



DeoxIT® D-Series

Essential Guide

Companies utilize the benefits of DeoxIT® in Manufacturing, Assembly, Maintenance and Service.



- WHICH DeoxIT® To Use?
- WHY Do I Need DeoxIT®?
- WHY is DeoxIT® Different?
- WHERE Do I Use DeoxIT®?
- DeoxIT® Advantages!
- WHY DeoxIT® For Manufacturing?
- WHY DeoxIT® For Assembly?
- WHY DeoxIT® For Service/Maintenance?



BULLETIN: C-DEG-0418
URL Link: caig.com/DEG.html

DeoxIT® D-Series - More than a Contact Cleaner!

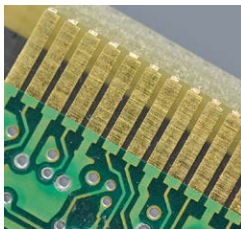
Manufacturing and atmospheric contamination causes poor performance, intermittent signals and in some cases, total device failure.

Problem with contact cleaners:

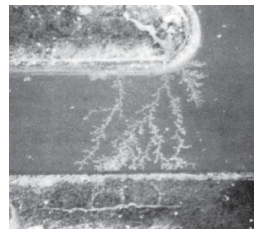
- ✗ Solvents flush away surface contamination but do not solve the problem
- ✗ Cannot remove/lift off oxides, sulfides and other contaminants, the major cause of decreased performance and failures
- ✗ Do not improve conductivity
- ✗ Most are not safe on plastics
- ✗ High waste, less eco-friendly



Corrosion you **CAN** see



Connections **APPEAR** clean
(even after using generic
contact cleaners or alcohol)



Corrosion you **CAN'T** see
(what lies beneath)

DeoxIT® Solutions:

- + Do not require solvents
- + Active ingredients chemically dissolve surface contamination (oxides and sulfides) without harm to metals and plastics
- + Increase conductivity (without causing shorts)
- + Addresses supplier cleaning issues
- + Seal & protect surfaces
- + Actively displace moisture & contaminants
- + No waste - safer for the environment
- + Work, when others do not!

Bottom Line - DeoxIT®, *Guaranteed to Improve the Performance & Reliability of ALL Equipment & Parts!*

DeoxIT® D-Series - More than a Contact Cleaner!

• WHICH To Use?

DeoxIT® D-Series is a general purpose cleaner, for all metal surfaces with oxidation and corrosion. If there is discoloration of the metal (visual signs of oxidation/corrosion) - it is considered oxidized. Use DeoxIT® D-Series to dissolve contamination, improve the connection as well as lubricate and protect the surface.

For reference, DeoxIT® has approximately 20% cleaning action.

NOTE: For plated surfaces (gold and other precious metals) or severe environments refer to the DeoxIT® Gold G-Series and DeoxIT® Shield S-Series, respectively.

• WHY Do I Need DeoxIT®?

Ever wonder why electronic or electrical devices have glitches, intermittents or data errors, or wonder how I/we can prevent this from happening?

Well, most of the time it is caused by ONE of the thousands of metal connections in the system or device. All electronic connections deteriorate which cause reduced performance or perhaps total failure.

SOLUTION:

DeoxIT® D-Series contact cleaner. It's a fast-acting deoxidizing solution that cleans, protects, lubricates and improves conductivity on all metal connectors and contacts.

DeoxIT® D-Series - More than a Contact Cleaner!

• **WHY is DeoxIT® Different?**

Simple contact “cleaners” wash away dirt, dust, and grime, but prove ineffective at removing oxidation and surface sulfides. These tough contaminants actually attach to and become an integral part of the contact metal. This issue causes increased unnecessary service calls for covered warranty repairs that could have been prevented, translating into literally millions of dollars of lost revenue for service organizations.

The only true method of eliminating oxidation, surface sulfides and lifting off contaminants is by chemical action and reaction without harming sensitive materials. This is one aspect separating DeoxIT® from other products, putting it in a class by itself.

• **WHERE Do I Use DeoxIT®?**

- | | |
|---|---------------------------------------|
| ✓ RCA Jacks & Plugs, Switches | ✓ DIMMS, Sockets, Edge Connectors |
| ✓ Relays, Disconnects | ✓ PCI/PCIe I/O Cards, RS232, SATA-IDE |
| ✓ HDMI, Composite Video, DVI, VGA | ✓ All Equipment Interconnects |
| ✓ XLR, MIDI, Banana, Molex, Power Cords | ✓ Test Equipment, Probes & Sockets |
| ✓ Ethernet, Coax, BNC | ✓ Light Bulbs & Sockets |
| ✓ USB, FireWire, Lightning, Thunderbolt | ✓ Batteries and Chargers |

DeoxIT® D-Series - More than a Contact Cleaner!

