INTRODUCTION

This handbook is intended to guide you in your work as a professional within the world of vehicle corrosion prevention and protection.

You will find some information about corrosion, why it appears and what should be done to prevent it.

We will also give you our advice regarding your station, regarding the facilities, the equipment, software, practices you will need as a professional. Since legal requirements can vary, we will point out to you when and on what subject you should contact your local authorities, to become compliant with your local rules and laws.
In this chapter we give you some advice for your own working safety.

All Material Safety Data Sheets and Technical Data Sheets are included. Please ensure these are kept updated and easily available.

In this handbook we have chosen to describe two levels of corrosion-prevention treatment.

Our most comprehensive treatment, **FULL TREATMENT** for a customer that wants excellent protection for his car.

A slightly simpler **BASIC TREATMENT** and less expensive than the Full Treatment, but still gives the vehicle very good protection by treating the most vulnerable cavities and underbody areas.

To help you in choosing a treatment and the most suitable components we have prepared a matrix to guide you through the selection process regarding which products and equipment you should use, and also which parts of the car should be treated.

Description of symbols and practices used in the spraying diagram are also enclosed.

We hope that this handbook will make your work easier.

MATERIAL	COMPONENT	TYPE	CAUSE OF CORROSION
Steel	Sills Pillars	Crevice corrosion General corrosion	Dirt and water trapped inside sections, cracks, folds etc. Stone chips in paintwork. Stone damage to covering underseal
Steel	Suspension mountings and other load-bearing materials	Crevice corrosion General corrosion Fatigue	Dirt and water fill gaps and angles reinforcing themselves by sticking to fasteners.
Steel	Floor sections	Crevice corrosion General corrosion	Humidity gathers in gaps, especially in corners.
Steel	Wings	Pitting Crevice corrosion General corrosion	Stone chips in paintwork. Holes and corners where dirt and moisture gather. Stone damage to undersealing
Steel	Doors	Crevice corrosion General corrosion	Water gathering inside door section due to poor drainage
Steel	Brake lines	Galvanic corrosion Pitting	The zink coating corrodes and the copper layer only makes matters worse. Galvanic corrosion arises through porosity in the copper layer.
Steel	Spot-welded details	Crevice corrosion Intergranular corrosion	Gaps filled with dirt and moisture. Structure of metal altered during welding.

CORROSION

The word ***corrosion*** and the verb ***to corrode*** originate from the Latin word ***corrodere***, which means destruction or degradation.

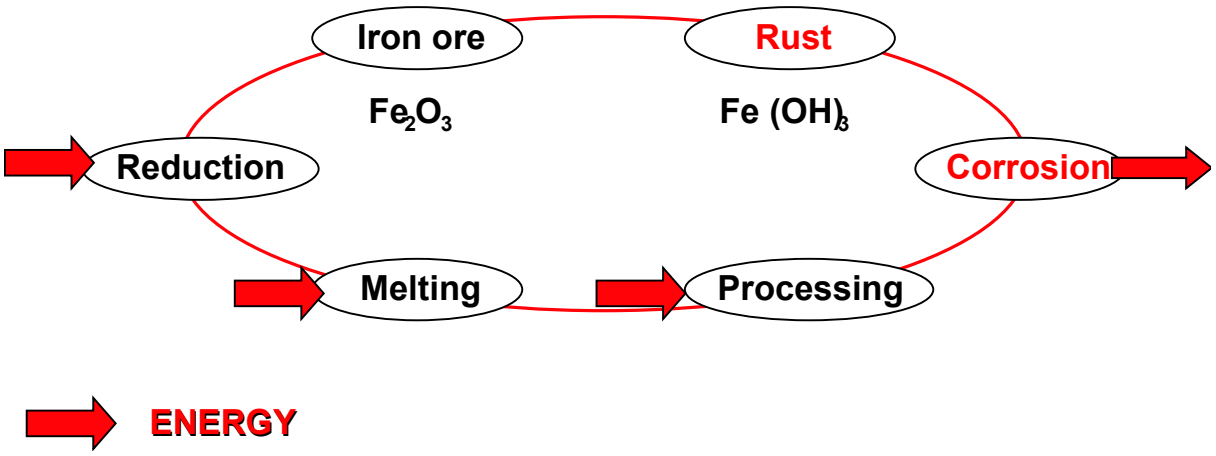
In technical terminology it is used to describe the degradation of materials.

In this manual, we will concentrate on steel and its alloys used in the vehicle body structures and the specific way they corrode – i.e. rusting.

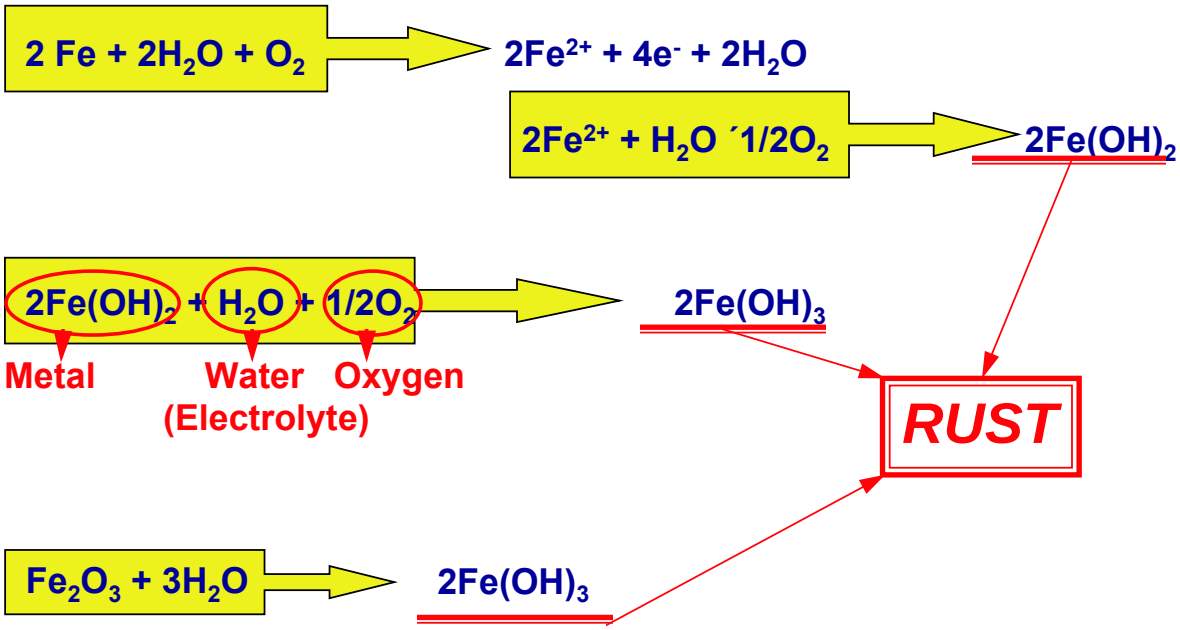
Corrosion is also silver blackening, copper verdigrising and galvanized sheet developing white spots or blemishes.

