



MAGNETO-OPTICAL DRIVE HANDLING GUIDE

Note: This handbook briefly represents notes on handling the magneto-optical drive and magneto-optical cartridge. Please use the handbook in combination with the product

REVISION RECORD

Edition	Date published	Revised contents
01	Sep., 1998	

Specification No.: C119-E075-**EN

The contents of this manual is subject to change without prior notice.

All Rights Reserved.
Copyright © 1998 FUJITSU LIMITED

This page is intentionally left blank.

PREFACE

Greater reliability has been required as the accuracy of magneto-optical (MO) drives has increased in recent years.

As MO drives become more compact and lightweight, they are more easily damaged by shocks and static electricity and may break down or lose data.

Therefore, to operate the drive in a suitable environment and ensure reliability, follow instructions in the MO Drive Operation Handling Guide.

This page is intentionally left blank.

CONTENTS

	page
PREFACE	
BASIC HANDLING INSTRUCTIONS	1
General Instructions	1
Handling of the Package	3
Cautions on Incoming Inspection.....	4
Precautions at Assembling and Testing.....	6
Cleaning	8
Packing for Transporting/Returning.....	8
SPECIFICATIONS, EQUIPMENT AND PACKING BOXES	9
Shock Standards and Reference Values	9
Recommended Tool	9
Single Packing Box.....	10
Multiple Packing Box	11

This page is intentionally left blank.

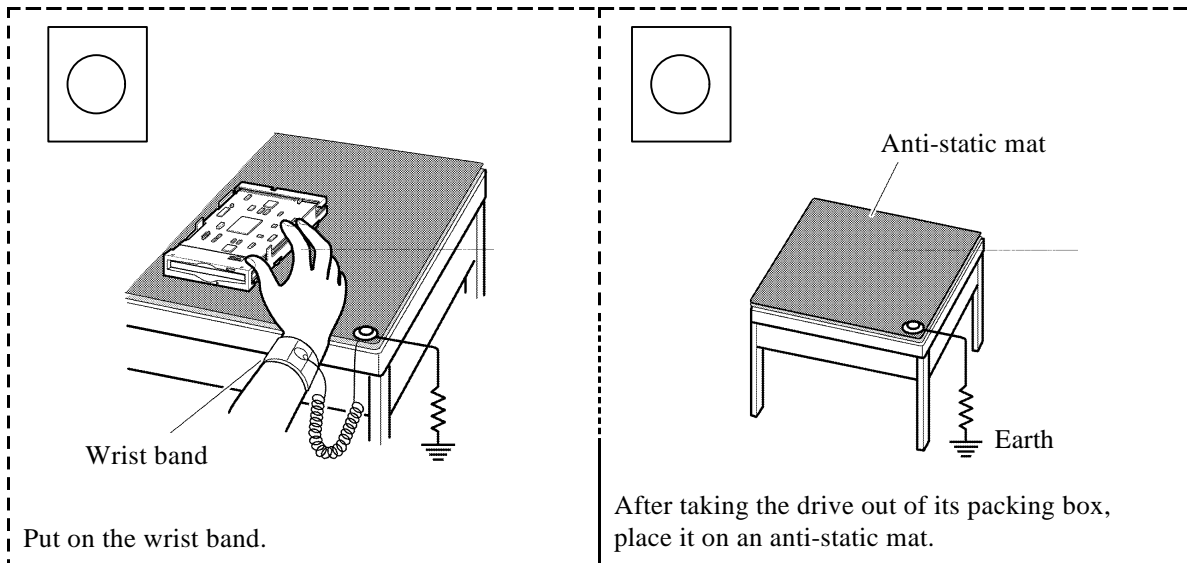
BASIC HANDLING INSTRUCTIONS

- **General Instructions**
- **Handling of the Package**
- **Cautions on Incoming Inspection**
- **Precautions at Assembling and Testing**
- **Cleaning**
- **Packing for Transporting/Returning**

