



Leak Inspection - LP Supply Line to Refrigerator

Bulletin Type:	Recall for Safety
Bulletin #(s):	20V-238 US Units 2020-189 Canadian Units

Publication Date:	May 2020
Make:	Jayco
Model:	Jay Flight SLX
Model Year:	2020

Incident: The propane hose connection to the refrigerator may not be adequately tight. If this condition were to exist, there would be an increased risk a leak could develop and allow propane to escape that can result in an explosion or fire.

Repair Scenarios	Operation Code	All Units		Results of Initial Inspection	Additional Labor per Scenario	Total time allowed	Test Results	Next Steps	Additional Steps
		Hose Routing & Securement Inspection	LP Pressure Drop Test & Bubble Solution Test						
1	9901509 RC024	0.3	0.4	Pass	N/A	0.7	✓ PASS - No Leak Detected & No Drop in Pressure: Units that exhibit no leaks at the refrigerator connection and no drop in pressure during the 10-minute pressure drop test are acceptable.	None	None
2	9901509 RC025	0.3	0.4	Fail	0.4	1.1	✓ FAIL - Leak is Detected & Drop in Pressure: If you detected a leak at the refrigerator connection, and a drop in pressure during the 10-minute test.	Submit a photo to Customer Service of the specific leak/bubbles locations (crimp, hex fitting...etc. Repair as directed and repeat all testing steps.	✓ PASS - No Leak Detected & No Drop in Pressure: Units that exhibit no leaks at the refrigerator connection and no drop in pressure during the 10-minute pressure drop test are acceptable. ✓ FAIL - No Leak Detected & Drop in Pressure: If no leaks are detected, but there is a drop in pressure see scenario 3 for additional instructions.
3	9901509 RC026	0.3	0.4	Fail	+ 0.4 / Appl - 3 Max	1.1 to 1.9	✓ FAIL - No Leak Detected & Drop in Pressure: If there were no leaks detected at the refrigerator connection, but there was a drop in pressure detected during the 10-minute test, you must conduct an additional bubble solution tests at each appliance connection.	Submit a photo to Customer Service of the specific leak/bubbles locations (crimp, hex fitting...etc. for each appliance connection with appropriate identification. Repair as directed and repeat all testing steps.	✓ PASS - No Leak Detected & No Drop in Pressure: Units that exhibit no leaks at the refrigerator connection and no drop in pressure during the 10-minute pressure drop test are acceptable. ✓ FAIL - Leak Detected &/or Drop in Pressure: Contact Jayco Customer Service for directions.
4	9901509 RC027	0.3	0.4	Fail	0.4	1.1	✓ FAIL -Leak Detected & No Drop in Pressure: If you detected a leak at the refrigerator connection, and no drop in pressure during the 10-minute test,	Submit a photo to Customer Service of the specific leak/bubbles locations (crimp, hex fitting...etc. Repair as directed and repeat all testing steps.	✓ PASS - No Leak Detected & No Drop in Pressure: Units that exhibit no leaks at the refrigerator connection and no drop in pressure during the 10-minute pressure drop test are acceptable.

Affected Units:	L7580135-0194	L75V0125-0298	L77A0207-0278	L77J0255-0380
	L75N0134-0296	L75W0175-0440	L77B0240-0434	L77K0132-0224
	L75R0110-0308	L75X0051-0314	L77C0159-0254	
	L75T0117-0146	L75Y0051-0128	L77D0192-0314	
	L75U0159-0206	L75Z0198-0320	L77E0106-0224	

Step 1: LP HOSE & ROUTING INSPECTION

STEP 1. Perform Propane System Visual Inspection of hoses, securement and routings.

- Ensure hose routings are proper and not exposed to sharp edges.
- Ensure hoses securement is proper.
- Ensure hoses meet the minimum bend radius.

PROPANE SYSTEM FLEXIBLE NON-METALLIC TUBING (HOSE)

PROPANE HOSE MINIMUM BEND RADIUS – (ALL HOSES)	
H-RC-4 (1/4-Inch Diameter)	2-inch radius / 4" Diameter
H-RC-5 (5/16-Inch Diameter)	2-inch radius / 4" Diameter
H-RC-6 (3/8-Inch Diameter)	3-inch radius / 6" Diameter
H-RC-8 (1/2-Inch Diameter)	4-inch radius / 8" Diameter
(3/4-Inch Diameter)	5-inch radius / 10" Diameter

*Based on 10% rate of change in the outside diameter of the hose.

