SKILLEDTRADES<sup>BC</sup>

# Personal Record Book Appliance Service Technician

This is your Record Book!

# DO NOT SUBMIT TO SkilledTradesBC

This is not required to achieve certification

- It is a record of your progress towards achieving certification in the trade
- It provides a record of your experience
- It is your responsibility to keep it up-todate
- Take it with you if you change employers

Note: Employers and supervisors are not responsible for keeping your Record Book up-to-date. They are responsible for sign-off of hours and sign-off of competencies once you have achieved the required level of skills and knowledge.

# **APPRENTICE IDENTIFICATION**

### Trade: APPLIANCE SERVICE TECHNICIAN

Legal First Nam	е:	Legal Last Name:	
Suite Number:	Street Number and	Name:	
City:		Province:	Postal Code:
Telephone Nun	ıber:	Email Address:	

#### Work Safely!

A safe work attitude contributes to an accident free environment. Accident prevention and safe working conditions are the responsibility of both employers and employees.

Wear the required personal protective equipment, follow safe work practices and follow all safety regulations applicable to specific job activities.

Employer's responsibilities:

- Provide and maintain safety equipment and protective devices
- Ensure proper safe work clothing is worn
- Enforce safe work procedures
- Provide safeguards for machinery, equipment and tools
- Observe all accident prevention regulations
- Train employees in safe use and operation of equipment

Employee's responsibilities:

- Work in accordance with the safety regulations pertaining to job environment
- Work in such a way as not to endanger themselves or fellow workers.

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# **EMPLOYER INFORMATION**

#### **Originating Employer**

Start Date:	End Date:
Employer:	1
Contact Person:	
Address:	Phone:
	Email:
	Fax:
Supervisor/Journeyperson 1:	*TWID #:
	Phone:
	Email:
Supervisor/Journeyperson 2:	TWID #:
	Phone:
	Email:

\*TWID # – Trade Worker Identification Number

If you have more than one employer during your apprenticeship, record the information for subsequent employers on the following page(s).

If your job ends or you change employers...

Before leaving your place of employment:

- Update Workplace Hours through a <u>*Work-Based Training Hours form*</u> for the current reporting period and get signoff by your employer.
- Update Record of Competencies with your supervisor.
- Confirm with your employer that your workplace hours have been reported to SkilledTradesBC, and if possible, get a copy of all Work-Based Training Hours reports submitted.
- Notify SkilledTradesBC of the change in your employment by submitting an <u>Apprentice and Sponsor Registration form</u> with your new employer.

#### When re-employed...

You must be registered with your new employer before submitting any work-based training hours to the SkilledTradesBC.

# Subsequent Employers

Start Date:	End Date:
Employer:	
Contact Person:	
Address:	Phone:
	Email:
	Fax:
Supervisor/Journeyperson 1:	TWID #:
	Phone:
	Email:
Supervisor/Journeyperson 2:	TWID #:
	Phone:
	Email:

# Subsequent Employers

Start Date:	End Date:
Employer:	
Contact Person:	
Address:	Phone:
	Email:
	Fax:
Supervisor/Journeyperson 1:	TWID #:
	Phone:
	Email:
Supervisor/Journeyperson 2:	TWID #:
	Phone:
	Email:

# WORKPLACE HOURS

### Instructions

Make an entry in this section each time your hours are reported to SkilledTradesBC.

- 1. Get a copy of the Workplace Hours Report from your employer.
- 2. Fill in the dates of the <u>reporting period</u> and the <u>hours</u> reported.
- 3. Enter your employer name, address and phone number.
- 4. Keep your Record Book in a safe place.

### Workplace Hours

**Workplace hours** must be submitted to SkilledTradesBC by your employer on a regular basis. Your hours should be reported at least every six months; however, every three months is preferred.

At the beginning of your apprenticeship discuss the frequency of reporting with your employer.

Keeping Workplace hours up-to-date in your Record Book gives you the tools to better manage your apprenticeship. It provides you with the opportunity to:

- Follow up with your employer each reporting period to ensure your hours are reported on a regular basis.
- Discuss your progress with your direct supervisor/journeyperson on a regular basis.

DATE (TO-FROM)	EMPLOYER	HOURS
TOTAL HOURS		

# **RECORD OF COMPETENCIES**

### Instructions

The Record of Competencies is filled out and signed-off by the journeyperson supervising your work.

