

# Brake Inspection Handbook

**DRAFT**

**(September 2016)**

State and Consumer Services Agency

DEPARTMENT OF CONSUMER AFFAIRS

**BAR**

Bureau of Automotive Repair

## Preface

This Handbook is incorporated by reference in Title 16, Division 33, Chapter 1, Article 2, Section 3305 of the California Code of Regulations (CCR). It provides procedures related to the issuance official brake certificates of adjustment / compliance.

Official Brake Stations and Adjusters must follow these procedures when conducting an inspection for the purposes of certification.

Licensed Adjusters must possess the knowledge, skills, and abilities necessary to conduct a thorough and accurate brake inspection for all vehicles accepted by the Official Brake Station for inspection. Each Official Brake Station must maintain access to current requirements and technical information relative to the types and designs of brake systems inspected, adjusted, and repaired by the station.

In accordance with CCR Section 3305, all inspections, adjustments and repairs of vehicle braking systems, for the purposes of certification, shall be performed in Official Stations, by Licensed Adjusters, and in accordance with the following, in descending order of precedence, as applicable:

- 1) Vehicle manufacturers' current standards, specifications and recommended procedures, as published in the manufacturers' vehicle service and repair manuals.
- 2) Current standards, specifications, procedures, directives, publications, bulletins, and instructions issued by vehicle and equipment or device manufacturers.
- 3) Standards, specifications, and recommended procedures found in current industry-standard reference manuals and periodicals published by nationally recognized repair information providers.
- 4) The most current version of the Brake Inspection Handbook.

# TABLE OF CONTENTS

Page Number

## CHAPTER 1 – Brake Inspection Procedures

1.0. Customer Authorization / Estimate Preparation .....	1
1.1. Vehicle Identification .....	1
1.2. Inspection Overview.....	1
1.3. Vehicle Integrity .....	2
1.4. Passenger Cars, Light Duty Vehicles (< 18,000 GVWR).....	2
1.5. Trucks, Busses, Heavy Duty Vehicles (=>18,000 GVWR).....	3
1.6. Stopping Test.....	4
1.7. Revived Salvaged / Dismantled Vehicles.....	4
1.8. Specially Constructed Vehicles.....	5
1.9. Clearing Enforcement Documents .....	5
1.10 Certificates of Compliance / Adjustment .....	6
1.11 Inspection Results.....	6

## CHAPTER 2 – Official Brake Stations

2.0. Official Brake Stations.....	6
2.1. Station License Classes.....	7
2.2. Fleet Owner Stations .....	7
2.3. Application for Station License.....	8
2.4. Station Licensing Fees.....	8
2.5. Lost, Destroyed, or Mutilated Licenses .....	8
2.6. Replacement License.....	9
2.7. License Term .....	9
2.8. License Renewal .....	9
2.9. Station Inspections .....	9
2.10. Voluntary Surrender of Licenses .....	9

## CHAPTER 3 – Official Brake Adjusters

3.0. Official Brake Adjusters.....	10
3.1. Adjuster License Classes.....	10
3.2. Adjuster License Application.....	11
3.3. License Term .....	11
3.4. Display of Licenses .....	11
3.5. Lost, Destroyed, or Mutilated License or Additional Copy .....	12
3.6. License Renewal .....	12

## Appendix

Brake Inspection Checklist.....	13
---------------------------------	----

## Chapter 1 – Brake Inspection Procedures

### 1.0 Customer Authorization

An estimate must be provided to the customer in accordance with the Automotive Repair Act before conducting a brake inspection. The estimate shall include the cost of a certificate. If any additional repair is needed, the repair must be authorized by the customer before performing the repair.

A publication entitled “Write It Right” is available from the Bureau of Automotive Repair (BAR) to assist in the preparation of estimates and invoices. You may find this publication on the BAR website at [www.bar.ca.gov](http://www.bar.ca.gov), or you may contact the local BAR field office to obtain a copy.

B&P Code § 9884.9, CCR § 3353

### 1.1 Vehicle Identification

Document the year, make, model, vehicle identification number (VIN), license plate number, and odometer reading on the written estimate, final invoice, and certificate, as applicable.

The VIN must be permanently affixed to the vehicle. If the vehicle is not equipped with a VIN or the VIN appears to have been damaged or altered, do not conduct the inspection and refer the customer to the Department of Motor Vehicles. If the vehicle is not equipped with a license plate, indicate “none”.

