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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL, SAFETY
AND POLLUTION PREVENTION

JUL 31 2012

Rentokil Initial plc
c/o Tox Monitor BSR
33 Chicago Ave
Oak Park, IL 60302

Subject: Amendment to label formatting
EPA Registration No.: 87942-1
Primary Brand Name: RADAR
Submission Date: July 18, 2012

Dear Ms. Corrie:

The label referred to above, submitted under FIFRA, as amended, is acceptable. Please submit one final printed copy for the above mentioned labels before releasing the product for shipment. If you have any questions, please contact Gene Benbow at (703) 347-0235 or via email at benbow.gene@epa.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "John Hebert", written over a large, stylized blue circular scribble.

John Hebert
Product Manager 07
Insecticide-Rodenticide Branch
Registration Division (7505P)

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Rentokil

The Experts in Pest Control

EPA Est No 087942-GBR-001

EPA Reg No 87942 1

MADE IN THE UNITED KINGDOM

Manufactured for
Rentokil Initial plc 33 Chicago
Ave Oak Park IL 60302

RADAR

Active Ingredient	Carbon Dioxide	100 00%
TOTAL		100 00%

KEEP OUT OF REACH OF CHILDREN

WARNING

FIRST AID

If Inhaled

Move person to fresh air. If person is not breathing call 911 or an ambulance then give artificial respiration preferably mouth to-mouth if possible. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison centre doctor or when seeking medical treatment. For emergency information concerning this product call the National Pesticide Information Center at 800-858-7378.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING May be fatal if inhaled. Do not breathe vapor. Concentrations of > 10% carbon dioxide can produce unconsciousness or death. High concentrations may cause asphyxiation symptoms include loss of mobility and/or consciousness. Wear waterproof gloves when cleaning the unit and handling rodent bodies.

DIRECTIONS FOR USE It is a violation of Federal Law to use this product in a manner inconsistent with its labelling. Read all directions for use carefully before applying. This canister is for use only in the RADAR unit. Canister is designed to drop into place inside unit – do not use force. Before use refer to the RADAR booklet for information on how to use the Radar trap.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage Store in a cool, dry area in original container away from food.

Container Handling Do Not Puncture or Incinerate! **If empty** Place in trash or offer for recycling if available. **If partly filled** Call your local solid waste agency for disposal instructions.

MANUFACTURED BY Rentokil Initial Supplies Liverpool L33 7SR UK

IMPORTED BY JC Ehrlich DBA Ehrlich Distribution 5000 Spring Ridge Dr Wyomissing PA 19610

For Batch No and Use by date See base of can

Net Weight 0.1oz Carbon Dioxide

Label No 031212 017

ACCEPTED

JUL 31 2012

Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
Registered under
EPA Reg No 87942-1

RADAR – OPERATOR’S MANUAL



OPERATING RADAR

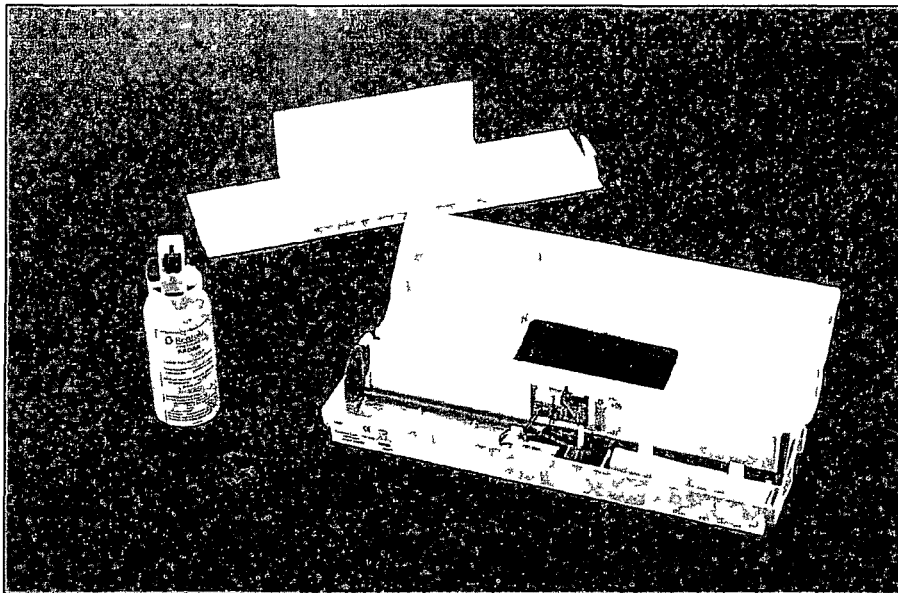
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1 Receipt of Unit

