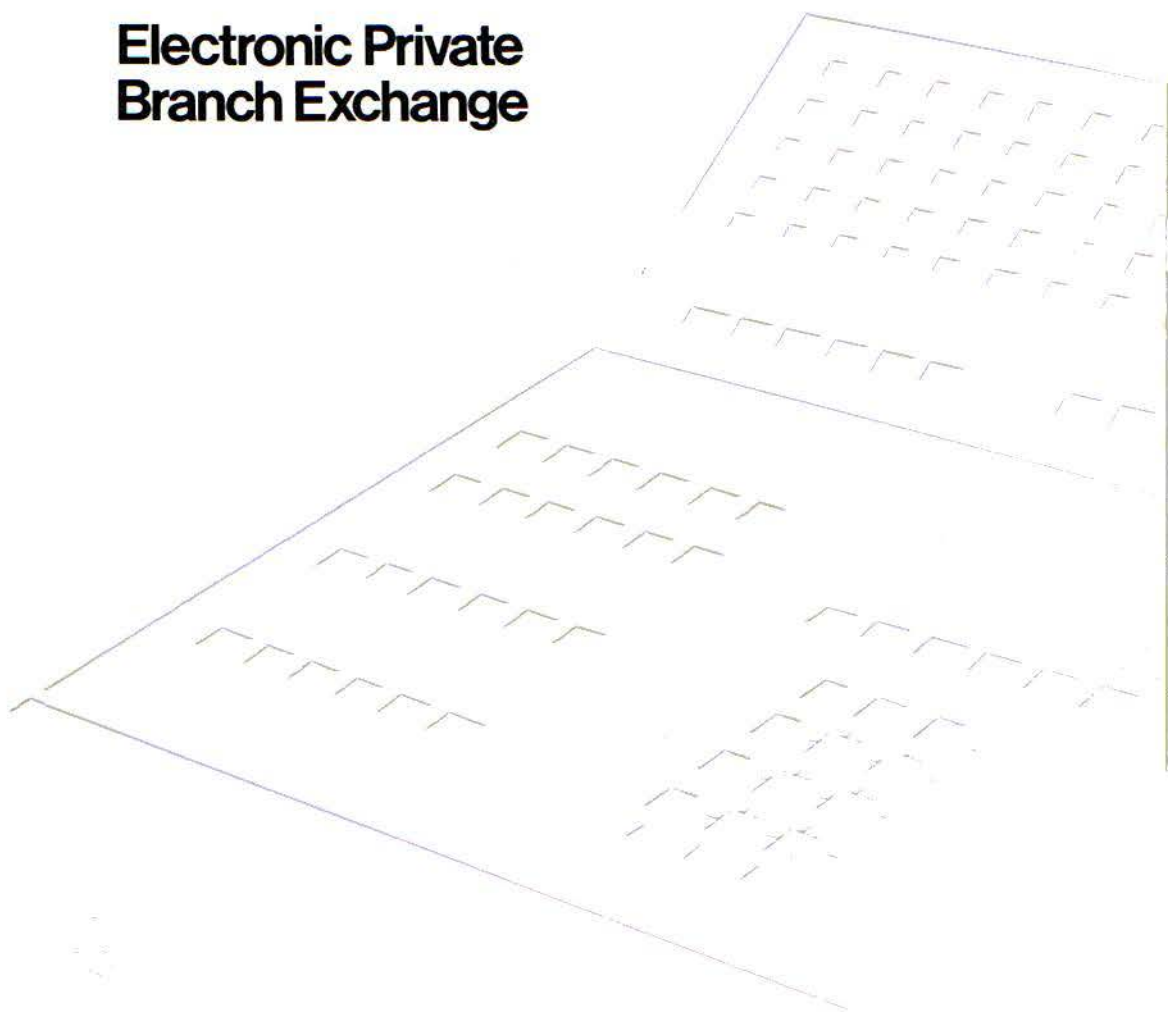




dimension

**Electronic Private
Branch Exchange**



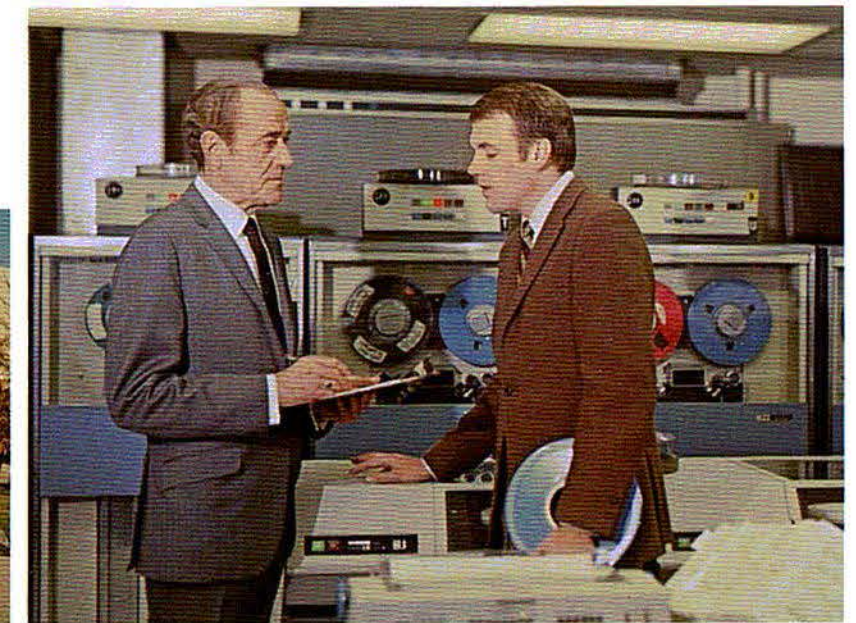


dimension



DIMENSION* Electronic Private Branch Exchange is a new dimension in communications equipment. It is a PBX built for the future as well as for today. Dimension PBX features Stored Program Control combined with time division switching that provides exceptional versatility for today's needs, and is easily adaptable to future requirements. Its modular packaging allows for rapid installation and growth while permitting easy and economical "turn-around" for subsequent re-use. Large Scale Integration technology offers you the advantage of compact size and quiet operation — two characteristics of major importance in Customer Premises equipment. Dimension PBX also features sophisticated built-in diagnostic capability and an inherent reliability that minimizes down-time and maintenance costs while assuring customers of reliable service.

*Trademark of AT&T Co.



Dimension PBX can be programmed for a business or institution of almost any size . . . for any combination of features ordered . . . for the special needs of any vertical market.

Hospitals

Attendant can restrict calls to a particular room quickly and easily. Outgoing calls can be registered simply and accurately.

Hotels/Motels

By simply keying in each station or room number, improved message registration can be achieved as a read-out of charges automatically appears.

Retail Industry

Direct internal dialing or centralized attendant service assures efficient and controlled contact between various store departments.

Education Facilities

A wide array of station restrictions are possible. Almost every extension can be programmed individually down to area code.

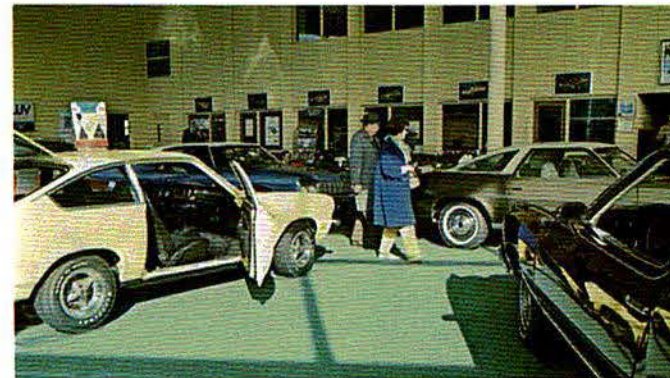
Data Transmission

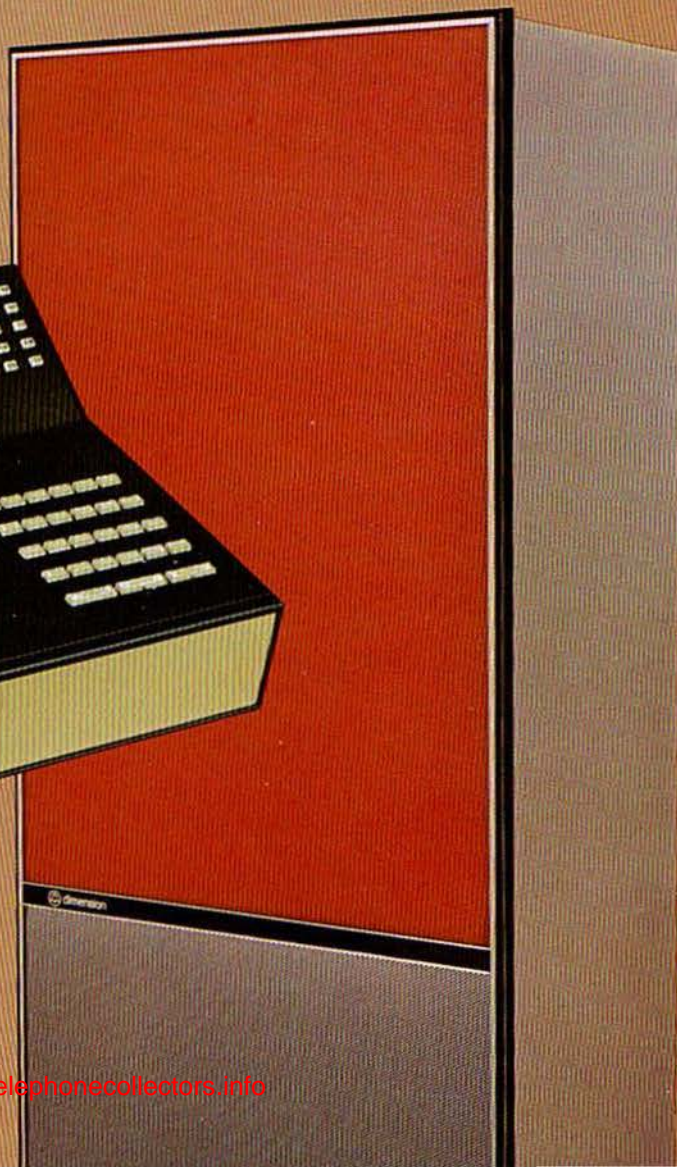
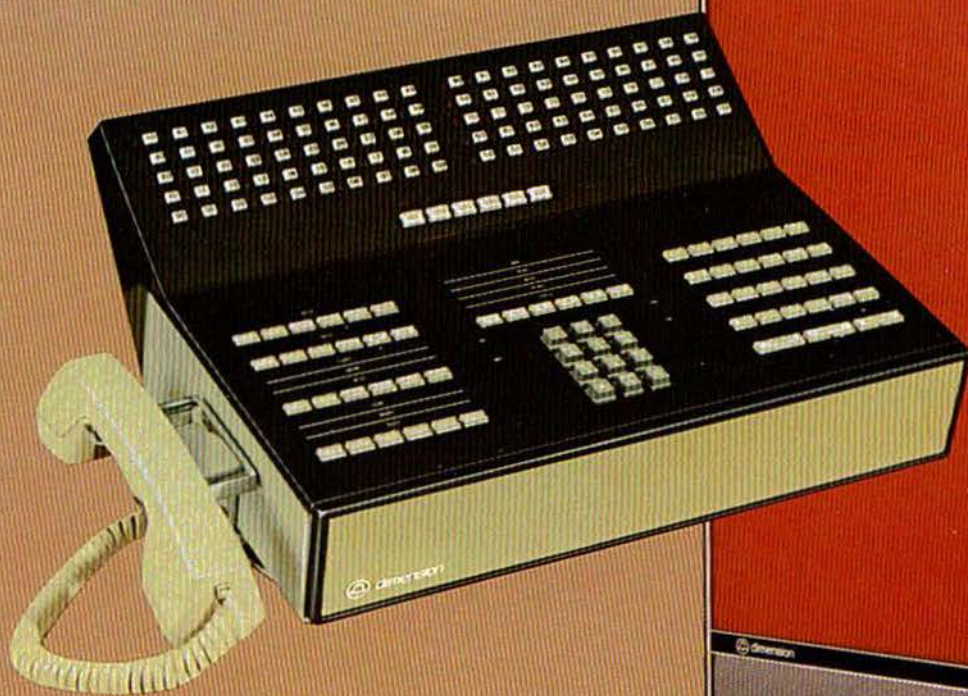
Provides easy access to Dataphone® data communications service, offering the capability to handle many data system transmission requirements.

