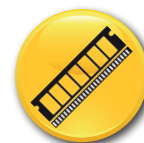




COMPUTERS 1-2-3



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

Improve and protect the performance and reliability of Computer Equipment; Computer Components & Peripherals, Printers, Scanners, Monitors, Cables, Video Cards, Adapters, I/O, CPUs, SPI Boards, DIMM Memory Carrier, DIMMs, Memory Cards, Hard Drives, HDMI, USB, DisplayPort, Thunderbolt, COAX, Ethernet, Internal/External Cables & Connectors, and many more!

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](#).

ALSO, KEEP IN MIND:

Computers and computer components are used in just about every industry and product; audio/video, automotive, transportation, communications, marine, electrical, energy, photography, security, medical, heavy equipment, avionics, etc.

If you are already familiar with how to use CAIG products and just need product and applicator suggestions, Go To Page 7 for recommendations.

We have categorized the Computer 1-2-3 into three segments.

We realize their could be more, please email us with questions.

- A) Manufacturing 1-2-3
- B) System Installation 1-2-3
- C) Service/Maintenance 1-2-3





Audio/Video



Computers



Automotive



Communications



Marine



Electrical



Energy



Photography



Security



Medical



Avionics

Preliminary Information:

Just a brief explanation on the different segments. The use of the DeoxIT® products in these segments can, at times, overlap depending on the size of the operation. This document is meant as a guide to help you use DeoxIT® to maximize the performance and reliability of your products/equipment. Manufactures save hundreds of millions of dollars utilizing our products.

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 three 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

Manufacturing/Assembly:

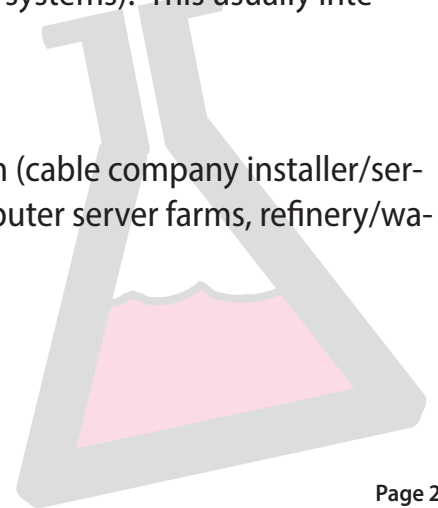
For computers, this can take on several categories. Making of the actual parts (DIMMs, sockets, cables/connectors, etc. It also can be categorized as manufacturing (configuring) of the system itself. Most manufacturers have subcontracters build systems to suit their customers needs. These operations can be anywhere it the world. Depending on how

System Installation:

System installations can cover from the very small (minature robotics and communications) to very large systems (server farms, automotive plants, high rise communication systems). This usually integrates many different systems into one cohesive master system.

Service/Maintenance:

This segment can cover many areas also, from the local service technician (cable company installer/service, marine service center) to very large service companies/teams (computer server farms, refinery/water treatment plants).





Audio/Video



Computers



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A. Manufacturing 1-2-3

Products Recommended: DeoxIT® D-Series and DeoxIT® Gold

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

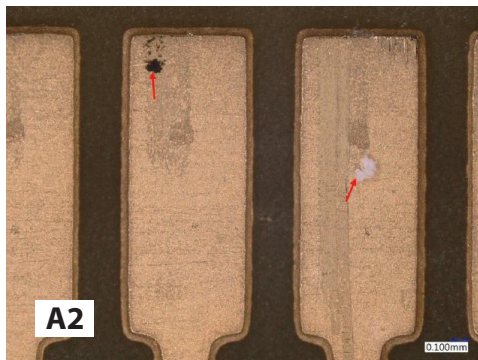
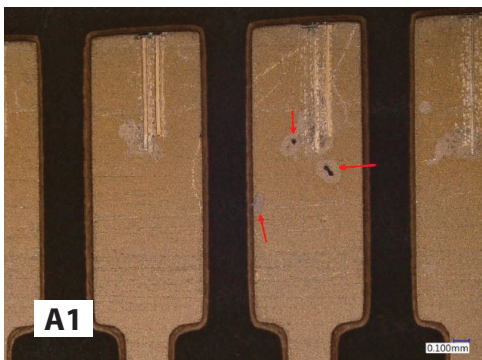
1. Materials involved - which conductive material (nickel, tin, silver, steel, gold, copper, etc.)
2. Presence of any oxidation or contaminants (flux, oil, blood, skin, tape, ear wax, glue, etc.)
3. Any sensitive materials or components
4. Country/location of treatment
5. How DeoxIT® will be applied (spray, wipe or dipped)

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*.
If it is a ferrous metal (white color; nickel, tin, silver, steel, etc.) - Select DeoxIT® D-Series and/or DeoxIT® Shield.