• **DeoxIT® Advantages!**

- ✓ Improves Conductivity
- ✓ Deoxidizes, Cleans, Lubricates & Protects
- ✓ Reduces Intermittent Connections
- ✓ Prevents Dendrite & Fretting Corrosion
- ✓ Reduces Arcing & RFI
- ✓ Reduces Wear & Abrasion
- ✓ Temperature Range,
-34°C (-29°F) to +200°C (392°F)

- ✓ Under vibration DeoxIT® continues to work
seals and re-seals surfaces
- ✓ Unlike other products,
Does NOT require solvents
- ✓ Works when others do not
- ✓ Long-Lasting and will not dry out

• **WHY DeoxIT® for MANUFACTURING!**

Many raw materials and components are produced around the world. Quality control from multiple sources becomes very difficult to manage and verify prior to assembly, test, package and shipment to the end customer. Using DeoxIT® in the manufacturing process can help ensure component integrity until the assembly process begins.

- ✓ Improves part performance
- ✓ Maintains part specifications and integrity
- ✓ Addresses supplier cleaning issues
- ✓ Protects metal surfaces in transit
- ✓ Protects surfaces in storage
before assembly

DeoxIT® D-Series - More than a Contact Cleaner!

• **WHY DeoxIT® for ASSEMBLY!**

When parts and devices are manufactured in remote locations, it is almost impossible to ensure the connections are clean and ready for equipment assembly. Once ready for assembly, DeoxIT® is instrumental in final cleaning, protecting and ensuring product performance and integrity.

- ✓ Provides an extra step, insuring that metal connections are CLEAN and PROTECTED
- ✓ Lubricates & protects surface during assembly and test
- ✓ Improves connection performance
- ✓ Protects integrity & reliability of equipment
- ✓ Long-lasting and safe to use

• **WHY DeoxIT® for SERVICE/MAINTENANCE!**

Over time all electronic connections deteriorate which can cause reduced performance or perhaps total failure. If only one of the thousand connectors in a system becomes intermittent or fails, then the equipment will cause errors, misreadings, noise, distortion, reboots, non starts or total failure.

- ✓ Brings systems back to life!
- ✓ Rejuvenates part/equipment back to original specifications
- ✓ Restores reliability & dependability
- ✓ Reduces equipment downtime, especially on warranted equipment
- ✓ Save costly repairs or replacement

DeoxIT® D-Series - More than a Contact Cleaner!

• Many Applicators to Choose From!



#D5S-6
5% DeoxIT® Solution
Solvent provides
- Flushing Action
- Slow evaporation



#DN5S-6N
5% DeoxIT® Solution
Solvent provides
- Quick Dry / Non-Drip
- Fast evaporation
- Non-flammable



#D100S-2
100% DeoxIT® Solution
Provides
- 100% DeoxIT®
- Metered one-shot valve
- Non-flammable



#DN5S-2N
5% DeoxIT® Solution
Solvent provides
- Quick Dry / Non-Drip
- Adjustable Valve
- Non-flammable
- Retail package



#D100L-25C
100% DeoxIT® Solution
Provides
- 100% DeoxIT®
- Precision Needle Dispenser
- Non-flammable



#D100L-2DB
100% DeoxIT® Solution
Provides
- 100% DeoxIT®
- Brush Applicator
- Non-flammable

DeoxIT® D-Series - More than a Contact Cleaner!



GREAT OEM Solutions

100% DeoxIT® Solution

Provides

- 100% DeoxIT®
- Brush or Squeeze tube
- Non-flammable

#D100L-16BX (brush, 1.6 mL)

#D100L-2C (tube, 2.0 mL)



#D50W

DeoxIT® WIPES, 50 count

Provides

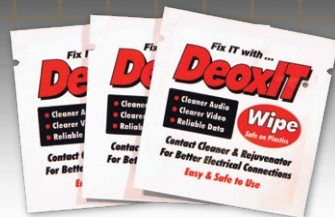
- 100% DeoxIT®
- Cotton cloth
- Threaded jar
- Non-flammable

#D100P

DeoxIT® PEN

Provides - 100% DeoxIT® - Replaceable cleaning tips

- Non-flammable



#D1W

DeoxIT® Individual WIPES

100% DeoxIT® - Synthetic cloth

- Non-flammable



BULK SIZES

Standard 5% and 100%

DeoxIT® Solution

- Custom % available

944 mL

5 gal

55 gal

DeoxIT® D-Series - More than a Contact Cleaner!

