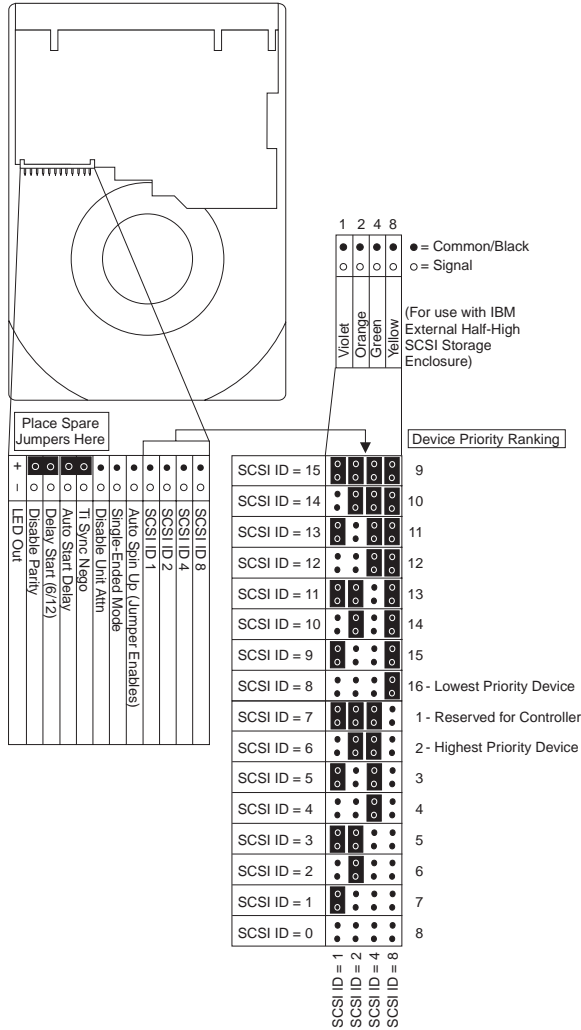


IBM 3.5" 9.1 GB and 18.2 GB Ultra2 SCSI Hard Disk Drive User's Guide Supplement



Assign SCSI ID 6, 5 or 4 to a IBM SCSI hard disk drive by placing jumpers on the drive as shown above. In most cases, you do not need to place jumpers on the drive's non-SCSI ID jumper pins.

Option Part Number:	
	20L0553—9.1 GB 20L0554—18.2 GB
Drive Part Number:	
	25L1951—9.1 GB 25L1950—18.2 GB
Field Replaceable Unit (FRU):	
	36L8648—9.1 GB 36L8649—18.2 GB
Disk Drive Configuration:	
Formatted capacity (512-byte sectors)	9100 MB 18200 MB
Physical Dimensions:	
Length	146.0 mm (5.75 inch)
Height	25.4 mm (1.0 inch)
Width	101.6 mm (4.0 inch)
Weight	0.63 Kg. (1.39 lb)
Mounting requirements:	
Screw thread 6-32 UNC-2B, 4.0 mm max penetration	
Performance :	
Data transfer rates	
Interface (max)	80 MB per second
Sustained	12—20 MB per second
Average read	7.0 ms
Rotational speed	7200 RPM
Buffer size	2 MB
Power Requirements :	
Idle power	
(average)	5.3 watts—9.1 GB 6.9 watts—18.2 GB
Random Read/Write	
(average)	9.4 watts—9.1 GB 10.3 watts—18.2 GB
Start-up Current	
(+12 V - max)	2.00 amps—9.1 GB 2.00 amps—18.2 GB
Environmental Characteristics:	
Shock (11 ms)	
(half sine)	10 G (operating) 75 G (not operating)
Temperature	
	5°—55° C (operating) 0°—65° C (storage)
Relative Humidity	
(non-condensing)	8%—90% (operating) 5%—95% (storage)
Vibration	
(swept sine)	0.5 G (operating) 2.0 G (not operating)
Actual performance varies based upon many factors and is frequently less than the maximum possible.	
Transfer rate of 80 MB/sec occurs only when the drive is attached to a chain comprised exclusively of Ultra2 SCSI devices; otherwise, the transfer rate is reduced to 40 MB/sec.	
256 KB of buffer space is reserved for the drive firmware.	

The following warranty information applies to products purchased in the United States, Canada, and Puerto Rico. For warranty terms and conditions for products purchased in other countries, see the enclosed Warranty insert, or contact your IBM reseller or IBM marketing representative.

International Business Machines Corporation

Armonk, New York, 10504

Statement of Limited Warranty

The warranties provided by IBM in this Statement of Limited Warranty apply only to Machines you originally purchase for your use, and not for resale, from IBM or your reseller. The term "Machine" means an IBM machine, its features, conversions, upgrades, elements, or accessories, or any combination of them. Unless IBM specifies otherwise, the following warranties apply only in the country where you acquire the Machine. If you have any questions, contact IBM or your reseller.

