

# 3600/9600 Series — Contemporary Cabinet

(See page 22 for specifications)

	DESCRIPTION	INFORMATION	UNIT PRICE (U.S.A. Domestic)			
			1-24	25-49	50-99	100+
TERMINALS	<b>INTECOLOR/2048</b> Complete contemporary style terminal. Includes RAM Refresh Memory, 8080A CPU, Terminal Control Software, 72 Key ASCII Keyboard (attached), 13" CRT, Special Color Graphics Package, RS-232C I/O, 64 characters per line by 32 lines. Selectable Baud Rate to 9600 Baud. Standard Upper Case ASCII characters with additional line segments to allow display of larger characters and Users Manual.	Standard Graphics 128H x 128V. Includes Option C17C.	1995	1795	1615	1455
						††
	<b>INTECOLOR/3651</b> Complete desktop computer with color graphics, 13" CRT; 72 Key ASCII Keyboard, File Handling Disk BASIC: 64 characters per line by 32 lines. Internal Mini-Disk drive with 90K bytes storage including bus expander interface and 32K RAM.	Same Color Graphics Package as 2048 including Options C17C and C52.	2945	2650	2385	2145
	<b>INTECOLOR/3652</b> Same as 3651 except has 180K byte Dual Mini-Disk drive.	Same as 3651 except Option C52A instead of C52.	3445	3100	2790	2510
	<b>INTECOLOR/3653</b> Same as 3651 except has 580K byte Dual 8" Floppy Disk drive.	Same as 3651 except Option C26A instead of C52.	4445	4000	3600	3240
	<b>INTECOLOR/3654</b> Same as 3651 except has 1155K byte Dual 8" Double Headed Floppy Disk drive.	Same as 3651 except Option C27A instead of C52.	5445	4900	4410	3970
DESKTOP COMPUTERS	<b>INTECOLOR/3651T TREND-SPOTTER™ COMPUTER</b> Complete desktop computer with color graphics, 13" CRT; 117 Key ASCII Keyboard, including Trend-Spotter command, color and numeric clusters, internal mini disk drive with 90K bytes storage and 32K RAM. See Trend-Spotter description on page 18.	Same as 3651 except includes Trend-Spotter software.	3640	3310	3015	2745
	<b>INTECOLOR/3651 WORD PROCESSING SYSTEM</b> Complete, interactive system, including 3651 color graphics desktop computer with 117-key ASCII keyboard, internal mini disk drive with 90K byte storage, Comp-U-Writer™ word processing software and NEC formed-character 55cps Serial Printer. See Comp-U-Writer description on page 18.	Same as 3651 except includes option C17LC, C64A and Comp-U-Writer WPS software.	6085	5765	5475	5225
	<b>INTECOLOR/9651</b> Same as 3651 except with external 90K storage mini-disk drive, 19" CRT, and detachable keyboard.	Same color graphics package as 3651 including options C17C and C52.	3345	3010	2710	2440
	<b>INTECOLOR/9652</b> Same as 3652 except with external 180K storage mini-disk drives, 19" CRT, and detachable keyboard.	Same as 9651 except Option C52A instead of C52.	3845	3460	3115	2835
	<b>INTECOLOR/9653</b> Same as 3653 except with dual 8" floppy disk drives with 580K storage, 19" CRT, and detachable keyboard.	Same as 9651 except Option C26A instead of C52.	4845	4360	3925	3530
	<b>INTECOLOR/9654</b> Same as 3654 except with dual 8" double headed floppy disk drives with 1160K storage, 19" CRT, and detachable keyboard.	Same as 9651 except Option C27A instead of C52.	5845	5260	4735	4260
	<b>INTECOLOR/9651T TREND-SPOTTER COMPUTER</b> 3651T with 19" CRT, external 90K byte single mini-disk drive, and detachable 117-key keyboard. See Trend-Spotter description on page 18.	Same as 3651T except 19" CRT instead of 13" CRT, external mini drive & detachable keyboard	4040	3675	3345	3045
<b>INTECOLOR/9651 WORD PROCESSING SYSTEM</b> 3651WPS, except 19" CRT, external 90K byte mini-disk drive and detachable 117-key keyboard. See Comp-U-Writer description on page 18.	Same as 3651 WPS. Includes Options C17LC, C64A and Comp-U-Writer WPS software.	6845	6125	5800	5500	

†† \$995. for 600-piece OEM. Consult factory for quantity pricing from 200-599.

# 3600/9600 Special Character Options

OPTION	DESCRIPTION	INFORMATION	AFFECTED ASSEMBLY	UNIT PRICE (U.S.A. Domestic)			
				1-24	25-49	50-99	100+
C03	<b>32 CUSTOMER SPECIFIED CHARACTERS</b> 32 customer specified characters in a 6 x 8 matrix. (See page 23.)	**Choice of one character set.	LOGIC	260	235	215	195
C03LC	<b>32 LOWER CASE CHARACTERS</b> For 3650 series. (See page 23.)	**Choice of one character set.	LOGIC	100	90	80	75
C17	<b>64 CUSTOMER SPECIFIED CHARACTERS</b> 64 customer specified characters in a 6 x 8 dot matrix. (See page 23.)	**Choice of one character set.	LOGIC	465	425	385	350
C17A	<b>64 STANDARD "A" CHARACTERS</b> Intelligent Systems "A" character set. (See page 23.)	**Choice of one character set.	LOGIC	150	135	120	110
C17C	<b>64 STANDARD "C" CHARACTERS</b> Intelligent Systems "C" character set. A general purpose set which includes special graphics characters. Some characters allow larger characters to be made using line segments. (See page 23.)	**Choice of one character set.	LOGIC	100	90	80	75
C17LC	<b>32 LOWER CASE/32 SPECIAL CHARACTERS</b> Provides 32 lower case switchable to special graphics characters and 32 general purpose characters which allow larger characters to be made using line segments. (See page 23.)	**Choice of one character set.	UNIT	260	235	215	195

\*\* Must know existing options, date of software and unit serial number when updating in field.

