FRONT

PICTURE 1

Parts Update and Supplement

March 1993

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Form Number S61G-1549-00

1.0 Models 56, 76 (9556, 9576) Parts

PICTURE 2

Index	***System Unit (9556, 9576)***	
1	Cover Lock Assembly	92F0003
	Pawl (required for 92F0003)	79F3459
2	Front Cover Logo (R)	
	9576 (PS/2 76 486)	92F0245
	9576 (PS/2 76 486DX2)	92F0408
	9556 (PS/2 56 486SLC (*)2)	96F7770
	9556 (PS/2 56LS 486SLC2)	96F7771
3	Top Cover Assembly (no lock)	92F0252
	Cover Screw (Thumbscrew)	79F3463
4	(see DASD)	
5	Hard Disk Shelf	96F7776
6	Retainer Plate	92F0242
7	Power Supply (118 Watt)	79F3443
8	Rear Panel (9576)	92F0246
8	Rear Panel (9556)	96F7772
9	Base Frame Assembly (R)	96F7767
	Cable Shield (top of bay)	95F5607
	Tamper-Resistant Rear Cable-locking Cover Assembly (option)	96F7773
10	(see DASD)	
11	(see DASD)	
12	Card Guide/Speaker Bracket (9576)	92F0244
12	Adapter Guide/Tamper-Evident Switch Assembly (9556)	92F0243
13	System Boards (no memory)	
	486SLC2-50/25 MHz (9556)	39G6407
	486SX-33 MHz, for non-Ultimedia systems only (9576)	39G2668
	486SX-33 MHz (9576)	39G5698
	486DX2-66/33 MHz, for non-Ultimedia systems only (9576)	39G2669
	486DX2-66/33 MHz (9576)	39G6086
	2MB Memory Module Kit (70ns)	92F0102
	4MB Memory Module Kit (70ns)	92F0105
	8MB Memory Module Kit (70ns)	64F3606
	Optional Microprocessors	
	P23T 25/50 MHz	92F0147
	P23T 33/66 MHz	92F2582
	Math Coprocessor Socket	10G3975
14	Bus Adapter (with battery) (9556)	79F7210
14	Bus Adapter (with battery) (9576)	87F4833
	Battery	33F8354
15	Bus Adapter Support	96F7777
16	Control Assembly (Power Switch, Cable, Speaker)	96F7769
	Power Switch Button Alone	79F3460
17	Hard Disk Cable	96F7766
18	Diskette Drive Cable	96F7768
	Floor Stand	79F3458
	Miscellaneous Parts Kit (screw (1), 3.5mm steel screws (6) I/O brackets (3), rubber feet (4) clip (1))	79F7209

(*) Trademark of the IBM Corporation.

2.0 Models 57, 77, M57, M77 (9557, 9577) Parts

Index	***System Unit (9557, 9577)***		
1	Cover Lock	92F0003	
2	Front Cover Logo (R)		
	PS/2 77 486	92F0249	
	PS/2 77 486DX2	92F0272	
	PS/2 M77 486	92F0250	
	PS/2 M77 486DX2	92F0250	
	PS/2 57 486SLC2	96F7763	
	PS/2 M57 486SLC2	96F7764	
	PS/2 M57 DV 486SLC2	42G2780	
	PS/55 M57 486SLC2	42G2781	
	PS/55 M57 DV 486SLC2	92F0409	
3	Top Cover Assembly (without lock)	96F7640	
4	Rear Panel Cover	96F0247	
	Cover Assembly, Cable-Locking (option)		92F0248
4	Rear Panel Cover (DV Model)	96F7755	
5	Power Supply (197 Watt)	92F0058	
6	Frame Assembly (R)	92F0138	
	Cover (for underside of frame)	85F0086	
	I/O Slot Assembly (rear of frame)	10G3971	
7	(see DASD)		
8	(see DASD)		
9	(see DASD)		
10	Adapter Guide and Tamper-	96F7758	
	Evident Switch Assembly (9557)		
10	Adapter Guide (9577)	92F0042	
11	Bus Adapter (9577)(with battery)	87F4836	
11	Bus Adapter (9557)(with battery)	41G3877	
	Battery	33F8354	
12	System Boards (no memory)		
	486SLC2-50/25 MHz (9557)	39G6407	
	486SX-33 MHz,	39G2668	
	for non-UltiMedia systems only (9577)		
	486SX-33 MHz (9577)	39G5698	
	486DX2-66/33 MHz,	39G2669	
	for non-UltiMedia systems only (9577)		
	486DX2-66/33 MHz (9577)	39G6086	
	Special Bid System Board	39G6444	
	(for Pinnacle CD-ROM Bootable Systems)		
	2MB Memory Module Kit (70ns)	92F0102	
	4MB Memory Module Kit (70ns)	92F0105	
	8MB Memory Module Kit (70ns)	64F3606	
13	Control Assembly:		
	Assy, Without Volume Control)	92F0002	
	(Power Switch, Cable, Speaker)		
	With Volume Control)	92F0109	
	(Power Switch, with button,		
	Cable, and Speaker)		
	Pedestal	92F0000	
	Miscellaneous Parts Kit	92F0015	
	(thumb screws (2), retainer clips (2)		
	ground clips (3), I/O brackets (5)		
	3.5mm steel screws (10), brackets (5)		
	rubber feet (4), finger guards (3))		

