



Zackman Scientific

# AUTOMOTIVE TOE PLATES

## USER GUIDE

ZATPSET

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# SPECIFICATIONS

Part	Description
Toe Plate Size	23.5" x 9" x 1" each
Toe Plate Thickness	3mm each
Toe Plate Weight	2.31 lbs each
Toe Plate Construction	Al6061
Measuring Tape Size	2.75" x 2.75" x 1.25" each
Measuring Tape Weight	0.42 lbs each

## SAVE THIS MANUAL

You will need this manual for the parts list, safety warnings and precautions, operating, and maintenance procedures. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep this manual and invoice in a safe and dry place for future reference.

# PRODUCT OVERVIEW

1. The Toe Plates are designed to indicate wheel alignment by measuring toe, the angle of the wheels when viewed from the top (see *OPERATING INSTRUCTIONS, Figure A*).
2. Should the Toe Plates indicate a need for wheel alignment adjustment (usually by means of adjusting the vehicle's tie rods), it is recommended that only a qualified technician perform the service.

## PARTS LIST

When unpacking, check to make sure all parts shown below are included. If any parts are missing or broken, please call Zackman Scientific at the number shown on the back cover of this manual as soon as possible.

### Included in this product:

- 2x Toe Plate
- 2x Measuring Tape
- User Manual
- 1x Storage Bag

## GENERAL SAFETY WARNINGS & PRECAUTIONS

### 1. KEEP WORK AREA CLEAN AND DRY

Cluttered, damp or wet work areas invite injuries.

### 2. KEEP CHILDREN AWAY FROM WORK AREA

Do not allow children to handle this product.

### 3. STORE IDLE EQUIPMENT

When not in use, tools and equipment should be stored in a dry location to inhibit rust. Always lock up tools and equipment and keep out of reach of children.

### 4. DO NOT USE THIS PRODUCT IF UNDER THE INFLUENCE OF ALCOHOL OR DRUGS

Read warning labels on prescriptions to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not attempt to use this equipment.

**5. USE EYE PROTECTION**

Wear ANSI approved safety impact eye glasses when working with this equipment.

**6. DRESS SAFELY**

Non-skid footwear or safety shoes should be used when working with this product. Do not wear loose clothing or jewelry as they can become caught in moving parts. Wear a protective hair covering to prevent long hair from becoming caught in moving parts. If wearing a long-sleeve shirt, roll sleeves up above elbows.

**7. INDUSTRIAL APPLICATIONS MUST FOLLOW OSHA REQUIREMENTS**

**8. DO NOT OVERREACH**

Keep proper footing and balance at all times to prevent tripping, falling, back injury, etc.

**9. STAY ALERT**

Watch what you are doing at all times. Use common sense. Do not use this tool when you are tired or distracted from the job at hand.

**10. CHECK FOR DAMAGED PARTS**

Before using this product, carefully check that this tool will operate properly and perform its intended function. Check for damaged parts and any other conditions that may affect the operation of this product. Replace or repair damaged or worn parts immediately.

**11. REPLACEMENT PARTS AND ACCESSORIES**

When servicing, use only identical replacement parts. Only use accessories intended for use with this product. Approved accessories are available from Zackman Scientific.

**12. MAINTAIN THIS PRODUCT WITH CARE**

Keep this equipment clean, dry, and free of oil and grease.

**13. MAINTENANCE**

For your safety, service and maintenance should be performed regularly by a qualified technician.

**14. USE THE RIGHT PRODUCT FOR THE RIGHT JOB**

There are certain applications for which this product was designed. Do not use a small tool or equipment to do the work of a larger industrial tool or equipment. Do not use this product for a purpose for which it was not intended.

# SPECIFIC PRODUCT WARNINGS & PRECAUTIONS

## 1. MAINTAIN A SAFE WORK ENVIRONMENT

Keep work area well lit. Make sure there is adequate surrounding work space.

## 2. MAKE SURE THE TOE PLATES ARE POSITIONED ON A DRY, FLAT, LEVEL SURFACE

Do not position the Toe Plates on an uneven surface or a surface covered with ice, grease, oil, or any other substance that may cause the Toe Plates to tip over or slide when in use.

## 3. TURN OFF THE ENGINE, SET THE PARKING BRAKE, AND BLOCK THE REAR TIRES BEFORE USING THE TOE PLATES

Never attempt to use the Toe Plates while the engine is running. Turn off the engine, set the parking brake, carefully exit the vehicle, and block the rear tires with wheel chocks or blocks of wood to prevent the vehicle from rolling while being serviced.

## 4. NOTE

It is recommended that the vehicle manufacturer's manual, and/or a qualified technician, be consulted to determine the front end wheel alignment degree of tolerance difference allowable for the vehicle make and model being tested.

## 5. NEVER WORK UNDERNEATH A VEHICLE WITHOUT USING ADDITIONAL SAFETY SUPPORT DEVICES (I.E., JACK STANDS) TO SUPPORT THE VEHICLE.