Automotive Showrooms

Trunk answering directly at any station, paging salesmen on premises and direct internal dialing will facilitate communication with customers, service centers and other employees.

In addition, consider these other possibilities: banking institutions, airline terminals, trucking depots, manufacturing plants, insurance companies, bus terminals, business offices, brokerage firms, train stations — the list is almost endless.





Dimension PBX offers a new concept in attendant consoles that are fully electronic and contemporary in appearance. The brushed aluminum side panels and removable front panel inserts are available in a variety of colors; avocado, blue, gold, orange, red, teak and american walnut.

The attendant console offers:

- A single 25-pair plug-ended connector cable
- Black non-glare faceplate
- Non-locking keys
- Light emitting diode indicators
- Dual jacks at each side to accommodate plug-ended telephone handset or headset.
- Switched loop operation.
- Attendant control of trunk group access
- Incoming call identification
- Trunk group busy indicators
- Trunk group warning indicators
- Calling number display
- Class of service display
- Call waiting indication

This is the system, literally a new dimension. It offers a flexibility never offered in PBX's before!



Technical Summary

General Description—The Dimension® 100 PBX is an electronic system utilizing stored program control and time division switching. It is modular in design to provide a variety of line and trunk combinations.

The inherent flexibility of the system enables the provision of comprehensive features, including some not previously available in any PBX. In addition to the basic packages of features that are common to all systems, there are two feature packages (feature package 1 and feature package 2) designed to meet the needs of particular businesses or industries.

Each feature can be used selectively to meet an individual's requirement. Although a majority of features are provided and controlled by stored software programs a few of them require circuit hardware additional to the basic switching system.

SERVICES AND FEATURES

The following is a listing of features provided by the Dimension 100. Those requiring additional hardware (e.g. circuit packs) are indicated by an * which precedes the feature title. Additionally, Feature Package 1 and Feature Package 2 are indicated by the number 1 or 2 respectively. Features not designated by either Feature Package are classified as features common to the system.

* **Alphanumeric display (1, 2)** A four-character display device mounted on the attendant console(s). Each character can display numbers (0 through 9), letters (A through Z), and various miscellaneous symbols such as +, —. This display is needed for calling number display to attendant, class-of-service display to attendant, and can be used for the incoming call identification feature.

* **Attendant console**—An electronic device with light emitting diode display and nonlocking keys which allow an operator to handle listed directory number and other calls which require assistance.

* **Attendant control of trunk group access (1, 2)**

* **Attendant direct station selection (ADSS) with busy lamp field**—Provides the attendant with a visual indication of the busy/idle indication of 100 station lines. When more than 100-line capability is desired, group select keys allow preselection of the desired 100-line group. The attendant can place or complete calls to these stations by depressing the nonlocking group select key associated with the

display. Up to 18 of these keys are provided. This feature reduces attendant work time by avoiding the use of the start key and dialing.

Attendant lockout (2) The attendant is denied the ability to re-enter an established connection held on an attendant position, unless recalled by the station user.

Attendant transfer – all calls – A station user participating in any 2-party connection can call (recall) an attendant so that the attendant may transfer the call or provide other assistance as desired. A flash during any established call will return RECALL DIAL TONE to the initiating station and hold the other party. The station user then dials the access code (usually dial "O") to call the attendant. If the call had been held on the console loop or the initiating station is a manual originating line, the flash will result in immediate attendant recall.

Automatic callback—calling (2) Allows a station user to be connected to a previously busy station as soon as it becomes idle. The operational steps of this feature are as follows:

- (1) A station with this feature attempts to call another station and discovers that it is busy.
- (2) The calling station reoriginates the call, dials the proper access code, redials the called station, and goes on-hook.
- (3) When both parties are idle, the Dimension PBX rings the calling party. Upon answer, it rings the called party. If the station which activates the feature originates another call before this sequence has been initiated, the automatic callback does not start until both stations become idle.
- (4) If the callback sequence is not successful within 10 to 20 minutes, it is automatically cancelled.

Use of this feature by a station user temporarily cancels: outgoing trunk camp-on, call waiting services, call forwarding – all calls or call forwarding busy and don't answer for that particular line.

*** Busy lamp field (1, 2)** Provides the attendant with a visual indication of the busy or idle condition of station lines.

Busy verification of station lines (2)

Call forwarding—all calls (1, 2) When activated by a station user or the attendant, all calls intended for the station line automatically route to another station line (selected by dialing during activation). There is no limit on the number of Dimension PBX stations which can use this feature simultaneously. However, when activated it temporarily cancels automatic callback-calling, outgoing trunk queuing, call waiting services for the line, call forwarding—busy and don't answer.

Call forwarding—busy and don't answer (2) When activated by a station user (using a different access code than used for the all calls feature), all calls intended for a station that is busy or doesn't answer are automatically routed to another station line (or to the attendant) selected by dialing during activation. The selected station line must also be in the Dimension PBX. The forwarding of a don't answer is delayed to allow time for answer by the station user. All Dimension PBX stations can use this feature simultaneously. However, it temporarily cancels automatic callback-calling, outgoing trunk queuing, call waiting services, and call forwarding all calls for the line.

Call hold (1, 2)

Call pickup (1, 2)

Call waiting services (1, 2) Attendant
Originating
Terminating

*** Calling number display to attendant (1, 2)** Shows the attendant the line number of the station seeking attendant assistance. The number is displayed on the alphanumeric display when a loop is picked up.

*** CCSA access (2)** A service which provides access to the CCSA network for direct inward dialing to the Dimension PBX, direct outward dialing to the network, and other features similar to those provided on the exchange network. This feature provides full CCSA capabilities.

*** Class-of-service display to attendant (1, 2)** Provides the attendant with digital information regarding the class of service associated with a station. The number is displayed on the alphanumeric display when the appropriate console key is depressed.

Code restriction (2) Three levels of authorization permit authorized station lines the ability to complete outgoing Central Office or Foreign Exchange calls to a specified area or office codes within an area. The calls allowed are a function of the particular trunk group dialed.

Dial access to attendant—Allows a station user within the switching system or via dial-repeating tie trunks (with the tandem operation feature) to reach the attendant by dialing a code, usually but not

necessarily a single digit 0. The attendant may complete these calls to trunk facilities or station lines.

*** Direct inward dialing (DID) (2)**

Direct outward dialing (DOD)

Direct trunk group selection (2)

Distinctive ringing—Unique patterns of station ringing (using existing station sets) are provided to permit the station user to distinguish between various types of calls. Three patterns are available as follows:

- Indicates station-to-station calls (1 ring)
- Indicates attendant call to station (2 rings)
- Indicates either automatic call back-calling, call waiting, or outgoing trunk queuing callback (3 rings).

Executive override (2)

Flexible numbering of stations (Basic) Station numbers can be assigned to lines at the time of installation in accordance with a customer-designed numbering plan. Station number assignments can begin with any digit except 0 and can vary in length from one to four digits within the same PBX. The same first digit cannot be used for different length station numbers (e.g., 450 and 4500 could not coexist in the same system).

*** Foreign exchange (FX) access**

Fully restricted station (1, 2)

*** Incoming call identification**—Provides visual signals to identify the type of service or trunk group associated with a call automatically distributed to an attendant position. Up to six incoming call indicators can be provided on the console.

Intercept treatment—Routes calls which "cannot be completed" to an appropriate audible signal, recorded announcement, or to the attendant depending on the noncompletion condition.

Inward restriction (1, 2)

Line lockout with warning—Provides ten seconds of warning tone and then holds the line out-of-service when a station line remains off-hook for longer than a predetermined period of time without dialing during call origination. The hold out-of-service condition makes the station appear busy but does not tie up switching facilities or call processing time. The lockout condition is released when the station goes on-hook.

Listed directory number (LDN) service

*** Loudspeaker paging**—gives the attendant direct access and station user dial access to paging equipment. All voice paging facilities make use of the telephone transmitter as the microphone. Optional arrangements are available to provide multi-zone paging. Up to six paging keys can be provided on the attendant console. Two forms of paging are available to provide the following additional benefits.

Basic (1,2) Dial access to all zone paging is included when multizone paging is provided. Direct access (console key) to all zone paging is optional.

Deluxe (2) Page answer back capability is provided to allow the paged party to be connected to the calling party by dialing an answer back code from any station within the PBX. Priority paging is provided to permit attendants and/or designated stations to dial access a paging zone or answer-back channel and pre-empt any station user connected to that zone or channel. Stations assigned with Threeway Conference Transfer may also access paging while on any two-party call. The second party can be added on or transferred to the page answer back party but not to the paging facility.

Manual terminating line service (1, 2)

Miscellaneous trunk restriction (1, 2)—Denies preselected station lines and incoming tie trunks the ability to dial calls to preselected miscellaneous trunk groups including FX, WATS, CCSA, tie and auxiliary trunks.

*** Night console position**—An alternate attendant position which can be used at night in lieu of the regular attendant position to answer all calls directed to the attendant. This position provides all the regular attendant functions.

Night station service—

Basic—Routes calls, normally directed to the attendant, to preselected station lines when one of the attendant positions has been placed in the night service mode. In addition, incoming calls to the Dimension PBX from specific non-DID exchange network trunks can be arranged to route to specific station lines. The routings are provided on a fixed basis at the time of order or via the maintenance and administration panel.

Full (1, 2) Routes calls, normally directed to the attendant, to preselected station lines, when the regular attendant positions are set to night service. In addition, incoming calls to specific non-DID exchange network trunks can be arranged to route to specific station lines. The routings can be assigned on a flexible basis by the attendant and remains in effect night to night until changed. The trunk answer from any station answering capability is providing for night calls not assigned to, or that cannot be answered by night stations. When in night service, night stations have full 3-way conference transfer capability and call waiting services (if equipped) for night calls.

Off-premise stations—Provides service between a Dimension PBX and a PBX station when the PBX station is located at some distance from the PBX.

Origination restriction (1, 2) A station line with this restriction cannot be used to originate calls at any time. Terminating calls, however, complete normally to this station line.

Outgoing trunk queuing (1, 2) A station user encountering a busy condition is provided with a confirmation tone and is automatically placed into a queue by going back on hook within 5 seconds. When a trunk becomes available, the system reserves that trunk and rings the calling station line for a limited time. When the calling station line answers, the system connects it to the trunk. A maximum of twelve trunk groups (access codes) can be associated with this feature. Use of automatic callback—calling, call waiting services, call forwarding—all calls, or call forwarding—busy and don't answer cancels the outgoing trunk queuing request.

Outward restriction—Preselected station lines are denied the ability to access the exchange network without the assistance of the attendant.

*** Power failure transfer**—Provides service to and/or from the exchange network (non-FX and WATS) for a limited number of prearranged stations during a power failure where reserve power is not provided, or where battery reserve is provided when the reserve is depleted. Incoming service from direct inward dialing trunks is not provided during power failure transfer.

Privacy and lockout (2)—Privacy automatically splits the connection whenever an attendant would otherwise be bridged on a call with more than one facility (e.g., with a calling and a called party). Lockout denies an attendant the ability to reenter an established connection held on the console position, unless recalled by a station.

Recall dial tone Provides that station user with an audible indication of whether he has successfully used the switchhook flash to request a service feature from an established 2-way call or has caused a reorigination to occur. The result of a successful use of the switchhook flash is dial tone with three interruptions followed by steady dial tone. Dialing is not registered during the interrupted portion of recall dial tone.

Recorded telephone dictation access (2)

Remote access to PBX service (2) Permits an outside party to dial access WATS lines and other PBX special services such as FX trunks, CCSA access, or the tie trunk network via local Central Office trunks. The calling party dials into the system on a local CO trunk and dials a special 4-digit code to unlock the special service PBX access. Once the access has been unlocked, the calling party hears PBX dial tone and places his call as though he were connected to a PBX line terminal. All signaling is done on a TOUCH-TONE® dialing basis and the special 4-digit code is readily changed by the attendant.

Remote maintenance, administration and traffic system (RMAT) (2) This feature provides remote access to the memory of Dimension PBX systems which have been arranged for RMATS capability. This capability allows certain maintenance, administration and traffic polling routines to be performed from the central facility. Each Dimension PBX associated with RMATS must be provided with a data set and a dedicated CO line.

Rotary dial calling

Route advance—Allows automatic routing of outgoing calls over alternate facilities when a first choice trunk group is busy. The digits following the access code must be identical for any of the trunk groups selected although the first and alternate groups are not accessed by the same dialed codes.

