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LOG
DECsystem-10 DECSYSTEM-20

**SYSTEMS
PRICE
LIST**

digital

LARGE COMPUTER GROUP

COMPANY CONFIDENTIAL

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THE FOLLOWING ARE CHANGES TO THE LARGE SYSTEMS PRICE LIST

New Options

Hardware

1090-PE(PF)	DMR11-AC
1090-PH(PJ)	DMR11-AE
1090L-PE(PF)	DN20-MC(MD)
1090L-PH(PJ)	DN21-JA(JB)
1090S-UK(UL)	DN200-MA(MB)
1090S-UM(UN)	DN200-MC(MD)
1090T-PE(PF)	DN200-MU
1090T-PH(PJ)	KL10-FC(FD)
1091-SE(SF)	LP100-BA(BB)
1091-SH(SJ)	LP20-JA
1091L-SE(SF)	RP07-AA(AB)
1091L-SH(SJ)	RP07-BA(BB)
2020-MA(MB)	RP07-C
2020-MC(MD)	TM78-C
2020L-MA(MB)	TU78-AB(AD)
2020L-MC(MD)	TU78-AF(AJ)
2020T-SE(SF)	VK100-AA(AB)
2040-SE(SF)	VT101-AA(AB)
2040-SH(SJ)	VT125-AA(AB)
2040L-SE(SF)	V1090-AA(AB)
2040L-SH(SJ)	V1090-AC(AD)
2040T-SE(SF)	V1090-AE(AF)
2040T-SH(SJ)	V1090-AH(AJ)
2060-PH(PJ)	V1090-AK(AL)
2060-PK(PL)	V1090-AM(AN)
2060L-PH(PJ)	V1091-AA(AB)
2060L-PK(PL)	V1091-AC(AD)
2060T-PH(PJ)	V1091-AE(AF)
2060T-PK(PL)	V1091-AH(AJ)
BC55M-98	V1091-AK(AL)
BC55N-98	V1091-AM(AN)
DF02-AA	V2060-AA(AB)
DF02-AC	V2060-AC(AD)
DF03-AA(AB)	V2060-AE(AF)
DF03-AC(AD)	V2060-AH(AJ)
DMR11-AA	V2060-AK(AL)
DMR11-AB	V2060-AM(AN)

Software

QH062-DZ	QT102-EL
QH062-XM	QT102-NK
QH065-DZ	QT102-NL
QH065-XM	QT214-AM
QH215-AM	QT214-DZ
QH215-DZ	QT215-AM
QH215-HM	QT215-DZ
QH215-HZ	QT215-HM
QT062-EM	QT215-HZ
QT100-EM	QTD04-AM
QT100-NM	QTD04-DZ
QT101-EM	QTD04-EM
QT101-NM	QTD04-HM
QT102-EK	QTD04-HZ

Deleted Options

Hardware

1090-PC(PD)	2060L-PE(PF)
1090L-PC(PD)	DN21-BA
1091-SC(SD)	DN21-BB
1091L-SC(SD)	DN21-DA(DB)
1091L-SC(SD)	DN21-HA
2040-SC(SD)	DNSXX-AA
2040L-SC(SD)	DNSXX-AB
2060-PE(PF)	

Software

QH020-DZ	QH020-XM
QH020-NM	QH020-XP
QH020-NP	QH647-NP
QH020-NZ	

End User Policies and Procedures

(Refer to page 5 of this Price List for OEM specific Policies and Procedures.)

This section on Policies and Procedures is an overview only. Contact the LCG Product Line for specific information.

INSTALLATION

- Field Service installation costs are included in the Initial Support Package with the Basic System Packages.
- Field Service installation costs for add-on hardware orders are not included in the option prices listed in the Price insert. Please add them to your order.

CABLES

Cable information is needed 60 days prior to delivery to be tested. Only those cables necessary for normal installation will be supplied with each order. Refer to the DECSYSTEM-10 and/or DECSYSTEM-20 Site Preparation Guide for specific cable information. Communication cables are not included and must be ordered separately.

Replacement cables, and cables for reconfiguring systems and extending units, should be ordered from the Accessories and Supplies Group by dialing (800) 258-1710.

LEASE RATES

Due to significant fluctuations in interest rates, lease quotes require written confirmation from the LCG Product Line or the Customer Finance Department.

REFURBISHED EQUIPMENT

Refurbished equipment is subject to prior sale and is available only with written delivery commitment from the LCG Product Line. Tape drives, line printers, and card equipment are not available refurbished. Refurbished equipment will not be subject to additional discount, but the dollar value will be added to the aggregate level.

SPECIAL EQUIPMENT

Orders forwarded to Order Processing which include hardware or software not shown in this Price List should be accompanied by the LCG Product Line approval upon which the quotation was based, a copy of the quotation, and any supporting documentation.

FOREIGN ATTACHMENTS

In the event the customer installs non-DIGITAL equipment, it will become the customer's responsibility to ensure the system's performance and reliability since the interconnection of devices that are non-DIGITAL can have a marked effect on the system's performance. The system software in this case is also considered part of the entire system. Software for devices not purchased from DIGITAL will be licensed separately.

DISCOUNTS

End User

A	=	Refer to Accessories & Supplies Preface of the DIGITAL Standard Price List for discount information
N	=	Not Discountable
T	=	Discountable under the Terminals Volume Discount Agreement
Y	=	Discountable

Contact the Contracts Department for any information on Discount Agreements.

PRICES

All prices listed are F.O.B. DIGITAL's plant in Massachusetts and apply in the continental United States only. Prices do not include shipping or transit insurance.

Options are offered for use only with supported DIGITAL software.

Equipment is scheduled and allocated by the LCG Product Line.

EQUIPMENT RESERVATIONS

Hardware can be reserved in anticipation of a customer’s purchase order.

To reserve equipment, contact the appropriate LCG Product Line Representative and provide the following information:

- Salesperson’s name, location, badge number, and booking center, P/L, FAC CODE & F/S Branch.
- Customer’s name and address.
- Requested equipment which includes software, any inter-product line options and the requested delivery date.
- NOTE: The customer’s purchase order must be received in the product line 60 days prior to the first day of the scheduled ship month.

BOOKING INFORMATION

The following information is required to book an order:

- One of the following:
 1. Signed DIGITAL Order Form.
 2. Signed DECsystem Purchase and Sale Agreement or, a purchase order from the customer with terms and conditions acceptable to DIGITAL.
- A software Program Sources License Agreement with each system order (once for each site).
- All cable requirements and floor plans.

Outlined below are the policies on cables for systems and add-ons:

1. System Orders:
 - a. Cable/floor plan information that is received at least 60 days prior to shipment will guarantee that the specified cables will be tested and shipped with the system.
 - b. Cable information that is received between 30 and 60 days prior to shipment will result in the shipping of correct but untested cables with the system.
 - c. Cable information that is received less than 30 days prior to shipment will result in the system being shipped with cables used to stage the system.
2. Add-on Orders:
 - a. Cable information, when applicable, must be submitted with the Master Order Form and Contract or Purchase Order.

Orders submitted without meeting the above requirements will not be booked until the necessary information is complete.

SMP OPTIONS—CONTROLLED RELEASE

1090S-UE	1090S-UF	1090S-UG	1090S-UH
1090S-UK	1090S-UL	1090S-UM	1090S-UN
QH302-Xx	M9301-WA	M9301-WB	

Prior to booking orders which include any of the above options, you must secure the following signatures on the appropriate Customer Qualification Acknowledgement Form which is available from Customer Services Engineering in Marlboro.

- Branch Field Service Manager
- Branch Software Services Manager
- Sales Unit Manager

A copy should accompany your M.O.F. and the original given to the Branch Software Services Manager.

Refer to the 1090 Section of the Product Summary.

DN22 FOR TOPS-20 - CONTROLLED RELEASE

A *TOPS-20 2780/3780/HASP* for the 2020 Customer Qualification Acknowledgement form must be signed prior to scheduling the Shipment of the DN22-AA(AB). The Customer Qualification Acknowledgement forms are available from Customer Services Systems Engineering (CSSE) in Marlboro (MR1-1/S35). Signatures of the following managers must be secured on the acknowledgement form.

- Sales Unit Manager
- Software Service Unit Manager
- Field Service Branch Manager

The original copy of the qualification form should be given to the Unit Software Manager who will route it to CSSE in Marlboro.

LICENSE INFORMATION

A License is required for any Software Product and will be specified in the Software Product Descriptions.

The TOPS-10/20 Operating System License that is shown in the corresponding Software Product Description is the definition for the following:

- TOPS-10/20 License
- TOPS-10/20 Operating System License
- TOPS-10/20 Monitor License

GENERAL

The first system sold must be a fully supported Basic System Package. Additional system sales may be License Only System Packages.

OEM Policies and Procedures

INSTALLATION

Field Service installation costs are included in the Basic OEM System Package Price. However, when the appropriate OEM discount is deducted, *THIS DELETES HARDWARE INSTALLATION*. Per the contract, this may be purchased back at 5% of the MLP for installation and a 30 day on-site Warranty (I & W30) or at 3% of the MLP plus DSMC x 12 for installation with an obligation to purchase a one year field service contract immediately following installation (I & K).

CABLES

Cable information is needed 60 days prior to delivery for cables to be tested. Only those cables necessary for normal installation will be supplied with each order. Refer to the DECsystem-10 and/or DECSYSTEM-20 Site Preparation Guide for specific cable information. Communication cables are not bundled and must be ordered separately.

Replacement cables and cables for reconfiguring systems and extending units should be ordered through the Accessories & Supplies Group by dialing (800)258-1710.

LEASE RATES

Due to significant fluctuations in interest rates, lease quotes require written confirmation from the LCG Product Line of Customer Financing.

REFURBISHED EQUIPMENT

Refurbished equipment undergoes a comprehensive inspection and upgrade during which all field effort ECOs are incorporated and check or acceptance procedures are run.

Availability

- Equipment presently being refurbished by LCG follows.
- Availability inquiries should be directed to LCG Sales Service or Installed Base Marketing.

Prices

All prices are F.O.B. Digital's plant in Massachusetts and apply in the continental United States only. Prices do not include shipping or transit insurance.

Any pricing exception should be negotiated with the appropriate LCG Marketing Manager or Installed Base Marketing.

Refurbished equipment will not be subject to additional discount, but the dollar value will be added to the aggregate level.

Equipment Reservations

Refurbished hardware can be reserved in anticipation of a customer's purchase order.

To reserve equipment, contact the appropriate LCG Sales Service Representative and provide the following information:

- Salesperson's name, location, badge number, and booking center, P/L, FAC CODE, F/S Branch and customer code.
- Customer's name and address.
- Requested equipment which includes software, any inter-product line options and the requested delivery date.
- NOTE: Refurb activity will not begin until the purchase order is received by Order Administration in Marlboro.

Booking Information

The following information is required to book an order:

- An exception TWX from LCG Sales Service Manager is required to book an order. (This is because of the non-standard pricing.)

Outlined below are the policies on cables for systems and add-ons:

- Refurbished System Orders:

Cable/floor plan information must be received at least 60 days prior to shipment.

- Refurbished Add-on Orders:

Cable information, when applicable, must be submitted with the Master Order Form and Contract or Purchase Order 30 days prior to ship date.

