CONTENTS

Specifications / Warranty ................................................................. 1
Functions ......................................................................................... 2-3
Accessories ....................................................................................... 4
Set-Up ................................................................................................. 5
Adaptor Installation .......................................................................... 6
Safety ................................................................................................. 7
Troubleshoot / Maintenance ............................................................. 8
Optional Accessories ...................................................................... 9
**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>14 in. x 9 in. x 15 in. (10 cm x 23 cm x 38 cm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight - Machine Only</td>
<td>27 lbs. (12.25 kg)</td>
</tr>
<tr>
<td>Weight - Accessory Kit Only</td>
<td>16 lbs. (7.25 kg)</td>
</tr>
<tr>
<td>Shipping - Weight</td>
<td>46 lbs. (20.85 kg)</td>
</tr>
<tr>
<td>Shipping - Dimensions</td>
<td>20 in. x 15 in. x 25 in. (50 cm x 38 cm x 63 cm)</td>
</tr>
<tr>
<td>Power Supply</td>
<td>100-240V AC</td>
</tr>
<tr>
<td>Pressure Supply</td>
<td>Compressed Air</td>
</tr>
<tr>
<td>Output Pressure TURBO Mode</td>
<td>2 - 20 PSI (0.14 - 1.4 BAR)</td>
</tr>
<tr>
<td>Output Pressure EVAP Mode</td>
<td>11 - 14 in wc / 0.47 PSI / 0.032 BAR</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>0°F to 140°F (-17°C to 60°C)</td>
</tr>
<tr>
<td>Operating Humidity</td>
<td>No Restrictions</td>
</tr>
<tr>
<td>Operating Altitude</td>
<td>No Restrictions</td>
</tr>
<tr>
<td>Vapor Output Hose</td>
<td>15 ft. (5 m) TURBO 10 ft. (3 m) EVAP</td>
</tr>
<tr>
<td>Operating Modes</td>
<td>Vapor Cycle / Air Only Cycle</td>
</tr>
<tr>
<td>Housing Material</td>
<td>Steel</td>
</tr>
<tr>
<td>Vapor Chambers Material</td>
<td>Billet Aluminum</td>
</tr>
<tr>
<td>Vapor Chambers Assembly</td>
<td>Bolted</td>
</tr>
<tr>
<td>Vapor Chambers Warranty</td>
<td>Lifetime</td>
</tr>
<tr>
<td>Warranty</td>
<td>1 Year</td>
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**WARRANTY**

The manufacturer, Redline Detection, LLC (“Redline”) warrants this product to be free from defects in workmanship and material under normal use and service for a period of one-year from the date of purchase. Redline’s liability under this warranty is limited to: (1) repair or replacement of any parts or product which are determined to be defective; or at Redline’s sole option (2) refund of the purchase price. In either event, product to be returned shipping prepaid within the one year warranty period. Additionally, the vapor chamber in any Redline product has a lifetime warranty as to its structural integrity: Any Redline-manufactured vapor chamber that leaks, cracks, or separates in any way shall be repaired or replaced by Redline at no charge. Products are only to be used by persons having skill and knowledge in the motor vehicle repair field, and improper use or maintenance may cause serious injury. In no event shall Redline be liable beyond replacement of product or refund of the purchase price. This warranty shall void if a product is improperly maintained, altered, abused or otherwise misused in any way.

THE AFORESAID WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, AND THERE ARE NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND WHATSOEVER MADE BY REDLINE, EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR APPLICATION.

THE PURCHASER’S SOLE REMEDY FOR ANY DEFECTIVE PRODUCT SHALL BE REPAIR, REPLACEMENT OR REFUND AS STATED ABOVE AND REDLINE SHALL NOT BE LIABLE TO ANYONE FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, INDIRECT OR PUNITIVE DAMAGES ON ACCOUNT OF DEFECTIVE PRODUCTS, HOWEVER CAUSED, UNDER ANY THEORY OF LIABILITY.
1. **Power/Mode Selection Toggle Switch**
   Toggle left for Turbo/High Pressure, Toggle right for Low Pressure EVAP