- **Important DeoxIT® Take-Aways!**

- ✓ DeoxIT® is Unique –
It improves the performance & reliability of ALL equipment, Guaranteed!
- ✓ Use DeoxIT® anywhere metal conducts electricity
Virtually unlimited applications in all industries!
- ✓ Safe to Use & Excellent Materials Compatibility!
- ✓ Economical and Long-Lasting –
Fractions of pennies per application!

- **NEW DeoxIT® Grease**
Infused with DeoxIT® D-Series

**For Heavy Duty
Mechanical &
Electrical Uses.**



Tech Bulletin: TB-DG260-18.pdf
URL Link: caig.com/DG260.html



Audio/Video



Computers



Automotive



Communications



Marine



Electrical



Energy



Photography



Security



Medical



Avionics

• Need Help Selecting DeoxIT® Products?

Need help deciding which product and applicator is ideal for your application?

Visit our site for an interactive DeoxIT® Selection Guide and/or fill out one of our detailed questionnaires for a specific recommendations from one of CAIG's experts!

- + Manufacturing
- + Assembly/Install
- + Service/Maintenance
- + Special/Unique applications

Visit: www.caig.com/hsd.html

Make connections the strongest link in your devices, equipment and systems!



DeoxIT® Product Selection Questionnaire

Form # CQ-SERV15 - SERVICE/MAINTENANCE

Make connections the strongest link in your devices, equipment and systems!

* Required fields

* Name
* Title
* Company
Web Address
City, State, Zip

* Industry

* Is product for?

- ☐ Metal electronic connections
- ☐ Conductive plastic faders / controls
- ☐ Carbon-based controls

* Conductive materials?

- ☐ Ferrous metals (tin, nickel, steel, stainless, etc.)
- ☐ Non-ferrous metals (gold plated, copper, bronze, brass, etc.)
- ☐ Ferrous metal over copper base-metal
- ☐ Conductive plastic only
- ☐ Conductive plastic and metal
- ☐ Other (specify in Additional Info below)

* Have connections been cleaned/treated yet? ☐ Yes ☐ No

Cleaned or treated with what and how?

* How severe is oxidation/corrosion on the surface?

- ☐ Slight oxidation (Maybe visible or may not)
- ☐ Moderate oxidation (Definitely visible)
- ☐ Severe oxidation (Deterioration of metal visible)

* Environment device or equipment will be exposed to when in operation?

- ☐ Clean room or similar
- ☐ Mild (household, office, etc.)
- ☐ Severe (high salt)

Submit

• What the Industry Experts Say!

PROFESSIONAL EXPECTATIONS EXCEEDED WITH DeoxIT®

I just built a recording rack for Paul McCartney and it had a problem at the time of the first show. I had tested the system before it left the shop, and the two Tascam MX-2424's, a Berhinger DDX-3612, a Rosendahl Time word clock generator, and 72 Glyph Hard Drives all worked at the shop. Two hours before the show, I found myself trying to get the system up and going.

One of the Tascam units had stopped working, and I could not understand why! I was in panic. It was a sold out show, and people started getting seated. The unit had a flash memory card in it, and I figured that since it was locking up on start, there had to be a problem with the card. It was not loading the data, so I used some DeoxIT® D-Series contact cleaner on the contacts, wiped it off, then use the DeoxIT® Gold solution. I then tried it again, and IT WORKED! The memory was reloaded, and the show was recorded as planned.

I am an avid DeoxIT® customer and always will be. I use it along with the DeoxIT® Gold and DeoxIT® Fader (FaderLube) on controls and switches on outboard gear, as well as audio consoles worth well over \$250,000. I will always use DeoxIT®, and now our whole company uses it as well. We use it for tours like the Rolling Stones, Paul McCartney, Incubus, and AC/DC, to name a few. We also use it on the equipment for theater shows like Riverdance and Barney.

DeoxIT® can be trusted around the world, and let me tell you it is! Thanks CAIG for such a great product. You saved us more than once!

D. Ranshaw, Service Manager, db Sound

SUPPLIER CLEANING ISSUE SOLVED with DeoxIT®!