- **General Instructions**

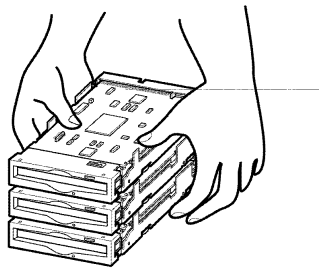
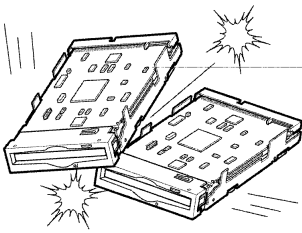
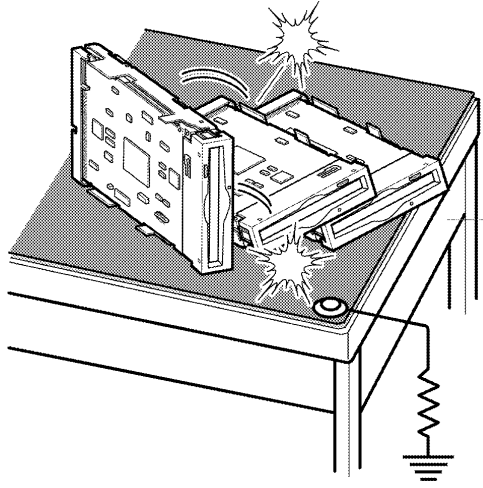
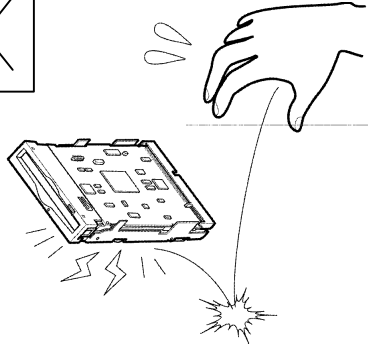
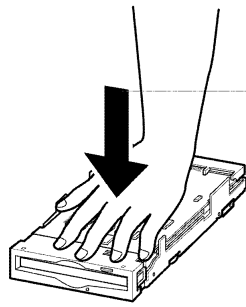
(1) Static Electricity

Handle the drive in a safe environment to prevent them from damage by static electricity. In particular, static electricity precautions must be followed after the drive is taken out of the anti-static bag. When work on the drive is complete, be sure to store it with anti-static bag.



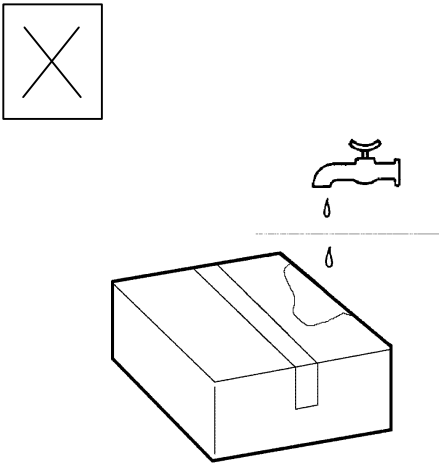
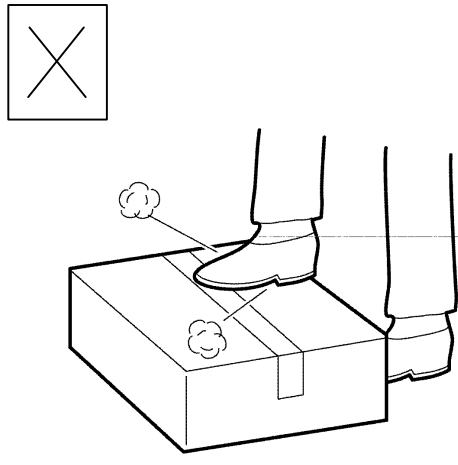
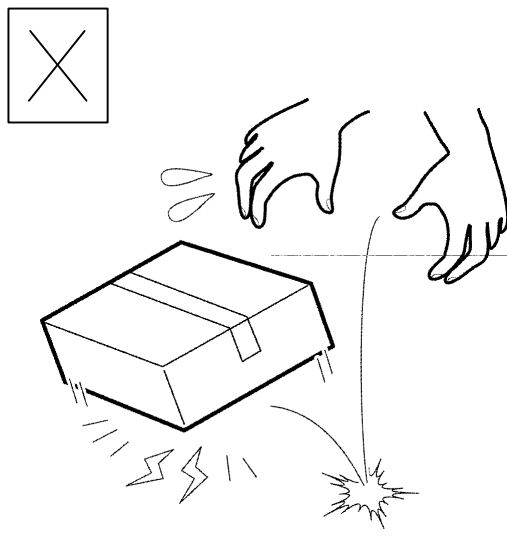
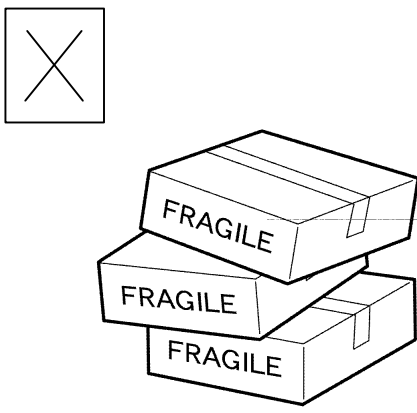
(2) Shocks and Vibrations

The drive may be damaged and data may be lost due to shocks during handling. Handle the drive with care.

