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6531-KB3TP User's Guide



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Kontron reserves the right to make changes without notice in product or component design as warranted by evolution in user needs or progress in engineering or manufacturing technology. Changes which affect the operation of the unit will be documented in the next revision of this user's guide.

► Safety Instructions

Contents

Before You Begin	ix
When Working Inside a Computer	x
Preventing Electrostatic Discharge	xi



► **Before You Begin**

Before handling the 6531-KB3TP, read the instructions and safety guidelines on the following pages to prevent damage to the product and to ensure your own personal safety. Refer to the “Advisories” section in the Preface for advisory conventions used in this user’s guide, including the distinction between Warnings, Cautions, Important Notes, and Notes.

- ◆ Always use caution when handling/operating the computer. Only qualified, experienced, authorized electronics service personnel should access the interior of the computer. The power supplies produce high voltages and energy hazards, which can cause bodily harm.
- ◆ Use extreme caution when installing or removing components. Refer to the installation instructions in this user’s guide for precautions and procedures. If you have any questions, please contact Kontron Post-Sales Technical Support.



WARNING



High voltages are present inside the chassis when the unit’s power cord is plugged into an electrical outlet. Turn off system power, turn off the power supply, and then disconnect the power cord from its source before removing the chassis cover. Turning off the system power switch does not remove power to components.

► ***When Working Inside a Computer***

Before taking covers off a computer, perform the following steps:

- 1) Turn off the computer and any peripherals.
- 2) Disconnect the computer and peripherals from their power sources or subsystems to prevent electric shock or system board damage. This does not apply when hot swapping parts.
- 3) Follow the guidelines provided in “Preventing Electrostatic Discharge” on the following page.
- 4) Disconnect any telephone or telecommunications lines from the computer.

In addition, take note of these safety guidelines when appropriate:

- ◆ To help avoid possible damage to system boards, wait five seconds after turning off the computer before removing a component, removing a system board, or disconnecting a peripheral device from the computer.
- ◆ When you disconnect a cable, pull on its connector or on its strain-relief loop, not on the cable itself. Some cables have a connector with locking tabs. If you are disconnecting this type of cable, press in on the locking tabs before disconnecting the cable. As you pull connectors apart, keep them evenly aligned to avoid bending any connector pins. Also, before connecting a cable, make sure both connectors are correctly oriented and aligned.



CAUTION

Do not attempt to service the system yourself except as explained in this user's guide. Follow installation and troubleshooting instructions closely.



► **Preventing Electrostatic Discharge**

Static electricity can harm system boards. Perform service at an ESD workstation and follow proper ESD procedure to reduce the risk of damage to components. Kontron strongly encourages you to follow proper ESD procedure, which can include wrist straps and smocks, when servicing equipment.

You can also take the following steps to prevent damage from electrostatic discharge (ESD):

- ◆ When unpacking a static-sensitive component from its shipping carton, do not remove the component's antistatic packing material until you are ready to install the component in a computer. Just before unwrapping the antistatic packaging, be sure you are at an ESD workstation or grounded. This will discharge any static electricity that may have built up in your body.
- ◆ When transporting a sensitive component, first place it in an antistatic container or packaging.
- ◆ Handle all sensitive components at an ESD workstation. If possible, use antistatic floor pads and workbench pads.
- ◆ Handle components and boards with care. Don't touch the components or contacts on a board. Hold a board by its edges or by its metal mounting bracket.
- ◆ Do not handle or store system boards near strong electrostatic, electromagnetic, magnetic, or radioactive fields.

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Preface

Contents

How to Use This Guide	xv
Customer Comments	xvi
Advisory Conventions	xvii
Unpacking	xviii
Regulatory Compliance Statements	xix
Guarantee and Warranty Policy	xxi
Guarantee	xxi
Limited Warranty	xxi
Return Procedure	xxii
Limitation of Liability	xxiii



► *How to Use This Guide*

This guide is designed to be used as step-by-step instructions for installation, and as a reference for operation, troubleshooting, and upgrades.



Note: Additional technical information, BIOS updates, and drivers are available on our web site, www.kontron.com, under Technical Support.

The following is a summary of the chapter contents:

- ◆ **Chapter 1, Introduction**, provides an overview of the 6531-KB3TP board and provides information on installation.

▶ **Customer Comments**

If you have any difficulties using this user's guide, discover an error, or just want to provide some feedback, please send us a message using the online form under "Contact Us" on our web site (www.kontron.com) under "Technical Support." Detail any errors you find. We will correct the errors or problems as soon as possible and post the revised user's guide in our online Support Library. Thank you.



Note: You may also use the online form on our web site to submit comments or concerns about our products, or request technical support.

► **Advisory Conventions**

Four types of advisories are used throughout the user guides to provide helpful information or to alert you to the potential for hardware damage or personal injury. They are Notes, Cautions, and Warnings. The following is an example of each type of advisory. Use caution when servicing electrical components.



Note: A note is used to make helpful information stand out.



Important: An important note indicates information that is important for you to know.



CAUTION

A CAUTION indicates potential damage to hardware and tells you how to avoid the problem.