* Exception. If the surfaces have extreme contamination (see images A1-A4), DeoxIT® D-Series is recommended. Provides better cleaning action on surfaces.

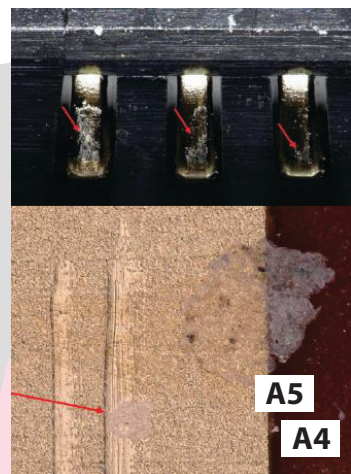


2. Presence of contamination:

- a) Very severe: Use the DeoxIT® D-Series.
- b) Severe: Use the DeoxIT® D-Series.
- c) Minor: Use 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.

3. Sensitive materials:

Areas or products with sensitive materials, we recommend not using non-approved aerosols. Solvents may effect materials, especially on older





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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 7.

DeoxIT® sprays have been field tested for years, and are approved on most surfaces.

See recommendations on Page 7.

4 . Country/location of treatment:

Depending on which country, labor source and manufacturing processes, will depend on applicator recommendations. Refer to #5 and select best option for your needs.

5 . How DeoxIT® will be applied:

Depending on labor source and manufacturing processes, the following are the most recommended products for applying DeoxIT® D-Series and DeoxIT® Gold G-Series.

a) **Wipe method.** Fold the wipe, then wipe edge of connectors. This will treat the connectors and remove stubborn contaminants if present. Folding wipe in quarters will prevent fraying of cloth. Ideal for circuit board edge connectors, DIMM connectors, etc.

Part Nos.: D50W, D100W-3X3, G50W, G100W-3X3.

b) **Pen method.** For surfaces with severe contaminants (DIMM connectors with flux, wax, etc.), using the DeoxIT® pens will help provide safe scraping action to the surfaces.

Part Nos.: D100P and G100P.

c) **Spray method.** For quick application of DeoxIT® for hard to access and flushing action. Ideal for all DIMM and other sockets, COAX/Ethernet connectors, etc.

Part Nos.: DN5S-6N, DN5S-2N, DN5S-6N-LMH, GN5S-6N, GN5S-2N

d) **Dip method.** For large volumes of parts, we recommend creating a tool or bath to enable dipping the edge connectors or other connectors. This system would utilize a 10% solution of DeoxIT® in alcohol. The tool should provide some wiping action to help assist removing stubborn contaminants off the surfaces. See figure A5 as an example we helped develop for a customer.

* Part Nos.: D10L-4 (4 oz. wide mouth bottle),
D10L-32 (32 oz.), D10L-5G (5 gal.),
G10L-4 (4 oz. wide mouth bottle), G10L-32 (32 oz.),
G10L-5G (5 gal.).

* Custom order products. Contact CAIG for details.





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B. System Installation 1-2-3

Products Recommended: DeoxIT® D-Series, DeoxIT® Gold, DeoxIT® L260D Grease.

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

1. Were parts/connectors treated with DeoxIT® - Refer to Manufacturing 1-2-3.
2. Time duration since parts were manufactured or treated with DeoxIT®.
3. Location/environment the system will operating.
4. Is this a new system or repair/refurbish.

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

1. Were parts/connectors treated with DeoxIT®:

If parts/connectors were NOT treated with DeoxIT®, please refer to the previous section, "How DeoxIT® will be applied" and use the best method for treatment.

2. Time duration since manufactured or treated with DeoxIT®:

This maybe subjective. If the parts have been exposed to severe environmental conditions (unprotected packaging on a ship for a long period of time) or in storage for a length of time, re-application of DeoxIT® maybe necessary before assembly. Inspect parts to determine if re-application is necessary.

3. Location/environment system will be installed:

This can have many extremes. For example, are the systems operating in a clean room environment or on a naval or cruise ship? Here are general recommendations. Contact us for additional information.

a) **For systems used in the home, office, shop or normal manufacturing environment, we recommend:**

If it is a non-ferrous metal (yellow color; gold, copper, bronze, etc.) - **Select DeoxIT® Gold Series***.