# 3600/9600 Keyboard Options

A22A	<b>KEYBOARD — 72 TO 101 KEY INCREMENTAL</b> Includes 8 color keys, one command key and a 16 key numeric cluster. (For 2048)	*Incremental price for 72 to 101 keys.	Unit	150	135	120	110
C22A	<b>KEYBOARD — 72 TO 101 KEY INCREMENTAL</b> Includes 8 color keys, one command key and a 16 key numeric cluster. (For 3650 series)	*Incremental price for 72 to 101 keys.	Unit	150	135	120	110
C22B	<b>KEYBOARD — 72 TO 101 KEY INCREMENTAL</b> Same as C22A except for 9650 series.	*Incremental price for 72 to 101 keys.	Unit	150	135	120	110
A24	<b>KEYBOARD — 101 TO 117 KEY INCREMENTAL</b> Adds 16 function keys which, with the shift and control modifier keys, provide an additional 64 codes. (For 2048)	*Incremental Price for 101 to 117 keys.	Unit	100	90	80	75
C24	<b>KEYBOARD — 101 TO 117 KEY INCREMENTAL</b> Adds 16 function keys which, with the shift and control modifier keys, provide an additional 64 codes. (For 3650)	*Incremental price for 101 to 117 keys.	Unit	100	90	80	75
C24B	<b>KEYBOARD — 101 TO 117 KEY INCREMENTAL</b> Same as C24 but for 9650 series.	*Incremental price for 101 to 117 keys.	Unit	100	90	80	75
A24A	<b>KEYBOARD — 72 TO 117 KEY INCREMENTAL</b> Includes 8 color keys, 1 command key, numeric cluster with 16 keys and 16 function keys to provide an additional 64 codes. (For 2048)	*Incremental price for 72 to 117 keys.	Unit	250	225	200	185
C24A	<b>KEYBOARD — 72 TO 117 KEY INCREMENTAL</b> Includes 8 color keys, one command key, numeric cluster with 16 keys and 16 function keys to provide an additional 64 codes. (For 3650 series)	*Incremental price for 72 to 117 keys.	Unit	250	225	200	185
C24C	<b>KEYBOARD — 72 TO 117 KEY INCREMENTAL</b> Same as C24A but for 9650 series.	*Incremental price for 72 to 117 keys.	Unit	250	225	200	185

\*Must be installed at factory at time of purchase

# 3600/9600 Miscellaneous Options

(For additional software, see page 20.)

OPTION	DESCRIPTION	INFORMATION	AFFECTED ASSEMBLY	UNIT PRICE (U.S.A. Domestic)			
				1-24	25-49	50-99	100+
A11	<b>220V AC POWER OPERATION FOR 2048</b> Allows terminal to operate on 220V AC 50/60 Hz.	*	Unit	100	100	100	100
10	<b>MALE RS-232C CONNECTOR</b> Used in lieu of standard female connector.		UNIT	45	40	35	30
C11	<b>220V AC POWER OPTION FOR 3650/9650</b>	*	Unit	100	100	100	100
C11A	<b>220V AC DISK CONVERSION PER SYSTEM</b> All systems.	*Not required for internal drive.		50	50	50	50
C11B	<b>50Hz DISK CONVERSION PER SYSTEM</b>	*For Options C26, C26A, C27, C27A.	Unit	100	100	100	100
★ A15	<b>FLEXWARE TERMINAL SOFTWARE FOR 2048</b> Enhanced CRT firmware with definable protocol modes (can include mode for closer compatibility with ANSI). All functions accessed thru escape sequences with parameters passed as printable text.			250	225	200	185
★ A15A	<b>FLEXWARE 16 PROGRAMMABLE FUNCTIONS FOR 2048</b> User can define up to 16 functions to be accessed by keystroke or host computer.	Requires Options C15 and C24A.		100	90	80	75
★ A15B	<b>FLEXWARE SCREEN PARTITIONING FOR 2048</b> Allows up to 16 horizontal screen partitions. Each partition has its own foreground/background color, character size, cursor position and scroll enable.			50	45	40	35
★ C18B	<b>PRINTACOLOR PRINTER DRIVER</b> PrintaColor 8 color inkjet, graphics printer interface.			260	235	215	195
C20	<b>ADD-ON PROM FOR 3650/9650 SERIES</b>		PROM	75	70	60	55
C21U	<b>16K x 8 RAM UPGRADE FOR 3650/9650 SERIES</b>	Maximum of 32K user RAM per unit.	LOGIC	310	280	260	235
C28	<b>LIGHT PEN</b>		Unit	510	465	425	385
C30	<b>25" CRT ASSEMBLY WITH DARK FACED TUBE</b>	*	Unit	510	465	425	385
50	<b>19" CRT NON GLARE FILTER</b>	Plastic, contoured, removable gray filter.		50	45	40	35
C50B	<b>DARK FACED, HIGH CONTRAST 19" CRT</b>	*	Unit	100	90	80	75
C50D	<b>13" CRT NON-GLARE FILTER</b>	Plastic, contoured, removable gray filter.		50	45	40	35
★ C59	<b>COMP-U-WRITER EXECUTIVE™ WORD PROCESSOR</b> Full-featured word processing software/keyboard package. Includes single-key command entry, full-screen editing and print formatting on screen.	Requires 32K and 117-key keyboard.		300	275	250	225
★ C74	<b>COMPUTER AUGMENTED TRAINING/TEACHING SYSTEM FOR THE EIGHTIES — CATS 80</b> Software package allows first-time computer users to author training courses and, then, conduct them using Intelligent Systems' 3651 desktop computer. Allows individual to progress at own pace, automatically records test scores and keeps scores on questions so they can be easily validated. Has branching capability. Graphics can be used in course material and in questions. Combines ease of use, effective instruction and low cost. (See Trainee Software, C74A.)	**Requires 8" disk, 32K, and 101-key keyboard.		2300	2095	1905	1735
★ C74A	<b>COMPUTER AUGMENTED TRAINING/TEACHING SYSTEM FOR THE EIGHTIES — CATS 80 TRAINEE SOFTWARE</b> Separate disk for trainee/student. Keeps score records automatically. Enables individual to work at own pace. With C74, two desktops and this software, trainee can work at same time as trainer/author. Available in both 5¼" and 8" sizes.	Must specify 5¼" or 8". Only for use in conjunction with C74.		200	180	165	150
C75	<b>TRENDSPOTTER™ MANAGEMENT GRAPHICS SOFTWARE</b> "State of the art" information graphics software. Scales time series data from its files using bar, line, area and scatter graphs. Has the ability to graphically compare multiple files, trend, smooth, lead, and lag. Handles linear projections, compound growth, moving averages, inflation and deflation factors.	**Requires 32K. Recommend 117-key keyboard.		695	630	575	525

\*Must be installed at factory at time of purchase.

# 3600/9600 Peripheral Options

(See pages 23-27 for specifications)