Installation and Warranty

- Field Service installation costs for add-on hardware orders are not included in the option price. Please add them to your order.
- Installation and basic maintenance charge are available in Maintenance Section of Digital Standard Price List or from your local Field Service Marketing Specialist.
- Warranty for refurbished system orders is 90 days from the date of installation completion and 30 days for add-on orders.

Important

- * ALL REFURBISHED ORDERS ARE SUBJECT TO EQUIPMENT AVAILABILITY.
- * NO QUOTES SHOULD BE GIVEN WITHOUT AN EXCEPTION TWX FROM THE LCG SALES SERVICE MANAGER.

LCG REFURBISHED EQUIPMENT

Option	Description
Communications	
DC10-B	8-LINE GROUP
DC20-AA	8-LINE BASIC ASYNCH GROUP
DC20-CC	CABLES & DIST CAB FOR DC20-AA
DC20-CD	CABLES & DIST CAB FOR DC20
DC20-DA	8-LINE ASYNCH EXPANSION GROUP
DC20-EA(EB)	COMMUNICATION EXPANSION CAB
DC20-EC(ED)	COMMUNICATION EXPANSION CAB
DF10-A(B)	18-BIT DATA CHANNEL
DF10-CA(CB)	DATA CHANNEL (22-BIT)
DIB20	DIA20 & BACKPLATE AND HARDWARE
DK10	REAL TIME CLOCK
DL10-AA(AB)	DATA LINK (PDP-11 TO PDP-10 MEMORY)
DL10-C	ADDITIONAL PDP-11 UNIBUS PORT
DN20-BA	2.4K to 19.2K BAND SYNC SINGLE LINE W/CONT.
DN20-BB	BASIC 2.4K TO 19.2K BAND SYNC LINE EXPANDER
DN20-CA(CB)	BASIC SYNC. COMM CAB, 11/34A, 32 KW CORE MEMORY ¹
DN20-CC(CD)	DN20-CA W/BLUE COSMETIC ²
DN21-DA(DB)	56K BAUD SYNC COMM EXPANSION DRAWER

¹ MUST HAVE DN20-MU UPGRADE
² RECOMMEND DN20-MU UPGRADE

DN25-EA(EB)	EIA ASYNCH COMM EXP CABLES CAB, DN25-DA
DN25-EC(ED)	DN25-EA(EB) W/BBLUE COSMETIC
DN81-EA(EB)	ASYNCH LINE CAB EXP
DN81-EC	ASYNCH LINE GROUP (DDCMP) DH11-AA, DM11-BB
DN81-ED	ASYNCH LINE GROUP (DDCMP) DH11-AC, DM11-BB
DN81-FB	EIA MODEM 8-LINE GROUP: 2 DM11-DB
DN81-FC	EIA MODEM 8-LINE GROUP: 2 DM11-DC
DN81-H	NPR SYNC EIA
DN87S-AA	UNIVERSAL COMM.FRONT END, 120V WITH DTE20
DN87S-AB	UNIVERSAL COMM.FRONT END, 240V WITH DTE20
DNHXX-AA(AB)	BASIC UNIT RECORD EXPANSION CAB

Central Processor Units

KI10	I/O ARITHMETIC PROCESSOR, DK10
KL10-FA(FB)	KL10-A WITH LA120 CONSOLE TERMINAL

Controllers

RH10-A	MASSBUS INTERFACE
RH20	MASSBUS CONTROLLER
TD10-CA(CB)	CONTROL W/SPACE FOR 3 TU56

Tape Systems

Masters

TU45A-EA(EB)	TM02-CE(CF) & TU45A-EE(EF)
TU45A-EC(ED)	TM03-CE(CF) & TU45-EH(EJ)

Slaves

TU45-EE(EF)	TU45-EE, TERRA COTTA, USED ON TM02
TU45A-EH(EJ)	TU45A-EE, BLUE, USED ON TM02
BA10	WIRED CAB FOR CR10, LP10, XY10
CR10-D	CARD READER, 1000 CPM
CR10-E	CARD READER, 300 CPM

Memory

MB20-E	64K EXPANSION MODULE
MB20-GA(GB)	64K BASIC MEMORY
MB20-HA(HB)	128K BASIC MEMORY
MB20-HC(HD)	128K SECOND MEMORY
MB20-LA(LB)	256K BASIC MEMORY
MB20-LC(LD)	256K SECOND MEMORY
MC10-F	EXTRA MEMORY PORT
MC10-G	PAIR EXTRA MEMORY PORT
MF10-A	32K MEMORY MODULE
MF10-E	32K EXPANSION MEMORY
MF10-G	64K MEMORY MODULE
MF20-E	256K EXPANSION (4 MF20-M)
MG10-E	32K 37 BIT EXPANSION (4 MA20-M)
MG10-GA	MG10-G W/4 PAIR BUS PORTS
MG10-HA(HB)	128K MEMORY, CONTROL, CAB
MH10-E	64K CORE MEMORY EXPANSION (4 MB20-M)
MH10-H	128K CORE MEMORY (2 MH10-E)
MH10-LA(LB)	256K MEMORY, CONTROL & CAB

Line Printers

LP100-Bx	LP100 CONTROLLER & LP07-BX
LP100-Dx	LP100 CONTROLLER & LP05-VX
LP100-Ex	LP100 CONTROLLER & LP05-WX
LP100-Fx	LP100 CONTROLLER & LP14-VX
LP100-Hx	LP100 CONTROLLER & LP14-WX
LP20-Ax	LP20 CONTROLLER & LP05-VX
LP20-Bx	LP20 CONTROLLER & LP05-WX
LP20-Cx	LP20 CONTROLLER & LP14-VX
LP20-Dx	LP20 CONTROLLER & LP14-WX
LP20-Fx	LP20 CONTROLLER & LP10-JX
LP20-Hx	LP20 CONTROLLER & LP10-KX

LP200-Bx

LP20 CONTROLLER &
LP07-BX

LP10-Fx

(NEED BA10)

LP10-Hx

(NEED BA10)

x - Denotes designator to be specified

SPECIAL EQUIPMENT

Orders forwarded to Order Processing which include hardware or software not shown in this summary should be accompanied by the LCG Product Line approval upon which the quotation was based, a copy of the quotation, and any supporting documentation.

FOREIGN ATTACHMENTS

In the event the customer installs non-DIGITAL equipment, it will become the customer's responsibility to ensure the system's performance and reliability since the interconnection of devices that are non-DIGITAL can have a marked effect on the system's performance. The system software in this case is also considered part of the system. Software for devices not purchased from DIGITAL will be licensed separately.

GENERAL

Before an "OFFICIAL" quote can be made, a customer must be an approved OEM. A planning quote may be given as a guideline. A statement should be added to all quotes stating "THIS QUOTE IS SUBJECT TO OEM TERMS AND CONDITIONS. PRICES QUOTED ARE FOR OEM SALES ONLY". Contact the LCG Product Line for details.

The first system sold must be a fully supported Basic System Package. Additional system sales should be License Only System Packages. Both Basic System and License Only Packages are OEM discountable as defined in the OEM discount type column of this Price List.

DISCOUNT

OEM

D	=	10% discount, no other discount applies
F	=	Refer to Accessories and Supplies Preface for discount information
N	=	Not Discountable
1	=	Type one discount applies
2	=	Type two discount applies
3	=	Type three discount applies

PRICES

All prices listed are F.O.B. DIGITAL's plant in Massachusetts and apply in the continental United States only. Prices do not include shipping or transit insurance.

Options are offered for use only with supported DIGITAL software.

Equipment is scheduled and allocated by the LCG Product Line.

TRADE-INS

Not available to OEM's.

FIELD SERVICE

In order for Field Service to maintain OEM system packages, the system must include a tape and a printer. Currently DIGITAL cannot maintain DECSYSTEMS in all locations. Contact Field Service for locations where DECSYSTEMS can be supported. Refer to Field Service section of this document for other Field Service information.

SOFTWARE

For OEM sales, Type one discount applies to the license fee on all software products listed.

SOFTWARE SERVICES

Contact the LCG Product Line.

SOFTWARE UNITS

Not available to OEMs.

CONFIGURATIONS

OEM configuration rules are the same as for End User system.

Field Service

(Refer to page 5 of this document for OEM specific policies and procedures.)

Field Service pricing shown in this Price List reflects 12-hour/5-day DECservice coverage with the exception of 2020, which is 8-hour service. Other cross-product options which may be used on the 2020 (i.e., CD20, LP20) are listed at the 12 hour DSMC and should be recomputed to the 8 hour DSMC by dividing by 1.04 when used on a 2020 configuration. 12 hour DSMC coverage includes:

- Field Service response within four(4) hours providing the call for service is received during the contracted hours of coverage.
- Continuous remedial service until the system is fully operational. If this service is performed outside the hours of coverage, there is no extra charge to that customer providing Field Service was notified during the contracted hours of coverage.
- Preventive Maintenance scheduled outside normal working hours.

All of the services noted above are provided at no additional cost.

DECservice coverage will be provided by designated Field Service locations, and the customer site must be within a 50-mile radius of the office (check with your local Branch Field Service Manager).

REMOTE DIAGNOSIS (KLINIK)

The maintenance prices documented in the DIGITAL Standard Price List for the following products assume the use of Remote Diagnosis in diagnosing system failure.

In situations where DIGITAL is prevented from using Remote Diagnosis, an additional charge will apply to the system's total monthly charge (U.S. + Canada only).

SYSTEM	NON-REMOTE DIAGNOSIS UPLIFT CHARGE
DECsystem-1090	\$250.00
DECsystem-1091	\$250.00
DECSYSTEM-2020	\$250.00
DECSYSTEM-2040	\$250.00
DECSYSTEM-2060	\$250.00

U.S. AREA AND CANADA

In order for KLINIK to be utilized the customer is required to provide a 300 baud RS232-A asynchronous modem and a dedicated telephone land line, both at his expense and ensure that operators have access to the KLAD media for mounting.

EXTENDED DECservice COVERAGE

Use the following for determining extended coverages:

16-hour 5-day, DECservice 1.038 X DECservice 5-day pricing

24-hour 5-day, DECservice 1.115 X DECservice 5-day pricing

SATURDAY COVERAGE

12-hour DECservice: Add DECservice 5-day pricing X 0.092

16-hour DECservice: Add DECservice 5-day pricing X 0.108

24-hour DECservice: Add DECservice 5-day pricing X 0.131

SUNDAY COVERAGE (SAME AS SATURDAY COVERAGE)

Calculation examples:

System coverage for 16-hour DECservice, Monday through Saturday:

DECservice 5-day pricing X (1.038 + 0.092), or

DECservice 5-day pricing X 1.13

System coverage for 24-hour DECservice, seven days per week:

DECservice 5-day pricing X (1.115 + .131 + .131), or

DECservice 5-day pricing X 1.377

If your customer requires less than DECservice coverage, a basic coverage may be provided with approval from Field Service management and your LCG Product Line Representative.

This basic coverage may be computed as follows:

Basic coverage for 12-hour/5-day = .869 X DECservice 12-hour/5-day pricing

Basic coverage for 8-hour/5-day = .769 X DECservice 12-hour/5-day pricing

Software Services

(Refer to page 5 of this document for OEM specific policies and procedures.)