2. **Turbo Testing Indicator**
   Indicates Turbo / High Pressure testing selected

3. **Turbo / High Pressure Vapor Output Hose**

4. **Flow Meter**
   Measures flow rate into system under test

5. **System Pressure Gauge**
   Displays the back pressure of system under test

6. **Power Indicator**
   Green light indicates proper connection to electrical power

7. **Flow Control Valve (Variable)**
   Releases vapor / pressure into the system
   Close flow control valve to lock out system for pressure decay testing

8. **Test Pressure Gauge**
   Indicates test pressure set by regulator

9. **Vapor Test Switch**
   Begins ten-minute vapor cycle. Red light indicates vapor cycle. Push again to stop testing

10. **Air Only Test Switch**
    Begins ten-minute air only cycle. Blue light indicates air only cycle. Push again to stop testing

11. **Reset Switch**
    Clears stored logic

12. **Adjustable Pressure Regulator**
    Adjust test pressure from 2 to 20 PSI (0.14 to 1.4 BAR)
13. EVAP Testing Indicator
Indicates EVAP / Low Pressure testing selected

14. System Pressure
System compound pressure gauge EVAP

15. Flow Meter
Measures flow rate into system under test

16. EVAP / Low Pressure Vapor Output Hose

17. EVAP/Low Pressure Flow Control Valve (Variable)
Releases vapor / pressure into the system. Close flow control valve to lock out system for pressure decay testing

*NOTE: For Fixed Pressure, adjustable regulator only affects high pressure testing

REAR / BACK VIEW

18. Fluid Fill Ports (2x)
Remove fluid fill plug to fill machine with Redline approved vapor producing agent

19. International AC Power Inlet (100-240V)

20. Fuse Holder
10A 250V Fuse plus one spare fuse

21. Compressed Air Inlet
Replace coupler fitting if necessary. Male 1/4 in. NPT fitting
**INCLUDED ACCESSORIES**

**TURBO / HIGH PRESSURE**

1. **Accessory Storage Case [ 91-0006 ]**

2. **Exhaust Cone Assembly [ 96-0004 ]**
   For use to seal openings from 1 in. (2.5 cm) to 3.4 in. (8.6 cm) to introduce vapor into exhaust and induction systems (EVAP)

3. **Cap Plug Kit Assembly [ 96-0007 ]**
   Seals openings for low pressure system testing

4. **Halogen Inspection Light [ 20-0004 ]**
   12V DC with 20 ft. (6.1 m) cable. Always use to pinpoint leaks


6. **Redline Approved Smoke Producing Fluid [ 96-0039 ]**
   8 fl. oz. (237 ml)
   Vapor Producing Fluid will perform 100’s of typical tests per bottle
   *Important: Contains NO Dye / Contaminants*

7. **Hex Key [ 80-0009 ]**
   To remove / replace fluid fill plug

8. **Power Intake™ Adaptor 1.5 in. (4.8 cm) [ 95-0080 ]**
   Inflatable block off bladder with a vapor pass-through

9. **Power Intake™ Adaptor 1.9 in. (7.4 cm) [ 95-0086 ]**
   1.9” Power Intake Bladder with Pass Through

10. **Power Intake™ Adaptor 1.9 in. (4.8 cm) [ 95-0096 ]**
    1.9” Power Intake Bladder with Pass Through with Extension Rod

11. **NISSAN Inlet Adapter [ 96-0107 ]**
    Attaches to Intake Ducting after removing Air Box (i.e. GTR/JUKE)

12. **NISSAN Inlet Adapter [ 96-0109 ]**
    Attaches to Intake Ducting after removing Air Box (i.e. TITAN)

13. **Block Off Coupler [ 96-0084 ]**
    Used to block smoke hose to convert Power Intake™ Adaptor into a block off bladder
SET-UP

1. FILL / ADD VAPOR PRODUCING FLUID
   a. Remove fluid fill plug with hex key.
   b. Pour Redline Approved Vapor Producing Fluid into fluid fill port
   c. Fill fluid to top of port
   d. Replace fluid fill plug
   
