297-2041-902

DMS-100 Family

M5216 Meridian ACD Set

Description, Installation, Operation, and Maintenance Manual

Release 02.01 Standard February 1999

NORTEL NETWORKS™

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Chapter 1
Introduction

General description

The M5216 ACD telephone set with alphanumeric display and a headset port has been designed specifically for use with ACD applications. The M5216 is equipped with:

- 14 buttons with associated liquid crystal display (LCD) indicators that may be assigned to features or line appearances
- one button with associated LCD indicator for Handset Mute off/on
- one button with associated LCD indicator for programming local features
- Hold, Release, and volume control keys
- 2 X 24 alphanumeric display
- 12-key dialpad
- modular port for headset support

The alphanumeric display module is mounted at the rear top edge of the telephone and is hinged so that the viewing angle can be adjusted physically to reduce glare and maximize the contrast.

The M5216 is partially loop powered and requires the use of a 16 V AC external power supply.

The M5216 may be equipped with one or two M522 22-button add-on modules.

Physical characteristics

Figure 3-1 shows the main components of the M5216. The M5216 comes in three different colours:

- Chameleon-grey (Engineering code NT4X44AA)
- BTS light-grey (Engineering code NT4X44BA)
- Black (Engineering code NT4X44CA)

The Mean Time Between Failure (MTBF) for the M5216 is at least 100 years.

Other documentation

Other information pertaining to Meridian Business Sets can be found in the following documents:

297–2001–100	Integrated Business Network (IBN) —Description
297–1001–114	Operational Measurements (OM)
297–1001–250	Testing and Acceptance for Initial Installation
297–1001–310	Table Editors User Guide
297–1001–518	Operational Measurements—Man-Machine Interface
297–2011–180	DMS-100 Business Set—Line Engineering Rules
297–2041–010	Automatic Call Distribution Planning and Engineering Guide
297–2041–301	Automatic Call Distribution Administration Guide
297–2041–350	Automatic Call Distribution Translations Guide
297–2041–500	Automatic Call Distribution Tier II Maintenance Guide
297–2041–503	Automatic Call Distribution Trouble Locations and Clearing Guide
297–2041–901	End-User Load Management
P0749052	M5216 MBS User Guide (English/French)
P0800730	M5216 MBS User Guide (Spanish)

Chapter 2
Specifications

The M5216 ACD set meets or exceeds the functionality standards currently attained by other members of the M5000 terminal portfolio.

Environmental and safety considerations

The M5216 meets the Canadian and U.S. mandatory interconnect requirements for Telephone Equipment.

Temperature

In the *Operating State*, the M5216 temperature range is 0°C to 50°C (32°F to 122°F).

In the *Non-Operating State*, the M5216 temperature range is -20°C to 70°C (-6°F to 158°F).

Relative humidity

20% to 95% (non-condensing). At temperatures above 34°C (93°F), relative humidity is limited to 52mbar of water vapour pressure.

Electromagnetic interference

The radiated and conducted electromagnetic interference meets the requirements of Subpart J of Part 15 of the FCC rules for class B computing devices.

Atmospheric pollution

The M5216 is designed to withstand normal atmospheric conditions throughout its life and during shipment and storage as defined in the International Electromechanical Commission (IEC) document 50 (salt, mist, atmospheric dust, sulfur dioxide, and hydrogen sulfide exposure).

Vibration

The M5216 ACD Set was designed to work to specifications after being subjected to the following vibrations in each of three orthogonal directions for 90 minutes:

- Vibration frequency of 5 Hz to 500 Hz
- Maximum half displacement 0.35mm (0.014 in)
- Maximum acceleration 1.5m/s/s.

In addition, the design of the set accommodates normal handling during shipment when it is contained in its packaging.

Shock

When *packaged*, the M5216 is designed to withstand normal handling during shipment.