Serial call (2) Allows the attendant to maintain supervision of an incoming trunk on the console after it has been connected to an internal station. When the station goes on-hook, a visual indication is given to the attendant so that the trunk can be picked up for assistance.

Splitting 1-way Automanual – Attendant can consult privately with one party on a call while placing the other party on hold. The calling party is split from the call automatically (with the called party connected to the attendant) when the attendant starts to complete a call, but the attendant can take positive action to unsplit. The calling party is the only one split from the connection.

Station hunting—Terminal Circular

Station-to-station calling

Straightforward outward completion

Switched loop operation

Tandem tie trunk switching (2) A service arrangement which allows trunk-to-trunk connections (e.g., Tie-CO, Tie-Tie) to be established through the Dimension PBX. If action (e.g., station on-hook from 3-way connection with two trunks) results in two trunks connected, neither of which has distant party supervision, the call is either routed to the console for manual disconnect or released.

Termination restriction (1, 2) Station lines with this restriction cannot receive calls at any time. Calls can be originated normally from this station.

Three-way conference transfer (1, 2) A station user can, by flashing the switchhook while on any 2-party call, effect a 3-way conference and transfer. After the switchhook is flashed, the station dials the third party (may be a trunk) for private consultation while the second party is held in a waiting state. By flashing a second time, a 3-way conference is effected. Subsequently, a transfer is accomplished when the original party goes on-hook. The controlling station can drop the third party by flashing during the 3-way conference. The third party may not be loudspeaker paging.

Through dialing

*** Tie trunk access (2)** Provides dedicated one-way or 2-way circuits between the Dimension PBX and another PBX without any intermediate switching.

Timed reminders

Toll restriction—A limited form of code restriction which permits station users to access the local

Central Office and to dial local service area calls, but prevents completion of toll calls or calls to the toll operator without the assistance of the attendant. This feature is provided on a per-station-line basis and restricted toll calls are given intercept tone. Two mutually exclusive forms of this feature are available:

Battery reversal—With this restriction, a battery reversal signal from the central office on an outgoing call causes the Dimension PBX to route the calling party to intercept tone.

0/1 (1,2) Another form of toll restriction based on digit screening rather than on central office signaling. Up to 10 area codes may be allowed for 0/1 toll restricted lines. These area codes are checked when any of the following conditions exist:

- The line dials the CO trunk group access code (usually 9) followed by the area code.
- The line dials the CO trunk group access code followed by a toll access code (usually 1).

In addition, the following calls from 0/1 restricted lines are routed to intercept tone by the Dimension PBX:

- The line dials the CO trunk group access code followed by 0.
- The line dials the CO trunk group access code followed by the toll access code followed by 0.

* TOUCH-TONE calling

TOUCH-TONE to dial pulse conversion—The Dimension PBX converts TOUCH-TONE dial signals to dial pulse signals when the distant end associated with outgoing trunk calls is not equipped to receive TOUCH-TONE signals or when transmission loss prevents reliable TOUCH-TONE signaling. External dial pulse conversion equipment is not required for this feature.

Trunk answer from any station (1, 2) Incoming calls, normally directed to the attendant, activate a common alerting signal on customer premises when the attendant positions are in night service and night stations are not assigned or are all busy. These calls can then be answered by any station user in the system who dials a special code from any non-restricted station.

*** Trunk group busy indicators on attendant position (1, 2)** Provides the Dimension PBX attendant with a visual indication when all trunks in a group are busy. Up to 24 busy indicators can be provided.

*** Trunk group warning indicators on attendant position (1, 2)** Provides the Dimension PBX attendant with a visual indication when a preset number of trunks in a group are busy. This number can be specified via the maintenance and administration panel. Up to 12 warning indicators can be provided.

Trunk-to-trunk connections (2) Allows an incoming or outgoing trunk call to be extended to another out-

going trunk. Trunk to trunk connections can be established among the following types of trunks: CO, FX, WATS, CCSA Network, and Tie Trunks.

Trunk verification by customer (2) Provides the attendant access to individual trunks of a group to verify supervision and transmission. Where a busy trunk is encountered, a 2-second bridge connection is provided to verify use.

Two party hold on console (2) Allows the attendant to hold a call at the console while the calling and called station are connected.

*** Wide area telephone service (WATS) access—**
A service which provides one-way access to or from a WATS serving office. All incoming calls to the PBX are placed to the assigned INWATS number and are answered by the PBX attendant similar to LDN service. OUTWATS calls to the various geographic areas are made on an attendant-handled basis via direct or dial access and/or on a direct dial basis by stations.

*** Wide frequency tolerant power plant—**Provides PBX power plant facilities that will operate from AC energy sources which are not as closely regulated as commercial AC power. The wide tolerant plant will tolerate average frequency deviations of up to ± 3 Hz or voltage variations of -15% to $+10\%$ as long as both of the conditions do not occur simultaneously. This feature permits operation with customer provided power generating equipment.

System Characteristics

Station capacity—up to 100 lines (light traffic)
up to 96 lines (heavy traffic, RD)
up to 88 lines (heavy traffic, TT)
up to 30 trunks

Equipment Cabinet requirements—1 cabinet

Network—Time Division Switching (64 time slots)

Control—Stored program control

Attendant positions—one per system (a second console may be added for night service operation)

Traffic—1667 CCS/BH at a P.01 blocking

Physical Characteristics

Cabinet:

Dimensions – 50" high, 31.5" wide and 24" deep

Weight (loaded)—600 lbs.

Colors—Decorator Front Panels are available in avocado, teakwood, American walnut, gold, orange, blue, and red.

Console:

Dimensions—with DSS—9" high x 15.8" wide x 12.5" deep
without DSS—5.8" high x 15.8" wide x 9" deep

Weight—with DSS—15 lbs.
without DSS—10 lbs.

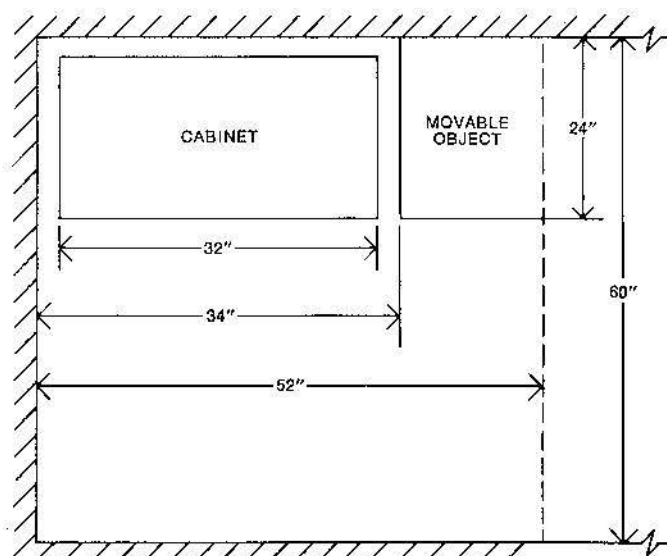
Colors—Flat black faceplate with coordinated decorator front and rear panels—available in avocado, teakwood, American walnut, gold, orange, blue, and red.

Power Requirements

The cabinet contains its own power supply requiring 117V, 60 Hz. A convenience outlet of 117V, 10 ampere is provided in each cabinet.

Environment—temperature 0° to 120°F
humidity 3% to 95% (Relative)

Floor Space Requirements



Operating Range—The maximum distance between the cabinet and its console depends on the number of wires in the interconnection cable. The maximum range using a 25 pair cable is 1000 feet.

Console Codes—

CONSOLE CODES (NOTE 3)	SEE NOTES	FEATURES PROVIDED		
		DSS/BLF*	GROUP SELECT KEYS	ICI
AAA-01AF-03-XXX	1	Not Provided	0	Lamps
AAD-01AF-03-XXX	1	Not Provided	0	Alphanumeric Display
AGA-01AF-03-XXX	1	Provided	0	Lamps
AGD-01AF-03-XXX	1	Provided	0	Alphanumeric Display
AGB-01AF-03-XXX	1	Provided	6	Lamps
AGE-01AF-03-XXX	1	Provided	6	Alphanumeric Display
ADA-01AF-03-XXX	1	BLF Only	0	Lamps
ADD-01AF-03-XXX	1	BLF Only	0	Alphanumeric Display
ADB-01AF-03-XXX	1	BLF Only	6	Lamps
ADE-01AF-03-XXX	1	BLF Only	6	Alphanumeric Display
AAG-01AF-03-XXX	2	Not Provided	0	Alphanumeric Display
AGH-01AF-03-XXX	2	Provided	6	Alphanumeric Display
AGJ-01AF-03-XXX	2	Provided	18	Alphanumeric Display
ADH-01AF-03-XXX	2	BLF Only	6	Alphanumeric Display
ADJ-01AF-03-XXX	2	BLF Only	18	Alphanumeric Display

Notes: 1. Console equipped with 12 trunk group access keys and 15 control keys.

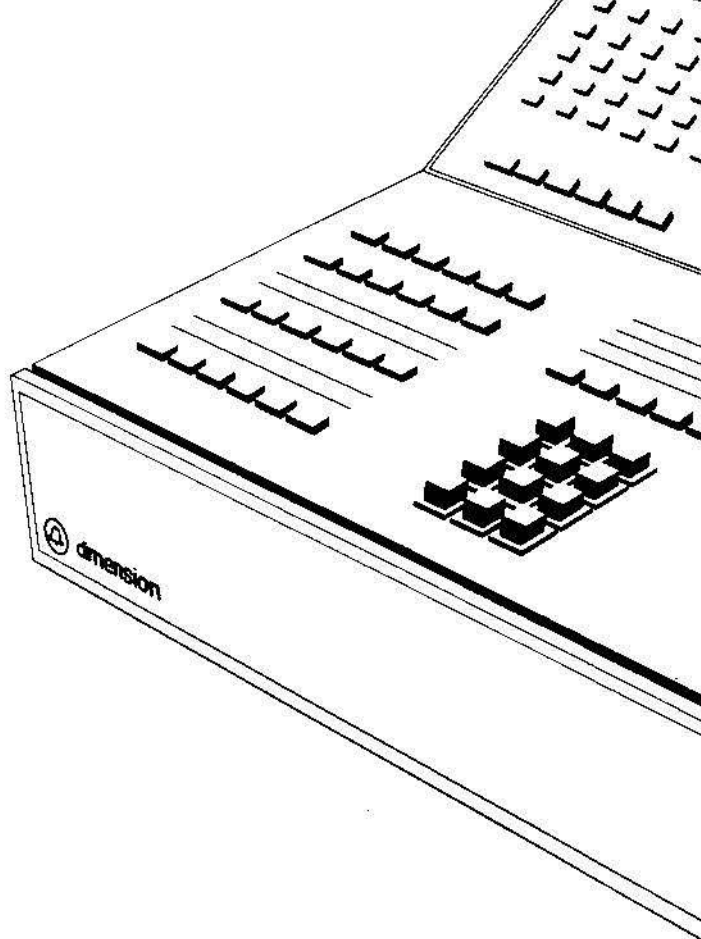
2. Console equipped with 24 trunk group access keys and 21 control keys.

3. Last 3 digits of console code indicates panel finish as follows:

100—Avocado	111—Gold	115—Blue
108—Teakwood	112—Orange	
109—Walnut	114—Red	

*DSS/BLF—Direct Station Selection/Busy Lamp Field

dimension 400



Technical Summary

General Description—The Dimension* 400 is an electronic system utilizing stored program control and time division switching. It is modular in design to provide a variety of line and trunk combinations.

The inherent flexibility of the system enables the provision of comprehensive features including some not previously available in any PBX. In addition to the basic package of features that are common to all systems, there are six feature packages (feature packages 1 to 5 and 10) designed to meet the needs of particular businesses or industries.

Each feature can be used selectively to meet an individual's requirement. Although a majority of features are provided and controlled by stored software programs, a few of them require circuit hardware additional to the basic system.

SERVICES AND FEATURES

The following is a listing of features provided by the Dimension 400 PBX. Those requiring additional hardware (e.g. circuit packs) are indicated by an * which preceeds the feature title. Additionally, feature packages 1 to 5 and 10 are indicated by the number 1 to 5 and 10 respectively. Features void of such indications are classified as features common to all systems.

