Apprenticeship Manitoba

Refrigeration and Air Conditioning Mechanic (Residential) POS (2023) Subtask to Unit Comparison

	POS Subtask	Manitoba Unit(s)	
Task /	A1 – Performs safety-related functions		
1.01	Maintains safe work environment	A2 Trade Safety Awareness	
		A8 HVAC/R Activities I	
		In-context all units	
1.02	Performs lock-out, tag-out and isolation	A2 Trade Safety Awareness	
1.02	procedures	C3 Residential HVAC Control Systems	
1.03	Uses personal protective equipment	A2 Trade Safety Awareness	
1.00	(PPE) and safety equipment	A3 Tools and Equipment	
		In-context all units	
Task	A2 – Uses tools and equipment		
2.01	Uses hand tools	A3 Tools and Equipment	
2.01		C6 Residential HVAC Duct Systems	
2.02	Lisss portable and stationary power	A3 Tools and Equipment	
2.02	Uses portable and stationary power tools	C6 Residential HVAC Duct Systems	
2.03			
2.03	Uses brazing and soldering equipment	A3 Tools and Equipment	
0.04		A8 HVAC/R Activities I	
2.04	Uses recovery and recycling tools and	A3 Tools and Equipment	
	equipment	A8 HVAC/R Activities I	
2.05	Uses evacuation tools and equipment	A3 Tools and Equipment	
		A8 HVAC/R Activities I	
2.06	Uses charging tools and equipment	A3 Tools and Equipment	
		A8 HVAC/R Activities I	
2.07	Uses diagnostic and measuring tools and equipment	A3 Tools and Equipment	
		A8 HVAC/R Activities I	
		A9 HVAC/R System Fundamentals	
		A10 Electrical and Control Fundamentals	
		B5 HVAC/R Systems Service	
		C6 Residential HVAC Duct Systems	
2.08	Uses access equipment	A3 Tools and Equipment	
2.09	Uses rigging, hoisting and lifting	A3 Tools and Equipment	
	equipment		
2.10	Uses digital technology	A3 Tools and Equipment	
	<u> </u>	A5 Trade Related Communications	
Task /	A3 – Organizes work		
3.01	Interprets drawings and specifications	A4 Equipment and Service Documents	
0.01		B1 Drawings, Blueprints and Specifications	
		C2 Residential HVAC Systems Installation	
		C5 Residential HVAC Motors	
		C6 Residential HVAC Duct Systems	
3.02	Uses documentation and reference		
0.0Z	material	A4 Equipment and Service Documents	
		A7 Thermodynamic and Heat Fundamentals	
		B1 Drawings, Blueprints and Specifications	
		B3 HVAC/R Systems Installation	
		C1 Residential HVAC Estimation and Coordination	
		C3 Residential HVAC Control Systems	
		C4 Residential HVAC Systems Commissioning and Servic	
		C6 Residential HVAC Duct Systems	

	POS Subtask	Manitoba Unit(s)
3.03	Plans job tasks and procedures	A2 Trade Safety Awareness
		B3 HVAC/R Systems Installation
		C1 Residential HVAC Estimation and Coordination
		C3 Residential HVAC Control Systems
		C5 Residential HVAC Motors
		C6 Residential HVAC Duct Systems
Task /	A4 – Uses communication and mentorin	
4.01	Uses communication techniques	A1 Learning About Work
		A5 Trade Related Communications
		C3 Residential HVAC Control Systems
		C9 Journeyperson Trainer
4.02	Uses mentoring techniques	C9 Journeyperson Trainer
	B5 – Performs worksite preparation	
5.01	Performs worksite preparation	A8 HVAC/R Activities I
5.02	Handles materials and supplies	A8 HVAC/R Activities I
		B2 HVAC/R Activities II
		C6 Residential HVAC Duct Systems
		In-context all units
Teels	DC Deufermee frede estivities	
	B6 – Performs trade activities	
6.01	Performs brazing and soldering	A8 HVAC/R Activities I
6.02	Performs leak and pressure tests on	A7 Thermodynamic and Heat Fundamentals
	system	A8 HVAC/R Activities I
0.00	Fue such a such as	B2 HVAC/R Activities II
6.03	Evacuates systems	B2 HVAC/R Activities II
0.04	lless refrigerents and sile	A8 HVAC/R Activities I
6.04	Uses refrigerants, gases and oils	A7 Thermodynamic and Heat Fundamentals