Index	***DASD (9557, 9577)***	
8	Drive Tray, 3.5-Inch Drive (Bays 1,2,3)	85F0097
	5.25-Inch Bay Drive Guides (2)	92F0014
9	1.44MB Diskette Drive	85F0050
9	2.88MB Diskette Drive	64F4148
9	2.88MB 3.5-inch (with electronic eject)	92F0132
	Bezel (Bay 1, for 92F0132)	92F0146
	Bezel (Bays 2 and 3, for 92F0132)	92F0133
	Diskette Drive Cable	96F7756
	1.2MB Internal Drive	64F4102
	Rail Kit (for 64F4102)	85F0041
	(left/right rails, screws)	
7	40MB Hard Disk Drive	56F8866
7	60MB Hard Disk Drive	6128296
7	80MB Hard Disk Drive	56F8854
7	104MB Hard Disk Drive	95F4748
7	212MB Hard Disk Drive	95F4749
7	320MB Hard Disk Drive	85F0011
7	400MB Hard Disk Drive	85F0012
7	540MB Hard Disk Drive	92F0406
	Drive Cable (Three connector)	96F7649
	Drive Slide	96F7775
14	3.5-Inch Blank Bezel (Bay 4)	85F0092
	Bezel Insert (for 85F0092)	85F0095
15	5.25-Inch Louvered Bezel (Bay 3)	85F0094

	Bezel Insert (for 85F0094)	85F0096	
16	3.5-Inch Diskette Drive Bezel (Bay 2,3)	84F0003	
	5.25-Inch Diskette Drive Bezel (Bay 2,3)		64F4125
	5.25-Inch Blank Bezel (Bay 2)	85F0091	
	CD-ROM Drive Bezel (Bay 2,3)	64F4102	
17	3.5-Inch Diskette Drive Bezel (Bay 1)	85F0093	
18	Retainer Plate	85F0098	
19	Diskette Drive Cable	96F7756	
20	Hard Disk Drive Cable	96F7649	

Index Ultimedia (9557, 9577)

	CD ROM	92F0084	
	ACPA Adapter	92F1256	
	ActionMedia II Adapter	69F9733	
	ActionMedia II to Monitor Cable	69F9737	
21	Cable (Control Assy to Audio Card)	92F0113	
22	Cable (Control Assy to System Board)	96F7762	
	Cable (ACPA to ActionMedia II)	42G2779	

3.0 Hardware Maintenance Manual Supplements

4.0 Hard Disk Drive Settings (AT)

These drives have jumper, tab, or switch settings. Always set the first drive to be the primary (master) drive 1 . If a second drive is installed, set it to be the secondary (slave) drive 2 .

Note: Do not move any *other* jumpers, tabs, or switches on the drives.