H-RC-4 – (1/4" I.D. Hose)
H-RC-5 – (5/16" I.D. Hose)

2" RADIUS

4" DIAMETER

H-RC-6 – (3/8" I.D. Hose)

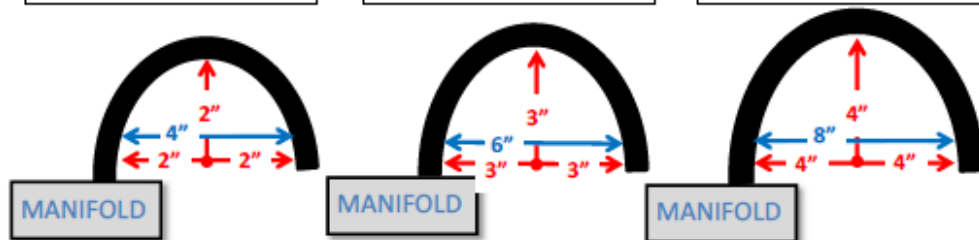
3" RADIUS

6" DIAMETER

H-RC-8 – (1/2" I.D. Hose)

4" RADIUS

8" DIAMETER



RC-8R (1/2 Hose) 4-inch radius



Step 2: PERFORM PROPANE SYSTEM PRESSURE TEST

STEP 2: Perform a pressure test on the entire propane system for *not less than ten (10) minutes* in accordance with either of the enclosed Jayco test procedures.

During the pressure drop test, liberally apply a LP Gas Leak Detector Solution or (soap water mix*) solution on the hose joints and connection to the refrigerator.

When using a spray bottle to apply bubble leak solution, adjust the applicator nozzle to produce a sharp stream when activating the bottle's trigger. Do not use a broad or finer mist setting, as this will not adequately cover the joint, connection or seal requiring visually inspection. The sharp stream will provide enough of the soapy mixture to produce bubbles if a leak is present as well as reaching into recessed joint and connection areas.

⚠ Never use solutions that contain ammonia, chlorine or sodium (salt). These are corrosive to copper and brass and can make the fittings brittle and become subject to cracking even when you wipe of the solution.

*You can make an effective bubble leak solution using the following ingredients:

Use a clean spray bottle container

- 32 Oz (946 ml) clean water
- 3 tablespoons / 1.5 Oz (44.4 ml) of quality dishwashing detergent
 - Ensure the detergent contains NO ammonia, chlorine or sodium (salt)
- 2 tablespoons / 1 Oz (30 ml) of liquid glycerin (optional) May substitute 2 tablespoons light corn syrup
 - Bubbles will last longer and be easier to detect.
- While the solution can be used after mixing, it is better to allow the solution to meld rather than using immediately after mixing
 - The solution will not breakdown over time – the longer it sits it can produce better bubbles



Figure 1

- If you detect bubbles (Figure 1) at the areas of the refrigerator joints and connection take a photograph showing bubbles. Provide sufficient detail to describe precise location of the bubbles and send to Jayco Customer Service for further evaluation and instructions of repairs *before implementing* any corrective measures. This is necessary to determine any possible additional questions that could help our investigation process.
- If no bubbles appear at the refrigerator joints and connections, the refrigerator connection is demonstrated leak- free, and there is no observed drop in the LP system pressure no additional inspections or testing is required.
- NOTE: No drop in pressure is acceptable; leaks must be located and corrected. If any drop in the LP system test pressure is present during the ten (10) minute test, bubble leak (soapy water MIX*) solution will need to be applied to all appliance connections and hose joints to find the source of the leak. A photograph with sufficient details to showing the bubbles is to be sent to Jayco Customer Service *before* any corrective action is taken as we may have additional questions that will help our investigation process.
 - Repair as specified by Jayco.
 - Retest the system according to the full guidelines of either of the following test procedures until the entire system is proven to leak-free.
 - Thread seal compounds and thread seal tapes are never to be used to repair a leak on any flare fitting