OPTION	DESCRIPTION	INFORMATION	AFFECTED ASSEMBLY	UNIT PRICE (U.S.A. Domestic)				
				1-24	25-49	50-99	100+	
C26	<b>8" FLOPPY DISK DRIVE - SINGLE</b> Utilizes Sof-Disk media for up to 290K bytes of storage.		LOGIC	1300	1185	1075	980	
C26A	<b>8" FLOPPY DISK DRIVE - DUAL</b> Utilizes Sof-Disk media for up to 580K bytes of storage.		LOGIC	2100	1910	1740	1580	
27	<b>8" DOUBLE HEADED FLOPPY DISK DRIVE - SINGLE</b> Same as C27A except single disk unit for up to 580K bytes of storage.		LOGIC	1800	1640	1490	1355	
C27A	<b>8" DOUBLE HEADED FLOPPY DISK DRIVE - DUAL</b> Utilizes Sof-Disk media for up to 1160K bytes of storage.		LOGIC	3100	2820	2565	2335	
C52	<b>5 1/4" MINI-DISK DRIVE - SINGLE</b> Utilizes Sof-Disk media for up to 90K bytes of storage.		LOGIC	600	545	495	450	
C52A	<b>5 1/4" MINI-DISK DRIVE - DUAL</b> Utilizes Sof-Disk media for up to 180K bytes of storage.		LOGIC	1100	995	910	830	
C52B	<b>5 1/4" DOUBLE HEADED MINI-DISK DRIVE - SINGLE</b> Utilizes Sof-Disk media for up to 180K bytes of storage.		LOGIC	925	840	765	695	
C52C	<b>5 1/4" DOUBLE HEADED MINI-DISK DRIVE - DUAL</b> Utilizes Sof-Disk media for up to 360K bytes of storage.		LOGIC	1500	1365	1240	1130	
C64A	<b>FORMED CHARACTER PRINTER NEC 7700 (SERIAL)</b> 55 CPS NEC 7700 Spinwriter. Includes Software interface. See specifications, page 26.	See Option C64C.		2995	2725	2725	2725	★
C65	<b>8-COLOR INK-JET PRINTER</b> PrintaColor GC8000: Makes high-quality graphics hardcopy in 2-3 minutes at a cost of 10 cents a copy. Colors are black, white, red, green, cyan, magenta, yellow and blue. Local intelligence and buffer allow unattended printing while terminal or computer is being used. Up to 255 printouts can be made continuously without typing up host. 90 dots per inch horizontal, 85 dots per inch vertical. (See page 26.)	Specify Intelligent Systems model number. Requires Option C18B.		3995	3650	††	††	★
C64C	<b>VERTICAL TRACTOR FEED FOR NEC 7700</b>	See Option C64A.		330	300	300	300	★
C85	<b>VIDEOPRINT COLOR CAMERA BASE SYSTEM</b> (Less Camera) Image Resources 3400IS8: Combined with the film camera, provides interference free image directly from the digital section, bypassing analog.	Requires Option C85A or C85B, or C85C. Includes interface.		4590	4185	4185	4185	★
C85A	<b>VIDEOPRINT POLAROID FILM CAMERA</b> Attaches to the VIDEOPRINT basic system to provide Polaroid SX-70 pictures.	Requires Option C85.		890	810	810	810	★
35B	<b>VIDEOPRINT 4" x 5" FILM CAMERA</b> Attaches to the VIDEOPRINT basic system to provide 4" x 5" pictures.	Requires Option C85.		890	810	810	810	★
C85C	<b>VIDEOPRINT 35mm FILM CAMERA</b> Attaches to the VIDEOPRINT basic system to provide 35mm slides and pictures.	Requires Option C85.		1250	1135	1135	1135	★

†† Factory will quote pricing.

# 3600/9600 Installation and Service Options

OPTION	DESCRIPTION	INFORMATION	UNIT PRICE (U.S.A. Domestic)
C66	<b>ON-SITE INSTALLATION</b> Available from independent service firms in most major cities. (See Rep/Service Center List.)	Includes power-up, convergence, purity alignment and communications checkout.	Terminal 250 Desktop 300 System 350
C60	<b>PARTS REPLACEMENT CONTRACT</b> 24 hour factory shipment for replacement of defective part and/or unit.	Provides a one-year warranty on all assemblies and peripherals manufactured by Intelligent Systems. Unit or card sub-assembly replacements will be shipped from the factory within 24 hours. If you purchase Option C60 on your initial order, the cost is 8% per unit, minimum \$250. You also may purchase Option C60 after the unit has been shipped, but only within the original warranty period, at a cost of 10% per unit, minimum \$300. NOTE: Purchase price of Parts Replacement Contracts are non-refundable. Subsequent renewals are the customer's responsibility and must be purchased before the existing Parts Replacement Contract expires.  Upon notification of a problem, Intelligent Systems will attempt to diagnose the problem, suggest a solution over the phone, and agree to a course of action to get the unit operational as quickly as possible. Sub-assemblies that are required to correct the problem will be shipped within 24 hours. This type turn-around should result in a 48-hour maximum down-time. If the source of the problem cannot be found, a replacement of the entire system will be made. Under a Parts Replacement Contract, shipping charges are paid one way by the customer and one way by Intelligent Systems. All items must be shipped prepaid.	
C61	<b>LOCAL SERVICE CONTRACT</b> Available from independent service firms in most major cities. Provides on-site repair/replacement of defective part. (See Rep/Service Center List.)	Includes all replacement features of Option C60 plus on-site labor to disassemble, repair and reassemble within a reasonable period of time. Repairs will be made to units which have retained original electrical and mechanical configuration. Customer will be billed for costs incurred if unit is found non-defective. Requires Option C66. If you purchase Option C61 on your initial order, the cost is 12% per unit, minimum \$400. Contracts purchased after the original shipping date are 15% per unit, minimum \$500. Annual renewals are 15% per unit, minimum \$500.	

# 3650/9650 Software Options (See additional software on page 18.)

(Software catalog with complete descriptions is available.)

NOTE: Intelligent Systems' software is the property of Intelligent Systems Corp. Users are granted a license to use this software on a single system. The duplication of the software or documentation is prohibited. The software and documentation is copyrighted. Users are granted a limited use license in exchange for the payment of the required fee. All software is available on an as-is basis. No warranty of any sort has been made by Intelligent Systems to the user.