*** Alphanumeric display (1-5, 10)** A four-character display device mounted on the attendant console(s). Each character can display numbers (0 through 9), letters (A through Z), and various miscellaneous symbols such as +, -, and . This display is needed for calling number display to attendant, class-of-service display to attendant, and can be used for the incoming call identification feature.

*** Attendants conference (4, 10)** An attendant can establish a multiparty conference of up to six conferees in addition to the attendant. The conference is established by the attendant by connecting lines and/or trunks to the conference circuit ports via the time division network.

When all conferees are connected, the attendant may release the conference circuit from the console or may hold the conference on the console by operating the hold key. If the conference circuit is released, the attendant cannot re-enter without

being recalled by a station.

*** Attendant control of trunk group access (1-5, 10)**

*** Attendant console**—An electronic device with light emitting diode displays and nonlocking keys which allow an operator to handle listed directory number and other calls which require assistance.

*** Attendant direct station selection (ADSS) with busy lamp field (1-5, 10)** Provides the attendant with a visual indication of the busy/idle indication of 100 station lines. When more than 100-line capability is desired, group select keys allows preselection of the desired 100-line group. The attendant can place or complete calls to these stations by depressing the nonlocking group select key associated with the display. Up to 18 of these keys are provided. This feature reduces attendant work time by avoiding the use of the start key and dialing.

Attendant lockout (2, 4, 5, 10) The attendant is denied the ability to reenter an established connection held on an attendant position, unless recalled by a station user. The TWO PARTY HOLD ON CONSOLE feature is required for operation of this feature.

Attendant transfer - all calls—A station user participating in any 2-party connection can call (recall) an attendant so that the attendant may transfer the call or provide other assistance as desired. A flash during any established call will return RECALL DIAL TONE to the initiating station and hold the other party. The station user then dials the access code (usually dial "0") to call the attendant. If the call had been held on the console loop or the

initiating station is a manual originating line, the flash will result in immediate attendant recall.

Automatic callback – calling (2, 4, 5, 10) Allows a station user to be connected to a previously busy station as soon as it becomes idle. The operational steps of this feature are as follows:

- (1) A station with this feature attempts to call another station and discovers that it is busy.
- (2) The calling station reoriginates the call, dials the proper access code, redials the called station, and goes on-hook.
- (3) When both parties are idle, the Dimension PBX rings the calling party. Upon answer, it rings the called party. If the station which activates the feature originates another call before this sequence has been initiated, the automatic callback does not start until both stations become idle.
- (4) If the callback sequence is not successful within 10 to 20 minutes, it is automatically cancelled.

Use of this feature by a station user temporarily cancels: outgoing trunk camp-on, call waiting services, call forwarding – all calls or call forwarding busy and don't answer for that particular line.

*** Automatic identified outward dialing (AIOD) (2, 4, 5, 10)** This feature identifies the calling station line number to the central office to permit individual station billing on toll calls. A limit of two central offices can be connected to the Dimension PBX and receive AIOD information (one for CO calls and the other for common control switching arrangement (CCSA) calls).

Automatic route selection (ARS) (4, 10) This feature provides automatic routing of outgoing calls over alternative customer facilities based on the DDD number. The station user dials an ARS access code followed by a DDD number. The PBX routes the call over the first available trunk facility (such as, CO, WATS, FX, or offnet CCSA) checking in a customer specified order. Any number translation necessary to route the call is performed. Overflow routing to toll facilities is optional.

*** Busy lamp field (1-5, 10)** Provides the attendant with a visual indication of the busy or idle condition of station lines.

Busy verification of station lines (2-5, 10)

Call forwarding – all calls (1-5, 10) When activated by a station user or the attendant, all calls intended for the station line automatically route to another station line (selected by dialing during activation). There is no limit on the number of Dimension PBX stations which can use this feature simultaneously. However, when activated it temporarily cancels automatic callback-calling, outgoing trunk queuing, call waiting services for the line, call forwarding—busy and don't answer.

Call forwarding – busy and don't answer (2, 4, 5, 10)

When activated by a station user (using a different access code than used for the all calls feature), all calls intended for a station that is busy or doesn't answer are automatically routed to another station line (or to the attendant) selected by dialing during activation. The selected station line must also be in the Dimension PBX. The forwarding of a don't answer is delayed to allow time for answer by the station user. All Dimension PBX stations can use this feature simultaneously. However, it temporarily cancels automatic callback-calling, outgoing trunk queuing, call waiting services, and call forwarding all calls for the line.

Call hold (1-5, 10)

Call Pickup (1, 2, 4, 5, 10)

Call waiting services (1-5, 10) Attendant
Originating
Terminating

*** Calling number display to attendant (1-5, 10)** Shows the attendant the line number of the station seeking attendant assistance. The number is displayed on the alphanumeric display when a loop is picked up.

*** Calling number display to station (3, 4, 10)** Equipment is provided at a called station to display the number of the calling station within the same PBX. Used, for example, in hotels/motels to display the number of the room calling a station such as room service. Capability for displaying up to four digits is provided.

*** CCSA access (2, 4, 5, 10)** A service which provides access to the CCSA network for direct inward dialing to the Dimension PBX, direct outward dialing to the network, and other features similar to those provided on the exchange network. This feature provides full CCSA capabilities.

Centralized attendance service (CAS) (10) This feature permits multilocation PBX customers, served by separate switching vehicles, to concentrate attendants at a single location. Incoming listed number calls come into each PBX directly from the central office and are switched to the centralized attendant positions over release link trunks (RLT). These trunks can be viewed as short holding time connections from the unattended location to the centralized answering point. Incoming LDN calls received over RLTs are always routed back over the RLT. These connections are then made available for other calls once the attendant releases the call.

*** Class-of-service display to attendant (1-5, 10)** Provides the attendant with digital information regarding the class of service associated with a station. The number is displayed on the alphanumeric display when the appropriate console key is depressed.

Code call access (10) Attendants and station users can dial an access code and a 2- or 3-digit called party code to activate an electronic chime which corresponds to the called code. The called party can then be connected to the calling party by dialing an answering code from any station within the PBX.

Code restriction (2-5, 10) Three levels of authorization permit authorized station lines the ability to complete outgoing Central Office or Foreign Exchange calls to a specified area or office codes within an area. The calls allowed are a function of the particular trunk group dialed.

Controlled outward restriction (3, 4, 10) An attendant can control the restriction of direct dialed outgoing exchange network calls (local central office and toll calls in hotel/motel applications) from selected station lines or groups of lines. When activated, the restricted calls are routed to intercept tone.

Controlled station-to-station restriction (3, 4, 10) An attendant can prevent selected station lines or groups of lines from receiving station-to-station calls. When activated, the restricted calls are routed to intercept tone.

Controlled termination restriction (3, 4, 10) An attendant can prevent selected station lines or groups of lines from receiving any calls. This feature is a form of "do-not-disturb" service. When activated, restricted DID calls are routed to the attendant or to intercept tone, depending on the option selected. All other restricted calls are routed to intercept tone.

Controlled total restriction (3, 4, 10) An attendant can prevent selected station lines or groups of lines from originating and receiving any calls. This feature is used to temporarily disconnect station lines. When activated, restricted DID calls are routed to the attendant or to intercept tone, depending on the option selected. All other restricted calls are routed to intercept tone.

Custom intercom (4, 10) This service allows station users to dial 2- (up to ten in a group) or 3-digit (up to 30 in a group) codes to reach frequently called stations. Priority ringing is provided to nonbusy called stations, and Originating Call Waiting treatment is provided when a busy station is called. The intercom numbers within a custom intercom group are changeable via a designated station line and via the MAAP.

Data privacy (4, 10) This feature is activated by the station user by dialing an access code to deny other stations or attendants the ability to employ overriding or alerting features to busy stations. Disturbance to any transmission in progress is prevented. This feature is in effect only for the duration of the call. Overriding or alerting features include Call Waiting, Executive Override, Busy Verification of Station Lines, Trunk Verification by Customer and Timed Recall on Outgoing Calls.

Data restriction (4, 10) A station feature which automatically denies other stations or attendants the ability to employ overriding or alerting features to busy stations. Disturbance to any transmission in progress is prevented. This feature is in effect for all calls once it is assigned within the class-of-service. Overriding or alerting features include Call Waiting, Executive Override, Busy Verification of Station Lines, Trunk Verification by Customer and Timed Recall

on Outgoing Calls.

Dial access to attendant—Allows a station user within the switching system or via dial-repeating tie trunks (with the tandem operation feature) to reach the attendant by dialing a code, usually but not necessarily a single digit 0. The attendant may complete these calls to trunk facilities or station lines.

* Dimension Custom Telephone Service (5, 10)

Direct department calling (DDC) (10) This feature provides an economical alternate to DID service for selected high call volume departments behind a PBX. Each DDC group terminates one or more non-DID LDN type trunks to a designated station which is normally in a hunting group. Calls to this station are queued if the station and other members of the hunting group are busy. Up to 12 DDC groups are possible with the Dimension 400 PBX.

* Direct inward dialing (DID) (2, 4, 5, 10)

Direct outward dialing (DOD)

Direct trunk group selection (2, 4, 5, 10)

Distinctive ringing—Unique patterns of station ringing (using existing station sets) are provided to permit the station user to distinguish between various types of calls. Three patterns are available as follows:

- Indicates station-to-station calls (1 ring)
- Indicates attendant call to station (2 rings)
- Indicates either Automatic Call Back-Calling, call waiting, or outgoing trunk queuing callback (3 rings).

Executive override (2, 4, 5, 10)

Flexible numbering of stations Basic—Station numbers can be assigned to lines at the time of installation in accordance with a customer-designed numbering plan. Station number assignments can begin with any digit except 0 and can vary in length from one to four digits within the same PBX. The same first digit cannot be used for different length station numbers (e.g., 450 and 4500 could not coexist in the same system).

Flexible numbering of stations—mixed numbering (3)

Station numbers can be assigned to lines at the time of installation in accordance with a customer-desired numbering plan and to be reassigned while in service to permit personnel moves without requiring number changes. Station number assignments can begin with any digit except *, # or 0 and can vary in length from one to four digits within the same installation. Conflicts that result from the use of the same first digit for different length station numbers can be resolved with time-out, an end of dialing code (with TOUCH-TONE) and/or by use of a prefix digit for multi-digit station numbers. To avoid time-out, a different prefix code can be used for different length station number series. The same first digit cannot be used for both station numbers and trunk or

feature access codes. (The same first digit can be used for trunk access and feature access codes.)

*** Foreign exchange (FX) access**

Fully restricted station

Hot line service (3) This feature provides stations on the PBX system that automatically place a call to a preassigned called number when the station user goes off-hook. The hot line station can receive calls normally. Hot line calls can be directed to stations, exchange trunks or CCSA trunks. A maximum of 15 lines can have this service. Up to 14 digits can be automatically dialed. Trunk signaling (e.g., Party Test) is properly handled.

*** Incoming call identification**—Provides visual signals to identify the type of service or trunk group associated with a call automatically distributed to an attendant position. Up to six incoming call indicators can be provided on the console.

Intercept treatment—Routes calls which "cannot be completed" to an appropriate audible signal, recorded announcement, or to the attendant depending on the noncompletion condition.

Inward restriction (1-5, 10)

Line lockout with warning—Provides ten seconds of warning tone and then holds the line out-of-service when a station line remains off-hook for longer than a predetermined period of time without dialing during call origination. The hold out-of-service condition makes the station appear busy but does not tie up switching facilities or call processing time. The lockout condition is released when the station goes on-hook.

*** Loudspeaker paging**—gives the attendant direct access and station use dial access to paging equipment. All voice paging facilities make use of the telephone transmitter as the microphone. Optional arrangements are available to provide multi-zone paging. Up to six paging keys can be provided on the attendant console. Two forms of paging are available to provide the following additional benefits.

Basic (1-5, 10) Dial access to all zone paging is included when multizone paging is provided. Direct access (console key) to all zone paging is optional.

DeLuxe (2-5, 10) Page answer back capability is provided to allow the paged party to be connected to the calling party by dialing an answer back code from any station within the PBX. Priority paging is provided to permit attendants and/or designated stations to dial access a paging zone or answer-back channel and pre-empt any station user connected to that zone or channel. Stations assigned with Threeway Conference Transfer may also access paging while on any two-party call. The second party can be added on or transferred to the page answer back party but not to the paging facility.

Listed directory number (LDN) service

Manual originating line service (3) These station lines are arranged to automatically route to the attendant position for completion when the station user goes off-hook for service. Dial tone is not provided to these lines, and all originating connections are made by the attendant. Terminating connections can be dialed directly to a manual line.

