



Model 3230  
Local Bus

NCR  
System  
3000



Open,  
Cooperative  
Computing.  
The Strategy  
for Managing  
Change.

# The New Generation of Entry-Level i486 Desktop Computing . . .

## The NCR System 3000 Model 3230 Local Bus (LB)

NCR designed the 3230 LB to maximize user productivity and to protect your investment, while keeping your initial investment at a minimum. Whether utilizing it as a standalone desktop system, a networked client, or even as a small server, you will find the 3230 LB is the right choice for your organization. The key advantages of the 3230 LB are:

### **High Performance Design**

The power of the 3230 LB surpasses that of competitive entry-level machines. All of your application processing requirements are met with the high performance processors, local bus video, memory, hard drives and optional level two cache. The 3230 LB features the most popular Intel486™ processors and offers integrated 32-bit VESA Local Bus video with Windows acceleration and 1MB of video memory. The video subsystem also supports the VESA flicker-free standard with display up to 16.8 million colors and up to a blazing 18.2 million WinMarks™ (V3.1)! The system's fast

response hard drives and 70ns RAM also increase overall performance. For an optional high speed boost, you can order 64 or 256KB of write-back level two cache, a more sophisticated version when compared to others' write-through cache.

### **Expandability**

The 3230 LB provides a level of expandability for the future not typically found in an entry-level machine. The 238 pin ZIF (Zero Insertion Force) socket ensures safe and easy upgrades to the 50 and 66MHz OverDrive™ chips as well as to future Pentium™ based upgrades from Intel®. With three bays, the 3230 LB expands up to a total of one GB internal disk, up to 525MB in tape drive storage, and accepts an additional 5.25" flex drive or a third-party 5.25" device. Up to 32MB of high speed RAM will allow you to take advantage of new, memory-intensive operating environments.

### **Flexibility**

The 3230 LB offers you an array of choices to meet your computing needs. You can choose from a multitude of factory-configured options: five different i486 processors, six different hard drives, two flex drives, two tape drives, multiple memory configurations, two level two cache memory configurations, and five network cards. Flash BIOS allows for easy BIOS upgrades without opening the case.

### **Information Security**

To protect the information stored on your system, the 3230 LB comes standard with a mechanical keylock and a three-level user password, featuring flex access, boot control and configuration access control.

### **Proven Reliability**

The 3230 LB's high level of component integration using ASICs (Application Specific Integrated Circuits) on the main processor board results in the superior system reliability and low power requirements you have come to expect from NCR.

### **Care for the Environment**

NCR places high emphasis on protection of the environment by conforming to existing, and anticipating new, environmental protection standards. Our manufacturing is advanced in the use of non-damaging materials, both in the system components and during the manufacturing process. Particular attention is paid to the use of recyclable components, packaging and paper used for documentation.

### **Superior Support**

For over 100 years, NCR has delivered on its promise of worldwide service and support for its products. The 3230 LB is covered by an on-site parts and labor warranty. Plus, hotline support is also standard with the 3230 LB.

### **Team Up with a Leader**

The NCR 3230 LB is a system with user productivity and investment protection in mind, built and designed according to the highest quality standards. Furthermore, the system is backed by NCR's comprehensive worldwide service and support programs. The 3230 LB is the solution to your computing needs.





*Slimline cabinet design*

*3.5" 1.44MB  
flex disk drive*

*3.5" 80, 120, 160, 240, 340 or  
520MB IDE fixed disk drive*

*Three full-sized  
AT slots*

*8 SIMM sockets (up to  
32MB 70ns RAM)*

*238 pin Zero Insertion  
Force (ZIF) socket*

*VESA local bus video  
with Windows acceleration  
(1MB video RAM)*

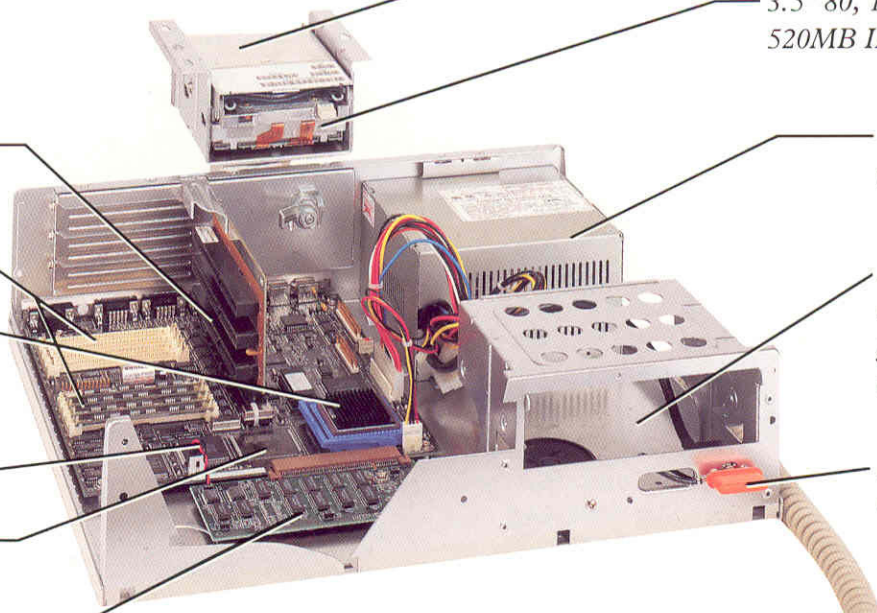
*Intel486 processor  
SX™ 25 & 33MHz  
DX™ 33MHz  
DX2™ 50 & 66MHz*