Software Services are available to support TOPS-10 and TOPS-20 customers during any aspect of their system analysis, software development or implementation efforts. Services available start with the personal attention of a DIGITAL software consultant and continue with the distribution of up to date software and software information.

A software specialist often works with a DIGITAL sales representative to evaluate a prospective users' needs prior to purchase, recommends hardware/software solutions to problems and gives advice on the feasibility and costs of proposed solutions.

Depending on the software purchased, specialists are available to install software and provide software warranty support, and to assure that purchased software products perform to DIGITAL's commitments. Ongoing software support is assured through a variety of post-warranty Software Product Services, which offer customers the opportunity to keep their software up to date and running smoothly. A full range of Professional Software Services is available to assist customers throughout the planning, implementation and production phases of their system. Contact local Software Services for further information.

SOFTWARE SUPPORT LEVELS

DIGITAL software is categorized into two levels of support (DIGITAL or Customer Supported):

DIGITAL Installed	Provides installation on-site remedial coverage when necessary during ninety (90) days following installation; SPR service, software updates, and software DISPATCHes during the first 90 days after installation.
DIGITAL Supported	
Customer Installed	Provides SPR service, software updates and software DISPATCHes during the first 90 days after delivery.
DIGITAL Supported	
Customer Installed	Provided on an "as-is" basis with no services.
Customer Supported	

SOFTWARE UNITS

The "software units" column in the table in the Software Section of the LSG Product Summary shows the number of software units associated with each product.

LICENSING OPTIONS

A binary license entitles the customer to run the licensed software on the single CPU on which it is first installed. For purposes of licensing, dual processors (e.g., SMP) are considered as one CPU. The source license enables the user to make changes in the software, and applies to all CPUs at a single location.

LICENSE TO COPY OPTION (QXXXX-DZ)

The DZ is a license to run our software on an additional CPU using a copy of the software that the customer obtained from the original, supported license. The license-only option is an excellent way to license a backup CPU. **DZ licenses do not apply to the TOPS-10 and TOPS-20 operating systems, only in the context of license only packaged systems ("L" series) due to the inclusion of the software in every DECsystem-10 and DECSYSTEM-20.**

SOFTWARE INSTALLATION AND WARRANTY

For those products that require DIGITAL installation, a software specialist will install the software and verify that the system is complete. Software warranty services include:

- Telephone assistance and on-site remedial support, if necessary.
- Automatic delivery of in-warranty software product and documentation updates.
- Distribution of a periodic newsletter.
- Software Performance Reports are included under warranty services.

PROFESSIONAL SOFTWARE SERVICES

DIGITAL's software professionals are specifically trained in DIGITAL products and are experienced in designing, coding, and modifying custom software as well as tailoring TOPS-10 and TOPS-20 software to meet special needs. Software specialists are available to provide system analysis, application design review and optimization, and system/application integration. Resources are available to perform specific project tasks, supplement a customer's programming staff, or manage projects from start to completion.

Varying types of expertise are available, ranging from programmer to project manager, depending on requirements. Professional services are available at both resident and per-call rates, and also on a fixed-price project basis. Contact local Software Services for further information.

SOFTWARE PRODUCT SERVICES

Software Product Services (SPS) offers three levels of contract service and are available after installation, start-up and termination of warranty (usually 90 days). Each level of service contains a different array of service components to meet a variety of customer needs. Levels of services available are: DECsupport Service, Basic Service, and Self-Maintenance Service for software. In addition, Software Product Updates are available for the customer who requires no service.

Software Product Updates

Software Product Updates are out-of-warranty update kits. Kits include software and documentation; however, no services are provided.

Software Product Updates provide:

- Current version of software at a standalone price.
- The prerequisite for Basic and DECsupport, if the customer is not at current version, and is strongly recommended for Self-Maintenance Service.

Self-Maintenance Service for Software (SMS)

SMS is designed for companies with the technical expertise to maintain their own system.

SMS provides:

- Software Product and Documentation Updates
- Program Change Orders
- Dispatches (bi-monthly)
- Software Performance Reports

Basic Service for Software

Basic Service provides a higher level of service than SMS. Basic Service is designed for companies with the technical expertise to maintain their own system with occasional help.

Basic Service provides:

- Telephone support
- Software Product and Documentation Updates
- Program Change Orders
- Dispatches (bi-monthly)
- Software Performance Reports

DECsupport Service for Software

Our most comprehensive software support service. DECSupport Service is designed for companies who require uninterrupted system performance, yet don't want the added expense of training and maintaining their own staff.

DECSupport provides:

- Scheduled Preventive Maintenance
- On-Site Remedial Support
- Telephone Support
- Software Product and Documentation Updates
- Program Change Orders
- Dispatches (bi-monthly)
- Software Performance Reports

NOTE

- Software Product Service may be paid either monthly (if monthly bill exceeds \$100.00) or per service year.
- A 5% prepayment discount will be allowed for yearly payments for Software Product Services.
- Prerequisite: A software license for the host operating system and dependent products, plus the equivalent level SPS for the host operating system and dependent products.

OPTIONS

- Right-To-Copy Option (Qxxxx-HZ, Binary or Qxxxx-NZ, Binary/Source)

The HZ/NZ option allows the customer, who has a supported system, the right-to-copy update onto a single, additional like CPU.

The HZ/NZ option allows the customer, who has a supported system, the right-to-copy update onto a single, additional like CPU.

- Additional Dispatch Subscription
 - Hardcopy (QHK12-1Z, QT021-1Z)
 - Microfiche (QHK12-1R)

- Autopatch (Machine-readable Program Change Orders)
 - Products covered are those products currently Autopatchable
 - Included in Basic and DECSupport Service for Software
 - Available as an option for Self-Maintenance Service

- Notebooks
 - Additional Notebook Set and Subscription Service (QHK20-KZ, QT018-KZ)
 - Notebook Update Service (QHK14-3Z, QT018-3Z)

Educational Services

Educational Services' objective is to provide total educational support to every DECsystem-10 and DECSYSTEM-20 user no matter what level of experience or expertise.

People Make a Difference

The success of a DECsystem-10 or DECSYSTEM-20 depends largely on the customer's knowledge and complete understanding of features and capabilities. Those who have a clear understanding of their role relating to the system's functions will gain optimal usage and maximum efficiency from their computer system.

Quality Education

The course programs are developed with the user in mind. Just as DIGITAL is committed to manufacturing quality products, Digital Educational Services is committed to providing quality education. The TOPS-10 and TOPS-20 course programs are continually updated to represent state-of-the-art technology.

Flexible Formats Catering to Individual Needs

In order to meet a wide range of customer needs, Educational Services developed a variety of formats to satisfy any tight schedule or budget restraints.

- **Lecture/Lab:** 24 Training Centers around the world; over 500 computer systems dedicated solely to customer education.
- **Self-Paced Instruction:** Print, Audiovisual, and Computer-Based Instruction to learn wherever, and whenever study is convenient.
- **On-Sites:** Brings any Educational Services course to a site selected by the customer; modified to specific needs.
- **Exclusives:** Provides the benefits of an On-Site at one of Digital's 24 Training Centers.
- **Management and Technical Seminars:** For supervisory, middle, and upper management, management seminars are geared for the non-technical manager who must master computer efficiency without learning the nuts and bolts. For DP professionals, technical seminars focus on advanced uses of computer systems.

TOPS-10 and TOPS-20 Courses

Below is a list of all the TOPS-10 and TOPS-20 courses and prices.

Course	Description	Format	Price
EY-J2070-AO	TOPS-10 User	Lecture/Lab	\$800.
EY-J2086-AO	TOPS-10 Operator	Lecture/Lab	800.
EY-J2072-AO	TOPS-10 Administration	Lecture/Lab	800.
EY-J2074-AO	TOPS-10 Assembly Language Programming	Lecture/Lab	1,600.
EY-J2076-AO	TOPS-10 Adv. Assembly Language Programming	Lecture/Lab	900.
EY-J2078-AO	TOPS-10 Monitor Structure	Lecture/Lab	900.
EY-J2080-AO	TOPS-10 Monitor Internals	Lecture/Lab	1,800.
EY-J0006-AO	TOPS-10 COBOL	Lecture/Lab	800.
EY-J2084-AO	TOPS-10 Database Management System	Lecture/Lab	1,800.
EY-J2194-AO	TOPS-10/20 Application Programming Techniques	Lecture/Lab	900.
EY-JB026-AO	DECsystem-10/DEC-SYSTEM-20 DBMS Instruction Concepts	Self-Paced	180.
EY-J2090-AO	TOPS-20 Administration	Lecture/Lab	800.
EY-J2102-AO	TOPS-20 Operator	Lecture/Lab	800.
EY-CD051-SP	TOPS-20 Operator	Self-Paced	1,650.
EY-J2088-AO	TOPS-20 User	Lecture/Lab	800.
EY-J2092-AO	TOPS-20 Assembly Language Programming	Lecture/Lab	900.
EY-J2422-AO	TOPS-20 Assembly Language Programming	Lecture/Lab	1,600.

EY-J2436-AO	TOPS-20 Software Subsystems	Lecture/Lab	900.
EY-J2096-AO	TOPS-20 Monitor Structures	Lecture/Lab	1,800.
EY-J2224-AO	TOPS-20 Monitor Internals	Lecture/Lab	1,800.
EY-J0008-AO	TOPS-20 COBOL	Lecture/Lab	800.
EY-J2100-AO	TOPS-20 Database Management System	Lecture/Lab	1,800.

For More Information...

Contact the Educational Services Marketing Representative at any of the local Training Centers. Educational Services also provides a sales hotline number to support the sales force for a quick response to an urgent issue.

Sales Hotline: DTN 249-4282

Customer Hotline: (617) 276-4373

For more detailed descriptions of the courses and schedules refer to the DIGEST, a quarterly publication of Educational Services, which lists a six-month course schedule.