- 1. Know what skills are expected at each level of the program.
- 2. Ask the journeyperson to sign off on the competency when you have acquired the skills and are able to perform the task without supervision.
- 3. If the journeyperson agrees that you have the required skills, they will:
  - Record the date that the competency was achieved
  - Sign off on the competency
  - Enter their Trades Worker Identification Number (TWID #)

#### What is a Record of Competencies?

The Record of Competencies lists all competencies you should be knowledgeable in prior to receiving your certification. Keeping this section up to date will allow you to track your progress towards certification and demonstrate proficiency in the skills within the scope of your trade. Completion of the entire program should result in you becoming a skilled and knowledgeable journeyperson.

- Refer to this section periodically to ensure you are getting the work experience you need.
- Use the competencies as a guide to ensure work tasks are assigned so that you acquire the skills and knowledge required to be successful in the trade.

Review the Record of Competencies on a regular basis with your direct supervisor/journeyperson to ensure they have been completed.

#### Program Outline

The Program Outline provides detailed information on the scope of knowledge and skills expected at each level of the program, further defining the competencies listed in the Record Book. The Program Outline is a great resource for developing a training plan.

Download from: https://skilledtradesbc.ca/appliance-service-technician

Apprenticeship Toolkit

For general information on apprenticeship and tips for navigating the apprenticeship system in BC visit SkilledTradesBC's website to learn about the *apprenticeship basics*.

# FOUNDATION

### **IMPORTANT!**

#### Download the Program Outline!

#### https://skilledtradesbc.ca/appliance-service-technician

#### Read the competency tables Some competencies are taught in many levels For detailed information about that competency, go to the Program Outline

# THEORY

#### LINE A: OCCUPATIONAL SKILLS

- Describe workplace safety
- Describe electrical safety
- Describe customer relations
- Identify basic tools
- Identify power tools
  - Describe tool safety

### LINE B: ELECTRICAL

- Describe electrical principles
- Describe household wiring and fusing
- Identify electrical test equipment
- Describe the laws of electromagnetism
- Describe inductance in coils, transformers and relays
- Describe theory of electric motors
- Describe theory of electric switching
- Identify electric motors
- Identify electrical components and their symbols

#### LINE C: ELECTRONICS

- Describe solid state components
- Identify sine wave and applications in alternating current
- Identify sine wave with an oscilloscope
  - Describe silicone controlled rectifiers for AC and DC circuits
- Identify diode and silicon controlled rectifiers
  - Explain full and half wave rectification

#### LINE D: ANCILLARY PRODUCTS

- Describe principles and operation of garbage disposals
  - Describe garbage disposal installation
- Describe the theory of garbage disposer functions
- Describe installation and power requirements of trash compactors
- Describe principles and operation of trash compactors
- Describe line diagrams of various cycles
  - Describe installation and operation of electric water heater
  - Describe safety procedures for water heaters
  - Describe the operation of safety thermostats

#### LINE E: ELECTRIC DRYERS

- Describe uncrating and installation procedures for dryers
- Describe venting of common models
- Describe principles of clothes drying
- Describe safety rules of service and repair

#### LINE F: ELECTRIC RANGES

- Describe power source and kitchen floor safety
- Describe uncrating and installing electric ranges
- Describe safety rules of service and repair

#### LINE G: AUTOMATIC WASHERS

- Describe uncrating and installation procedures for washers
- Describe principles of clothes washing
- Describe safety rules of service and repair

#### LINE H: AUTOMATIC ELECTRIC DISHWASHERS

- Describe uncrating and installation procedures for dishwashers
  - Describe principles of dish washing
  - Describe safety rules of service and repair
  - Identify dishwasher wash cycles
    - Diagnose wash cycles

#### LINE I: DOMESTIC REFRIGERATION AND AIRCONDITIONING

- Describe the effects of ozone depleting substance on the environment
- Describe procedures to be followed when dealing with systems containing refrigerant
- Describe principles of domestic refrigeration
- Describe principles of domestic air conditioning
  - Describe uncrating and installation procedures for domestic refrigeration and air conditioning
- Describe safety rules of service and repair *(I3)*
- Describe safety rules of service and repair (14)

#### LINE J: MICROWAVE TECHNOLOGIES

- Describe power source and unit accommodation
- Describe uncrating and installing microwaves
- Describe safety rules of service and repair

### LINE K: BC PROVINCIAL "C" GAS CERTIFICATE

- Define the function of the Gas Safety Branch in BC
- Define Gas Code/Regulations pertaining to permits, licence and inspections
- Define safety practices of natural and propane gases

#### LINE L: GAS APPLIANCES

- Describe the operation of gas pressure regulators
- Describe atmospheric burner operation
- Describe appliance venting

