

# B400T Heavy-Duty Brake Tester

*Measure brake balance on multi-axle vehicles*



**MADE  
IN USA**

HUNTER ENGINEERING COMPANY ST. LOUIS, MO

**HUNTER**  
Engineering Company

# Measure brake balance on a wide range of vehicles in 60 seconds or less!

The Hunter B400T accurately measures all braking forces on multi-axle vehicles such as tandem-axle tractors, tractors and semi-trailers, and two-axle vehicles, including passenger cars, buses and light trucks.

## Drive on and stop

Drive the vehicle onto plates and apply the brakes. Precision load cells automatically measure braking forces and dynamic weight.



## Measures weight shift during braking

The B400T takes into account the rear-to-front weight shift that occurs during braking, resulting in a more accurate evaluation than roller-type testers.

## Results available immediately

Printouts serve as a guide for the technicians performing service and provide a permanent record of vehicle status.



Optional Signal Light indicates when the tester is ready and helps the operator stop correctly every time.

Part #20-967-1



## Identify Conditions Affecting Brake System Performance

### Axle-to-axle imbalance

During braking, the stronger axle will lock up first, resulting in loss of steering control or jack-knifing.

### Left-to-right imbalance

Can cause "pulling" to the stronger side during braking, resulting in a skid. Also detects single weak brakes.

### Test parking or emergency brakes

The B400T can test mechanical brakes on a straight truck and spring brakes on an air brake system.

### Static weight

Works as a scale, with accuracy of +/- 2 percent.

### Dynamic weight and deceleration

Load cells measure dynamic weight of the axles during braking, and the system calculates vehicle deceleration.

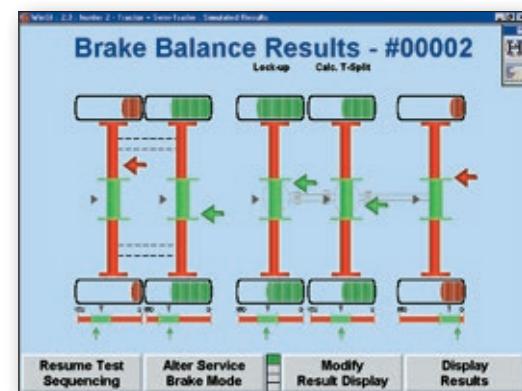
### Adhesion utilization

Tells the technician if each brake is doing its fair share of the braking.

### Test fully-loaded vehicles

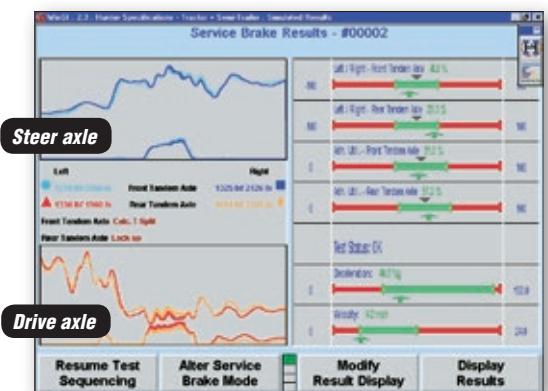
Single-, tandem- or triple-axle weight can be tested with a full load.

# Detailed, easy-to-read brake analysis



## Brake Balance Results

- ✓ Segments within each wheel indicate braking force as a percent of weight—more segments indicate higher brake strength
- ✓ Arrows on each axle indicate side-to-side balance, with the green area indicating pull
- ✓ Arrows below the wheels show adhesion utilization (measure of braking effectiveness)



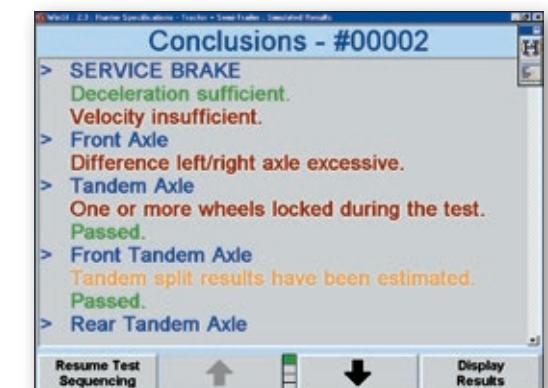
## Service Brake Results

- ✓ Provides raw brake force data
- ✓ Linear graphs plot braking force and dynamic weight separated between steer axle (top) and drive axle (bottom)
- ✓ Deceleration and/or braking distance can also be displayed, useful for transit applications.