Option No. Description	Price	EU Disc Type Prerequisites	OEM Disc Type	12 HR DSMC <i>except KS</i>	Add-on Instl
1077-UA DUAL KI 1077 UPGRADE S/W KIT	11,600	Y	2	N/A	1,500
1090-PE (PF) 256K SYS PKG T-10 120V/60	639,800	Y	2	2,699	N/A
1090-PH (PJ) 512K SYS PKG T-10 120V/60	694,800	Y	2	3,576	N/A
1090-VC (VD) 1090 U/G PKG,TOPS-10,120V/60	502,095	Y	2	1,535	N/A
1090L-PE (PF) 256K L/O PKG T-10 120V/60	629,800	Y 1090-PE(PF)	2	2,699	N/A
1090L-PH (PJ) 512K L/O SYS PKG T-10 120V/60	684,800	Y 1090-PH(PJ)	2	3,576	N/A
1090S-UE (UF) 1090A TO 1090 SMP U/G 120V/60	440,000	Y 1090 "Model A"	2	1,275	N/A
1090S-UG (UH) 1090B TO 1090 SMP U/G 120V/60	440,000	Y 1090 "Model B"	2	1,275	N/A
1090S-UK (UL) 1090 SMP U/G W/MEM 120V/60	560,000	Y 1090 "Model A"	2	2,969	N/A
1090S-UM (UN) 1090 SMP U/G W/MEM 120V/60	560,000	Y 1090 "Model B"	2	2,969	N/A
1090T-PE (PF) 1090-PE W/AN 10 T-20 AN 60 HZ	674,000	Y	2	2,693	N/A
1090T-PH (PJ) 1090-PH W/AN 10 T-20 AN 60 HZ	729,000	Y	2	3,496	N/A
1091-SE (SF) 512K SYS PKG T-10 120V/60	496,000	Y	2	2,698	N/A
1091-SH (SJ) 256K SYS PKG T-10 120V/60	476,000	Y	2	2,465	N/A
1091L-SE (SF) 512K L/O SYS PKG T-10 120V/60	486,000	Y 1091-SE(SF)	2	2,698	N/A
1091L-SH (SJ) 256K L/O SYS PKG T-10 120V/60	466,000	Y 1091-SH(SJ)	2	2,465	N/A
2020-JE (JF) 256K SPL PKG,2RM03,T-20,60HZ	168,500	Y	N	1,071 8 hr.	N/A
2020-JG (JH) 256K SPL PKG,2RM03,T-10,60HZ	168,500	Y	N	1,071 8 hr.	N/A
2020-KE (KF) 256K SPL PKG,2RP06,T-20,60HZ	198,500	Y	N	1,150 8 hr.	N/A
2020-KG (KH) 256K SPL PKG,2RP06,T-10,60HZ	198,500	Y	N	1,150 8 hr.	N/A
2020-MA (MB) 384K SYS PKG,RP06,T-20 60HZ	170,000	Y	2	1,456 8 hr.	N/A
2020-MC (MD) 384K SYS PKG,RP06,T-10 60HZ	170,000	Y	2	1,456 8 hr.	N/A

Option No. Description	Price	EU Disc Type Prerequisites	OEM Disc Type	12 HR DSMC <i>except</i> <i>RS</i>	Add-on Instl
2020-PE (PF) 256K SYS PKG, RM03, T-20, 60HZ	129,800	Y	2	888 8 hr.	N/A
2020-PG (PH) 256K SYS PKG, RM03, T-10, 60HZ	129,800	Y	2	888 8 hr.	N/A
2020-SE (SF) 256K SYS PKG, RP06, T-20, 60HZ	144,800	Y	2	888 8 hr.	N/A
2020-SG (SH) 256K SYS PKG, RP06, T-10, 60HZ	144,800	Y	2	888 8 hr.	N/A
2020L-MA (MB) 384K L/O SYSPKG RP06, T20, 60HZ	150,000	Y 2020-MA(MB)	2	1,515	N/A
2020L-MC (MD) 384K L/O SYSPKG RP06, T10, 60HZ	150,000	Y 2020-MC(MD)	2	1,515	N/A
2020L-PE (PF) 256K L/O SYSPKG, RM03, T20, 60HZ	109,000	Y 2020-PE(PF)	2	923	N/A
2020L-PG (PH) 256K L/O SYSPKG, RM03, T10, 60HZ	109,000	Y 2020-PG(PH)	2	923	N/A
2020L-SE (SF) 256K L/O SYSPKG, RP06, T20, 60HZ	124,000	Y 2020-SE(SF)	2	923	N/A
2020L-SG (SH) 256K L/O SYSPKG, RP06, T10, 60HZ	124,000	Y 2020-SG	2	923	N/A
2020T-SE(SF) 2020-SE, W/AN22, TOPS20-AN, 60 HZ	181,400	Y	2	918	N/A
2040-SE(SF) 512K SYS PKG T-20 120V/60	392,100	Y	2	2,539	N/A
2040-SH(SJ) 256K SYS PKG T-20 120V/60	372,100	Y	2	2,306	N/A
2040L-SE(SF) 512K L/O SYS PKG T-20 120/60	362,100	Y 2040-SE(SF)	2	2,539	N/A
2040L-SH(SJ) 256K L/O SYS PKG T-20 120/60	342,100	Y 2040-SH(SJ)	2	2,306	N/A
2040T-SE(SF) 512K SYS W/AN20 T-20120V/60	427,100	Y	2	2,546	N/A
2040T-SH(SJ) 256K SYS W/AN20 T-20 120V/60	407,100	Y	2	2,333	N/A
2060-PH (PJ) 512K SYS PKG T-20 120V/60	466,000	Y	2	2,698	N/A
2060-PK (PL) 256K SYS PKG T-20 120V/60	446,000	Y	2	2,465	N/A
2060-UA 2040-2060 UG W/MC20, T20 +	125,000	Y 2040 "Model B"	2	N/A	1,656
2060-UB 2040-2060 UG W/MC20, T20 + ,KLPV	125,000	Y 2040-"Model A"	2	N/A	2,484
2060-UC 2050-2060 UG W/T20 +	12,500	Y 2050 "Model B"	2	N/A	552

Option No. Description	Price	EU Disc Type Prerequisites	OEM Disc Type	12 HR DSMC	Add-on Instl
2060-UD 2050-2060 UG W/T20 + ,KLPV	20,000	Y 2050 "Model A"	2	N/A	2,484
2060-UE 2040/50 TO 2060 RP20 UPGRADE	125,000	Y 2040 "Model B"	2	N/A	1,654
2060-UF 2040/50 TO 2060 RP20 UPGRADE	125,000	Y 2040 "Model B"	2	N/A	2,484
2060-UH 2040/50 TO 2060 RP20 UPGRADE	12,500	Y 2050 "Model B"	2	N/A	552
2060-UJ 2040/50 TO 2060 RP20 UPGRADE	20,000	Y 2050 "Model A"	2	N/A	2,484
2060L-PH (PJ) 512K L/O SYS T-20 120V/60	436,000	Y 2060-PH(PJ)	2	2,698	N/A
2060L-PK (PL) 256K L/O SYS T-20 120V/60	416,000	Y 2060-PK(PL)	2	2,465	N/A
2060T-PH(PJ) 512K SYS W/AN20 T-20 120V/60	499,000	Y	2	2,692	N/A
2060T-PK(PL) 256K SYS W/AN20 T-20 120V/60	479,000	Y	2	2,479	N/A
70-11426-A0 OPT 100FT LPT CABLE FOR 2020	1,500	N	D	N/A	N/A
BC03M-25 25' NULL MODEM EXT CABLE	70	Y	2	N/C	N/A
BC03M-A0 100' NULL MODEM EXT CABLE	140	Y	2	N/C	N/A
BC03M-B5 250' NULL MODEM EXT CABLE	200	Y	2	N/C	N/A
BC03M-E0 500' NULL MODEM EXT CABLE	340	Y	2	N/C	N/A
BC03M-L0 1000' NULL MODEM EXT CABLE	680	Y	2	N/C	N/A
BC05D-10 RS232MALE TO RS232 FEM(10')	120	A	A	N/C	N/C
BC05D-25 RS232 MALE TO RS232 FEM 25'	140	A	A	N/C	N/C
BC10R-20 20' XY CABLE	945	N RP20-CA	D	N/C	N/A
BC10R-30 30' XY CABLE	1,155	N RP20-CA	D	N/C	N/A
BC10R-40 40' XY CABLE	1,365	N RP20-CA	D	N/C	N/A
BC10S-20 20' CNTL CABLE	840	N RTP20	D	N/C	N/A
BC10S-50 50' CNTL CABLE	1,260	N RTP20	D	N/C	N/A

Option No. Description	Price	EU Disc Type Prerequisites	OEM Disc Type	12 HR DSMC	Add-on Instl
BC10S-70 70' CNTL CABLE	1,480	N RTP20	D	N/C	N/A
BC10S-A0 100' CNTL CABLE	1,995	N RTP20	D	N/C	N/A
BC10W-25 COMMUNICATOR CABLE,25FT.	975	Y TX05-Ex + /FB	D	N/A	N/A
BC10W-50 COMMUNICATOR CABLE,50FT.	1,558	Y TX05-Ex + /FB	D	N/A	N/A
BC10W-75 COMMUNICATOR CABLE,75FT.	1,653	Y TX05-Ex + /FB	D	N/A	N/A
BC10W-AO COMMUNICATOR CABLE,100FT.	2,237	Y TX05-Ex + /FB	D	N/A	N/A
BC10X-25 EMERGENCY POWER CABLE,25FT.	319	Y TX02-Ex + /RTP20	D	N/A	N/A
BC10X-50 EMERGENCY POWER CABLE,50FT.	343	Y TX02-Ex + /RTP20	D	N/A	N/A
BC10X-75 EMERGENCY POWER CABLE,75FT.	362	Y TX02-Ex + /RTP20	D	N/A	N/A
BC10X-AO EMERGENCY POWER CABLE,100FT.	356	Y TX02-Ex + /RTP20	D	N/A	N/A
BC10Y-25 BUS OR TAG CABLE,25FT.	524	Y TX02-Ex	D	N/A	N/A
BC10Y-50 BUS OR TAG CABLE,50FT.	756	Y TX02-Ex	D	N/A	N/A
BC10Y-75 BUS OR TAG CABLE,75FT.	751	Y TX02-Ex	D	N/A	N/A
BC10Y-AO BUS OR TAG CABLE,100FT.	845	Y	D	N/A	N/A
BC10Z-25 CHANNEL BUS CABLE,25FT.	1,453	Y TX02-Ex + /RTP20	D	N/A	N/A
BC10Z-50 CHANNEL BUS CABLE,50FT.	1,785	Y TX02-Ex + /RTP20	D	N/A	N/A
BC10Z-75 CHANNEL BUS CABLE,75FT.	2,114	Y TX02-Ex + /RTP20	D	N/A	N/A
BC10Z-AO CHANNEL BUS CABLE,100FT.	2,819	Y TX02-Ex + /RTP20	D	N/A	N/A
BC11S-25 H856 TO H856 18 TW PR 25'	138	A	A	N/A	N/A
BC55M-98 98 FT TRIAX AMP DMR11 LOCAL	155	Y DMR11	2	N/C	N/C
BC55N-98 98 FT TWINAX AMP DMR11 LOCAL	97	Y DMR11	2	N/C	N/C
BS10B-25 DRIVE BUS PWR + SIG CBLs 25FT.	1,010	Y TX02-Ex	D	N/A	N/A