	5¼" Micro <sup>1</sup>	3650/9650 5¼" Mini	3650/9650 8" Floppy	Min. RAM Req'd.	UNIT PRICE (USA Domestic)
<b>GENERAL</b>					
Formatted Twin Pack (2/Pack) .....	990001	990030			10.
5¼" Single Sided Formatted (Box of 10) .....	900047	900040			50.
8" Single Sided Formatted (Box of 10) .....			900041		75.
5¼" Double Sided Formatted (Box of 10) .....		900049			75.
8" Double Sided Formatted (Box of 10) .....			900044		100.
<b>BUSINESS</b>					
★ CATS 80 Training/Authoring System .....			991568	32K	2300.
★ CATS 80 Trainee Software .....		991569	991572	16K	200.
★ *Comp-U-Writer (Word Processor) .....	991544	991545	991546	16K	350.
Trend-Spotter (Converts data to graphics) .....	991541	991542	991543	32K	695.
Data Base System .....	990016	991518	991519	16K	40.
<b>SYSTEM/UTILITY</b>					
Assembler .....	990014	991514	991515	16K	25.
Text Editor .....	990015	991516	991517	16K	25.
Basic Utilities .....	991501	991520	991521	16K	25.
Monitor .....	991502	991522	991523	8K	20.
*Screen Editor .....	991504	991524	991525	16K	30.
Info Link (Interfaces to Source <sup>®</sup> or Tymnet <sup>®</sup> ) .....	991549	991550	991551	8K	30.
Formatter .....	991505	991526	991527	8K	25.
Machine Language Debug Package .....	991506	991528	991529	16K	30.
FORTRAN .....	991509	991532	991533	32K	75.
Macro Assembler .....	991538	991539	991540	32K	50.
<b>FINANCIAL</b>					
Personal Finance Vol. I .....	990010	991001	991002	8K	20.
Reeds .....	990012	991005	991006	16K	20.
ty (Depreciation and Capitalized Costs) .....	990013	991007	991008	16K	20.
<b>ENGINEERING</b>					
Statistics 1 .....	993001	993004	993005	16K	25.
Statistics 2—Regression .....	993002	993006	993007	16K	30.
Statistics 3—Time Series .....	993003	993008	993009	16K	30.
<b>EDUCATIONAL</b>					
★ CATS 80 Teaching/Authoring System .....			991568	32K	2300.
★ CATS 80 Student Software .....		991569	991572	16K	200.
Hangman (Math Tutor, 2 to 10 card game) .....	990003	992512	992513	8K	20.
Math Tutor (Checkbook, Recipe, Math Dice) .....	990005	992514	992515	8K	20.
BASIC Language/Lessons 1-10 .....	992501	992516	992517	16K	25.
BASIC Language/Lessons 11-15 .....	992502	992518	992519	16K	20.
<b>ENTERTAINMENT</b>					
Sampler (Standard with 3650/9650) .....	990002	990032	990033	8K	20.
Othello <sup>†</sup> , Mathdice, Concentration .....	990004	990034	990035	8K	20.
Chess, Acey-Duecy, Line Five, Biorhythm .....	990006	990036	990037	16K	20.
Star Trip, Lunar Lander, Shoot, Tic-Tac-Toe .....	990007	990038	990039	8K	20.
Blackjack, Roulette, Drag Race, Horse Race, Slot Machine .....	990008	990040	990041	8K	20.
Cubic Tic-Tac-Toe, Greed, Galaxy, Space Lander .....	990009	990042	990043	16K	20.
Sharks, Towers of Hanoi, Kalah, Mill .....	990018	990044	990045	16K	20.
Air Raid, Car Race, Rover Robot, Tile Puzzle .....	990019	990046	990047	16K	20.
Star Trader, Concentration, Color Hunt, Decision Maker, Calendar .....	990022	990048	990049	16K	20.
Swarms, Capture the Alien, Human Reaction Timer, Roulette, Reverse Numbers .....	990023	990050	990051	16K	20.
Bounce, Battleship, Slither .....	990025	990052	990053	16K	20.
Shoot, 15 Piece Puzzle, Hyper, Seawar .....	990026	990054	990055	16K	20.
Lunar Lander, Coalition, Linko .....	990027	990056	990057	16K	20.
Solitaire, Euchre, Pyramid .....	990028	990058	990059	16K	20.
Maze Master, Crossword Puzzle, Create Crossword .....	990029	990060	990061	16K	20.

All Intelligent Systems' disk drives run with Sof-Disk<sup>™</sup> media. These diskettes have a special high output magnetic formulation to minimize read errors. Each Sof-Disk is formatted, tested and certified to offer very high reliability. If any Sof-Disk fails to meet specifications, return to Intelligent Systems for guaranteed replacement.

\*Requires 117 Key Keyboard.

†Othello is the registered trademark of CBS, Inc., for its strategy disk game.

<sup>1</sup>Micro disk drive no longer available.

# 3600/9600 Manuals/Documentation

PART NO.	DESCRIPTION	SERIES	UNIT PRICE (USA Domestic)
999228	Users Manual .....	2048 .....	25
999276	Users Manual .....	3650/9650 .....	25
999222	Programming Manual .....	3650/9650 .....	25
999300	Maintenance Manual .....	3650/9650 .....	60
979015	Systems Listing .....	3650/9650 .....	100
999346	Trend-Spotter User's Manual .....	3650/9650 .....	45
999374	CATS 80 Users Manual .....	3650/9650 .....	45 ★
900099	Comp-U-Writer Users Manual .....	3650/9650 .....	45 ★

# 3600/9600 Spare Parts List

101167	Analog PCB Assembly, 32 Line .....	3600/2048 .....	650
101259	Logic PCB Assembly, 16K RAM .....	3621 .....	1100
101261	Logic PCB Assembly, 32K RAM .....	3621 .....	1400
101124	Logic PCB Assembly, No RAM .....	3601 .....	550
101351	Logic PCB Assembly, 16K RAM .....	3650 .....	1100
101356	Logic PCB Assembly, 32K RAM .....	3650 .....	1400
101164	Convergence PCB Assembly .....	3600/2048 .....	120
010060	Yoke and Convergence Coil Assembly .....	3600/2048 .....	120
101176	Video Driver PCB Assembly .....	3600/2048 .....	45
100973	Disk Drive with PCB Assembly .....	3621 .....	400
100872	Disk PCB Assembly only .....	3621 .....	60
100862	72-Key ASCII Keyboard, (Standard with cursor) .....	3600 .....	250
100922	101-Key ASCII Keyboard, (cursor, color & numerics) .....	3600 .....	400
100877	117-Key ASCII Keyboard, (cursor, color, numerics & 16 functions) .....	3600 .....	450
0A99B0	Analog Spare Parts Kit .....	3621 .....	250
0C99B0	Analog Spare Parts Kit .....	3650 .....	250
010048	Logic Spare Parts Kit .....	3621 .....	150
0C99A0	Logic Spare Parts Kit .....	3650 .....	150

# 3600/9600 Specifications

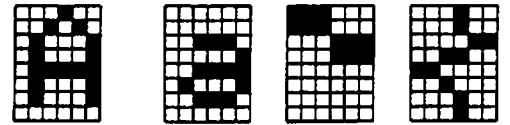
		9600 SERIES		3600 SERIES				
				2048	3651	3652	3653	3654
DISPLAY	ALL UNITS IN THE 3600 SERIES HAVE A STANDARD 13" CRT ALL UNITS IN THE 9600 SERIES HAVE A STANDARD 19" CRT	STD	•	•	•	•	•	•
FORMAT	64 Characters/Line x 32 Lines	STD	•	•	•	•	•	•
CHARACTERS	64 ASCII Characters, 5 x 7 dot pattern in 6 x 8 matrix plus special graphics characters and general purpose characters which allow larger characters to be made using line segments	C17C	•	•	•	•	•	•
CURSOR	White blinking underscore non-destructive.	STD	•	•	•	•	•	•
COLORS	Eight foreground and eight background: Black, Red, Green, Blue, Yellow, Magenta, Cyan, White.	STD	•	•	•	•	•	•
EDITING	Tab; Erase Page; Erase Line; Blink; Color Selection; Cursor Up, Down, Left, Right and Home; Cursor XY Positioning; Transmit. Page Roll Mode.	STD	•	•	•	•	•	•
		STD	•	•	•	•	•	•
GRAPHICS	Plotting on a 128H x 128V grid area. Software for vector, bar graphics and block plotting.	STD	•	•	•	•	•	•
KEYBOARD	ASCII 4-level, 72-key keyboard coded with 192 codes and cursor.	STD	•	•	•	•	•	•
COMM MODE	RS-232C Serial, full-duplex/half-duplex/local - all keyboard selectable Plus 50-pin expansion bus with buffered 8-bit parallel port.	STD	•	•	•	•	•	•
DATA TRANSFER	8 bit plus start & stop bits. 7 rates from 110 to 9600 Baud, 1 or 2 stop bits, all keyboard selectable.	STD	•	•	•	•	•	•
CPU	8080A Central Processing Unit, 2 microsecond cycle.	STD	•	•	•	•	•	•
MEMORY	4K ROM, 128 bytes RAM Scratchpad, 4K RAM for screen Refresh. 16K ROM, 4K RAM for screen refresh. 32K RAM for user workspace.	STD	•					
		STD		•	•	•	•	•
		STD		•	•	•	•	•
LANGUAGE	Extended Disk BASIC 8001 Interpreter in 8K ROM memory includes: 27 statement types, 5 command types, 18 mathematical functions, 9 string functions and 13 File Control System (FCS) Disk Commands.	STD		•	•	•	•	•
STORAGE	5¼" Single Mini-Disk drive, with 90K bytes of storage. 5¼" Dual Mini-Disk drive, with 180K bytes of storage. 8" Dual Floppy Disk drive, with 580K bytes of storage. 8" Dual Double Headed Floppy Disk drive with 1160K bytes of storage.	C52 C52A C26A C27A		•		•		•

