

**CONFIDENTIAL**

Remington Arms Company Inc.  
RESEARCH & DEVELOPMENT TECHNICAL CENTER  
315 WEST RING ROAD  
ELIZABETHTOWN, KY 42701

**TLW 1012**

- Place rifle in freezer that is pre-set to -20°F and leave undisturbed for at least 24 hours.
- At completion of 24+ hours, remove rifle and immediately place in the pre-heated test chamber at a temperature of +120°F.
- Leave rifle undisturbed for at least 24 hours.
- At completion of at least 24 hours, remove rifle and immediately place in the freezer.
- Repeat this cycle for a minimum of three complete hot and three complete cold cycles.
- At the completion of the final cycle (the heat cycle) remove the rifle from the chamber and allow cooling to ambient temperature – a minimum of six hours.
- Return the rifle to the test jack used at the start of the test and fire another 126 rounds recording malfunction types and rates using the ammunition schedule as listed in TLW1012X.
- Remove the action from the stock and examine the rifle for any obvious signs that the thermal cycling has affected the parts with special attention directed at the metallic and non-metallic interfaces. Look for cracked parts and for signs of material creep.

Data Required:

- Rifle serial number
- Cycle time for each test condition
- Temperature records throughout each cycle. Use the chart feature on the freezer and a temperature-recording device for the chamber.
- Malfunctions type and rates both pre- and post thermal cycles.
- Observations made on cracks, creep or other noteworthy items.
- TLW Number
- Testers' Names

**TLW1012AG - Heat & Humidity Test:**

This test evaluates the effects of high heat combined with high humidity such as might be found in some shooting environments. Of special interest for this test is the effect of heat and humidity on the wood stock.

Method:

- Store the gun and ammunition for a minimum of six hours at a temperature of +100°F and 80-90% Relative Humidity.
- Test each firearm after removing from the chamber.
- Use ammunition schedule as listed in TLW1012X.
- Fire 18 rounds of ammunition. Return the firearm to the chamber. Wait 2 hours and repeat procedure until all 126 rounds have been fired.
- Do not perform maintenance during the 126 round cycles.
- Cycle the safety from fire to safe every 6 rounds.
- After 126 rounds have been fired through the firearm, disassemble, thoroughly inspect, clean and lubricate.

Data Required:

- Record temperature and exposure times
- Record all malfunctions.
- Record damage noted during inspection
- Record Testers' Names
- Record TLW Number

J.R. Snedeker

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Subject to Protective Order - Williams v. Remington

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