### 1.2 Inspection Overview

Only a Licensed Brake Adjuster working in a Licensed Brake Station may perform an official brake inspection. The brake inspection shall include a physical inspection of all brake systems and components, as well as a functional performance test. A partial inspection may only be performed as needed to clear a law enforcement action.

**Stations and adjusters shall adhere to all personal, shop, environmental, equipment, and vehicle safety practices.**

If a station lacks the equipment, tools, or reference information necessary to inspect a particular vehicle, the station must not accept that vehicle for inspection. Additionally, if a station lacks the expertise, equipment, tools, or reference information necessary to repair a particular vehicle, or as a matter of policy does not make certain types of repairs, the station must inform the customer of this fact both orally and in writing on the written estimate before conducting the inspection.

A suggested brake inspection checklist can be found on page 13 of this publication. Licensed Stations and Adjusters may use this as a convenience; use of this checklist is not required.

### **1.3 Vehicle Integrity**

An adjuster may reject a vehicle from inspection that presents unsafe conditions that could adversely impact braking during ordinary or panic stopping situations.

The vehicle integrity inspection requires a general check for unsafe conditions in structures, systems, and components that physically and / or functionally support braking operation. It is not intended to be a detailed inspection of each structure, system, or component.

At a minimum, adjusters should inspect the following:

- a. Tires
- b. Wheels and Lug Nuts/bolts
- c. Wheel Bearings
- d. Suspension
- e. Structural Chassis
- f. Wheel Alignment

### **1.4. Passenger Cars, Lights Duty Vehicles (< 18,000 GVWR)**

Check that all braking systems and components are free of damage and defects and appear in good working condition within acceptable standards. Acceptable standards are those specified by the vehicle or component manufacturer or, when applicable, industry-standard reference materials published by nationally recognized repair information providers.

At a minimum, Adjusters should inspect the following:

- a. Brake warning lights
- b. Antilock Brake ABS and Electronic Stability Systems (ESC)<sup>1</sup>
- c. Rear brake lights
- d. Master cylinder and power assist assembly
- e. Hydraulic systems, components, hoses, lines, connections, and valves
- f. Brake pedal
- g. Power hydraulic assist anti-lock brakes

---

<sup>1</sup> ESC systems are known by many different trade names such as: AdvanceTrac, Dynamic Stability Control (DSC), Dynamic Stability and Traction Control (DSTC), Electronic Stability Program (ESP), Vehicle Dynamic Control (VDC), Vehicle Stability Assist (VSA), Vehicle Stability Control (VSC), Vehicle Skid Control (VSC), Vehicle Stability Enhancement (VSE), StabiliTrak and Porsche Stability Management (PSM).

- h. Parking brake
- i. Disc brakes with wheels removed
- j. Drum brakes with wheels removed
- k. Under-vehicle systems and components

1) *Miscellaneous Leaks* - Inspect all accessible hydraulic components for fluid leaks. Check the brake backing plates, splash shields, tire inner side sidewalls for brake fluid, wheel bearing grease, or gear oil. The presence of fluid constitutes a leak. Slight dampness or stains are not considered a leak, unless otherwise specified by the manufacturer. A wheel bearing grease or gear oil leak that has not contaminated the brake linings should not prohibit certification. However, the adjuster/station must inform the customer and document these leaks on the final invoice.

### 1.5 Trucks, Busses, Heavy Duty Vehicles (=> 18,000 GVWR)

Check that all braking systems and components are free of damage and defects and appear in good working condition within acceptable standards. Acceptable standards are those specified by the vehicle or component manufacturer or, when applicable, industry-standard reference materials published by nationally recognized repair information providers. At a minimum, adjusters should inspect the following:

- a. Warning Lights
- b. Rear Brake Lights
- c. Hydraulic Brake System (if equipped)
- d. Disc Brakes
- e. Drum Brakes
- f. Air Brake System
  - 1) The inspection shall include, but is not limited to, any compressor, governor, air filter, cooler, drive belt, pulley, gear, shaft, bracket, strap, seal, hose, tube, line, tank, reservoir, brake chamber, valve fittings, brake cam and bushings, and brake adjusters.
- g. Brake Adjustment (if applicable)
  - 1) Slack Adjusters
  - 2) Wedge Brakes
- h. Air Brake Operation (if applicable)
  - 1) Low-Pressure Warning Devices
  - 2) Air Pressure Governor
  - 3) Air Pressure Build Time - Check air pressure build time. When applicable, uncouple trailer brakes.
  - 4) Air Pressure Leakage - Check for loss of air pressure. Trailer brakes shall be connected, when applicable.