 <p>Do not stack when carrying.</p>	 <p>Do not knock drives together.</p>
 <p>Do not place drive vertically to avoid falling down.</p>	 <p>Do not drop.</p>
	 <p>Do not press hands strongly on the drive.</p>

- Handling of the Package**

The drive may be damaged and data may be lost due to shocks during handling. Handle the drive with care.

 <p>Keep the packing box dry.</p>	 <p>Do not stand on the packing box.</p>						
 <p>Do not drop the packing box.</p>	 <p>Take care when stacking the packing boxes. Do not stack boxes higher than the limits below.</p> <table border="1"> <tr> <td>Master carton containing 12 single packing boxes</td> <td>8 layers</td> </tr> <tr> <td>Master carton containing 24 single packing boxes</td> <td>4 layers</td> </tr> <tr> <td>Multiple packing box (containing 20 drives)</td> <td>6 layers</td> </tr> </table>	Master carton containing 12 single packing boxes	8 layers	Master carton containing 24 single packing boxes	4 layers	Multiple packing box (containing 20 drives)	6 layers
Master carton containing 12 single packing boxes	8 layers						
Master carton containing 24 single packing boxes	4 layers						
Multiple packing box (containing 20 drives)	6 layers						

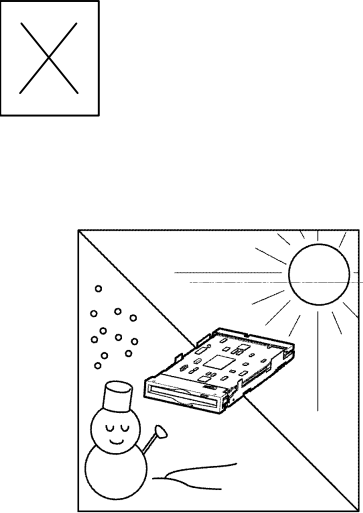
- **Caution on Incoming Inspection**

On incoming inspection, check that the packing boxes have not been damaged during transport.

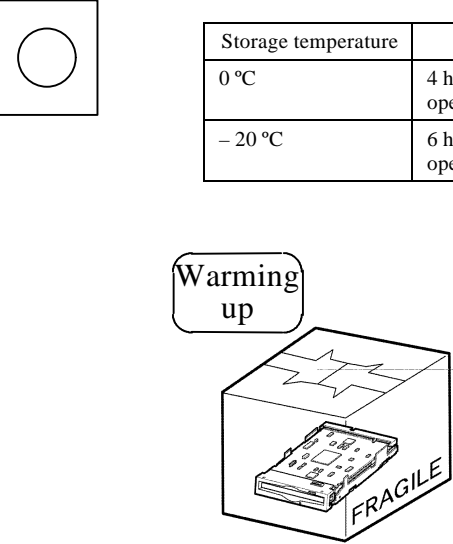
(1) Storage and Operating Environment

Opening the packing box at low temperature may cause condensation which may damage the drive. Leave the drive until it will reach room temperature before opening the package or testing the drive.

Storage temperature	Warming time
0 °C	4 hours min. at operating temperature
- 20 °C	6 hours min. at operating temperature