Manual terminating line service (1-5, 10)

*** Message waiting (3)** This feature provides the ability to light a lamp remotely (from a central location) at a station set to indicate that a message is waiting for the station user.

Miscellaneous trunk restriction (1-5, 10) Denies preselected station lines and incoming tie trunks the ability to dial calls to preselected miscellaneous trunk groups including FX, WATS, CCSA, tie and auxiliary trunks.

Multiple listed directory number service — More than one central office listed directory number (LDN) can be associated with a single installation. Each LDN can be assigned a unique incoming call indication.

Non - DID service (1-5, 10)

DID service (4, 10)

*** Music on hold interface (4, 10)** This feature provides the interface for music or other audible indication to the held party during the hold interval. The held call condition can be the result of Attendant Position hold, Call Hold, Threeway Conference Transfer hold, or the hold associated with other similar features.

*** Night console position**—and alternate attendant position which can be used at night in lieu of the regular attendant position to answer all calls directed to the attendant. This position provides all the regular attendant functions.

Night station service—

Basic—Routes calls, normally directed to the attendant, to preselected station lines when one of the attendant positions has been placed in the night service mode. In addition, incoming calls to the Dimension PBX from specific non-DID exchange network trunks can be arranged to route to specific station lines. The routings are provided on a fixed basis at the time of order or via the maintenance and administration panel.

Full (1, 2, 4, 5, 10) Routes calls, normally directed to the attendant, to preselected station lines, when the regular attendant positions are set to night service. In addition, incoming calls to specific non-DID exchange network trunks can be arranged to route to specific station lines. The routings can be assigned on a flexible basis by the attendant and remains in effect night to night until changed. The trunk answer from any station answering capability is provided for night calls not assigned to, or that cannot be answered by night stations. When in night

service, night stations have full 3-way conference transfer capability and call waiting services (if equipped) for night calls.

Off-premise stations—Provides service between a Dimension PBX and a PBX station when the PBX station is located at some distance from the PBX.

Origination restriction (1-5, 10) A station line with this restriction cannot be used to originate calls at any time. Terminating calls, however, complete normally to this station line.

Outgoing trunk queuing (1, 2, 4, 5, 10) A station user encountering a busy condition is provided with a confirmation tone and is automatically placed into a queue by going back on-hook within 5 seconds. When a trunk becomes available, the system reserves that trunk and rings the calling station line for a limited time. When the calling station line answers, the system connects it to the trunk. A maximum of twelve trunk groups (access codes) can be associated with this feature. Use of automatic call-back—calling, call waiting services, call forwarding—all calls, or call forwarding—busy and don't answer cancels the outgoing trunk queuing request.

Outward restriction—Preselected station lines are denied the ability to access the exchange network without the assistance of the attendant.

*** Power failure transfer**—Provides service to and/or from the exchange network (non-FX and WATS) for a limited number of prearranged stations during a power failure where reserve power is not provided, or where battery reserve is provided when the reserve is depleted. Incoming service from direct inward dialing trunks is not provided during power failure transfer.

Privacy and lockout (2, 4, 5, 10) Privacy automatically splits the connection whenever an attendant would otherwise be bridged on a call with more than one facility (e.g., with a calling and a called party). Lock-out denies an attendant the ability to reenter an established connection held on the console position, unless recalled by a station.

Recall dial tone—Provides the station user with an audible indication of whether he has successfully used the switchhook flash to request a service feature from an established 2-way call or has caused a reorigination to occur. The result of a successful use of the switchhook flash is dial tone with three interruptions followed by steady dial tone. Dialing is not registered during the interrupted portion of recall dial tone.

*** Recorded announcement intercept (4, 10)** Intercepted calls are routed to a recorded message which indicates the reason why the call was intercepted. This intercept treatment is provided as an alternative to Attendant Intercept or Intercept Tone for DID and CCSA calls only, as a system option. Only one message can be given.

Recorded telephone dictation access (2, 4, 5, 10)

Remote access to PBX service (2, 4, 5, 10) Permits an outside party to dial access WATS lines and other PBX special services such as FX trunks, CCSA access, or the tie trunk network via local Central Office trunks. The calling party dials into the system on a local CO trunk and dials a special 4-digit code to unlock the special service PBX access. Once the access has been unlocked, the calling party hears PBX dial tone and places his call as though he were connected to a PBX line terminal. All signaling is done on a TOUCH-TONE® dialing basis and the special 4-digit code is readily changed by the attendant.

Remote maintenance, administration, and traffic system (RMATS) (10) This feature provides remote access to the memory of Dimension PBX systems which have been arranged for RMATS capability. This capability allows certain maintenance, administration, and traffic polling routines to be performed from the central facility. Each Dimension PBX associated with RMATS must be provided with a data set and a dedicated CO line. All maintenance, administration and traffic polling activities are performed over this loop. Each RMATS central facility can accommodate a maximum of two SMAAPs, for use with Dimension 100 and 400 PBX's, as well as for RMATS maintenance routines, and two LMAAPs for use with Dimension 2000. These MAAPs can be associated with a maximum of two data sets and dedicated CO lines. In addition, a third data set is required for the sole use of the automatic calling unit used for traffic polling.

Rotary dial calling

Route advance—Allows automatic routing of outgoing calls over alternate facilities when a first choice trunk group is busy. The digits following the access code must be identical for any of the trunk groups selected although the first and alternate groups are not accessed by the same dialed codes.

Serial call (2-5, 10) Allows the attendant to maintain supervision of an incoming trunk on the console after it has been connected to an internal station. When the station goes on-hook, a visual indication is given to the attendant so that the trunk can be picked up for assistance.

Single-digit dialing (3) A station user can reach any of a preselected group of stations by dialing single-digit codes. Time-out is available in cases where the single digit used conflicts with the normal numbering plan.

Speed calling (4, 10) Station users can dial 2-or 3-digit codes to reach frequently called PBX stations or outside telephone numbers except IDDD and tie trunk calls. Each speed calling list can be changed by one designated station (controller) and via the MAAP.

Splitting 1-way automanual—Attendant can consult privately with one party on a call while placing the other party on hold. The calling party is split from the call automatically (with the called party connected to the attendant) when the attendant starts to complete a call, but the attendant can take positive action to unsplit. The calling party is the only one split from the connection.

Station hunting – Terminal Circular

*** Station message detail recording (SMDR) (4, 10)**

This feature provides a record of the PBX station identity, starting time, duration, called number and the trunk group used for outgoing and/or certain types of incoming calls. The call duration is measured from about ten seconds after the establishment of the connection in the customer system to the time when the station goes on-hook. Hence, busy signal, don't answer, and wrong number calls may also be recorded. Also, a station dialed maximum 5-digit account code number may be recorded in addition to the calling station number.

*** Station message register service (3)** Message registration equipment which is centrally located on customer premises is provided for use by the customer. Message unit information is recorded on a per station line basis for each completed outgoing local service call made by the station user. Optional surcharge arrangements may also be provided to score an additional predetermined number of units per call.

Station-to-station calling

Straightforward outward completion

Switched loop operation

Tandem tie trunk switching (2-5, 10) A service arrangement which allows trunk-to-trunk connections (e.g., Tie-CO, Tie-Tie) to be established through the Dimension PBX. If action (e.g., station on-hook from 3-way connection with two trunks) results in two trunks connected, neither of which has distant party supervision, the call is either routed to the console for manual disconnect or released.

Termination restriction (1-5, 10) Station lines with this restriction cannot receive calls at any time. Calls can be originated normally from this station.

Three-way conference transfer (1-5, 10) A station user can, by flashing the switchhook while on any 2-party call, effect a 3-way conference and transfer. After the switchhook is flashed, the station dials the third party (may be a trunk) for private consultation while the second party is held in a waiting state. By flashing a second time, a 3-way conference is effected. Subsequently, a transfer is accomplished when the original party goes on-hook. The controlling station can drop the third party by flashing during the 3-way conference. The third party may not be loudspeaker paging.

Through dialing

*** Tie trunk access (2-5, 10)** Provides dedicated one-way or 2-way circuits between the Dimension PBX and another PBX without any intermediate switching.

Timed recall on outgoing calls (4,10) With this feature, outgoing trunk calls from selected stations are automatically transferred to the attendant after a timed interval assigned for the trunk group is exceeded. A warning tone is sent to the calling party 30 seconds before the transfer has taken place. Once the call has been transferred, the attendant may then

terminate the conversation or allow it to continue.

Timed reminders

Toll restriction—A limited form of code restriction which permits station users to access the local Central Office and to dial local service area calls, but prevents completion of toll calls or calls to the toll operator without the assistance of the attendant. This feature is provided on a per-station-line basis and restricted toll calls are given intercept tone. Two mutually exclusive forms of this feature are available:

Battery reversal—With this restriction, a battery reversal signal from the central office on an outgoing call causes the Dimension PBX to route the calling party to intercept tone.

0/1 (1-5, 10) Another form of toll restriction based on digit screening rather than on central office signaling. Up to 10 area codes may be allowed for 0/1 toll restricted lines. These area codes are checked when any of the following conditions exist:

- The line dials the CO trunk group access code (usually 9) followed by the area code.
- The line dials the CO trunk group access code followed by a toll access code (usually 1).

In addition, the following calls from 0/1 restricted lines are routed to intercept tone by the Dimension PBX:

- The line dials the CO trunk group access code followed by 0.
- The line dials the CO trunk group access code followed by the toll access code followed by 0.

*** Toll terminal access (3)** A station user or attendant can dial a toll operator directly or access a uniquely identified trunk group to a TSPS position with a single-digit access code. Toll operator callback over the toll terminal will not be provided. The initial digit used for this feature must be unique (e.g., cannot be also used for station line numbers in the same installation).

*** TOUCH-TONE calling**

TOUCH-TONE to dial pulse conversion—The Dimension PBX converts TOUCH-TONE dial signals to dial pulse signals when the distant end associated with outgoing trunk calls is not equipped to receive TOUCH-TONE signals or when transmission loss prevents reliable TOUCH-TONE signaling. External dial pulse conversion equipment is not required for this feature.

Trunk answer from any station (1-5, 10) Incoming calls, normally directed to the attendant, activate a common alerting signal on customer premises when the attendant positions are in night service and night stations are not assigned or are all busy. These calls can then be answered by any station user in the system who dials a special code from any non-restricted station.

*** Trunk group busy indicators on attendant position (1-5, 10)** Provides the Dimension PBX attendant with a

visual indication when all trunks in a group are busy. Up to 24 busy indicators can be provided.

*** Trunk group warning indicators on attendant position (1-5, 10)** Provides the Dimension PBX attendant with a visual indication when a preset number of trunks in a group are busy. This number can be specified via the maintenance and administration panel. Up to 12 warning indicators can be provided.

Trunk-to-trunk connections (2-5, 10) Allows an incoming or outgoing trunk call to be extended to another outgoing trunk. Trunk to trunk connections can be established among the following types of trunks: CO, FX, WATS, CCSA Network, and Tie Trunks.

Trunk verification by customer (2, 4, 5, 10) Provides the attendant access to individual trunks of a group to verify supervision and transmission. Where a busy trunk is encountered, a 2-second bridge connection is provided to verify use.

Trunk verification by station (10) This feature permits a designated station or CAS RLT control stations to access individual trunks of the trunk groups terminating on the PBX to make test calls to verify supervision and transmission. Where a busy trunk is encountered, an optional bridged connection with a warning tone to the busy parties is provided to verify use. If a defective trunk is found, a code can be dialed from the designated station line or control stations to put the trunk in a maintenance/busy state until repaired. Tie trunks can also be used to remotely test trunks on the PBX in a similar manner, however, the busy trunk override option is not provided. This feature also permits testing of RLT trunks in a CAS installation.

Two party hold on console (2-5, 10) Allows the attendant to hold a call at the console while the calling and called station are connected.

Uniform call distribution (UCD) (10) This feature permits DID or Direct Department Calling incoming CO calls, FX calls and Inwats calls to be terminated directly from the central office to the most idle of a pre-arranged group of stations without attendant assistance. Each UCD station is typically a non-key telephone set which can also be used in a normal manner to make and receive calls directly.

*** Wide area telephone service (WATS) access—**
A service which provides one-way access to or from a WATS serving office. All incoming calls to the PBX are placed to the assigned INWATS number and are answered by the PBX attendant similar to LDN service. OUTWATS calls to the various geographic areas are made on an attendant-handled basis via direct or dial access and/or on a direct dial basis by stations.