Please check that the box contents are present and undamaged



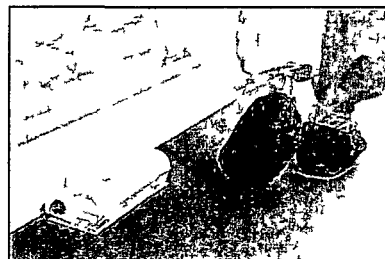
- FR80 Radar
- FR90 Radar CO₂ Canisters (Tin Plate)
- FR18 Radar Battery Pack
- FR55 Radar Fixing Brackets
- The battery packs and CO₂ canisters should be free from corrosion dents and within the expiry date



2 Location / Installation



Radar units should be sited along wall / floor junctions behind machinery and equipment i.e anywhere that bait boxes and mouse monitor units (MMU s) would normally be placed Units should be secured with fixing brackets if possible to prevent the unit being accidentally moved knocked or removed by unauthorised persons The unit must be sited where the LED is clearly visible to signal activation



2.1 Location Parameters

This table is a reference point for suitable operating environments for the Radar

Environmental Restrictions	Details
Outdoor use	Radar has been specifically designed for indoor applications only The product is not suitable for outdoor use
High levels of surface water	The system electronics can be damaged by water Take care to locate units away from areas where local high pressure washing or hosing down operations are carried out
High levels of dust / grease	It is important that units are kept clean especially if installed in areas where high levels of dust or grease are present Cleaning guidelines must be followed to prevent damage to the units
Knocking / kicking	Care must be taken to locate units away from pedestrian traffic to avoid false activation This can be prevented by mounting units on fixing brackets
Extreme temperature (<0 C)	Extremely low temperatures (i.e unheated warehouses) could affect Radar s performance and may result in the unit entering low battery status mode
High humidity (> 80%) or condensation	High humidity and / or condensation could result in damage to the unit s control electronics and result in false activations
High levels of vibration	High vibration due to localised machinery / fridge compressors etc could affect the performance of the unit and result in false activations



3 Operating Mouse Radar

3.1 Set up

- Open the Radar unit using the supplied key (Figure 1)
- The unit is supplied with the battery fitted
- Slide circuit board switch to ON – the LED will flash once and then remain illuminated permanently (Figure 2)
- Pass your finger across the first beam and the LED will flicker repeatedly (Figure 3)
- Move your finger to the second beam within four seconds – the solenoid will self test to complete check and the unit doors will close
- 5 seconds after the self test has completed the LED will flash 5 times to indicate that it is fully armed and that unit is ready for installation
- Set the trigger by pressing the red door lever down until it is locked under the blue catch (Figure 4 & 5)
- Remove the blue safety pin from the CO₂ canister and ensure the canister is within its expiry date before installing into the unit (Figure 6 & 7)
- Locate the canister in position – it should not need forcing (Figure 8)
- Close the unit securely (Figure 9)

Note If the canister resists the fittings it is likely to be used and in need of disposal