THE CORROSION CIRCLE

The process of steel production from the ore, to the finished part of the car body is a quite long process, which contains moments of great energy input. This means that the formed sheet metal's energy level becomes rather high. This is an unnatural, unstable condition. Nature tries to revert all processed material back to its natural, low energy level, condition. This transition happens during the process of corrosion.



THE CORROSION PROCESS



The above reactions describe the electrochemical process of the three types of steel corrosion/ rust.

The corrosion product - the rust - is chemically very similar to the ore.

WHY DO CARS RUST?

THE CAR BODY

Modern car bodies are assembled from a large number of formed steel parts/ sections. The sheet metal is less than one millimetre thick and in some areas even thinner due to the press operations. Individual sections are spot-welded or bonded to form a single, integral body. Consequently, there are a large number of gaps, flanges and cavities, where dirt and moisture can collect and start the process of rusting.
In the heat affected zone of weldings, the steel undergoes changes increasing the vulnerability to corrosion.

ENVIRONMENT AND POLLUTION

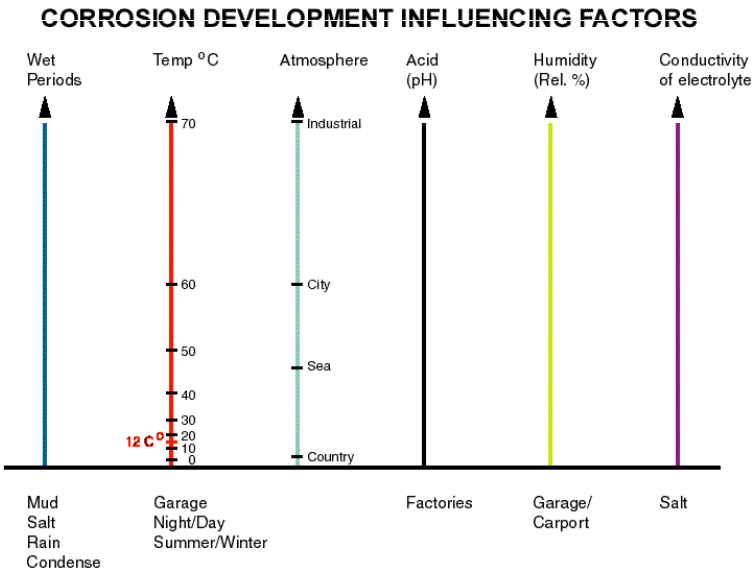
The industrialization and the steadily increasing density of motor traffic, is increasing concentrations of pollutants, such as sulphur dioxide, which makes the environment more corrosive.
Chlorides from sea air or road salt significantly increase the corrosion sensitivity of metal.

RELATIVE HUMIDITY

The most important factor influencing the progress of corrosion is the time the surface remains wet. When cavities become polluted by mud, water, etc., their interiors can remain wet for long periods, even if the rest of the vehicle is dry. The length of this period, together with the degree of salt contamination, cause the metal to corrode at lower relative humidity compared to clean and dry surfaces.

AIR TEMPERATURE

Air temperature can lead to higher corrosion rates. The higher degree of rust damage around the exhaust system is a descriptive example of this. The cavities polluted by wet mud, salt, etc. suffer higher corrosion rates at elevated temperatures, since the evaporation rates are slower. Surfaces which are clean and well-ventilated dry quickly at higher temperatures and do not corrode so rapidly.



THE PRINCIPAL OF CORROSION PREVENTION/ RUST-PROOFING

The significance of the above described reactions is, that they always contain three main factors of influence.

- ⇒ **Dissimilar metal(s)**
- ⇒ **Oxygen**
- ⇒ **Electrolyte e.g. water**

If one of these is missing, corrosion can not occur.

It is extremely difficult to keep oxygen away from the metal. The main concept for rust protection systems developed and supplied by Dinol, is to keep the electrolyte, e.g. moisture, away from the metal surface. By applying the DINITROL products to the surface, we not only keep the moisture away from the surface, but also seal the metal surface from the majority of the oxygen as well.

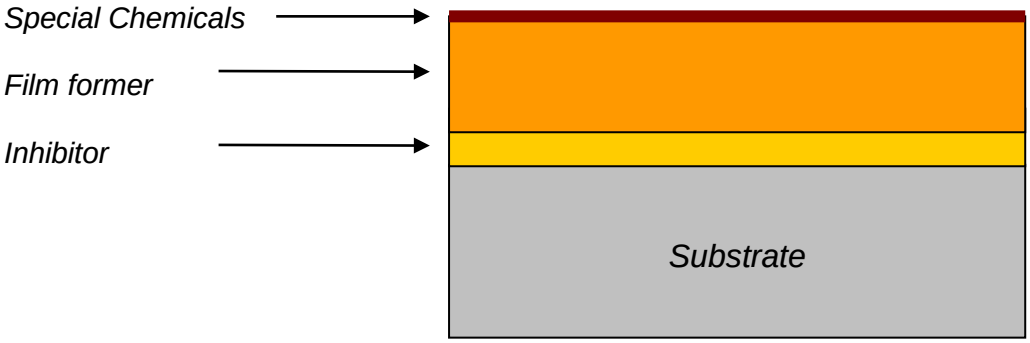
CORROSION PREVENTATIVES
Basics and functionality

A corrosions inhibiting compound consists of three main components:

The inhibitor – which has the purpose of stopping the corrosion reactions. The molecules of the inhibitor effectively cover the metal surface and form a water-resistant boundary, and also enhance the adhesion of the film to the substrate.

The film former – which creates a barrier on the metal surface and protects it mechanically. Film formers can form oily, waxy or firm films.

The third component consists of **special chemicals** such as dewaterant and surface active agents.



WORKING PREMISES

Here is some general advice regarding your corrosion prevention station.

CUSTOMER RECEPTION

It is important to make a good first impression when the customer comes to the station. Make sure you have a nice and welcoming customer reception, separate from the treatment area, where you can use Dinol literature and have DINITROL products for sale.

It is also good if you have the possibility to have a special place for testing of the cars, separate from the working area. Here we recommend you to have a Boroscope with a TV-screen to give your potential customer a good and convincing demonstration.

The Boroscope is a very good sales tool already used by many DINITROL Stations all over the world.

TREATMENT AREA

In the treatment area there are many things to be considered.
Please, see the chapter ”Working Protection” for further information regarding laws, regulations and recommendations.

Below you will find some points worth thinking of, when planning your station.
- The walls should be made of a material that is easy to clean, for example stainless steel.

- The floor should be of a non-slip material.

- An oil separator shall be used.

- Use high-pressure wash for cleaning.

- The lift you use should preferably be a 2-collar lift, as this lift gives you a good field of vision when working from the ground.

- If possible, the storage of the products should be in a separate part of the building. This area should hold room temperature, minimum +15°C.

- For the workplace safety, hose reels should be used for long hoses.

- For best treatment result, and for your own safety, always keep the pumps and other equipment clean.