JAYCO TEST METHODS AND PROCEDURES

Test Method One – Reference STP-0004 (Attached)

- Before conducting either test, the temperature of the ambient air and the piping system to be tested need to be nearly equal.
 - o Starting with unequal temperatures could cause a drop in pressure that would potentially indicate a false test failure.
 - o Also, be careful of sudden temperature changes. For example, when testing near an overhead door, on a day when the outside temperature is less than the inside of the service shop, the test results can be adversely affected by a blast of cold air, if the overhead door(s) were opened.
- After ensuring equalization of temperatures, connect the testing and monitoring apparatus;
 - o At the main supply inlet disconnected from the regulator,
- Charge the system with air be sure the pressure is equalized throughout the system.
 - o This can be done by opening a range burner momentarily and turning it off again after 2-5 seconds.
- Begin the system test following the appropriate test procedure,
- ANY leak(s), detected, are required to be documented *before* repaired,
 - o At least one photograph that has enough detail to show leak solution bubbles at the specific point of the leak.
 - o Identify the RV serial number.
- Never use thread seal compounds or thread seal tape to repair a detected leak at any flare fitting joint.
- After the test, reconnect the main supply hose to the regulator outlet,
- Using a filled propane container energize the system,
- Liberally apply bubble (soapy water) solution to the connection,
 - o Observe the applied fitting to ensure the final connection is proven leak-free.

Test Method Two – Reference STP-0004(A) (Attached)

- Before conducting either test, the temperature of the ambient air and the piping system to be tested need to be nearly equal.
 - Starting with unequal temperatures could cause a drop in pressure that would potentially indicate a false test failure.
 - Also, be careful of sudden temperature changes. For example, when testing near an overhead door, on a day when the outside temperature is less than the inside of the service shop, the test results can be adversely affected by a blast of cold air, if the overhead door(s) were opened.
- After ensuring equalization of temperatures, connect the testing and monitoring apparatus;
 - Remove the range top,
 - Remove a stovetop burner assembly from the burner spud,
- Connect the test apparatus to the burner spud,
- Charge the system with air be sure the pressure is equalized throughout the system.
 - This can be done by opening a range burner momentarily and turning it off again after 2-5 seconds.
- With the test gauge is installed downstream of the range regulator reduce the system pressure by opening a burner valve control until the pressure is lowered to 8 in. \pm 0.5 in. water column (1.99 kPa \pm 0.125 kPa).
- Begin the system test following the appropriate test procedure,
 - ANY leak(s), detected, are required to be documented *before* repaired,
 - At least one photograph that has enough detail to show leak solution bubbles at the specific point of the leak.
 - Identify the RV serial number.
 - Never use thread seal compounds or thread seal tape to repair a detected leak at any flare fitting joint.
 - After the test has been completed and the system verified as leak-free reconnect the range top burner,
 - Light the burner to ensure the burner is installed and operates correctly.

PROPANE SYSTEM TEST @ MAIN SUPPLY HOSE INLET

System Test Procedures

ITEM:	PROPANE SYSTEM (AFTER APPLIANCES)	DOCUMENT No:	STP 0004 PAGE 1 OF 4
DEPARTMENT:	ALL LINES	REVISION:	B
ISSUED BY:	CODES & STANDARDS & QUALITY	REVISION DATE:	09/07/2018

CRITICAL PROCESS CONTROL

PROPANE SYSTEM AFTER ALL APPLIANCES CONNECTED – PRESSURE Drop TEN (10) MINUTES

Test Equipment: **PRESSURE GAUGE:**
 @ INCHES WATER COLUMN - INCREMENTS NO GREATER THAN 1.0 - INCH WATER COLUMN
 @ OUNCES/IN² - INCREMENTS NO GREATER THAN 0.5 OZ. /IN².