When *unpacked*, the M5216 is designed to withstand accidental dropping during normal use, without sustaining damage, as specified below:

- Telephone: when dropped on any face or corner from a height not exceeding 0.75m (30in)
- Handset: when dropped from a height not exceeding 1.5m (60in).

Line engineering

The M5216 ACD set is designed for direct connection through a non-loaded subscriber loop pair to a Northern Telecom DMS-100 or DMS-250 Digital Switching system. It operates to its full potential through twisted pair wiring on transmission lines selected according to rules detailed in *DMS-100 Business Set Line Engineering*, NTP 297-2011-180. The maximum loop length is 4,572m (15,000 ft) on 26 AWG standard twisted pair telephone wires.

The interface to the Central Office (CO) equipment is through a business set line card in the Line Concentrating Module (LCM) of the DMS–10/DMS–100/Meridian SL-100 Central Office (CO) equipment.

Loop power

The M5216 is partially loop powered by a balanced 440 Ohm battery feed from the switching equipment. The switch battery voltage supplied to the loop is nominally 52 VDC with a minimum of 42.75 VDC and a maximum of 56 VDC. Under normal conditions the polarity must be negative on the Ring lead with respect to the Tip lead.

The current drawn from the loop is 16 ± 1mA when the set is active. The current drawn from the loop is 10 ± 1mA when the set is inactive.

External power

The M5216 requires a 16 V AC external power supply rated at 375 mA to be fully operational. During a power failure, the Headset and real time clock functions are not available.

Chapter 3
Operations and features

Basic operations

The M5216 Meridian Business Set allows an ACD agent to answer ACD calls, place or answer non-ACD calls, and operate available ACD and non-ACD features. Supported features can be accessed using feature keys 2–14 (see Figure 3-2). Feature key 1 is reserved for the In Calls key and there are two feature keys with fixed assignments (Mute Handset and Program).

Before attempting to operate the M5216, please refer to the *M5216 Meridian Business Set User Guide*. (P0749052). This document is shipped with the set and contains instructions for making calls and how to use various features.

Description of features

The M5216 Business Set (see Figure 3-1) is characterized by the following:

- there are 15 fixed keys with no LCD indicators: Release key (1), Hold Key (1), volume key (1), dial pad keys (12)
- there are sixteen assignable key/LCD indicator pairs.
- loudspeaker for on-hook dialing and listening on hold

The operation of these keys and other components is summarized in Table 3-1.

