

WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	AXLE	PART NO.
22.5"	10	335 mm	Steer	600-670



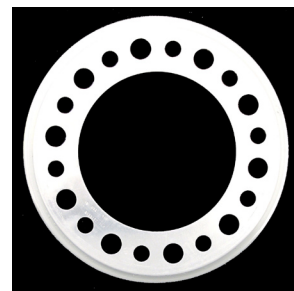
WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	AXLE	PART NO.
22.5"	10	335 mm	Drive	600-680



## Special Applications

Prevost, MCI Coaches with Disk Brakes

WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	AXLE	SPECIAL APPL. FOR	PART NO.
22.5"	10	11.25"	Steer	Disc Brakes	700-710



*These special application balancers are made to fit vehicles with big brake drums - 16.5" and/or brake drums with casting sprues.*

WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	AXLE	SPECIAL APPL. FOR	PART NO.
22.5"	10	11.25"	Steer	16.5" Brakes	800-810

Aluminum



- \* If used on 22.5" wheels; must be **aluminum only**
- \* **DO NOT use with 22.5" Steel Wheels**
- \* Can be used with 24.5" Steel or Aluminum Wheels.
- \* Can be used on Super Singles Drive Wheels

WHEEL SIZE	BOLT HOLES	BOLT CIRCLE	AXLE	SPECIAL APPL. FOR	PART NO.
22.5"	10	11.25"	Steer	16.5" Brakes	900-910

Steel



- \* **Do Not use on 22.5" Aluminum Rim**

**Do not install if the valve stem contacts the balancer.**

**Bend valve stem or replace if necessary - Call Tech Dept. 800-523-8473**

Note: Centramatic Balancers **WILL NOT** fit old-style goodyear wheel.



## **CENTRAMATIC SUPPORT & CONTACT LIST**

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800-523-8473  
Fax: 817-783-3267**

**[www.centramatic.com](http://www.centramatic.com)**

**Ricardo Sousa      Regional Sales Manager      800-523-8473**  
**rsousa@centramatic.com**

# **CENTRAMATIC**

## **Balancers**



**Heavy duty trucks - front to rear**



## **Automatically balances your tires while you drive!**

- ✓ **Increases tire life 25% - 50%**
- ✓ **Prevents tire cupping**
- ✓ **Tires run 8 - 10 degrees cooler**
- ✓ **Reduces vibration**
- ✓ **Smoother ride**
- ✓ **Quick and easy installation**
- ✓ **5 year warranty**

**The ultimate "On Board" balancing system**



**Made in USA**