## 1.6 Stopping Test

The stopping test must be performed on a level, dry, and hard surface, free of snow, ice, or any loose material.

At a speed of 20 miles per hour, apply the service brake firmly, without causing the tires to skid. The vehicle must come to a straight, smooth, and complete stop within the distance specified below.

	Maximum Stopping Distance (feet)
Any passenger vehicle .....	25'
Any single vehicle with a manufacturer's gross vehicle weight rating (GVWR) of less than 10,000 lbs.....	30'
Any combination of vehicles with a manufacturer's GVWR of less than 10,000 Lbs. in combination with any trailer, semitrailer or trailer coach.....	40'
Any single vehicle with a manufacturer's GVWR of 10,000 lbs. or more, or any Bus.....	40'
All other combinations of vehicles.....	50'

## 1.7 Salvaged / Dismantled Vehicles

As applicable, a Licensed Adjuster shall conduct a complete and thorough inspection of all braking systems as described in the preceding sections.

A salvaged or dismantled vehicle shall be equipped with all of the brake related systems with which the vehicle was originally equipped, including any ABS and stability control systems.

Because salvaged and dismantled vehicles are being revived from a total loss, Adjusters should pay particular attention to the vehicle's overall structural integrity. See Section 1.3 for more information.

## 1.8 Specially Constructed Vehicles

Specially Constructed Vehicles<sup>2</sup> (SPCN) requires the complete and thorough inspection of all braking systems as described in the preceding sections.

At a minimum, an SPCN constructed vehicle must be equipped with service brakes on all wheels (exceptions may apply for some tractor trailers), a separately applied parking brake, a dashboard warning light, and rear brake lights. If equipped with ABS or any other additional braking system, the entire system must be installed and operating, including any related dashboard warning lights. Motorcycles are not required to have a parking brake.

Because specially constructed vehicles are often home-built, adjusters should pay particular attention to the quality of brake installation and the vehicle's overall structural integrity. Check that all of the braking systems and components appear to be securely installed and the brake lines and hoses are not bent, kinked, pinched, etc. See Section 1.3 for more information.

## 1.9 Clearing a Law Enforcement Action

When a customer is seeking an inspection to clear a law enforcement action, a station may, at the customer's request, inspect the vehicle to the extent necessary to confirm the defects identified by the law enforcement action have been corrected. If the corrections have been completed, the Adjuster may issue a certificate of adjustment / compliance.

If a partial inspection is performed, the station shall inform the customer both orally and in writing on the final invoice of any other defective condition/s present which came to the adjuster's attention while inspecting the vehicle for corrections needed to clear the law enforcement action.

The certificate and, when applicable, any law enforcement document may only be signed by the Licensed Adjuster who conducted the inspection.

A station may, with the customer's consent, perform a full brake inspection.

---

<sup>2</sup> Section 580 of the California Vehicle Code (CVC) describes a "specially constructed vehicle" as a vehicle which is built for private use, not for resale and is not constructed by a licensed manufacturer or remanufacturer. A specially constructed vehicle may be built from (1) a kit; (2) new or used, or a combination of new and used, parts; or (3) a vehicle reported for dismantling, as required by Section 5500 or 11520 of the CVC, which, when reconstructed, does not resemble the original make of the vehicle dismantled. A specially constructed vehicle is not a vehicle which has been repaired or restored to its original design by replacing parts.

### **1.10 Certificates of Adjustment / Compliance**

A certificate of adjustment / compliance shall only be issued when the vehicle's braking systems are found to be in good working condition within acceptable standards and in compliance with the California Vehicle Code. Acceptable standards are those specified by the vehicle or component manufacturer or, when applicable, industry reference materials published by nationally recognized information providers. A certificate shall not be issued for a vehicle that does not meet these standards.

As described in Section 1.8, a certificate may be issued for a partial inspection conducted to verify defects identified by a law enforcement action have been corrected.