Figure 3-1
M5216 keys and other components

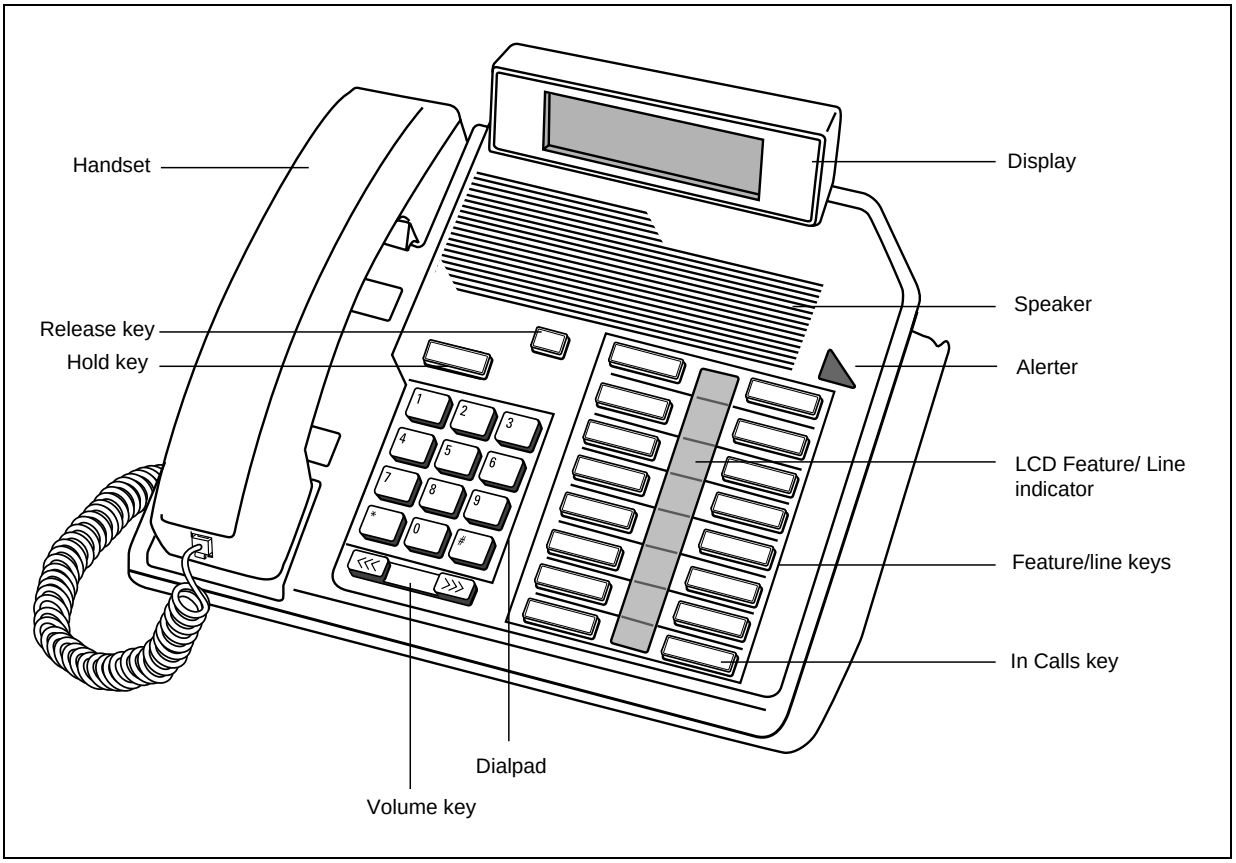


Table 3-1
Summary of M5216 keys and indicators

Key or indicator	Description
Speaker	Monitors the progress of a call without lifting the handset.
Handset	Used for talking on the phone—automatically selects the In Calls key when lifted.
Display	Shows call and installation information.
Alerter	Flashes to indicate incoming calls.
Dial pad	Used for entering numbers and the # or * keys.
Volume Key	Adjusts the volume of the ring and the speaker.
Rls	Releases a call without replacing the handset.
Hold	Puts a call on hold.
16 Feature/line keys	Acts as line key or as a feature key depending upon how the set is programmed. Of the 16 keys, to have fixed assignments (Handset Mute, Program) and Feature Key One is reserved for the In Calls key.
LCD Indicators	Indicates the status of the feature/line keys:
No half diamond (Off)	Feature or line is not active.
Steady half diamond (On)	Feature or line is active.
Slow flashing half diamond (60IPM)	Line is ringing or feature is being programmed.
Fast Flashing half diamond (120IPM)	Line is on hold .

Basic features

Every M5216 provides access to features specifically designed to assist ACD agents in performing their tasks, as well as basic business set features.

Automatic Prime DN (In Calls) selection

Allows the user to select the prime DN (i.e. the In Calls assigned to the first feature/line key) by going off-hook to answer a call without pressing a key.

On-hook dialing

Allows the user to select a line and dial the call without lifting the handset. Once the party answers, the handset must be lifted to speak.

Listen on hold

Activated by pressing the Hold key (associated LCD flashes), placing the handset back in its cradle, and re-selecting the line to be monitored (associated LCD on). This feature is not functional when the headset is connected.

Alerting tones

Warble tone sounds when the telephone is on-hook, 500 Hz local buzzer tone sounds when the telephone is off-hook.

Alphanumeric display

The M5216 has a 2 row by 24 character display screen which allows access to the features described below.