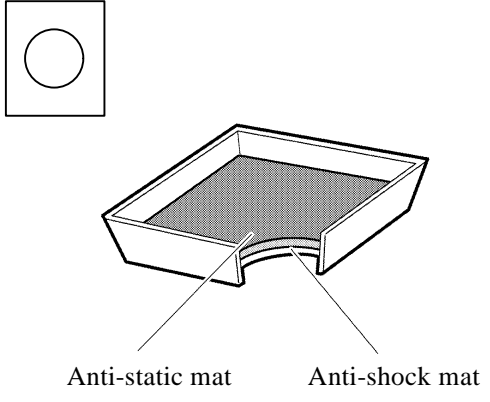
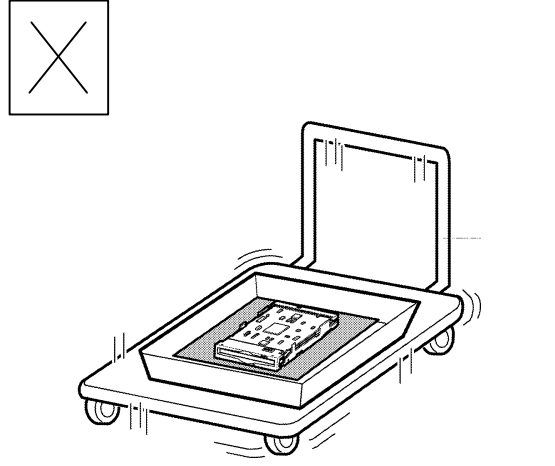
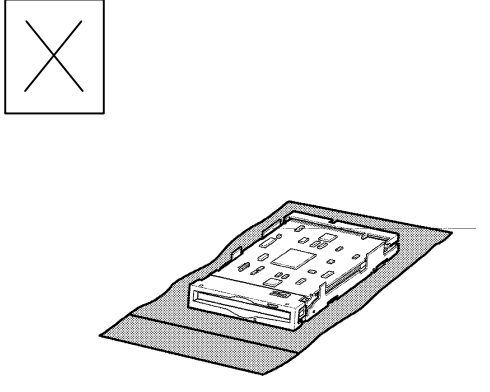
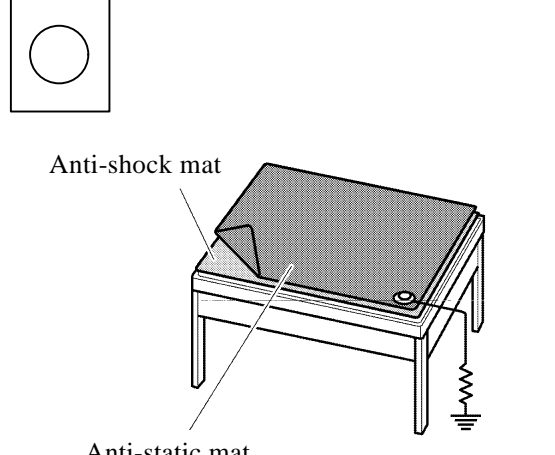


Do not leave in a hot or cold humid environment.



Leave the packing box warm to the operating temperature.

(2) Handling Drive After Unpacking

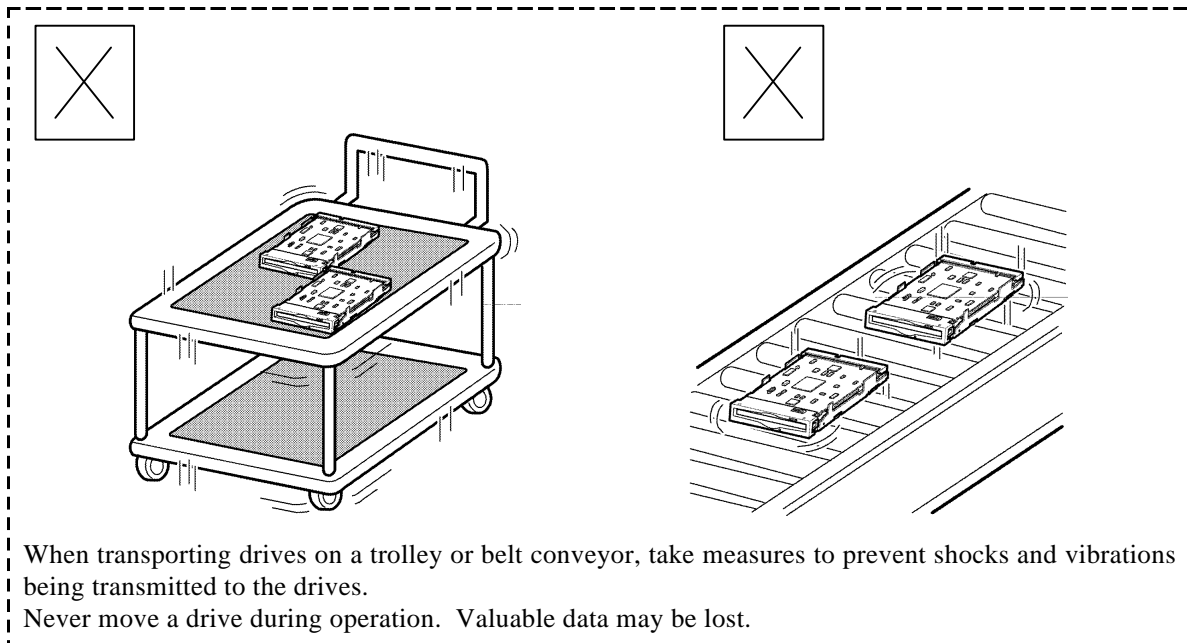
 <p>Anti-static mat Anti-shock mat</p> <p>If the drive is temporarily placed on a case after it is removed from the packing box, stick anti-static and anti-shock mats to the bottom and sides of the case.</p>	 <p>When the drive is temporarily placed on the case, make sure that shocks and vibrations are not transmitted from the floor.</p>
 <p>The anti-static effects are lost if the drive is placed on top of the conductive bag. The drive may be damaged.</p>	 <p>Anti-shock mat</p> <p>Anti-static mat</p> <p>Place the anti-shock mat on the workbench and place the anti-static mat on top of it.</p>