- The working temperature in the station shall not be below +15°C and not over +30°C.

- It is very important to try to keep your working area as clean as possible.

- When cleaning the floor and the walls of your station we recommend you to use a cleaner, with a degreasing effect.

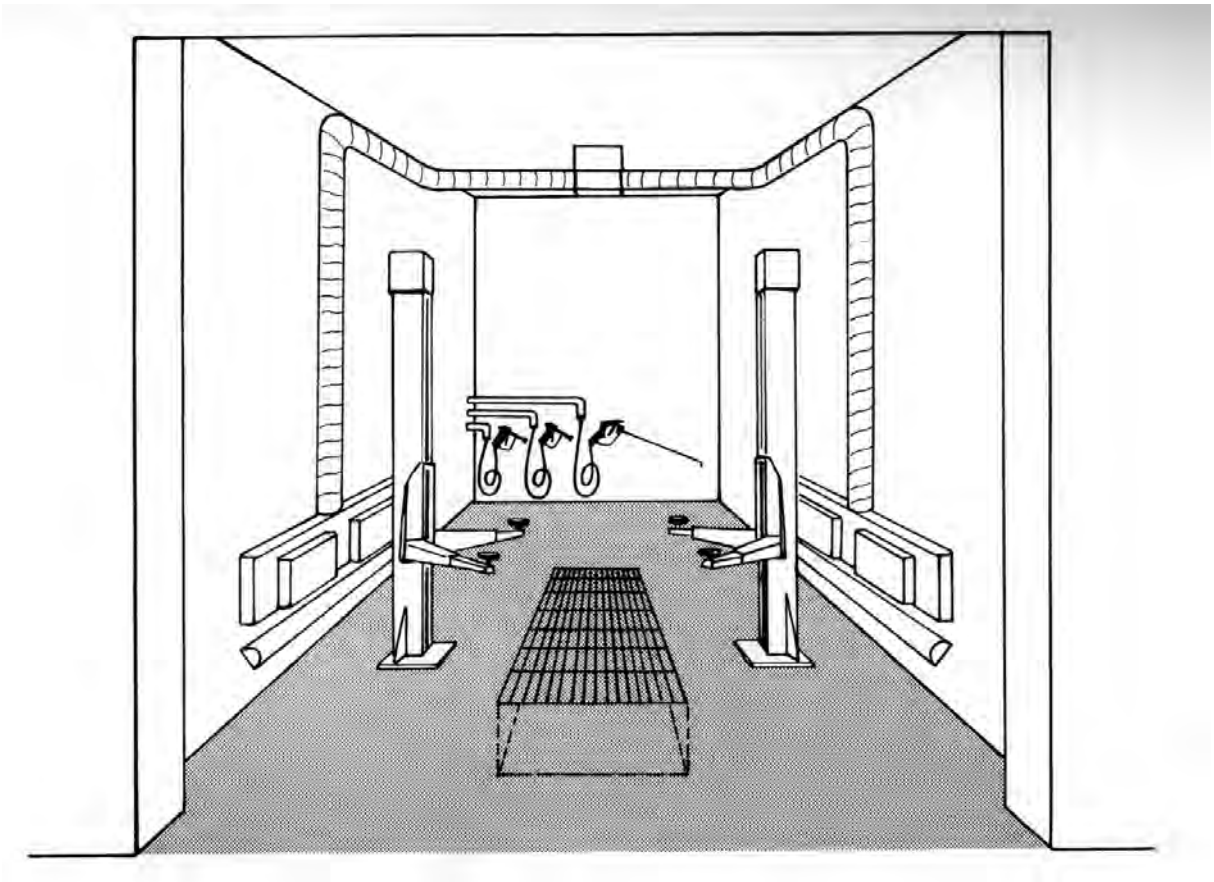
- Have the Material Safety Data Sheets, for all products you use, easily available.
Always hand these to the medical staff, if an accident should occur.

- Have protective clothing, such as overalls with hood, gloves, eye protection, and face masks i.e. a mask with a carbon filter, available for your workers, and make sure they use them. For further information on safety equipment, see the MSDS data sheets.

EXAMPLE OF THE SPRAYING AREA IN A RUSTPROOFING STATION

There shall be at least 1 meter between the car and the lift and the walls even when the doors of the vehicle are open.

There shall also be 1.5 – 2 meters in front of and behind the vehicle.



WORKING PROTECTION

In all areas, including anti-corrosion treatments, orderliness and cleanliness are important conditions for safety and comfort at work. It is necessary to look into a number of other areas of health and safety.

These actions are very local and are different in different countries. **In this chapter we recommend you to contact your local authorities and /or follow all local and state regulations with regards to health, safety and proper ventilation.** The text written under the headings are only recommendations from Dinol.

VENTILATION

The ventilation equipment must be arranged so that contaminated air does not pass your lungs.

If the ventilation is not adequate, oil mist may occur. Breathing this mist without the proper ventilation and mask can cause serious damage to your lungs.

Never apply corrosion prevention material without turning on the ventilation. The ventilation shall also be turned on whenever the car is running.

If possible the pump equipment should be shielded from the working area.

The air circulation under the car shall always be high enough so that mist does not occur. The speed of the air circulation 20 cm under the lifted car shall be approx. 0.3 m/sec.

Re-circulation of the ventilated air is not allowed other than for drying.

Fresh air should be of appropriate temperature, similar to the temperature inside the station. Fresh air is easiest to take from out doors.

The ventilation system shall be equipped with an indicator that shows when the air circulation is not sufficient.

The ventilation system should not contribute to the noise in the workplace.
The noise from the ventilation system shall be at least 10 dB (A) lower than the workplace noise.
The noise can be reduced by insulating the ventilation channels and keeping the fan motors for the system outside the workplace.

Instructions for the ventilation system shall be available for the workers.

Regular services shall be carried out on the ventilation system.

LIGHTS

As the corrosion prevention material is dark and there are many parts that can shadow your sight of the underbody, lights of a minimum 500 lux shall be used.

The lights shall be placed so they do not get covered with corrosion prevention material.

A hand light shall be available for inspection of i.e. wheel arches and cavities.

There shall be appropriate light on the floor.

PIPING

Be sure that all pipes and hoses transporting the product, is approved to handle 300 Bar (4350 PSI) pressure.

LIFTS

Dinol recommends a two collar lift in order to get the best visibility when working

CLEANING AND DEGREASING

Cleaning and degreasing can be done using a a cold degreaser such as white spirit (mineral spirit), applied by brush or spraying, protective gloves and clothing, mask, and eye protection shall be used.

FIRE PROTECTION

In building where spraying takes place, open flames, welding and smoking is prohibited. Fire-extinguisher must be available and located in a safe place.

Anti-corrosion products are flammable, and storage should be performed according to your local and state laws and regulations.
Containers with anti-corrosion material shall never be heated over an open fire.

SPRAYING

When spraying, a high-pressure spray gun should be used, if possible. High-pressure guns apply the anti-corrosion product without over-spray. This will help reduce the oil mist.

