SERVICE Guide

Revised June 1992

NOTE: This Service Guide is for you, the Systems Technician. If you discover an error, or if you have an item you would like to have added, please let me know.

AT&T
Gary Clayton, FSO Manager
224 Airport Parkway
San Jose, California 95110
(408) 452-3293

TABLE OF CONTENTS

TABLE OF CONTENTS

PERSONAL INFORMATION

Organization Code _____ Building Code _____

JFC Code _____ Payroll Code _____

Vehicle Number _____ License Number _____

FREQUENTLY USED TELEPHONE NUMBERS

Service Manager: _____

Service Coordinator: _____

Manager: _____

CSC Supervisor: _____

Emergency Road Service: _____

Supplies (MMS): _____

_____

ComCode Hotline: 1-800-654-5832
Technical Support: 1-800-552-3293
AT&T Long Distance Repair (ATTCOM): 1-800-222-3000
AT&T Sourcebook: 1-800-451-2100
GBS Business Office: 1-800-247-7000
NSAC (Embedded Base): 1-800-526-2000
NSAC (Hotline Products): 1-800-628-2888
Single Line Telephones & Equipment: 1-800-222-3111
Long Distance Carrier Verification: 1-700-555-4141
Paradyne: 1-800-237-0016

_____

_____

_____

_____

_____

FREQUENTLY USED TELEPHONE NUMBERS

MOTOR VEHICLES

- The vehicle you are assigned to is your responsibility.
- Take pride in it.
- Be sure your vehicle is serviced every 6,000 miles or six months.
- Keep the vehicle clean both inside and outside.
- Keep all loose objects behind the screen.
- In order for AT&T to receive the appropriate tax allowances for your vehicle, the mileage must be reported each month.

GENERAL MOTOR VEHICLE GUIDELINES

- An employee driving an automobile on company business must have a valid driver's license.
- Seat belts must be worn at all times.
- Use or possession of drugs or alcohol by an employee in a company vehicle is strictly prohibited.

FLAT RATE WIRE
(New Installation)

Price Element Code 2782-XXX

- For installation of station wiring for initial sales of GBS systems that use 2-4 pair or 25 pair wire.
- Includes all components necessary for the installation of station wiring from the network interface to the terminal equipment.
- Price includes all labor and materials (including PVC or fire-retardant teflon wire).
- Criteria:
  - Terminal wire runs of 1 to 125 feet.
  - Ceilings up to 12 feet.
  - Page Pac 6, 6+ and Page Pac 20.
  - Existing construction/typical office buildings, new construction.
  - Houses (for Phone Center orders).
  - Systems on single floor (Small Business Units only, the Control Unit can be one floor away).
  - No off-premises equipment, all equipment needs to be in the same building.
  - Wood, plaster or sheetrock walls/floors.
  - Under carpet wire (Phone Center only).
  - Single Technician jobs.
  - Technician administered system (no patch cords).
  - Reuse 4 pair ONLY when removing business phones.
  - Reuse 4 of 25 pair.
  - Reuse 2 or 3 pair at Services discretion.
- PEC quantity must equal the number of wire runs (at least as many wire runs as installed sets, speakers, bells, etc.).

FLAT RATE WIRE
(Aftermarket)

Price Element Code 2788-XXX

- For installation of station wiring for aftermarket subsequent) sales of GBS managed products (installation anytime after the initial system installation).
- Includes all components necessary for the installation of system wiring from the network interface to terminal equipment.
- Includes all labor and materials (including PVC or Air-Plenum wire).
- $40 Visit Charge via SPE 0505-VST applies on all aftermarket activity.
- Criteria:
  - Terminal wire runs of 1 to 125 feet.
  - Ceilings up to 12 feet.
  - Page Pac 6, 6+ and Page Pac 20.
  - Existing construction/typical office building, new construction.
  - Houses (Phone Center only).
  - Systems on single floor (Small Business Units only, the Control Unit can be one floor away).
  - No off-premises equipment. All equipment has to be in the same building.
  - Wood, plaster or sheetrock walls/floors.
  - Under carpet wire (Phone Center only).
  - Single Technician jobs.
  - Technician administered (no patch cords).
  - Reuse 4 pair only when removing business phones.
  - Reuse 4 of 25 pair.
  - Reuse 2 or 3 pair wire at Services discretion.
- Other Services Work (2788-00R):
  - Reusable wire runs.
  - Cross Connect only requests.
  - Final connections on new, adds, moves and rearrangements.
  - Connecting new lines to existing Control Unit.

FLAT RATE PLUS WIRE
(New Installation)

Price Element Code 2781-XXX

- For installation of station wiring for initial sales of GBS systems that use 4 pair Wire.
- Includes all components necessary for the installation of station wiring from the network interface to the terminal equipment.
- Includes all labor and materials including PVC or fire-retardant Teflon wire.
- Only 4 pair wire is available for Flat Rate Plus Wiring. All other wire sizes must be Firm Quoted.
- Criteria:
  - Terminal wire runs of 125 to 200 feet.
  - Ceilings 12 to 19 feet.
  - Page Pac 6, 6+ and Page Pac 20.
  - Existing construction/typical office buildings and new construction.
  - Houses (Phone Center only).
  - Systems on single floor (Small Business Units only, Control Unit can be one floor away).
  - No off-premises equipment, all equipment in the same building.
  - Wood, plaster or sheetrock walls/floors.
  - Under carpet wire (Phone Center only).

FLAT RATE PLUS WIRE
(Aftermarket)

Price Element Code 2789-XXX

- For installation of station wiring for aftermarket (subsequent) sales of GBS managed products (installation anytime after the initial system installation).
- Includes all components necessary for the installation of system wiring from the network interface to the terminal equipment.
- Includes all labor and materials including PVC or Air Plenum wire.
- Criteria:
  - Terminal wire runs of 125 to 200 feet.
  - Ceilings 12 to 19 feet.
  - Page Pac 6, 6+ and Page Pac 20.
  - Existing construction/typical office buildings, new construction.
  - Houses (Phone Center only).
  - Systems on a single floor (Small Business Units only, the Control Unit can be a single floor away).
  - No off-premises equipment. All equipment must be in the same building.
  - Wood, plaster or sheetrock walls/floors.
  - Under carpet wire (Phone Center only).
  - Single Technician job.
  - Technician administered (no patch cords).
  - Reuse 4 pair only when removing business phones.
  - Reuse 4 of 25 pair.
  - Reuse 2 or 3 pair at Services discretion.
- Other Services Work use 2789-00R:
  - Reusable wire runs.
  - Cross Connect only requests.
  - Final connections on new, adds, moves and rearrangements.
  - Connecting new lines to existing Control Unit when 25 pair wire is used.

FIRM QUOTE WIRE
(New Installation)

Price Element Code 2783-XXX

- For installation of station wiring for initial sales of GBS systems when the total job does not qualify for Flat Rate or Flat Rate Plus.
- Includes all components necessary for the installation of station wiring, from the network interface to the terminal equipment.
- The firm price, which includes a field survey or desk estimate MUST BE APPROVED BY SERVICES.
- Includes all materials and labor.
- The final price, once approved by Services, cannot be changed:
  - The Customer cannot be billed for any labor or materials beyond what was quoted unless they change their requirements.
- Criteria:
  - Terminal wire runs of 200 feet or more.
  - Ceilings 19 feet or higher.
  - All paging except Page Pac 6, 6+ and Page Pac 20.
  - Newly constructed buildings/unusual structures (i.e. Churches, Banks, Factories, Warehouses, Gov't Buildings, etc.).
  - Houses (for GBS orders).
  - Multiple floors.
  - Off-premises equipment, multiple buildings, campus environment.
  - Concrete or marble walls/floors.
  - Under carpet wire.
  - Jobs requiring 2 Technicians due to environmental conditions.
  - Patch cords.
  - Reuse existing wire that doesn't meet Flat Rate or Flat Rate Plus criteria.

FIRM QUOTE WIRE
(Aftermarket)

Price Element Code 2785-XXX

- Wire PEC for all aftermarket wire that is Non-Standard. (An installation which does not meet all of the environmental criteria, i.e., the answer to each question on the site evaluation questionnaire is Yes. A Firm Quote price is determined after a field visit or desk estimate is performed by a Service Manager or designee).
- Criteria:
  - Terminal wire runs of 200 feet or more.
  - Ceilings that are 19 feet or higher.
  - All paging systems except Page Pac 6, 6+ or Page Pac 20.
  - Newly constructed buildings/unusual structures (i.e., Churches, Banks [vaults], Factories, Warehouses, Gov't Buildings, etc.).
  - Houses (for GBS orders).
  - Multiple floors.
  - Off-premises equipment, multiple buildings, campus environment.
  - Concrete or marble walls/floors.
  - Under carpet wire.
  - Jobs requiring 2 Technicians due to environmental conditions.
  - Patch cords.
  - Reuse existing wire that doesn't meet Flat Rate or Flat Rate Plus criteria.
- Other Services Work use 2785-00R:
  - Installation of station wire of any GBS system reusing existing wire that involves final connection on new, adds, moves and rearrangements and/or connecting new lines to existing control unit.

LABOR TO MOVE EQUIPMENT

SPE 0600-900 (Time)

- Used to bill time for the following:
  - From and To orders (the labor associated with disconnecting of equipment at the existing location and re-installation of the same equipment at the new location).
- Used to bill time for interbranch moves.
- A "work complete" installation of previously purchased equipment from Customer's stockpile.
- Inside move of stations and common equipment.
- Dollars to be charged to Customers are reported to SPE codes. Technician hours are reported to Product Codes.
- If the "To" portion of the order is firm quoted, a Time and Material Invoice is not required. If the 0600-900 on the "To" portion is populated with a "0", the Technician needs to report how much time it took him/her to install the equipment on a Time and Material Invoice.
- The 0600 series of SPE's are billed on a T&M basis and should be rated at $80 per hour.

SOFTWARE TRANSLATIONS

Service Price Element Code 0600-901

- Used to bill for on-site software translations associated with products which cannot be remotely accessed by the software administration group.
- Apply when adding a line to a 4 pair system in addition to the Wire PEC Code.
  - A Time and Material Invoice is required.

EQUIPMENT INVENTORY

Service Price Element Code 0600-902

- Used to bill for Customer requests for performing inventory of Customer-owned AT&T provided equipment.
- A Time and Material Invoice is required.

DISCONNECTS/REMOVAL

Service Price Element Code 0600-903

- Used to bill for the following types of equipment disconnects:
  - Partial or complete disconnect of Customer-owned AT&T equipment that is not being replaced by new AT&T equipment.
  - Disconnect of Customer-owned non-AT&T equipment that is being replaced by new AT&T equipment.
- Used to bill for removal of wire at the Customer's request.
- A Time and Material Invoice is required.

DEACTIVATE CUSTOMER EQUIPMENT

Service Price Element Code 0604-000

- Used to order the disconnect of Customer-owned AT&T equipment that is being swapped-out for new/refurbished AT&T equipment.
- Used to order the disconnect of Customer-owned non AT&T equipment to be replaced with AT&T equipment.
- A Time and Material Invoice is not required.

INCREMENTAL PREMIUM CHARGE

Service Price Element Code 0100-IPC

- Customers requesting installation of incidental equipment (terminal/station work) on an out-of-hours basis will be billed the appropriate Installation Charge PLUS an Incremental Premium Charge.
- This also applies to Customers who request a disconnect of AT&T leased equipment out-of-hours.
- Flat Rate/Flat Rate Plus orders will be charged an IPC for all wire and terminal work performed on an out-of-hours basis at the Customer's request.
- System Technicians are responsible to record IPC as a separate entry on the Time and Material Invoice and IPC must be entered in the "Remarks" section.
- Upon completion of the order this information is reported to the ACU.
- If the order has both equipment and Flat Rate/Flat Rate Plus wire on it, the Technician must separate out-of-hours time spent on each PEC on the Time and Material Invoice as the IPC billing is different on each.
- The IPC is the difference between the 8 to 5 Monday to Friday time charge and the out-of-hours premium charge.
- IPC applies to ALL Customers who request installation of incidental apparatus outside of the normal work hours.
- It is imperative that the Time and Material and the IPC charges be listed as separate entities on the TMI to ensure proper revenue generation to AT&T and proper billing to the Customer.
- All time worked to be charged to the hardware product codes.
- System Technician is responsible to record IPC hours in the IPC Premium Charges field of the TMI.

VISIT SERVICE CHARGE
(Provisioning)

Service Price Element Code 0505-VST

- A service charge of $50 is billed to Customers in order to recover administrative and travel expenses associated with dispatching a Technician to a Customer premises.
- Applies on a per order, per Customer location, per due date basis regardless of the number of Technicians involved.
- Applicable on:
  - Additions to existing systems.
  - Move/change and rearrange activity.
  - Subsequent wire activity.
  - Certification requests.
  - F & T orders.
  - Orders for moves of switching equipment within the same building.
  - Orders for software administration which cannot be remotely accessed.
  - Orders for Customers who request an inventory or their Customer owned AT&T equipment.
  - Disconnects of Customer-owned AT&T equipment or Customer-owned non-AT&T equipment only when installation of other AT&T equipment carries a different due date.
  - Disconnects of Customer-owned AT&T equipment when no other AT&T equipment is being installed.
  - Removal of Customer owned wire.
- Not applicable on:
  - New system installations (including changes from one system to another).
  - Disconnects of AT&T leased equipment.
  - Technicians assigned to a specific Customer account and the Customer premises is the Technician's normal reporting center.
  - Work complete orders when the Technician is already on the Customer's premises performing other scheduled work or maintenance.
  - AT&T-C coinless telephone orders.

BILLABLE JOB TASKS-PROVISIONING
(0600-XXX)

- On hourly rate bill for:
  - Gaining access to the work area (including terminals and equipment rooms).
  - Surveying, planning, preparing and clean up activities.
  - Discussions with the Customer relative to the work requested.
  - Moving furniture, removing ceiling tiles, or other such tasks directly associated with the billable work.
  - Moving common equipment.
  - Placing station connecting blocks and associated back-boards between the main cross connect field and the station set connecting block (satellite).
  - Completion of Time and Material Invoice for the Customer's signature.
  - Inputting Times information into Spirit Aires.
  - Inputting completion/status information into Spirit.
  - Customer caused roadblocks and/or delays.
  - Break time (when the Hourly Rate job is of sufficient time to warrant a break).

NOTE: Standard Work Times allow for a % of break time and this time is built into the product standards. Therefore, all break time will be included in the time charged to the product codes.

- Non-Billable:
  - Travel time (including out-of-hours).
  - Lunch.
  - Company roadblocks and/or delays.

WIRING
(ADMINISTRATIVE CHANGES AT COMPLETION)

- NON-STANDARD ORDERS:
  - No changes to PEC's or quantities are allowed to non-standard orders.
    - Orders which contain one or more Firm Quote PEC's whether new or aftermarket.
  - Adding a wire run.
    - For additional wire runs, issue a new order or segment for additional work using a work complete.
  - Follow normal procedures for changes in work load and Customer billing:
    - Tech calls the CSC to obtain authorization to perform the work.
    - Tech is on site and establishes pricing based on environmental conditions.
    - OPI or sales negotiator advises Customer of additional charges and verifies credit level.
    - If this is a new installation, Customer signs Equipment Addition Request for work requested.
    - Customer approval of the billing change to cover the additional work occurs before the Tech begins the additional work.
    - OPI or Service Coordinator creates the additional order or segment in DOSS.
    - TMI is not required whether Tech charges Flat Rate/Flat Rate Plus or Firm Quote.
  - Eliminating a wire run.
    - For a quantity decrease, issue a billing adjustment or reissue a new order for the entire job.
- STANDARD
  - No changes to PEC's are allowed at completion under the Flat Rate Wire Plan except for aftermarket reuse.
  - Changes to quantities are allowed for standard runs, i.e., Flat Rate and Flat Rate Plus for new and aftermarket.
- AFTERMARKET REUSE
  - When negotiating aftermarket wire work over the telephone, the Aftermarket Rep should quote new 4 pair or 25 pair Flat Rate or Flat Rate Plus prices.
    - Exception is when the Customer insists on reusing the existing wire.
  - If Tech finds reusable wire at installation, the Tech advises the Customer and PEC is changed to 2788-00R or 2789-00R to bill the Customer at the lower rate.
  - If order is written for reuse and wire is not reusable the Tech completes the order as written and advises the negotiator of the error.

PHONE CENTER WIRE

- Phone Center Stores have one Flat Rate pricing option called Standard Flat Rate.
- Higher in cost than GBS Flat Rate and lower in cost than GBS Flat Rate Plus.
- Standard Flat Rate wire pricing includes the cost of running wire under carpets in residences as well as wiring in a residential architectural environment.
- Firm Quotes and other Service Work Reuse PEC's have the same rates as direct channel GBS orders.
- No changes are allowed on Phone Center orders without SOSC approval.