# SPECIFICATIONS – Characters and Graphics

## Special Graphics Characters

Intelligent Systems will supply character work sheets for either 32 or 64 special characters (Options B03, C17 and B17). These characters can be designed with a 6 x 8 matrix in any configuration the customer desires. For special PROMS, please allow 30 days delivery after Intelligent Systems has received your completed character work sheets and purchase order.

Upper Case    Lower Case    Plot    Special Ch.



### “A” Characters (Option B17A & C17A)



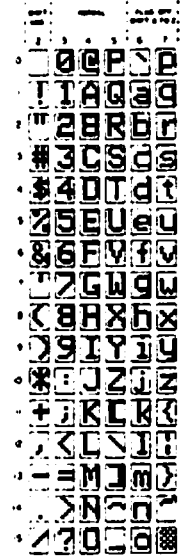
### “C” Characters (Option B17C & C17C)



### Lower Case/ Special Characters (Option C17LC) Columns 0-9\* (Option C03LC) Columns 0-7

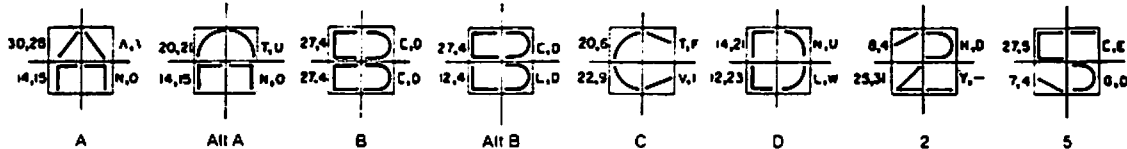


### Lower Case Characters (Option B03LC)



\*Option C17LC includes all characters with columns 6 & 7 user switchable with 8 & 9.

## Sample of 4X4 Characters Using “C” Character Set (Option B17C & C17C)



## High Resolution Graphics (Option B71) 8000/8300/8900 Series Only

The High Resolution Option allows graphics to be displayed on a 480H x 384V grid. This is accomplished by the incorporation of 512 software programmable characters, independent of the standard alphanumeric characters. Each character consists of a 6 x 8 dot matrix with all 48 dots addressable by software. However, foreground and background color is defined on a character by character basis. The graphics generator allows vectors to be drawn by specifying the coordinates of the start point and end point with automatic plotting of all points between. Circles are drawn by specifying a center and a radius. The High Resolution Option also provides all of the capabilities of the standard resolution graphics. In addition to the other features of this option the user can define up to 128 characters and download them from the host computer or from a disk.

## Dot Addressable High Resolution Graphics (Option B76R) 8000/8300/8900 Only

Dot Addressable High Resolution Graphics Option permits independent control of the color of every point on a 480 x 384V dot screen. Includes readable bit map, software for arc, circle, point plotting, drawing of solid, dotted, and dashed vectors and rectangles, and selection of memory plane writing and display. Operates as an enhancement to standard display features.

## Arabic Configurations (Option B19A on 8000/8300/8900 Series, Option C19A on 3600/9600 Series.)

All systems are available in Arabic/English configurations. This includes a dual keyboard, 64 English and over 80 Arabic characters, and special character adjustment terminal control software. This enables the operator to enter characters without being concerned with upper and lower case or other forms of the character. Therefore, only one key per character is entered and the terminal automatically changes the shape of the letters depending upon their position in the word. English and Arabic characters are completely intermixable letter by letter or line by line. The terminal control software automatically adjusts the position of the characters within a line so that they are read correctly. For example, in the Arabic mode the numbers are entered in insert mode, hence read correctly from left to right. The binary code for Arabic characters is mapped onto 64 English ASCII codes, therefore each character, irrespective of its shape, is represented by one binary code. Therefore, any data based in Arabic is easily generated and selection of the shape of characters is handled automatically by the terminal. With a complete microcomputer system, all I/O generated by high level language can be in Arabic. Sales, service, and maintenance are available in most Middle Eastern countries by factory trained engineers. For further information contact the factory.



# SPECIFICATIONS – Languages/Operating Systems

## Extended Disk BASIC 8001 (Option B42B) Standard for FCS Desktop Computers

Interpreter in ROM includes 27 Statement Types: CLEAR, DATA, DEF, DIM, END, FILE, FOR, GET, GOSUB, GOTO, IF, INPUT, NEXT, ON, OUT, PLOT, POKE, PRINT, PUT, READ, REM, RETURN, STEP, THEN, TO, and WAIT. 5 Command Types: CONT, LIST, LOAD, RUN, and SAVE. 18 Mathematical Functions: ABS(x), ATN(x), CALL(x), COS(x), EXP(x), FRE(x), INT(x), INP(x), LOG(x), PEEK(x), POS(x), RND(x), SGN(x), SIN(x), SPC(x), SQR(x), TAB(x), and TAN(x). 9 String Functions: ASC(x\$), CHR\$(x), FRE(x\$), LEFT\$(x\$, I), LEN(x\$), MID\$(x\$, I, J), RIGHT\$(x\$, I), STR\$(x), and VAL(x\$).