		A8 HVAC/R Activities I
0.05		B2 HVAC/R Activities II
6.05	Performs field wiring of system Applies sealants and adhesives	B2 HVAC/R Activities II
0.00		C3 Residential HVAC Control Systems
6.06		A8 HVAC/R Activities I
		C6 Residential HVAC Duct Systems
Tack	│ C7 – Plans installation of residential HVA	AC systems
7.01	Verifies HVAC system parameters and requirements	A10 Electrical and Control Fundamentals
7.01		B4 Control Systems Installation I
		C2 Residential HVAC Systems Installation
		C3 Residential HVAC Control Systems
		C6 Residential HVAC Duct Systems
		C7 Residential HVAC Heat Pump Retrofit
7.02	Selects HVAC equipment, components	B3 HVAC/R Systems Installation
1.02	and accessories	C7 Residential HVAC Heat Pump Retrofit
7.03	Determines placement of HVAC	B3 HVAC/R Systems Installation
7.03	equipment, components and accessories	C2 Residential HVAC Systems Installation
		C6 Residential HVAC Duct Systems
7.04	Performs HVAC material take-off	C7 Residential HVAC Heat Pump Retrofit
7.04	Performs HVAC material take-on	B4 Control Systems Installation I
		C2 Residential HVAC Systems Installation
		C7 Residential HVAC Heat Pump Retrofit
		B3 HVAC/R Systems Installation
Taek	│ C8 – Plans installation of residential HVA	AC control systems
8.01	Verifies control system parameters and requirements	AC control systems A10 Electrical and Control Fundamentals
0.01		
		B3 HVAC/R Systems Installation
		1 C2 Desidential UV/AC Central Systems
		C3 Residential HVAC Control Systems C7 Residential HVAC Heat Pump Retrofit

	POS Subtask	Manitoba Unit(s)
8.02	Selects control system components and	A10 Electrical and Control Fundamentals
	accessories	B3 HVAC/R Systems Installation
		C3 Residential HVAC Control Systems
		C6 Residential HVAC Duct Systems
		C7 Residential HVAC Heat Pump Retrofit
8.03	Determines placement of control	A10 Electrical and Control Fundamentals
	system components and accessories	B3 HVAC/R Systems Installation
		C3 Residential HVAC Control Systems
		C7 Residential HVAC Heat Pump Retrofit
8.04	Performs control system material take-	A10 Electrical and Control Fundamentals
	off	B4 Control Systems Installation I
		C1 Residential HVAC Estimation and Coordination
		C3 Residential HVAC Control Systems
		C7 Residential HVAC Heat Pump Retrofit
	09 – Installs residential HVAC systems	
9.01	Confirms system layout	A9 HVAC/R System Fundamentals
		B3 HVAC/R Systems Installation
		C2 Residential HVAC Systems Installation
		C3 Residential HVAC Control Systems
9.02	Assembles HVAC equipment,	B3 HVAC/R Systems Installation
	components and accessories	C2 Residential HVAC Systems Installation
		C6 Residential HVAC Duct Systems
9.03	Places HVAC equipment, components	A9 HVAC/R System Fundamentals
	and accessories	B3 HVAC/R Systems Installation
		C6 Residential HVAC Duct Systems
		C7 Residential HVAC Heat Pump Retrofit
9.04	Installs fasteners, brackets and hangers	A8 HVAC/R Activities I
		A9 HVAC/R System Fundamentals
		C6 Residential HVAC Duct Systems
9.05	Installs HVAC piping and tubing	A8 HVAC/R Activities I
		B2 HVAC/R Activities II
		B8 Pipe Threading and Assembly
9.06	Applies HVAC holding charge	B2 HVAC/R Activities II
		B3 HVAC/R Systems Installation
		C4 Residential HVAC Systems Commissioning and Service
		C7 Residential HVAC Heat Pump Retrofit
Task D	D10 – Installs residential HVAC control s	ystems
Task E 10.01	D10 – Installs residential HVAC control s Places control system components	
	D10 – Installs residential HVAC control s Places control system components	A10 Electrical and Control Fundamentals
		A10 Electrical and Control Fundamentals B3 HVAC/R Systems Installation