TESTER SHUT-OFF VALVE TO BE BETWEEN THE AIR SOURCE AND THE PRESSURE GAUGE

PROPANE SYSTEM AFTER APPLIANCES PROCEDURE:

1. AFTER ALL APPLIANCES ARE INSTALLED AND CONNECTED, ATTACH THE TESTER OUTLET TO THE SYSTEM MAIN INLET SUPPLY FITTING.
2. OPEN THE VALVE ON THE TESTER UNTIL THE PRESSURE IS **NO LESS THAN 10 NO MORE THE 14 INCHES OF WATER COLUMN (6 – 8 Oz. /IN²).** THIS WILL BE THE NUMBERS AROUND THE CENTER OF THE GAUGE DIAL.
3. CLOSE THE TESTER VALVE. NOTE THE PRESSURE READING ON THE GAUGE [IT WILL VARY FROM UNIT TO UNIT].
4. OBSERVE TESTER GAUGE TO SEE IF THE PRESSURE HOLDS OR DROPS.

TEN (10) MINUTES MINIMUM.

5. **LIBERALLY APPLY SOAP WATER SOLUTION AT ALL APPLIANCE CONNECTIONS. DO NOT USE PRODUCTS THAT CONTAIN AMMONIA OR CHLORINE.**
 WATCH FOR BUBBLES AT THE CONNECTIONS – **30 SECONDS MINIMUM @ EACH APPLIANCE CONNECTION.**
 IF NO BUBBLES PRESENT AT THE CONNECTIONS AND THERE IS NO DROP IN PRESSURE ON THE GAUGE TEST IS OK. AND MAY BE DISCONNECTED.
6. A LEAK IS INDICATED IF BUBBLES SHOW AT THE CONNECTIONS OR THE PRESSURE ON THE GAUGE DROPS. LOCATE SOURCE OF LEAK AND RE-TEST UNTIL PRESSURE HOLDS AND NO BUBBLES SHOW AT THE CONNCTION(S).

PASS/FAIL CRITERIA:

PASS: **TEST AT 10 –14 INCHES WATER COLUMN (6 – 8 OUNCES / IN²) PRESSURE HOLDS AND NO BUBBLES VISIBLE AT CONNECTIONS.**

FAIL: **ANY DROP IN PRESSURE AND / OR BUBBLES PRESENT AT THE CONNECTIONS. DEFECTIVE SYSTEM COMPONENTS. DEFECTIVE SYSTEM COMPONENTS MUST BE REPLACED. DEFECTIVE SYSTEM COMPONENTS INCLUDING DAMAGED HOSE(S), KINKED COPPER TUBING, ETC. SHALL NOT BE REPAIRED. DEFECTIVE TEST EQUIPMENT.**

CHECK TEST EQUIPMENT DAILY MUST BE MAINTAINED IN GOOD AND PROPER WORKING CONDITION. REPORT OR REPAIR ANY DEFECTIVE EQUIPMENT IMMEDIATELY.

AFTER THE TEST IS COMPLETED DATE AND SIGN FIRST AND LAST NAME SO IT CAN BE READ RETAIN IN UNIT FILE AND PROVIDE SIGNED COPY OF TEST RESULTS TO JAYCO.

ECN:	Rev.	Description of Reason:	Date:	Issued By:
	A	Added photo & requirements of alternate pressure gauge.	05/26/2016	Terry Current
	B	Update Format	09/07/2018	J. Creek
Jayco, Inc.				Codes & Standards

System Test Procedures

ITEM:	⚠️ PROPANE SYSTEM (AFTER APPLIANCES) ⚠️	DOCUMENT No:	STP 0004 PAGE 2 OF 4
DEPARTMENT:	ALL LINES	REVISION:	B
ISSUED BY:	CODES & STANDARDS & QUALITY	REVISION DATE:	09/07/2018