## MICROSOFT® Business BASIC (Option B42C) Enhanced For Color Graphics

### 4 Variable Types:

\$ String ..... 0-225 Characters  
% Integer ..... -32768 to 32767

## MBASIC® (Option B42E) Enhanced For Color Graphics (Standard For CP/M Desktop Computers)

! String Precision ..... 7.1 Digit Floating Point  
# Double Precision ..... 16.8 Digit Floating Point

19 Commands: CLEAR, CONT, DELETE, EDIT, LIST, LLIST, LNULL, LOAD, LWIDTH, MERGE, NEW, RENUM, RESET, RUN, SAVE, SYSTEM, TROFF, TRON, WIDTH. 29 Program Statements: DEF FN, DEF USR, DEFDBL, DEFINT, DEFNG, DEFSTR, DIM, END, ERASE, ERROR, FOR, GOSUB, GOTO, IF... THEN... ELSE, LET NEXT, ON ERROR GOTO, ON... GOSUB, ON... GOTO, OUT, PLOT, POKE, REM, RESTORE, RESUME, RETURN, STOP, SWAP, WAIT. 15 Input Statements: CLOSE DATA, FIELD, GET, INPUT, LINE INPUT, LPRINT, LPRINT USING, LSET, OPEN PRINT, PRINT USING, PUT, READ, RSET. 26 Arithmetic Functions: ABS(x), ATN(x), CDBL(x), CINT(x), COS(x), CSNG(x), ERL, ERR, EXP(x), FIX(x), FRE(x), INP(x), INT(x), LOG(x), LPOS(x), PEEK(x), POS(x), RND(x), SGN(x), SIN(x), SPC(x), SQR(x), TAB(x), TAN(x), USR(x), VARPTR(x). 15 String Functions: ASC(x\$), CHR\$(x), FRE(x\$), HEX\$(x), INPUT\$(x), INSTR(x, y\$, z\$), LEFT\$(x\$, y), LEN(x\$), MID\$(x\$, y, z), OCT\$(x), RIGHT\$(x\$, y), SPACES(x), STR\$(x), STRING\$(x, y), VAL(x\$). 9 Input Output Functions: CVD(x\$), CVI(x\$), CVS(x\$), EOF(x), LOC(x), LOF(x), MKD\$(x), MKI\$(x), MKS\$(x).

## MICROSOFT FORTRAN-IV® (Option B58) 8000/8300/8900 Series. See page 20 for 3650/9650 Series.

FORTAN-IV is unique in that it provides a microprocessor FORTRAN development package that generates relocatable object modules. Therefore, only the subroutines and system routines required to run FORTRAN-IV programs are loaded before execution. Subroutines can be placed in a system library so that users develop a common set of subroutines that are used in their programs. Also, if only one module of a program is changed, it is necessary to re-compile only that module.

The standard library of subroutines supplied with FORTRAN-IV includes:

ABS	DEXP	IDINT	SIN	AMIN1	ATAN2	DIM
INT	DLOG 10	AMAX1	TANH	FLOAT	POKE	EXP
AMAXO	DCOS	AMINO	DATAN	DSIGN	AINT	ALOG10
DMAX1	ATAN	DMIN1	PEEK	DBLE	MOD	COS
MIN1	DMOD	ISIGN	DABS	DLOG	MAX1	DSQRT
SIGN	OUT	SINGL	AMOD	DSIN	MINO	DATAN2
IDIM	IABS	ALOG	MAXO	SQRT	IFIX	INP

The library also contains routines for 32-bit and 64-bit floating point addition, subtraction, multiplication, division, etc. These routines are among the fastest available for performing these functions on the 8080A.

## MICROSOFT COBOL® (Option B74E) CP/M Systems Only

MICROSOFT's COBOL is based on the 1974 ANSI standard and contains all Level 1 features and the most useful Level 2 options for the "Nucleus" and for Sequential, Relative and Indexed file handling facilities. Additionally, Level 1 Table Handling, Library and Inter-program Communication facilities are provided. Of the advanced Level 2 features, MICROSOFT has included the verbs STRING, UNSTRING, COMPUTE, SEARCH, and PERFORM (varying/until), along with convenient condition specification by way of condition-names, compound conditions and abbreviated conditions. Furthermore, a data format called COMP-3 allows numeric data to be packed two digits to the byte so that mass storage requirements are reduced. Lastly, a batch-style Debug technique is implemented to get programs running in a minimum of on-line time.

## Intelligent Graphics System™ (Option B83) 8000/8300/8900 Dot Addressable Units Only

Intelligent Graphics System (IGS™) is a device-independent graphics language which is available in Intelligent Systems' dot addressable, high resolution terminals and CP/M desktop computers. A single IGS program can be used to generate similar displays on more than one graphics device. IGS uses English words which indicate each command's function. Contains seven software fonts (three in the terminal version) which can be displayed in any size, color and orientation. Commands such as PIE, BAR, LINE and more than 150 additional IGS commands make it easy to generate almost any type of chart, graph or display. Interactive features include screen picks and the ability to create dynamic real-time scrolling graphs.

## CP/M® Operating System (Option B67) 8000/8300/8900 Series

Sophisticated disk based operating system complete with Text Editor, Assembler, Debug, File Management and System Utilities. Combines the advantages of color alphanumerics and graphics with the versatility of CP/M. More than 3,000 application programs currently are available, including a wide variety of programs for business use. A directory of these programs is available from the factory. This is the latest version of CP/M available.

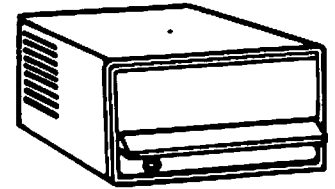
## FCS Operating System (Option B42B) 8000/8300/8900 and 3600/9600 Series

File Control System – FCS is a ROM based operating system utilizing Extended Disk BASIC 8001. Includes File Management and System Utilities. 13 Disk File Commands: COPY, DEVICE, DIRECTORY, DUPLICATE, INITIALIZE, LOAD, MERGE, PRINT, READ, RENAME, RUN, SAVE, and WRITE.

# SPECIFICATIONS – Disk Drives

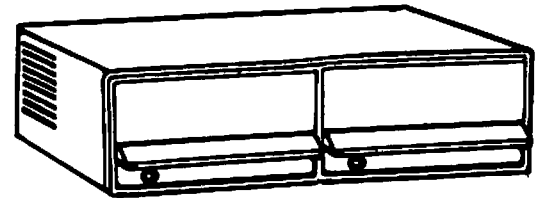
## 5 1/4" MINI-DISK

Size .....	Single	3 3/4" x 6W x 12 1/2D
	Dual	3 3/4" x 11 3/4"W x 12 1/2D
Weight .....	Single	8 lbs.
	Dual	16 lbs.
Tracks .....	8000	35 Single/40 Double
	3600/9600	40 Single/40 Double
Track Density .....		48 tpi
Rotational Speed .....		300 rpm
Power on Delay .....		1 second
Access Time .....	Single	370ms
		(Average 35 tracks)
	Double	298ms
		(Average 35 tracks)
Average Latency .....		100ms
Transfer Rate .....		125 kilobits/sec
AC Power Requirements .....		120V AC @ .5A maximum



Single 5 1/4" Mini-Disk Drive

Performance Specifications: ... (Capacity Formatted)	Per Disk (Single Head)	90K bytes/Drive
	Per Disk (Double Head)	180K bytes/Drive
	Per Track (Single Head)	2.304K bytes
	Per Track (Double Head)	4.608K bytes