Only the Licensed Adjuster who conducted the brake inspection shall sign the certificate of adjustment / compliance. By signing the certificate, the Licensed Adjuster certifies that he or she has inspected the vehicle in accordance with BAR requirements and the vehicle meets the standards described above.

A Certificate of Adjustment / Compliance is valid for 90 days from the issue date.

### **1.11 Inspection Results**

A Licensed Brake Station must document the results of the brake inspection on the final invoice. This includes the minimum lining specifications, the lining measurements, the rotor and drum specifications, the rotor and drum measurements, and, when applicable, any condition that prevented certification. In addition, include the certificate of adjustment number, as applicable. An inspection checklist that includes this information attached to the invoice would satisfy this requirement.

## **Chapter 2 – Licensing of Official Brake Adjusting Stations**

### **2.0 Official Brake Stations**

An Official Brake Station must employ a Licensed Brake Adjuster and must possess the tools, equipment, and reference information needed for the types of vehicles the station accepts for certification or work related to certification.

The specific and detailed requirements applicable to Official Brake Adjusting Stations are contained in Title 16, division 33, Chapter 1, Articles 2 and 4 of the CCR. The BAR provides a Brake Station Checklist and a Laws and Regulations publication detailing these requirements. The checklist and laws and regulations publication may be found on the BAR website [www.bar.ca.gov](http://www.bar.ca.gov), obtained from a BAR field office, or by calling BAR's toll free number at (800) 952-5210.

Three license classes are available, Class A, Class B and Class C, as defined below. A station shall only issue a certificate for the vehicle types included in the scope of the station's license class.

## **2.1 Station License Classes**

### **Class A Station.**

Class A Stations may test, inspect, repair, and adjust brake systems for the purposes of certification on all vehicles, including, but not limited to, all buses, trucks, truck tractors, trailers, semitrailers, motorcycles, and motor-driven cycles. A Class A Licensed Adjuster must be employed at all times the station is operating as an Official Brake Station.

### **Class B Station**

Class B Stations may test, inspect, repair, and adjust the brake systems for the purposes of certification on all buses, trucks, truck tractors, trailers and semitrailers. A Licensed Adjuster holding either a Class A or B License must be employed at all times the station is operating as an Official Brake Station.

### **Class C Station**

Class C stations may test, inspect, repair, and adjust brake systems for the purposes of certification on all trucks and truck tractors having a manufacturer's Gross Vehicle Weight Rating (GVWR) of less than 18,000 pounds, all trailers and semi-trailers which do not use compressed air or vacuum to actuate the brakes, and all passenger vehicles including motorcycles and motor-driven cycles. A Licensed Adjuster holding either a Class A or C License must be employed at all times the station is operating as an Official Brake Station.

## **2.2 Fleet Owner Stations**

A station license of any class may be issued to an owner of a fleet of three or more vehicles provided the station meets the requirements for the class of station designated in the application. A fleet owned station is not required to display a sign or post prices and may only maintain the necessary manufacturer's specifications and instructions for those vehicles serviced by the fleet owned station. Such a station shall service and maintain only those vehicles owned and / or operated by the fleet owner and the license must be of a class appropriate to the types of vehicles being inspected.

### 2.3 Application for Station License

An application for Brake Adjusting Station license is available on the BAR website at [www.bar.ca.gov](http://www.bar.ca.gov), or may be obtained from any BAR field office, or by calling BAR's toll free number at (800) 952-5210.

Applicants must complete the application and submit it to the BAR licensing unit with a \$10 fee to the address on the application.

Once a complete application is processed by the Licensing Unit, a BAR representative will inspect the station to verify the station meets BAR licensing requirements, including the employment of an adjuster with required tools, equipment, signs, etc. A station that passes the inspection will be issued an Official Brake License.

### 2.4 Station Licensing Fees

Brake station licenses issued by the Licensing Unit are subject to the following fees:

- a. For an initial license, including a change of ownership or class of station: \$10.
- b. For a renewal license that is renewed prior to expiration of the current license: \$5.
- c. For a duplicate of a lost, destroyed, or mutilated license: \$2.
- d. For renewal of an expired license that has not been expired for more than 30 days: \$7.50
- e. For a replacement of a license due to a change of address or a change of name not involving a change of ownership: No Fee.