Called Number Display/Called Name Display

The display of the called number (or name of the party being called, when available) is always activated as dialing takes place.

Calling Number Display/Calling Name Display

The calling number (or name of the calling party, when available) for calls originating within the same switch is displayed when the first ringing tone sounds for an incoming call at the Prime DN. If the incoming call terminates at a secondary DN, the number is displayed only after lifting the receiver.

Query Time and Date

One of the feature keys must be assigned for accessing the QTD display. That key should be labelled Time/Date for easy identification.

Feature programming and usage

The display screen shows important information and prompts when using or programming M5216 features.

Features operation

The following functions are provided by fixed keys on the M5216 ACD set:

- dialing using dial pad keys
- call Hold
- call Release
- adjusting the Volume Control
- Handset operation and Mute
- answering calls with the In Calls key
- programming local features

Dial pad

Before a call is established, no tone-feedback is provided when the dialing keys are being pressed. After a call has been established, end-to-end signalling using CO generated DTMF tones is enabled.

Hold

The Hold function has two modes of operation—manual and automatic. With the user engaged in a call, the call can be put on hold either by pressing the Hold key or by pressing another DN key. In either case, the DN LCD changes from ON to *winking* and the user is free to answer or make another call.

Release

The Rls (Release) key performs a similar function as going on-hook (i.e. when pressed, it terminates a call). The DN LCD associated with the released call changes from ON to OFF, but the status of the Set remains off-hook to the switch. If the headset is in use, the M5216 is available to receive another call.

Volume control

The loudness of any sound which comes through the speaker (i.e. ringing, dial tone, busy tone and on-hook monitoring) is controlled by one key with two toggle positions. Tapping the key at the right hand side increases the volume while tapping it at the left-hand side decreases it. The volume changes in steps, each time the key is pressed.

The volume for alerting tones can only be adjusted while alerting is in progress and is automatically stored at the new level. The on-hook monitor volume level can be adjusted while monitoring.

The volume of the headset is controlled with the headset connected and the handset on-hook. The volume of the handset is controlled with the handset off-hook.

If the M5216 Business Set is disconnected from the line for an extended period and then reconnected, all volume settings return to the original factory default values (Mid-point setting for alerting tones and on-hook monitoring).

Handset operation and Mute

When the headset is connected, the hook switch is completely bypassed. If the headset is connected, taking the handset off-hook and then placing it back on-hook will not affect the status of a call. When a headset is not connected, this hook switch bypass is disabled, and the handset operates as it would on another business set.

The Handset Mute key is permanently assigned to toggle the handset mute on or off, and allows the user to listen to a call without the other party hearing any sound. It only functions when using the handset—it has no functionality when only the headset is being used. . The Handset Mute function has an associated LCD indicator which indicates the following states:

Table 3-2
Mute handset LCD indicators

On/Off Hook	Mute	LCD State
Handset on-hook	OFF	LCD Off
Handset off-hook	OFF	LCD Off
Handset off-hook	ON	LCD winking

During operations with a headset connected, the default state for handset operations is mute on. Pressing Handset Mute one time during a call places the handset into mute off mode. Once the handset is in the mute off mode, it will not return to a muted mode until Handset Mute is pressed again, the handset is placed on-hook, or the RLS (Release) key is pressed.

In Calls key

All ACD calls directed by the system to the M5216 are presented on the IN CALLS key. Always assigned to Feature key 1, this key cannot be used to make outgoing calls.

If the Handset is used, the In Calls key is selected whenever the M216 goes off-hook. If the headset is connected, the In Calls key must be pressed in order to answer the incoming ACD call (unless Call Forcing is in

operation—refer to *Automatic Call Distribution Product Guide*,NTP 297–2041–010 for details on Call Forcing).