# PRACTICAL

#### LINE B: ELECTRICAL



Utilize electrical test equipment

Demonstrate troubleshooting with wiring schematics

#### LINE C: ELECTRONICS

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Build working circuits with diodes

Build working half-wave power supplies

#### LINE D: ANCILLARY PRODUCTS

- Perform motor test of garbage disposal
- Perform motor switch and safety device repairs of garbage disposals
- Demonstrate motor cycling for forward and reverse motion
- Perform diagnosis of compactor faults
- Perform testing on all switches for trash compactors
- Perform motor and relay replacement on trash compactors
- Perform heater element test and repair
  - Perform a systematic fault diagnosis and repair of water heater

#### LINE E: ELECTRIC DRYERS

- Demonstrate the disassembly of dryers
- Demonstrate timer identification and testing
- Service timer
- Demonstrate line isolation from schematics for diagnostic purposes
- Perform electrical component tests and repairs
  - Perform mechanical component tests and repairs

#### LINE F: ELECTRIC RANGES

- Demonstrate the disassembly of electric ranges
- Demonstrate electronic control and testing
- Service self cleaning ovens

- Demonstrate line isolation from schematics for diagnostic purposes
- Perform electrical component tests and repairs
  - Perform mechanical component tests and repairs

#### LINE G: AUTOMATIC WASHERS

- Demonstrate the disassembly of washers
  - Demonstrate timer identification and testing
- Demonstrate electronic control and testing
- Demonstrate line isolation from schematics for diagnostic purposes
- Perform electrical component tests and repairs
- Perform mechanical component tests and repairs

#### LINE H: AUTOMATIC ELECTRIC DISHWASHERS

- Demonstrate the disassembly of dishwashers
- Demonstrate timer identification and testing
- Demonstrate electronic control and testing
  - Demonstrate line isolation from schematics for diagnostic purposes

#### LINE I: DOMESTIC REFRIGERATION AND AIRCONDITIONING

- Demonstrate the disassembly of domestic refrigeration
- Demonstrate timer identification and testing
- Demonstrate electronic control and testing *(I3)*
- Demonstrate line isolation from schematics for diagnostic purposes (13)
- Apply legislated procedures when dealing with systems containing refrigerant
- Demonstrate the disassembly of domestic air conditioning
- Demonstrate electronic control and testing *(I4)* 
  - Demonstrate line isolation from schematics for diagnostic purposes (14)

#### LINE J: MICROWAVE TECHNOLOGIES

- Demonstrate the disassembly of microwaves
- Demonstrate electronic control and testing
- Demonstrate line isolation from schematics for diagnostic purposes
- Perform electrical component tests and repairs
  - Perform mechanical component tests and repairs

#### LINE K: BC PROVINCIAL "C" GAS CERTIFICATE

Apply regulations and safety practices

#### LINE L: GAS APPLIANCES

- Calculate venting requirements
- Perform gas appliance services
- Perform gas appliance repairs

Supervisor Signature

# NOTES FROM FOUNDATION

Note:	
Note:	

# **MISSING COMPETENCIES?**

To develop the best journeyperson possible employers should attempt to provide training in all competencies for the trade. This is not always possible.

If your employer is unable to provide training in any competency required for your trade, note that competency below. Competencies listed here will remain unsigned until your employer can provide training in that area or until you find an alternate way to gain the experience needed.

Competency:	Date:
Reason:	
Alternate plan:	

Competency:	Date:
Reason:	
Alternate plan:	

# **TECHNICAL TRAINING**

### Instructions

# Keep a record of each level of technical training completed.

#### Foundation

Date Completed:	Training Provider:
Mark:	Instructor:

# **COMPLETION REQUIREMENTS**

### Instructions

Keep a record of each program completion requirement achieved.

# APPLIANCE SERVICE TECHNICIAN

□ 7,200 Work-Based Training Hours

□ SkilledTradesBC Interprovincial Red Seal examination

□ Recommendation for Certification signed by sponsor

Note: After all other completion requirements have been met, SkilledTradesBC sends a Recommendation for Certification form to the sponsor requesting signoff.

# **CERTIFICATIONS**

### Instructions

Keep a record of the credentials and endorsements you have earned, including the certification number and date of issue.

CREDENTIAL EARNED	NUMBER	DATE OF ISSUE

If you have any questions, please contact SkilledTradesBC Customer Service at <u>customerservice@skilledtradesbc.ca</u> 778-328-8700 or toll free (within BC) at 1-800-660-6011