**Change of Address Defined.** "Change of address" means any relocation of a licensed business not involving a change in ownership or any change in the mailing address, including a change resulting from street renumbering.

**Change of Ownership Defined.** "Change of ownership" means any change in legal ownership of the licensed business, including the addition or deletion of a partner, transfer of ownership between members of a family, or disposal of one business in favor of a similar business at a different location.

### 2.5 Lost, Destroyed, or Mutilated Licenses

If an official station license is lost, destroyed, or mutilated, an application with the appropriate fee may be submitted for a duplicate license. If a lost license is found following issuance of a duplicate, the original license shall be returned to BAR.

## 2.6 Replacement License

In the event of a change of name, not involving a change of ownership, or a change of address of the licensed station, the license shall be returned to the Licensing Unit with an application for a replacement license. The original license will be canceled and a corrected license for the balance of the unexpired term will be issued.

## 2.7 License Term

Official Brake Adjusting Station licenses are valid for one year and may be renewed upon expiration. Stations whose license has expired and has not been renewed shall immediately cease any activity requiring a license.

## 2.8 License Renewal

A renewal application is normally sent to the station prior to the expiration of the license. If the station does not receive a renewal application before the station license expires, the station should contact the Licensing Unit for further instructions. **NOTE: It is the responsibility of the station owner (not BAR) to maintain the status of the station license.** The station should send the renewal application with the renewal fee of \$5 to the Licensing Unit 30 days prior to the date of expiration. If the license is allowed to expire, the station may no longer operate as a licensed station. A license will not be renewed if the application is received by the Licensing Unit more than 30 days after the date of expiration. The dealer will have to apply for a new license and send \$10, the fee for a new license, to the Licensing Unit. For more information, contact the BAR Licensing Unit at (855) 735-0462 or visit the BAR website at [www.bar.ca.gov](http://www.bar.ca.gov).

## 2.9 Station Inspections

Each Official Brake Adjusting Station will be inspected periodically by a representative of BAR. The licensee or an authorized employee will be required to sign BAR's completed Official Station Inspection Form. A copy of the completed inspection form will be provided to the licensee. Violation of BAR regulations noted during the inspection will be brought to the attention of the licensee for immediate corrective action. Failure to correct violations may result in action to suspend or revoke the station license or in the filing of a criminal complaint against the station owner and/or adjuster.

## 2.10 Voluntary Surrender of Licenses

The voluntary surrender of an official station or adjuster license is subject to the provisions of Section 3308 of Title 16 of the CCR. An official station shall cease performing the functions for which it has been licensed when it no longer has the

services of a licensed adjuster, or when its station license has expired or has been surrendered, suspended, or revoked.

- (a) **Loss of Services of Licensed Adjuster.** An official station that no longer has the services of a licensed adjuster shall immediately remove or cover the official station sign in accordance with section 3308(b) CCR. If such station does not employ a licensed adjuster within 60 days, the station shall surrender its official station license to the bureau and shall return to the bureau all unused certificates of adjustments bought by the station to carry out the function for which it is no longer licensed.
- (b) **Removal of Sign.** An official station that is no longer authorized to perform the function for which it has been licensed shall remove or cover the sign pertaining to the licensed function. A station that has a multipurpose sign shall cover those portions of the sign that pertain to the functions for which it is no longer licensed.
- (c) **Return of Certificates.** When an official station license has expired or has been surrendered, suspended, or revoked, the station shall return to the bureau all unused certificates purchased by the station to carry out the function for which it is no longer licensed.

## **Chapter 3 – Licensing of Official Brake Adjusters**

### **3.0 Official Brake Adjusters**

Official Brake Adjusters' licenses are issued to persons who have shown by examination that they are qualified to test, inspect, adjust, and repair the brakes and related systems in one of three classes of vehicles which are Class A, Class B or Class C. For more information see the Examination Handbook or Candidate Information Bulletin available on the BAR website at [www.bar.ca.gov](http://www.bar.ca.gov).

#### **3.1 Adjuster License Classes**

An adjuster shall only issue a certificate for the vehicles within the scope of their respective license class.

*Class A* - Class A Official Brake Adjusters may test, inspect, adjust, and repair brake systems on all vehicles including, but not limited to, all buses, trucks, truck tractors, trailers, semitrailers, motorcycles, and motor-driven cycles.