(3) Power Supply

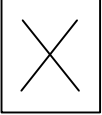
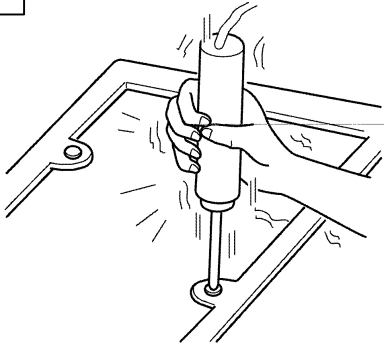
- 1) To prevent it from damage by the electrical system, do not connect or disconnect the power supply, cables, or connectors while the drive power switch is on.
- 2) When cleaning a drive, wipe the outside surfaces only, taking care that no cleaning liquid gets inside the drive.

- **Precautions at Assembling and Testing**

(1) Moving the Drive

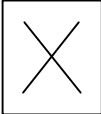
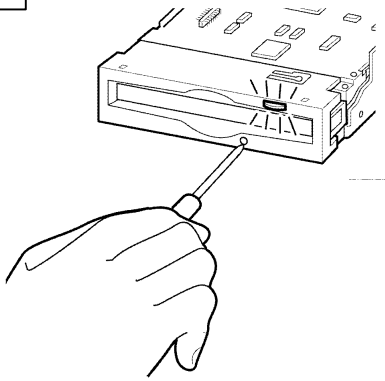


(2) Tools for Mounting and Operation

		<ul style="list-style-type: none">• Use an electric torque driver.• Do not exceed the specified torque. <p>M3 and No. 6-32UNC: 4 to 4.6 kg-cm</p> <ul style="list-style-type: none">• Recommended mounting flatness: 0.2 mm max.• System-casing clearance: 1.5 mm min.
---	---	--

(3) Handling MO Cartridge

Never manually eject the MO cartridge during operation or immediately after turning off the power. Valuable data may be lost.

	
<p>Wait at least 15 seconds after turning off the power before manually ejecting the MO cartridge.</p>	

- **Cleaning**

- (1) Cleaning the Drive

Clean the drive regularly, or the drive get performance reduction caused by contamination. The optical head is contaminated with dirt, dust, and/or tobacco smoke in the air. The cleaning frequency depends on the operating environment of the drive. As a guideline, clean the drive every 6 months. See Appendix for information on the head cleaner.

- (2) Cleaning the MO Cartridge

Clean the MO cartridge regularly, or the drive get performance reduction caused by contamination. The MO cartridge is contaminated with dirt, dust, and/or tobacco smoke in the air. The cleaning frequency depends on the operating environment of the drive. As a guideline, clean the MO cartridge every 300 operating hours, or once every 2 or 3 months. See Appendix for information on the disk cleaner kit.

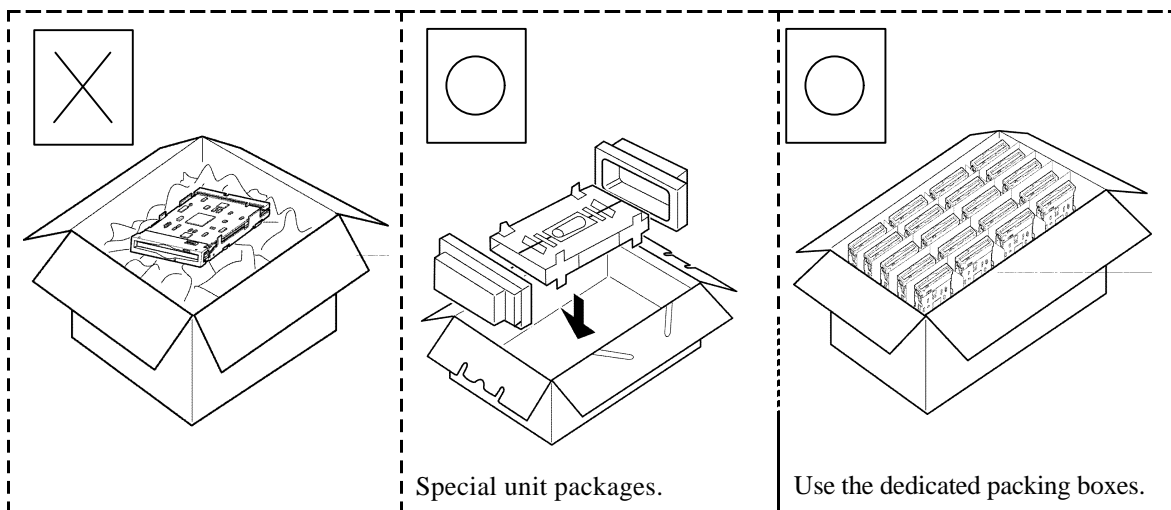
- **Packing for Transporting/Returning**