Only trained professionals should use high pressure spray equipment.

The hose for the high-pressure unit shall be a steel thread armored hydraulic hose. It must be resistant to a pressure of at least 300 bar (4350 psi).

If the hose gets damaged, do not repair it. Replace it with a new one. Do not change the connections.

The hose between the unit and the spraying gun must be grounded to avoid off static electricity.

The hose between the spraying gun and the nozzle (extension hose for internal treatment), shall be protected with a plastic hose which also covers the connectors.

NOTE!

If someone gets hit by the jet, it will go deep into the tissues. The injuries are serious and can potentially lead to amputation of the injured part of the body. If someone gets hit by the jet, they should be taken to a hospital immediately.

Before changing or cleaning nozzles, switch off the high-pressure air and make sure there is no remaining pressure in the pump. Follow this procedure also when leaving the working area, even if only for a short while. When cleaning the nozzles, use appropriate cleaning needles. Nozzles, wands, and lances can also be cleaned with a white spirit and can be placed in this solvent after use to avoid clogging.

When spraying, the pressure should be adjusted to avoid unnecessary oil mist/over-spray. Do not spray towards the ventilation exhaust.

The sprayability for anti-corrosion material varies with composition and temperature. Low viscosity and cavity waxes can be sprayed at 2-4 bar (29-58 psi). High Viscosity underbody coatings should be sprayed at 4-6 bar (60-90 PSI).

***NOTE**: in colder temperatures, it may be required to spray using higher Bar/PSI pressure to compensate for the increase in viscosity of the material.

PROTECTIVE EQUIPMENT

Workers must be supplied with gloves made of suitable material, i.e. oil resistant plastic and face mask which will be used when needed. For exposed skin, a suitable oil-resistant lotion shall be provided. This cream should be used before work begins. No thinner or other harmful solvents should be used for cleaning the skin. Do not use compressed air for personal cleaning. Refer to DINITROL MSDS documents as well as local and state regulations.

IN CASE OF ACCIDENT

Seek medical attention.

The hospital can contact 866-404-4230 for Toxic Information and assistance.

If you get the material into your eyes, rinse carefully with clean water for 15 minutes and seek medical attention.

Always bring the Material Safety Data Sheet for the product when consulting a hospital.

If it is necessary to use an open flame when cutting or to weld doors, door sills, members or similar, take every precaution against ignition or spread of fire. A carbon-dioxide type fire extinguisher should always be available.

FIRST AID KIT

Every first aid kit shall contain bandages for large and small wounds as well as eye flushing kits.

There should be at least one first aid kit at every station.

BEFORE STARTING THE TREATMENT

DO NOT SPRAY the following items: catalytic converter, its indicators or heat shield, the brake system and rotors, exhaust system or drive shaft, airbag sensors, seatbelt mechanism, and other electronic equipment such as stereo speakers. These areas must be wrapped with paper, foil, or other means to ensure they are protected from spray or over-spray.

Be sure to remove the wrapping when spraying is complete prior to starting the vehicle and releasing it to the customer.

When the car has insulation/sound deadening fabrics or pads in the doors, make sure that they do not come loose during the treatment. If they do, they can damage the electrical windows or the central locking system.

PRODUCTS

One penetrating-water displacing product, One cavity wax and One abrasion resistant, heavy duty, underbody coating are used to get the important combined anti-corrosion and mechanical wear protection.

For details such as film thickness, type of film, drying times, etc. of the products, refer to the Technical Data Sheets.

DINITROL ML - Water displacing penetrating coating, used as a step 1 in cavity areas and underbody areas. For open surfaces such as the underbody areas, film build should be applied in a fog coat of 25 microns. DO NOT OVER-APPLY this material

DINITROL High Performance Wax or DINITROL 1000 are Cavity Wax products and should be applied with a film build of 100 microns wet.

DINITROL 4941, 4942 Heavy Duty Underbody Coating, should be applied with a film build of 300-500 microns wet for corrosion and stonechip mechanical protection. For added sound deadening, the underbody coating can be applied up to Maximum 700 microns wet when using the 2 step system in conjunction with the DINITROL ML.

PACKAGING

500ml aerosol cans (12-p box)
1L cans (12- p box)
20L pails (1-p)
60L drums (1-p)
208L drums (1-p)
900 or 1000L containers (1-p)

SELLING POINTS

When a potential customer comes into your station, it is good to have some selling points to tell the customer.

One of the most affective VISUAL SELLING TOOLS is the boroscope, where you give the customer a visible reason to buy a corrosion prevention treatment from you.

Other substantial reasons are:

- Corrosion is a main reason that vehicles fall apart and lose their value.
- If you treat your vehicle, you can prolong its life and maintain a higher market value.
- Corrosion can affect the structural safety of the metal.
- Corrosion can be present on both the inside and outside surfaces.
  The most dangerous kind of corrosion, inside cavities and box sections, is often not discovered until it is too late.
- Corrosion most likely will start within the first year of production of the vehicle.

DRYING

It is important that the car is **Clean and Dry** before the anti-corrosion treatment begins.

Drying of the car can be affected in a number of ways. What is the same for all methods is that the underbody and wheel arches must be completely dry.

High pressure air using an air blow gun **should** be used to blow out and dry the cavity sections and left over water on the underbody areas.

Stationary or mobile driers, which blow heated air on the underbody and the wheel arches can be used when drying the car.

The vehicle can also be left inside a building over night to ensure it is completely dry.

NEVER USE AN OPEN FLAME TO DRY THE CAR.

SCRAPING AND CLEANING

LOOSE CORROSION

Before the corrosion-proofing treatment, inspect the car. All loose flaking rust and dirt/debris shall be removed. Be sure to check around the light house bowls, wing mountings, wing flanges, wing pockets, around fuel-tank and suspension details.

NOTE: You do not need to remove the light rust. Only the flaking loose metal, dirt and debris. The light rusted areas will be treated with the DINITROL coatings to creep into the surface and then seal the surface from allowing further water, oxygen, salt and road debris from attacking the metal.

SEVERE CORROSION DAMAGE

For grade 3 or 4 corrosion damage, it is the technician and shops responsibility to notify the vehicle owner immediately, prior to applying any DINITROL materials as repairs may be required.

CLEANING

1. Remove the wheels
2. Remove plastic wheel arch protectors
3. Protect the brakes and the brake drums
4. Apply the degreaser
5. Wait for 5-10 minutes
6. Wash with high-pressure water
7. Any loose flaking metal, dirt, debris that remains on the surface, should be removed mechanically using a brush, wire brush, wheel, etc.

TREATMENT DESCRIPTION - BASIC TREATMENT

BASIC TREATMENT is an anti-corrosion treatment which protects the most exposed parts of the car.

1. The mountings on the front edge of the hood are treated through existing holes.
2. The mountings on the rear edge of the trunk/tailgate are treated through existing holes.
3. The rear wheel arch joints are treated from the luggage compartment.
4. The lower edges of the door pillars are treated through existing holes.
5. The lower edge of the doors are treated through existing holes.
6. The wheel arches, frame, underbody, and any tow bar attachments to the vehicle, are treated when the vehicle is lifted.