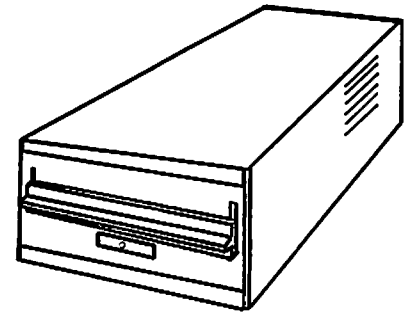


Dual 5 1/4" Mini-Disk Drives

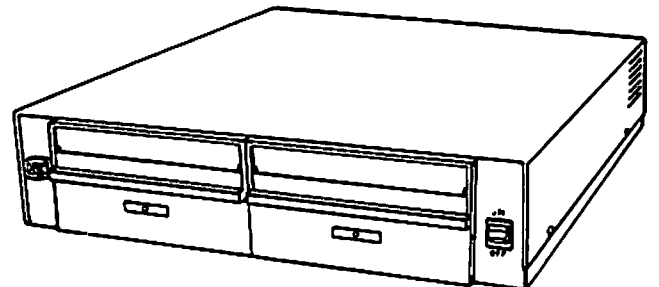
## 8" FLOPPY DISK

Size .....	Single	6H x 9W x 20D
	Dual	5 1/2H x 21W x 23 1/2D
Weight .....	Single	25 lbs.
	Dual	48 lbs.
Tracks .....		77
Track Density .....		48 tpi
Rotational Speed .....		360 rpm
Access Time .....		208ms (Average 77 tracks)
Average Latency .....		38ms
Transfer Rate .....		250 kilobits/sec
AC Power Requirements .....		100/115V AC; 60 Hz
		Installations = 85-127V at
		1A max

Performance Specifications: ... (Capacity Formatted)	Per Disk (Single Head)	up to 290K bytes/Drive
	Per Disk (Double Head)	up to 580K bytes/Drive
	Per Track (Single Head)	3.84K bytes
	Per Track (Double Head)	7.68K bytes

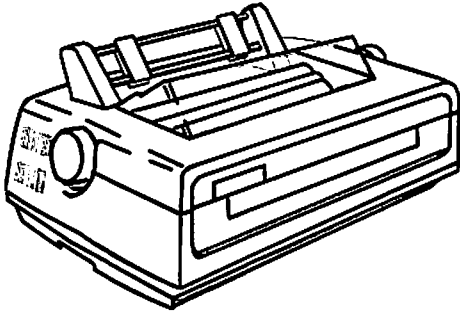


Single 8" Floppy Disk Drive



Dual 8" Floppy Disk Drives

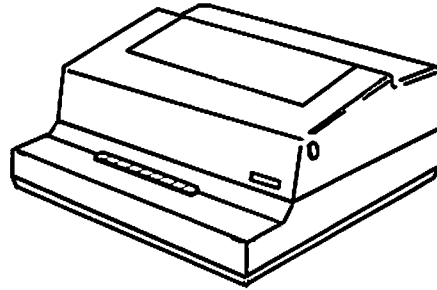
# SPECIFICATIONS – Printers/Plotter/Digitizer



## NEC 7700 SERIES LETTER QUALITY PRINTER

(Option B64)

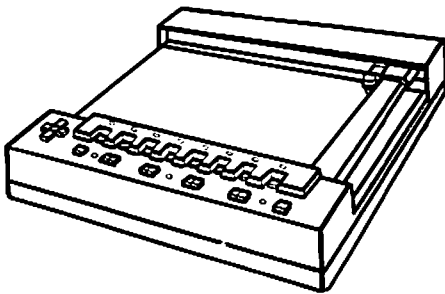
Size (In Inches) .....	8.7H x 21.8W x 13.6D .....
Weight (In pounds) .....	45.5 .....
Print Method .....	Character Impact .....
Character Spacing .....	10/12 Proportional Spacing .....
Max. Paper Width .....	16 inches .....
Max. Columns .....	136 Characters @ 10 cpi .....
	163 Characters @ 12 cpi .....
Font .....	Interchange Print Thimble .....
Print Speed .....	55 cps .....
Power .....	120 V .....



## PRINTACOLOR 8 COLOR INKJET PRINTER

(Option B65 or C65)

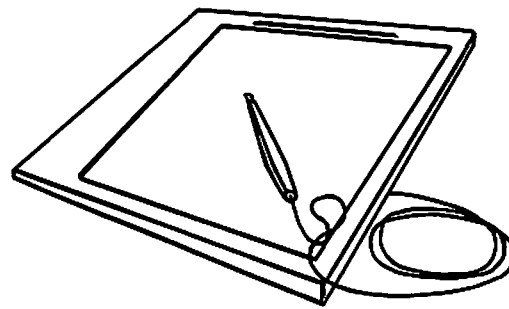
Size (In Inches) .....	8.2H x 22W x 17.4D .....
Weight (In pounds) .....	37.4 .....
Print Method .....	Ink jet .....
Character Spacing .....	Char. graphics models: 7.5 cpi .....
	Dot addressable models: 3.75-10 cpi .....
Max. Paper Width .....	15 7/8 inches .....
Max. Columns .....	Char. graphics models: 80 characters .....
	Dot addressable models: 120 characters .....
Font .....	Character graphics models: 6x8 .....
	upper and lower case ASCII and graphics .....
	Dot addressable models: 12 x 12 upper .....
	and lower case ASCII and graphics. .....
Print Speed .....	Character Graphics Models: .....
	2 3/4 min/pg unidirectionally .....
	1 1/2 min/pg bidirectionally .....
	Dot Addressable Models: .....
	240 raster lines/minute .....
Power .....	120/240 VAC @ 50/60 Hz .....



## HEWLETT-PACKARD 8 PEN COLOR PLOTTER - HP7220C

(Option B62)

Size (In Inches) .....	7.4H x 19.5W x 18.7D .....
Weight (In pounds) .....	39 .....
Speed .....	14-20 in./sec. (adjustable) .....
Power .....	120V 48-66Hz .....
Plotting Area (In Inches) .....	11.2 Y axis x 15.75 X axis .....
Accuracy (In Inches) .....	0.008 .....
Smallest addressable move .....	0.001 .....
(In inches) .....	0.001 .....



## SUMMAGRAPHICS BIT PAD 1 DIGITIZER

(Option B63)

Size (In Inches) .....	1.6H x 15.56W x 15.56D .....
Weight (In pounds) .....	7.4 .....
Active area (In Inches) .....	11 Y axis x 11 X axis .....
Power .....	Separate power supply .....
	(included). 115V 60Hz .....
	to DC converter. .....
Resolution (In Inches) .....	0.005 .....
Accuracy .....	0.08% + - .....