		A10 Electrical and Control Fundamentals B3 HVAC/R Systems Installation B4 Control Systems Installation I
		A10 Electrical and Control Fundamentals B3 HVAC/R Systems Installation B4 Control Systems Installation I C3 Residential HVAC Control Systems
10.01	Places control system components	A10 Electrical and Control Fundamentals B3 HVAC/R Systems Installation B4 Control Systems Installation I C3 Residential HVAC Control Systems C7 Residential HVAC Heat Pump Retrofit
		A10 Electrical and Control FundamentalsB3 HVAC/R Systems InstallationB4 Control Systems Installation IC3 Residential HVAC Control SystemsC7 Residential HVAC Heat Pump RetrofitA10 Electrical and Control Fundamentals
10.01	Places control system components	A10 Electrical and Control FundamentalsB3 HVAC/R Systems InstallationB4 Control Systems Installation IC3 Residential HVAC Control SystemsC7 Residential HVAC Heat Pump RetrofitA10 Electrical and Control FundamentalsB3 HVAC/R Systems Installation
10.01	Places control system components	A10 Electrical and Control FundamentalsB3 HVAC/R Systems InstallationB4 Control Systems Installation IC3 Residential HVAC Control SystemsC7 Residential HVAC Heat Pump RetrofitA10 Electrical and Control FundamentalsB3 HVAC/R Systems InstallationB4 Control Systems Installation I
10.01	Places control system components	A10 Electrical and Control FundamentalsB3 HVAC/R Systems InstallationB4 Control Systems Installation IC3 Residential HVAC Control SystemsC7 Residential HVAC Heat Pump RetrofitA10 Electrical and Control FundamentalsB3 HVAC/R Systems InstallationB4 Control Systems Installation IC3 Residential HVAC Control Systems
10.01	Places control system components	A10 Electrical and Control FundamentalsB3 HVAC/R Systems InstallationB4 Control Systems Installation IC3 Residential HVAC Control SystemsC7 Residential HVAC Heat Pump RetrofitA10 Electrical and Control FundamentalsB3 HVAC/R Systems InstallationB4 Control Systems Installation I
10.01	Places control system components Connects control systems	A10 Electrical and Control Fundamentals B3 HVAC/R Systems Installation B4 Control Systems Installation I C3 Residential HVAC Control Systems C7 Residential HVAC Heat Pump Retrofit A10 Electrical and Control Fundamentals B3 HVAC/R Systems Installation B4 Control Systems Installation B4 Control Systems Installation C3 Residential HVAC Control Systems C3 Residential HVAC Control Systems C3 Residential HVAC Control Systems C7 Residential HVAC Heat Pump Retrofit
10.01 10.02 Task E	Places control system components Connects control systems T1 – Commissions residential HVAC systems	A10 Electrical and Control Fundamentals B3 HVAC/R Systems Installation B4 Control Systems Installation I C3 Residential HVAC Control Systems C7 Residential HVAC Heat Pump Retrofit A10 Electrical and Control Fundamentals B3 HVAC/R Systems Installation B4 Control Systems Installation I C3 Residential HVAC Control Systems C7 Residential HVAC Heat Pump Retrofit stems
10.01	Places control system components Connects control systems Instrumentation control systems Performs pre-start-up checks for HVAC	A10 Electrical and Control Fundamentals B3 HVAC/R Systems Installation B4 Control Systems Installation I C3 Residential HVAC Control Systems C7 Residential HVAC Heat Pump Retrofit A10 Electrical and Control Fundamentals B3 HVAC/R Systems Installation B4 Control Systems Installation B3 HVAC/R Systems Installation B4 Control Systems Installation B4 Control Systems Installation I C3 Residential HVAC Control Systems C7 Residential HVAC Heat Pump Retrofit Stems A9 HVAC/R System Fundamentals
