FUNCTIONAL TEST PROCEDURES

For Autronica Smoke, Heat and Multi-sensor detectors







1. Follow local codes of practice

In general, the procedures for testing and maintaining detectors are described in the local codes and standards.

These codes and standards cover the frequency at which functional testing should be carried out. Typically, detectors should be inspected twice a year (at a minimum) and cleaned if they are dirty. If a detector is removed from its base for any reason it should be functionally tested after it is refitted.

2. Use approved test equipment with Autronica Smoke, Heat and Multi-Sensor detectors

> Compatible Autronica Detectors

Detectortesters test equipment is approved for functional testing of Autronica Smoke, Heat and Multi-Sensor detectors.

Optical	Heat	Multi-Sensor	AutroGuard® Multicriteria
BHH-200 Series	BDH-200 Series	BHH-220 Series	V-430 Series
BHH-300 Series	BDH-300 Series	BHH-320 Series	V-530 Series
BHH-500 Series	BDH-500 Series	BHH-520 Series	
	BD-200M Series		
	BD-501 Series		

> Smoke Detectors

To carry out a functional test of Autronica smoke detectors, use a solution from Detectortesters. Use Testifire 1000 with the appropriate non-pressurised, non-hazardous smoke capsule/cartridge, alternatively, you can use Solo A10 smoke aerosol cans optimised for use with the Solo 330 aerosol dispenser.

With Testifire, smoke is generated automatically once the detector enters the cup. This controlled smoke delivery ensure less wasted smoke and no risk of detector contamination (through over – application of smoke).

Equipment	Product Code	Autronica Product Code
Testifire 1000 & TS3 Smoke Capsule	Testifire1000-016 Testifire1001-016 TS3-6PACK-016	WBJ-10/01 116-WBJ-10 116-WBJ-10/02
Solo 330 Dispenser	Solo330-016	116-WBJ-5/01
Solo A10 Aerosol	SoloA10-016	116-WBJ-5/07

IMPORTANT - Solo aerosols are optimised for use with the Solo 330 dispenser and are silicone-free. Aerosols SHOULD NOT contain silicone to avoid harmful detector contamination (alternative, non-Solo aerosols are not optimised for use with the Solo 330 dispenser).

> Heat Detectors

To carry out a functional test of Autronica heat detectors – both fixed temperature and rate-of-rise – use Detectortesters model Testifire 1000 or Solo 460/461 heat tester. If HIGH HEAT function (above 90°C) is required use Testifire

Equipment	Product Code	Autronica Product Code
Testifire 1000	Testifire1000-016 Testifire1001-016	WBJ-10/01 116-WBJ-10
Solo 461	Solo461-016	WBJ-6/01

> Multi-Sensor and AutroGuard® Multicriteria Detectors

For compliant functional testing of Autronica multi-sensor and AutroGuard ® Multicriteria detectors use Detectortesters model – Testifire 1000. The all-in-one solution, Testifire 1000/1001 allows for smoke and heat testing – either sequentially or simultaneously.

IMPORTANT - AutroGuard® Multicriteria detectors can be configured to three different operation classes – Smoke Only, Heat Only and Multi. Always check which operation class is configured before performing a test.

Equipment	Product Code	Autronica Product Code
Testifire 1000	Testifire1000-016 Testifire1001-016	WBJ-10/01 116-WBJ-10

3. Functional Test Instructions

IMPORTANT - Before any work begins on the fire detection system, all necessary persons should be notified that the fire system is to undergo maintenance and that the system, or part of it, will be temporarily out of service. Ensure the control panel is in 'Test Mode' and/or take the necessary precautions to prevent unwanted alarms. Ensure that the same persons are informed once the system is fully operable again.

a) Functional Smoke Testing

Functional Smoke Testing with Testifire

- 1. Press and hold the red power button for 2 seconds
- 2. Select 'Smoke' from the main menu using the up and down arrows on the keypad to position the cursor
- 3. The test will begin when the head unit is placed over the detector, breaking the infrared beam. When the detector is activated, move Testifire away from the detector by lowering it gently. Testifire will return to idle ready for the next test



NOTE:

Testifire will remain in 'Smoke' mode until it is powered off or another selection is made.