Program key and local features

The M5216 has the following local features which can be set up to make it easier to use and to customize the set to meet specific user requirements. The Program key allows access to Programming mode to set up the following features:

- Alerter Volume
- Time and Date Set
- Time and Date Format
- Call Timer
- Display Language
- C.O. Features
- Predial
- Memory Number

Note that an incoming call interrupts the activation or programming of all local functions. Local features are also not available during an active call, with a call on hold, or when a C.O. feature is active (the Time/Date C.O. feature is active for 12 seconds).

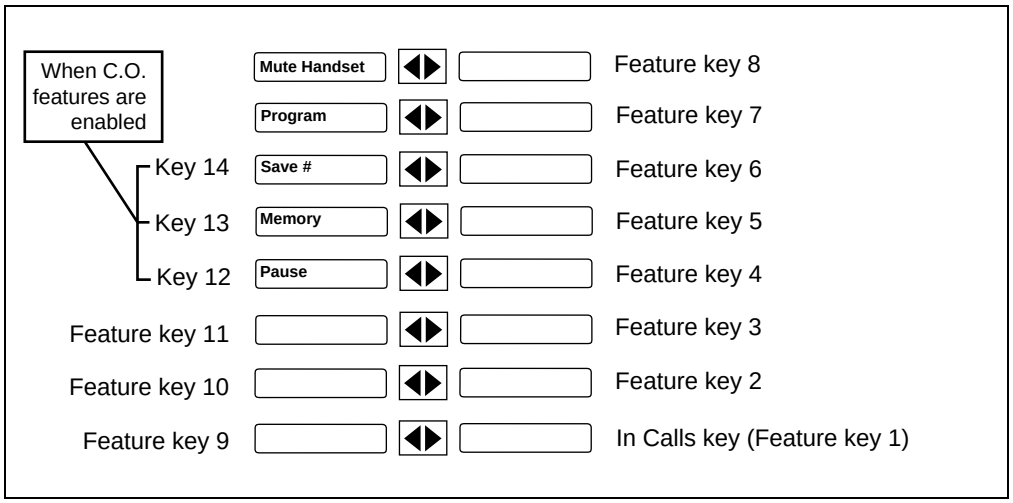
C.O. features

Using the C.O. features local function, the M5216 can be programmed to enable or disable the following three additional feature keys:

- Save Number
- Memory Number
- Pause

Note that the M5216 is initially set up to have the Save Number, Memory Number, and Pause keys available to you and they appear at the feature key locations shown below in Figure 3-2.

Figure 3-2
M5216 key assignments



When C.O. features are enabled, these key locations are dedicated to provisioned switch features instead of the Save Number, Memory Number, and Pause features.

Refer to the *M5216 User Guide* for more information about the operation of local features.

ACD and other business features

Both ACD and standard business features can be assigned to M5216 feature keys/LCD indicators (Feature key 1 is reserved for the In Calls key).

ACD features that can be assigned to these feature keys include:

- Observe Agent
- Emergency
- Call Supervisor
- Call Agent
- Queue Status Display
- Agent Status Summary Display
- Interflow
- Night Service

Standard business features can be used when the M5216 has been installed with a secondary DN key to make outgoing calls. These features include:

- Automatic Dial (AUD)
- Call Forward (CF)
- Call Park (PARK)
- Call Waiting (CWT)
- Directed Call Park (DCP)
- Directory Numbers (DN)
- Intercom (ICM)
- Ring Again (RAG)
- Speed Calling (SCS, SCL, or SCI)
- 3-way Calling/Call Transfer (TWC/CXR)

Headset operations

The M5216 set is compatible with several commercially available headsets that use an RJ-type modular connector (electret microphones). When a headset is connected, the hook switch is completely disabled—taking the handset off- or on-hook has no affect on the status of the call. The Handset can be used for speaking, however, and the Handset Mute function can be used for muting (see "Handset operation and Mute control" for further details).

A summary of headset operations is provided in Table 3-3.