GBS WIRE MADE SIMPLE 5.0
SEPTEMBER 1, 1991

Product or Service	New Installation			Aftermarket Additions/Moves/Changes & RRG		
	Standard		Non-Standard	Standard		Non-Standard
	Flat Rate Prod. ID: OTA	Flat Rate+ Prod. ID: OBA	Firm Quote* Prod. ID: XRA	Flat Rate Prod. ID: XBA	Flat Rate+ Prod. ID: XTA	Firm Quote Prod. ID: OUR
4 PR MERLIN® SPIRIT® System 25 EKTS HORIZON® All products that Use 4 PR	2782-004 $84 2782-084 $80 2782-0L4 $76	2781-004 $120	2783-004 Mat'l $30 Labor/Hr. 00206 $78	2788-004 $107	2789-004 $140	2785-004 Mat'l $40 Labor/Hr. 00206 $78
25 PR 6-10 Button Key Comkey All products that use 25 PR	2782-025 $155	N/A	2783-025 Mat'l $70 Labor/Hr. 00206 $78	2788-025 $180	2789-025 $215	2785-025 Mat'l $80 Labor/Hr. 00206 $78
50 PR 20-Button Key All products that use 50 PR	N/A	N/A	2783-050 Mat'l $130 Labor/Hr. 00206 $78	N/A	N/A	2785-050 Mat'l $185 Labor/Hr. 00206 $78
75 PR 18 Button Key All products that use 75 PR	N/A	N/A	2783-075 Mat'l $175 Labor/Hr. 00206 $78	N/A	N/A	2785-075 Mat'l $250 Labor/Hr. 00206 $78
100 PR 30-Button Key All products that use 100 PR	N/A	N/A	2783-100 Mat'l $250 Labor/Hr. 00206 $78	N/A	N/A	2785-100 Mat'l $350 Labor/Hr. 00206 $78
Other Service Work - Reusable wire runs - xConnect only requests - Final connections on new, adds, moves, and rearrangements - Connecting new lines to existing control unit	2782-00R $42 (4 PR) (4 of 25 PR)	N/A	2783-00R Mat'l $15 Labor/Hr. 00206 $78 (4, 25 50,75, 100 PR)	2788-00R $52 (4 PR) (4 of 25 PR)	2789-00R $82 (25 PR)	2785-00R Mat'l $20 Labor/Hr. 00206 $78 (4, 25, 50,75, 100 PR)
SYSTIMAX™ Premises Distribution Systems Single Run Multiple Runs Use Firm Quote for POS reuse/patch cords	2782-004 $84 2782-MUL $50	2781-004 $120 2782-MUL $50	2783-POS Mat'l $55 Labor/Hr. 00206 $78	2788-004 $107 2788-MUL $65	N/A	2785-004 Mat'l $50 Labor/Hr. 00206 $78

WIRE STANDARD WORK TIMES

FLAT RATE WIRE RUN	30 minutes per run
STANDARD (Phone Center)	38 minutes per run
FLAT RATE PLUS	45 minutes per run
FIRM QUOTE	Hours quoted by Service Manager or 1 hour per run (desk estimate)
REUSE/X-CONNECT	15 minutes per run

THIS PAGE RESERVED FOR AREA PASTE-IN

SPECIAL PRODUCT CODES

TRAINING TRNG

- All time spent in formal or informal training sessions.
  - Training on Products/Services/Software.
  - Training associated with a training course number or formal course, i.e., classroom, self-paced or video tape presentation.
  - Includes all travel on company time specifically associated with training sessions.

TRAVEL TRAV

- Travel by the Technician on company time to and from a Customer's premises.
  - Travel more than 5 minutes.
  - Vehicle problems during travel.
  - Job found completed/Customer not ready/no access.
  - Canceled orders prior to work beginning.
  - End of the day travel back to the work center, if necessary.

PRESALES PRES

- Selling products/Service offerings.
- Requests from the Branch/Customer or Services initiated referrals/sales prior to the issuance of a service order.
- Includes Move/Rearrangement "Spot Quotes".
- Includes all requests for demonstrations of our various product lines.
- Premises inventories and wiring estimates.

NOTE: Any similar time spent after an order is issued should be charged to the Product Code associated with the order.

ACCOUNT SUPPORT ACCT

- All time working with a Customer that cannot be associated with an installation or maintenance activity.
  - Discussion with a Customer regarding their equipment or services not associated with an installation or maintenance job.

ADMINISTRATION ADMS

- All time spent in Administrative Duties that cannot be charged to a Product Code.
  - Tailgate sessions.
  - Organizing workload prior to arriving on the Customer's

SPECIAL PRODUCT CODES

ADMINISTRATION (Continued) ADMS

- General information meetings.
- Reinforcement of established procedures.
- Remedial training.
- Fund raising meetings.
- Safety meetings.

INVENTORY INVN

- ONLY time spend during official field inventory of installation and maintenance stock for MMS.

PRODUCT FAMILIES

GBS PRODUCTS

PRODUCT	DESCRIPTION	PRODUCT CODE
1A Key	Common equipment & key sets (6 but, 10 but, Call Director)	E30A
Electromechanical	Manual PBX, Bell & Non-Bell Standard under 400, Mitel	E6VC
Credit Corp.	Deinstall/Certification Request	0403
"A" Orders	All work on "A" orders	3100
Public (AT&T owned)	Coin/coinless military/ non-military	3104
Public (Customer owned)	Coin/coinless	3105
ComKey	Common equipment & ComKey terminals	3134
Fax	All Fax machines	3510
Spirit 308/616	Control unit & features & Spirit terminals	6030
Spirit 1224/2448	Control unit & features & Spirit terminals	6031
Partner	Control unit & features & Partner terminals	6060
All Other	Unidentifiable, EKTS, single line, etc.	6090
Merlin 206, 410, 820, 1030, 3070	Control unit & features & terminals	6106
Merlin Plus	Control unit & features & terminals	6122

PRODUCT FAMILIES

GBS PRODUCTS

PRODUCT	DESCRIPTION	PRODUCT CODE
Merlin II	Control unit & features & terminals	6131
Merlin Legend	Control unit & features & terminals	6140
Horizon	Switch & assoc features	6201
System 25	Switch & assoc features	6250
COMPETITIVE PRODUCTS		
ITT	Common equipment, control unit, features, terminals	6005
TIE	Control unit & features & terminals	6010
EXECUTONE	Control unit & features & terminals	6015
MITEL	Control unit & features & terminals	6210
BCS PRODUCTS SWITCHES		
Electromechanical (Vintage PBX)	700, 701, 702, 711, 812 ESS PBX-CTX CU & Cust Premise	E6VE
Sys 75 & Definity Generic I	Software & hardware	6300
Dimension	Software & hardware	6420
System 85	Software & hardware	6552
Definity Generic II	Software & hardware	6555
5ESS	Software & hardware	6650

PRODUCT FAMILIES

BCS PRODUCTS

PRODUCT	DESCRIPTION	PRODUCT CODE
MESSAGING SYSTEMS/ADJUNCTS		
3B Messaging	Electronic Mail (Software)	1206
AP16	Message Centers (Application Processor)	7116
Audix	Voice Messaging Sys (Software & hardware)	7021
SYSTEMS MANAGEMENT		
CSM	Administration on-line management	1204
CMS	Call Management Sys	1208
Call Accounting Systems (CAS)	Hospitality 1, Comm-Stor II, Teleseer SMDR	3610
Independent ACD	8015 Call Mgmnt Sys	6830
CSMDR	Message Detail Recording (Storage)	7094
TERMINALS		
Analog	Set Tel 71XX Series & 2500YM type	3170
Hybrid (old)	Set Tel 72XX Series	3172
Digital	Set Tel 74XX Series	3174
Hybrid (new)	Set Tel 73XX-S Series	3176
Call Master	Term 602A1	3179
ISDN	Set Tel 75XX Series	3195
510 BCT	Pers Term 510A, 510B & BCT515	3701

PRODUCT FAMILIES

BCS PRODUCTS

PRODUCT	DESCRIPTION	PRODUCT CODE
PBX/DATA		
Systems Data	MTDM, DTDM, MPDM, 7400A, 7400B, 7500	2160
Teleconferencing Audiographics	Quorum or Video Conferencing	2810
Data Integration	PC/PBX Data Comm. Interface	8302
TRANSPORT		
Custom Systems	Special assemblies/ systems with unique or customized applications	E99Z
ISDN Gateway	Integrated telemarketing	1273
Stand By Power	PBX Auxiliary Power	2403
Multiplexors	T1 Carrier Equipment (D4-BCM-DDM)	2520
Private Microwave	Microwave Services	2901
Conversant	Voice Response Sys	7024
Voice Boards & Voice Power Software	Voice Processing Adjuncts	8304
Financial Sys	Turrets, COMCORE, SS4	9404

PRODUCT FAMILIES

PRODUCT	PRODUCT CODE
PC Software	1021
3B Software	1040
Dist Data/Packet Networks	2610
Printers	3330
Terminals/Controllers	3344
PC Hardware	3703
ISN/Data	6910
3B Hardware	7320

THIS PAGE RESERVED FOR AREA PASTE-IN

INTERCONNECTION DEVICES

REC	TYPE	RJ
2750-D02	66M1-50	
2750-D04	97A4 Data Mounting	RJ26X
2750-D05	97B Conn Block	RJ45S, RJ46S, RJ47S
2750-D06	97B/103A Mtng/M48A	RJ27M
2750-D07	102A Conn Block	RJ61X
2750-D08	103A Conn Block	RJ61X
2750-D09	103A Apparatus Mtg	RJ12C, RJ13C, RJM2X, RJ41M, RJ42M, RJ43M, RJ45M, RJ46M, RJ47M
2750-D10	700B66B1-12 Conn	RJ12C, RJ13C, RJ17C
2750-D11	D180935 Mtng Kit	RJM3X
2750-D13	225A Adapter	RJA1X
2750-D15	W.5.32 Jack Adapter	RJ15C
2750-D16	625A Conn Block	RJ1DC, RJ11C, RJ12C, RJ13C, RJ14C, RJ16C
2750-D17	625B Conn Block	RJ10C, RJ11C, RJ12C, RJ13C, RJ14C, RJ16C
2750-D19	625H Conn Block	RJ17C
2750-D20	635B Conn Block	RJ31X, RJ32X, RJ33X, RJ34X, RJ35X, RJ36X, RJ37X, RJ38X

INTERCONNECTION DEVICES

PEC	TYPE	RJ
2750-D21	62556 Conn Block	RJ18C, RJ19C,RJ25C
2750-D22	Mtg Plate 19 in	RJM4X
2750-D23	Mtg Plate 23 in	RJM4X
2750-D24	630A Conn Block	RJ11W, RJ12W,RJ13W, RJ41W
2750-D25	66B3-6 Conn Block	

NOTE: The first two characters "RJ" designate the use ofstandard Registration Jack. The third character-designates the type of jack (e.g., miniature modular, ribbon, series, etc.), and the last two charactersdesignate a specific wiring interface.

Examples:

RJ1XX Miniature modular, bridged six position
RJ2XX Miniature ribbon, bridged fifty position
RJ3XX Miniature modular, series eight position
RJ4XX Data Arrangements, eight position keyed
RJ5XX Data Arrangements, deleted from Part 68
RJAXX Adapters
RJMXX Wall or Mounting Arrangements
RJXXC Baseboard or flush mounted
RJXXM Multiple Arrangement of X-type
RJXXS Single Line Data
RJXXW Wall Mounted

ACTIVITY CODES

I - Inward movement of products and features.

O - Outward movement of products and features.
M - Moves, Changes and/or Rearrangements of installed products.
W - Non-billable Maintenance of sold products that are still within the warranty period shown on the PEI sticker.
D - Non-billable Maintenance of all products that are not under warranty.
B - Billable Maintenance.
S - ISCN's.
C - Company Official Service.
E - Special Product Codes.
L - Lost Equipment.
F - Found Equipment.

DELAY CODES

MATERIAL

1A - Late Shipment—Complete
1B - Late Shipment—Partial
1C - Claim Condition—(Wrong/Defective)

FIELD SERVICES

2A - Work Load
2E - Delay in completion notification by System Tech
2N - No Access (A orders ONLY)

BCS/GBS

3A - Sales Staff error
3C - Order entry/tracking error
3D - Customer not ready
3E - Facility not ready
3F - Collection disconnect activity

SYSTEM/INPUT ERRORS

4B - Delay in ACU completion
4C - Delay in OPS to DOSS interface
4D - System down time
5A - DOSS to OPS interface delay
5B - DOSS to MMS interface delay

DISCONNECT ORDERS STATUS CODES

AR - All equipment recovered
AF - All equipment recovered & additional equipment found
AL - Some equipment recovered (but not all)—Loss Reported
SL - No equipment recovered—Loss Reported
ML - Customer denied access—disconnect for non-payment

NOTE: Every completed order with any "OUT" activity must have a status code entered.

COMMON EXCEPTION CODES

SICKNESS/ACCIDENT

PS - Partial day absence—did not work all or part of 2nd half session—paid.
DS - Full day or full half day of absence.
AS - Partial day absence—unpaid.
PJ - Off duty accident—paid.
AJ - Off duty accident—unpaid.
PA - On duty accident—on day of accident and any succeeding partial days until the first full day of absence.
DA - On duty accident—first and all succeeding full days.

EXCUSED/VACATION/INCIDENTAL

PP - Excused paid.
EP - EWD—paid.
EA - EWD—unpaid.
EW - Excused workday—worked—paid excused workday, agreed to work before schedule became fixed.
PV - Vacation.
PW - Vacation carryover from the previous year.
PM - Military training—paid absence due to military training.
AL - Suspensions—absence due to an off-job activity, non-disciplinary suspension.
AE - Excused unpaid.
AB - Union time—unpaid.
EF - Excused workday—worked—paid excused workday, agreed to work after the schedule is fixed.
PK - Meeting with management and other union business.
AP - Absence—personal reason.

HOLIDAYS

HX - Holiday—not worked—for New Year's Day, Observed Memorial Day, Labor Day, Independence Day, Thanksgiving, Christmas.
HF - Holiday—not worked—for all other holidays excluding those cited above.
HG - Holiday—worked—for all other holidays excluding those cited above.
HB - Holiday—worked before or after regularly scheduled shift.
HW - Holiday—worked—for New Year's Day, Observed

COMMON EXCEPTION CODES

OVERTIME/PREMIUM

OT - Overtime hours worked on a scheduled day outside of the normal schedule.

NS - Overtime hours worked on a non-scheduled day.

EMERGENCY CALL OUTS/CALLS

OTD - Emergency call out on a scheduled day.

NSD - Emergency call out on a non-scheduled day.

FS - Call up time (CWA only) less than one hour.

ALLOWANCES

CN - Special city allowance—employee is based at a location eligible for special city allowance and reports to a location not eligible for the allowance.

CA - Special city allowance—employee is based at a location not eligible for a city allowance but reports to a location entitled to a city allowance, or city allowance is different from the amount of the base location.

RA - Daily travel allowance—allowance for miles traveled to another location as specified per contract.

MO - Meal allowance—used to report meal allowance paid when a minimum overtime requirement is met per contract.

SPIRIT/ARIES ERROR CODES

GENERIC CODES (APPLY TO ANY FILE)

000 - No error detected/successful transmission.
999 - Unrecovered error/retransmit file.

CODES FOR WORK ORDERS

101 - Invalid work order number.
103 - Invalid installation location.
105 - Invalid delay code.
106-XX - Invalid section and/or detail page number(one or both of these entries incorrect).
110 - Work order number already completed. This error occurs if the job is recompleted more than 15 minutes after the original completion.
111 - Delay code required.
112 - Invalid activity code in work order material segment.
130-XX - The quantity reported for a PE on this partial completion plus the quantity reported for it on any previous partial completion exceeds 999,999.
132-XX - You have reported a PE on this partial completion that was reported as completed on a previous partial completion.
133-XX - You reported a quantity change for a PE on this completion, but on a previous partial completion you reported the PE as completed.
134-XX - You reported a quantity change for a PE on this completion, but the Change Eligibility Indicator for this PE is set to "N" (NO).
135 - You reported one or more quantity changes on this completion, but this is a Firm Quote Order.
136 - You reported one or more additional SPE's on this completion, but this is a Firm Quote Order.
137-XX - This is a Firm Quote Order. On this partial completion you reported that a PE was completed, but the quantity reported plus the quantities reported on previous partial completions (if any) do not add up to the quantity as shown on the Work Order.

SPIRIT/ARIES ERROR CODES

CODES FOR WORK ORDERS

138-XX - On this partial completion you reported that a PE was completed. The Change Eligibility Indicator for this PE is set to "N" (NO) and the quantity reported plus the quantities reported on previous partial completions (if any) do not add up to the quantity as shown in the Work Order.

139-XX - This is a Firm Quote Order. On this partial completion you reported a quantity for a PE which is greater than the quantity as shown on the Work Order.

140-XX - On this partial completion you reported a quantity for a PE with a Change Eligibility Indicator which is set to "N" (NO), but the quantity you reported for this PE is greater than the quantity as shown on the Work Order.

141-XX - You reported a quantity change for a PE on this completion, but the new quantity is less than the quantity completed for this PE as reported on the previous partial completion(s).

142-XX - Invalid SPE Code (not eligible to be added).

143-XX - Invalid Quantity in ADD SPE/PE Subsegment of the completion segment.

147 - This order contains billable T&M PEC's and you did not populate the billable time and/or billable material segment.

148 - You have added billable T&M PEC's to the order and you did not populate the billable time and/or material segment.

151 - You have added billable T&M PEC's to this order and you did not add the associated feature code (00206).

199 - ARIES to OPS computer link has been down for more than 2 hours.

CODES FOR TROUBLE REPORTS

201 - Invalid trouble report number.

203 - Invalid installation location.

205 - Invalid trouble status code entered in Restatus Segment.

CODES FOR TROUBLE REPORTS (Continued)

210 - Trouble report number already completed. This error occurs if the job is recompleted more than 15 minutes after the original completion.

212 - Invalid activity code in the Trouble Report Material Segment.

230 - Invalid receipt date for Trouble Pick-up job. On-site date is more than seven days prior to todays date.

249 - You have reported a billable PEC on maintenance (0200,2770,2780). You did not populate the billable time and/or billable material segment.

250 - You have reported a billable activity code "B" and you did not populate the billable time and/or billable material segment.

299 - ARIES to BMIS computer link has been down for more than 2 hours.

CODES FOR TIMES REPORT

301 - Invalid Work Order Number.

302 - Invalid Trouble Report Number.

303-XX - Invalid Special Product Code.

305-XX - Invalid Activity Code or Special Product Code. You entered "E" against the ACTIVITY CODE prompt in the Product Segment of the Work Order or Trouble Report prompt flow but did not enter a valid Special Product Code against the PROD CODE prompt.

306-XX - Invalid Exception Code was entered against the EXCEP Code prompt.

307-XX - Invalid Exception value was entered against the Hours hhmm/MONEY ##cc prompt, given the Exception Code you entered: For Exception Codes requiring hours, the first two digits cannot exceed 24 (hours) and the last two cannot exceed 59 (minutes). For Exception Codes which do not require an entry, the HOURS hhmm/MONEY $$cc prompt must be blank.

308 - The DAILY Hours value, plus any Exception Code hours included in the Time file but in the DAILY Hours value, exceeds 24 hours.

SPIRIT/ARIES ERROR CODES

CODES FOR TIMES REPORT

310-XX - The Exception Code you used in one of your TIME-FUTR Time periods is not valid.