*** Wide frequency tolerant power plant—**Provides PBX power plant facilities that will operate from AC energy sources which are not as closely regulated as commercial AC power. The wide tolerant plant will tolerate average frequency deviations of up to ± 3 Hz or voltage variations of -15% to $+10\%$ as long as both of the conditions do not occur simultaneously.

This feature permits operation with customer provided power generating equipment.

System Characteristics

Station Capacity—up to 436 lines (light traffic)
up to 360 lines (heavy traffic)
up to 128 trunks and service ports

Equipment Cabinet requirements—Maximum 2 Cabinets

Network—Time Division Switching (64 time slots)

Control—Stored program control

Attendant positions—a maximum of four consoles can be provided with any one system

Traffic—1667 CCS/BH at a P.01 blocking

Physical Characteristics

Cabinet:

Dimensions—4 carrier high—58.5" high x 31.5" wide x 24" deep
5 carrier high—69.5" high x 31.5" wide x 24" deep

Weight (loaded)—4 carrier cabinet—650 lbs.
5 carrier cabinet—800 lbs.

Colors—Decorator Front Panels are available in avocado, teakwood, American walnut, gold, orange, blue, and red.

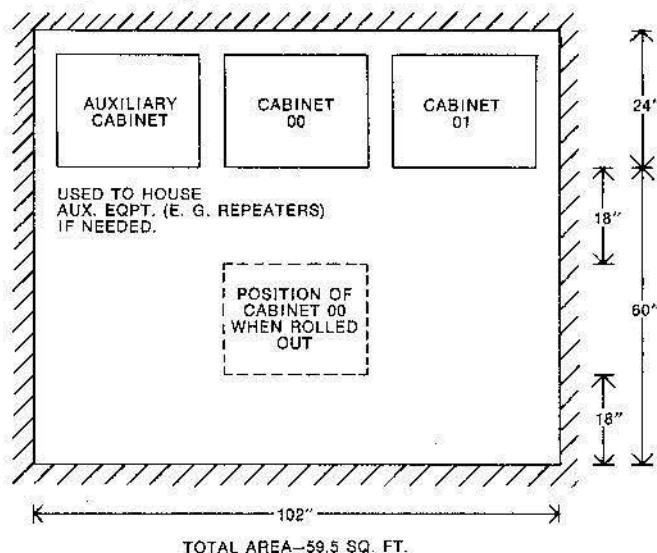
Console:

Dimensions—with DSS—9" high x 15.8" wide x 12.5" deep
without DSS—5.8" high x 15.8" wide x 9"

Weight—with DSS—15 lbs.
without DSS—10 lbs.

Colors—flat black faceplate with coordinated decorator front and rear panels—available in avocado, teakwood, American walnut, gold, orange, blue, and red.

Floor space requirements



Power Requirements

The cabinet contains its own power supply requiring 117V, 60 Hz. A convenience outlet of 117V, 10 ampere is provided in each cabinet.

Environment—temperature 0° to 120°F
humidity 3% to 95% (Relative)

Operating range—The maximum distance between the cabinet and its console depends on the number of wires in the interconnection cable. The maximum range using a 25 pair cable is 1000 feet.

Console codes—

CONSOLE CODES (NOTE 3)	SEE NOTES	FEATURES PROVIDED		
		DSS/BLF*	GROUP SELECT KEYS	ICI
AAA-01AF-03-XXX	1	Not Provided	0	Lamps
AAD-01AF-03-XXX	1	Not Provided	0	Alphanumeric Display
AGA-01AF-03-XXX	1	Provided	0	Lamps
AGD-01AF-03-XXX	1	Provided	0	Alphanumeric Display
AGB-01AF-03-XXX	1	Provided	6	Lamps
AGE-01AF-03-XXX	1	Provided	6	Alphanumeric Display
ADA-01AF-03-XXX	1	BLF Only	0	Lamps
ADD-01AF-03-XXX	1	BLF Only	0	Alphanumeric Display
ADB-01AF-03-XXX	1	BLF Only	6	Lamps
ADE-01AF-03-XXX	1	BLF Only	6	Alphanumeric Display
AAG-01AF-03-XXX	2	Not Provided	0	Alphanumeric Display
AGH-01AF-03-XXX	2	Provided	6	Alphanumeric Display
AGJ-01AF-03-XXX	2	Provided	18	Alphanumeric Display
ADH-01AF-03-XXX	2	BLF Only	6	Alphanumeric Display
ADJ-01AF-03-XXX	2	BLF Only	18	Alphanumeric Display

Notes: 1. Console equipped with 12 trunk group access keys and 15 control keys.

2. Console equipped with 24 trunk group access keys and 21 control keys.

3. Last 3 digits of console code indicates panel finish as follows:

100—Avocado	111—Gold	115—Blue
108—Teakwood	112—Orange	
109—Walnut	114—Red	

*DSS/BLF—Direct Station Selection/Busy Lamp Field

Tones—

The four basic oscillator frequencies used to generate tones are: 350Hz, 440Hz, 480Hz, and 620Hz.

These tones are combined to provide the following:

- Dial Tone
- Busy Tone
- Reorder Tone
- Intercept Tone
- Recall Dial Tone
- Audible Ringback Tone
- Special Audible Ringback Tone
- Miscellaneous Tone

Tie Trunks—

Dial Repeating or automatic tie trunk.

Trunk Groups—

- Central Office
- WATS
- Foreign Exchange (FX)

Installation and Maintenance

- Indicating fuses
- Busy/Idle indicators on trunk and line circuits
- Test points on circuit pack faceplates
- Logic test probe
- Distributed circuit status indicators
- Alarm Panel
- Maintenance and administration Panel (MAAP)

Reference Information

BSP Sections	554-101-100	General Description
	554-101-101	Pre Installation
	554-101-105	Call Processing
	554-101-106	Scan/Distribution & network control
	554-101-107	PAM Network & Port circuits
	554-101-108	Processor
	554-101-109	Console & telephone sets
	554-101-110	Maintenance
	554-101-112	AUX circuits
	554-102-100	General software description
	554-851-001	Task Oriented Practices (TOP)

Prepared for the use of the Bell System



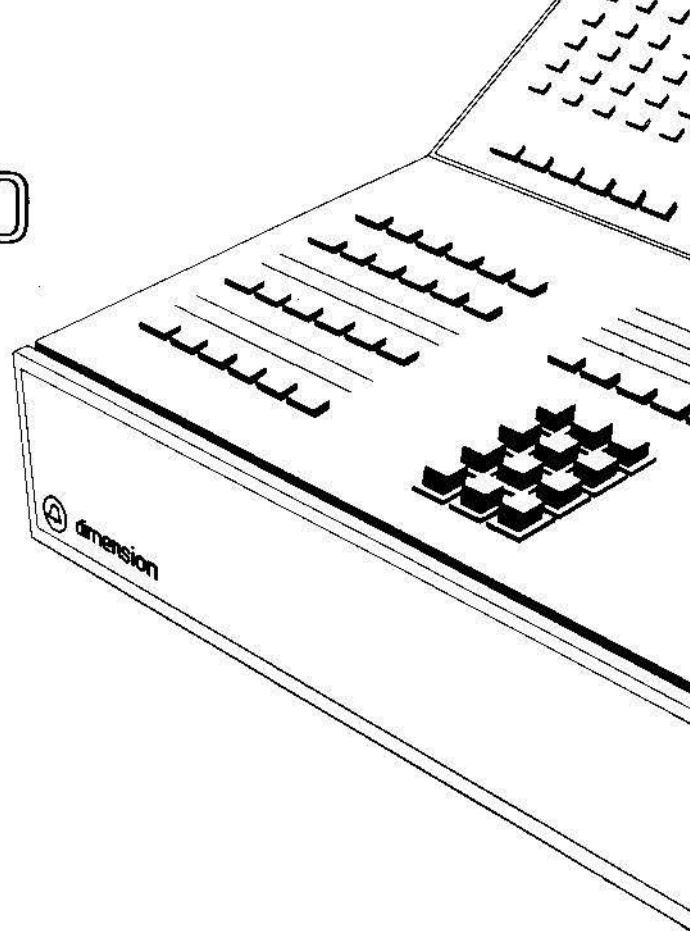
Western Electric

PRODUCT INFORMATION ORGANIZATION

0450B/6D

TCI Library: www.telephonecollectors.info

dimension 2000



Technical Summary

General Description—The Dimension® 2000 is an electronic system utilizing stored program control and time division switching. It is modular in design to provide a variety of line and trunk combinations.

The inherent flexibility of the system enables the provision of comprehensive features including some not previously available in any PBX. In addition to the basic package of features common to all systems, there are additional features (feature package 7) designed to meet the needs of particular businesses or industries.

Each feature can be used selectively to meet an individual's requirement. Although a majority of features are provided and controlled by stored software programs, a few of them require circuit hardware additional to the basic system.

SERVICES AND FEATURES

The following is a listing of features provided by the Dimension 2000 PBX. Those features requiring additional hardware (e.g., circuit packs) are indicated by an * which precedes the feature title. Additionally, feature package 7 features are indicated by (7) and all features void of such indication are common to all systems.

* **Alphanumeric display (7)** A four-character display device mounted on the attendant console(s). Each character can display numbers (0 through 9), letters (A through Z), and various miscellaneous symbols. This display is needed for calling number display to attendant, class-of-service display to attendant, and can be used for the incoming call identification feature.

* **Attendants conference (7)** An attendant can establish a multiparty conference of up to six conferees in addition to the attendant. The conference is established by the attendant by connecting lines and/or trunks to the conference circuit ports via the time division network.

When all conferees are connected, the attendant may release the conference circuit from the console or may hold the conference on the console by operating the hold key. If the conference circuit is released, the attendant cannot re-enter without being recalled by a station.

* **Attendant control of trunk group access (7)**

* **Attendant console**—An electronic device with light emitting diode displays and nonlocking keys which allow an operator to handle listed directory number and other calls which require assistance.

* **Attendant direct station selection (ADSS) with busy lamp field (7)** Provides the attendant with a visual indication of the busy/idle indication of 100 station lines. When more than 100-line capability is desired, group select keys allows preselection of the desired 100-line group. The attendant can place or complete calls to these stations by depressing the nonlocking group select key associated with the display. Up to 18 of these keys are provided. This feature reduces attendant work time by avoiding the use of the start key and dialing.

Attendant lockout (7) The attendant is denied the ability to reenter an established connection held on an attendant position, unless recalled by a station user. The TWO PARTY HOLD ON CONSOLE feature is required for operation of this feature.

Attendant transfer - all calls—A station user participating in any 2-party connection can call (recall) an attendant so that the attendant may transfer the call or provide other assistance as desired. A flash during any established call will return RECALL DIAL TONE to the initiating station and hold the other party. The station user then dials the access code (usually dial "0") to call the attendant. If the call had been held on the console loop or the

initiating station is a manual originating line, the flash will result in immediate attendant recall.

Automatic callback—calling (7) Allows a station user to be connected to a previously busy station as soon as it becomes idle. The operational steps of this feature are as follows:

- (1) A station with this feature attempts to call another station and discovers that it is busy.
- (2) The calling station reoriginates the call, dials the proper access code, redials the called station, and goes on-hook.
- (3) When both parties are idle, the Dimension PBX rings the calling party. Upon answer, it rings the called party. If the station which activates the feature originates another call before this sequence has been initiated, the automatic callback does not start until both stations become idle.
- (4) If the callback sequence is not successful within 10 to 20 minutes, it is automatically cancelled.

Use of this feature by a station user temporarily cancels: outgoing trunk queuing camp-on, call waiting services, call forwarding—all calls or call forwarding busy and don't answer for that particular line.

*** Automatic identified outward dialing (AIOD) (7)**

This feature identifies the calling station line number to the central office to permit individual station billing on toll calls. A limit of two central offices can be connected to the Dimension PBX and receive AIOD information (one for CO calls and the other for common control switching arrangement (CCSA) calls).

Automatic route selection (ARS) (7) This feature provides automatic routing of outgoing calls over alternative customer facilities based on the dialed number. The station user dials an ARS access code followed by a DDD number. The PBX routes the call over the first available trunk facility (such as, CO, WATS, FX, or offnet CCSA) checking in a customer specified order. Any number translation necessary to route the call is performed. Overflow routing to toll facilities is optional.

*** Busy lamp field (7)** Provides the attendant with a visual indication of the busy or idle condition of station lines.