If it is a ferrous metal (white color; nickel, tin, silver, steel, etc.) - **Select DeoxIT® D-Series.**

* **Exception.** If the surfaces have extreme contamination (see images A1-A4), DeoxIT® D-Series is recommended. Provides better cleaning action on surfaces.

b) **For systems used in more severe environments** (heavy industrial, higher humidity, pollutants, etc.) - **Select DeoxIT® D-Series.**

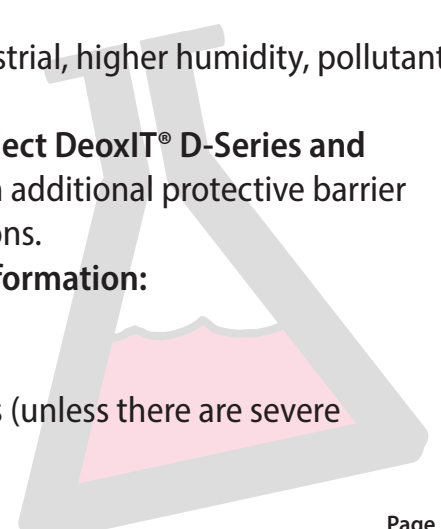
c) For extreme conditions (outdoor, severe conditions, etc.) - **Select DeoxIT® D-Series and Select DeoxIT® L260D Grease.** The greases should be used an additional protective barrier from the environment on electrical and mechanical connections.

Refer to the Grease "Technical Guide" and "Test Data" for information:

<https://caig.com/deoxit-grease-landing/>

4. Is this a New system or Repair/Refurbish:

For new systems we would recommend the standard applicators (unless there are severe contaminants). Use the spray or wipe applicators.





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For systems that are being repaired/refurbished you may require additional cleaning applicators, such as our pens, non-abrasive nylon cleaning brush and a general contact cleaning wash. Part Nos.: D100P, G100P, AB-25 (nylon brushes), DCC-V511 (Contact Cleaner Wash), DDW-V611 (Heavy Duty Electronic Cleaner), DFW-V711 (Flux Wash).

C. Service/Maintenance 1-2-3

Products Recommended: DeoxIT® D-Series, DeoxIT® Gold, DeoxIT® L260D Grease.

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

1. Try to determine from the customer the location/environment the system was operating.
2. How dirty/oxidized are the components.
3. Based on questions 1 and 2, give a recommended DeoxIT® re-treatment time interval for optimal performance.
4. Provide recommended CAIG products to have on hand for service/repairs.

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

1. Location/environment:

Once determined, follow the instructions in the previous section - "3. Location/environment system will be installed".

2. How dirty/oxidized are the components:

Once determined, follow the instructions in the previous section - "3. Location/environment system will be installed".

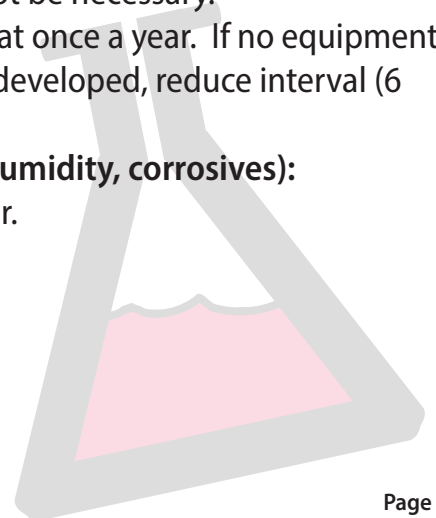
3. Try to get a maintenance history for the equipment. This will help you determine the time interval for re-treatment. If history is unknown, make a judgement on where the equipment will be located. Use the following as a general starting point guide.

a) **Clean room or Very Clean Environment:** Wait until any connector issues develop, then reduce time interval. In very clean environments, re-treatment may not be necessary.

b) **Home, Office, Shop or Manufacturing (normal or severe):** Treat once a year. If no equipment issues due to connections, increase interval (2 years). If issues developed, reduce interval (6 months).

c) **Systems used in more severe environments (outdoor, high humidity, corrosives):**

You can start at 6 month or one year, then adjust as errors occur.