   2 fl. oz. (60 ml) maximum. Only use Redline Approved Vapor Producing Fluid

   Never use dyes, solvents or other contaminants in intake or exhaust systems because they may coat and/or harm critical sensors, catalysts or filters

2. CONNECT TO POWER
   • Connect a properly rated power cord into the AC Power Port
   • Green Power Indicator lamp illuminates with proper power connection

   POWER / MODE SELECTION TOGGLE SWITCH:
   ➔ Toggle left for Turbo/High Pressure,
   ➔ Toggle right for Low Pressure EVAP

   POWER INDICATOR:
   ➔ Green Light: Machine has adequate power
   ➔ No Light: No Power

   Never connect the Nissan Dual Purpose Leak Detector to vehicle with the engine running

3. CONNECT TO AIR SUPPLY
   a. Connect compressed air supply to Air Inlet *Replace quick coupler fitting if necessary. 1/4 in. NPT male

4. TO ADJUST FOR EVAP / LOW PRESSURE TESTING
   a. Turn Flow Control Knob counter-clockwise to release vapor / pressure
   b. Flow Meter indicates flow and measures leak size
   c. Use provided Halogen Inspection Light to locate leaks
   d. Perform repair(s) as needed

5. TO ADJUST FOR TURBO / HIGH PRESSURE TESTING
   a. Turn Flow Control Valve off
   b. Set desired Test Pressure. (PULL to unlock, TURN to adjust pressure, PUSH to lock)
   c. Attach Vapor Hose to installed adaptor of system being tested
   d. Depress Vapor Test button to begin 10-minute vapor cycle
   e. Turn Flow Control Valve to release pressure / vapor
   f. Use halogen inspection light provided to inspect for leaks

6. PUSH VAPOR TEST SWITCH
   Begins 10-minute vapor cycle

VAPOR INDICATOR:
   ➔ Red Light: Vapor is Generating
   ➔ Flashing Red Light: Open Circuit
   ➔ No Red Light: No Vapor Generating
EVAP/LOW PRESSURE SAFETY

FOLLOW ONLY NISSAN APPROVED LEAK TESTING PROCEDURES

The procedures in this section are intended to be basic guidelines for users to practice using the Nissan Dual Purpose Diagnostic Leak Detector (EVAP / Low Pressure mode).

This operation manual is not intended to be used in place of common sense:
- Use this equipment in the manner specified by the manufacturer
- Understand operating procedures
- Follow all safety precautions

SAFETY PRECAUTIONS
- All diagnostic work should be performed with the engine off
- Do not leave a vehicle unattended while equipment is connected or operating
- Equipment operates on a AC Voltage
- Do not perform tests near a source of spark of ignition
- When working with the fuel system, work in a well-ventilated area
- Always wear the appropriate safety protection. Wear OSHA standard eye wear and protective gloves when using this equipment

TURBO/HIGH PRESSURE SAFETY

FOLLOW ONLY NISSAN APPROVED LEAK TESTING PROCEDURES

The procedures in this section are intended to be basic guidelines for users to practice using the Nissan Dual Purpose Diagnostic Leak Detector (TURBO / High Pressure mode).

The Nissan Dual Purpose Leak Detector is designed to be used in conjunction with the supplied Power Intake™ Adaptor, or threaded sensor port adaptors, also provided is a cooling system adaptor to test the intake, exhaust, and cooling systems of boosted engines.