Machine: Ultra2 SCSI Hard Disk Drive for IBM PCs P/N: 20L0553, 20L0554

Warranty Period*: Three Years

**Contact your place of purchase for warranty service information.*

Production Status

Each Machine is manufactured from new parts, or new and used parts. In some cases, the Machine may not be new and may have been previously installed. Regardless of the Machine's production status, IBM's warranty terms apply.

The IBM Warranty for Machines

IBM warrants that each Machine 1) is free from defects in materials and workmanship and 2) conforms to IBM's Official Published Specifications. The warranty period for a Machine is a specified, fixed period commencing on its Date of Installation. The date on your receipt is the Date of Installation, unless IBM or your reseller informs you otherwise.

During the warranty period IBM or your reseller, if authorized by IBM, will provide warranty service under the type of service designated for the Machine and will manage and install engineering changes that apply to the Machine.

For IBM or your reseller to provide warranty service for a feature, conversion, or upgrade, IBM or your reseller may require that the Machine on which it is installed be 1) for certain Machines, the designated, serial-numbered Machine and 2) at an engineering-change level compatible with the feature, conversion, or upgrade. Many of these transactions involve the removal of parts and their return to IBM. You represent that all removed parts are genuine and unaltered. A part that replaces a removed part will assume the warranty service status of the replaced part.

If a Machine does not function as warranted during the warranty period, IBM or your reseller will repair it or replace it with one that is at least functionally equivalent, without charge. The replacement may not be new, but will be in good working order. If IBM or your reseller is unable to repair or replace the Machine, you may return it to your place of purchase and your money will be refunded.

If you transfer a Machine to another user, warranty service is available to that user for the remainder of the warranty period. You should give your proof of purchase and this Statement to that user. However, for Machines which have a life-time warranty, this warranty is not transferable.

Warranty Service

To obtain warranty service for the Machine, you should contact your reseller or call IBM. In the United States, call IBM at **1-800-772-2227**. In Canada, call IBM at **1-800-565-3344**. You may be required to present proof of purchase.

IBM or your reseller will provide certain types of repair and exchange service, either at your location or at IBM's or your reseller's service center, to restore a Machine to good working order.

When a type of service involves the exchange of a Machine or part, the item IBM or your reseller replaces becomes its property and the replacement

becomes yours. You represent that all removed items are genuine and unaltered. The replacement may not be new, but will be in good working order and at least functionally equivalent to the item replaced. The replacement assumes the warranty service status of the replaced item. Before IBM or your reseller exchanges a Machine or part, you agree to remove all features, parts, options, alterations, and attachments not under warranty service. You also agree to ensure that the Machine is free of any legal obligations or restrictions that prevent its exchange.

You agree to:

1. obtain authorization from the owner to have IBM or your reseller service a Machine that you do not own; and
2. where applicable, before service is provided —
 - a. follow the problem determination, problem analysis, and service request procedures that IBM or your reseller provide,
 - b. secure all programs, data, and funds contained in a Machine, and
 - c. inform IBM or your reseller of changes in a Machine's location.

IBM is responsible for loss of, or damage to, your Machine while it is 1) in IBM's possession or 2) in transit in those cases where IBM is responsible for the transportation charges.

Extent of Warranty

IBM does not warrant uninterrupted or error-free operation of a Machine.

The warranties may be voided by misuse, accident, modification, unsuitable physical or operating environment, improper maintenance by you, removal or alteration of Machine or parts identification labels, or failure caused by a product for which IBM is not responsible.

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1. damages for bodily injury (including death) and damage to real property and tangible personal property; and
2. the amount of any other actual direct damages or loss, up to the greater of U.S. \$100,000 or the charges (if recurring, 12 months' charges apply) for the Machine that is the subject of the claim.

UNDER NO CIRCUMSTANCES IS IBM LIABLE FOR ANY OF THE FOLLOWING: 1) THIRD-PARTY CLAIMS AGAINST YOU FOR LOSSES OR DAMAGES (OTHER THAN THOSE UNDER THE FIRST ITEM LISTED ABOVE); 2) LOSS OF, OR DAMAGE TO, YOUR RECORDS OR DATA; OR 3) SPECIAL, INCIDENTAL, OR INDIRECT DAMAGES OR FOR ANY ECONOMIC CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS OR SAVINGS), EVEN IF IBM OR YOUR RESELLER IS INFORMED OF THEIR POSSIBILITY. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE EXCLUSION OR LIMITATION MAY NOT APPLY TO YOU.