Busy verification of station lines (7)

Call forwarding—all calls (7) When activated by a station user or the attendant, all calls intended for the station line automatically route to another station line (selected by dialing during activation). There is no limit on the number of Dimension PBX stations which can use this feature simultaneously. However, when activated it temporarily cancels automatic callback-calling, outgoing trunk queuing, call waiting services for the line, call forwarding—busy and don't answer.

Call forwarding—busy and don't answer (7) When activated by a station user (using a different access

code than used for the all calls feature), all calls intended for a station that is busy or doesn't answer are automatically routed to another station line (or to the attendant) selected by dialing during activation. The selected station line must also be in the Dimension PBX. The forwarding of a don't answer is delayed to allow time for answer by the station user. All Dimension PBX stations can use this feature simultaneously. However, it temporarily cancels automatic callback-calling, outgoing trunk queuing, call waiting services, and call forwarding all calls for the line.

Call hold (7)

Call Pickup (7)

Call waiting services (7) Attendant
Originating
Terminating

*** Calling number display to station (7)** Equipment is provided at a called station to display the number of the calling station within the same PBX. Used, for example, in hotels/motels to display the number of the room calling a station such as room service. Capability for displaying up to four digits is provided.

*** CCSA access (7)** A service which provides access to the CCSA network for direct inward dialing to the Dimension PBX, direct outward dialing to the network, and other features similar to those provided on the exchange network. This feature provides full CCSA capabilities.

*** Class-of-service display to attendant (7)** Provides the attendant with digital information regarding the class of service associated with a station. The number is displayed on the alphanumeric display when the appropriate console key is depressed.

Code restriction (7) Three levels of authorization permit authorized station lines the ability to complete outgoing Central Office or Foreign Exchange calls to a specified area or office codes within an area. The calls allowed are a function of the particular trunk group dialed.

Controlled outward restriction (7) An attendant can control the restriction of direct dialed outgoing exchange network calls (local central office and toll calls in hotel/motel applications) from selected station lines or groups of lines. When activated, the restricted calls are routed to intercept tone.

Controlled station-to-station restriction (7) An attendant can prevent selected station lines or groups of lines from receiving station-to-station calls. When activated, the restricted calls are routed to intercept tone.

Controlled termination restriction (7) An attendant can prevent selected station lines or groups of lines from receiving any calls. This feature is a form of "do-not-disturb" service. When activated, restricted DID calls are routed to the attendant or to intercept tone, depending on the option selected. All other restricted calls are routed to intercept tone.

Controlled total restriction (7) An attendant can prevent selected station lines or groups of lines from originating and receiving any calls. This feature is used to temporarily disconnect station lines. When activated, restricted DID calls are routed to the attendant or to intercept tone, depending on the option selected. All other restricted calls are routed to intercept tone.

Custom intercom (7) This service allows station users to dial 2- (up to ten in a group) or 3-digit (up to 30 in a group) codes to reach frequently called stations. Priority ringing is provided to nonbusy called stations, and Originating Call Waiting treatment is provided when a busy station is called. The intercom numbers within a custom intercom group are changeable via a designated station line and via the MAAP.

Data privacy (7) This feature is activated by the station user by dialing an access code to deny other stations or attendants the ability to employ overriding or alerting features to busy stations. Disturbance to any transmission in progress is prevented. This feature is in effect only for the duration of the call and is applicable to outgoing calls only. Overriding or alerting features include Call Waiting, Executive Override, Busy Verification of Station Lines, Trunk Verification by Customer and Timed Recall on Outgoing Calls.

Data restriction (7) A station feature which automatically denies other stations or attendants the ability to employ overriding or alerting features to busy stations. Disturbance to any transmission in progress is prevented. This feature is in effect for all calls once it is assigned within the class-of-service. Overriding or alerting features include Call Waiting, Executive Override, Busy Verification of Station Lines, Trunk Verification by Customer and Timed Recall on Outgoing Calls.

Dial access to attendant—Allows a station user within the switching system or via dial-repeating tie trunks (with the tandem operation feature) to reach the attendant by dialing a code, usually but not necessarily a single digit 0. The attendant may complete these calls to trunk facilities or station lines.

*** Dimension Custom Telephone Service (7)**

*** Direct inward dialing (DID) (7)**

Direct trunk group selection (7)

Distinctive ringing—Unique patterns of station ringing (using existing station sets) are provided to permit the station user to distinguish between various types of calls. Three patterns are available as follows:

- Indicates station-to-station calls (1 ring)
- Indicates DID, CCSA, Tie Trunk Calls and Attendant Call to Station (2 rings)
- Indicates either Automatic Call Back-Calling, call waiting, or outgoing trunk queuing callback (3 rings).

*** Duplicate Common Control (7)**

Executive override (7)

Flexible numbering of stations Basic—Station numbers can be assigned to lines at the time of installation in accordance with a customer-designed numbering plan. Station number assignments can begin with any digit except 0 and can vary in length from one to four digits within the same PBX. Once selected, station number length becomes permanent.

*** Foreign exchange (FX) access**

Fully restricted station

*** Incoming call identification**—Provides visual signals to identify the type of service or trunk group associated with a call automatically distributed to an attendant position. Up to six incoming call indicators can be provided on the console.

Intercept treatment—Routes calls which "cannot be completed" to an appropriate audible signal, recorded announcement, or to the attendant depending on the noncompletion condition.

Interposition Calling (7) An attendant at one position of a multiposition attendant team can call an attendant of another position of the same team for the purpose of consultation.

Interposition Transfer (7) An attendant at one attendant position of a multiposition attendant team can transfer a call to another attendant position of the same team for special handling. This is used where certain positions are equipped, or at least assigned, to handle certain types of calls (e.g., conferences, WATS access, or, internal directory assistance).

Inward restriction (7)

Line lockout with warning—Provides ten seconds of warning tone and then holds the line out-of-service when a station line remains off-hook for longer than a predetermined period of time without dialing during call origination. The hold out-of-service condition makes the station appear busy but does not tie up switching facilities or call processing time. The lockout condition is released when the station goes on-hook.

Listed directory number (LDN) service

*** Loudspeaker paging**—gives the attendant direct access and station use dial access to paging equipment. All voice paging facilities make use of the telephone transmitter as the microphone. Optional arrangements are available to provide multi-zone (18 zones) paging. Up to six paging keys can be provided on the attendant console. Two forms of paging are available to provide the following additional benefits.

Basic (7) Dial access to all zone paging is possible when multizone paging is provided. Direct access (console key) to all zone paging is optional.

DeLuxe (7) Page answer back capability is provided to allow the paged party to be connected to the calling party by dialing an answer back

code from any station within the PBX. Priority paging is provided to permit attendants and/or designated stations to dial access a paging zone or answer-back channel and pre-empt any station user connected to that zone or channel. Stations assigned with Threeway Conference Transfer may also access paging while on any two-party call. The second party can be added on or transferred to the page answer back party but not to the paging facility.

Manual terminating line service (7)

Miscellaneous trunk restriction (7) Denies pre-selected station lines and incoming tie trunks the ability to dial calls to preselected miscellaneous trunk groups including FX, WATS, CCSA, tie and auxiliary trunks.

Multiple listed directory number service – More than one central office listed directory number (LDN) can be associated with a single installation. Each LDN can be assigned a unique incoming call indication.

Non-DID service (7)

DID service (7)

*** Music on hold interface (7)** This feature provides the interface for music or other audible indication to the held party during the hold interval. The held call condition can be the result of Attendant Position hold, Call Hold, Threeway Conference Transfer hold, or the hold associated with other similar features.

*** Night console position**—and alternate attendant position which can be used at night in lieu of the regular attendant position to answer all calls directed to the attendant. This position provides all the regular attendant functions.

Night station service—

Basic—Routes calls, normally directed to the attendant, to preselected station lines when one of the attendant positions has been placed in the night service mode. In addition, incoming calls to the Dimension PBX from specific non-DID exchange network trunks can be arranged to route to specific station lines. The routings are provided on a fixed basis at the time of order or via the maintenance and administration panel.

Full (7) Routes calls, normally directed to the attendant, to preselected station lines, when the regular attendant positions are set to night service. In addition, incoming calls to specific non-DID exchange network trunks can be arranged to route to specific station lines. The routings can be assigned on a flexible basis by the attendant and remains in effect night to night until changed. The trunk answer from any station answering capability is provided for night calls not assigned to, or that cannot be answered by night stations. When in night service, night stations have full 3-way conference transfer capability and call waiting services (if equipped) for night calls.

Off-premise stations—Provides service between a Dimension PBX and a PBX station when the PBX station is located at some distance from the PBX.

Origination restriction (7) A station line with this restriction cannot be used to originate calls at any time. Terminating calls, however, complete normally to this station line.

Outgoing trunk queuing (7) A station user encountering a busy condition is provided with a confirmation tone and is automatically placed into a queue by going back on-hook within 5 seconds. When a trunk becomes available, the system reserves that trunk and rings the calling station line for a limited time. When the calling station line answers, the system connects it to the trunk. A maximum of twelve trunk groups (access codes) can be associated with this feature. Use of automatic call-back—calling, call waiting services, call forwarding—all calls, or call forwarding—busy and don't answer cancels the outgoing trunk queuing request.

Outward restriction—Preselected station lines are denied the ability to access the exchange network without the assistance of the attendant.

*** Power failure transfer**—Provides service to and/or from the exchange network (non-FX and WATS) for a limited number of prearranged stations during a power failure where reserve power is not provided, or where battery reserve is provided when the reserve is depleted. Incoming service from direct inward dialing trunks is not provided during power failure transfer.

Privacy and lockout (7) Privacy automatically splits the connection whenever an attendant would otherwise be bridged on a call with more than one facility (e.g. with a calling and a called party). Lockout denies an attendant the ability to reenter an established connection held on the console position, unless recalled by a station.

Recall dial tone—Provides the station user with an audible indication of whether he has successfully used the switchhook flash to request a service feature from an established 2-way call or has caused a reorigination to occur. The result of a successful use of the switchhook flash is dial tone with three interruptions followed by steady dial tone. Dialing is not registered during the interrupted portion of recall dial tone.

*** Recorded announcement intercept (7)** Intercepted calls are routed to a recorded message which indicates the reason why the call was intercepted. This intercept treatment is provided as an alternative to Attendant Intercept or Intercept Tone for DID and CCSA calls only, as a system option. Only one message can be given.

Recorded telephone dictation access (7)

Remote access to PBX service (7) Permits an outside party to dial access WATS lines and other PBX special services such as FX trunks, CCSA access, or the tie trunk network via local Central Office trunks. The calling party dials into the system on a local CO trunk and dials a special 4-digit code to unlock the special service PBX

access. Once the access has been unlocked, the calling party hears PBX dial tone and places his call as though he were connected to a PBX line terminal. All signaling is done on a TOUCH-TONE® dialing basis and the special 4-digit code is readily changed by the attendant.

Remote maintenance, administration, and traffic system (RMATS) (7) This feature provides remote access to the memory of Dimension PBX systems which have been arranged for RMATS capability. This capability allows certain maintenance, administration, and traffic polling routines to be performed from the central facility. Each Dimension PBX associated with RMATS must be provided with a data set and a dedicated CO line. All maintenance, administration and traffic polling activities are performed over this loop. Each RMATS central facility can accommodate a maximum of two SMAAPs, for use with Dimension 100 and 400 PBX's, as well as for RMATS maintenance routines, and two LMAAPs for use with Dimension 2000. These MAAPs can be associated with a maximum of two data sets and dedicated CO lines. In addition, a third data set is required for the sole use of the automatic calling unit used for traffic polling.

*** Reserve Power (7)**

Rotary dial calling

Route advance

Serial call (7) Allows the attendant to maintain supervision of an incoming trunk on the console after it has been connected to an internal station. When the station goes on-hook, a visual indication is given to the attendant so that the trunk can be picked up for assistance.

Speed calling (7) Station users can dial 2-or 3-digit codes to reach frequently called PBX stations or outside telephone numbers except IDDD and tie trunk calls. Each speed calling list can be changed by one designated station (controller) and via the MAAP.

Splitting 1-way automanual – Attendant can consult privately with one party on a call while placing the other party on hold. The calling party is split from the call automatically (with the called party connected to the attendant) when the attendant starts to complete a call, but the attendant can take positive action to unsplit. The calling party is the only one split from the connection.