Table 3-3
Summary of headset operations

Initial State	Action	Verification	Result
Idle or Active	Insert headset	Enable	Generates off-hook condition. (In Calls and Mute Handset LCD indicators turn ON).
Active headset	Press Rls	Disable	Call disconnects.
Active headset	Lift handset	Handset Mute	Routes speech to handset. Mute LCD indicator flashes. Handset microphone is muted for call monitoring only. Depressing the Handset Mute key turns off the LCD and the muting of the handset.
Active handset	Press Mute	Mute handset microphone	Disables handset microphone, but handset receiver remains on. Microphone can be restored by pressing Mute again. The Mute LCD flashes slowly during microphone muting; the LCD is OFF when the microphone is restored. The Mute feature only functions to mute the handset microphone—not the headset microphone.
Active headset	AC power failure	Headset disabled. Handset enabled	Lift handset to continue conversation until power is restored.

Tones

A speaker is used for alerting tones and call monitoring (on-hook dialing and listen on hold). A locally generated buzzer (500 Hz) tone is utilized for call waiting and off-hook alerting. All other telephony tones are provided by switching equipment from a Tone Card.

Switch generated tone characteristics

The various tones heard on the M5216 are defined in Table 3-4.

Table 3-4
Switch generated tones

Tone	Characteristic
Ringing	Interrupted warble tone, typically 2 seconds on, 4 seconds off.
Busy	Interrupted tone, 1 second on, 1 second off.
Call Waiting	Short burst of buzzer (500 Hz), 10 second intervals.
Confirmation	Three short bursts of tone, not repeated. This tone informs the user that the feature requested has been implemented. This tone is present only when the feature access code is dialed.
Dial	Continuous tone consisting of 2 frequencies.
Reorder	Interrupted tone, 1/2 second on, 1/2 second off. This tone informs the user of unavailable feature, all trunks busy, illegal code, etc.
Ring Again	Sort burst of buzzer tone (500 Hz) once only to inform the user that the previously busy station opt trunk line is now free.
Special Dial	Three short bursts of dial tone, followed by a continuous dial tone. This tone informs the user that the dialed features (e.g. call forwarding) has been activated and further digits can now be dialed.

Chapter 4
Installation

Installing the M5216

Before installing the M5216, check the package contents and cables, as described below. To install the M5216, follow Procedure 4-1. If the M5216 needs to be mounted on the wall, follow Procedure 4-2.

Unpacking or packing

Use proper care while unpacking any M5216 set. Check for damaged containers so that appropriate claims can be made to the transport company for items damaged in transit.

If a telephone must be returned to the factory, make sure it is packed in its original container to avoid damage during transit. Remember to include all loose parts in the shipment (e.g. cords, AC transformer, and handset).

Cables

CAUTION
Polarity sensitivity
Cable connections for the M5216 are polarity sensitive.
A polarity reversal will cause the set to fail.

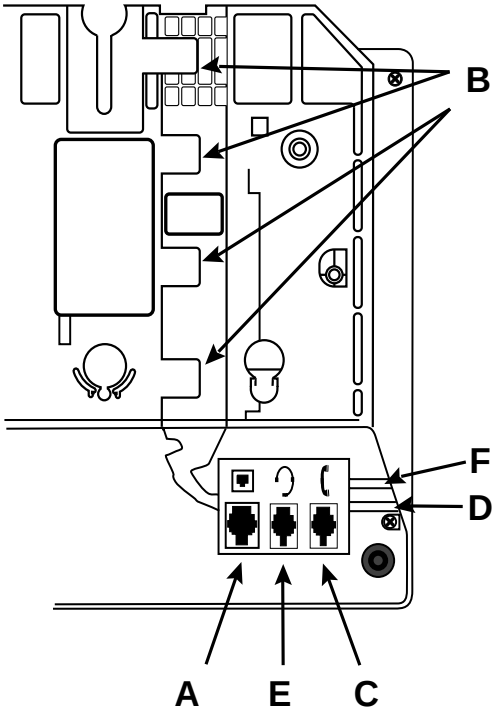
Installation requires you to plug in cords to the Teladapt jacks that are accessible in the base of the telephone. Cord restraining tabs are provided for security. Make the necessary connections to the Teladapt connecting block (Tip [+] green lead and Ring ([-] red lead), and plug the line cord into the Teladapt jack. Continue with the installation instructions provided on the following page.