Option No. Description	Price	EU Disc Type Prerequisites	OEM Disc Type	12 HR DSMC	Add-on Instl
BS10B-35 DRIVE BUS PWR + SIG CBLS 35FT.	1,096	Y TX02-Ex	D	N/A	N/A
BS10B-50 DRIVE BUS PWR + SIG CBLS 50FT.	1,288	Y TX02-Ex	D	N/A	N/A
CD20-AA (AB) 285 CPM READER 60HZ	7,920	Y 1091 + /2040 + /50 + /60 + /DNHXX-Ax(2020)	D	129	386
CD20-CA (CB) 1200CPM CRD RDR + CTRL 60HZ	27,960	Y 1091 + /2040 + /50 + /60 + /DNHXX-Ax(2020)	D	220	469
DC20-AA 8-LINE BASIC ASYNCH GROUP	6,160	Y 1091 + /2040 + /50 + /60	2	109	649
DC20-CC CABLES + DIST CAB FOR DC20-AA	2,585	Y 2040 + /50 + /60	2	N/C	N/C
DC20-CD CABLES + DIST CAB FOR DC20	2,585	Y 1091	2	N/C	N/C
DC20-DA 8-LINE ASYNCH EXPANSION GP	1,870	Y DC20-AA	2	96	241
DC20-EA (EB) COMM EXPANSION CAB 60HZ	12,980	Y DC20-CD	2	234	449
DC20-EC (ED) COMM EXPANSION CAB 60HZ	12,980	Y DC20-CC	2	234	449
DF01-A ACOUSTIC TELEPHONE COUPLER	345	A	F	17	158
DF02-AA 300 DPS,FDX,ASYNCH MODEM,EIA	450	A	F	16	175
DF02-AC DF02-AA + M7177-YA AUTO CALL	925	A	F	18	175
DF03-AA (AB) 300/1200 BPS,ASNC/SYNCH MODEM	950	A	F	18	175
DF03-AC (AD) DF03-AA + M7177-YA AUTO CALL	1,350	A	F	20	175
DIB20 I/O BUS INTERFACE	6,490	N 1091 + /2040 + /50 + /60	D	55	434
DMR11-AA NETWRK LINK EIA RS232-C/RS423	4,400	Y DN20-Mx + /DN21-Jx + /DN200-Mx	2	51	357
DMR11-AB NETWORK LINK CCITT V.35	4,400	Y DN20-Mx + /DN21-Jx + /DN200-Mx	2	51	357
DMR11-AC NETWORK LINK 56KB-1MB LOCAL	4,400	Y DN20-Mx + /DN21-Jx	2	51	357
DMR11-AE NETWORK LINK EIA RS422	4,400	Y DN20-Mx + /DN21-Jx	2	51	357
DN20-BA SYNC LINE CTRL PLUS DN20-BB	4,235	Y DN20-Cx + /Mx	2	42	228
DN20-BB SYNC LINE SPEEDS 2.4KB-19.2KB	1,650	Y DN20-BA + /Dx	2	18	208

Option No. Description	Price	EU Disc Type Prerequisites	OEM Disc Type	12 HR DSMC	Add-on Instl
DN20-DA (DB) EXPNSN DRAWER + DN20-BA 60HZ	11,770	Y DN20-BA	2	42	296
DN20-MA (MB) DEC20 128 KW FRTEND 60 HZ	37,620	Y 2040 + /50 + /60	2	211	450
DN20-MC (MD) DEC10 128KW FRTEND 60HZ	37,620	Y 1090 + /1091	2	211	450
DN20-MU DN20-C TO A DN20-M UPG	7,000	Y DN20-CA + /CB	2	N/A	510
DN21-JA (JB) EXPANSION DRAWER 120V	9,500	Y DN20-Mx	2	34	166
DN22-AA (AB) TOPS-20 IBM FR END FOR 2020	14,740	Y 2020 + /DN20-BA	2	172	570
DN25-AA 8 ASYNCH LINE MUX & CONTRL	5,335	Y DN25-AB + /DN200-A	2	56	228
DN25-AB DIST PANEL + DN25BA	2,695	Y DN25-AA + /Dx + /Ex	2	42	166
DN25-BA 8 ASYNC LINE INTERFACES	2,035	Y DN25 A + /D + /E	2	42	166
DN25-DA (DB) EXPNSN DRAWER + DN25-AA 60HZ	12,870	Y DN25-E	2	62	296
DN25-EC (ED) EXPANSION CAB + DN25-DA 60HZ	16,280	Y DN20-CC + /CD	2	88	517
DN200-MA (MB) REMOTE KERNAL STATION 120V	29,200	Y DN87 + /DN20	2	195	560
DN200-MC (MD) REMOTE STATION-T20 120V	29,200	Y DN20	2	195	603
DN200-MU UPGRADE CORE TO MOS MR	7,000	Y DN200-AA(AB)	2	N/A	510
DNCXX-AA (AB) 285 CPM CARD READER 60HZ	7,920	Y DN200	D	135	386
DNHXX-AA (AB) EXPANSION CABINET	9,600	Y 2020 + /CD20	D	N/C	N/A
DT03-DT 1XZ I/O BUS SWITCH NO CAB	11,770	N	N	64	407
DT05-DT 1XZ MEMORY BUS SWITCH NO CAB	12,320	N	N	65	407
DZ11-AA 8 LINE ASYNCH MUX FOR 2020	2,570	Y	1	43	269
DZ11-BA 8 LINE EXPANDER FOR 2020	2,050	Y DZ11-AA	1	36	214
KL10-FA (FB) EXT ADDR CPU,60HZ	426,070	Y	2	1,214	2,898
KL10-FC (FD) EXT ADD CPU W/MEM 60 HZ	546,070	Y	2	2,969	N/A

Option No. Description	Price	EU Disc Type Prerequisites	OEM Disc Type	12 HR DSMC	Add-on Instl
KL10-PM (PG) 1080 TO 1090 UPGRADE 120V60HZ	56,125	Y	2	N/C	828
KL10-PV KL10B TO KL10D UPGRADE, KLPV	66,875	Y 1090 "Model A"	2	N/C	1,656
LA120-DA LA120 UNIV PWR SUPPLY NUM PAD	2,800	Y	1	42	150
LA12X-AL 20 MA INTERFACE FOR LA120	140	Y LA120-DA	1	N/A	132
LA38-AA ENHANCED LA38GA W/FORMS CNTRL	1,550	Y	1	23	150
LA38-BA LA38AA WITH STAND	1,660	Y	1	23	150
LAX34-CL 20MA INTERFACE FOR LA34/L A38	120	Y	1	4	132
LP07-YA CHARBAND FOR LP07 64/64 EDP	4,300	N LP100-B + /LP200-B	D	N/A	N/A
LP07-YB CHARBAND FOR LP07 96/96 EDP	4,300	N LP100-B + /LP200-B	D	N/A	N/A
LP07-YC CHARBAND FOR LP07 64/96 EDP	4,300	N LP100-B + /LP200-B	D	N/A	N/A
LP07-YD CHARBAND FOR LP07 KATA KANA	4,300	N LP100-B + /LP200-B	D	N/A	N/A
LP07-YF CHARBAND FOR LP07 OCR-A 64/96	4,300	N LP100-B + /LP200-B	D	N/A	N/A
LP07-YH SCI CHARBND,96CH 2 SETS FONTS	4,300	N LP100-B + /LP200-B	D	N/C	173
LP07-YJ 96 CH SCI AND EDP CHARBAND	4,300	N LP100-B + /LP200-B	D	N/C	173
LP07-YK CHARBAND FOR LP07 SWED/FINN	4,300	N	D	N/A	N/A
LP07-YL BRITISH CHARABAND 64/96	4,300	N	D	N/A	N/A
LP07-YM OPEN GOTHIC CHARABAND 64/64	4,300	N LP100-B + /LP200-B	D	N/A	N/A
LP100-BA (BB) 1200 LPM CHARABAND PRNTR 60HZ	63,100	Y 1040 thru 1090	D	551	568
LP100-FA (FB) 890 LPM 64CHAR EDP DRUM 60HZ	44,300	N 1040 thru 1090	D	378	772
LP100-FC (FD) 890 LPM 64CHAR SCI DRUM 60HZ	44,300	N 1040 thru 1090	D	378	772
LP100-HA (HB) 650 LPM 96CHAR EDP DRUM 60HZ	45,400	N 1040 thru 1090	D	378	772
LP100-HC (HD) 650 LPM 96CHAR SCI DRUM 60HZ	45,400	N 1040 thru 1090	D	378	772

Option No. Description	Price	EU Disc Type Prerequisites	OEM Disc Type	12 HR DSMC	Add-on Instl
LP11-EA (EB) 600 LPM BAND PRINTER 64 CHAR	13,600	N	D	186	595
LP20-CA (CB) 890 LPM DRUM 64 CHAR 120/60HZ	36,500	Y 1091 + /2020 + /40 + /50 + /60	D	355	781
LP20-CC (CD) 900LPM,64CHAR SCI DRUM 60HZ	36,500	N 1091 + /2020 + /40 + /50 + /60	D	355	781
LP20-DA (DB) 650 LPM DRUM 96 CHAR 120/60HZ	37,900	Y 1091 + /2020 + /40 + /50 + /60	D	355	781
LP20-DC (DD) 600LPM,96 CHAR SCI DRUM 60HZ	37,900	N 1091 + /2020 + /40 + /50 + /60	D	355	781
LP20-JA 600 LPM BAND PRINTER 64/96 CH	18,700	N 1091 + /2020 + /40 + /50 + /60	D	244	595
LP200-BA (BB) 1200 LPM CHARABAND PRNTR 60HZ	54,600	Y 1091 + /2040 + /50 + /60	D	551	568
M9301-WA 1090/91 SMP BOOT FOR DN87S	2,365	Y DN87	D	5	186
M9301-WB 1090/91 SMP BOOT FOR DN20-C	2,365	Y DN20	D	5	186
MF20-E 256K EXPANSION	30,000	Y MF20-L	2	244	649
MF20-LA (LB) 256K INTERNAL BASIC MEM 60HZ	50,400	Y 1091/2040 + /60 "Model B"	2	618	3,450
MF20-LC (LD) 256K INTERNAL SECOND MEM 60HZ	50,400	Y 1091/2040 + /60 "Model B"	2	402	2,484
MF20-LH (LJ) 256K EXT.BASIC MEM ORANGE 60H	50,400	Y 2040 + /60	2	618	3,000
MF20-LK (LL) 256K EXT. 2ND MEM. 60HZ	50,400	Y 1091 + /2040 + /60	2	402	2,160
MF20-LM (LN) 256K EXT. BASIC MEM,BLUE,60HZ	50,400	Y 1091	2	618	3,000
MH10-E 64K WORDS MEMORY	25,000	Y MH10-H	2	143	N/A
MH10-LA (LB) 256K 1.2USEC W/8 PORTS 60HZ	70,000	Y KL10-D	2	922	1,932
MS10-BA ¹ 64K MOS MEMORY EXPANSION	6,000	Y 2020	2	73	318
RH20 ² INTERNAL CHANNEL	19,000	Y	2	36	269
RM03-AA (AD) SINGLE ACCESS RM03 120V/60HZ	20,300	Y 2020	2	200	683
RP06-AA (AB) RP06 60HZ SINGLE ACCESS	34,000	Y RH20	2	273	904
RP06-BA (BB) RP06 60HZ DUAL ACCESS	39,140	Y RH20	2	302	1,242

¹ See Quantity Discount Schedule in Price List.

² 1090/91/2040/50/60 for DIGITAL MASSBUS devices only: TU45, TU77, TU78, TX02, RP06, and RP07.