Station hunting – Terminal
Circular

*** Station message detail recording (SMDR) (7)**

This feature provides a record of the PBX station identity, time of day, duration, called number and the trunk group used for outgoing and/or certain types of incoming calls. The call duration is measured from about ten seconds after the establishment of the connection in the customer system to the time when the station goes on-hook. Also, a station dialed maximum 5-digit account code number may be recorded in addition to the calling station number.

Station-to-station calling

Straightforward outward completion

Switched loop operation

Tandem tie trunk switching (7) A service arrangement which allows trunk-to-trunk connections (e.g., Tie-CO, Tie-Tie) to be established through the Dimension PBX. If action (e.g., station on-hook from 3-way connection with two trunks) results in two trunks connected, neither of which has distant party supervision, the call is either routed to the console for manual disconnect or released.

Termination restriction (7) Station lines with this restriction cannot receive calls at any time. Calls can be originated normally from this station.

Three-way conference transfer (7) A station user can, by flashing the switchhook while on any 2-party call, effect a 3-way conference and transfer. After the switchhook is flashed, the station dials the third party (may be a trunk) for private consultation while the second party is held in a waiting state. By flashing a second time, a 3-way conference is effected. Subsequently, a transfer is accomplished when the original party goes on-hook. The controlling station can drop the third party by flashing during the 3-way conference.

Through dialing

*** Tie trunk access (7)** Provides dedicated one-way or 2-way circuits between the Dimension PBX and another PBX without any intermediate switching.

Timed recall on outgoing calls (7) With this feature, outgoing trunk calls from selected stations are automatically transferred to the attendant after a timed interval assigned for the trunk group is exceeded. A warning tone is sent to the calling party 30 seconds before the transfer has taken place. Once the call has been transferred, the attendant may then terminate the conversation or allow it to continue.

Timed reminders

Toll restriction—A limited form of code restriction which permits station users to access the local Central Office and to dial local service area calls, but prevents completion of toll calls or calls to the toll operator without the assistance of the attendant. This feature is provided on a per-station-line basis and restricted toll calls are given intercept tone. Two mutually exclusive forms of this feature are available:

Battery reversal—With this restriction, a battery reversal signal from the central office on an outgoing call causes the Dimension PBX to route the calling party to intercept tone.

O/1 (7) Another form of toll restriction based on digit screening rather than on central office signaling. Up to 10 area, office and service codes may be allowed for O/1 toll restricted lines. These codes are checked when any of the following conditions exist:

- The line dials the CO trunk group access code (usually 9) followed by the area code.

- The line dials the CO trunk group access code followed by a toll access code (usually 1).

In addition, the following calls from 0/1 restricted lines are routed to intercept tone by the Dimension PBX:

- The line dials the CO trunk group access code followed by 0.
- The line dials the CO trunk group access code followed by the toll access code followed by 0.

* TOUCH-TONE calling

TOUCH-TONE to dial pulse conversion—The Dimension PBX converts TOUCH-TONE dial signals to dial pulse signals when the distant end associated with outgoing trunk calls is not equipped to receive TOUCH-TONE signals or when transmission loss prevents reliable TOUCH-TONE signaling. External dial pulse conversion equipment is not required for this feature.

Trunk answer from any station (7) Incoming calls, normally directed to the attendant, activate a common alerting signal on customer premises when the attendant positions are in night service and night stations are not assigned or are all busy. These calls can then be answered by any station user in the system who dials a special code from any non-restricted station.

*** Trunk group busy indicators on attendant position (7)** Provides the Dimension PBX attendant with a visual indication when all trunks in a group are busy. Up to 24 busy indicators can be provided.

*** Trunk group warning indicators on attendant position (7)** Provides the Dimension PBX attendant with a visual indication when a preset number of trunks in a group are busy. This number can be specified via the maintenance and administration panel. Up to 12 warning indicators can be provided.

Trunk-to-trunk connections (7) Allows an incoming or outgoing trunk call to be extended to another outgoing trunk. Trunk to trunk connections can be established among the following types of trunks: CO, FX, WATS, CCSA Network, and Tie Trunks.

Trunk verification by customer (7) Provides the attendant access to individual trunks of a group to verify supervision and transmission. Where a busy trunk is encountered, a 2-second warning tone is provided to verify use.

Two party hold on console (7) Allows the attendant to hold a call at the console while the calling and called station are connected.

*** Wide area telephone service (WATS) access**—A service which provides one-way access to or from a WATS serving office. All incoming calls to the PBX are placed to the assigned INWATS number and are answered by the PBX attendant similar to LDN service. OUTWATS calls to the various geographic areas are made on a Direct Dial basis by station and/or on an attendant-handled basis via direct or dial access.

*** Wide frequency tolerant power plant**—Provides PBX power plant facilities that will operate from AC energy sources which are not as closely regulated as commercial AC power. The wide tolerant plant will tolerate average frequency deviations of up to ± 3 Hz or voltage variations of -15% to $+10\%$ as long as both of the conditions do not occur simultaneously. This feature permits operation with customer provided power generating equipment.

System Characteristics (Maximum)

Station Capacity	- 2000 lines
Network	- Time Division Switching (128 time slots per module)
Control	- Stored Program Control
Attendant Positions	- 14
Cabinets	- 27
Modules	- 5 (5 Cabinet Max Per Module)
Physical Trunks	- 353
Link Circuits	- 880
Line Carriers	- 40
Trunk Carriers	- 25
Link Carriers	- 10
DCTS Controllers	- 13
DCTS Dial Intercoms	- 100
DCTS Auto/Man Intercoms	- 100
DCTS Stations	- 1,000
Attendant Conference	
Circuits	- 6
Custom Intercom Numbers	- 1,280
Speed Calling Numbers	- 2,000
Access Codes	- 175
Outgoing Trunk Queuing	
Groups	- 12
Link Groups	- 10
Call Pick-Up Groups	- 256
Classes of Service	- 63
Remote Access Trunks	- 12
Traffic	- 11,700 CCS/BH @ P.01 ($\frac{1}{3}$ Outgoing Traffic)
Memory	- 200K

Dimension Custom—A system designed to provide service to those customers with communication requirements exceeding those provided by the Dimension 2000. The Dimension Custom can grow from an existing Dimension 2000 and can be customized to meet the requirements of these customers on a traffic and feature basis.

Physical Characteristics Cabinets:

Dimensions—69.5" high
31.5" wide
24" deep

Weight (loaded) approx. 800 lbs.

Power Requirements:

2 117 VOLT 60 Hz AC 35 AMP fusetrone protected feeders per module — (6 cabinet maximum)

1 117 VOLT 60Hz AC 20 AMP feeder for utility outlets - one per system

Power Dissipation:

Fully loaded network cabinet (off-hook condition) approx. 700 watts

NOTE: In the event of a commercial power failure, nickel-cadmium batteries will provide sufficient memory voltages for at least 90 seconds, thus avoiding memory reload.

Console:

Dimensions—with DSS—9" high x 15.8" wide x 12.5" deep
without DSS—5.8" high x 15.8" wide x 9"

Weight—with DSS—15 lbs.
without DSS—10 lbs.

Colors—flat black faceplate with coordinated decorator front and rear panels—available in avocado, teakwood, American walnut, gold, orange, blue, and red.

Operating range—The maximum distance between the cabinet and its console depends on the number of wires in the interconnection cable. The maximum range using a 25 pair cable is 1000 feet.

Console codes—

CONSOLE CODES (NOTE 3)	SEE NOTES	FEATURES PROVIDED		
		DSS/BLF*	GROUP SELECT KEYS	ICI
AAA-01AF-03-XXX	1	Not Provided	0	Lamps
AAD-01AF-03-XXX	1	Not Provided	0	Alphanumeric Display
AGA-01AF-03-XXX	1	Provided	0	Lamps
AGD-01AF-03-XXX	1	Provided	0	Alphanumeric Display
AGB-01AF-03-XXX	1	Provided	6	Lamps
AGE-01AF-03-XXX	1	Provided	6	Alphanumeric Display
ADA-01AF-03-XXX	1	BLF Only	0	Lamps
ADD-01AF-03-XXX	1	BLF Only	0	Alphanumeric Display
ADB-01AF-03-XXX	1	BLF Only	6	Lamps
ADE-01AF-03-XXX	1	BLF Only	6	Alphanumeric Display
AAG-01AF-03-XXX	2	Not Provided	0	Alphanumeric Display
AGH-01AF-03-XXX	2	Provided	6	Alphanumeric Display
AGJ-01AF-03-XXX	2	Provided	18	Alphanumeric Display
ADH-01AF-03-XXX	2	BLF Only	6	Alphanumeric Display
ADJ-01AF-03-XXX	2	BLF Only	18	Alphanumeric Display

Notes: 1. Console equipped with 12 trunk group access keys and 15 control keys.

2. Console equipped with 24 trunk group access keys and 21 control keys.

3. Last 3 digits of console code indicates panel finish as follows:

100—Avocado	111—Gold	115—Blue
108—Teakwood	112—Orange	
109—Walnut	114—Red	

*DSS/BLF—Direct Station Selection/Busy Lamp Field

Tones—

The four basic oscillator frequencies used to generate tones are: 350Hz, 440Hz, 480Hz, and 620Hz.

These tones are combined to provide the following:

- Dial Tone
- Busy Tone
- Reorder Tone
- Intercept Tone
- Recall Dial Tone
- Audible Ringback Tone
- Special Audible Ringback Tone
- Miscellaneous Tone

Tie Trunks—

Dial Repeating or automatic tie trunk.

Trunk Groups—

- Central Office
- WATS
- Foreign Exchange (FX)

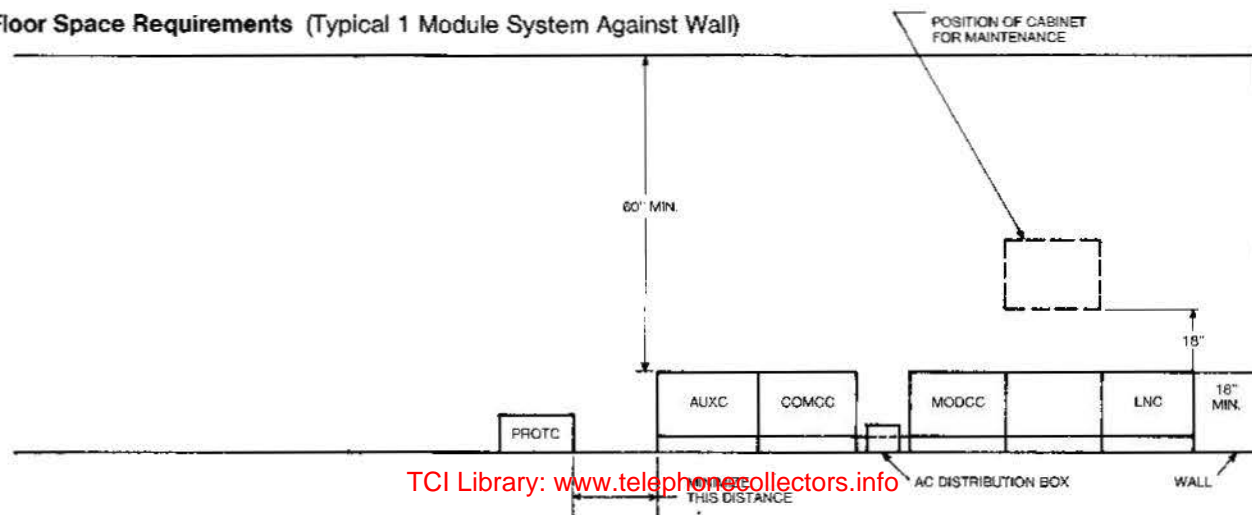
Installation and Maintenance

- Indicating fuses
- Busy/idle indicators on trunk and line circuits
- Test points on circuit pack faceplates
- Logic test probe
- Distributed circuit status indicators
- Alarm Panel
- Maintenance and administration Panel (MAAP)

Reference Information

BSP Sections	554-101-100	General Description
	554-101-101	Pre Installation
	554-101-105	Call Processing
	554-101-106	Scan/Distribution & network control
	554-101-107	PAM Network & Port circuits
	554-101-108	Processor
	554-101-109	Console & telephone sets
	554-101-110	Maintenance
	554-101-112	AUX circuits
	554-102-100	General software description
	554-851-001	Task Oriented Practices (TOP)

Floor Space Requirements (Typical 1 Module System Against Wall)



Prepared for the use of the Bell System



Western Electric

PRODUCT INFORMATION ORGANIZATION
TCI Library: www.telephonecollectors.info
0451B/10D