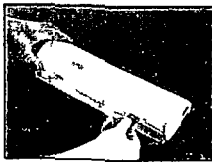


Figure 1

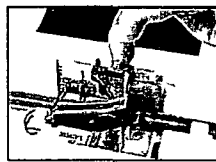


Figure 2



Figure 3

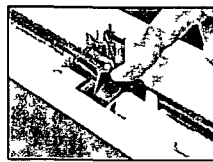


Figure 4

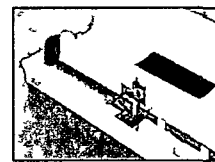


Figure 5



Figure 6

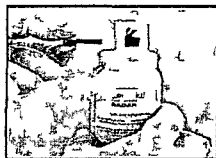


Figure 7

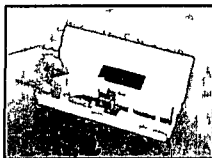


Figure 8

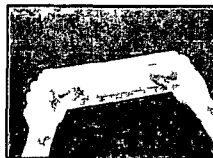


Figure 9

3.2 Routine Servicing – Inactivated Units

- Switch the unit OFF before servicing
- Remove the CO₂ canister – check the best before date on canister. If within expiry date it may be reused
- Remove any external dirt paying particular attention to any accumulated dirt on the underside of the unit
- Clean the unit inside out following the cleaning guidelines (See Section 7.1)
- Check the operation of the unit following set up guidelines (See Section 6.1)

3.3 Activated Units

- Put on protective gloves
- Open the unit and slide the circuit board switch to OFF
- Dispose of dead mouse according to your local waste regulations
- Remove the used CO₂ canister
- Canisters can only be used once and must not be reused
- Do not mix the canister with new stock – mark it as used by pressing a dent into the metal and separate for disposal (Figure 10)
- Clean the inside of the unit following the cleaning guidelines (See Section 7.1)
- Reset the unit referring to the setup guidelines (See Section 6.1)



3 4 False Activations

See Troubleshooting Section (Section 6)

3 5 LED Sequences

Radar signals its status via the red light emitting diode (LED) on top of the unit. Once setup the LED will only flash when the unit is activated. The light sequences are as follows:

LED status	Unit status
Continuous indicator ●	Switch on / reset
Flickering indicator ●	Infrared detector functional – during setup / test mode
5 red flashes ●●●●●	End of test period unit fully armed
No flashes ○	Armed mode (Please note that the Mk I flashes once every 5 seconds when in armed mode)
1 red flash every 4 seconds ● / 4 seconds	Unit activated
2 red flashes every 4 seconds ●● / 4 seconds	Low battery or unit fault (Please note that doors will also close)

4 Maintenance

Radar requires no maintenance other than cleaning and management of the batteries and CO₂ canisters

4 1 Cleaning

The recommended cleaning product for Radar is the *Universal Hard Surface Wipes (PSU01)*. These wipes are readily available from Rentokil Initial Supplies.

- Put on some protective gloves
- Remove the dead mouse and dispose of it in accordance to standard protocol. Remove any external dirt, paying particular attention to any accumulated dirt on the underside of the unit.
- Clean the inside of the unit, cleaning any fur, urine, droppings, etc. (Figure 11)



Figure 11

4 2 Batteries

Alkaline batteries can currently be disposed of in accordance with local, national or state regulations, or recycled where such facilities exist. It is recommended that battery packs are replaced every 12 months, irrespective of use, to ensure that they are fit for purpose.



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4.3 CO₂ Canisters

A new canister (figure 12) will need to be inserted every time the Radar unit is activated (please ensure a new canister is within the expiry date) After firing the red wedge at the neck of the CO₂ canister it is held inside by a ratchet that empties it completely This ensures that empty canisters cannot be reused by mistake Empty canisters are not classified as hazardous waste and can therefore be disposed of in accordance with local national or state regulations or recycled where such facilities exist However full canisters are classified as Hazardous Pesticide Waste and therefore MUST be discharged prior to disposal The canisters should be discharged by holding the canister horizontally away from the body and pushing the trigger thus dispensing the contents It is recommended that CO₂ canisters are replaced every 12 months irrespective of use to ensure that they are fit for purpose

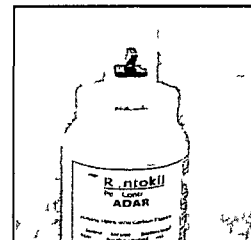
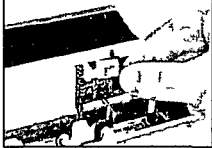
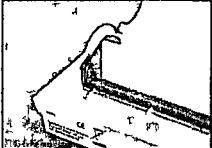