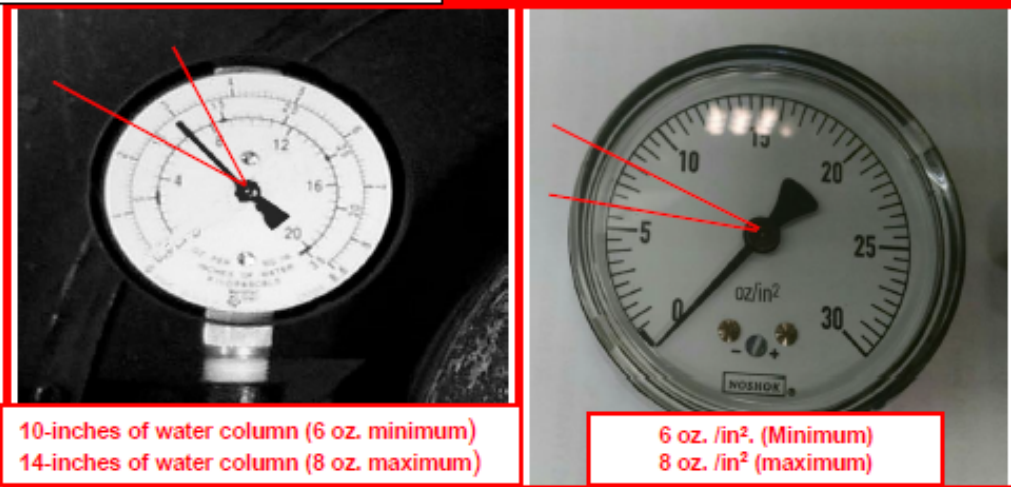
⚠️ CRITICAL PROCESS CONTROL ⚠️

Gas Line Test

**AFTER APPLIANCES ARE CONNECTED HOLD AT
10-14 INCHES OF WATER COLUMN OR (6-8 OZ.)
FOR *TEN (10) MINUTES***

(APPLY BUBBLE SOLUTION (SOAP WATER) APPLIANCE CONNECTIONS)

NOTE: Dial cover-face removed for photo glare



DIAL NEEDLE MUST BE AT OR BETWEEN THESE NUMBERS

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Jayco, Inc. Codes & Standards				

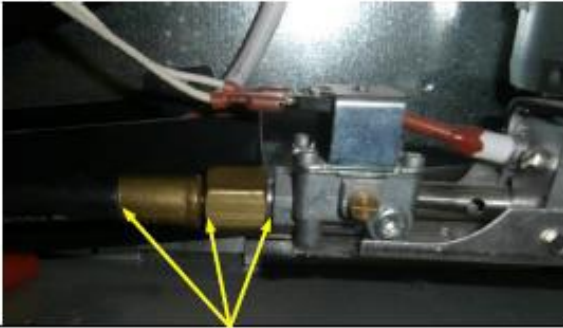
System Test Procedures

ITEM:	⚠️ PROPANE SYSTEM (AFTER APPLIANCES) ⚠️	DOCUMENT No:	STP 0004 PAGE 3 OF 4
DEPARTMENT:	ALL LINES	REVISION:	B
ISSUED BY:	CODES & STANDARDS & QUALITY	REVISION DATE:	09/07/2018

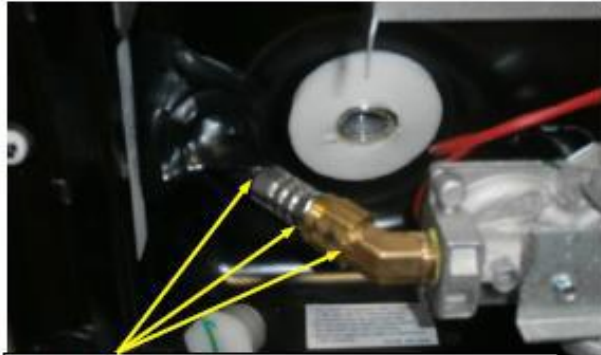
PROPANE SYSTEM AFTER ALL APPLIANCES CONNECTED – PRESSURE DROP 10 MINUTES

Test Equipment: PRESSURE GAUGE, INCREMENTS NO GREATER THAN 1.0-INCH WATER COLUMN (0.5 Oz.)