312-XX - One or more of the time periods in your TIMEFUTR file has a TO DATE which is more than 14 calendar days in the future.

313 - The time period dates in your TIMEFUTR file overlap.

314 - You attempted to upload a yesterdays time file today and today is Sunday.

317 - You have entered a zero filled WON and did not enter a Project ID Code.

THIS PAGE RESERVED FOR AREA PASTE-IN

```
TM# PP0069   928433   312748   928432   212747  MCR 553026   I        FINAL
                                                                  (12) PAGE 1
(1) WO#:PA1307826-01-001      STSID:3 TIET:N AC TEP:S S/E:F COC'D:00 STG:N CAP:
CPS TM/CFT#:PP510 352-2500      (4) IS:          (5) PO#:
(2) PIPM SID:CHANGES ALLOWED    (3) TPC:N   CIN:          CHR:N
(6) NAME:                                                 MPO:P
(8) ATTN:
      SAN LEANDRO          CA 94578      US
    ATTL RID#:
    PPST CONT:CAPOLIN          (3) TY:00
    SHIP VIA:
(9) ATTN:
                                (10) AE:KSTAE
                                 TN:00900 253-6602 0000
    TRACKING DATES:                 ORIGINATOR:                    (11)
        DCE: 04/29/92  PSAC ID:GW3020  TN:00428 452-6210 00000  BRANCH CD:03VE
      S/DOT:   /  /    SP SRC ID:
      PRANS: PP/PP/PP  PROJECT CODE:
        PAC: PP/PP/PP  PROJ CODE:
        MOD: 06/01/92  PROJ CODE IN:
    PPPP MOD:   /  /   DATE:   /  /    TIME:   :
        CCMT: 04/21/92 SYS TECH:

    ---REMARKS---
    TWIPP: OPSS        ROUTING DAC:
    PRENB 2 CUST NDS TWO LINES CROSS CONNECTED TO THE SWITCH.CUST HAS
    PPP ROOM ON THE SYSTEM,AND WILL CALL PAC BELL.OPR AND ACCESS TO BIRTH
    OF CAPOLIN 510-352-2500,CHRGS CTD WXPE 154 CD OF CSE ZOTE,PP 52 OTC 40?
    ---SEE---
    ACTPAI                (13)          SEQ#  DTL PG  SHIPPED  COMPLE'ED  CE
    01        PP6E3/*01PPP/TM5999        .00.01 000001  00001     00000       /
              /DES SERVICE CHARGE
        (15)  /SPECIFICATIONS/MPEGNN-(14)
              /WWWTPPP/STYS
    10        SP88/*01001/TM5999         000001 000002  00000     00000       T
              /DES CH-SITE TRANSLATION
              /SPECIS/ICES/MPEGNN
        (16)  /WPATPPP/STYS
    12        PP6E3/*01PPP/TM5999        000001 000002  00000     00000       T
              /DES PROTED WIRING
              /SPECIS/ICES/MPEGNN
              /WPATPPP/STYS
    COMPLETION WORKSHEET DATE:  -  -   SWO:      DC:   BW':        AW':
    TM/CFT#:                        K'LT CET:  2-1 B'N CRSS:
    PPPP PPPP:                      ITI:       INV:000000.00 COMP CALC:N
                                                (16)
```

SERVICE ORDERS

1. Service Order Number.
2. Staging yes or no.
3. Customer Telephone or Circuit Number.
4. IL Number.
5. Purchase Order Number (Customer's).
6. Firm Quote Y = changes not allowed. N = changes are allowed.
7. Facilities Provisioning Coordination: Y = Letter of agency authorizing AT&T to serve as single point of contact in coordination of installation activities and provisioning of local and long distance service. N = No letter of agency.
8. Location where work activity is to be done.
9. Shipping location if different from (8).
10. A.E.—Person responsible in Marketing for this order.
11. Branch Code: GBXXX = GBS order, USXXX = BCS order.
12. TMS = Terms of sale or lease.
    - 999 = purchase
    - 001 = month to month
    - 012, 024, 048 = 12, 24, 48 month lease.
13. ICXX: Installation Indicator
    N = Customer will install product.
    F or L = Technician will install product.

    NOTE: If Customer requests the Technician to install a product with N installation indicator:
    - If Firm Quote (6) is N: have ACU manually calculate Installation Charges for each PEC installed.
    - Add SPE 0199-CPC to the order with the calculated charges.
    - If Firm Quote is Y: refer Customer back to the Marketing Rep.

    ICXX: Customization Indicator (software related work that should be performed by Services, or switched systems).
14. MPLXXX: Maintenance Indicator
    F = Depot Service-Customer is not entitled to a Technician dispatch. If a Customer requests a Technician dispatch, he/she will be billed for time only.
    G = Warranty Mon thru Fri 8 a.m. to 5 p.m.
    H = Warranty 7 days a week 24 hours a day.

MPLXXX: Post Warranty Maintenance Indicator

C = Maintenance Contract-Depot Service/Mail-In Service-if Customer requests a Tech dispatch he/she is billed for time only.

D = Maintenance Contract-Monday thru Friday 8 a.m. to 5 p.m.

E = Maintenance Contract-7 days a week 24 hours a day.

N = No Maintenance Contract-Customer is billed T&M for all dispatches.

MPLXXX: Length

N = None

1 to 9 = number of years

15. Warranty-Length of warranty in months.
16. SWT-Standard Work Time-predetermined time to perform the work on all PEC Codes on the order that have a Standard Work Time associated with them.

PARTIAL COMPLETIONS

- It is not only appropriate, but necessary that we begin billing for our products when the order is delayed by the Customer or facilities.
- Partial completions are also used to discontinue billing on removal orders missed for company reasons.
- On inward activity partial completions, it is the System Technicians's responsibility to advise the Customer that billing will begin.

NOTES:

- If a return visit to terminate facilities is required to make products functional, it may be billable using the Hourly Rate.
- Equipment installations being financed by a third party leasing company cannot be partially completed.
- Orders that have been partially completed cannot be canceled.
- Partial completions should only be done on products (equipment) that have been delivered to the Customer's premise.
- Products can be considered delivered when shipped to the installation location or a staging location.

CPS&S ORDERS
(RESIDENTIAL "A" ORDERS)

- Residence Customers requiring premises visits.
- Receives a four (4) day appointment.

- Technician responsibilities:
  - Unpack equipment.
  - Connect equipment.
  - Test completely.
  - Perform simple wiring activities (if appropriate).
  - Advise Customer of applicable charges.
  - Obtain Customer's signature on Premise Visit Agreement.
  - Leave one copy of the Premise Visit Agreement with the Customer.

- Order contains Customer information, access information, whether installation or maintenance and what the charges will be.

- No Access
  - Technician will leave the No Access form FS-030 with the Business Office number, 1-800-555-8111.
  - Technician will retain the equipment for 5 day; if not rescheduled the Technician will return the equipment to stock.

NOTE: 3100 IS THE ONLY PEC THAT A TECHNICIAN SHOULD CHARGE HIS/HER TIME TO ON AN "A" ORDER.

0-1 BUTTON SETS

- Modularized Sets
  - $25 Initial Work Charge (regardless of the number of sets).
- All other work
  - $15 additional for each additional 15 minutes of work.
  - Example:
    - Repair of inside wire.
    - Installation of additional inside wire.
    - Modularization of non-modular jacks.
- Install inside wire only, station moves.
  - $25 IC plus $15 for every 15 minutes of time.

MAINTENANCE

- Hardwired Sets
  - $15 Flat Rate includes:
    - Replacement/repair of defective equipment.
    - Conversion to modular of defective equipment.
    - Applies to reported set(s) only.
- Modular Sets
  - $25 Flat Rate includes:
    - Replacement/repair of defective equipment.
- All other work.
  - $15 additional for each additional 15 minutes of work.

NOTE: Repair is of leased products only (purchased products are Direct Ship Repair).

NOTE: Orders canceled by Customer when the Technician arrives at the premise are subject to $25 IC.

NOTE: No charge for repair of:
- Home Interphone
- Farm Interphone
- Panel Phones
- 1 Button Sets (turn button sets)

THIS PAGE RESERVED FOR AREA PASTE-IN

INDIRECT SALES CHANNELS

I. Orders are issued by the SOSC.
   A. Remarks section of the service order will contain the Distributor's name, type of equipment, "Equipment provided by dealer", and the type of installation (wire only or complete installation).

II. Installation Flow.
   A. Verify equipment/Customer ready (if order is okay go to C. If order is in jeopardy go to B).
   B. If equipment/Customer not ready, report jeopardy to the SOSC and MAC the order with the appropriate delay code. The SOSC will reappoint the order.
   C. Perform the work listed on the order (if Customer requests other work not authorized on the order go to D. If work is completed as ordered go to G. If equipment is damaged, missing or defective go to F).
   D. Refer Customer request not on the order to the SOSC. The SOSC will get authorization from the Distributor (if the distributor does not authorize the additional work, refer the Customer to the Distributor and go to G. If the Distributor does authorize the additional work go to E).
   E. Perform the work requested. (Services type work only. Additional equipment is provided by the Distributor-not AT&T. Once the work is completed go to G).
   F. If equipment is damaged or missing, refer the Customer to the Distributor for resolution. Once resolved and installed go to G. If equipment is defective, replace with new equipment from AT&T stock and go to G).
   G. Order is complete. Report completion in Spirit.

INDIRECT SALES CHANNELS

Secondary Market Vendors

I. Used AT&T Products
   A. Services Functions:
      1. Audited De-Install: involves identification, verification, inventory, testing, labeling and disconnecting of AT&T equipment that has been purchased by a Secondary Market Vendor. This is performed on an Hourly Rate basis.
      2. Re-certification allows a vendor to obtain an AT&T maintenance contract, if an audited De-Install was never performed. This is done on an Hourly Rate basis.
      3. Re-Installation provides the same installation and testing procedures that are performed for new AT&T equipment. Billed normal installation charges associated with the type of equipment that is being installed.
      4. Re-Configuration: reconfigure, refurbish and test switch. Done for standard Hourly Rate at Service Centers (includes shipping equipment to new Customer location).
      5. Tape Initialization: The CSSO will initialize a tape and/or customize a tape and generate a COD upon request.
      6. Station Reviews: Services will perform station reviews at the request of a vendor and will bill at the standard Hourly Rate.
      7. Premises Distribution Services: PSC will perform their normal functions of providing firm bids in wire installation.
      8. Maintenance: Equipment maintenance agreements are offered to Customers who purchase certified used equipment.
      9. Project Management: Provided by the PSC's.
   B. Installation Flow:
      1. Verify if all vendor requirements have been met. If yes go to 2. If not go to 4.
         a. Vendor requirements:
            1. Equipment room ready.
            2. Space & environmental requirements.
            3. Electrical outlets.
            4. Facilities ready.
            5. End user training.
            6. Equipment on premises.
            7. Necessary paperwork.

Secondary Market Vendors

2. Verify all equipment on seg 01 received in good condition. If yes go to 3. If no advise SOSC and go to 4.
   NOTE: All equipment on seg 01 is SMV equipment and is their responsibility to replace or authorize replacement. Authorized replacement will be issued on a new segment.
3. Verify if all equipment on remaining segments is received in good condition. If yes go to 5. If no advise SOSC, file a claim and go to 4.
   NOTE: All equipment on remaining segments are AT&T responsibility to replace.
4. Status all jeopardies with the appropriate MAC Codes. Advise SOSC. If not resolved on the due date for vendor/Customer reasons go to 6.
5. Install equipment as authorized on order. If equipment is defective: Seg 01 go to 2 (review note and return to 4). Remaining segments go to 3 (review note and return to 4). Requests for additional work must be referred to the SOSC for negotiation with the SMV. If the order is partially complete on the due date go to the next step. If complete go to 7.
6. Partial complete order in Spirit. When order is complete go to the next step.
7. Complete the order as normal in Spirit. If preparing a T&M Invoice write the SMV name along with the Customer's name on the FSO-34.

DISCONNECT ORDER STATUS CODES

AR—All equipment recovered.

AF—All equipment recovered and additional equipment found.

AL—Some equipment recovered (but not all)—Loss reported.

SL—No equipment recovered-Loss reported.

ML—Customer denied access—Disconnect for non-payment.

NOTE: Every completed order with any "OUT" activity must have a Disconnect Status Code entered.

DISCONNECTS

Disconnects (due dates) carry the same priority as any other type of dispatchable work order.

- Every attempt should be made to recover our investments (equipment), and properly discontinue Customer billing on the due date.

- Access Obtained; Less Equipment Recovered:
  - If the reason appears to be inaccurate AT&T records:
    - complete the order with the quantity as it appears on the order.
    - advise the CSC to notify Marketing of the record discrepancy.
    - complete the OEL (Outward Equipment List).
    - prepare FSO-34 and report losses of equipment items not available for record purposes to adjust inventory.
  - If the reason is because equipment has been lost, stolen or damaged:
    - advise the Customer of potential billing.
    - complete the order with the quantity as it appears on the order.
    - complete the OEL.
    - prepare an FSO-34. In the material section, list complete PEC's of the lost items. In the remarks section, provide a detailed explanation of the cause (e.g., equipment stolen, vacant building, Customer did not secure).

- Access Not Obtained:
  - If the order is for total removal with less than 10 voice stations:
    - complete the order in Spirit with the quantities as they appear on the order.
    - report time in Spirit to travel.
    - prepare FSO-34 and report losses.
    - enter in Spirit, use L for Lost.

System Size	Recovery Revisits
11-20 Stations-Key	2
11-20 Stations-PBX	3
21 + Stations, Key or PBX	3

- NOTE: System Technician notes the hard copy of the order on each dispatch attempt:

DISCONNECTS

- Customer owned AT&T equipment
  - Disconnect of AT&T Customer owned equipment which is replaced with other AT&T equipment use the PEC Code 0604-000.
  - Disconnected without charge when other AT&T equipment is being installed.
  - No FSO-34 is needed as equipment is that of the Customer.
  - Disconnect of AT&T Customer owned equipment when no other AT&T equipment is being installed, or Customer who requests AT&T to disconnect their purchased other vendor equipment which is to be replaced with AT&T equipment will be billed.
    - use PEC Code 0600-903.
    - billing is at $80 per hour.
    - FSO-34 is required.

- NOTE: AT&T will not disconnect Customer owned non-AT&T equipment which is not being replaced with AT&T equipment.

THIS PAGE RESERVED FOR AREA PASTE-IN

PREMISES EQUIPMENT CERTIFICATION

Price Element Codes 0403-00A to 00F & 0403-001

- Certification provides for the inspection of a purchased system to determine eligibility for a Maintenance Contract.
- Required for a system on which the Warranty or Maintenance Contract has lapsed for more than two months or if the system has been relocated by the Customer.
- If the equipment does not meet certification standards, Field Services Organization will perform repairs on a T&M basis with the Customer's approval.
- Once the system has been certified the Customer has two months in which to purchase a Maintenance Contract.

CLASS I CERTIFICATION

- Systems on which the Warranty or Maintenance Contract has lapsed for more than two months, but no longer than twelve months.
- Involves predetermined tests (for each system type) and a visual inspection of inside wire and terminal equipment.
- Class I (fixed charges):

- 0403-00A	ComKey, Merlin, 1A2 Key	$ 80.00*
- 0403-00B	Horizon, System 25	$125.00*
- 0403-00C	Dimension, Prelude	$150.00**
- 0403-00D	Sys 75/85 initial carrier	$300.00
- 0403-00E	Sys 75/85 subsequent carrier	$125.00
- 0403-00F	Data	$100.00*

*Does not apply to relocated equipment.

**Billing is per CABINET (defined as control cabinet, port cabinet[s], SMDR or ECTS).

**Does not apply to non-AT&T installed Dimensions (use 0403-001).

CLASS II CERTIFICATION

- Systems on which the Warranty or Maintenance Contract has not been in effect for more than twelve months are subject to Class II Certification.
- Involves the same predetermined tests as Class I Certification plus a complete premises inventory.
- Systems that were relocated by the Customer are subject to Class II Certification.
- Class II Certification is billed on a T&M basis with a one hour minimum.
  - $80 per hour for voice products.
  - $100 per hour for data equipment.
- Use Class II Certification to bill for deinstallation of AT&T equipment.

COMKEY-1A2 KEY
MAINTENANCE ACCEPTANCE PROCEDURE

1. Visually inspect cross-connect field(s) for evidence of damage.
2. Verify that power, grounding and protection meet standards.
3. Perform visual inspection of all Key Service Units.
4. Ensure all Key Telephone Units are of correct vintage (list).
5. Test all telephone sets. Equipment shall be considered in good operating condition only if it is performing all functions and if there are no missing or broken parts.

MERLIN-SPIRIT-PARTNER
MAINTENANCE ACCEPTANCE PROCEDURE

1. Visually inspect cross-connect field for evidence of damage.
2. Verify that power, grounding and protection meet the standards.
3. Perform visual inspection of all control units.
4. Test all voice terminals. Equipment shall be considered in good operating condition only if it is performing all functions and if there are no missing or broken parts.

HORIZON
MAINTENANCE ACCEPTANCE PROCEDURE

1. Review HORIZON Communications Systems Task Oriented Practice (TOP) Installation Acceptance Procedure Notes.
2. Verify that the power, grounding and protection meet the TOP DLP500. Visually inspect equipment for loose connections, dislodged bridging clips and apparent damage to cabinet, carrier, power supply or circuit packs.
3. Test power systems per TOP DLP625 and 526.
4. Connect Service Access Unit (SAU) and query permanent fault record per TOP DLP597 and transient fault record per TOP DLP594. Clear all faults.
5. Perform pre-installation test per TOP DLP598.
6. Perform Alarm Routine Test per TOP DLP527 and Warm Start per TOP DLP598.
7. Perform pre-installation test per TOP DLP598.
8. Perform Line Test per TOP DLP533.
9. Test Night Service per TOP DLP533.
10. Test all non-working circuits.
11. Test Power Failure Transfer Service per TOP DLP516.
12. Install and Test Customer Access Unit (CAU) per TOP DLP660.
13. Clear Fault Records per TOP DLP589, write new tape per TOP DLP539 and disconnect SAU per TOP DLP614.
14. Spot test +10% of the telephone sets.

