





MARINE / RV 1-2-3



The 1-2-3 On Selecting the Products You will Need to:

Improve and Protect the Performance & Reliability of Electrical & Mechanical Marine and RVs Equipment and Parts;
Instruments and Controls, GPS, Radar, Audio, Video, Communications, Trailer Hitch & Connections, Naval, Military & Industrial, Water Sports & Scuba Diving, Instrument Cables & Parts, etc.

KEEP IN MIND:

The 1-2-3 is a quick look on selecting products you may need to service and improve your equipment. Obviously, there are so many different applications, some of which are unique or challenging, we can not cover all of them. Please contact us if you need additional help selecting: **Contact Us**.

If you are already familiar with how to use CAIG products and just need product and applicator suggestions, Go To Page 5 for recommendations.

Electrical Application Examples; electric switches, circuit breakers, socket & plug systems, connector/insulators, navigation equipment, batteries, flashlights, inverters, power distribution panels, transformers, ignition systems, starters, audio/video connectors, trailer connections, instrumentation connections, buss-bars, fuss blocks, power cords, lighting connections, etc.

A. Electrical/Electronic Connections - Indoor and well protected areas (low to medium corrosion environments).

Products Recommended: DeoxIT® D-Series, DeoxIT® Shield, Contact Cleaner WASH, DeoxIT® Gold (only occasionally).

The FIVE basic questions you will need to consider to select WHICH PRODUCT:

1. Materials involved - which conductive material (nickel, tin, silver, steel, gold, copper, etc.)







- 2. Severity of the oxidation/corrosion
- 3. Are surfaces easy to access
- 4. Any sensitive materials or components
- 5. Is flammability an issue

USE the **DeoxIT® Selection Guide** to also help you decide: https://caig.com/deoxit-selector-guide/

THE 1-2-3, FIVE Basic Questions. Choosing the Product and then the Applicator

- 1. If it is a non-ferrous metal (yellow color; gold, copper, bronze, etc.) **Select DeoxIT® Gold Series.**Use the DeoxIT® Gold Series **ONLY** if the surfaces are well protected from environment; i.e. inside a control cabinet. If it is a ferrous metal (white color; nickel, tin, silver, steel, etc.) **Select DeoxIT® D-Series and/or DeoxIT® Shield.**
- 2. Severity of oxidation/corrosion:
 - a) Very severe: Refer to "Outdoor and Severe Applications" below.
 - b) <u>Severe:</u> Whether ferrous or non-ferrous, use the DeoxIT® D-Series to clean. You may have to apply several times over several days depending on severity. Once clean, follow selecting product #1 above.
 - c) <u>Minor:</u> Use DeoxIT® D-Series or DeoxIT® Gold on non-ferrous metals. Even if the surfaces have minor amounts of oxidation, DeoxIT® Gold will remove. It may take a bit more time, however, it will be effective. Use DeoxIT® D-Series on ferrous metals, follow with DeoxIT® Shield (once surface is cleaned) in severe environments (high humidity, corrosive, salts and pollution, etc.).
 - d) <u>How old is equipment</u>: Are surfaces in good condition or deteriorated. We recommend not using any applicator with solvents without testing first. Contact surfaces maybe deteriorated and solvents may flake off or displace metal. Use 100% DeoxIT (D100L).
- 3. Accessibility:
 - When surfaces are easy to access, we usually recommend non-aerosol applicators. Apply product and wipe off excess. Only small amounts are require for maximum results. When access is difficult, use aerosol/spray or needle dispenser (example; D100L-25C). **Refer to NOTES on page 5.**
- 4. Areas or products with sensitive materials, use non-aerosols. Solvents may effect materials, especially on older components that may have already started to deteriorate. Aerosols and or solvents maybe okay. Just test on one item or part, wait several days. If okay, then proceed on other parts/controls. **Refer to NOTES on page 4.**
- 5. If flammability is an issue, use non-flammable aerosols/sprays (Example; DN5S-6N, DN5S-2N) and/or 100% solutions (Example; D100L-25C, D100P, D50W, etc.) . The "Description" TAB on the product will identify solution percentage (5%, 100%, etc.), and if the product is flammable or not.



B. Electrical/Electronic Connections - Outdoor and Severe Applications (medium to high corrosion environments).

Products Recommended: DeoxIT® D-Series, DeoxIT® Shield, DeoxIT® Marine Electrical Grease

Electrical/Electronic connections in severe environments (high humidity, corrosive, salts and pollution, etc.), have two main issues; oxidation/corrosion of the actual surfaces that make the connection/circuit and the physical aspects which may be both electrical and mechanical. Physical aspects include treads of a screw connector and the outer metal casing of a connector. Examples; COAX cable; inner conductor and the socket/external threads. XLR connector with inner conductors & outer socket threads. Outdoor antenna screw connectors. Outdoor speaker connectors.