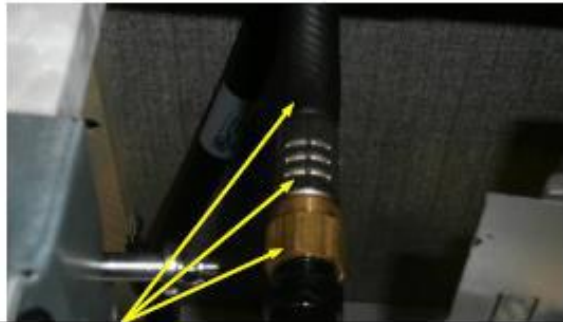
⚠️ TESTER SHUT-OFF VALVE TO BE BETWEEN THE AIR SOURCE AND THE PRESSURE GAUGE ⚠️



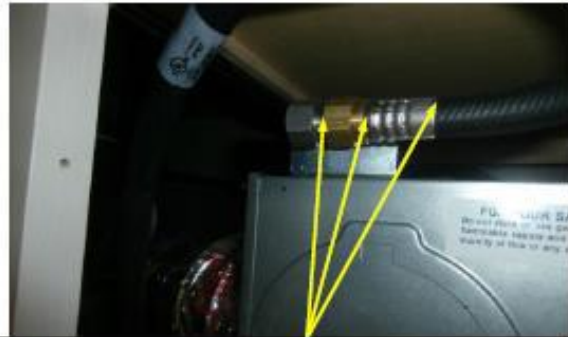
REFRIGERATOR;
⚠️ LIBERALLY APPLY BUBBLE SOLUTION @ EACH OF ALL 3 AREAS. OBSERVE FOR 30 SECONDS.



WATER HEATER;
⚠️ LIBERALLY APPLY BUBBLE SOLUTION @ EACH OF ALL 3 AREAS. OBSERVE FOR 30 SECONDS.



INTERIOR COOKING APPLIANCE;
 REMOVE TOP OR PULL OUT FROM CABINET OPENING TO HAVE FULL VIEW & ACCESS TO THE CONNECTION
⚠️ LIBERALLY APPLY BUBBLE SOLUTION @ EACH OF ALL 3 AREAS. OBSERVE FOR 30 SECONDS.



FURNACE;
 REMOVE RETURN AIR GRILL
⚠️ LIBERALLY APPLY BUBBLE SOLUTION @ EACH OF ALL 3 AREAS. OBSERVE FOR 30 SECONDS.

ECN:	Rev.	Description of Reason:	Date:	Issued By:
	A	Added photo & requirements of alternate pressure gauge.	05/26/2016	Terry Current
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Jayco, Inc.