DIMENSION PRELUDE
MAINTENANCE ACCEPTANCE PROCEDURE

1. Poll Alarm records for defective equipment.
2. Verify that the power, grounding and protection meet the requirements of 554-102-101 IS.
3. Verify that the environmental requirements are within range and have been for the history of the switch, 554-102-101 IS.
4. Test power systems. TOP 554-102-330 (DLP513). Record on Log-Compare-Retain Log for future maintenance.
5. Check Customer's repair log for potential trouble spots. Test eight circuits per Line Carrier. Test all non-working circuits.
6. Test SMDR:
   Direct Output. TOP 554-010-410 (NTP-005)
   Type I, 9-Track Magnetic Tape, TOP 554-010-410 (NTP-007)
   Type II, 9-Track Magnetic Tape, TOP 554-010-410 (NTP-003)
   Internally formatted, TOP 554-102-330 (DLP624)
   Test Tape Drive Unit, TOP 554-102-330 (DLP526)
7. Test CAP, TOP 554-102-330 (DLP577).
8. Spot test +10% of the telephone sets.
9. Verify RMATS access line working (dial tone).
10. Verify required ISCN's have been completed.

DIMENSION 100

MAINTENANCE ACCEPTANCE PROCEDURE

1. Poll Alarm records for defective equipment.
2. Verify that the power, grounding and protection meet the requirements of 554-101-101 IS.
3. Verify that the environmental requirements are within range and have been for the history of the switch, 554-101-103 IS.
4. Test power systems. TOP 554-101-310 (DLP513). Record on Log-Compare-Retain Log for future maintenance.
5. Check Customer's repair log for potential or recurring troubles. Test three trunk-type circuits on the Control/Trunk Carrier or Trunk Control Carrier and the Line/Trunk Carrier. Test three circuits on the Line/Trunk Carrier. Test eight circuits on the Line Carrier. Test all non-working circuits.
6. Test SMDR, TOP 554-010-410.
   Direct Output, (NTP005).
   Type I, 9-Track Magnetic Tape, (NTP007).
   Type II, 9-Track Magnetic Tape, (NTP003).
7. Test Electronic Telephone Controller, TOP 554-010-405 (DLP621).
8. Spot test +10% of the telephone sets.
9. Verify RMATS access line (dial tone).
10. Verify required ISCN's have been completed.

DIMENSION 400
MAINTENANCE ACCEPTANCE PROCEDURE

1. Poll Alarm records for defective equipment.
2. Verify that the power, grounding and protection meet the requirements of 554-101-101 IS.
3. Verify that the environmental requirements are within range and have been for the history of the switch, 554-101-101 IS.
4. Test power systems, TOP 554-101-350 (DLP513). Record on Log-Compare-Retain Log for future maintenance.
5. Check Customer's repair log for potential or recurring troubles. Test three circuits per Trunk Control Carrier (FP15 only). Test four line circuits per Trunk Carrier. Test eight circuits per Line Carrier. Test all non-working circuits.
6. Test SMDR, TOP 554-010-410.
   Direct Output, TOP 554-010-410.
   Type I, 9-Track Magnetic Tape (NTP007).
   Type II, 9-Track Magnetic Tape (NTP003).
7. Test Electronic Telephone Controller, TOP 554-010-405 (DLP615).
8. Test CAP, TOP 554-101-350 (DLP558).
9. Spot test +10% of the telephone sets.
10. Verify RMATS access line working (dial tone).
11. Verify required ISCN's have been completed.

DIMENSION 600
MAINTENANCE ACCEPTANCE PROCEDURE

1. Poll Alarm records for defective equipment.
2. Verify that the power, grounding and protection meet the requirements of 554-105-101 IS.
3. Verify that the environmental requirements are within range and have been for the history of the switch, 554-105-101 IS.
4. Check Customers repair log for potential or recurring troubles. Test four circuits per Module Control and Trunk Control Carrier, CO and Tie Trunk Carrier and Trunk Port Carrier. Test eight circuits per Line Group Carrier. Test all non-working circuits.
5. Test SMDR, TOP 554-010-410.
   Direct Output. (NTP008).
   Type I, 9-Track Magnetic Tape, (NTP008).
   Type II, 9-Track Magnetic Tape (NTP004).
6. Test Electronic Telephone Controller, TOP 554-010-406 (DLP508).
7. Test CAP, TOP 554-105-320 (DLP538).
8. Spot test +10% of the telephone sets.
9. Verify RMATS access line working (dial tone).
10. Verify required ISCN's have been completed.

DIMENSION 2000
MAINTENANCE ACCEPTANCE PROCEDURE

1. Poll Alarm records for defective equipment.
2. Verify that the power, grounding and protection meet the requirements of 554-111-101 IS.
3. Verify that the environmental requirements are within range and have been for the history of the switch, 554-105-101 IS.
4. Test power systems, TOP 554-111-300 (DLP534). Record on Log-Compare-Retain Log for future maintenance.
5. Check Customer's repair log for potential or recurring troubles. Test four circuits per Module Control and Trunk Carrier, CO and Tie Trunk Carrier and Trunk Port Carrier. Test eight circuits per Line Group Carrier and Line Port Carrier. Test all non-working circuits.
6. Test SMDR, TOP 554-010-410.
   Direct Output, (NTP006).
   Type I, 9-Track Magnetic Tape, (NTP008).
   Type II, 9-Track Magnetic Tape, (NTP004).
7. Test Electronic Telephone Controller, TOP 554-010-406 (DLP508).
8. Test CAP, TOP 554-111-306 (DLP561).
9. Spot test +10% of the telephone sets.
10. Verify RMATS access line working (dial tone).
11. Verify required ISCN's have been completed.

SYSTEM 75
MAINTENANCE ACCEPTANCE PROCEDURE

1. Verify that the power, grounding and protection meet th requirement of 555-200-104 IS.
2. Visually inspect cross connect field for any evidence c damage, 555-200-104 IS.
3. Verify that the environmental requirements are within th range and have been for the history of the switch 999-700-232 IS.
4. Test and inspect batteries, filters and fans for prope operation, 555-200-105 IS.
5. Display the Error and Alarm Logs from the Syster Access Terminal (SAT) and analyze for defective equip ment, 555-200-105 IS/108 IS.
6. Verify hardware configuration from SAT configuratio screen, 555-200-104 IS.
7. Perform all demand maintenance tests from the SAT 555-200-105 IS/108 IS.
8. Test INADS interface, 555-200-104 IS.
9. Test auxiliary equipment (SMDR, AP, etc.) as required.
10. Spot test +10% of the telephone sets.
11. Verify required ISCN's have been completed.

SYSTEM 85
MAINTENANCE ACCEPTANCE PROCEDURES

1. Poll Alarm records for defective equipment.
2. Check Customer's repair log for potential or recurring troubles.
3. Visually inspect cross connect fields for damage.
4. Verify that environmental requirements are within range and have been for the history of the switch.
5. Check Periodic Maintenance Information Data Structure (PMIDS) and clear errors.
6. If the condition of the system appears questionable or is poor perform the following:
   A. Micro-Diagnostics (555-100-108 IS)
      (555-101-108 IS)
   B. X-Ray (555-100-105 IS)
      (555-101-105 IS)
7. Spot test +10% of the telephone sets.
8. Verify required ISCN's have been completed.

TROUBLE IDENTIFICATION VISIT

Price Element Code 0200-TIV

- A TIV charge is applied to most Customers who request a dispatch of a System Technician and the trouble is isolatec to non-AT&T CPE or Network Facilities.
- TIV has a 1 hour minimum and is billed at Class I rate.
- When trouble isolation exceeds the hourly minimum, billing to the Customer is for the total amount of time spent isolat ing the trouble.
- AT&T-C Network Facilities:
  - If trouble is isolated to AT&T-C Network Facilities, no bill is to be rendered via the T&M Invoice. Report time spen isolating AT&T-C Network Facilities trouble to Produc Code 0290.
- When billing TIV, the Product Code Field will contain the Product Code 0200 and the activity code is "B".
- A T&M Invoice must be filled out with the following informa tion in the "Remarks" section:
  - TIV
  - 0200
  - The reason for billing TIV
- TIV premium charges will be billed to Customers who request a dispatch outside of their coverage period.
- TIV applies when the trouble is isolated to:
  - Non-AT&T CPE (Customer Premise Equipment).
  - Non-AT&T Network Facilities.
- TIV does not apply in the following:
  - Dispatch requests initiated by the Regulated Entity c AT&T when trouble is isolated to Non-AT&T CPE or t Non-AT&T Facilities.
  - All dispatches resulting in the isolation of the trouble t AT&T facilities regardless of who requested the dispatch
  - Remote diagnostics which isolate trouble without a dis patch to AT&T CPE, or no trouble found.
  - Service Plus Customers if the trouble is in:
    - Riser or Campus wire
    - Network Facilities
  - Dedicated Services Customers if the work is performed b the Dedicated Technicians.

VISIT SERVICE CHARGE MAINTENANCE

Service Price Element Code 0505-VST

- A service charge of $50 is billed to Customers in order to recover administrative and travel expenses associated with dispatching a Technician to the Customer's premise.
- Applies on billable maintenance requests.
- Applicable on:
  - Maintenance visits where labor is billable (per occurrence) resulting in:
    - Troubles in AT&T CPE
    - NTF on AT&T CPE
    - Troubles in AT&T CPE caused by Acts of God
    - Troubles in AT&T CPE caused by Customers
    - Troubles isolated to network facilities and/or other vendor CPE only for T&M Customers
- Not applicable on:
  - TIV
  - Non billable maintenance
  - Dedicated Technicians
  - Technician assigned to a specific account and the Customer location is the Technician's normal reporting center.
  - Pick-ups (when the Technician is already on the Customer's premise performing other scheduled maintenance or service order activity).
  - AT&T-C coinless telephone maintenance
- If the 0505-VST is not applicable on a billable maintenance, the Technician must enter "NO VST" in the remarks section of the T&M Invoice and in the comcode description field of material section of jobfile in Spirit/Aires.

NOTE: An entry is required on the TMI in the VST charge field to indicate whether the Service Charge is to be applied.

WIRE REPAIR

Price Element Code 2780 (GBS)
Price Element Code 2790 (DSG)

- Use 2770 for all intra-system wire repair on BMG Marke Products such as Dimension, Prelude, System 75/85 an Embedded Base 4 pair. Also for wire repair on GBS Product working behind or served by a BMG Product.
- Use 2780 for all intra-system wire repair on GBS stand alone products such as Key, ComKey, Centrex, Horizor System 25, Merlin, Spirit, Partner and Embedded Base 2 pair up to and including 100 pair.
- Use 2790 for all intra-system wire repair isolated to Dat Systems Group (DSG) products. Troubles isolated to DCI products, i.e., modems, multiplexers, data set/cabinets c Dataphone II will be reported to the Product Code of 2770
- All wire maintenance resulting from anything other tha AT&T workmanship, or during the 12 month warranty, defective component, will be billed to the Customer on Time and Material basis. This includes:
  - Accidents, Floods, Fire, Theft.
  - Physical Damage, Pest Damage.
  - Abnormal Environmental Conditions (Corrosion/Deteriora tion), Power Surges, Lightning, etc.
  - Tampering/Unauthorized Activity.
  - Negligence, Abuse, Misuse or Modifications, etc.
  - Third Party Action.
- When the System Technician isolates the problem to billabl wire trouble, the Customer must be informed of the require ment for T&M billing.
- If authorization to proceed with the work cannot be obtainec the Customer will be billed a TIV charge, and the mainte nance will not be performed by the Technician.

SEVERITY CODES

1 - Minor outage (Customer has no service coverage. T&M).

2 - Minor outage (Customer has service coverage).

3 - Major outage (Customer has no service coverage. T&M).

4 - Major outage (Customer has service coverage).

5 - Major outage (Customer has Enhanced Response).

6 - Hold for equipment.

7 - Used locally by FSAC.

8 - No access

9 - Used to identify coin telephone.

MAJOR FAILURE

- At least 25% of service is affected.
- Attendant Console outage.
- Controller or processor outage.

SEVERITY CODE COMMITMENTS

Severity Code 2—Minor outage	24 hour response during Business Day hours.
Severity Code 4—Major outage	4 hour response during coverage period.
Severity Code 5—Major outage	2 hour response.

BMG SEVERITY CODE COMMITMENTS

SEVERITY CODE 4 (Lease/Warranty/Contract)
- 4 hour response during contract coverage period.
- Next available qualified Tech will be dispatched.
- NS/EP always given 2 hour response.

SEVERITY CODE 3 (T&M).
- 4 hour response between 8-5 M-F, excluding AT&T designated holidays.

SEVERITY CODE 2 (Lease/Warranty/Contract)
- Next business day by 5 pm excluding AT&T designated holidays.

SEVERITY CODE 1 (T&M).
- Next business day by 5 pm excluding AT&T designated holidays.

MAJOR FAILURE
- Voice
  - Total consoles down.
  - Admin console failure.
  - 25% or more trunks or stations out of service.
  - Total feature outage.
  - No incoming service.
  - No outgoing service.
  - Severely impacted services of agencies providing fire, life/safety support to the general public.
  - National Security/Emergency Preparedness.
- Data
  - Any on-line real-time center that cannot communicate with host or tributary location.
  - Any major failure at the host center.
  - 25% or more of network or devices out of service.
  - Can't send or receive data.

NOTE: These may not always apply (example: pres. of major corporation has a minor failure but demands shorter response time).

ESCALATION PLAN

- System Technician

  - After being on site for a major failure outage, of one hou duration, notify local management:
    - Of the outage.
    - Prognosis for clearance.
  - After one additional hour, notify the FSAC of the outag

- FSAC.
  - Once notified, the FSAC is responsible for monitoring t progress of the outage until it is cleared.
  - Within three hours from the start of a major outage, t FSAC Operations Manager will be notified.
  - Within six hours from the start of the outage, notify t local Service AVP.

PREMISES EQUIPMENT IDENTIFICATION

- Should be applied on installation.
- Aids Technicians in administering warranties.
- Filling out PEI LABEL:
  - Lease/sold director should be marked with an "X", based on the Terms information on the order.
  - Warranty expiration date should be calculated on the following:
    - Sold in Place — 3 months
    - New — 1 year
    - T&M maintenance — 3 months
  - Enter warranty expiration date on PEI label (warranty will expire on the last day of the month entered).
- Upon initial installation of a system, the Technician will mark the common equipment with one label on the inside cover of the common equipment.
- Each piece of apparatus behind the common equipment (such as terminals) will be marked on the base (underside) of the equipment.
- At the time of machine capacity or feature additions, the individual machine components will be individually tagged. (This will include items such as carriers and circuit packs).
- Equipment under lease, warranty or Maintenance Contract that is swapped out on maintenance should be marked with the original markings.
- Equipment that is replaced on a T&M basis does receive a new warranty of 90 days.

- MAINTENANCE PERFORMED ON EQUIPMENT WHICH IS NOT MARKED
  - Determine billing by:
    - Rely on BMIS to indicate sold vs. lease and Post Warranty Maintenance Contract status.
  - If BMIS indicates sold, no Maintenance Contract check for the following markings:
    - Old "ABI" markings (assume that the warranty has expired).
    - New "AT&T" markings (use the last date manufactured or refurbished. If the date plus the warranty period plus 2 months has passed, assume that the warranty has expired).
  - If BMIS indicates "Sale in Place", mark the equipment during maintenance visit. PEI label should indicate sold and warranty expiration date from BMIS records or from the Customer.

RESOLUTION CODES

WORK CODE

1. Repaired
2. Replaced
3. TOK/FOK
4. Reset
5. Reload
6. Instructed Customer
7. Referred
8. Exclude

SYSTEM CODE

A. Stored Program Control
B. Multi-Line System
C. Computer
D. Data
E. DataPhone II
F. Application Processor
G. Vintage System
H. Special Assembly
J. Non-AT&T Facility
K. Non-AT&T Equipment
L. None

COMPONENT CODE

A. Station Set/Terminal/ Printer
B. Misc. Station Equipment
C. Processor Controlled Hardware
D. Electro-Mechanical Equipment
E. Wiring
F. Software
G. Console/Switchboard Position
H. Alarm
J. Non-AT&T Facility
K. Non-AT&T Equipment
L. None

REASON CODE

1. Worn/Defective
2. Environment
3. Electrical
4. System Protection
5. Design
6. Non-Employee/Customer
7. Employee
8. None

RESOLUTION CODES

WORK CODES

1. Repaired—Cleaned, adjusted or otherwise restored existing equipment to working condition.
2. Replaced—Exchanged component.
3. TOK/FOK—No trouble found by test or during visit to premises, or on advice of Customer.
4. Reset—Purge and restore to original condition.
5. Reload—Reestablish application software in a system.
6. Instructed Customer—Instructed Customer on the proper operation of a product.
7. Referred—Informed another vendor of probable trouble in non-AT&T equipment or facilities.
8. Exclude—Code only for non-applicable troubles.

SYSTEM CODES

A. Stored Program Control—All analog or digital switching systems which are software controlled. (This includes, but is not limited to, Dim. 100, 400, 2000, Sys 75, 85 and Prelude).
B. Multi-Line Systems—All 1A2, ComKey (not vintaged), Merlin and special single line stations.
C. Computers—Includes 3B products, personnel computers and operating system software (UNIX).
D. Data—All data products, switched network or private line, except DataPhone II.
E. DataPhone II—All levels of DataPhone II services.
F. Application Processor—Those processors uniquely interfaced with switching systems to provide enhanced Customer services.
G. Vintage Systems—All products not actively marketed. This includes, but is not limited to, the 500 and 800 series PBX's, 1A, 1A1 Key Systems, Centrex CU and 2152 ComKey.
H. Special Assembly—Uniquely designed AT&T products for specific Customer applications not previously defined.
J. Non-AT&T Facility—Network facilities provided by vendors other than AT&T.
K. Non-AT&T Equipment—Equipment not provided by AT&T.
L. None—Valid only with work codes 7-Referred (non-contact) and 8-Exclude.