The required jack is an RJ11 c/w.

Procedure 4-1
How to install the M5216

Step	Action
1	Place the telephone in the work area (close to line cord connecting block/wall jack) upside down on soft, solid, and level work surface to prevent damage to movable keys and the telephone face.
2	Connect one end of the coiled handset cord (4-conductor Teladapt connectors) into the handset jack (**C** in Figure 4-1). Insert the other end into the Handset Teladapt connector in the telephone base. The Teladapt connectors have a latch-tab which ensures correct alignment and prevents the cord from being pulled out inadvertently during service. Make sure that this latch is firmly snapped into place.
3	After connecting the handset cord to the connector in the base of the set, route the cord through the channel provided (**D** in Figure 4-1) and past the restraining tabs in the base of the telephone.

Figure 4-1
Detail of M5216 Jacks and Tabs

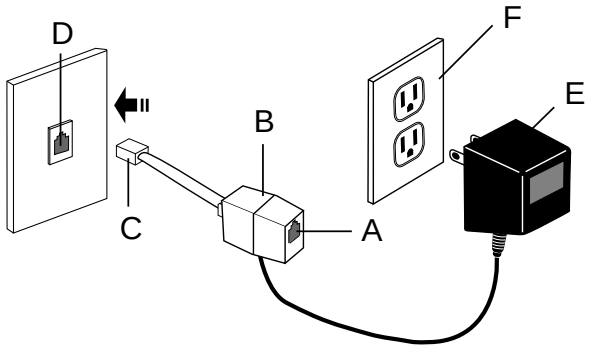


—continued—

Procedure 4-1
How to install the M5216 (continued)

Step	Action
4	If connecting a headset, insert the headset Teladapt connector into handset jack (**E** in Figure 4-1). Route the headset cord through the channel provided (**F**) and past the restraining tabs in the base of the telephone.
5	Insert one end of the line cord to the Line Cord Teladapt connector (**A** in Figure 4-1) in the base and push the line cord under the restraining tabs (**B**) in the line cord channel of the telephone base.
6	Turn the telephone right side up and place it into its final position.
7	Remove the number lens by inserting a paper clip end into the hole at the side and pop off the plastic lens. Print the directory number on the designation card and insert it into the lens recess. Snap the plastic lens back into place.
8	Designate button labels for key designations.
9	Fold the labels, insert them into the plastic button covers, and snap each button cover over the appropriate key. Press down on each key until the cover fits in place.
10	Insert the other end of the line cord into the open jack (**A**) on the plastic "pigtail" connector (**B**)—see Figure 4-2. Make sure it has been securely snapped into place. Insert the free end of the "pigtail" cord (**C**) into the wall jack (**D**). Note that you should never remove the pigtail cord

Figure 4-2
Wall jack/AC adaptor connection



—continued—

Procedure 4-1
How to install the M5216 (continued)

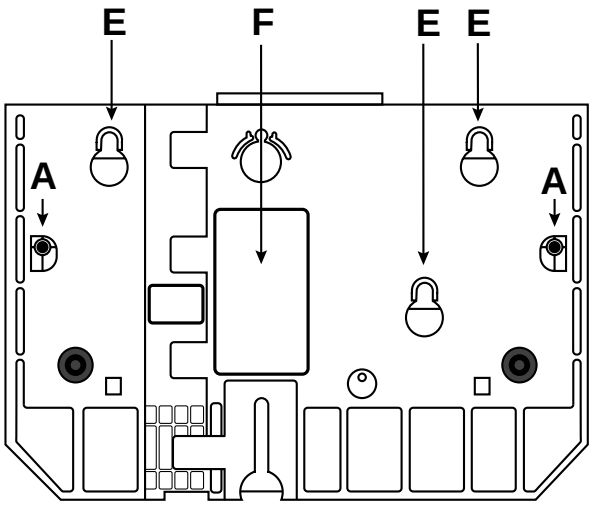
Step	Action
11	Plug in the AC adaptor (**E** in Figure 4-2**)** into a AC 120V wall socket (**F**). Wait a minimum of 20 seconds to allow for proper power-up before using the Meridian Business Set. This completes the installation. If the set must be prepared for mounting on a wall, follow Procedure 4-2 .