## Static Weight Results

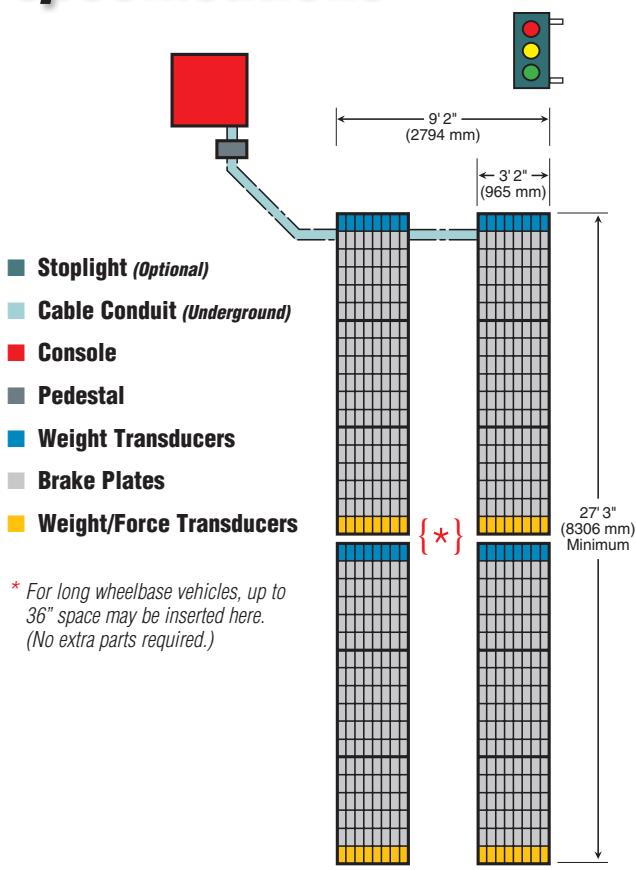
- ✓ Shows static weight for each wheel, total for each axle and total for vehicle, along with GAWR and GVWR
- ✓ Performed automatically as soon as the vehicle comes to rest
- ✓ All axle weight limits are user-programmable to accommodate different vehicle platforms



## Conclusions

- ✓ Easy-to-understand description of vehicle results are color-coded and may be printed
- ✓ Green "Passed" message is used for test results that are OK. Red or yellow coded messages are more detailed and indicate a potential problem or trouble spot.

# Specifications



For site requirements, refer to Form 3336T. Use Blueprint # 110-34-1 for standard install, Blueprint # 110-39-1 for long wheelbase install with space. When installing -02 configuration, also use Supplemental Blueprint #110-47.

Specifications subject to change without notice. For further information on specifications, features, and options, contact your local Hunter representative.

**Hunter's testing technology is currently in use at privately operated maintenance facilities, transit bus maintenance facilities and at State and U.S. Government facilities, including Delaware State Inspection Lanes, New Jersey Inspection Lanes, Washington, D.C. Inspection Lanes, and U.S. Army facilities.**



Be sure to check out other Hunter literature for more quality products from Hunter Engineering.

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## WinSI Console

Standard Equipment	
<b>Hardware</b>	Pentium Dual-Core processor DVD-RW/CD-RW drive Premium color printer
<b>Software</b>	WinSI Software operating in Windows®-based environment
Accessories	
<b>Standard</b>	Cabinet with brochure pockets Wireless Remote Keyboard and mouse
<b>Optional</b>	20-2195-1 Wireless Network Kit
Model	
<b>WI132</b>	Mobile cabinets with 19" LCD display

## B400T Series Plate

Specifications	
<b>Measurement capacity</b>	
If vehicle weight exceeds measurement capacity, test will be aborted.	
Single-axle weight	40,000 lbs. (18,160 kg)
Tandem- or triple-axle weight	60,000 lbs. (27,240 kg)
Brake force per plate	15,000 lbs. (6,810 kg)
<b>Maximum drive-over capacity (no braking on plates)</b>	
Exceeding capacity may permanently damage measurement system.	
Single-axle weight	55,000 lbs. (24,970 kg)
Tandem- or triple-axle weight	75,000 lbs. (34,050 kg)
<b>Accuracy</b>	Force, $\pm 1\%$ , full scale Weight, $\pm 2\%$ , full scale
<b>Testing time</b>	60 seconds (approx.)
<b>Power requirements</b>	110-125 VAC, 60 Hz, 1 ph International Model: 85-140 VAC or 187-264 VAC, 50-60 Hz, 1 ph

Optional Equipment	
20-967-1	Signal Light Kit
Model	
B404T-01	Truck Brake Plates
Add -GLV	for galvanized subframe
Add -EX	for expanded metal top plate

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