RESOLUTION CODES

COMPONENT CODES

A. Station Set/Terminal/Printer—Any end user device which is utilized for the transmission or reception of voice or data information. This includes, but is not limited to, voice terminals, data terminals, modems, teleprinters and CRTS VDTS.
B. Misc. Station Equipment—Any device associated with station set/terminal/printer which itself cannot maintain voice or data transmission.
C. Processor Controlled Hardware—Any physical component directly associated with a processor based system. This includes, but is not limited to, disk drives, tape transports circuit packs, carriers and power supplies.
D. Electro-Mechanical Equipment—Any physical component associated with non-processor based systems. This includes, but is not limited to, KTU's, KSU's, power supplies and electronic or mechanical PBX components.
E. Wiring—Any wiring or cable associated with CPE. (This includes, but is not limited to, wire, cable, campus distribution wire, backboard wiring, etc.).
F. Software—Instructions utilized in a processor controlled product to perform a specific task(s). This includes, but is not limited to, translations, application programs and operating systems.
G. Console/Switchboard Position—An answering position which permits an attendant to select and route call traffic.
H. Alarm—A system initiated audible or visual indication of a probable operational malfunction.
J. Non-AT&T-IS Facility—Network facilities provided by vendors other than AT&T-IS.
K. Non-AT&T-IS Equipment—Equipment not provided by AT&T-IS.
L. None—Valid only with Work Codes 7-Referred (non-contract) and 8-Exclude.

REASON CODES

1. Worn or defective—A component which is rendered partially or totally inoperative as a result of usage.
2. Environment—A condition, not controlled by AT&T-IS, in the surroundings which adversely affect system operation. This includes, but is not limited to, weather, radio inter-

RESOLUTION CODES

REASON CODES (Continued)

4. System Protection—A failure, breakdown, or system indication associated with physical, electrical or operational protection of equipment.
5. Design—The inability of a product to satisfactorily perform its intended function as a result of incompatibility of system components or software architecture.
6. Non-Employee/Customer—Any person not employed by AT&T-IS.
7. Employee—Any employee of AT&T-IS.
8. None—Valid only with Work Code 7-Referred (non-contract) and 8-Exclude.

ESSENTIAL COVERAGE
BUSINESS DAY

- Provided maintenance of Customer-owned AT&T equipmer through remote maintenance and/or System Technician dis patch.
- Coverage is Monday through Friday from 8 a.m. to 5 p.m excluding AT&T holidays.
- Response time:
  - Major failure: 4 contract coverage hours, excluding AT& holidays.
  - Minor failure: 24 hours during Business Day coverag period, excluding AT&T's designated holidays.
- NOTE: Optional overnight air express replacement.
- Parts and labor are included.
- Term Plan Customers receive Business Day Service as standard part of their offering.

ESSENTIAL COVERAGE
AROUND-THE-CLOCK

- 7 days a week, 24 hours a day for major failures.
- 4 hour response time for major outage.
- 24 hour response during business day hours for minor outage.
- Optional overnight air express replacement.
- Parts and labor are included.
- NOTE: Customers with Around-The-Clock coverage are billed time charges for dispatch on Severity Code 2 dispatches between the hours of 5 p.m. and 8 a.m. Monday through Friday and all day Saturday and Sunday.

ECONOMY SERVICE PROTECTION

- Enables Customers to protect their equipment at reduce

price.

- Available to Customers with Partner, Partner Plus, Spirit Merlin Plus, Classic Merlin and Fax.
- Limited to Business Day coverage Monday through Frida from 8 a.m. to 5 p.m.
- Replacement parts will be provided at AT&T expense via ai express next business day delivery.
- On-site Technician visits when necessary.
- Includes NSAC Hotline support.

SEASONAL COVERAGE

- Essential Business Day Coverage available in increments of three consecutive months.
- Available to all AT&T Customers.
- May add any number of additional months of coverage to the three month coverage.
- Around-The-Clock coverage is not available.

EXTENDED RESPONSE AREA

- In certain locally designated areas, Essential Business Da

coverage will be defined as follows:

- End of next Business Day response time for major outag during coverage period.
- Three Business Day (27 Coverage Period hours) respons time for minor outage during Coverage Period.
- On-site Technician visits when required only.
- Enhanced Response, Essential Around-The-Clock an Economy Service is unavailable in these areas.

ESSENTIAL PLUS COVERAGE

- Customer may choose any one or more of the additional services, as long as they have Essential Coverage.

ENHANCED RESPONSE
- Receive 2 hour response for major outages.
- Only in selected geographic areas based on zip codes.

WIRE COVERAGE
- Covers intra-system wiring.
- Includes parts and labor (i.e., connecting blocks, cross connect fields, etc.).
- Does not apply to black cable, riser cable, outside plant, T1 carrier.

REMOTE ADMINISTRATION
- Unlimited number of standard software translations.
- Completed within response time for minor failures.
- Applies to System 25 R2 and R3 applications.

SUBSEQUENT TRAINING
- Includes unlimited access to toll free "Helpline".
- Unlimited access to Customer training classes and seminars.
- Customized training session to be given at Customer location up to two times a year.

PREMIER COVERAGE

- Package 1
  - Enhanced Response
  - Wire Coverage
  - Remote Administration (System 25 R2 & R3 only)
  - Subsequent Training
- Package 2
  - Wire Coverage
  - Remote Administration (System 25 R2 & R3 only)
  - Subsequent Training

MOVE AND CHANGE COVERAGE

- Unlimited number of station moves, changes and rearrangements.
- Partner, Partner Plus, Spirit, Merlin Plus, Classic Merlin, EKTS, 1A Key and ComKey only.
- Pricing does not include material.
  - Major and minor material will be charged.
- Customer must schedule in advance for moves/change activities.
- Coverage for all peripheral equipment except for common equipment.
- All equipment at Customers premise must be in Warranty, on a term plan or covered by Essential Coverage.

DEDICATED SERVICE TECHNICIAN COVERAGE

- Labor coverage for station moves, changes, rearrange
ments, minor additions and station installations.
- Technician can also do maintenance work.
- Pricing does not include material.
- All equipment at Customer site must be in Warranty, on a
Term Plan or covered by Essential Coverage.
- Type 1
  - 45 weeks Monday through Friday 8 a.m. to 5 p.m. exclud
    ing AT&T holidays.
- Type 2
  - 200 hours over a 50 week period.
  - 1/2 day per week (8 a.m. to 12 p.m.).
  - 1/2 day per week (1 p.m. to 5 p.m.).

SERVICE PLUS

- Provides single point of contact for Customers to report troubles and to coordinate move, rearrange and change activity on all facilities terminating in AT&T equipment.
- Consists of:
  - Taking repair calls.
  - Isolating troubles through remote diagnosis and/or dispatch of System Technician.
  - Referring circuit problems to the appropriate vendor.
  - Escalating missed commitments.
  - Overseeing trouble reports to resolution.
- Offered on an annual basis and automatically renewed upon expiration.

- NOTE: Can only be offered to Embedded Base Customers or those with Term Plan, Warranty or Maintenance Contract.

- Priced on a per facility basis.
- AT&T assumes no responsibility for other vendor's charges due to incorrect isolation of troubles.
- Coverage is on all facilities terminating in AT&T provided equipment at the Customer location. Coverage of select facilities is not allowed.
- Not an offering to telephone answering services, ETN or DataPhone II Customers.
- $3.75 per month, per facility.
- $1.50 per month per main Centrex line.
- Activities relative to Service Plus are charged to 0801.

STRATEGY

- Grow Services revenues by selling to new customers.
- Grow our number of customers (market share).
- Provide top quality "Customer for Life" Service so that when customers are ready to replace existing systems, GBS consideration rates will increase.
- Offer customers aftermarket products.

ESSENTIAL COVERAGE
- Basic coverage.
- Business Day.
- 4 business-hour response for major failures.
- 24 hour response for minor problems.
- 24 hour Helpline.
- With Essential Coverage a customer may also purchase:
  - WIRE COVERAGE
    - covers most wiring between the control unit and the telephone.
    - Black wire and riser cable are not included.
  - MOVES AND CHANGES
    - Unlimited moves and changes to existing equipment.
    - Within the customer's prem.
    - Covers labor only.
  - DEDICATED TECHNICIAN
    - Full-time or part-time options.
  - ENHANCED RESPONSE
    - 2 hour response for major failures.

  SUBSEQUENT TRAINING
    - Unlimited 24 hour Helpline support.
    - Unlimited enrollment in regularly scheduled AT&T training classes on a space available basis.
    - Up to two on-site training sessions per year.

ECONOMY COVERAGE
- Available for customers who are willing to exchange failed modular equipment for new or refurbished equipment via overnight delivery.
- For control unit failures and problems with other non-customer installable system components, a Technician will be dispatched.

ORDERING EQUIPMENT

- Suppliers will provide 24 hour coverage 7 days a week.
- Normal business hours.
  - On-line telephone coverage available 8 am to 8 pm EST, Monday through Friday.
  - Information required:
    - Identify as an AT&T employee.
    - Franchise Purchase Order Number.
    - Tech ID number.
    - Part/s-Documentation required.
    - Indicate-Purchase, Trade-in or Warranty.
    - Ship to information.
    - Return Authorization-Pick up information.
    - Shipping requirements.
      - Emergency-Same day.
      - Normal Business-24 hours.
      - Non critical-48 hours.
- Out of hours/weekends/holidays.
  - Call will be answered by voice mail.
  - Tech will be provided with instructions to call the "Assigned Duty Person".
  - Provide the following information:
    - Identify as an AT&T employee.
    - Franchise Purchase Order Number.
    - Tech ID number.
    - Part/s-Documentation required.
    - Indicate-Purchase, Trade-in or Warranty.
    - Ship to information.
    - Return Authorization-Pick up information.
- Return Material Procedures.
  - If ordered as trade-in or covered under warranty:
    - "Return Authorization Shipping Label" inside box.
    - Place defective component back in same box.
    - Secure for shipping.
    - Place shipping label on box.
    - Must be made available to carrier for pick-up within 24 hours.
- Claims.
  - Lost shipments.
  - Physical damage.
  - Concealed damage.
- Suppliers.
  - Source Telecommunications
    14060 Proton Road
    Dallas Texas 75244
    1-214-450-2700
  - Liberty Telecommunications Inc
    Suite E
    14 Worlds Fair Drive
    Somerset New Jersey 08873
    1-800-669-2222, Ext 288 (AT&T)

PRODUCT

CODE	SYSTEM
6015-008	Executone Encore CX 408
6015-010	Executone Equity II
6015-012	Executone Equity III
6015-016	Executone Encore 616
6015-P16	Executone Encore + 616
6015-X16	Executone Encore CX 816
6015-032	Executone Encore 1232
6015-P32	Executone Encore + 1232
6015-X32	Executone Encore CX 1832
6015-064	Executone Encore 2464
6015-P64	Executone Encore + 2464
6015-072	Executone CX 3672
6015-096	Executone Encore 3696
6015-P96	Executone Encore + 3696
6005-1A	ITT 1A Key System
6005-401	ITT 401 KSU
6005-801	ITT 801 KSU
6005-802	ITT 802 KSU
6210-X10	Mitel SX10
6210-X20	Mitel SX20
6210-X50	Mitel SX50
6210-100	Mitel SX100
6210-200	Mitel SX200
6010-308	TIE 3X8
6010-512	TIE 5X12
6010-416	TIE 4X16
6010-612	TIE 6X12
6010-616	TIE 6X16
6010-018	TIE 8X18
6010-820	TIE 8X20
6010-824	TIE 8X24
6010-032	TIE 12X32
6010-036	TIE 12X36
6010-048	TIE 16X48
6010-060	TIE 22X60
6010-064	TIE 24X64
6010-128	TIE 32X128

THIS PAGE RESERVED FOR AREA PASTE-IN

AT&T

Time and Material Invoice

FSAC ID (1) Page (2) of

(3) (4) (5)

Serial No. 005345851

Customer's PN Authorization For Release Work (7) Service Address (8) City State Zip Code

Print Name Customer's Signature (9) Date Work Complete Location FSAC (10) Mkg

Billing Information — Time

Job No (11)	Date (12)	OPS BWO WR COMP # (13)	No. of Tech (14)	On Site Time (15)	Comp Time (16)	Total Time (17)	Mar Bill Y N (18)	Inv Chg Y N (19)	Billing Hours Reg	Billing Hours OT Bill	Billing Hours Sun Hol (20)	BWO Prem OT Bill	BWO Prem Chg Sun Hol (21)	Prod Code (22)	Mat Code (23)	Qty (24)

(25) 30 QUARTER HOUR INCREMENTS SUBJECT TO ONE OR TWO HOUR MINIMUM. ONE HOUR MINIMUM APPLIES TO MAINTENANCE OF DATA AND COMPUTER PRODUCTS.

Description of Work Performed For Above Jobs

Job No (25)	(26)

Material Usage

Job No (27)	Act Code (28)	Qty (29)	Component No (30)	Apparatus Description (31)	Seized Out Y N (32)	Set Your Y N (33)	Bill Y N (34)	Remarks (35)

Technician's Name BWO Code (36) Technician's Signature (37) Date (38)

I HEREBY CERTIFY THAT ARE PROVIDED THE SERVICES AND MATERIALS IDENTIFIED ABOVE. I HAVE READ AND RECEIVED A COPY OF THIS DOCUMENT. I UNDERSTAND THAT THE SERVICES AND MATERIALS ARE PROVIDED PURSUANT TO TERMS AND CONDITIONS STATED ON THE REVERSE SIDE.

Customer's Name (print) (39) Customer's Signature (40) Date (41)

CUSTOMER COPY RETAIN THIS DOCUMENT

TIME AND MATERIAL INVOICE

- Used for Billable Time (Labor).
- Used for Billable Material.

1. FSAC ID: The four character ID no. of your FSAC.
2. Page _____ of _____: The sequential page number when multiple forms are required for the same Customer.
3. Cust Name: The name as listed on your Service Order or BMIS ticket. If work performed is for a pick-up or work complete, provide the company name.
4. Tel/Ckt #: The Customer's area code and main telephone number or circuit number listed on the Service Order/ BMIS ticket. If pick-up or work complete, the number of the equipment being worked on.
5. P.O. #: If the Customer requests billing via a unique purchase order number, the Customer must provide the P.O. # for entry in this field.
6. Serial #: Pre-populated nine character number.
7. IL: The ten character number listed on your Service Order/BMIS ticket. If work performed is for a pick-up or work complete the Customer should be asked to provide the IL in order for the Customer to be billed properly.
8. Service Address: The street address, city state and zip code as listed on your Service Order/BMIS ticket.
9. Cust Pre-Auth for Billable Work: Only billable time and/or material work activities must be authorized by the Customer prior to beginning the work.
10. Work Complete Called To: Enter the name of the indivdual and enter an X in the block denoting the organization. If no one was called, enter an X in the appropriate block.
11. Job #: The sequential number of the job that requires billing (i.e., 1,2,3, etc.).
12. Date: The date(s) the work was performed.
13. OPS/BMIS/Wk Comp #: The 11 character OPS number or the 9 character BMIS number or
    - If work performed is for a pick-up, the 9 character S/A generated BMIS No. must be reported.
    - If work performed is for a work complete, WC and the pre-printed nine character TMI serial number must be reported.
    - If work is performed for Customers who subscribe to a Dedicated Service Agreement and the work is performed within the Customer's coverage period then DED is reported in this field.
14. # of Tech: The total number of Technicians working the job. Only the lead Technician prepares the TMI.

TIME AND MATERIAL INVOICE

15. On-Site Time: The actual time (hours and minutes) when the Technician arrives on the Customer's premise.
16. Completion Time: The actual time (hours and minutes) when the Technician completes the job; this includes completion of the TMI and obtaining the Customer's signature.
17. Total Time: The actual time incurred in performing the work. This time may not agree with the On-Site to Completion Time due to interruptions, such as lunch, job completions at another premise, pre-sale activities, etc.. The total time is reported in quarter hour increments.
18. Minimum Bill:
    Enter "Y" when the total time doing billable work is less than or equal to the billable minimum time. (This means there is no other billable activity being performed).
    Enter "N" when the total billable time doing billable work exceeds the billable minimum time. Also enter "N" if there is other billable activity being performed.
19. Visit Charge: This charge is applied on an individual Order/Trouble Report basis, individual Customer location, individual due date, regardless of the number of Technicians required to complete the job.
    - Only one visit charge is applied when multiple work activities are performed.
    - Enter "Y" in this field when the following activities are not performed.
    - Enter "N" in this field when performing the following activities:
      - Initial installations or new system installations.
      - Disconnects of AT&T leased equipment.
      - Disconnects of purchased AT&T equipment or other vendor equipment which the Customer owns provided the installation of the AT&T equipment is completed on the same date as the disconnect.
      - Work Complete Orders and/or Pick-ups.
      - Work performed by Technicians who are assigned to a specific Customer account and this Customer location is their normal reporting center.
      - Non-billable maintenance requests. Dispatches resulting in TIV Charges for Customers who have a Warranty, Maintenance Contract or Lease Embedded

TIME AND MATERIAL INVOICE

20. Billing Hours: A breakdown of the number of billable hours spent according to type, to complete the billable maintenance work, and to complete the billable time sensitive provisioning work.
21. Incremental Premium Charge: A breakdown of the number of hours spent according to type, to complete the billable provisioning work as defined below. The IPC charge is time sensitive premium installation additive charge which is billed to all Customers who request:
    - Installation of incidental equipment (term/sta) outside the normal work hours.
    - Disconnect of AT&T leased equipment outside the normal work hours.
    - Disconnect of Customer owned AT&T equipment outside the normal work hours which is replaced with other AT&T equipment.
    - Wire work which was quoted at a Flat Rate.
    - Wire work which was quoted under the 2772,2777,2700.
22. Product Code Maint/Prov: Enter the 4 character billable maintenance/provisioning product that was reported in the time segment of S/A or on the manual DWR.
23. Model Code: Enter the 3 character billable provisioning code associated with the Wire or Services Price Element Code(s), i.e., 0600-900, 901, 902, etc..
24. Quantity: Enter the appropriate quantity associated with the provisioning Price Element Code.
25. Job #: The sequential number of the job that corresponds with the job number in the Billing Information Time section.
26. Description: Provide an adequate description of the work performed with sufficient detail relative to Billing Information-Time section.
27. Job #: The sequential number of the job that corresponds with the job number in the Billing Information-Time section.
28. Activity Code: Enter the activity code(s) which reflects the type of work the job requires:
    B = Billable Maintenance Major Material.
    O = Outward movement of equipment being returned to AT&T.
    B = Billable equipment being added.
    I = All inward material equipment which is billable via the comcode to the Customer.
    I = Addition of material/equipment which is not billable via Comcode.