The Toe Plates are not designed to be used with jack stands and no one should work under vehicle while using the Toe Plates.

# OPERATING INSTRUCTIONS

## UNDERSTANDING “TOE”

Toe is the angle of the wheels when viewed from the top (See Figure A). In the direction of travel, if the wheel on the same axel is pointed inwards, that's “Toe in.” If the wheel on the same axel is pointed outwards, that's “Toe out.”

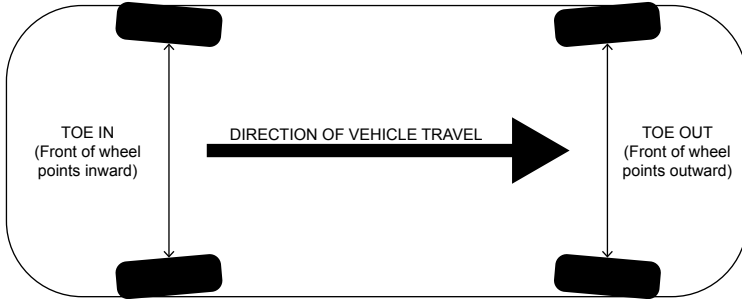


Figure A

### 1. PREPARATION

Ensure the vehicle's steering wheel is centered. If the vehicle has hub caps, remove the hub caps.

### 2. ADJUST FLAT SLOT PLATE

Place both of the toe plates with the largest surface area resting against the wheel.

### 3. HOOK ON MEASURING TAPE

Let out about 6-7 feet of measuring tape underneath the car and push the tip of the measuring tape across to the other side of the car. Go to the opposite side of the car where the tip of the measuring tape is and hook it onto the toe plate using any slots you like. **Check that the both plates are seated properly against the rim of the wheel.**

### 4. MEASURE TOE

Going back to the original side where the measuring tape body is, unlock the tape measures and slide them into the slots. Do NOT re-lock the tape measures. Leaving them unlocked will apply the proper amount of tension. Pull on them slightly and note the measurements.

## 5. CALCULATE TOE

The rear-vehicle tape measurement minus the front-vehicle tape measurement is the total toe of the axle. A larger measurement on the front side indicates toe out, and a larger measurement on the rear side indicates toe in.

Example: Front-vehicle measurement: 64"

Rear-vehicle measurement: 65"

The total toe is 1"

# INSPECTION, MAINTENANCE & CLEANING

1. Before each use, inspect the general condition of the Toe Plates. Check for cracks, dents, and any other condition that may affect their safe operation. If a problem exists, immediately discontinue using the Toe Plates and have them serviced by a qualified technician. **DO NOT USE DAMAGED EQUIPMENT.**
2. Keep the Toe Plates free of oil and grease. Use only a mild detergent and damp cloth when cleaning. **DO NOT** use a flammable or combustible solvents to clean the Toe Plates.



# WARRANTY

## 1 Year Limited Replacement Warranty

Zackman Scientific warrants that the product will be free from manufacturing defects for a period of one year from the date of its original retail purchase.

### How Long Is the Coverage?

This warranty is for a period of one year from the date of its original retail purchase. This warranty is not transferable and coverage terminates if you sell or otherwise transfer the product.

### What Will the Manufacturer Do?

If product prove to have a manufacturing defect within the warranty period, when used as directed, manufacture will, at its sole discretion, either repair the defective product by asking the customer to return the product or replace the product with one of the following: 1) a brand new item without retail packaging, if available, 2) a substitute item with customer approval, if original item is no longer available. The replacement product will be covered by the remaining period of the original warranty.

### What Does This Warranty Not Cover?

This limited warranty excludes any and all and any problem/damage arising from (a) abuse, misuse, neglect, or accident; (b) alteration of the product or any component thereof; (c) shipping; (d) improper installation, operation, or maintenance; (e) use of any parts from another manufacturer; or (f) problems or damages due to natural disasters, force majeure events, or an act of God event.

### Warranty Void

The warranty is void if the serial number or date of purchase is illegible or the warranty claim is not timely made.

EXCEPT AS EXPRESSLY PROVIDED HEREIN, THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. To the extent permissible by applicable law, manufacture shall not be liable under any legal theory for indirect, incidental, special, consequential, or other similar damages that may arise, including lost profits, damage to person or property, loss of use, or inconvenience. Your sole remedy shall be limited to the repair or replacement of the product, at manufacture's discretion.

### How Do You Make a Claim?

In order to be eligible for service under this warranty, within 30 days of discovering a manufacturing defect that falls within the warranty period, please submit a warranty request online along with uploading a proof of receipt. **RETURNS RECEIVED 30 DAYS OR MORE AFTER THE CLAIM FILE HAS BEEN OPENED MAY BE REFUSED AND RETURNED AT YOUR EXPENSE.**



## Zackman Scientific

Visit our website:

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

For technical questions please call:

**(415) 849- 0275**

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