Codes & Standards

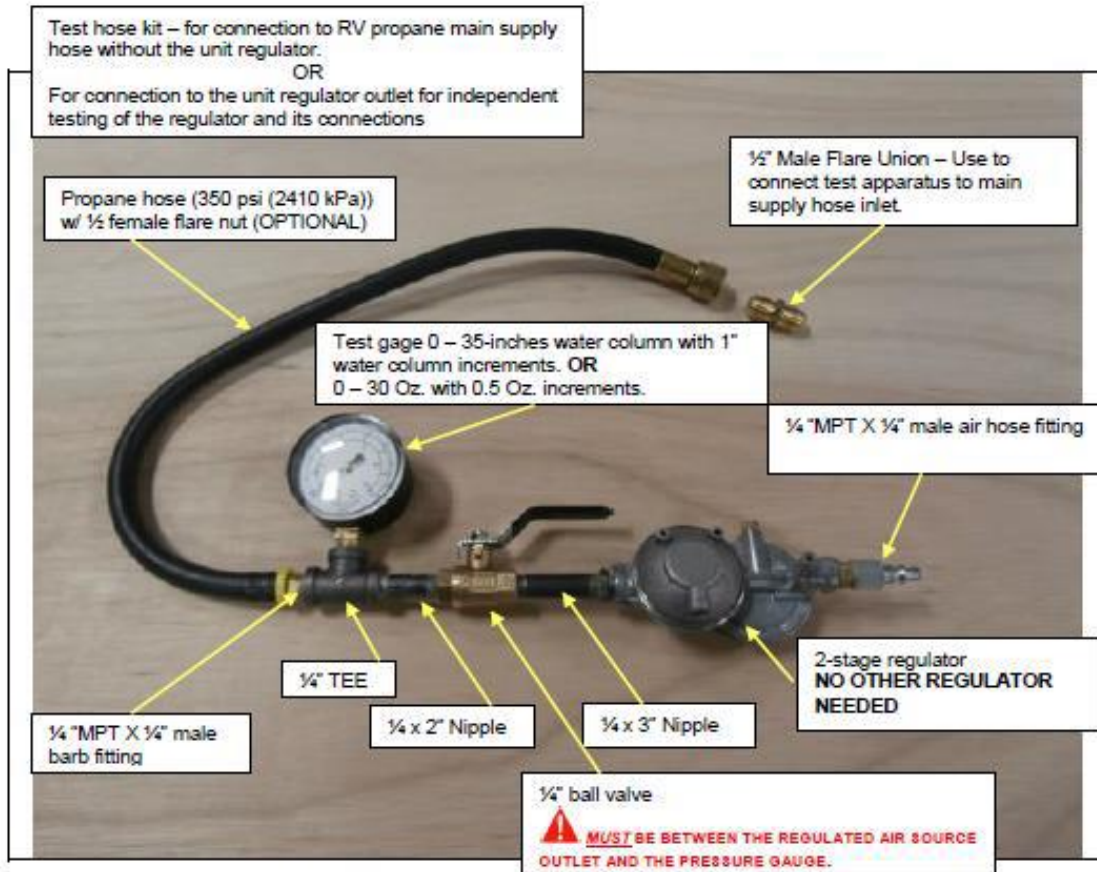
System Test Procedures

ITEM:	⚠ PROPANE SYSTEM (AFTER APPLIANCES) ⚠	DOCUMENT No:	STP 0004 PAGE 4 OF 4
DEPARTMENT:	ALL LINES	REVISION:	B
ISSUED BY:	CODES & STANDARDS & QUALITY	REVISION DATE:	09/07/2018

PROPANE SYSTEM AFTER ALL APPLIANCES CONNECTED – PRESSURE DROP 10 MINUTES

Test Equipment: PRESSURE GAUGE, INCREMENTS NO GREATER THAN 1.0-INCH WATER COLUMN (0.5 Oz.)

⚠ **TESTER SHUT-OFF VALVE TO BE BETWEEN THE AIR SOURCE AND THE PRESSURE GAUGE** ⚠



SCHMATIC FOR RECOMMENDED TEST APPARATUS FOR TESTING @ MAIN PROPANE SYSTEM SUPPLY INLET

ECN:	Rev.	Description of Reason:	Date:	Issued By:
	A	Added photo & requirements of alternate pressure gauge.	05/26/2016	Terry Current
	B	Update Format	09/07/2018	J. Creek
Jayco, Inc.				Codes & Standards

PROPANE SYSTEM TEST @ RANGE TOP BURNER SPUD

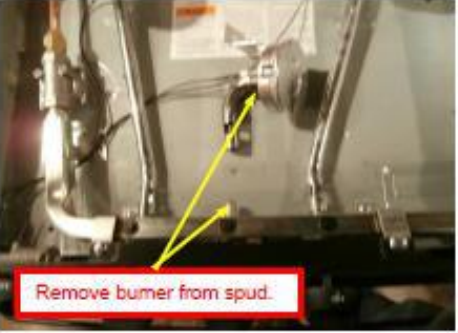

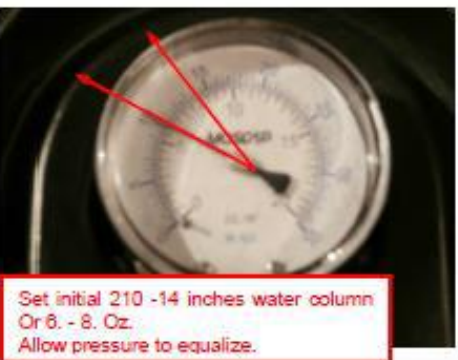
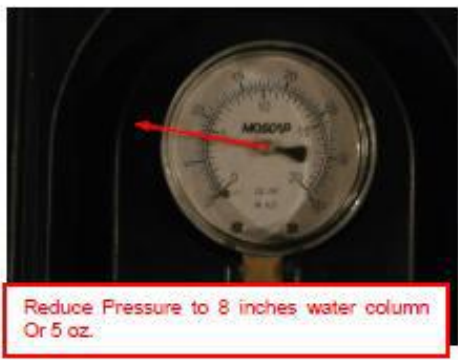
System Test Procedures

ITEM:	PROPANE SYSTEM (AFTER APPLIANCES) AT RANGE SPUD	DOCUMENT No:	STP 0004(A) PAGE 2 OF 3
DEPARTMENT:	ALL LINES	REVISION:	
ISSUED BY:	CODES & STANDARDS & QUALITY	REVISION DATE:	