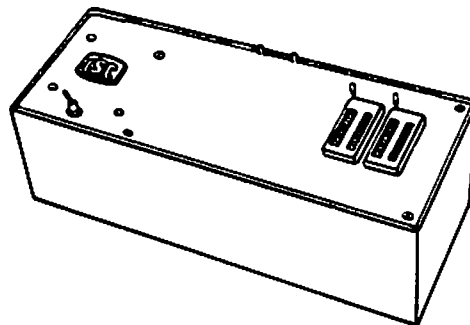
# SPECIFICATIONS – CRTs

	13" CRT 8300	19" CRT		25" CRT 8000/3650	13" CRT 2048/3650
		8000	8900/9650		
<b>Power:</b> 105-125 volts, 60 Hz, 250 watts					
<b>Temperature:</b> +10°C to 35°C operating -30°C to 70°C storage					
<b>Humidity:</b> 0-95% non-condensing					
<b>Terminal Size:</b>					
Height .....	13¾"	17½"	17½"	22¼"	13¾"
Width .....	19¾"	19¾"	26½"	25"	19¾"
Depth .....	26¾"	22½"	23½"	23"	26¾"
Weight .....	53 lbs.	85 lbs.	70 lbs.	115 lbs.	50.5 lbs.
<b>Keyboard Size:</b>					
Height .....	Built-in	2¾"	3"	3"	Built-in
Width .....	Built-in	18½"	25¾"	25¾"	Built-in
Depth .....	Built-in	7"	8¼"	8¼"	Built-in
Weight .....	In weight above	5 lbs.	5.5 lbs.	5.5 lbs.	In weight above
<b>CRT Display</b>					
<b>Refresh Rate:</b> 60 times/second synchron- ized to line frequency.					
<b>Screen Size:</b> diagonal measure .....	13"	19"		25"	13"
	90 sq. in. screen area...	186 sq. in. screen area...		312 sq. in. screen area...	90 sq. in. screen area
	4 x 3 aspect ratio .....	4 x 3 aspect ratio .....		4 x 3 aspect ratio .....	4 x 3 aspect ratio
<b>Display area</b> .....	72½ sq. in.	130 sq. in.		221 sq. in.	60¾ sq. in.
Width .....	10"	13"		17"	9"
Height .....	7¼"	10"		13"	6¾"

# SPECIFICATIONS – EPROM Programmiers

(Options B55 & B55E)

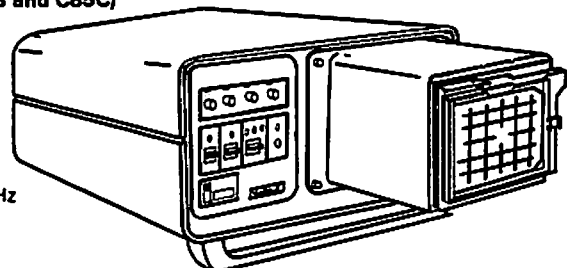
**Size** ..... 11½" x 5" x 3"  
**Weight** ..... 8 lbs.  
**Power** ..... 105-115V AC, 60 Hz,  
 35 watts  
**Input/Output** ..... 24 bit bi-directional  
 port  
**Software** ..... provided for all  
 programming  
**Erasable PROMs** .... Programmable:  
 1) 1Kx8 Intel, TI and  
 others 2708 Type  
 2) 2Kx8 TI-2716 Type  
 (not Intel)



# SPECIFICATIONS – Color Camera

(Options B85, B85A, B85B, B85C; C85, C85A, C85B and C85C)

**Base Size** ..... 8½" x 16¼" x 22"  
**Camera Size** ..... 9" x 9" x 7"  
**Base Weight** ..... 45 lbs.  
**Camera Weight:**  
 SX-70 ..... 4 lbs.  
 4" x 5" ..... 4½ lbs.  
 35mm ..... 5½ lbs.  
**Power** ..... Adjustable taps for 100, 120, 220 or 240 VAC, 50 or 60 Hz  
**Image Resolution** ... Digital RGB Inputs: 512 x 512 pixels minimum





# Intelligent Systems<sup>SM</sup>

AFFORDABLE COLOR GRAPHICS

## THANK YOU FOR THIS ORDER

THIS IS YOUR WARRANTY VALIDATION.  
THE POSTPAID CARD BELOW MUST BE RETURNED  
TO VALIDATE YOUR WARRANTY.

**URGENT - Consignee, please read at once. This material is F.O.B. shipping point.**

This shipment should be inspected for possible damage immediately. If damage exists, **THE FREIGHT CARRIER MUST BE NOTIFIED** within seven (7) days and the container(s) must be saved until inspection of claim has been completed. Failure to comply could release carrier of any liability on your claim. Intelligent Systems has no liability for damage in shipment; please handle any shipping claim with carrier.

### Quality is Built In and Tested

Intelligent Systems is dedicated to assuring that our customers receive a product of the highest quality. Your equipment has passed many in-process Quality Control inspections to assure high reliability. Prior to shipment, each completed unit is subjected to procedural environmental testing. This includes vibrating at a resonant frequency for a minimum of 30 seconds to check for loose parts and possible faulty electrical connections. Every unit is then subjected to a burn-in for a minimum of 168 hours at an average ambient temperature of 110°F with continuous two hour power-cycling to induce failure of marginal components. In addition, software diagnostics test the CPU, RAM, Disk I/O and other digital-related operations. Analog adjustments are made to assure peak display performance. After a thorough final inspection, each unit is then packed in half-pound density pre-molded foam.

### Return Authorizations For Repair Or Updating

If for any reason (warranty repair, updating, etc.), material is to be returned to the factory, a Return Authorization (RA) number must be obtained from Customer Service, 404/449-5961. The assigned RA number must be clearly marked on the outside of the shipping carton. COLLECT or COD deliveries will not be accepted.

**TO INITIATE THE VALIDATION OF YOUR WARRANTY, PLEASE COMPLETE AND RETURN THE POSTPAID WARRANTY VALIDATION CARD BELOW WITHIN 10 DAYS OF RECEIPT.**

We appreciate your confidence in the purchase of this equipment, and look forward to serving you in the future.

## WARRANTY VALIDATION CARD

To be completed by user of unit if possible.  
Please check all applicable blocks.

( ) MR ( ) MS

PART NO.

SERIAL NO.

SHIP DATE

NAME
TITLE
DEPARTMENT
COMPANY
PHONE
ADDRESS
CITY STATE ZIP

#### TYPE OF BUSINESS

Please check only one ...

- Re-Seller of Computer Systems (OEM/Systems House)
- Computer/Terminal Mfg.
- Agriculture, Forestry, Fishing
- Mining
- Building/Construction
- Production/Manufacturing (other than Computer/Terminal)
- Utilities/Transportation/Communication
- Finance, Insurance, Real Estate
- Services
- Trade (Retail, Wholesale)
- Other \_\_\_\_\_

#### JOB FUNCTION

Please check only one ...

- Corporate Management
- Data Processing/MIS
- Technical/Engineering
- Finance/Accounting
- Sales/Marketing
- Manufacturing/Production
- Administrative/Operations
- Purchasing
- Human Resources/Personnel
- Government
- Education
- Other \_\_\_\_\_

Did you have a technical problem with this unit?  Yes  No  Physical

Functional

Please explain \_\_\_\_\_

In the past, has reliability been:  Good  Average  Poor ?

Comments \_\_\_\_\_

\_\_\_\_\_ Date of last shipment

How are you using your unit (application): \_\_\_\_\_

How did you learn about Intelligent Systems:

- Referral from \_\_\_\_\_
- Ad (Name of magazine) \_\_\_\_\_
- Rep Firm \_\_\_\_\_
- Trade show (Name/Year) \_\_\_\_\_
- Dealer \_\_\_\_\_
- Other \_\_\_\_\_