*Class B* - Class B Official Brake Adjusters may test, inspect, adjust, and repair all brake systems on all buses, trucks, truck tractors, trailers, and semi-trailers.

*Class C* - Class C Official Brake Adjusters may test, inspect, adjust, and repair all brakes and brake systems on all trucks, truck tractors having a manufacturer's gross vehicle weight rating (GVWR) of less than 18,000 pounds and all trailers and semi-trailers which do not use compressed air or vacuum to actuate the brakes, and all passenger vehicles including motorcycles and motor-driven-cycles.

### **3.2 Adjuster License Application**

The adjuster license application is available on the BAR website at [www.bar.ca.gov](http://www.bar.ca.gov) or may be obtained from any BAR field office or by calling the BAR Licensing Unit at (855) 735-0462. Applicants must complete the application and send it to the BAR Licensing Unit. Each application shall be accompanied by a fee of \$10 for a new license or \$5 for a renewal license.

After submitting the application and receiving confirmation from BAR, the applicant may schedule the state licensing examination. A passing score on the examination is required for the issuance of an adjuster license.

### **3.3 License Term**

Official Brake Adjuster Licenses issued by the BAR are valid for four years and shall expire on the last day of the adjuster's birth month; therefore, an initial license may be valid for 42 to 54 months. Subsequent licenses are valid for up to four years, expiring on the last day of the adjuster's birth month.

For more information, visit the BAR website at [www.bar.ca.gov](http://www.bar.ca.gov) or contact the BAR Licensing Unit at (855) 735-0462.

### **3.4 Display of License**

As with the official station license, the license of each Official Brake Adjuster employed in an Official Brake Adjusting Station must be prominently displayed in the station under glass or other transparent covering. When any licensed brake adjuster ceases to be employed at an official station, the adjuster's activities as a brake adjuster shall immediately cease, and he/she shall not engage in the activity of an official brake adjuster. Any unused certificates must remain with the Official Brake Station and are not the personal property of the adjuster. When he/she is again employed at an appropriate Official Brake Adjusting station, he/she may resume his/her activity unless the term of the license has expired.

### **3.5 Lost, Destroyed, or Mutilated Adjuster License, or Additional Copy**

An application for a duplicate license shall be submitted to the BAR Licensing Unit whenever an adjuster license is lost, illegible, or destroyed. If a duplicate is desired for an illegible or mutilated license, the original license shall accompany the application. If the license has been lost or destroyed, it shall be so noted on the application. A written examination is not required when the application is for a duplicate license. The fee for a duplicate license is \$2 each.

### **3.6 Renewal**

BAR normally sends the renewal application to the adjuster prior to the expiration of the license. (If the adjuster does not receive a renewal form before the license expires, then he or she should contact the BAR Licensing Unit for further instructions). The adjuster should send the renewal application with a renewal fee of \$5 to the BAR Licensing Unit 30 days prior to the date of expiration.

If the license is allowed to expire, the adjuster shall no longer perform official brake inspections.

A license will not be renewed if the application is received by the BAR Licensing Unit more than 30 days after the date of expiration. An application for a new license must be submitted along with a \$10 fee.

# Brake Inspection Checklist

Customer Name: \_\_\_\_\_ RO #: \_\_\_\_\_ Date: \_\_\_\_\_

Plate Number: \_\_\_\_\_ VIN: \_\_\_\_\_

Year: \_\_\_\_\_ Make: \_\_\_\_\_ Model: \_\_\_\_\_

	Customer Authorization / Estimate Provided	Notes
	Vehicle Integrity	
	Warning Lights / Rear Brake Lights	
	Master Cylinder / Booster	
	Hoses, Lines, Connections	
	Brake Pedal	
	Parking Brake	
<b>Disc Brakes</b>		
	Calipers	
	Rotors	Measurements:
	Linings	Minimum Thickness Spec: Measurements:
	Splash Shields & Hardware	
	ABS Wheel Sensors	
<b>Drum Brakes</b>		
	Wheel Cylinders	
	Drums	Measurements:
	Linings	Minimum Thickness Spec: Measurements:
	Backing Plates & Hardware	
	Under-Car Systems and Components	
	Stopping Test	

Licensed Adjuster: \_\_\_\_\_ License #: \_\_\_\_\_

Certificate #: \_\_\_\_\_