The optional 'Clearing' mode can also be programmed, this will clear smoke away from the detector after testing and can also be used during 'sequential' testing of multi-sensor detectors.

Functional Smoke Testing with Solo330 dispenser and aerosols

- 1. Insert the Solo A10 smoke aerosol can inside the smoke dispenser
- 2. Place the dispenser over the detector ensuring seal around the smoke detector
- 3. Push the dispenser upwards slightly to release a 0.5-1 second burst of aerosol
- 4. Hold the dispenser over the detector until the detector activates. If the detector does not activate after 10 seconds, repeat as before. The total number of test attempts on each detector should not exceed five at 10 second intervals

b) Functional Heat Testing

Functional Heat Testing with Testifire

- 1. Press and hold the red power button for 2 seconds
- 2. Select 'Heat' from the main menu using the up and down arrows on the keypad to position the cursor. If needed, select 'Hi Heat ON' in Heat Status menu for heat detectors with classifications above 90°C
- 3. When the detector is activated, move Testifire away from the detector by lowering it gently. Testifire will return to idle ready for the next test

NOTE:

Testifire will remain in 'Heat' mode until another selection is made.

Functional Heat Testing with Solo 460/461

- 1. Press the red switch to turn on. LED illuminates green. Flashing at slow rate indicates normal STANDBY mode
- 2. Position Solo 460 tester over detector and it will automatically start testing when infrared beam in cup is broken. The green LED will flash faster
- 3. Hold Solo 460 in place until the detector is activated, then move Solo 460 away from the detector by lowering gently
- 4. The tester will revert to standby mode (slow flashing green LED) and the internal fan will cool the heating element for a few seconds

c) Functional Multi-sensor Testing

Functional Multi-sensor Testing with Testifire

Sequential Testing of the Detector's Sensors

Use of Testifire 1000 enables sequential or simultaneous testing of smoke and heat sensors within a multi-sensor detector.

This saves time and the need for separate test tool to test individual sensors; for example a Solo 330 for smoke testing and a Solo 461 Heat tester.

To illustrate this, instructions for a **Sequential** Smoke and Heat Test:

- 1. Select 'Smoke' from the main menu using the up and down arrows on the keypad to position the cursor. Press the enter key to select smoke, then move the cursor and select 'Heat'
- 2. The smoke test will begin when the head unit is placed over the detector, breaking the infrared beam
- 3. When the detector is activated, lower Testifire slightly so the detector is no longer in the cup
- 4. After 2 seconds raise again, placing Testifire over the detector to begin the heat test
- 5. Lower Testifire once the heat test has completed. Testifire will return to idle



NOTE:

Testifire will remain in this test configuration until powered off or re-programmed.

The 'Clearing' mode can be selected after the 'Smoke' test to clear smoke away from the detector.

Note: should a detector fail to activate after following these test instructions, it may be faulty, please seek further advice from the detector manufacturer.

4. Detector Removal

a) AutroGuard® Multicriteria Detector removal/replacement using the Solo 220 Removal Tool (116-WBJ-220)

- 1. Position the removal tool over the detector and apply gentle upward pressure to engage the sprung arms
- 2. Rotate the removal tool anti-clockwise whilst applying gentle pressure to disengage the detector from its base
- 3. Carefully lower the removal tool keeping it upright

NOTE:

When replacing a detector rotate the removal tool clockwise whilst applying pressure to engage the base of the detector.



b) Removal of dust cover for AutroGuard® Detectors with Solo 220 Dust Cover Adapter Tool

- 1. Attach the Dust Cover Adapter to the Solo 220 Removal Tool and position the catches above the sprung arms to partially engage them
- 2. Guide the removal tool onto the detector and apply gentle pressure to grip the dust cover
- 3. Lower the removal tool to detach the dust cover from the detector





c) Application of dust cover for AutroGuard® Detectors with Solo 220 Dust Cover Adapter Tool

- 1. Attach the Dust Cover Adapter to the Solo 220 Removal Tool and position the catches beneath the sprung arms
- 2. Place the dust cover onto the adapter
- 3. Guide the dust cover onto the detector and apply gentle pressure to ensure it is engaged securely





3





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