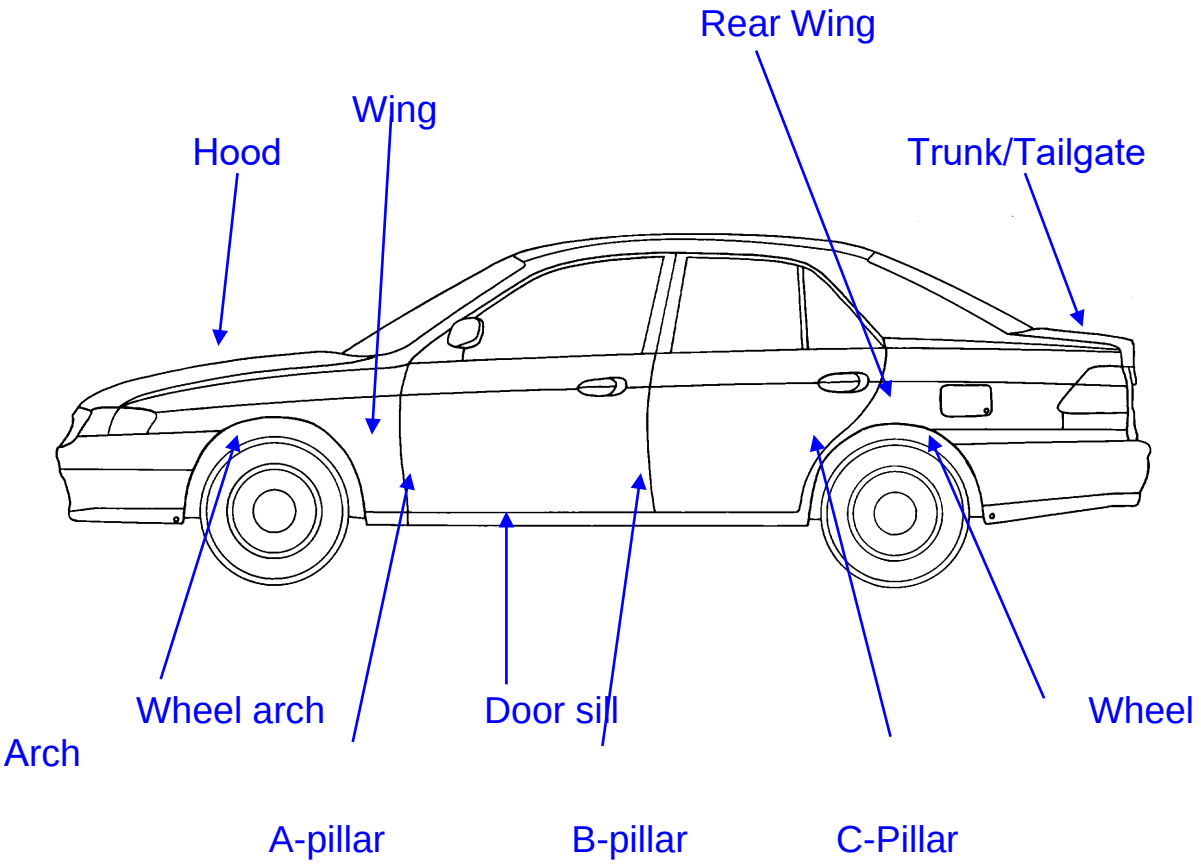
TREATMENT DESCRIPTION - FULL TREATMENT

FULL TREATMENT is a complete anti-corrosion treatment which includes the Basic Treatment and also includes the following:

1. All members and edges of the hood
2. All members and edges of the trunk/tailgate
3. Cavity sections of the doors, up to the window level. Be careful to not apply material to the seatbelt mechanics in the pillar, or to the airbag sensors and stereo electronics. If possible, remove the door panel for better access and visibility.
4. All cavity sections / box sections of the underbody frame and members are treated

INSTRUCTIONS FOR TREATMENT

1. ****It is important to always follow proper safety procedures prior to starting any work on the vehicle or spraying any DINITROL product. Gloves, eye-protection, protective clothing, masks, ventilation requirements, etc.**
2. Protect the upholstery
3. Pull out the seat belts and fix them to the seat back.
4. Lift the car
5. Remove the wheels and the inner wings / wheel arch protectors
6. Using a wrap protection such as foil, paper, cloth, etc, Protect the brakes, brake components such as rotors, calipers, brake pads, etc, exhaust system, drive shaft, catalytic converter and heat shield. These areas should not be sprayed or coated with any DINITROL material.
7. Pre-treat with cold degreaser and then pressure wash the underbody area including wheel arches, frame, trailer hitches, etc.
8. Using high pressure air with air blow gun, dry and blow out the cavities areas in the frame, doors, trunk, hood, etc
9. Dry the underbody of the vehicle. This can be done using a strong industrial fan or high pressure air and air blow gun. A heated fan system can help speed up the dry time.
10. Scrape and remove any loose/flaking metal. Check sills and joining members for any dirt and debris that may have been missed during pressure wash and scrape / remove this debris from the surface.
11. Lower the car
12. Treat the cavity areas with the penetrating DINITROL ML and wipe away any excess material. This material needs 15-20 minutes to work and penetrate the flanges and rust within the cavity sections.
13. After 15-20 minutes but no more than 30 minutes, apply the DINITROL Cavity Wax (DINITROL High Performance Wax or DINITROL 1000) to the cavity sections.
14. Lift the car
15. Treat the underbody with the penetrating DINITROL ML (fog coat only - 25 microns wet) product should not be applied heavy that it runs and drips. This will affect the step 2 underbody coating if the ML is applied greater than a 25 micron fog coat. Wait 15-20 minutes, but no more than 30 minutes to apply the underbody coating (4941 or 4942)
16. Treat the underbody with the DINITROL 4941 or DINITROL 4942 (300-500 microns wet)
17. Remove the wraps and/or foil used to protect the non-spraying areas prior to starting and releasing the vehicle.
18. Replace the wheels
19. Lower the car
20. **Be sure to always follow the manufacturers specification on the required torque specs for the wheel lug nut tightening prior to driving or releasing the vehicle.**
21. Clean any over-spray that may have gotten on the vehicle using DINITROL Autocleaner or similar white spirits.
22. Clean interior of car and wipe down any visual over-spray
23. Wash the vehicle prior to releasing it to the customer so it is even better than when it showed up.
24. If you have marketing material, hang tag, or a treatment guide of what was done to the customers vehicle, place this in the car or hand to the customer when they pick up their vehicle.
25. Take off the protective clothing