Any AT Drive with Jumpers

PICTURE 3

40MB AT Drive with Switches

PICTURE 4

80MB and 170MB AT Drives with Tabs

PICTURE 5

80MB AT Drive with Switches

PICTURE 6

120MB AT Drive with Jumpers

PICTURE 7

170MB, 212MB, and 245MB AT Drives with Jumpers

PICTURE 8

340MB AT Drive with Tabs

PICTURE 9

527MB AT Drive with Jumpers

PICTURE 10

5.0 Hard Disk Drive Parts

The following matrix provides a supplemental listing of PS/2 computers and the hard drives they support.

Locate the hard drive in the left-hand column; then refer across the matrix for the PS/2 computer you are servicing.

DASD	**FRU #**	**Option #**	**5110**	**5111**	**8535**	**8540**	**8556**	**8557**	**8565**	**8580**	**5590**	**5595**	**9556**	**9557**	**9576**	**9577**	**9585**
288 MB	92F0127129	64512712							X		X	X					X
245 MB AT	92F0403	32G4194			X	X											
340 MB AT	92F0404	32G4195			X	X											
527 MB AT	92F0405	32G4196			X	X											
540 MB SCSI	92F0406	32G4151	X	X			X	X	X	X	X	X	X	X	X	X	X
2GB SCSI	92F0440	32G4336	X	X							X	X		X		X	X

6.0 IBM 16 Bit AT SCSI Fast Adapter

The IBM 16 Bit AT SCSI Fast Adapter provides a SCSI connector for the AT bus computer family.

The adapter has an internal standard SCSI connector and an external standard SCSI connector allowing up to seven SCSI devices to be attached to the computer.

Subtopics
6.1 General Checkout

6.1 General Checkout

Use the General Checkout (AT Bus) and the additional Symptom-To-FRU Index in this supplement to diagnose problems on the 16 Bit AT SCSI Fast Adapter. If that does not solve the problem, do the following:

1. Insert the 16 Bit AT SCSI Fast Adapter Diagnostic Diskette in drive A; then power-on the system. The adapter program will automatically load.
2. Follow the instructions on the screen. If the diagnostic program detects an error, to go "Symptom-to-FRU Index" in topic 8.0 in this supplement.

Note: The 16 Bit AT SCSI Fast Adapter Diagnostic Diskette is packaged with the adapter FRU.

7.0 IBM ISA 10BASE-T/10BASE2 Ethernet Adapters

The IBM ISA 10BASE-T/10BASE2 Ethernet Adapters enable you to connect an Industry Standard Architecture (ISA) AT bus computer family workstation to an Ethernet local area network (LAN). The 10BASE-T Ethernet Adapter has an unshielded twisted pair connector and the 10BASE2 Ethernet Adapter has a bayonet connector (BNC). Both adapters have a set of light emitting diode (LED) indicator lights that represent the following conditions:

- POWER/TX (green) blinks during data transmission.
- LINK/RX (green) blinks when data is being received, and indicates the "link integrity signal" from the twisted-pair hub is present.
- COLLISION (yellow) indicates multiple concurrent transmissions on the network.
- JABBER (yellow) indicates data transmission is interrupted to inhibit an abnormally long output data stream (10BASE2 Ethernet Adapter only).

Subtopics

7.1 IBM ISA Ethernet Adapter Features Diskette

The IBM ISA Ethernet Adapter Features Diskette contains device drivers and a setup/diagnostic program for the Ethernet Adapter.

7.2 Adapter Configuration Options

Ensure that the adapter configuration **does not** conflict with the system configuration or other adapters.

The I/O address, the IRQ interrupt levels, and the ROM address can be changed. For additional information, see "I/O Address" in topic 7.2.1, "IRQ Interrupt Levels" in topic 7.2.2, and "ROM Address" in topic 7.2.3.

Subtopics
7.2.1 I/O Address
7.2.2 IRQ Interrupt Levels
7.2.3 ROM Address
7.2.4 Changing the Adapter Configuration

7.2.1 I/O Address

The Ethernet Adapter can use any of the following locations for the hexadecimal base I/O address. The default is 800. The I/O address must be set at 300 or 320 if the Novell Netware Device Driver is used.