TIME AND MATERIAL INVOICE

O = Outward movement of equipment being returned to AT&T which is not billable.

W = Warranty; Non-Billable maintenance material of sold products that are still within the warranty period shown on the Premises Equipment Identifier tag.

D = Demand: Non-Billable maintenance material of all products not under warranty.

L = Loss of Corporate assets due to inability to recover outward movement, or for Customer reasons such as theft of leased apparatus, losses due to fire, acts of God, negligence, third party action, etc..

F = Find of Corporate assets.

29. Quantity: The number of units used associated with the corresponding Comcode number.
30. Comcode #: The 9 character Comcode number of the unit being added or removed and returned to AT&T.
31. Apparatus Desc: The description as provided in the material catalog.
32. Swap-Out: Required for Maintenance activity only:
    - "Y" reflects the replacement of Like for Like equipment.
    - "N" reflects the replacement of similar equipment but a different Comcode number.
33. S/A Input: A positive entry is required to ensure material accountability.
    - "Y" when material is reported via S/A.
    - "N" when material is not reported via S/A.
34. Billable: A positive entry is required to ensure proper Customer billing.
    - "Y" when billable material charges are to be passed on to the Customer.
    - "N" when material charges are not passed to the Customer.
35. Remarks: Provide any entries relative to the material reported.
36. Tech Name/Code: Enter your name legibly, and your 4 character BMIS Employee Code number.
37. Technician Signature: Enter your signed name.
38. Date: Enter the date the work was satisfactorily completed.
39. Customer Name (printed): Customer name legibly printed.

BILLABLE JOB TASKS MAINTENANCE

ON MAINTENANCE T&M BILL FOR:

- Gaining access to the working area.
- Surveying and planning the maintenance job, including discussion with the Customer about the work.
- Preparing for and cleaning up any such maintenance work.
- Moving furniture, removing ceiling tiles, or other such tasks directly associated with the maintenance work.
- Replacing defective major material.
- Completing the Time and Material Invoice for the Customer's signature.
- Inputting Times information into Spirit Aires.
- Inputting completion/status information into Spirit Aires.
- Customer caused roadblocks and/or delays.
- Break time (when the T&M job is of sufficient time to warrant a break).

ON MAINTENANCE T&M DO NOT BILL FOR:

- Travel time, including System Technicians that may be called out of hours and/or from home.
- Lunch.
- Company roadblocks and/or delays.

T&M MINIMUM CHARGE

Provisioning	Hourly Rate	Minimum
T&M Services PEC's (e.g., 0403,0600)	$ 80.00	1 hour
MAINTENANCE HOURLY RATE MINIMUM		
Class I (Merlin, Partner, Horizon, 1A Key, Auto Tas, Fax, EKTS, Premises wire, Spirit, Voice stations)	$ 90.00	1 hour
Class II (Data) Data couplers, Data sets, Data Terminals & Printers, ISN (IS-Networks), Multiplexers, Personal Computers, Starlan, Work Stations	$120.00	2 hour
Class III (Dim, Sys 75, Sys 85, Sys 25, Vintage PBX)	$132.00	1 hour
Class IV (Computers) Application Processors, 3B Computers	$175.00	2 hour
T&M Services PEC's (e.g., 0200-TIV)	$ 90.00	1 hour

NOTE: Minimum is applied to Customers when the total billable work (meaning there is no non-Time and Material work being performed) is less than the hourly minimum.

NOTE: Time is added together for multiple T&M jobs performed at the same location for the same Customer on the same visit. (Same location is when the System Technician does not have vehicle travel from one location to another).

NOTE: The Maintenance Class should be entered in the "Remarks" section of the FSO-34 (T&M Invoice).

ENHANCED MAINTENANCE T&M

TECHNICIAN RESPONSIBILITY

- Call the FSAC to obtain material prices on billable equipment required to restore service.
- Present material prices and pricing alternatives (as appropriate) to the Customer.
- Obtain the Customer's pre-authorization to replace material at the quoted price.
- Obtain the Customer's pre-authorization for labor time to be billed, if time required to restore service extends beyond "one hour minimum billing period".
- Writing billable charges and total charge on the Time and Material Invoice before presenting for Customer acceptance signature.

COMCODE SELLING PRICE

- List price (full amount).
- Use CC in the remarks on the Time and Material Invoice.

REPAIR EXCHANGE PRICE

- Customer owned defective unit is exchanged for an identical replacement unit.
- Priced lower than the Comcode price.
- Must be same item and same comcode (defective and replacement unit).
- Based on a visual inspection, the defective unit must appear to be repairable.
- Use "RE" in the remarks of the TMI.

NOTE: Customers decision to have T&M site visit constitutes verbal authorization for one hour of minimum labor and the visit charge.

THIS PAGE RESERVED FOR AREA PASTE-IN

MATERIAL ACCOUNTABILITY PROCESS MAP

- Inventory and inventory control represent a major investment for AT&T.
- MAP is a process for managing inventory investment and equipment returns.

MAINTENANCE

- Technician Responsibilities
  - Checks and inventories equipment against the Trouble Report.
  - Provides receipt documentation.
  - Packages and returns defective (or good/unused) parts in accordance with Material Accountability guidelines and Quality Returns Process.
  - Prepares FS-034 for equipment losses.
  - Reports accurate completion, material, and billable time information to the Tech Scheduler.
  - Retains documentation to verify loop closure.
  - Resolves discrepancies on DPICS Return Notice Report.
  - Replenishes vehicle stock, as required.
- Code 6 (equipment not available)
  - Notify Tech Scheduler that trouble cannot be worked because equipment is not available.
  - Tech Scheduler prepares Material Request Form (MRF) or if time permits the Technician and the Tech Scheduler call the MSL together.
  - Determine whether to obtain equipment for subsequent day or Hot Shot.
  - Obtain a projected material arrival date.
  - Information required:
    - BMIS Ticket number
    - Severity Code
    - Item Quantity
    - Comcode number and description
    - Delivery location
  - Restatus in 3B STAR as severity code 6. SPD (Status Pending Dispatch). DO NOT CHANGE THE ORIGINAL APPOINTMENT IN BMIS.
  - Call the Customer to:
    - Explain the problem
    - Arrange a new date
    - Verify access arrangements
- Returning Defective Material
  - Package defective equipment removed in the course of clearing yesterday's troubles according to Quality Returns Process specifications.

- Returning Defective Material

MATERIAL ACCOUNTABILITY PROCESS MAP

- Prepare and attach a Material Return Label to each box.
- Sign, date and write your social security number on both copies of the Return Notice.
  - Place one copy in the Packing List Enclosed envelope attached to the outside of Box 1. This copy clears the IOU in DPICS.
  - Place the second copy in the predesignated area for the MSL material handler to sign and return to you to acknowledge receipt.
  - Keep the MMS signed copy for 2 weeks to resolve any discrepancies.
  - After loop closure is verified by the DPICS Return Notice Report, pass the signed Return Notice to the Service Manager for retention.

- No Defective Equipment To Return
  - If there is no defective equipment to return (i.e., it belongs to the Customer, it has been lost, stolen, or damaged by fire or water, etc.) do the following:
    - Write the reason for no return on both copies of the Return Notice.
    - Write your name and SSN and sign and date both Return Notices.
    - Prepare a TMI for the loss.
    - Forward signed Return Notices and TMI to Service Manager.

DESIGNED VEHICLE LOAD (DVL)

- Having the appropriate equipment stocked in the right quantities on the DVL is necessary to meet service requirements and increase Customer satisfaction.
  - Technician must reorder equipment used, and return defective material the same day (i.e., immediately upon receipt of the Return Notice).
  - When a Technician uses equipment from the DVL to clear a trouble, the vehicle stock must be replenished through the Tech Scheduler.
- Technicians are responsible for the integrity balance of the physical inventory on the DVL.
- Periodic inspections validate compliance or point up deviations.

MATERIAL ACCOUNTABILITY PROCESS MAP

- Technician Responsibilities
  - Make an inventory of provisioning equipment
  - Report missing, defective or incorrect equipment
  - Perform installation/removal activity
  - Package any equipment to be returned
  - Mark paperwork to reflect activity
  - Call the Tech Scheduler and furnish product and material information to be reported
  - Complete Time and Material Invoice FSO-34 for additional time and material to be billed and report any billable losses
- Inward Provisioning Activity
  - Technician is responsible to inventory material received against a work order using the Inward Equipment List (IEL) and report discrepancies and missing, incorrect or defective items to their Service Manager and/or the MSL attendant.
    - Items and quantities match:
      - Technician circles the quantity on the Comcode side of the Inward Equipment portion of the order.
      - Signs one copy of the IEL including SSN and gives it to the MSL attendant.
      - Retains a copy for audit purposes.
    - Items Match But Quantities Do Not:
      - Technician draws a line through the quantity on the Comcode side of the Inward Equipment portion of the order.
      - Writes the correct number above the crossed-out quantity.
      - Writes the number of items missing in the space next to the Comcode.
      - Notifies the MSL attendant of missing quantities and provides information to the MSL attendant to file a claim for missing material.
      - Contacts the Tech Scheduler to arrange for expedite of missing equipment, if possible.
      - Signs both copies of the marked IEL, including SSN, and gives it to the MSL attendant.
    - All Items Associated With A Work Order Are Missing:
      - Technician contacts the Service Manager to make sure order was not reassigned to another Tech.
      - Checks with the MSL to verify shipment location and:
        (a) provides information to file a claim or
        (b) arranges for delivery to the correct location

- Contacts the Tech Scheduler to have the OPI reschedule with the Customer and/or arrange for an expedite through the MMS Material Manager.

- Claims
  - It is the responsibility of the MMS to provide GBS with the correct equipment in good working order and deliver the equipment to the requested location on the date and time specified on the order.
  - Technicians file claims with the MMS when incorrect, missing, insufficient, surplus or damaged equipment is delivered.
  - Technician responsibilities are:
    - inventory the equipment against the IEL
    - notify the serving MSL of any missing, damaged, incorrect or surplus equipment
    - provide the following information required for the MMS to complete a Claim Notification Form, Exception to Material Shipment:
      - name, SSN and tel number of the originator
      - delivery address
      - reason for filing the claim (e.g., shortage, damage, etc.)
      - OPS order number and segment
      - Customer name
      - original MOJ
      - term (purchase, rental, lease)
      - Comcodes, numbers, descriptions and quantities
    - obtain a claim number from the MSL attendant.
    - write the claim number on the first page of the work order
    - write name, SSN and date on each piece of documentation
    - leave the paperwork in a predesignated area for MMS pickup
    - notify the Service Manager to decide whether to install refurbished equipment on a temporary basis to be replaced with new equipment when delivered by the MSL or report the reason for delay to the Tech Scheduler and reschedule the due date with the Customer
    - package and return damaged, incorrect or surplus equipment according to Quality Returns Process guidelines

MATERIAL ACCOUNTABILITY PROCESS MAP

- Special Markets
  - Phone Center, Dealer, Sourcebook and Public Phone, Coin or Coinless orders are not provisioned through DPICS.
  - Technicians inventory, install and complete these orders as they do other provisioning orders, however, there is no IEL copy of the order.
  - If a shortage is discovered, the Customer should contact the Phone Center, Dealer or Sourcebook representative for replacement equipment.
- Quantity Installed Less Than Quantity On Order
  - Unused equipment is returned when a Customer refuses installation of a portion of the equipment or any other circumstances when the quantity installed is less than the quantity on the order.
  - The Technician should:
    - Cross out the Comcode quantity of the item on the IEL
    - Write the quantity of the item in the QTY UNUSED portion on the Comcode side of the Inward Equip section of the order
    - Sign and date the IEL, noting SSN
    - Repackage the equipment according to Quality Returns Process guidelines
    - Affix a Material Return Label to each box
    - Place one copy of the IEL in the Packing List Enclosed envelope attached to the outside of Box 1
    - Leave the second copy of the IEL in the pre-designated area for MMS to sign and date, acknowledging receipt
    - Retain the signed copy locally for 2 weeks to resolve any discrepancies, then pass to the Service Manager for retention
    - Report quantity change downward to the Tech Scheduler
- Canceled Orders
  - When equipment has shipped to a FSWC or a Technician and the order cancels, the Technician should:
    - Write "Canceled Order" across the top of the IEL
    - Package the equipment for return (if necessary)
    - Affix a Material Return Label to each box
    - Place one copy of the IEL in the Packing List Enclosed envelope affixed to the outside of Box 1
    - Leave a second copy of the IEL in a predesignated area for the MMS to sign and date, acknowledging receipt
    - Receive Canceled Receipt Slip from the MSL

MATERIAL ACCOUNTABILITY PROCESS MAP

- Retain receipts with copies of the IEL for 2 weeks to resolve any discrepancies, then forward to the Service Manager for retention

- Disconnect/Removal Orders
  - An order in the Technician format is called an OEL (Outward Equipment List).
  - An OEL lists what DOSS Customer records show the Customer has on prem.
  - Technician responsibilities include:
    - Remove equipment specified on the OEL
    - Package removed items in accordance with Quality Returns Process guidelines
    - Prepare a Material Return Label to affix to the outside of each box
    - Mark boxes "1 of (total number)", "2 of (total number", etc.
    - Note the number of boxes returned at the end of the OEL

THIS PAGE RESERVED FOR AREA PASTE-IN

AT&T COINLESS TELEPHONES

- INSTALLATION

  - If Customer is not ready:
    - Contact AT&T-Com Circuit Provisioning Center (CPC).
    - Status with Tech Scheduler with appropriate MAC code.
    - AT&T-C CPC will reappoint the order.
  - Inventory equipment upon receipt.
    - If equipment is missing or damaged, contact AT&T-C CPC.
    - Material Return Label: add "AT&T-C Communication Material" and AT&T-C order number.
  - Upon completion of work:
    - Contact AT&T-C CPC and report:
      - exact location of each station
      - local exchange telephone number
      - results of acceptance test
  - To complete order:
    - Contact AT&T-C CPC and provide:
      - OPS order number
      - total time charged to order including travel
  - Time and Material Invoice (FSO-34):
    - "AT&T-Communications" in Customer name field.
    - • Enter AT&T-Communications order/trouble ticket number in remarks field and list end-users name.
      NOTE: DO NOT LEAVE COPY WITH CUSTOMER.

- MAINTENANCE
  - Procedure:
    - Upon arrival contact AT&T-C CPC and test to determine if trouble is in the circuit or in the equipment.
      - If it is an equipment problem, source from MSL and replace. If equipment is unavailable from MSL, contact AT&T-C CPC and advise. AT&T-C CPC will source from AT&T-C MLO and redispatch.
        NOTE: ON MATERIAL RETURN LABEL, WRITE "AT&T-C MATERIAL" AND BMIS TROUBLE TICKET NUMBER.

AT&T COIN/COINLESS TELEPHONES

- PUBLIC TELEPHONES
  - Billing
    - $90 per hour for Normal Business Hours.
    - All work is subject to 1½ hour minimum.
    - Travel time is billable time.
  - Time

• Installation/Pre-Survey 8 am - 5 pm Mon-Fri	0111-CIR
• Installation/Pre-Survey Premium	0111-CIP
• Maintenance Time 8 am - 5 pm Mon-Fri	0222-CMR
• Maintenance Time Premium	0222-CMP
• Installation (T&M)	0600-900
• Site-Survey	0600-902

- AAFES
  - Installation

11A Telephone Set	3104
Coin Telephone Set	3104
Executive Charge-A-Call	3104

  - Maintenance
    - All AFFES equipment is covered by enhanced warranty.
    - Not covered by enhanced warranty and billable:
      - Vandalism
      - No Trouble Found
      - Full Coin Box
      - Base or RBOC cable problems
    - Warranty routine visits: use 3104.

EQUIPMENT

Description	Comcode
RTEC	
Set Hand 72-84-604 Pub Tel	405406216
Rdr Card 78-14-012 Pub Tel	405605544
Key Pad 78-14-007 Assy	405604257
Assy 76-011-09 Ringer	405604406
Hook Switch 78-14-013	405604240
Phonw 76-011-15 Sst Cnl	405589581
Lock 29A201	104110317
Bd Ckt 76-011-54 Assembly	405566936
Plt 73-16-489 Right Slot	405693771
Plt 73-16-486 Left Slot	405693763
Lock 71-99-998 Spacer Kit	405692708
30A SET Setcnitel-30A	104050893
CP-AUL1	104053335
CPAUM1	104053343
Power Unit 544A	104053657
MN-22A	104053327
Rdr Card 2A	104053673
Dial 74B-5	104053301
Flt-Filter	844033464
But-844033340	844033340
But-Volume Control	843127325
Spg Volume Control	843128489
SW-E6101H	403228455
Hook-843147069	843147069
PTNR-844951459	844951459
SW-Thermal Assy	844952002
PWB-Printed Wiring Brd	844949818
Conn-Cable Board	844946178
Spkr Assy	844951798
Brkt-Volume Control	844951806
31A SET Power Unit 544B	105195549
Rdr Card 4A	104186911
CP-AUM2	103980777
CP-AUL2	105195143
Dial 74D-5	103985768
Setcnltel-31A	104192661

PUBLIC TELEPHONES

CUSTOM CALLER 1	
Cov Cap-CS600A1	103765699
Mod Ckt-CS240A	104178678
Mod ZCS304B1 AT	103842043
Displ-Frame	842965600
Set Hand N1C2-148	103804282
Cord D4BU-29 12 Ft	102804282
Cord D4BU-29 8 In	103789293
Cord H4DU-148 6 FT	103850194
Cord 841440621 Cord AC	841440621
Set Tel 6101T01-148-TB	104035605
Set Tel 6101T01-148-WB	104038732
DMC CARD CALLER II	
Set Tel 3800-1080-500	405682931
Set Tel 3800-1080-501CD	405682964
Set Tel 3800-1080-502CD	405683046
Set Tel 3800-1070-501CD	405683012
Set Tel 3800-1040-501CD	405683020
Set Tel 3800-1040-502CD	405683038
Set Tel 3800-1070-502CD	405693573
MISC	
Set Tel Z2223B-3	103956850
SCRN-CCTU1 1 Line Call	405690017
SCRN-CCTU4 4 Line Call	405690025

AT&T PUBLIC TELEPHONES
COMMERCIAL CUSTOMERS
JOB AID FOR GBS SYSTEM TECHNICIANS

ACTIVITY	DESCRIPTION	PEC	NOTES
Install and program private pay phone plus	AT&T private pay phone plus, (coin telset) commerical version	3105-013	1. Charge travel time to travel. 2. Initial programming must be done by Denver Control Center. Call 303-695-5089 pin #2677 for initial download. 3. Include programming time in reported installation time to PEC 3105-013.
Install and program private pay phone upgrade kit	AT&T private pay phone, upgrade to private pay phone plus, commercial version	31074	1. Charge travel time to travel. 2. Initial programming must be done by Denver Control Center. Call 303-695-5089 pin 2677 for initial download. 3. Include programming time in reported installation time. 4. All time for installation and programming is to be charged to PEC 3105-013. **Do not charge any time to PEC 31074 (upgrade kit).**
Install 11A coinless pay phone	AT&T private pay phone, coinless, commercial version	3104-010	1. Charge travel time to travel. 2. Charge all installation time to PEC 3104-010. 3. If set allows free 1+ calls advise the customer.