WARNING

A WARNING indicates the potential for bodily harm and tells you how to avoid the problem.



Disclaimer: We have tried to identify all situations that may pose a warning or caution condition in this user's guide. However, Kontron does not claim to have covered all situations that might require the use of a Caution or Warning.

Unpacking

When unpacking, follow these steps:

- 1) After opening the box, save it and the packing material for possible future shipment.
- 2) Remove all items from the box. If any items listed on the purchase order are missing, notify Kontron customer service immediately.
- 3) Inspect the product for damage. If there is damage, notify Kontron customer service immediately. Refer to “Guarantee and Warranty Policy” for the return procedure.

▶ **Regulatory Compliance Statements**

This section provides the FCC compliance statement for Class A devices and describes how to keep the system CE compliant.

▶ **FCC Compliance Statement for Class A Devices**

The product(s) described in this user's guide has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the user's guide, may cause harmful interference to radio communications. Operation of this equipment in a residential area (domestic environment) is likely to cause harmful interference, in which case the user will be required to correct the interference (take adequate measures) at their own expense.

Changes or modifications not expressly approved by Kontron could void the user's authority to operate the equipment.



Note: The assembler of a personal computer system may be required to test the system and/or make necessary modifications if a system is found to cause harmful interference or to be noncompliant with the appropriate standards for its intended use.

▶ **CE Certification**



The product(s) described in this user's guide complies with all applicable European Union (CE) directives if it has a CE marking. The CE declaration of conformity is provided on the last page of this user's guide. For computer systems to remain CE compliant, only CE-compliant parts may be used. Maintaining CE compliance also requires proper cable and cabling techniques. Although Kontron offers accessories, the customer must ensure that these products are installed with proper shielding to maintain CE compliance. Kontron does not offer engineering services for designing cabling systems. In addition, Kontron will not retest or recertify systems or components that have been reconfigured by customers.

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➤ **Guarantee and Warranty Policy**

➤ **Guarantee**

A thirty day money-back guarantee is provided on all standard products sold. Special order products are covered by our Limited Warranty, *however they may not be returned for refund or credit. EPROMs, RAM, Flash EPROMs or other forms of solid electronic media are not returnable for credit - but for replacement only.* An extended warranty is available. Consult the factory.

➤ **Refunds**

In order to receive a refund on a product for the purchase price, the product must not have been damaged by the customer or by the common carrier chosen by the customer to return the goods and the product must be returned complete (meaning all user's guides, software, cables, etc.) within 30 days of receipt and in an as-new and resalable condition. The "Return Procedure" must be followed to assure a prompt refund.

➤ **Restocking Charges**

Product returned *after 30 days, and before 60 days*, of the purchase will be subject to a minimum 20% restocking charge and charges for any damaged or missing parts. Products not returned within 60 days of purchase, or products which are not in an as-new and resalable condition, are not eligible for a credit return and will be returned to the customer.

➤ **Limited Warranty**

Effective April 1, 1998, all products carry a 2-year limited warranty. Within 2 years of purchase, Kontron will repair or replace, at our option, any defective product. Kontron will service the warranty for all standard catalog products for the first two years from the date of shipment. Please note: The 2-year warranty may not apply to special promotion items. Please consult the factory for warranty verification.

The limited warranty is void if the product has been subjected to alteration, neglect, misuse, or abuse; if any repairs have been attempted by anyone other than Kontron or its authorized agent; or if the failure is caused by accident, acts of God, or other causes beyond the control of Kontron or the manufacturer. Neglect, misuse, and abuse shall include any installation, operation, or maintenance of the product other than in accordance with the user's guide.

No agent, dealer, distributor, service company, or other party is authorized to change, modify, or extend the terms of this Limited Warranty in any manner whatsoever. Kontron reserves the right to make changes or improvements in any product without incurring any obligation to similarly alter products previously purchased.

Return Procedure

For any Guarantee or Limited Warranty return, please contact Kontron Customer Service at 800-480-0044 or 858-677-0877 and obtain a Return Material Authorization (RMA) Number. All product(s) returned to Kontron for service or credit **must** be accompanied by a Return Material Authorization (RMA) Number. Freight on all returned items **must** be prepaid by the customer who is responsible for any loss or damage caused by common carrier in transit. Returns for Warranty **must** include a Failure Report for each unit, by serial number(s), as well as a copy of the original invoice showing the date of purchase.

To reduce risk of damage, returns of product must be in an Kontron shipping container. If the original container has been lost or damaged, new shipping containers may be obtained from Kontron Customer Service at a nominal cost.

Kontron owns all parts removed from repaired products. Kontron uses new and reconditioned parts made by various manufacturers in performing warranty repairs and building replacement products. If Kontron repairs or replaces a product, its warranty term is not extended.

Kontron will normally return your replacement or repaired items via ground. Overnight delivery or delivery via other carriers is available at an additional charge.

Shipments not in compliance with this Guarantee and Limited Warranty Return Policy will not be accepted by Kontron.