Option No. Description	Price	EU Disc Type Prerequisites	OEM Disc Type	12 HR DSMC	Add-on Instl
RP06-C RP06 DUAL ACCESS KIT	5,150	Y RP06-A	2	29	1,242
RP07-AA (AB) RP07 3PHASE 60H SINGLE ACCESS	38,000	Y RH20	2	234	720
RP07-BA (BB) RP07 3 PHASE 60HZ DUAL ACCESS	43,140	Y RH20	2	260	895
RP07-C RP07 DUAL ACCESS KIT	5,150	Y RP07-A	2	26	375
RP20-AC (AD) ADDON DSK,TOPS-10 FORMAT 60HZ	51,000	N RTP20-E	D	324	475
RP20-AH (AJ) ADDON DSK,TOPS-20 FORMAT 60HZ	51,000	N RTP20-F	D	324	475
RP20-CA MASTER DUAL PORT UPGRADE 60HZ	4,000	N RTP20	D	38	150
RP20-CB ADD-ON DUAL PORT UPGRADE 50HZ	2,500	N RP20-A	D	18	125
RTP20-EA (EB) MASTER SUBSYSTEM/1091,60HZ	149,000	N 1091	D	681	1,040
RTP20-EC (ED) DUAL CHNL OPTION,1091 60HZ	68,000	N RTP20-EA + /EB	D	159	475
RTP20-EE (EF) MASTER SUBSYSTEM/1090,60HZ	149,000	N 1090	D	681	1,040
RTP20-EH (EJ) DUAL CHNL OPTION,1090 60HZ	68,000	N RTP20-EE + /EF	D	159	475
RTP20-FA (FB) MSTR SYS 2400-S/2060-P 60HZ	149,000	N RTP20-F	D	681	1,040
RTP20-FC (FD) DUAL CHNL OPT 2040/50/60 60HZ	68,000	N	D	159	475
RTP20-FE (FF) MSTR SYS 2040-P/2050-P 60HZ	149,000	N 2040-P + /50-P	D	681	1,040
RTP20-FH (FJ) MSTR SUBSYS/ARPA,BLUE DX,60HZ	149,000	N 1090T	D	681	1,040
RTP20-FK (FL) MSTR SUBSYS/ARPA,ORNG DX,60HZ	149,000	N 2040T + /50T + /60T	D	681	1,040
TAU77-EC (ED) 2020 TAPE SYS 800/1600 240/60	36,800	Y 2020	2	373	1,028
TM78-C DUAL ACCESS KIT	5,150	Y TU78-A	2	26	860
TU72-EC (ED) TAPE DR 9TR 125IPS NL 60HZ	35,300	N TX02-E	D	216	414
TU77-AF (AJ) 9 TRACK SLAVE 800/1600 240/60	23,800	Y TU77-CB + /CD or TAU77-EC + /ED	2	251	552
TU77-CB (CD) 18 BIT MASTER 800/1600 240/60	36,800	Y RH20	2	337	635

Option No. Description	Price	EU Disc Type Prerequisites	OEM Disc Type	12 HR DSMC	Add-on Instl
TU78-AB (AD) SINGLE ACC MASTER 240V 60HZ	48,000	Y RH20	2	364	1,375
TU78-AF (AJ) 1600/6250 SLAVE DRIVE 240/60	25,500	Y TU78-AB(AD)	2	221	520
TX02-EC (ED) MAG TAPE SUBSYS-TU70 HI-B60HZ	96,800	N RH20	D	650	1,069
TX02-EE (EF) TAPE CONTROL W/C HNL-DEC2060HZ	96,800	N RH20	D	650	1,069
TX02-EH (EJ) MAG TAPE SUBSYS-TU70 CC-B60HZ	96,800	N RH20	D	650	1,069
TX03-A TWO CHANNEL SWITCH FOR TX01	7,040	Y TU70C or TU72C	D	16	566
TX03-EC (ED) TWO CHNL SWITCH OPTION	54,600	N TX02-EC +/ED	D	270	1,732
TX03-EE (EF) TWO CHNL SWITCH OPTION	54,600	N TX02-EE +/ED	D	270	1,732
TX03-EH (EJ) TWO CHNL SWITCH OPTION	54,600	N TX02-EH +/EJ	D	270	1,732
TX03-FB TWO CHNL SWITCH OPTION	12,800	N (2) TX02-E	D	29	2,153
TX05-A 2X16 TAPE SWITCH FOR TX01	7,040	Y TU70C +/TU72C	D	16	566
TX05-EC (ED) TWO CNTL SW OPTION + 2ND CNTL	74,400	N TX02-E	D	410	1,580
TX05-FB TWO CONTROLLER SWITCH OPTION	25,700	N (2) TX02-E	D	29	2,401
VK100-AA (AB) GIGI KEYBOARD	2,500	N	N	30	150
VT100-AA (AB) DKBD CRT EIA UNIV PS 120VPLUG	1,945	Y	1	23	150
VT101-AA (AB) EIA BASE LEVEL CRT 120V US PG	1,350	Y	1	20	150
VT125-AA (AB) VT100/GRAPHICS CRT 120/60 EIA	3,800	Y	1	38	175
VT1XX-AA 20MA CURRENT LOOP W/BC05F-15	140	Y	1	5	132
VT1XX-AB ADVANCED VIDEO OPTION	180	Y VT100	1	5	132
VT1XX-AC VT100 PRINTER PORT OPTION	350	Y VT100 + /VT1XX-AB	1	9	132

Option No. Description	Price	EU Disc Type Prerequisites	OEM Disc Type	12 HR DSMC	Add-on Instl
V1090-AA (AB) 32 LN COMM PKG W/32 VT100-AA	49,530	Y (see note)	2	827	N/A
V1090-AC (AD) 48 LN COMM PKG W/48 VT100-AA	79,300	Y (see note)	2	1,294	N/A
V1090-AE (AF) 64 LN COMM PKG W/64 VT100-AA	106,430	Y (see note)	2	1,746	N/A
V1090-AH (AJ) 128 LN COM PKG W/128 VT100-AA	227,765	Y (see note)	2	3,591	N/A
V1090-AK (AL) 64 LN COM W/64 VT100-AA/MEM	206,430	Y (see note)	2	2,623	N/A
V1090-AM (AN) 128 LN COM/W128 VT100-AA/MEM	327,765	Y (see note)	2	4,468	N/A
V1091-AA (AB) 32 LINE COMM PKG/W32 VT100-AA	52,830	Y (see note)	2	944	N/A
V1091-AC (AD) 48 LINE COMM PKG/W48 VT100-AA	92,665	Y (see note)	2	1,632	N/A
V1091-AE (AF) 64 LINE COM PKG W/64 VT100-AA	123,095	Y (see note)	2	2,201	N/A
V1091-AH (AJ) 128 LN COM PKG W/128 VT100-AA	251,635	Y (see note)	2	4,597	N/A
V1091-AK (AL) 64 LN COM W/64 VT100-AA/MEM	159,095	Y (see note)	2	2,666	N/A
V1091-AM (AN) 128 LN COM W/128 VT100-AA/MEM	287,635	Y (see note)	2	5,062	N/A
V2060-AA (AB) 32 LN COMM PKG W/32 VT100-AA	52,830	Y (see note)	2	944	N/A
V2060-AC (AD) 48 LN COM PKG W/48 VT100-AA	92,665	Y (see note)	2	1,632	N/A
V2060-AE (AF) 64 LN COM PKG W/64 VT100-AA	123,095	Y (see note)	2	2,201	N/A
V2060-AH (AJ) 128 LN COM PKG W/128 VT100-AA	251,635	Y (see note)	2	4,597	N/A
V2060-AK (AL) 64 LN COM W/64 VT100-AA/MEM	159,095	Y (see note)	2	2,666	N/A
V2060-AM (AN) 128 LN COM W/128 VT100-AA/MEM	287,635	Y (see note)	2	5,062	N/A

NOTE

Terminal packages are available at the time of system sale only.

Option Number	Price (\$)	Monthly Self-Maint. Fee
QH045-AM IQL-10 EXT,MT9,1600	19,600	115
QH045-AP IQL-10 EXT,MT9,800	19,600	115
QH045-DZ IQL-10 LICENSE ONLY	3,400	N/A
QH045-HM IQL-10 V3 UPD N/S	3,750	N/A
QH045-HP IQL-10 V3 UPD N/S	3,750	N/A
QH045-HZ IQL-10 RT TO COPY UPD	604	53
QH060-AM CPL-10,MT9,1600	6,900	63
QH060-AP CPL-10,MT9,800	6,900	63
QH060-DZ CPL-10 LICENSE ONLY	1,200	N/A
QH060-HM CPL-10 MT9 1600 UPD N/S	1,300	N/A
QH060-HP CPL-10 MT9 800 UPD N/S	1,300	N/A
QH060-HZ CPL-10 RT TO COPY UPD	331	29
QH062-DZ T10 2780/3780/HASP LIC ONLY	4,000	N/A
QH062-XM T10 2780/3780/HASP SRC 16MT9	10,000	130
QH065-DZ TOPS-10 2780/3780 UPG LIC	1,000	N/A
QH065-XM T10 2780/3780 SRC UPG 16MT9	2,500	N/A
QH071-AM APL-SF-10,MT9,1600	23,000	145
QH071-AP APL-SF-10,MT9,800	23,000	145
QH071-DZ APL-SF-10 LICENSE ONLY	4,000	N/A
QH071-HM APL10-SF V2 UPD N/S	4,400	N/A
QH071-HP APL10-SF V2 UPD N/S	4,400	N/A
QH071-HZ APL10-SF RT TO COPY UPD	764	67

Option Number	Price (\$)	Monthly Self-Maint. Fee
QH072-AM APL BASIC-10,MT9,1600	11,500	86
QH072-AP APL BASIC-10,MT9,800	11,500	86
QH072-DZ APL BASIC-10 LICENSE ONLY	2,000	N/A
QH072-HM APL10-BSC V2 UPD N/S	2,200	N/A
QH072-HP APL10-BSC V2 UPD N/S	2,200	N/A
QH072-HZ APL10-BSC RT TO COPY UPD	456	40
QH074-AM APL10-SF UPG FR B,BSCMT9,1600	17,300	N/A
QH074-AP APL10-SF UPG FR B,BSC MT9,800	17,300	N/A
QH076-AM APL10SF UPG FR APLE,FMT9,1600	3,450	N/A
QH076-AP APL10SF UPG FR APLE,FMT9,800	3,450	N/A
QH099-DZ COBOL68/74 + S/M LICENSE ONLY	2,600	N/A
QH099-NM COBOL68/74 W S/M V12A UPD N/S	2,860	N/A
QH099-NP COBOL68/74 W S/M V12A UPD N/S	2,860	N/A
QH099-NZ COBOL 68/74 S/M RT TO CPY UPD	661	58
QH099-XM COBOL-68/74 + S/M,MT9,1600	16,500	125
QH099-XP COBOL-68/74 + S/M,MT9,800	16,500	125
QH101-AM DBMS-10,MT9,1600	34,500	265
QH101-AP DBMS-10,MT9,800	34,500	265
QH101-DZ DBMS-10 LICENSE ONLY	6,000	N/A
QH101-HM DBMS-10 MT9 1600 UPD N/S	6,600	N/A
QH101-HP DBMS-10 MT9 800 UPD N/S	6,600	N/A
QH101-HZ DBMS-10 RT TO COPY UPD	1,379	121