GENERAL NOTES

1.PRIVATE PAY PHONE Plus (COIN SET)

A. Customer is responsible for providing electrical service to within 25 feet of the set location.

B. SPE 0407-006; 012; D06; or D12 may appear on OPS order. These are for Customer Purchased Rate Update Services and **are not** T&M SPE's. **Do not** charge any time to these SPE's.

C. All Keys (2 Upper Housing/Front Cover, 2 Coin Vault, and 1 T-Key) are to be retained by the Customer/Owner.

2.COIN AND COINLESS SETS

PAGING

PAGE PAC 6

- Single zone paging.
- Up to 12¼ watt standard indoor speakers.
- Three 1 watt horns.
- Can accommodate optional background music.
- Port saver:
  - Option
  - Allows installation of Page Pac 6 on a Central Office loop start circuit.
- Touch Tone or rotary telephone to page.
- 6 watt voice coil output.

PAGE PAC 6 PLUS

- 3 paging zones as well as "all zone".
- Touch Tone or rotary telephone to page.
- Talk back available in all three zones.
- Voice coil output.

PEC	ITEM	COMCODE
5323-006	Page Pac 6	405 701 277
5323-008	Page Pac 6 Plus	405 701 608
53519	Port Saver	405 703 026
53511	Universal Cab Spkr	403 307 770
51312	Horn Spkr	403 307 788
53514	Recessed Ceiling Spkr	403 307 796
53516	Ceiling Surface Mount Voice Coil (P-TEC Lite)	405 891 425
56141	Ceiling Surface Mount 70 Volt	405 891 417

PAGEPAC 20

STANDARD FEATURES

- Telephone integrated voice paging.
- Compatible with most PBX and Key telephone systems.
- 20 watt output at 125 volts AC.
- Choice of voice coil and/or 70 volt output.
- Paging compressor equalizes loud and soft voices during paging.
- Compatible with external music.

INSTALLATION

- Designed to place on desk, shelf, etc.
- Within six feet of power outlet that is not switch controlled.

SPEAKERS

- Not more than two speakers on talk-back because of combined background noise levels.
- Use voice coil speakers only for talk-back.
- Maximum of 600 feet for any single cable run when using voice coil speakers.
- Not more than 2 voice coil horns per wire run.
- Not more than 4 voice coil speakers per wire run.
- Universal Horn Speakers (voice coil):
  - Minimum effective mounting height = 15 feet.
  - If using for talk-back, mount 8 to 12 feet.
  - Universal horn has no volume control-use external attenuator.
  - To eliminate feed-back squeal, locate a minimum of 25 feet from paging telephone.
- Locate Cabinet type speakers a minimum of 10 feet from paging telephone.
- There is no cable length restriction when using 70 volt speakers.

WIRING

- Speaker cable supplied with PagePac is not suitable for use in air-return plenums.
- When connecting speaker to speaker, make sure that you do not reverse the pairs between speakers.
- To avoid distortion, use shielded wire when using 70 volt speakers:
  - Connect shield to ground terminal on amplifier but do not connect to speaker.

- Unshielded wire may pick up interference from nearby electrical devices causing clicks, pops, hum or whining.
- Long runs of smaller gauge cable causes voltage loses that result in low volume.

COMMON PROBLEMS

- Too many speakers on a single wire run.
- Speaker runs that are too long (voice coil speakers/horns).
- Mixing voice coil and 70 volt speakers on the same run.
- Speaker runs plugged into the wrong jack on PowerMate (voice coil runs plugged into 70 volt jack or vice versa).

SPEAKER PLACEMENT

- Cabinet Speakers:
  - Spaced no more than 15 to 20 feet apart when wall mounted.
  - Spaced no more than 40 feet apart when used as bi-directional corridor speakers.

    NOTE: Generally two speakers should not be mounted directly opposite each other, on opposing walls.
- Ceiling Speakers:

Ceiling Height	Speaker Spacing
8-11' high	15' apart
12-15' high	20' apart
16-19' high	28' apart
20' or more high	36' apart

- Live Rooms:
  - Hard surfaces (bare walls, floors and/or ceilings, little furniture).
  - Use lower power settings.
  - Locate closer to the listener.
- Dead Rooms:
  - Soft surfaces (drapes, carpet, acoustic tile, large pieces of stuffed furniture).
  - May require additional speakers placed more closely together.

• Speaker Coverage:

Area to covered in square feet	Ceiling Height 8'	9-15'	16-35'
250	1	1	1
500	2	1	1
650	2	2	1
900	3	2	1
1000	4	3	2
1500	7	4	2
2000	10	5	3
5000	23	13	6
10000	45	25	12
25000	112	63	28
50000	223	125	56

NOTE: Above chart is for excellent system design. For very good system design, use 70% of the above.

EQUIP PEC	DESCRIPTION	COMCODE
22050-001	PowerMate	403 691 918
22050-010	TalkMate	403 691 983
22050-53502	MusicMate	403 308 000
22050-345	Voice coil attenuator	403 691 868
22016-052	Universal bi-directional cabinet speaker (70 volt)	403 303 621
22030-000	Desk top speaker black 70 volt	403 743 024
22050-101	Desk top speaker black voice coil	403 691 884
22016-163	Recessed ceiling speaker 70 volt	403 303 589
22050-150	Recessed ceiling speaker voice coil	403 691 900
22050-110	Speaker horn voice coil indoor/outdoor	403 691 892
22002-001	70 volt 30 watt horn	403 743 115
22001-002	70 volt 4 watt horn	403 743 131
22001-001	70 volt 15 watt horn	403 743 123

1A KEY

PRODUCT	COMCODE
Panel 620A	101 822 922
Unit Power 90B1	102 411 329
Unit Power 79B5	103 225 231
Unit Tel Key 400D	100 839 521
Unit Tel Key 400H2	102 868 239
Unit Tel Key 401B	102 379 880
Unit Tel Key 407C	102 581 063
Unit Tel Key 424C	102 484 524
Unit Tel Key KC 19	040 421 729
Unit Tel Key KC 37	040 426 249
6 Button Set Rotary Black	102 642 972
6 Button Set Rotary Ivory	102 642 980
6 Button Wall Rotary Black	102 851 615
6 Button Wall Rotary Ivory	102 851 623
6 Button Set TT Black	103 229 779
6 Button Set TT Ivory	103 229 787
6 Button Wall TT Black	010 068 815
6 Button Wall TT Ivory	010 068 823
10 Button Set Rotary Black	102 402 815
10 Button Set Rotary Ivory	102 402 823
10 Button Wall Rotary Black	102 596 053
10 Button Wall Rotary Ivory	102 596 061
10 Button Set TT Black	102 401 106
10 Button Set TT Ivory	102 401 114
10 Button Wall TT Black	102 596 137
10 Button Wall TT Ivory	102 596 145
18 Button Call Director Rotary Black	102 618 360
18 Button Call Director TouchTone Black	103 295 457
30 Button Call Director Rotary Black	102 619 020
30 Button Call Director TouchTone Black	102 615 846

COMKEY 416

PRODUCT	COMCODE
Common Equip Station	102 479 888
Basic Set	102 592 664
BIS Set	102 593 563
HFAI Set	102 593 563
Privacy	102 811 999
Line Appearence	102 904 778
Busy Lamp Field	103 870 804

COMKEY 718

PRODUCT	COMCODE
Common Equipment	103 874 604
DSS Console	102 459 278
11 Button Set	102 459 369
13 Button Set	102 411 139
HFAI	102 593 563
Privacy	102 312 592

HORIZON

PEC	DESCRIPTION	COMCODE
62102	TT Recvr LC77	103 873 394
62105	Met Sta CP LC72B	103 881 793
62106	Aux CP LC76	103 875 506
62107	Toll Restr CP LC85	103 875 530
62108	CO/PBX Line CP LC73C	103 875 464
62109	Tie Line CP LC87B	103 875 548
62110	OPT Non Met CP LC94	103 941 936
62112	Music On Hold	103 871 786
62113	Extended Sta CP LC98	103 875 456
62114	Aux Power Supply	103 874 012
62119	CMS Grd Start CP LC91	103 941 928
62120	CMS Svc Observ CP LC318	103 941 944
62125	Voice Record CP LC320B	103 962 155
62127	DID CP LC605	103 946 869
62143	39 Sta Sel Con 9A3-50	103 871 851
62144	79 Sta Sel Con 9A4-50	103 871 869
62154	Basic Carrier	105 272 272
62155	Processor CP LC78B	103 881 801

EKTS

PEC	DESCRIPTION	COMCODE
6090-206	2600 Control Unit	104 043 328
3155-200BA	200 Type Set Black	104 043 435
3155-200SA	200 Type Set Smokey Pearl	104 043 468
3155-400BA	400 Type Set Black	104 043 476
3155-400SA	400 Type Set Smokey Pearl	104 043 500
	Handset Black	104 056 338
	Handset Smokey Pearl	103 809 166

INSTALLATION

- Mount controller within five feet of the network interface.
- AC outlet that is not switch controlled.
- Well ventilated.
- 40 to 100 degrees F.
- Free from excess dust.
- Controller should be mounted a minimum of two feet from the floor.

EQUIP PEC	DESCRIPTION	COMCODE
6030-308	Controller CS308A-1 (No Surge Protection)	103 985 396
6030-308	Controller CS308A-1 (Full Surge Protection)	105 441 141
60301	Controller CS616A-1 (No Surge Protection)	103 985 404
60301	Controller CS616A-1 (Full Surge Protection)	105 441 158
3130-006	CS6501CO1A-215 (6 button Cream)	105 276 968
3130-006	6 Button Cream (Version 4.8)	105 421 929
3130-006	6 Button Cream (Version 5.0)	106 529 407
3130-006	6 Button Black	106 529 415
3130-024	CS6502CO1A-215 (24 button Cream)	105 276 885
3130-024	24 Button Cream (Version 4.8)	105 421 937
3130-024	24 Button Cream (Version 5.0)	106 529 480
3130-024	24 Button Black	106 529 498
60314	Interface (Extra Alert)	405 291 568
	K2N2-215 Handset	103 985 701
	H4DU-215 Cord 6 Ft	104 211 313
	H4DU-215 Cord 12 Ft	104 211 339
	H4DU-215 Cord 25 Ft	105 176 663
60315	Spirit Alert Module	105 675 332
	Alerter Interface	405 712 928

CAPACITY

- From 4 lines/8 stations to 24 lines/48 stations.

EQUIP PEC	DESCRIPTION	COMCODE
6031-408	1224 Controller (No Surge Protection)	103 985 370
6031-408	1224 Controller (Full Surge Pro)	105 468 714
60311	2448 Exp Unit (No Surge Protection)	103 985 388
60311	2448 Exp Unit (Full Surge Pro)	105 468 896
	1224 Aparatus Box	105 342 430
	2448 Aparatus Box	105 380 836
60312	4 Line CP (Full Surge Pro)	105 468 722
60312	4 Line CP (No Surge Protection)	103 986 352
	8 Station CP	103 986 345
	1224 Processor	103 986 337
	48 Button Adjunct (Cream)	104 372 354
	48 Button Adjunct (Black)	106 079 742
6126-ATT	Attendant	406 221 499
	1224/2448 Pwr Sply	105 341 515
	Admin Overlays	845 781 517
	1224/2448 Pgng Adptr	405 223 298

PARTNER

GENERAL INFORMATION—PARTNER

- Maximum of 4 lines 12 extensions.
- 4 day memory back-up.
- Mount at least 2 ft from the floor.
- Locate within 5 feet of an electrical outlet not controlled by a switch.
- Locate within 5 feet of the network interface jacks.
- Operating temperature; 32 to 104 degrees F.
- Range; 1000 feet for system phones; 3000 feet for standard devices.

GENERAL INFORMATION—PARTNER II

- 24 outside lines and 48 extensions.
- 4 day memory back-up.
- Environmentals same as Partner.
- Mount Expansion Carrier at least 6" and not more than 24" away from the primary carrier.

PEC	DESCRIPTION	COMCODE
6060-CU1	R1 Control Unit	106 190 630
6060-206	R2 Control Unit	106 440 217
60605	R1 Mod (Ptnr & Ptnr+)	106 190 648
60606	R2 Mod (Ptnr & Ptnr+)	106 440 225
6060-CU2	R1 Carrier (Ptnr+)	105 706 147
6060-824	R2 Carrier (Ptnr+)	106 440 233
60608	R2 Pro Upgrd (Ptnr+)	106 413 172
6050-CU1	Partner II Control Unit	106 440 993
6050-EXP	Partner II Exp Unit	106 441 074
60505	Partner II 400 Ln Card	106 441 215
60607	200 Exp Mod	106 413 180
	400 Exp Mod	106 503 287
	Exp Carrier & Pro Mod	106 551 112
	MLS-6 Set Black	106 446 040
	MLS-6 Set White	106 446 057
	MLS-12 Set Black	106 446 065
	MLS-12 Set White	106 446 073
	MLS-12D Set Black (Partner+ only)	106 446 081
	MLS-12D Set White (Partner+ only)	106 446 099
	MLS-34D Set Black (Ptnr+ & Ptnr II)	106 381 643
	MLS-34D Set White (Ptnr+ & Ptnr II)	106 381 668
	MLC-6 Set Black	106 202 492
	MLC-6 Set White	106 202 518
5234-003	Door Phone (Ptnr+)	406 269 845

MERLIN COMCODE LIST

ITEM	APP CODE	COMCODE
206 Control Unit	Z206A1	103 953 782
410 Control Unit	410A	103 941 779
820 Control Unit	Z744A	103 846 325
2 Line, 5 Sta Module	Z200A	103 952 750
Feat Cart 1 (206,410)	110A	103 941 712
Feat Cart 2 (206,410,820)	Z111A	103 952 578
MOH, Paging Cart (206,410)	151A	103 941 738
5 Line Module (1030/3070)	184A	103 824 603
Power Unit (1030/3070)	601A	104 028 345
10 Voice Term Mod	183A	103 824 579
Svc Mod (1030/3070)	183B	103 824 587
Processor Mod	186A	103 824 652
Diagnostics Mod	Z186C1	103 965 646
Ring Generator Unit	129A	104 150 131
1030 Control Unit	510A1	103 978 193
3070 Expansion Unit	510C1	103 978 201
Feat Mod 1	Z185A1	103 965 638
Feat Mod 2	Z185A3	103 973 855
Feat Mod 3	Z185A4	103 978 144
Feat Mod 4	Z185A5	103 979 142
Feat Mod 5	Z185A6	105 159 594
SMDR Mod	Z189A3	105 967 089
10-Basic Tel Mod	506A2	103 973 855
Hands-Free-Unit	S102A	103 814 356
Attendant Console	Z7308H01B	103 965 968
5 Button Voice Term	Z7302H01C	103 960 548
10 Button Voice Term	Z7303H01B	103 841 979
10 Button HFAI VT	Z7309H01B	103 982 005
34 Button VT	Z7305H01B	103 842 050
34 Button DLX VT	Z7305H02B	103 843 538
34 Button BIS VT	Z7305H03B	103 981 965
10 Button BIS VT	7313H01A-003	105 161 061
22 Button BIS VT	7314H01A-003	105 188 809
34 Button BIS VT	7316H01A-003	105 309 074
34 Button BIS W/DIS	7317H01A-003	105 167 027

MERLIN PLUS

INSTALLATION

- Temperature: 40 to 104 degrees F.
- Humidity: not to exceed 80%.
- Airborne Contamination: No exposure to corrosive gases, dust, chemicals or similar substances.
- Ventilation: 1 inch space above and to the sides.
- Grounding:
  - Mount Control Unit within 5 feet of a grounded AC power source that is not switch controlled.
  - If the outlet is not properly grounded, install an 18 gauge (or thicker) wire from the ground lug on the Control Unit to the building ground.
- Mount control unit within 25 feet of the network interface.
- Wire run from the control unit to a voice terminal cannot exceed 1000 feet.

EQUIP PEC	DESCRIPTION	COMCODE
6122-CU1	Merlin Plus CU (R1)	105 414 999
6122-CU2	Merlin Plus CU (R2)	105 415 012
61225	4 Ln Exp Mod (No Surge Pro)	103 982 559
61225	4 Ln Exp Mod (Full Surge Pro)	105 407 092
61226	10 Tel Exp Mod	103 962 542
	Memory FC R1	105 202 113
	Memory FC R2	106 308 836
61321	104 Interface Unit (SMDR)	103 978 409
3128-010	Magic On Hold	405 143 827
61216	Aux Power Unit	103 806 998

CAPACITY

- From 4 lines/8 stations to 32 lines/72 stations.

ENVIRONMENTAL
- From 40 to 104 degrees F.
- NOTE: Maintain 12 inches of clearance above and below the carrier for proper ventilation.

INSTALLATION LIMITATIONS
- Control unit should be within 5 feet of a grounded AC power source that is not switch controlled.
- Wiring run cannot exceed 1000 feet from the control unit to any voice terminal.