► Limitation of Liability

In no event shall Kontron be liable for any defect in hardware, software, loss, or inadequacy of data of any kind, or for any direct, indirect, incidental, or consequential damages in connection with or arising out of the performance or use of any product furnished hereunder. Kontron's liability shall in no event exceed the purchase price of the product purchased hereunder. The foregoing limitation of liability shall be equally applicable to any service provided by Kontron or its authorized agent.

Some sales items and customized systems are **not** subject to the guarantee and limited warranty. However in these instances, any deviations will be disclosed prior to sales and noted in the original invoice. **Kontron reserves the right to refuse returns or credits on software or special order items.**

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Chapter 1

▶ Introduction

Contents

Overview	1-3
What's Included	1-3
Factory Default Settings	1-4

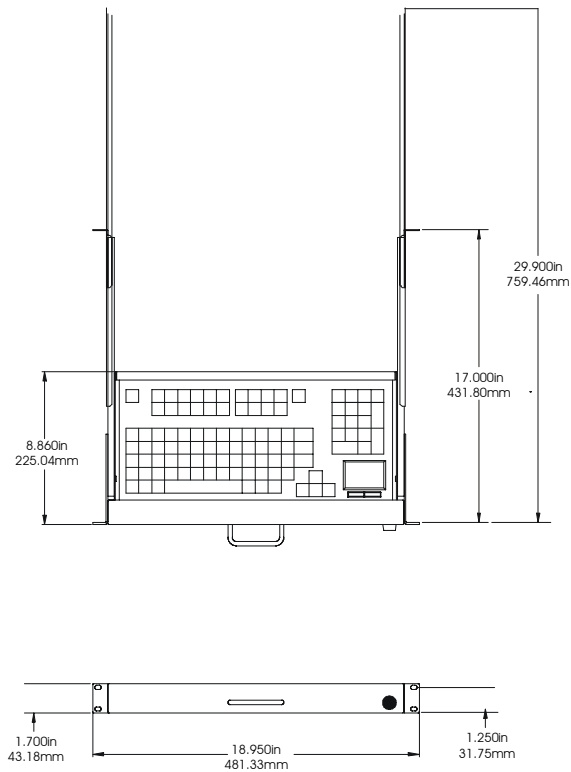


► Overview

The 6531-KB3TP Series is a low profile, IBM PS/2 compatible keyboard with integrated touchpad for use in industrial rack-mounted configurations. The keyboard has a special layout offering all the key functionality of the enhanced keyboard but in a narrower than usual, and thus rack mountable, package.

The keyboard is firmly mounted in a simple bracket offering the slide mounted capabilities for standard RETMA 19in equipment cabinets. The 6531-KB3TP Series requires only 1.75in of rack space — the minimum amount available for a rack mounted device.

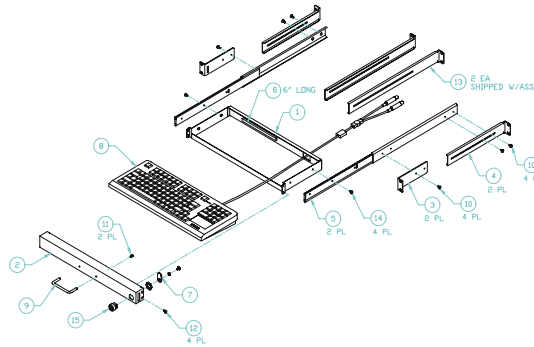
Figure 1-1. 6531-KB3TP Dimensions



► Installation

Installation consists solely of mounting the rails into the equipment rack, sliding the keyboard into place, and connecting the keyboard to your computer (Figure 1-2). Two sets of rear brackets allow mounting in racks from 17 to 30 inches in depth. The installed brackets fit on 17- to 24-inch deep racks. For racks deeper than 24 inches, remove the four screws (10) holding the rear brackets in place and install the longer rear brackets (13) with the four screws.

Figure 1-2. 6531-KB3TP Assembly



Parts List for 6531-KB3TP			
Item	Part Number	Description	QTY
1	42219-11A-01	Chassis Base Pan 6531/TP	1
2	42220-12C01	Front Panel 6531/TP w/LLogo	1
3	42221-11A-01	Bracket Rack Front	2
4	42224-11A	Bracket Rack Rear Short 6531/TP	2
5	6-300014-0	Slide 15" Accuride Locking	2
6	2-100003-1	Tape Rubber Sponge 1/4 x 3/8 SLFADH	1
7	40902-11A	Pawl Cam Lock 7415	1
8	KB3/TP	Windows 95 Keyboard Touchpad	1
9	2-800010-0	Handle 3/8 Round x 1.5 x 3	1
10	2-370812-0	Screw 6-32 x 1/4 PNHD PHIL SEM	8
11	2-370823-0	Screw 10-32 x 3/8 PNHD PHIL SEM	2
12	2-330410-0	Screw FLT PHIL 6-32 X 1/4	4
13	42222-11A	Bracket Rack Rear 6531/TP	2
14	2-370862-0	Screw 8-32 x 1/4 PNHD PHIL SS	4
15	4-300001-0	Key Lock (KA to #415, Chrome FNSH)	1