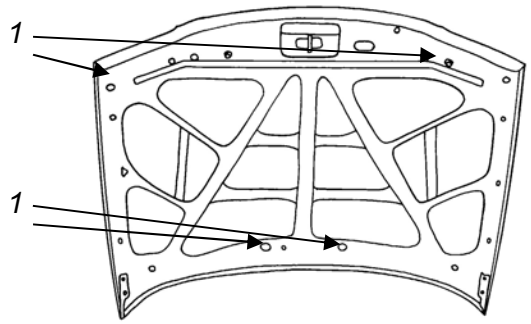

Rear Wing
Wing
Hood
Trunk/Tailgate
Wheel arch
Door sill
Wheel
Arch
A-pillar
B-pillar
C-Pillar

INSTRUCTIONS FOR THE FULL TREATMENT

FLOOR LEVEL WORK

Treatment with ***DINITROL Cavity Wax.*** *If corrosion is present,* ***DINITROL ML*** *can be applied first, prior to application of the cavity wax to the cavity areas.* ***In some cases or cavity areas which may be visible to the vehicle owner such as the hood and trunk, it may be best to only apply DINITROL Cavity Wax as a single step system for cosmetic reasons*** **as the product is transparent and will provide water displacing properties.**

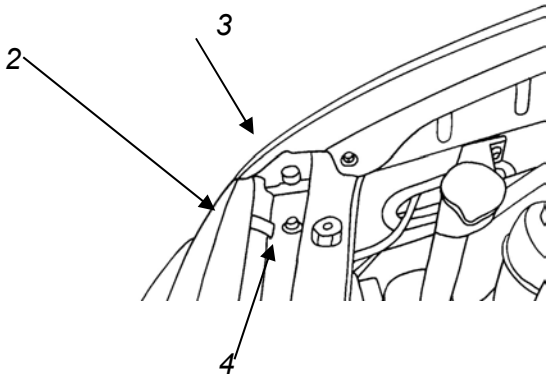
1. The hood mountings and edges are treated carefully through existing holes



2. The front part around the lamps and the steel joints in the front plate behind the radiator grill.

3. The front part of the front wings can on many car models be sprayed from below the wheel arches. In some models it can be hard to reach from there. If this is the case, then treat through the opening next to the lamps. Be careful so you do not apply in the to the lights, turn signals, or their connectors.

4. Member over the radiator.



5. The wing mountings. On cars with a gasket seal under the wings, loosen the screws and widen the gap before treating the seam.

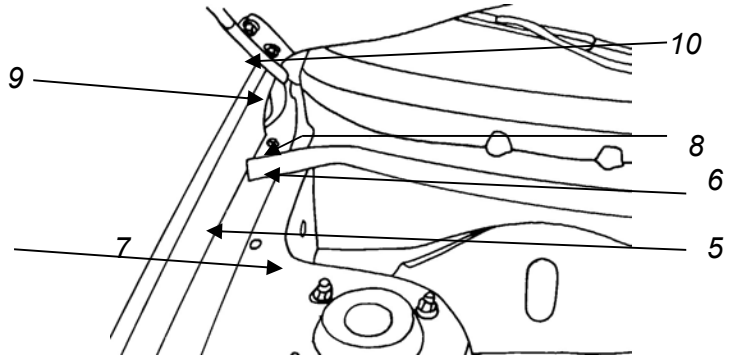
6. Upper wheel arch member.

7. Mountings and attachments for springs and shock absorbers.

8. Rear corner of the engine compartment on cars where this area forms a pocket.

9. The area in front of the windscreen can be treated through the ventilation grid , opening for wiper arm, or through the opening for main hinges.

10. On many car models the rear part of the front wings can be sprayed from below, from the wheel arches.



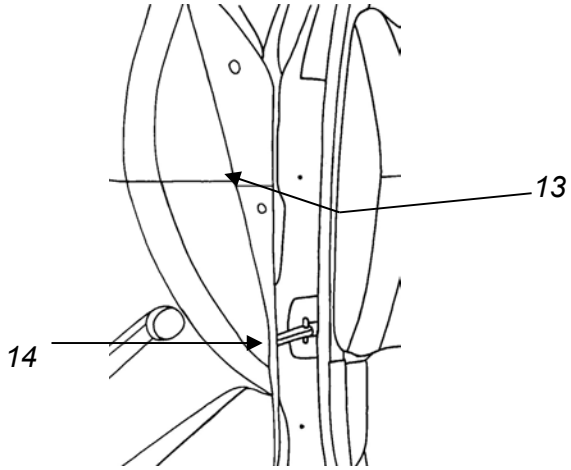
11. Other members or mountings reachable from the engine compartment.

12. Other steel joints in the engine compartment.

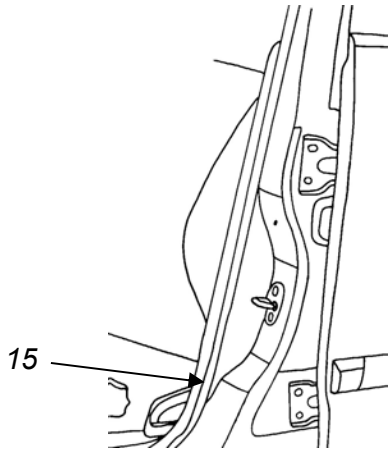
13. The area between the front door pillar and the front wing. Steel joints, hinge mountings or pockets.

14. The front door pillar can be treated through a hole for the light connection. Remove the light and connector to ensure this is not sprayed.

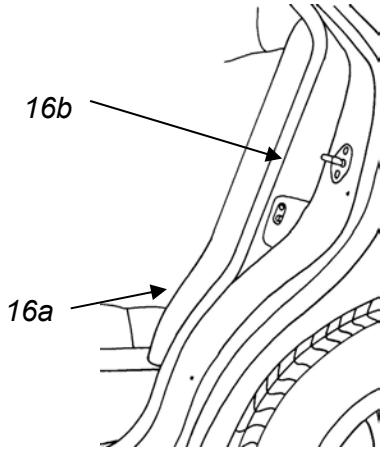
Be careful not to damage the upholstery.
The lower part of the pillar and welding joints are particularly susceptible to rust.