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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 number, with the alphanumeric, choose one or the other)

General Use:

1. DeoxIT® DN5S-6N, non-flammable spray, 163 g
- 1a. DeoxIT® DN5S-6N-LMH, non-flammable spray, L-M-H valve, 163 g
2. TIP attachment, 45 degree (for DN5S-6N)
3. DeoxIT® D100L-2DB, brush applicator, 7.4 mL
4. DeoxIT® D50W, wipes, 50 each
5. DeoxIT® D1W, wipes, individual, 50 pack
6. DeoxIT® Pen, 7 mL
7. DeoxIT® Gold GN5S-6N, non-flammable spray, 163 g
8. DeoxIT® Gold G100L-2DB, brush applicator, 7.4 mL
9. HAND-E-GLOVE®, Protective Lotion, squeeze tube, 177 mL
- 9a. HAND-E-GLOVE®, Protective Lotion, pump, 472 mL

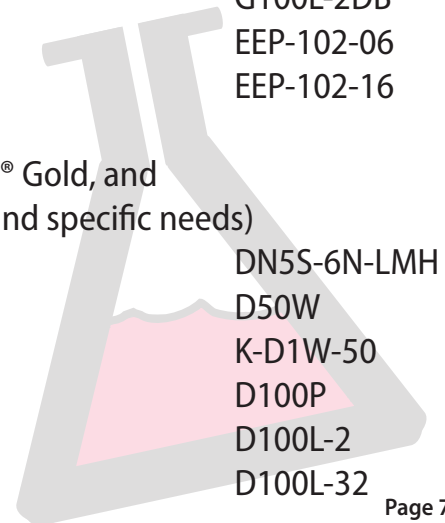
Purchase

- DN5S-6N
- DN5S-6N-LMH
- PS-SS45T
- D100L-2DB
- D50W
- K-D1W-50
- D100P
- GN5S-6N
- G100L-2DB
- EEP-102-06
- EEP-102-16

Manufacturing: (Select which ever product, DeoxIT® D-Series/DeoxIT® Gold, and applicator which fits your requirements)(Contact CAIG for questions and specific needs)

1. DeoxIT® DN5S-6N-LMH, non-flammable spray, L-M-H valve, 163 g
2. DeoxIT® D50W, wipes, 50 each
- 2a. DeoxIT® D1W, wipes, individual, 50 pack
3. DeoxIT® Pen, 7 mL
4. DeoxIT® D100L-2, 100% liquid, 59 mL
- 4a. DeoxIT® D100L-32, 100% liquid, 944 mL

- DN5S-6N-LMH
- D50W
- K-D1W-50
- D100P
- D100L-2
- D100L-32





Audio/Video



Computers



Automotive



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Marine



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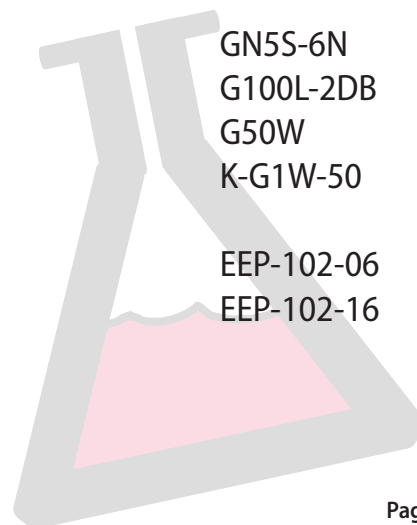


Avionics

- | | |
|--|------------|
| 4b. DeoxIT® D100L-5G, 100% liquid, 5 gal. | D100L-5G |
| 5. DeoxIT® D5L-4A, 5% liquid, 118 mL | D5L-4A |
| 5a. DeoxIT® D5L-32A, 5% liquid, 944 mL | D5L-32A |
| 5b. DeoxIT® D5L-FGA, 5% liquid, 5 gal. | D5L-5GA |
| 6. DeoxIT® Gold GN5S-6N, non-flammable spray, 163 g | GN5S-6N |
| 7. DeoxIT® Gold G1W, wipes, individual, 50 pack | K-G1W-50 |
| 8. DeoxIT® Gold G100L-2, 100% liquid, 59 mL | G100L-2 |
| 8a. DeoxIT® Gold G100L-32, 100% liquid, 944 mL | G100L-32 |
| 8b. DeoxIT® Gold G100L-5G, 100% liquid, 5 gal. | G100L-5G |
| 9. DeoxIT® Gold G5L-4A, 5% liquid, 118 mL | G5L-4A |
| 9a. DeoxIT® Gold G5L-32A, 5% liquid, 944 mL | G5L-32A |
| 9b. DeoxIT® Gold G5L-5GA, 5% liquid, 5 gal. | G5L-5GA |
| 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 |