The FOUR basic questions you will need to consider to select WHICH PRODUCT:

- 1. Is this an electrical, mechanical or electrical connection with mechanical movement?
- 2. Are components/equipment exposed to the elements or semi-protected?
- 3. Voltage and amperage? Up to 115v, Over 115v, Up to 5 amps, Over 5 amps.
- 4. What type of contaminants and how severe?

THE 1-2-3, FOUR Basic Questions. Choosing the Product.

- 1. Make your selection.
 - Electrical DeoxIT® D-Series, DeoxIT® Shield, or DeoxIT® Marine L27-ME Electrical Grease Mechanical only DeoxIT® Marine L27-ME Electrical Grease Electrical and Mechanical Could be DeoxIT® D-Series, DeoxIT® Shield, or DeoxIT® Marine L27-ME
- Electrical Grease.
- 2. If connections are semi-protected; for example, connections inside a irrigation control box. We would recommend the DeoxIT® D-Series and/or DeoxIT® Shield.
 - If connections are exposed to the elements; for example; outdoor speaker connectors, boat instrument connectors.
 - We would recommend the DeoxIT® D-Series and/or DeoxIT® Shield, DeoxIT® Marine L27-ME Electrical Grease
- 3. Connections Up to 115v and below 5 amps we would recommend the DeoxIT® D-Series and DeoxIT® Shield. Connections above these numbers, most likely the DeoxIT® Marine L27-ME Electrical Greases
- 4. For connections under severe conditions; for example, high humidity, salts, pollution, etc., we would recommend:
 - The DeoxIT® D-Series to clean surfaces, then the DeoxIT® Shield when surfaces semi-protected. The DeoxIT® Marine L27-ME Electrical Grease when totally exposed to elements.



4. **NOTE:** For severely oxidized electrical surfaces you may want to use a non-abrasive brush (nylon) to remove surface contamination. Then apply the DeoxIT® Marine Electrical Grease with quartz particles (L27-ME-Q). The quartz particles will help scrub and remove the corrosion. The particles are very fine, so they will also help polish the surface. Always test on small areas to determine effectiveness.

C. Mechanical Connections -

Products Recommended: DeoxIT® D-Series, DeoxIT® Marine L27-MM Mechanical Grease

Mechanical Application Examples; anchor mates & winches, rollers, mounts & locks, bolts/nuts, hydraulic connections/lines, steering cables & parts, threaded closures, bearings, trailer moving parts, hitches & jacks, hinges, lines & chains, plumbing fittings, rigging hardware, hatches, deck hardware, fishing hardware & equipment, etc.

The FOUR basic questions you will need to consider to select WHICH PRODUCT:

- 1. Is the part stationary (connection; i.e. nuts & bolts) or moving (i.e. cable, chain, etc.)?
- 2. Materials other than metal; i.e. plastics, rubber, glass, etc.?
- 3. Is the surface new?
- 4. If surfaces are not new, does surface have minor corrosion or severe corrosion?

THE 1-2-3, FOUR Basic Questions. Choosing the Product.

- 1. Generally, if the part has little (hinge) or no movement (lock), you may be able to use only the DeoxIT® D-Series or MechanicALL™ products. If the part has medium (hitches/jacks) to high movement (rigging, chains/lines), then we would recommend the DeoxIT® Marine L27-MM Mechanical Grease.
- 2. Our DeoxIT® concentrate formulas (100% concentrates) are safe on plastics, rubbers and most materials. When using one of our diluted products (5% sprays or liquids), if the surfaces have sensitive parts/materials, we recommend applying to one part, then wait a day or two to verify compatibility.
- 3. On new surfaces; pre-clean any dust or dirt off the surfaces. Then apply the DeoxIT® directly to the surfaces. Leave on surface, do not wipe off.
- 4a. **Minor corrosion:** Apply the DeoxIT® D-Series or DeoxIT® Marine Grease to the surfaces. DeoxIT® is unique, it will gently, without damage to metal and plastic, remove over time, the oxidation or corrosion. It may take awhile, however, DeoxIT®, is safe and will not damage materials. On moving surfaces, removal of corrosion will be faster.
- 4b. **Severe corrosion:** Depending on how severe, you may want to use a non-abrasive brush (nylon) to remove surface contamination. Then apply the DeoxIT® Marine Grease with quartz



particles (L27-MM-Q). The quartz particles will help scrub and remove the corrosion. The particles are very fine, so they will also help polish the surface. Always test on small areas to determine effectiveness.