Figure 12



5 Troubleshooting

Issue	Cause	Solution
The LED does not illuminate when unit switched on	Insufficient power	<p>Change battery</p> <p>Check battery connection – please ensure that wires are fed between the door beam and lever to prevent them becoming damaged</p> 
Doors do not close	Faulty components	Report back to RIS Kirkby UK
	Insufficient tension in the springs	<p>Check the springs are fitted into the grooves at each end of the door arm</p> 
Mouse alive in unit	Empty / faulty CO ₂ canister	Replace the unit if damaged by the mouse or reset the unit with a new CO ₂ canister
Unit is immediately activating when the unit is turned on	Infrared detectors are detecting foreign material	Wipe Infrared emitters and detectors clean with a recommended cleaning wipe
LED flashing once every 4 seconds	Unit activated	Follow servicing guidelines
LED flashing twice every 4 seconds	Low battery	Change the battery
	Unit fault	If battery change does not rectify the issue return to RIS

Any other faults

- If in any doubt DO NOT USE the unit – return to RIS for fault evaluation

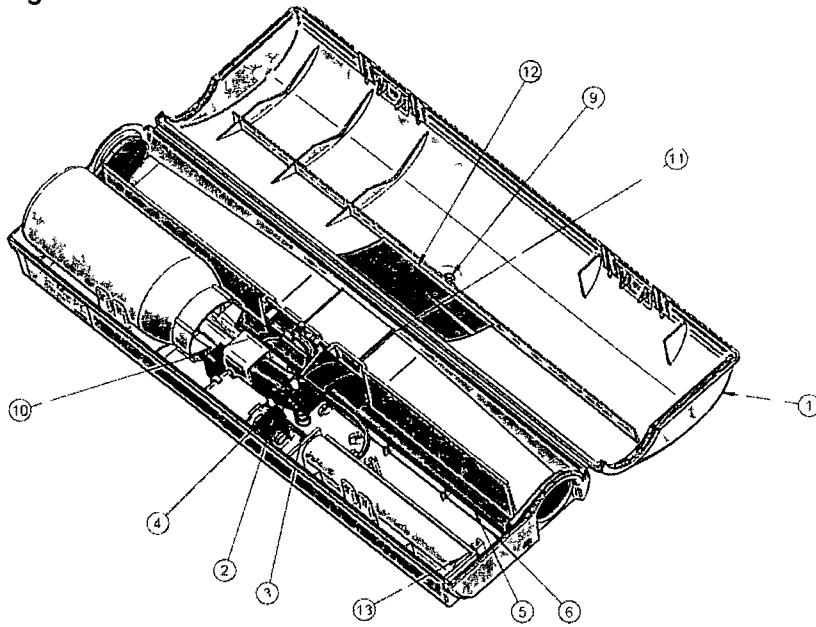


6 Technical Specifications

Technical Specifications	
Dimensions (L * D * H)	308mm x 196mm x 60mm
Weight (kg)	415g (including full gas canister)
Material	White Polypropylene casing
Detection system	Pulsed reflective dual Infrared beam sensors
Rodenticide	0.1 ounces (2.8 grams) CO ₂ gas purity >99.9% canister is a tin plate construction
Consumables	Battery pack CO ₂ canister (please ensure these are within the expiry date)
Power supply	6V – 4 x AA cell Alkaline battery pack
Degree of protection (IP)	IP 21 (drip proof)
Set up time	5 seconds
Guarantee	2 years return to RIS



7 Drawing Views



Item Number	Component Name
1	Main case moulding
2	Trigger
3	Level spring
4	Lever
5	Door beam
6	Door beam spring
9	Lens
10	Printed circuit board assembly
11	Pressure pad recess blanking plate
12	Sensor label - DO NOT REMOVE
13	6V - 4 x AA cell Alkaline battery pack