*Optional 64KB or  
256KB write-back  
secondary level  
cache board*

*145Watt autoranging  
power supply with fan*

*5.25" drive bay for  
second fixed disk drive,  
flex disk drive or  
tape drive*

*Power  
on/off switch*



# NCR System 3000 Model 3230 Local Bus (LB)



## Standard Features

- Industry Standard Architecture (ISA)
- Small footprint, low profile desktop cabinet
- NCR planar board technology
- Processor options:
  - Intel 80486SX -25 or 33MHz
  - Intel 80486DX -33MHz
  - Intel 80486DX2 -50 or 66MHz
- 238 pin ZIF socket for OverDrive processors, including future Pentium technology
- VESA local bus video with Windows acceleration
- 1MB video RAM
- TrueColor Windows™ (16.8 million colors)
- Up to 1280 x 1024 interlaced resolution, 1024 x 768 non-interlaced resolution
- Flash BIOS
- 4MB-32MB RAM on the processor board (70ns SIMMs)
- IDE disk interface
- Integrated 3.5" 1.44MB flex disk drive
- 2 serial interfaces (RS-232-C)
- Parallel interface (Centronics bidirectional)
- Auxiliary device interface (mouse)
- Keyboard interface
- Three 16-bit AT expansion slots (ISA)
- 2 internal 3.5" drive positions (one accessible)
- 1 internal 5.25" drive position (accessible)
- 145 watt power supply
- User documentation available in English, French, German, Italian and Spanish
- Real time clock/calendar with battery backup (five years life cycle battery)
- Mechanical keylock, software for Advanced VGA drivers, Password, Monitor Save, and Keyboard speed
- Compliance with U.S. and international safety and emission standards
- MS-DOS® 6.0 preinstalled on all models
- Microsoft Windows™ 3.1 and MS-Mouse bundled with selected models

## Optional Features

- Diskless models (SX 25MHz, DX 33MHz)
- SIMM upgrades expand system up to 32MB on the processor board (using 1MB x 9 or 4MB x 9 SIMMs)
- 64KB or 256KB write-back secondary level cache board
- Integrated 5.25" 1.2MB flex disk drive
- Integrated 80MB, 120MB, 160MB, 240MB, 340MB or 520MB fixed disk drive (IDE)
- 240MB flex and 525MB SCSI streamer tape drives
- SCSI-2 adapter board
- Communication boards:
  - NCR Lanpacer 8-bit Ethernet (TP)
  - NCR Lanpacer 16-bit Ethernet (TP/AUI)
  - Intel EtherExpress 16-bit Ethernet (BNC/AUI)
  - Intel EtherExpress 16TP Ethernet (TP/AUI)
  - NCR 16/4 Token-ring
- 50 and 66MHz Intel OverDrive processors
- Video displays:
  - 9" VGA gray scale (640 x 480 resolution)
  - 14" VGA monochrome (640 x 480 resolution)
  - 14" Economy Super VGA (1024 x 768 interlaced resolution 0.39DP)
  - 14" Super VGA (1024 x 768 interlaced resolution 0.28DP)
  - 14" high ergonomic Enhanced Super VGA (1024 x 768 resolution 0.28DP)

15" high ergonomic Enhanced Super VGA (1024 x 768 resolution 0.28DP)

- Workstation keyboard 101/102 total keys 12 function keys Available in U.S. and U.K. English, Arabic, Belgian, Danish, French, German, Italian, Norwegian, Portuguese, Spanish, Swedish/Finnish and Swiss
- Microsoft Mouse

## Specifications

- Physical Dimensions
  - Height: 4.1" 104mm
  - Width: 16.3" 417mm
  - Depth: 16.1" 401mm
  - Weight: 18.5 lbs. 8.4kg
- Power Requirements
  - Voltage Ranges:
    - 90 Vac to 136 Vac
    - 198 Vac to 264 Vac
  - Frequency Ranges:
    - 47Hz to 63Hz

*NCR Corporation continually improves products as new technologies and components become available. NCR Corporation, therefore, reserves the right to change specifications without prior notice.*

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