CRITICAL PROCESS CONTROL

Gas Line Test

**AFTER APPLIANCES ARE CONNECTED HOLD AT
 RANGE SPUD
 8 (+/- 0.5) INCHES OF WATER COLUMN OR (5 OZ.)
 FOR TEN (10) MINUTES
 SOAP APPLIANCE CONNECTIONS)**

 <p style="border: 1px solid red; padding: 2px; display: inline-block;">Remove burner from spud.</p>	 <p style="border: 1px solid red; padding: 2px; display: inline-block;">Connect hose of tester to spud. Open this burner control valve - leave open for duration of test.</p>
 <p style="border: 1px solid red; padding: 2px; display: inline-block;">Set initial 210 - 14 inches water column Or 8 - 8. Oz. Allow pressure to equalize.</p>	 <p style="border: 1px solid red; padding: 2px; display: inline-block;">Reduce Pressure to 8 inches water column Or 5 oz.</p>

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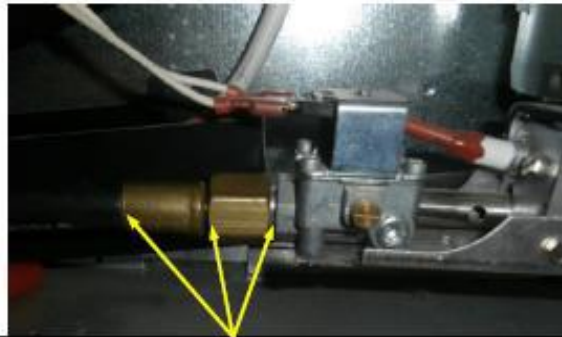
System Test Procedures

<p>⚠️ PROPANE SYSTEM (AFTER APPLIANCES) ⚠️</p> <p>ALL LINES CODES & STANDARDS & QUALITY</p>	<p>DOCUMENT No: STP 0004(A) REVISION: B REVISION DATE: 09/07/2018</p>	<p>STP 0004(A) PAGE 3 OF 3</p>
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PROPANE SYSTEM AFTER ALL APPLIANCES CONNECTED – PRESSURE DROP 10 MINUTES

Test Equipment: PRESSURE GAUGE, INCREMENTS NO GREATER THAN 1.0-INCH WATER COLUMN (0.5 Oz.)

⚠️ TESTER SHUT-OFF VALVE TO BE BETWEEN THE AIR SOURCE AND THE PRESSURE GAUGE ⚠️



REFRIGERATOR;
 ⚠️ LIBERALLY APPLY BUBBLE SOLUTION @ EACH OF ALL 3 AREAS. OBSERVE FOR 30 SECONDS.



WATER HEATER;
 ⚠️ LIBERALLY APPLY BUBBLE SOLUTION @ EACH OF ALL 3 AREAS. OBSERVE FOR 30 SECONDS.



INTERIOR COOKING APPLIANCE;
 REMOVE TOP OR PULL OUT FROM CABINET OPENING TO HAVE FULL VIEW & ACCESS TO THE CONNECTION
 ⚠️ LIBERALLY APPLY BUBBLE SOLUTION @ EACH OF ALL 3 AREAS. OBSERVE FOR 30 SECONDS.



FURNACE;
 REMOVE RETURN AIR GRILL
 ⚠️ LIBERALLY APPLY BUBBLE SOLUTION @ EACH OF ALL 3 AREAS. OBSERVE FOR 30 SECONDS.

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Jayco's sole obligation under our limited warranty is to repair or replace defective materials and/or workmanship deemed our responsibility as determined by Jayco in our sole discretion. Jayco reserves the right to use new and/or remanufactured parts or materials of similar quality to complete any work, and to make parts and/or design changes as appropriate without notice to anyone. Jayco designs and/or materials changes are done without obligation to incorporate such changes in previously manufactured product. Jayco makes every reasonable effort to ensure field remedies will not adversely affect performance and/or safety of the unit. This field remedy is not intended to extend to future performance of this RV, or any of its materials, components or parts beyond the standard warranty period. The RV owner's obligation to notify Jayco, or one of its independent, authorized dealers, of a claimed defect does not modify any obligation placed on the RV owner to contact Jayco directly when attempting to pursue remedies under state or federal law. Jan. 2019.

903 South Main Street • P.O. Box 460 • Middlebury, IN 46540