DO NOT USE TURBO / HIGH PRESSURE IN EVAP SYSTEM

SAFETY PRECAUTIONS
- All diagnostic work should be performed with the engine off
- For use only by professional technicians
- Ensure that the vehicle is secure and stable
- Exercise caution when connecting and disconnecting compressed shop air supply
- Do not leave a vehicle unattended while equipment is operating
- Always wear proper safety protection
- This safety guide is not intended to take the place of common sense and good judgment
Safety Warnings:
• The maximum test pressure a Power Intake™ Adaptor may restrain can only be estimated.
• Slippage of a Power Intake™ Adaptor is influenced by many factors including debris / residue in the Intake / Exhaust system, coefficient of friction, internal pressure of the Power Intake™ Adaptor, and the accuracy of inflation instruments.
• Generally, a Power Intake™ Adaptor properly inserted into an Intake / Exhaust system may begin slipping when test pressure exceeds 50% of the internal inflation pressure. Inflation pressure and back pressure limitations are subject to temperature / humidity change.
• Power Intake™ Adaptor should NEVER be inflated over 1.6 times its outside diameter.
• Debris, protrusions and residue in the Intake / Exhaust system could weaken and / or rupture the bladder of the Power Intake™ Adaptor. Bladder failures due to misuse or abuse are not covered by warranty. Redline Detection shall not be responsible for any incidental or consequential damages.
• Power Intake™ Adaptor must be mechanically anchored with the provided chain / cable to a secure location before use.
• Power Intake™ Adaptor slippage under test pressures may cause property damage or injury.
• NEVER use inflation pressure with Power Intake™ Adaptor or a test pressure that is greater than the capacity of the weakest component in the system under test.
• NEVER use Power Intake™ Adaptor when its failure could cause injury or catastrophic damage.
• Before use: Refer to Power Intake™ Adaptor Installation and Inflation procedures, back pressure limitations and tether restraint installation instructions.

Installing Power Intake™ Adaptor:
1. Install Power Intake™ Adaptor fully into intake system ductwork or exhaust tubing. Make sure there are no obstructions or sharp edges that might puncture bladder when inflated. Power Intake™ Adaptor must insert completely inside ducting / tubing.
2. Install safety chain / cable to a secure location.
3. Inflate Power Intake™ Adaptor to 30 PSI (2 BAR) maximum. If over inflated, pop off safety valve may release. If release occurs, reinflate to 30 PSI (2 BAR).
4. Firmly tug on safety chain to insure Power Intake™ Adaptor is firmly installed and properly secure.
5. Attach vapor hose for testing.

Removal of Power Intake™ Adaptor:
1. Remove vapor hose (or block off adaptor) at quick coupler to deflate tested system
2. ONLY AFTER system under test is fully depressurized, release internal pressure of Power Intake™ slowly by depressing Schrader valve
3. Detach safety chain / cable
4. Remove Power Intake™ Adaptor from ductwork, making sure not to rub across sharp edges
## TROUBLESHOOTING / MAINTENANCE

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>SOLUTION</th>
</tr>
</thead>
</table>
| No Green Light                | • Ensure electrical power cord is properly installed  
                                • Check for blown fuse                               |
| Red Light Flashing            | • Open circuit / internal component               
                                Contact Redline Detection Technical Support         |
| No Air Flow                   | • Check connection to compressed air              
                                • Open the flow control valve                        
                                • Check hoses are not kinked or pushed into machine |
| Poor Vapor Density or Volume  | • Insufficient Vapor Producing Fluid: Refill      
                                • Flow Control Valve is partially closed            
                                • Vapor Output Hose is kinked                      |
| High Test Pressure Reading    | • Vapor Output Hose is kinked                     |
### OPTIONAL ACCESSORIES

1. **EVAP Service Tool Kit [96-0003]**  
   Schrader Valve Removal tool. Evap Service Port Adaptor

2. **Temperature Sensor Port Adaptor [15-0056]**  
   Use to access intake or exhaust system through temp sensor port

3. **Pressure Sensor Port Adaptor [15-0055]**  
   Use to access intake or exhaust system through pressure sensor port

4. **Oxygen Sensor Port Adaptor [15-0059]**  
   Use to access exhaust system through oxygen sensor port

5. **SmokeMeister™ Wand [96-0088]**  
   Tube delivers vapor to find wind and water leaks in cabin or trunk

6. **Wand / Tip Adaptor [96-0094]**  
   Install into SmokeMeister™ wand to bench test components or pinpoint vapor stream

7. **Power Intake™ Adaptor 2.9 in. (7.4 cm) Diameter [95-0081]**  
   Inflatable block off bladder with a pressurized vapor pass-through

8. **Bolt Kit [96-0850]**  
   Hardware and instructions to easily fasten machine onto a tool cart

9. **Magnet Kit [96-0080]**  
   Hardware and instructions to easily attach heavy duty magnet to hold machine onto metal cart