NOTES:

a) **Sensitive Materials:** When using sprays, be careful not to spray on porous materials; guitar (pick-guard, wood, etc.). If you must use a spray, use one without solvents (D100S-2, G100S-2, F100S-L2). If you get on sensitive materials, wipe up immediately. If you need to treat the output jack, spray or wipe the jack on the cable, then plug in. Once plugged in, the DeoxIT® will treat the socket. For the strings, use DeoxIT® AxeWipes, string wipes:

https://caig.com/product/deoxit-axewipes-ax30w/

b) **Spraying inside a tight space:** Use the extension tube supplied with the spray can. If you use one of our Perfect-Straw[™] actuators (yellow straw), we have many different attachments to choose from;

https://caig.com/accessories-cloth-swabs-brushes-extension-tubes-etc/

If you use a spray can with the L-M-H valve, use the red straw.

PRODUCT RECOMMENDATIONS:

(NOTE: If a number has a second/third number, with the alphanumeric, choose one or the other)

General Use:	
1. DeoxIT® D5S-6, standard spray, 142 g	D5S-6
1a. DeoxIT® DN5S-6N, non-flammable spray, 163 g	DN5S-6N
2. TIP attachment, 45 degree	PS-SS45T
3. DeoxIT® D100L-2DB, brush applicator, 7.4 mL	D100L-2DB
3a. DeoxIT® D100L-25C, needle dispenser, 25 mL	D100L-25C
4. DeoxIT® L27-ME-6, Electrical Marine Grease, 170 g squeeze tube	L27-ME-6
4a. DeoxIT® L27-ME-14, Electrical Marine Grease, 396 g cartridge	L27-ME-14
4b. DeoxIT® L27-ME-16, Electrical Marine Grease, 453 g jar	L27-ME-16
5. DeoxIT® L27-MM-6, Mechanical Marine Grease, 170 g squeeze tube	L27-MM-6
5a. DeoxIT® L27-MM-14, Mechanical Marine Grease, 396 g cartridge	L27-MM-14
5b. DeoxIT® L27-MM-16, Mechanical Marine Grease, 453 g cartridge	L27-MM-16



With Audio/Video Equipment: (Purchase General Use, plus these)

6.	DeoxIT® Gold G100L-2DB, brush applicator, 7.4 mL	G100L-2DB
7.	DeoxIT® Gold GN5S-2N, non-flammable spray, 40 g	GN5S-2N

Medium to Severe Corrosion Applications: (Purchase General Use, plus these)

8. DeoxIT® L27-ME-Q6, Electrical Marine Grease, Quartz particles, 170 g, squeeze tubeL27-ME-Q6			
8a. DeoxIT® L27-ME-Q14, Electrical Marine Grease, Quartz particles, 396 g, cartridge	L27-ME-Q14		
8b. DeoxIT® L27-ME-Q16, Electrical Marine Grease, Quartz particles, 453 g, jar	L27-ME-Q16		
9. DeoxlT [®] L27-MM-Q6, Mechanical Marine Grease, Quartz particles, 170 g, tube	L27-MM-Q6		
9a. DeoxIT [®] L27-MM-Q14, Mechanical Marine Grease, Quartz particles, 396 g, cartridge			
L27-MM-Q14			

9b. DeoxIT® L27-MM-Q16, Mechanical Marine Grease, Quartz particles, 453 g, jar L27-MM-Q16

OPTIONAL HIGH PERFORMANCE CAIG PRODUCTS:

(NOTE: If a number has a second number, with the alphanumeric, choose one or the other)

10. HAND-E-GLOVE®, Protective Lotion, squeeze tube, 177 mL	EEP-102-06
10a. HAND-E-GLOVE®, Protective Lotion, pump, 472 mL	EEP-102-16
11. MechanicALL™ High Penetrating Anti-Corrosive Lubricant, 25 mL	M100L-25C
12. Contact Cleaner Wash, spray, General Purpose, 156 g	DCC-V511
13. Marine Screen Cleaner, for most screen surfaces, 16 oz, sprayer	MSC-504-16
13a. Marine Screen Cleaner, for most screen surfaces, One gallon re-fill	MSC-504-128
14. Equipment Cleaner & Conditioner, for most surfaces, 8 oz, sprayer	CL-ECP-08
15. Lint-Free Accessory Kit, assortment of lint-free products	K-AS10

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