To protect the drive from shock, static-electric, or humidity damage when returning it to the manufacturer, pack it as it was received.

The drive may be unreparable if it is damaged during return to the manufacturer.

Always use the multiple packing box when transporting 20 drives, even when returning damaged drives. Use single packing boxes to return 19 or fewer drives.

Contact your local sales support office if the original packing box is not available.



SPECIFICATIONS, EQUIPMENT AND PACKING BOXES

- **Shock Standards and Reference Values**
- **Recommended Tool**
- **Single Packing Box**
- **Multiple Packing Box**

- **Shock Standards and Reference Values**

Standard	during operation: 2G
	non-operation: 50G

Reference values

Drop height	5 mm	10 mm	15 mm	20 mm
Shock test result	74 G	123 G	155 G	162 G

Measuring method:

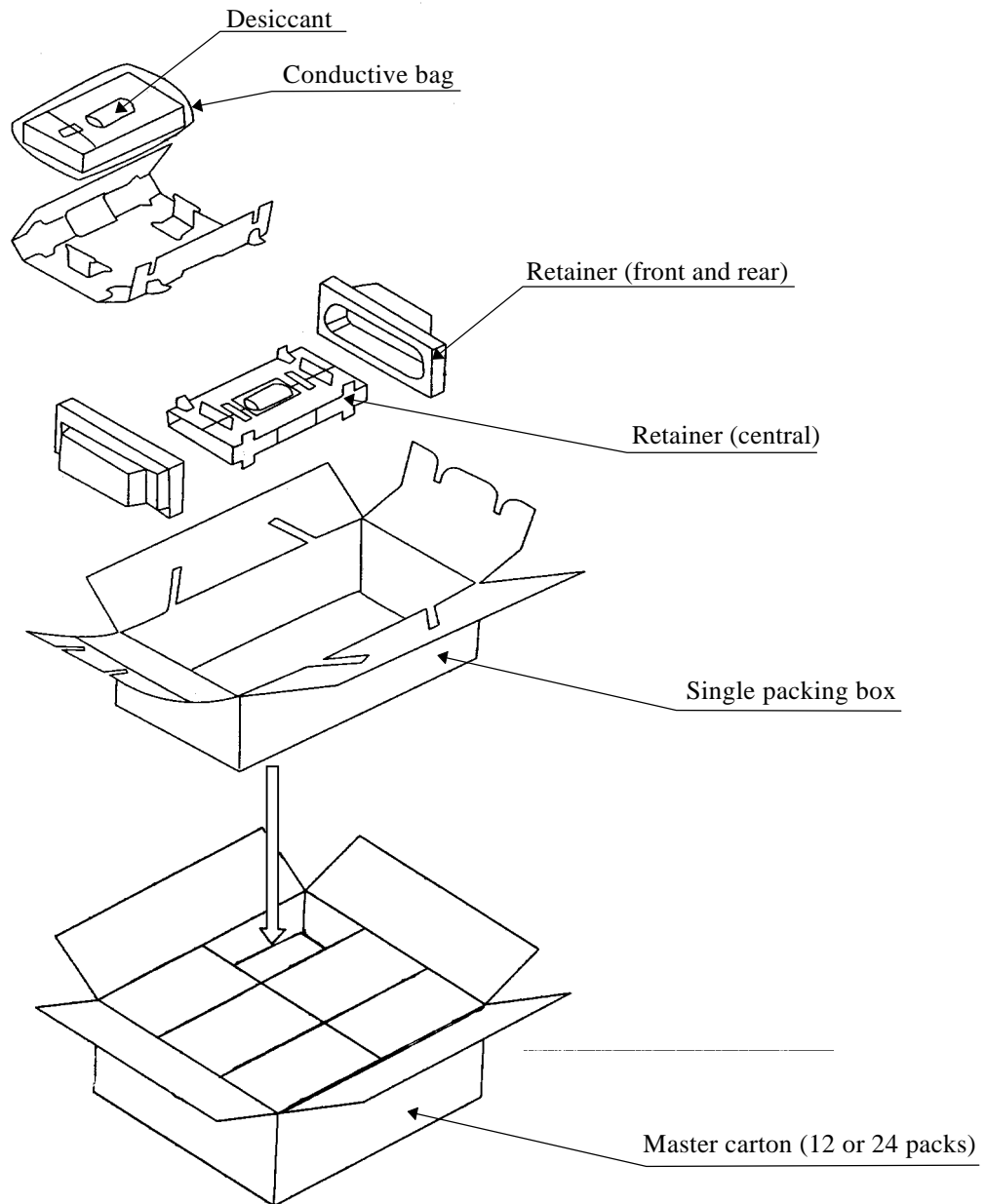
The drive is placed on a steel bench with the printed circuit board downward. Then the interface connector side is lifted up and the drive dropped. The test is repeated 5 times and the average result calculated.