10.01 10.02 Task E	Places control system components Connects control systems T1 – Commissions residential HVAC systems	A10 Electrical and Control Fundamentals B3 HVAC/R Systems Installation B4 Control Systems Installation I C3 Residential HVAC Control Systems C7 Residential HVAC Heat Pump Retrofit A10 Electrical and Control Fundamentals B3 HVAC/R Systems Installation B4 Control Systems Installation B3 HVAC/R Systems Installation B4 Control Systems Installation I C3 Residential HVAC Control Systems C7 Residential HVAC Control Systems C7 Residential HVAC Heat Pump Retrofit Stems A9 HVAC/R System Fundamentals B5 HVAC/R Systems Service
10.01 10.02 Task E	Places control system components Connects control systems Instrumentation control systems Performs pre-start-up checks for HVAC	A10 Electrical and Control Fundamentals B3 HVAC/R Systems Installation B4 Control Systems Installation I C3 Residential HVAC Control Systems C7 Residential HVAC Heat Pump Retrofit A10 Electrical and Control Fundamentals B3 HVAC/R Systems Installation B4 Control Systems Installation I C3 Residential HVAC Control Systems C7 Residential HVAC Control Systems C7 Residential HVAC Heat Pump Retrofit stems A9 HVAC/R System Fundamentals B5 HVAC/R Systems Service C4 Residential HVAC Systems Commissioning and Service
10.01 10.02 Task E 11.01	Places control system components Connects control systems E11 – Commissions residential HVAC systems Performs pre-start-up checks for HVAC systems	A10 Electrical and Control Fundamentals B3 HVAC/R Systems Installation B4 Control Systems Installation I C3 Residential HVAC Control Systems C7 Residential HVAC Heat Pump Retrofit A10 Electrical and Control Fundamentals B3 HVAC/R Systems Installation B4 Control Systems Installation I C3 Residential HVAC Control Systems C7 Residential HVAC Control Systems C7 Residential HVAC Heat Pump Retrofit stems A9 HVAC/R System Fundamentals B5 HVAC/R Systems Service C4 Residential HVAC Systems Commissioning and Service C7 Residential HVAC Heat Pump Retrofit
10.01 10.02 <u>Task E</u> 11.01	Places control system components Connects control systems Instrumentation control systems Performs pre-start-up checks for HVAC	A10 Electrical and Control Fundamentals B3 HVAC/R Systems Installation B4 Control Systems Installation I C3 Residential HVAC Control Systems C7 Residential HVAC Heat Pump Retrofit A10 Electrical and Control Fundamentals B3 HVAC/R Systems Installation B4 Control Systems Installation B4 Control Systems Installation B4 Control Systems Installation B4 Control Systems Installation I C3 Residential HVAC Control Systems C7 Residential HVAC Heat Pump Retrofit Stems A9 HVAC/R System Fundamentals B5 HVAC/R System Service C4 Residential HVAC Systems Commissioning and Service C7 Residential HVAC Heat Pump Retrofit A9 HVAC/R System Fundamentals B5 HVAC/R Systems Service C4 Residential HVAC Heat Pump Retrofit A9 HVAC/R System Fundamentals
10.01 10.02 Task E	Places control system components Connects control systems E11 – Commissions residential HVAC systems Performs pre-start-up checks for HVAC systems	A10 Electrical and Control Fundamentals B3 HVAC/R Systems Installation B4 Control Systems Installation I C3 Residential HVAC Control Systems C7 Residential HVAC Heat Pump Retrofit A10 Electrical and Control Fundamentals B3 HVAC/R Systems Installation B4 Control Systems Installation B4 Control Systems Installation B4 Control Systems Installation B4 Control Systems Installation I C3 Residential HVAC Control Systems C7 Residential HVAC Control Systems C7 Residential HVAC Heat Pump Retrofit stems A9 HVAC/R System Fundamentals B5 HVAC/R Systems Service C4 Residential HVAC Heat Pump Retrofit A9 HVAC/R Systems Fundamentals B5 HVAC/R System Fundamentals B5 HVAC/R Systems Service