Option Number	Description	Price (\$)	Monthly Self-Maint. Fee
QH115-AD	BLISS-36 V3.0 SV 8MT9	13,800	N/A
QH115-AM	BLISS-36 V3.0 SV 16 MT9	13,800	N/A
QH115-DZ	BLISS-36 V3.0 LIC ONLY	7,600	N/A
QH115-HM	BLISS-36 UPD N/S MTA 1600	1,500	N/A
QH115-HZ	BLISS-36 V3.0 RT TO COPY UPD	690	N/A
QH215-AM	DECMail/MS-10 BASE PROGRAM	15,000	68
QH215-DZ	DECMail/MS-10 BASE LIC ONLY	8,000	N/A
QH215-HM	DECMail/MS-10 BASE PROG UPD	1,225	N/A
QH215-HZ	DECMail/MS-10 RT TO COPY UPD	580	34
QH300-DZ	SORT/MERGE-10 LICENSE ONLY	600	N/A
QH300-NM	SORT/MERGE V4 UPD N/S	660	N/A
QH300-NP	SORT/MERGE V4 UPD N/S	660	N/A
QH300-NZ	SORT/MERGE 10 RT TO COPY UPD	182	16
QH300-XM	SORT/MERGE-10,MT9,1600	3,450	34
QH300-XP	SORT/MERGE-10,MT9,800	3,450	34
QH302-NM	T10/1090 SMP MT9,1600 UPD N/S	4,060	N/A
QH302-NP	T10/1090 SMP MT9,800 UPD N/S	4,060	N/A
QH302-NZ	TOPS 10 MPE RT TO COPY UPD	1,231	108
QH302-XM	TOPS 10 MPE	11,600	N/A
QH302-XP	TOPS 10 MPE	11,600	N/A
QH303-3M ²	TOPS10/1091 MT9 1600	2,720	238
QH303-3P ²	TOPS10/1091 MT9 800	2,720	238

Option Number	Description	Price (\$)	Monthly Self-Maint. Fee
QH303-NM	TOPS 10/1091 UPD N/S	4,060	N/A
QH303-NP	TOPS 10/1091 UPD N/S	4,060	N/A
QH303-NZ	TOPS 10/1091 RT TO COPY UPD	1,231	108
QH304-3M	TOPS10 AUTOPATCH OPTION 16MT9	239	21
QH500-DZ	FORTTRAN-10 LICENSE ONLY	2,000	N/A
QH500-NM	FORTTRAN-10 MT9 1600 UPD N/S	2,200	N/A
QH500-NZ	FORTTRAN-10 RT TO COPY UPD	479	42
QH500-XM	FORTTRAN-10,MT9,1600	11,500	92
QH502-DZ	ALGOL-10 LICENSE ONLY	2,000	N/A
QH502-NM	ALGOL-10 MT9 1600 UPD N/S	2,200	N/A
QH502-NP	ALGOL-10 MT9 800 UPD N/S	2,200	N/A
QH502-NZ	ALGOL-10 RT TO COPY UPD	376	33
QH502-XM	ALGOL-10,MT9,1600	11,500	72
QH502-XP	ALGOL-10,MT9,800	11,500	72
QH503-DZ	BASIC-10 LICENSE ONLY	1,200	N/A
QH503-NM	BASIC-10 MT9 1600 UPD N/S	1,560	N/A
QH503-NP	BASIC-10 MT9 800 UPD N/S	1,560	N/A
QH503-NZ	BASIC 10 RT TO COPY UPD	456	40
QH503-XM	BASIC-10 SRC SVC 16MT9	6,900	86
QH503-XP	BASIC-10 SRC SVC 8MT9	6,900	86
QH509-XM	COBOL68/74/STMRGE UPG FR SRT	11,500	N/A
QH509-XP	COBOL68/74/STMRGE UPG FR SRT	11,500	N/A

² Operating System Software is included with the system packages. Maintenance service must be ordered separately by the "Q" number.

Option Number	Description	Price (\$)	Monthly Self-Maint. Fee
QH512-XM	COBOL-68/74,S/M UPG FR 68 MT9	3,450	N/A
QH512-XP	COBOL 68/74,S/M UPG FR 68 MT9	3,450	N/A
QH603-DZ	DEC10 27/3780 V7.01 LIC ONLY	3,450	N/A
QH603-NM	DEC10 27/3780 UPD N/S	2,485	N/A
QH603-NP	DEC10 27/3780 UPD N/S	2,485	N/A
QH603-NZ	DEC 10 27/3780 RT TO COPY UPD	752	66
QH603-XM	DEC10 27/3780 V7.01 MT9,1600	8,600	145
QH603-XP	DEC10 27/3780 V7.01 MT9,800	8,600	145
QH615-NM	GALAXY 10 V2 UPD N/S	880	N/A
QH615-NP	GALAXY 10 V2 UPD N/S	880	N/A
QH615-XM	GALAXY-10 V2 SRC + BIN M9-1600	4,600	N/A
QH615-XP	GALAXY-10 V2 SRC + BIN M9	4,600	N/A
QH647-3M ²	TOPS10/2020 MT9 1600	2,720	216
QH647-3P ²	TOPS10/2020 MT9 800	2,720	216
QH647-NM	TOPS10/2020 MT9 1600 UPD N/S	4,060	N/A
QH647-NZ	TOPS 10/2020 RT TO COPY UPD	1,231	108
QH648-3M ²	TOPS10/1060-70 MT9 1600	2,747	241
QH648-3P ²	TOPS10/1060-70 MT9 800	2,747	241
QH648-NM	TOPS10/1060-70 UPD N/S 16MT9	4,060	N/A
QH648-NP	TOPS10/1060-70 UPD N/S 8MT9	4,060	N/A
QH648-NZ	TOPS10/1060-70 RT TO COPY UPD	1,231	108
QH649-3M ²	TOPS10/1080-90 MT9 1600	2,720	238

Option Number	Description	Price (\$)	Monthly Self-Maint. Fee
QH649-3P ²	TOPS10/1080-90 MT9 800	2,720	238
QH649-NM	TOPS10/1080-90 UPD N/S 16MT9	4,060	N/A
QH649-NP	TOPS10/1080-90 UPD N/S 8MT9	4,060	N/A
QH649-NZ	TOPS10/1080-90 RT TO COPY UPD	1,231	108
QH666-EK	TOPS10 FRONT END SOURCES RP04	23,000	N/A
QH666-EL	TOPS10 FRONT END SOURCES RP06	23,000	N/A
QH666-NK	TOPS10 FRONT END SRC UPD RP04	4,000	N/A
QH666-NL	TOPS10 FRONT END SRC UPD RP06	4,000	N/A
QH682-DZ	DECNET-10 V2 LICENSE ONLY	6,900	N/A
QH682-NM	DECNET-10 UPD N/S 16MT9	3,762	N/A
QH682-NP	DECNET-10 UPD N/S 8MT9	3,762	N/A
QH682-NZ	DECNET-10 RT TO COPY UPD	1,254	110
QH682-XM	DECNET-10 V2 16MT9	17,300	240
QH682-XP	DECNET-10 V2 8MT9	17,300	240
QH709-YM	DX/TOPS-10 WPS-HST UTLMT91600	2,900	N/A
QH709-YP	DX/TOPS-10 WPS-HST UTLMT9 800	2,900	N/A
QH850-NM	KL10 MICRO SRC UPD T10	640	N/A
QH850-NP	KL10 MICRO SRC UPD T10	640	N/A
QH850-YD	DEC10/20 MAINT PRD KL10A/BMT9	50,600	N/A
QH850-YM	KL10 MICRO SRC T10 V2N/S1600	50,600	N/A
QH850-YP	KL10 MICRO SRC T10 V2N/S 800	50,600	N/A
QHK12-1R	TOPS10 ADD'L DISPATCH SUB MF	285	25

² Operating System Software is included with the system packages. Maintenance service must be ordered separately by the "Q" number.

Option Number	Price (\$)	Monthly Self-Maint. Fee
QHK12-1Z TOPS10 ADD'L DISPATCH SUB HC	330	29
QHK14-3Z TOPS10 NOTEBOOK UPD SVC	559	49
QHK20-KZ TOPS10 NOTEBOOK SET + SUB	1,100	N/A
ZH006-CM DEC10/20 MAINT PROD KL10C	50,600	N/A
ZH006-CP DEC10/20 MAINT PROD KL10C	50,600	N/A
ZH007-CM DEC10/20 MAINT PROD KL10D	50,600	N/A
ZH007-CP DEC10/20 MAINT PROD KL10D	50,600	N/A
ZH008-CM DEC10/20 MAINT PROD KL10E	50,600	N/A
ZH008-CP DEC10/20 MAINT PROD KL10E	50,600	N/A
ZH009-CM DEC10/20 MAINT PROD KL10A/B	50,600	N/A
ZH009-CP DEC10/20 MAINT PROD KL10A/B	50,600	N/A
ZH010-CM 10/20 MAINT PRD ZH005-9 UPG	580	N/A
ZH010-CP 10/20 MAINT PRD ZH005-9 UPG	580	N/A
QT001-AM FORTRAN-20,MT9,1600	11,500	92
QT001-DZ FORTRAN-20 LICENSE ONLY	2,000	N/A
QT001-HM FORTRAN 20 UPD N/S MT91600	2,200	N/A
QT001-HZ FORTRAN-20 RT TO COPY UPD	479	42
QT002-AM ALGOL-20,MT9,1600	11,500	72
QT002-DZ ALGOL-20 LICENSE ONLY	2,000	N/A
QT002-HM ALGOL 20 UPD N/S MT91600	2,200	N/A
QT002-HZ ALGOL-20 RT TO COPY UPD	376	33
QT004-CM BASIC-20,MT9,1600	6,900	N/A

Option Number	Price (\$)	Monthly Self-Maint. Fee
QT007-AM SORT/MERGE-20,MT9,1600	3,450	34
QT007-DZ SORT/MERGE-20 LICENSE ONLY	600	N/A
QT007-HM SORT/MERGE-20 UPD N/S MT91600	660	N/A
QT007-HZ SORT/MERGE 20 RT TO COPY UPD	182	16
QT008-AM DBMS-20,MT9,1600	34,500	265
QT008-DZ DBMS-20 LICENSE ONLY	6,000	N/A
QT008-HM DBMS 20 UPD N/S MT91600	7,800	N/A
QT008-HZ DBMS-20 RT TO COPY UPD	1,379	121
QT009-AM CPL-20,MT9,1600	6,900	63
QT009-DZ CPL-20 LICENSE ONLY	1,200	N/A
QT009-HM CPL 20 UPD N/S MT91600	1,300	N/A
QT009-HZ CPL-20 RT TO COPY UPD	331	29
QT010-3M ² TOPS20 2040-P/2050-P BPUS MT9	3,032	266
QT010-HM TOPS20 2040-P/2050-P UPD N/S	4,060	N/A
QT010-HZ TOPS20 2040-P/2050-P RT CPY	1,231	108
QT012-AM APL-SF-20,MT9,1600	23,000	145
QT012-DZ APL-SF-20 LICENSE ONLY	4,000	N/A
QT012-HM APL20-SF UPD N/S MT91600	4,400	N/A
QT012-HZ APL20-SF RT TO COPY UPD	752	66
QT014-AM APL BASIC-20,MT9,1600	11,500	86
QT014-DZ APLBASIC-20 LICENSE ONLY	2,000	N/A
QT014-HM APL 20 BASIC UPD N/S MT9 1600	2,200	N/A

² Operating System Software is included with the system packages. Maintenance service must be ordered separately by the "Q" number.