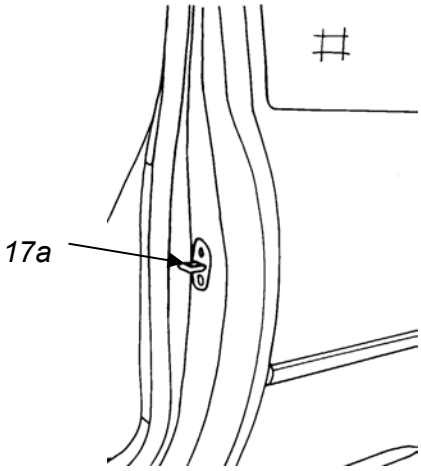
15. The middle door pillar is treated either from existing hole or through light contact/ door-stop (15)



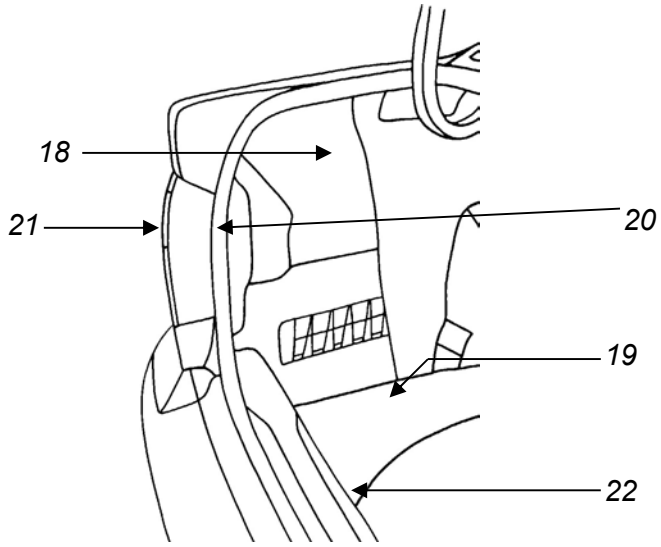
16.The rear door pillar on a 4 door vehicle, *can be treated in most cases through the luggage compartment.*



17.The rear door pillar on a 2 door vehicle, may be accessible from the luggage compartment/trunk. Be careful not to spray the seatbelt and connections.



For treatment of the points 18-20 dismantle the side panels in the luggage compartment.



18. Steel seam between side plate and wheel arch-*tack-free DINITROL High Performance Wax*

19. Spare wheel area and the lower part of the side plate *tack-free DINITROL High Performance Wax*

20. The rear corner of the wing *tack-free DINITROL High Performance Wax*

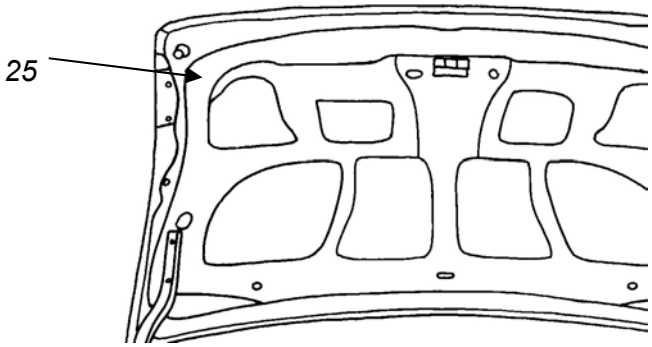
21. On some car models, the tail lights can be dismantled. Through here, you can sometimes also treat the points 18-20

22. If the rear part of the luggage compartment consists of a box construction, treat it carefully with *tack-free DINITROL High Performance Wax*

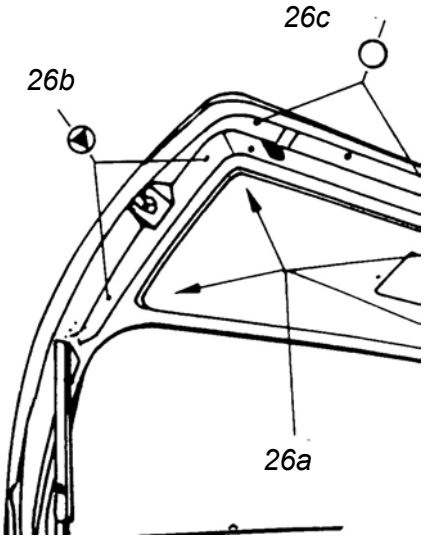
23. Treat the shock absorber and spring attachment connecting areas - *tack-free DINITROL High Performance Wax*

24. Seams or mountings on the luggage floor - *tack-free DINITROL High Performance Wax*

*25.*The trunk/tailgate of sedan-models is treated with DINITROL High Performance *Cavity Wax,* with caution through existing holes. Direct the jet towards the folded steel edge.

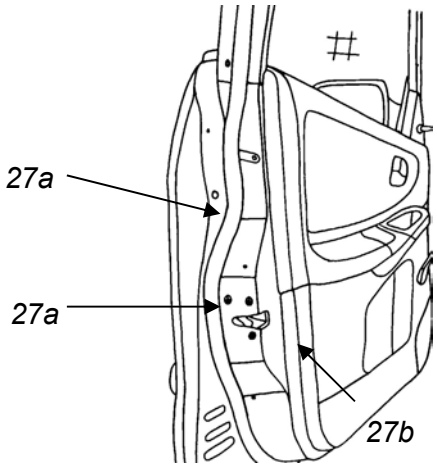


26.The tailgate of station wagon models is treated with *DINITROL High Performance Cavity Wax,* from the lower part, either by dismantle the upholstery (26 a), through existing holes in the side (26 b) or through existing holes from underneath (26 c).

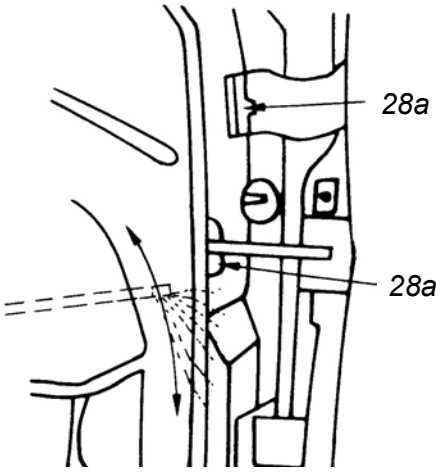


27.The vulnerable parts of the doors are the folded seams on the lower edge, the front and rear edge. The doors are treated through hole 27 a, with a nozzle that sprays backwards towards the narrow part and the steel seams. Treat with DINITROL ML and Cavity Wax.
On some models, there are mountings in the doors, preventing a treatment through 27 a. It can then be made from underneath through 27 b.

NOTE: Removal of the door panels will allow the technician to have better visibility of the spray area and avoid over spraying, and spraying parts/components that should NOT be treated such as airbag sensors and electronics.

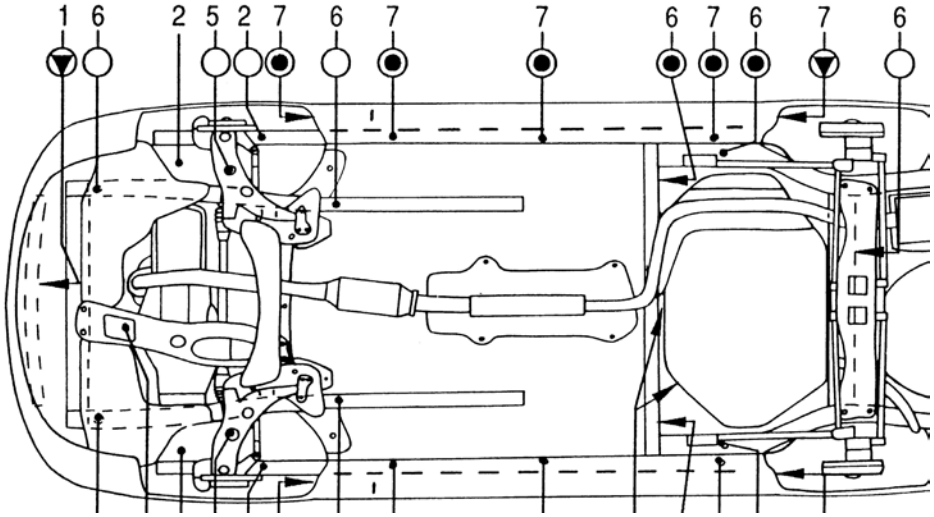


28.The front part of the doors are treated, *with DINITROL ML and Cavity Wax, by pointing the jet of the nozzle diagonally upwards. Some cars have pockets in the front edge of the doors by the hinges (28 a) or by the door pillar which should also be treated.*