10.01 10.02 <u>Task E</u> 11.01	Places control system components Connects control systems E11 – Commissions residential HVAC systems Performs pre-start-up checks for HVAC systems	A10 Electrical and Control Fundamentals B3 HVAC/R Systems Installation B4 Control Systems Installation I C3 Residential HVAC Control Systems C7 Residential HVAC Heat Pump Retrofit A10 Electrical and Control Fundamentals B3 HVAC/R Systems Installation B4 Control Systems Installation B4 Control Systems Installation B4 Control Systems Installation B4 Control Systems Installation I C3 Residential HVAC Control Systems C7 Residential HVAC Heat Pump Retrofit Stems A9 HVAC/R System Fundamentals B5 HVAC/R System Service C4 Residential HVAC Systems Commissioning and Service C7 Residential HVAC Heat Pump Retrofit A9 HVAC/R System Fundamentals

	POS Subtask	Manitoba Unit(s)
		C4 Residential HVAC Systems Commissioning and Service
		C7 Residential HVAC Heat Pump Retrofit
11.04	Sets up primary and secondary HVAC	B5 HVAC/R Systems Service
	system components	C4 Residential HVAC Systems Commissioning and Service
		C7 Residential HVAC Heat Pump Retrofit
Task E	12 – Commissions control systems	1
12.01	Performs start-up checks for control	A10 Electrical and Control Fundamentals
	systems	B6 Control Systems Service I
		C3 Residential HVAC Control Systems
		C4 Residential HVAC Systems Commissioning and Service
		C5 Residential HVAC Motors
		C7 Residential HVAC Heat Pump Retrofit
12.02	Verifies/sets operating parameters	A10 Electrical and Control Fundamentals
		B6 Control Systems Service I
		C3 Residential HVAC Control Systems
		C4 Residential HVAC Systems Commissioning and Service
		C5 Residential HVAC Motors
Task F	13 – Maintains residential HVAC systen	ns
13.01	Inspects HVAC systems	B2 HVAC/R Activities II
		B5 HVAC/R Systems Service
		C4 Residential HVAC Systems Commissioning and Service
13.02	Performs predictive and scheduled	B2 HVAC/R Activities II
	maintenance on HVAC systems	B5 HVAC/R Systems Service
	······································	B6 Control Systems Service I
		C4 Residential HVAC Systems Commissioning and Service
		C5 Residential HVAC Motors
13.03	Tests HVAC system components and	A9 HVAC/R System Fundamentals
10.00	accessories	B2 HVAC/R Activities II
		B7 Motors I
		C4 Residential HVAC Systems Commissioning and Service
		C5 Residential HVAC Motors
Task F	□ F14 – Services residential HVAC system	s
	Troubleshoots HVAC systems	A10 Electrical and Control Fundamentals
		B7 Motors I
		C4 Residential HVAC Systems Commissioning and Service
		C5 Residential HVAC Motors
14.02	Repairs HVAC systems	B5 HVAC/R Systems Service
14.02		C4 Residential HVAC Systems Commissioning and Service
Task F	15 – Maintains and services control sys	stems
15.01	Performs maintenance and inspection on control systems	A10 Electrical and Control Fundamentals
		B6 Control Systems Service I
		C3 Residential HVAC Control Systems
	Troubleshoots control systems	A10 Electrical and Control Fundamentals
15.02		
15.02		B6 Control Systems Service I
15.02		B6 Control Systems Service I C3 Residential HVAC Control Systems
	-	C3 Residential HVAC Control Systems
15.02 15.03	Calibrates operating and safety controls	C3 Residential HVAC Control Systems B6 Control Systems Service I
15.03	Calibrates operating and safety controls	C3 Residential HVAC Control Systems B6 Control Systems Service I C3 Residential HVAC Control Systems
	-	C3 Residential HVAC Control Systems B6 Control Systems Service I