- **Recommended Tool**

Description	Model
Head cleaner	CA90002-C980
Disk cleaning kit	CA90003-0702

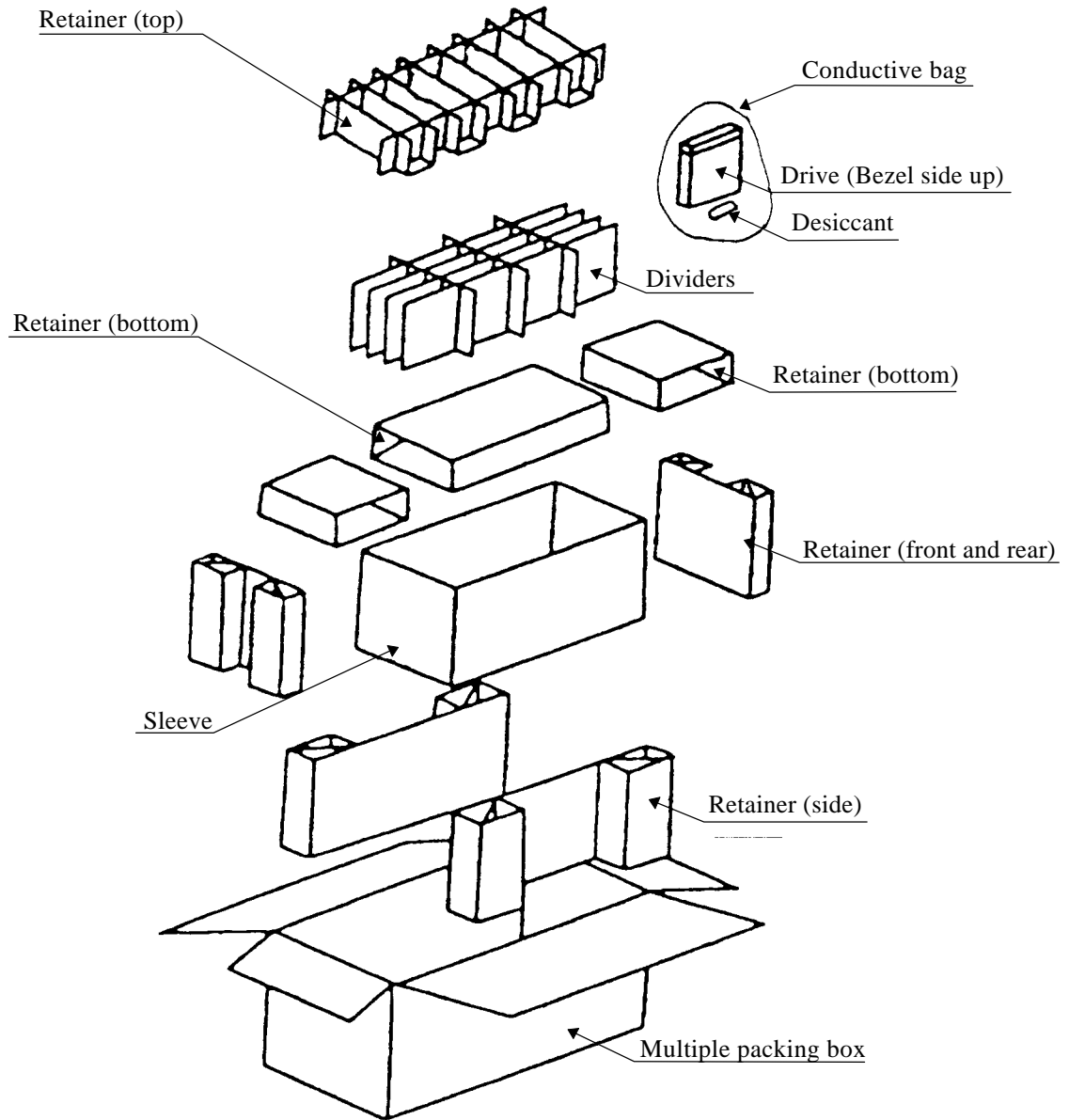
- **Single Packing Box**

- * A pulp molding is used as a shock-absorbent material in this box.
- * Single packing box can be contained in a master carton.
- * Two types of master carton are available; 12 and 24 single packing box type.