LOAD LIMITATIONS
- 391A power supply provides enough power to one carrier for 45 unit loads.
- If more per carrier than 45 unit loads you need an auxiliary power unit (335A).

1 Unit Load Each	2 Unit Loads Each
5 button voice term	34 button DLX vt
10 button voice term	34 button BIS vt
10 button HFAI vt	34 button BIS with DIS
7406B Digital vt	7406D Digital vt
Hands Free Unit	Basic Tel Modm Interface
General Purpose Adapt	Off-prem Sta Adapt
Handset Adapt	

PEC	DESCRIPTION	COMCODE
6131-CU1	Merlin II Control Unit	
	403A Basic Carrier	103 983 664
	517A7 Circuit Mod (Proc)	103 983 540
	391A Power Unit	104 380 365
61380	517A6 Circuit Mod (FC #1)	103 983 532
61382	4 Line 8 Term Exp Mod	103 983 482
61383	517A2 Circuit Mod (4 line)	103 983 490
61384	517A4 Circuit Mod (8 line)	105 351 100
61385	517A3 Circuit Mod (8 term)	103 983 508
61386	517A8 Circuit Mod (8 DCP TML)	103 983 557
61387	12 Basic Tel Exp Mod	105 249 023
61388	129B Freq Gen	105 213 201

MERLIN II

PEC	DESCRIPTION	COMCODE
61392	7318H01A (Display Console)	105 229 744
3182-LCD	Z7406D01A-003 Blk w/display	103 976 536
3182-CLR	Z7406D01A-215 Misty Cream with display	103 976 601
3183-LCD	Z7406D02A-003 Blk no display	105 206 585
3183-CLR	Z7406D02A-215 Misty Cream no display	105 206 593
31824	Z703A-L1 Async Data Stand	103 976 692
31820	D-181527 Blk Wall Mount	105 135 040
31820	D-181677 Misty Cream Wall Mount	105 272 504
31821	D-181528 Wall Mount for 7406 with no display	105 135 057
61378	Feature Mod #3 517F6	~~105 442 651~~ 105-571-152
61375	Attendant	405 992 538
8303-200	E&M Card (Tie Line Mod)	105 311 401
61387	New Tip Ring Mod 517C13	105 512 412

517C7-105-512-354

MERLIN CORDLESS

- Compatible with Merlin Plus, Merlin II, Merlin 206, 410, 820, 1030/3070 and the System 25.
- Description/Features
  - 5 line appearance/programmable feature buttons.
    - One or two of which is used for intercom on Merlin systems.
  - Fixed feature buttons for hold, transfer, channel selection, line status and On/Off.
  - Red LED visual indicator for Message Waiting.
  - Low battery indicator.
  - Out of range tone.
  - Flexible antenna.
- Installation
  - System Technician required to perform site evaluation tests.
    - Site Evaluation Kits will be stocked at the MSL's.
- Maintenance
  - Preferred Customer Air Replacement (PCARS) will be in effect.
  - System Technician will be dispatched on trouble calls which require field visits.
    - Perform environmental testing.
    - Minor equipment repairs.
    - Reprogramming/administration.

ITEM	COMCODE
Antennae	
Telescoping (handset)	403 646 938
Flexible (handset)	846 184 133
Telescoping (base unit)	403 646 946
Battery (handset)	405 154 956
Carrying Adapter	846 169 340
Carrying Adapter Clip	846 169 498

MERLIN LEGEND

PEC	DESCRIPTION	COMCODE
6141-CU	Basic Carrier & hsng	106 388 614
	Power Supply Module	105 743 801
	Processor	105 711 972
	Feature Module	105 711 998
	408 GS/LS	106 064 678
	008 MLX	105 628 010
	800 GS/LS	105 627 996
	400 GS/LS/TTR	105 627 988
6140-CU	Basic Carrier & hsng	106 388 614
	Power Supply Module	105 743 801
	Processor	106 215 155
	Feature Module	106 064 660
61379	400 (with TTR's)	105 408 892
61384	800 LS	105 351 100
61481	408 GS/LS	106 064 578
61482	408 LS	105 512 495
61483	400 GS/LS/TTR	105 627 988
61484	800 GS/LS	105 627 996
61485	008 (ATL)	105 351 092
61486	008 MLX	105 628 010
61487	012 (T/R)	106 397 631
61488	800 DID	105 628 002
61489	008 OPT	106 387 525
61491	100D (DS1)	105 461 560
3156-02B	MLX-10 (Black)	105 685 440
3156-02W	MLX-10 (White)	105 685 457
3156-03B	MLX-10D (Black)	105 688 303
3156-03W	MLX-10D (White)	105 688 311
3156-05B	MLX-20L (Black)	105 685 465
3156-05W	MLX-20L (White)	105 685 473
3156-04B	MLX-28D (Black)	105 688 329
3156-04W	MLX-28D (Black)	105 688 337
3156-DCB	DSS Console (Black)	105 685 481
3156-DCW	DSS Console (White)	105 685 499
1234-VR1	AVP2.1 For Legend	106 491 608
1234-SR1	Legend Integ SW	106 491 590
1234-BR1	IVP 4SS R1.2	106 491 616
8306-100	IVP4 Board	106 248 651
1234-AA1	SAA Legend	106 491 624
1201-U12	CAS IS-II	406 478 537

INSTALLATION

- Dedicated 115V AC 60 Hz 15 amp outlet within 6 feet of the cabinet.
- Quad outlet required per cabinet.
- Allow 24 inches of space minimum in front of cabinets.
- Table must be able to support 250 pounds.
- Backboard 3/4" × 48" × 72" mounted 30" above the floor.

DIMENSIONS

- 13" high, 17" wide and 21" deep.

ENVIRONMENTAL

- Area must be 40 to 104 degrees F 24 hours a day, seven days a week.
- Humidity less than 95%.
- No excessive dust, lint, carbon particles, paper fiber contaminants or metallic contaminants.
- No explosive or flammable atmosphere.
- Electromagnetic fields near the system cabinets may induce noise in the system:
  - Radio transmitters, television stations, induction heaters, motors (with commutators) of 0.25 horse power (200 watts) or greater are leading causes of interference.
  - Motors without commutators generally do not cause interference.

DISTANCE

Single line VT	2000 feet	ZTN78
Single line 2500 type	24000 feet	TN742
Single line 7101 type	15000 feet	TN742
In Bldg 7300H series (requires local power beyond 1000 feet)	2000 feet	ZTN79
Met Sets	1000 feet	TN735
Out of Bldg (IROB) 7300H series	1000 feet	ZTN79

PEC	DESCRIPTION	COMCODE
6250-011	Sys 25 Control Unit (V1)	
	Power Supply WP90510	403 954 761
	Fans (2) WP90677 L1	845 416 379
	Air Filter 21985-1	403 957 129
	Address Plug	845 416 635
	TDM Bus Term J58901A1 L2,4	103 810 586
	Memory CP ZTN81	103 965 281
	Memory CP ZTN81B	103 982 740

SYSTEM 25

PEC	DESCRIPTION	COMCODE
6250-012	System 25 Control Unit (V2)	
	Memory CP ZTN127	105 212 179
	Processor CP ZTN128	105 211 023
62502	Grd Start CP ZTN76	103 965 232
62503	Loop Start CP ZTN77	103 965 240
62504	TR Line CP ZTN78	103 965 257
62505	ATL Line CP ZTN79	103 965 265
62506	Async Data Unit D181521	105 105 506
62507	Digital Tape Unit TS-555A	404 079 436
62508	Sys Admn Term TI-703	404 079 428
62509	Direct Ext Sel Console 23A1	103 969 424
62510	Mrl VT local power D181522	105 105 514
62511	Aux Trk Interface D181523	105 105 522
62512	Paging (Aux Trk Int) D181524	105 105 530
62514	10B ETU	103 984 118
63111	Analog Line CP TN742	103 556 957
63112	Met Line CP TN735	103 556 882
63116	DID Trk CP TN753	103 557 062
63117	Tie Trunk CP TN760B	103 975 645
63118	Aux Trunk CP TN763	103 557 161
63119	Pooled Modem CP TN758	103 557 112
63123	Tone Detector CP TN748	103 976 163
63130	Data Line CP TN726	103 556 791
2169-001	Tip Ring ADU Z3A1	103 963 963
2169-004	Tip Ring ADU Z3A4	103 964 185
2720-05P	25 pr/8 plug 15' CBL WP90780L1	405 010 612
2720-05X	Splitter CBL Tie Trk WP90929 I#	403 864 150
2720-06X	Splitter CBL CO Tri WP90929 L1	403 836 620
2724-30C	RS232 X-over CBL M7U-87	104 246 616
2724-38X	Mod (SDU) X-over cord D8AM-87	104 154 430
2750-A24	RS232 Adapt (male) 355A	105 012 637
2750-A25	RS232 Adapt (female) 355AF	105 012 645
	Panel 617A	103 982 658
	110 to Mod Adapt 858A	405 177 791
	Mod to Mod Adapt Z210A1	103 972 907
	Switched Loop Console	845 875 155
3162-DIS	Z7305H04C 34 button w/DIS	103 981 981

SYSTEM 25

PEC	DESCRIPTION	COMCODE
6250-031	System 25 Control Unit (R3)	
	Power Supply WP90510	403 954 761
	Fans WP90677 L1	845 416 379
	Air Filter 21985-1	403 957 129
	Address Plug	845 416 635
	CPU/MEM CP ZTN130	105 243 810
	Service Circuit CP ZTN131	105 275 671
	SLAC Graphics Overlay	845 875 155
	System Document	105 035 066
1203-030	Advanced Admin Software	106 010 358
	AAS-DOS R3 DSK 1-5.25	106 035 165
	AAS-DOS R3 DSK 2-5.25	106 035 181
	AAS-DOS R3 DSK 1-3.5	106 035 165
	AAS-DOS R3 DSK 2-3.5	106 035 223
1203-031	Advanced Admin Software	106 010 366
	AAS-UNIX R3 DSK 1-5.25	106 035 231
	AAS-UNIX R3 DSK 2-5.25	106 035 249

SYSTEM 75

ITEM	COMCODE
7101A-01A-003 voice terminal	103 871 109
7101A-01B-003 voice terminal	103 816 013
7103A-01A-003 voice terminal	103 871 141
7104A-01A-003 voice terminal	103 943 650
7104A-02A-003 voice terminal	103 960 167
7104A-02B-003 voice terminal	104 164 132
7203H01-A-003 voice terminal	103 871 190
7205H01-A-003 voice terminal	103 871 273
7303S01-B-003 voice terminal	103 952 792
7305H01-B-003 voice terminal	103 952 867
7403D01-A-003 voice terminal	103 871 356
7404D01-A-003 voice terminal	103 962 924
7405D01-A-003 voice terminal	103 871 430
2991C05 Set Telephone	103 871 018
2993C04 Set Telephone	103 942 140
2992C01 Set Telephone	103 871 075
2993C01 Set Telephone	103 871 083
510A Personal Terminal	500 066 733
22A1-A Console	103 814 182
631AR Power Unit	103 797 262
631BR Power Unit	103 797 288
TN 711 Processor	103 556 643
TN 711B Processor	103 977 880
TN 714 Tone Clock	103 556 676
TN 716 Interface 1	103 556 692
TN 719 Interface 3	103 556 726
TNB 720 Interface 2	103 556 734
TN 727 Network Control	103 556 809
TN 729 Tape Control	103 556 825
TN 731 Maintenance	103 556 841
TN 734 Memory	103 556 874
TN 735 Met Line	103 556 882
TN 736 Power Unit	103 556 890
TN 742 Analog Line (8 port)	103 556 957
TN 747 CO Trunk	103 557 005
TN 748 Tone Detector	103 557 013
TN 748B Tone Detector	103 976 163

SYSTEM 75

ITEM	COMCODE
TN 753 DID Trunk	103 557 062
TN 754 Digital Line	103 557 070
TN 760 Tie Trunk	103 557 138
TN 760B Tie Trunk	103 975 645
TN 762 Hybrid Line	103 557 153
TN 762B Hybrid Line	103 976 171
TN 763 Auxiliary Trunk	103 557 161
TN 763B Auxiliary Trunk	105 159 396

DISPLAY MODULE D401B - 106 083 108
D401A -

7405 D01B - 03 - 103 846-069

FAX MACHINES

3410D
- Compact portable.
- Its own Trimline phone.

9025X
- Heavy duty with built-in dialpad and attached handset.
- Quick Dial: A maximum of 28 numbers can be dialed with one keystroke.
- Speed Dial: A maximum of 90 numbers can be dialed with three keystrokes.
- Keystroke Programs: You can store a maximum of 10 customized facsimile operations to be carried out at the touch of one key.
- Wide Scanning: Scan a document 11.8" wide and automatically reduce it so that it can be printed on standard width fax paper at the receiving terminal.
- Voice Message: You can record a message up to 16 seconds long to inform callers that they have reached a fax machine or to use with the Notify feature to let you know when you have received a fax.
- Notify: The 9025X can dial a number you program and ring one or several times, play a recorded message, or light a message lamp.
- Polling: Immediate, delayed and turnaround polling are available.
- Group Dial: Lets you program up to seven groups of numbers that can be used for polling or relay broadcast.

9035X
- All of the features of the 9025X fax machine.
- Broadcast: You can send a document either immediately or at a specified later time to one or many (300 maximum) locations.
- Confidential File: Can receive and store confidential documents that can be retrieved only by someone who uses the proper password.
- Receive File: Can store an incoming fax when the machine is out of paper.

4515D
- Basic business fax.
- Expected to serve the market that has been served by the 3500D.

4525D
- Expected to serve the market that has been served by the 3520D.

FAX MACHINES

GENERAL INFORMATION

- Compatible with other manufacturers Group II and III machines.
- Equipped with automatic paper cutters.
- Serve as a copier back-up.
- Built in self-diagnostic and remote diagnostic capability for quick trouble resolution.
- Use ordinary telephone lines.
- Separate set required for 3500D, 3510D and 3530D but not required for the 3520D.

3500D

- Transmits a page in as little as 15 seconds.
- 10 page automatic document feeder.
- Copy feature.
- Polling (Unit calls another station and instructs it to transmit any documents to you that are in its auto document feeder and/or vice versa.
- Contrast.
- Voice request (talk with a remote operator before, during or after a fax transmission or reception without having to make an additional call).
- Detail and Standard Resolution.
- Markets:
  - Small companies, Secretary's station, Consultants, Wholesale distributors, Retailers, Doctor/Dentist or Personal user.

3510D

- 20 second transmissions.
- Compatible with older Group I machines.
- 30 page document feeder.
- 100 meter thermal paper roll.
- Copy feature.
- Voice request.
- Detail and Standard Resolution.
- Contrast control.
- Reduction of document original.
- Variable width input document.
- Halftones: 16 shades of gray.
- Markets:
  - Departmental/branch offices of large companies, Hospital/medical, Hotel/airports, Real Estate, Law Firms or Mar-

FAX MACHINES

3520D

- 10 page document feeder.
- Built-in handset.
- Stores up to 115 telephone numbers.
- Send later feature (allows you to send documents when rates are lowest).
- Group programming (if you regularly request transmissions from same locations you can designate 280 polling locations).
- On hook dialing.
- Monitor speaker.
- Auto redial (if busy, will automatically redial after 5 minutes).
- Semi Dual Access (lets you begin transmission procedures while a fax reception is taking place).
- Quick dial.
- Halftones: 64 shades of gray.
- Voice ID (you can record 8 second message; when call comes in the fax machine will send out message to identify itself to remote operator).
- Markets:
  - Departmental/branch offices of large companies, Engineering, Architects, Advertising or Construction.

3530D

- 15 second per page transmission.
- 30 page document feeder.
- 100 meter paper roll.
- Scan and store in memory up to 28 pages and send to 200 different sites automatically (when rates are lowest).
- Can receive documents at any hour in its tray or store in memory until released by password.
- Delayed polling.
- Quick dial.
- Auto redial.
- Voice request.
- Halftones; 16 shades of gray.
- Markets
  - Regional offices of large companies, Headquarters of small/midsize companies, Banking, Financial, Insurance Trade Associations or Patent Offices.

FAX INSTALLATION

- Don't use electrical extension cord longer than 15 feet.
- Don't connect other equipment (copier or PC) to same socket.
- Don't expose to direct sunlight.
- Do select surface that is level and free from vibration.
- Make sure area is well ventilated.
- Avoid extremes in temperature and humidity.
- Make sure area is free from dust.
- Install far from electronic equipment to avoid interference.

NOTE: Line must be TouchTone (not rotary).

NOTE: PBX extension should be free from all electronic operations (call waiting, conferencing, etc.).

SYSTEM TECHNICIAN WILL:
- Unpack unit.
- Place in customer designated location.
- Connect fax machine to customer provided power source and telephone jack.
- Transmit and receive at least one fax message.
- Provide customer with 15 minutes of instructions as to use, programming and features.

INSTALLATION ASSISTANCE:
- NSAC 1-800-628-2888.

MAINTENANCE
- 90 day on site warranty.
- Report trouble to NSAC at 1-800-628-2888.
- Customers who purchase the fax equipment may elect Around-The-Clock coverage maintenance contracts and may purchase Post-Warranty maintenance.
- Replacement of defective 3500, 3510, 3520 or 3530 fax machine will be with refurbished fax machines which will be missing some accessory items.
  - Reuse of these items from the customer's defective fax machine will now be common policy.
  - Replacement of complete fax machines should only be undertaken when replacing parts cannot fix the problem.
  - The accessory items that will be missing are the trays, the cords and the users guides.

FAX MACHINES

EQUIPMENT	COMCODE
3500D (refurbished)	406 157 719
3510D(refurbished)	406 157 768
3520D (refurbished)	406 157 727
3530D (refurbished)	406 157 735
3410D	105 603 716
4515D	406 171 967
4525D	406 171 975
9012	406 106 963
9015PF	405 958 711
9015-SP	406 104 562
9020FX	406 012 294
9022FX	406 129 049
9025FX	406 171 934
9035FX	406 171 942

THIS PAGE RESERVED FOR AREA PASTE-IN

THIS PAGE RESERVED FOR AREA PASTE-IN

THIS PAGE RESERVED FOR AREA PASTE-IN