System Installation: (Select which ever product, DeoxIT® D-Series/DeoxIT® Gold, and applicator which fits your requirements)(For large volume treatments refer also to Manufacturing)

- | | |
|--|-------------|
| 1. DeoxIT® DN5S-6N, non-flammable spray, 163 g | DN5S-6N |
| 1a. DeoxIT® DN5S-6N-LMH, non-flammable spray, L-M-H valve, 163 g | DN5S-6N-LMH |
| 2. TIP attachment, 45 degree (for DN5S-6N) | PS-SS45T |
| 3. DeoxIT® D100L-2DB, brush applicator, 7.4 mL | D100L-2DB |
| 4. DeoxIT® D50W, wipes, 50 each | D50W |
| 4a. DeoxIT® D1W, wipes, individual, 50 pack | K-D1W-50 |
| 5. DeoxIT® Pen, 7 mL | D100P |
| 6. DeoxIT® Gold GN5S-6N, non-flammable spray, 163 g | GN5S-6N |
| 7. DeoxIT® Gold G100L-2DB, brush applicator, 7.4 mL | G100L-2DB |
| 8. DeoxIT® Gold G50W, wipes, 50 each | G50W |
| 8a. DeoxIT® Gold G1W, wipes, individual, 50 pack | K-G1W-50 |
| 9. HAND-E-GLOVE®, Protective Lotion, squeeze tube, 177 mL | EEP-102-06 |
| 9a. HAND-E-GLOVE®, Protective Lotion, pump, 472 mL | EEP-102-16 |





Audio/Video



Computers



Automotive



Communications



Marine



Electrical



Energy



Photography



Security



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Avionics

Service/Maintenance: (Select which ever product, DeoxIT® D-Series/DeoxIT® Gold, and applicator which fits your requirements)(For large volume treatments refer also to Manufacturing)

- | | |
|--|-------------|
| 1. DeoxIT® DN5S-6N, non-flammable spray, 163 g | DN5S-6N |
| 1a. DeoxIT® DN5S-6N-LMH, non-flammable spray, L-M-H valve, 163 g | DN5S-6N-LMH |
| 1b. DeoxIT® DN5S-2N, non-flammable mini-spray, 40 g | DN5S-2N |
| 2. TIP attachment, 45 degree (for DN5S-6N) | PS-SS45T |
| 3. DeoxIT® D100L-2DB, brush applicator, 7.4 mL | D100L-2DB |
| 4. DeoxIT® D50W, wipes, 50 each | D50W |
| 4a. DeoxIT® D1W, wipes, individual, 50 pack | K-D1W-50 |
| 5. DeoxIT® Pen, 7 mL | D100P |
| 6. DeoxIT® Gold GN5S-6N, non-flammable spray, 163 g | GN5S-6N |
| 6b. DeoxIT® Gold GN5S-2N, non-flammable mini-spray, 40 g | GN5S-2N |
| 7. DeoxIT® Gold G100L-2DB, brush applicator, 7.4 mL | G100L-2DB |
| 8. DeoxIT® Gold G50W, wipes, 50 each | G50W |
| 8a. DeoxIT® Gold G1W, wipes, individual, 50 pack | K-G1W-50 |
| 9. HAND-E-GLOVE®, Protective Lotion, squeeze tube, 177 mL | EET-102-06 |
| 9a. HAND-E-GLOVE®, Protective Lotion, pump, 472 mL | EET-102-16 |

OPTIONAL HIGH PERFORMANCE CAIG PRODUCTS:

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

- | | |
|---|----------|
| 1. Lint-Free Accessory Kit, assortment of lint-free products | K-AS10 |
| 2. Technicians Survival Kit, Excellent for display or On-the-Go | SK-IN30 |
| 3. Contact Cleaner Wash, spray, General Purpose, 156 g | DCC-V511 |
| 4. Electronics Cleaner, Heavy Duty Wash, spray, 156 g | DDW-V611 |
| 5. FLUX Wash, spray, 156 g | DFW-V711 |
| 6. Lint-Free Accessory Kit, assortment of lint-free products | K-AS10 |

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Computers 1-2-3 Information Sheet (SB-CM123, 7/2020)



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**Audio/Video Information Sheet
SB-CM123, 8/2020**