- **Multiple Packing Box**

- * Corrugated paper is used as the shock-absorbent material in this box.
- * This box contains just 20 drives.



Comments concerning this manual can be directed to one of the following addresses:

FUJITSU LIMITED

Business Planning
Solid Square East Tower
580 Horikawa-cho, Saiwai-ku, Kawasaki,
210-0913, Japan
TEL: 81-44-540-4056
FAX: 81-44-540-4123

FUJITSU COMPUTER PRODUCTS OF AMERICA, INC.

2904 Orchard Parkway, San Jose,
California 95134-2009, U.S.A.
TEL: 1-408-432-6333
FAX: 1-408-432-3908

FUJITSU CANADA INC.

2800 Matheson Blvd. East, Mississauga, Toronto,
Ontario L4W 4X5, CANADA
TEL: 1-905-602-5454
FAX: 1-905-602-5457

FUJITSU EUROPE LIMITED

2, Longwalk Road, Stockley Park, Uxbridge,
Middlesex UB11 1AB, ENGLAND
TEL: 44-81-573-4444
FAX: 44-81-573-2643

FUJITSU DEUTSCHLAND GmbH

Frankfurter Ring 211, 80807 München, GERMANY
TEL: 49-89-323780
FAX: 49-89-32378100

FUJITSU NORDIC AB

Kung Hans Väg 12, S-192 68 Sollentuna, SWEDEN
TEL: 46-8-626-6000
FAX: 46-8-626-6711

FUJITSU ITALIA S.p.A.

Via Nazario Sauro, 38 20099 Sesto S. Giovanni (MI), ITALY
TEL: 39-2-26294-1
FAX: 39-2-26294-201

FUJITSU FRANCE S.A.

I, Place des Etas-Unis, SILIC 310,
94588 Rungis Cedex, FRANCE
TEL: 33-1-41-80-38-80
FAX: 33-1-41-80-38-66

FUJITSU ICL ESPAÑA S.A.

Almagro 40, 28010 Madrid, SPAIN
TEL: 34-91-681-8100
FAX: 34-91-681-8125

FUJITSU AUSTRALIA LIMITED

2 Julius Avenue (Cnr Delhi Road) North Ryde N.S.W. 2113,
AUSTRALIA
TEL: 61-2-9776-4555
FAX: 61-2-9776-4556

FUJITSU HONG KONG LTD.

Room 2521, Sun Hung Kai Centre, 30 Harbour Road, HONG
HONG
TEL: 852-2827-5780
FAX: 852-2827-4724

FUJITSU KOREA LTD.

Coryo Finance Center Bldg, 23-6, YoulDo-Dong,
Young DungPo-Gu, Seoul, Republic of KOREA
TEL: 82-2-3787-6000
FAX: 82-2-3787-6070

FUJITSU COMPUTERS (SINGAPORE) PTE. LTD

20 Science Park Road #03-01,
TELETECH PARK SINGAPORE SCIENCE PARK II,
Singapore 117674
TEL: 65-777-6577
FAX: 65-771-5499

FUJITSU TAIWAN LTD.

8F, Hun Tai Center, 168-170, Tun Hwa North Road,
1st Sec., Taipei, TAIWAN
TEL: 886-2-545-7700
FAX: 886-2-717-4644

FUJITSU SYSTEMS BUSINESS (MALAYSIA) SDN. BHD.

Fujitsu Plaza, 1A, Jalan Tandang 204, P.O. Box 636 Pejabat Pos
Jalan Sultan
46770 Petaling Jaya, Selangor Darul Ehsan, Malaysia
TEL: 60-3-793-3888
FAX: 60-3-793-0888

FUJITSU SYSTEMS BUSINESS (THAILAND) LTD.

12th Fl., Olympia Thai Tower, 444 Rachadapisek Road,
Samsennok, Huay Kwang, Bangkok 10320, Thailand
TEL: 66-2-512-6066
FAX: 66-2-512-6068

FUJITSU