We identified that we were having significant supplier cleaning issues on many of our component interconnects that were leading to higher rates of failures for our customers in some cases. An investigation was launched to improve the quality of our interconnects. We performed environment testing, system testing, and field testing on our most problematic systems. We determined that applying the DeoxIT® D-Series dramatically improved the performance and reliability of our interconnects on our servers. The two year investigation included a full blown qualification of the DeoxIT® D-Series product on

our assemblies, memory dimms, and memory connectors and the results passed all of our testing with flying colors!

The CAIG Team has and continues to be a tremendous asset, working with our team to develop tools and a process of implementing the cleaning process to our manufacturing facilities worldwide. It has been very clear that CAIG has our customers and our companies best interest in mind in creating a method of improving the reliability of our products in a very cost effective manner. Personally, their customer service and technical expertise is second to none – it continues to be a pleasure working with them!

Chuck C. - Master Quality Engineer, HPE Servers

"CONTACT CLEANERS KEEP TRYING"

Recently, a rep from another chemical company sent me a sample can of their new contact cleaner, promising to "blow away DeoxIT® D5, at a cheaper price". I moistened a swab with THEIR cleaner, and took it to one-half of the dirty edge connector pads on a nasty looking PCB. It barely touched it. I repeated the process with DeoxIT® D5. It removed the oxidation immediately and the device has worked perfectly ever since.

John R. Frondelli, Tech Services Director, dBm Services

"FOR SERVICING OF ELECTRONICS THESE PRODUCTS ARE INDISPENSABLE."

I have used CAIG products over the last 30 some years. DeoxIT® D5 Contact Cleaner, DeoxIT® F5 Fader, and DeoxIT® Gold Pro Gx3 are all indispensable when servicing older units with dirty or intermittent mechanical switches and controls. DeoxIT® Gold Pro Gx3 is the only solution for cleaning dirty tube pins that I have found and it will not turn to gunk under the high temperature of the vacuum tube pins. For servicing of electronics these products are indispensable.

... Thanks, CAIG Labs!

Ron Cornelius, McIntosh Labs

• Our Customers are Our Best Advocates!

Bose Corporation

DeoxIT® D-Series is an excellent product for removing oxidation and contamination from dirty switches & controls and reducing intermittent contact problems. We have been using CAIG products with great success for over 40 years.

Diebold, Incorporated

We have been using CAIG products since 1980 on our automated teller machines to help ensure reliable performance.

General Electric

We were having trouble with edge connectors in our manufacturing environment until we tried DeoxIT® Gold Wipes great product.

Honeywell Inc.

CAIG's DeoxIT® D-Series is great stuff. We use it on feedback slidewires, edge connectors, & relay contacts in industrial process controls.

Rane Corporation

People call me daily asking for recommendations for cleaners and lubricants. Most everyone has tried something less than DeoxIT®, and after using what we authorize, the results are always positive, sometimes bordering on miraculous.

Tektronix

We use DeoxIT® Gold Wipes to protect virgin edge connectors, DeoxIT® D-Series contact cleaner to eliminate intermittent problems on primitive tin-to-tin connectors (which tend to vibrate) and will be using DeoxIT® Gold in the field for gold connectors excellent products.

Xerox Corporation

Corrosion problems on very sensitive connectors have been an annoying problem for us. We have tried many products without success until we tried CAIG's DeoxIT® D-Series and DeoxIT® Gold. They are the only products that have worked perfectly. We highly recommend them.

American Airlines

Amtrak

Black & Decker

BMW

Boeing

Bombardier

Bose

Caterpillar

Crown Lift Trucks

Daktronics

Defense General

Delta Airlines

Diebold

Emerson Electric

FAA

Federal Express

Ford

Foxconn

General Dynamics

General Atomics

Google

Harley Davidson

Harman Kardon

Hewlett-Packard

Honda

Honeywell

IDI Interconnect

Ingersoll Rand

Intel

Inventec Corp.

Jet Propulsion Labs

John Deere

Johnson Controls

L-3 Communications

Logitech

McIntosh Labs

Microsoft

NASA

Northrop Grumman

Peavey Electronics

Philips Medical

Pratt & Whitney

Rane Corporation

Raytheon

Roland

Schindler Elevator

Switchcraft

Tektronics

Tyco Electronics

Union Pacific Railroad

UPS

Xerox

Zero Motorcycles

And thousands more



CAIG Laboratories, Inc.

12200 Thatcher Court, Poway, CA 92064 U.S.A.

P: 800/224-4123, 858/486-8388 | **E:** info@caig.com

W: www.caig.com | www.deoxit.com

CAIG Bulletin: C-DEG-0418