800	1800	2800
3800	300	320

7.2.2 IRQ Interrupt Levels

The Ethernet Adapter can use interrupt levels 3, 4, 5, 9, or 11. The default is 3. The IRQ interrupt level must be set at 3 if the Novell Netware NE2000 Device Driver is used. If the adapters and programs **do not** support interrupt sharing, the adapters cannot use the same interrupt level.

7.2.3 ROM Address

The Ethernet Adapter has 16KB of read-only memory (ROM). Any of the following locations can be used for the hexadecimal ROM address. The default is D0000-D3FFF.

C8000-CBFFF	D0000-D3FFF	D8000-DBFFF
CA000-CDFFF	D2000-D5FFF	DA000-DDFFF
CC000-CFFFF	D4000-D7FFF	DC000-DFFFF
CE000-D1FFF	D6000-D9FFF	

7.2.4 Changing the Adapter Configuration

To change the Ethernet Adapter configuration, do the following.

1. Insert the Features Diskette in drive A, and power-on the system to start the Ethernet Setup/Diagnostic program.

   If the system is already on, log off the network. If OS/2 is installed, shutdown the system and insert the Feature Diskette in drive A. Press and hold **Ctrl+Alt** then press **Del**.
2. Select **Option1. Set Adapter Configuration** from the Main Menu; then press **Enter**. The adapter address is displayed.
3. Press **Enter** to continue to the Adapter Configuration Menu. Follow the instructions to make specific changes.
4. Press **F10** to install the configuration changes.

Note: If two adapters are installed in the same system, the default setting on one of the adapters must be changed. Ensure that no two adapters installed in the same system share the same settings. Duplicate option settings will result in an error.

7.3 General Checkout

Use the General Checkout (AT Bus) and the additional Symptom-To-FRU Index in this supplement to diagnose problems on the Ethernet Adapters. If that does not solve the problem, do the following:

1. Insert the Features Diskette in drive A; then power-on the system. The Ethernet Setup/Diagnostic program will load automatically.
2. Select **Option 2. Test the Adapter** from the Main Menu; then press **Enter**. The Ethernet Adapter address will be displayed for a few seconds before the diagnostic program starts. If the diagnostic program detects an error, to go "Symptom-to-FRU Index" in topic 8.0 in this supplement.

8.0 Symptom-to-FRU Index

The error code and the FRUs that might be responsible for the failure are listed below. The most-likely failing FRU is listed first.

An X in an error message can be any number.

Error Codes	**FRU/Action**
1047	**16 Bit AT SCSI Fast Adapter**
209X	**Diskette Drive** Diskette Cable 16 Bit AT SCSI Fast Adapter
20XX (not listed above)	**BSC Adapter** Bus Adapter
21XX	**SCSI Device** 16 Bit AT SCSI Fast Adapter Alt. BSC Adapter Bus Adapter
106X1	**Set Configuration** Ethernet Adapter
10635	**Error occurred when system was powered off, and then immediately powered back on. Power-off the system, wait six seconds; then power-on the system.**
10651, 10660	**Check Cables** Ethernet Adapter
106XX	**Ethernet Adapter**
0**201XX**XN (540MB) 0**201XX**XP (2GB 8-bit, 50 pin)	**SCSI Hard Disk Drive** SCSI Adapter or the SCSI controller built into the system board. SCSI Cable SCSI ID Switch (On some models)

9.0 Parts

ISA 10BASE-T Ethernet Adapter (with twisted-pair connector)	92F0386
ISA 10BASE2 Ethernet Adapter (with bayonet connector)	92F0387
SCSI Fast Adapter, 16-bit AT	92F0330
SCSI External Cable for 92F0330	32G4089
SCSI Internal Cable for 92F0330	37G0084

10.0 Keyboard Parts

IBM Enhanced Keyboard with PS/2 Style Cable	59G7980
IBM Enhanced Keyboard with AT Style Cable	59G7981
IBM Enhanced Keyboard with 25mm PS/2 Trackball	59G7982
IBM Enhanced Keyboard with 25mm Serial Trackball	59G9757

11.0 Notices

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