Option Number	Description	Price (\$)	Monthly Self-Maint. Fee
QT014-HZ	APL20-BSC RT TO COPY UPD	456	40
QT016-AM	IQL-20 EXT,MT9,1600	19,600	115
QT016-DZ	IQL-20 LICENSE ONLY	3,400	N/A
QT016-HM	IQL-20 UPD N/S MT91600	3,750	N/A
QT016-HZ	IQL-20 RT TO COPY UPD	604	53
QT018-3Z	TOPS20 NOTEBOOK UPD. SVC	559	49
QT018-KZ	TOPS20 NOTEBOOK SET + SUB	1,100	N/A
QT021-1Z	TOPS20 ADD'L DISPATCH SUB HC	330	29
QT022-3M ²	TOPS20/2020 SMS MT9 1600	2,720	238
QT022-HM	TOPS20/2020 UPD N/S MT91600	4,060	N/A
QT022-HZ	TOPS20/2020 RT TO COPY UPD	1,231	108
QT023-3M ²	TOPS20 2040-S/2060-P SMS MT9	2,720	238
QT023-HM	TOPS20 2040-S/2060-P UPD N/S	4,060	N/A
QT023-HZ	TOPS20 2040-S/2060-P RT/C PY	1,231	108
QT024-AM	COBOL68/74/STMRGE UPG FR SRT	11,500	N/A
QT025-AM	APL20-SF UPG FRBSC MT9 1600	17,300	N/A
QT027-AM	BASIC PLUS2-20,MT9,1600	11,500	105
QT027-DZ	BASIC + 2/20 LICENSE ONLY	2,000	N/A
QT027-HM	BASIC + 2/20 UPD N/S MT91600	2,330	N/A
QT027-HZ	BASIC + 2/20 RT TO COPY UPD	559	49
QT028-AM	BASIC + 2/20 UPG FR BASIC MT9	5,200	N/A
QT029-EK	TOPS20 FRONT END SOURCES RP04	23,000	N/A

Option Number	Description	Price (\$)	Monthly Self-Maint. Fee
QT029-EL	TOPS20 FRONT END SOURCES RP06	23,000	N/A
QT029-NK	TOPS20 SRC UPD N/S RP4	4,400	N/A
QT029-NL	TOPS20 SRC UPD N/S RP6	4,400	N/A
QT030-EM	TOPS20 MONITOR SRC MT9 1600	28,800	N/A
QT030-NM	TOPS20 SRC UPD MT91600 N/S	5,500	N/A
QT037-AM	TRAFFIC-20 MT,1600	6,900	96
QT037-DZ	TRAFFIC-20 LICENSE ONLY	1,200	N/A
QT037-HM	TRAFFIC 20 UPD N/S MT91600	1,650	N/A
QT037-HZ	TRAFFIC RT TO COPY UPD	502	44
QT038-EM	TOPS20 EXEC SOURCES MT9 1600	8,100	N/A
QT038-NM	T20 EXEC SRC UPD MT9,1600 N/S	1,655	N/A
QT040-EK	TOPS20 SOURCE PKG MT9 RP04	46,000	N/A
QT040-EL	TOPS20 SOURCE PKG MT9 RP06	46,000	N/A
QT040-NK	TOPS20 SRC PKG UPD N/S RP04	8,800	N/A
QT040-NL	TOPS20 SRC PKG UPD N/S RP06	8,800	N/A
QT042-DZ	TOPS20 2780/3780 LICENSE ONLY	3,450	N/A
QT042-NM	TOPS 20 27/37-SRC UPD N/S MT9	2,620	N/A
QT042-NZ	2780/3780 RIGHT TO COPY UPD	752	66
QT042-XM	TOPS-20 2780/3780 V2 1600 MT9	8,600	145
QT046-NM	KS10 MICROCODE UPD MT9,1600	640	N/A
QT046-YM	KS10 MICROCODE PROD MT9,1600	50,600	N/A
QT047-AM	COBOL 68/74,S/M UPG FR 68 MT9	3,450	N/A

² Operating System Software is included with the system packages. Maintenance service must be ordered separately by the "Q" number.

Option Number	Price (\$)	Monthly Self-Maint. Fee	Description
QT052-DZ	4,000	N/A	TPS20 2780/3780/HASP LIC ONLY
QT052-NM	2,320	N/A	TOPS20 27/37 HASP UPD MT9 NS
QT052-NZ	673	59	2780/3780 HASP RT TO CPY UPD
QT052-XM	10,000	130	TOPS20 2780/3780/HASP MT91600
QT054-DZ	1,000	N/A	T20 27/37/HASP UPG LIC ONLY
QT054-XM	2,500	N/A	T20 27/37/HASP UPG T20 27/37
QT062-AM	5,000	64	RJE-20 V1.0 BIN 1600 MT9
QT062-DZ	2,000	N/A	RJE-20 V1.0 LICENSE ONLY
QT062-EM	30,000	N/A	RJE-20 V2 SRC N/S 1600 MT9
QT062-HM	1,150	N/A	RJE 20 UPD N/S MT91600
QT062-HZ	342	30	RJE-20 RT TO COPY UPD
QT099-AM	16,500	125	COBOL-68/74 + S/M, MT9, 1600
QT099-DZ	2,600	N/A	COBOL-68/74 + S/M LICENSE ONLY
QT099-HM	2,850	N/A	COBOL68/74 W S/M UPD NS MT916
QT099-HZ	661	58	COBOL68/74 S/M RT TO COPY UPD
QT100-EM	28,800	N/A	TOPS20 V5 MONITOR SRC MT9
QT100-NM	5,500	N/A	TOPS20 V5 SOURCE UPD MT9 N/S
QT101-EM	8,100	N/A	TOPS20 V5 EXEC SOURCES MT9
QT101-NM	1,655	N/A	TOPS20 V5 EXEC SRC UPD N/S MT9
QT102-EK	46,000	N/A	TOPS20 V5 SOURCE PKG MT9 RP04
QT102-EL	46,000	N/A	TOPS20 V5 SOURCE PKG MT9 RP06
QT102-NK	8,800	N/A	TOPS20 V5 SRC PKG UPD N/S RP04

Option Number	Price (\$)	Monthly Self-Maint. Fee	Description
QT102-NL	8,800	N/A	TOPS20 V5 SRC PKG UPD N/S RP06
QT115-AM	13,800	N/A	BLISS-36 V3.0 SV 16MT9
QT115-DZ	7,600	N/A	BLISS-36 V3.0 LIC ONLY
QT115-HM	1,500	N/A	BLISS-36 UPD N/S 16MT9
QT115-HZ	690	N/A	BLISS-36 V3.0 RT TO CPY UPD
QT120-EM ¹	2,000	N/A	TOPS20 RP20 EXT MNTR SRCS MT9
QT214-AM	2,500	N/A	DECMail/MS-20 NETWORK OPTION
QT214-DZ	1,300	N/A	DECMail/MS-20 NETWK OPT LIC
QT215-AM	15,000	68	DECMail/MS-20 BASE PROGRAM
QT215-DZ	8,000	N/A	DECMail/MS-20 BASE LIC ONLY
QT215-HM	1,225	N/A	DECMail/MS-20 BASE PROG UPD
QT215-HZ	580	34	DECMail/MS-20 RT TO COPY UPD
QT304-3M	399	N/A	TOPS20 AUTOPATCH OPTION 16MT9
QT708-YM	2,900	N/A	DX/TOPS-20 WPS8-HOST UTL MT9
QT850-NM	640	N/A	KL10 MICRO SRC T20 UPD 1600
QT850-YM	50,600	N/A	KL10 MICRO SRC T20 N/S 1600
QTD01-AM	8,600	96	DECNET20 V2 BIN MT9, 1600
QTD01-DZ	2,500	N/A	DECNET20 V2 LICENSE ONLY
QTD01-HM	1,750	N/A	DECNET 20 UPD N/S MT91600
QTD01-HZ	502	44	DECNET20 RT TO COPY UPD
QTD04-AM	8,600	96	DECNET-20 V3 BIN SV 16MT9
QTD04-DZ	2,500	44	DECNET-20 V3 LIC ONLY

¹ Requires source license for QT030 or QT040.

Option Number	Description	Price (\$)	Monthly Self-Maint. Fee
QTD04-EM	DECNET-20 V3 SRC N/S 16MT9	30,000	N/A
QTD04-HM	DECNET-20 UPD NS 16 MT9	1,750	96
QTD04-HZ	DECNET-20 UPD LIC ONLY	502	96
QTD20-AM	DECNET20/2020 V2 BIN MT9 1600	8,600	96
QTD20-DZ	DECNET20/2020 LICENSE ONLY	2,500	N/A

Option Number	Description	Price (\$)	Monthly Self-Maint. Fee
QTD20-HM	DECNET 20/2020 UPD NS MT91600	1,750	N/A
QTD20-HZ	DECNET20/2020 RT TO COPY	502	44
ZT001-NM	2020 DIAG UPDATE TAPE MT91600	120	N/A
ZT001-YM	2020 DIAGNOSTICS,MT9,1600	25,300	N/A

QUANTITY DISCOUNTS

MEMORY

MS10-BA Quantity	Total
1	\$6,000
2	11,500
3	16,000
4	19,000

NOTE

Pricing of memory modules cannot be discounted under the Quantity Discount Agreement, but may be included in aggregate levels. Discounts apply to single purchase order only. Delivery of all units on an order must be within twelve months ARO.

TRADE-IN AMOUNTS

CPU Package Amounts

KA10 to 1090-V Package	\$25,000
KL10 to 1090-V Package	50,000

DECSYSTEM-2040/2050/2060

Each 32K word MA20;MA20A,MA20E	\$1,000
Each 64K word MA20;MB20A,MB20E	2,000

Peripheral Amounts

DF10-A	\$5,000
DF10-C	6,000
DL10	5,800
RH10	10,000

These allowances may be applied only towards purchase of like DECsystem-10 based equipment on a one-for-one basis (i.e., channel, on disk for one disk, etc.).

DECSYSTEM-2020 TRADE-IN AMOUNT

2020 Central Processor, First 256K words Memory, Communications Lines, Magnetic Tape Interface, Disk Interfaces, and Console	\$44,000
Exchange RM03 for RP06	\$9,000
64K words Add-on Memory	3,000
128K words Add-on Memory	5,750
256K words Add-on Memory	9,500

DC20-xx COMMUNICATIONS HARDWARE PRICES FOR 1091, 2040, 2060

(Price configured for reference)

No. of Asynch. Lines	Purchase Price (\$)	5-Day DECservice Maintenance Price per Month 12 Hour
16*	N/C	N/C
24	6,160	104
32	8,030	194
40	23,595	416
48	25,465	506
56	31,625	610
64	33,495	700
72	39,655	804
80	41,525	894
88	47,685	998
96	49,555	1,088
104	62,535	1,310
112	64,405	1,400
120	70,565	1,504
128	72,435	1,594

* Included in 1091, 2040, and 2060 basic packages.

Notes

Notes