WORK ON RAISED CAR

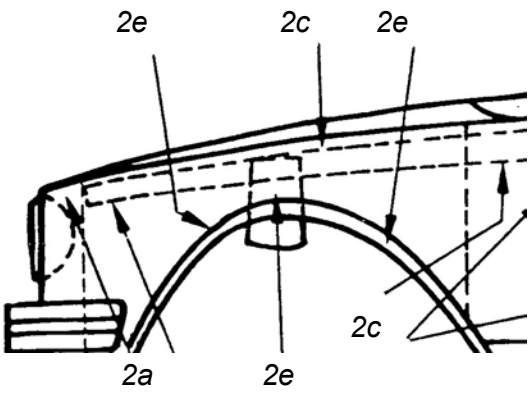
Inside of front member, rocker panels, and closed cavities on the underbody are treated with the ***penetrating DINITROL ML and then sealed with DINITROL Cavity Wax***



1. Front plate and front member cavities

2. Front wheel arch cavities. The front part may be covered with an inner wing, dismantle this if not done so in previous step. Treat the upper front corner above the light bowl (2a)
   If the wheel arch members are not treated from the engine compartment, treat them now with Cavity Wax.
   The upper part of the wheel arch members are susceptible to rust (2 c).
   Springs and mountings (2 d)
   The seam flange (2 e)
   The rear part may by covered with an inner wing. dismantle this if not done so in previous step.

3. Engine support members



4. Gear box members, attachments

5. Brackets between the gear box and engine

6. Front and rear trailing arms

7. Frame members are treated through existing holes

8. The door sills are treated with *cavity wax product* either through holes in the wheel arches or from underneath. Where double door sills occur, treat both pairs.

9. The fuel tank attachments and over the tank

10. Rear plate, box or member

11. Jack attachments

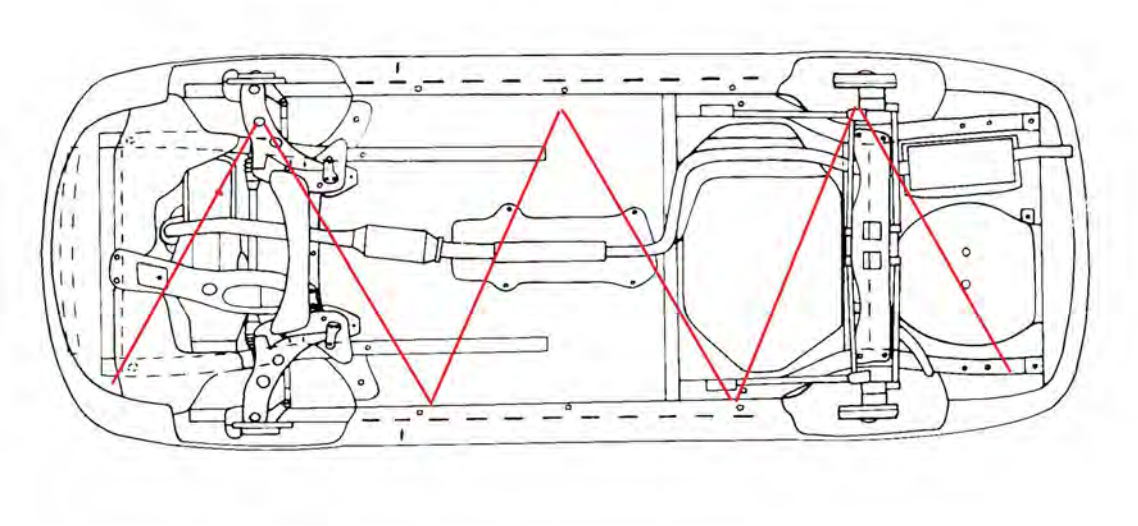
12. Rear spring attachments

13. Rear wheel arch

14. Engine, gear box, radiator, sound deadener and the differential must ***not*** be sprayed, as they get heated up during driving and the products have insulating properties. The drive shaft must not be treated for the risk of unbalance. The brake drums should also be covered and not sprayed

15. Treat the seams at the underbody

Underbody Open Surface Treatment.



When applying the products on the underbody, follow the systematic treating pattern to ensure you have proper coverage and have not missed any section.

Step 1
Apply DINITROL ML in a fog coat of 25 microns to the open surfaces. DO NOT over-apply this material to the surface. Wait 15-20 minutes, but no more than 30 minutes for this material to work into the surface. If over-applied and dripping, wipe excess away using a dry rag or towel.

Step 2
Apply DINITROL Underbody Coating 4941 or 4942. Film thickness should be 300-500 microns wet and up to a maximum of 700 microns wet when applied in a 2 step system in conjunction with the DINITROL ML.

Underbody Coating 4941/4942 texture you are looking for is a Orange Peel like texture. This can be achieved by adjusting the tip on the tool, adjusting the air pressure at the spray tool, and/or the spraying distance from the surface.

Air Pressure at Tool

Air pressure regulator should be used and applied to any airmix spray tool to ensure pressure at the tool will be as noted below to ensure the best possible spray pattern and end result.

Air pressure at the tool should be set to 4-6 Bar (58-87 psi) for DINITROL 4941 coating.

Air pressure at tool can be set at 2-3 Bar (29-44 psi) for DINITROL ML and Cavity wax as these are much lower in viscosity.

Note:

If pressure at the tool is set higher than these levels, it will create more over-spray and the required film build and textured will be difficult to achieve.

Equipment

DINOL offers our customers with the proper spray tools and equipment needed in order to apply the DINITROL Corrosion and Stonechip Protection systems. A few examples below: More equipment options can be found online at www.dinitrol.com

Article # 1700700
DINITROL Spray Tool for 1L cans

Article # 1701900
DINITROL Pressure Pot (includes 1702000)

Article # 1702000
DINITROL Cavity Nozzle Set (included w/ Art #1701900)

Article # 1704900
DINITROL Aerosol Extension Nozzles with 360 deg spray jet

Article # 1705900
DINITROL Airless Pump Unit 1:26 for 208 L/60 L drums

Article # 1705100
DINITROL Airless Pump Unit 1:26 for 20 L pails

Article # 1712700
DINITROL Wet Film Gauge

Article # 1708400
DINITROL Flexible Extension Wand for airless sprayer

Various size wands, lances, and spray jets for open surface and cavity applications