—end—

Wall mounting the M5216

Your telephone set has been prepared at the factory for use on your desk. If you require the set to be positioned on a wall, follow Procedure 4-2 below.

Procedure 4-2
How to mount the M5216 on the wall

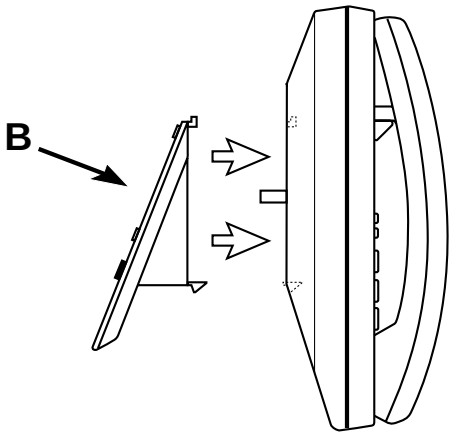
Step	Action
1	Turn the telephone set upside down and locate the two screws (**A** in Figure 4-3) in the wedge-shaped base. Remove the screws from the base and set them aside. ***Note:*** If the M5216 is attached to an M522 add-on unit, the base is longer than shown in Figure 4-3 and there is an additional screw to remove. **Figure 4-3** **M5216 wall mounting locations** 
2	Pull off the wedge-shaped base from the telephone set.
3	If the set is to be connected to a line cord connecting block mounted on the wall, push out the knock-out section in the base (F) as shown in Figure 4-3.

—continued—

Procedure 4-2
How to mount the M5216 on the wall (continued)

Step	Action
4	Reposition the wedge-shaped base (**B** in Figure 4-4). Press the base firmly into the bottom of the set until the plastic tabs have clicked into place.
5	Reinsert the two screws into the screw mounts shown in Figure 4-3. Tighten the screws until the wedge-shaped base is seated securely into the bottom of the set. Do not over tighten the screws as this may cause the plastic to crack.

Figure 4-4
M5216 base attachment



—continued—

Procedure 4-2
How to mount the M5216 on the wall (continued)

Step	Action
6	Position the handset retainer (**C** in Figure 4-5) into the handset cradle. The handset retainer is included in the small package of plastic key caps which accompanies your telephone set. Insert the two plastic tabs (**D**) on the retainer into the two holes provided. Press firmly until the retainer clicks into place.
7	Attach the telephone set to a standard wall bracket using the mounting holes (**E**) provided on the wedge-shaped base, as shown in Figure 4-3. Once mounted on the wall bracket, the telephone set should hang flush to the wall, as shown in Figure 4-6. Note that the knock-out section removed in step 3 allows enough space to accomodate the line cord connecting block, if present.

Figure 4-5
Handset retainer installation

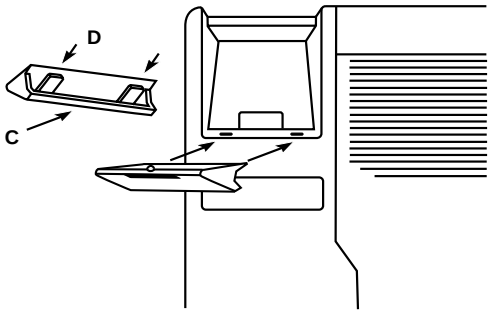
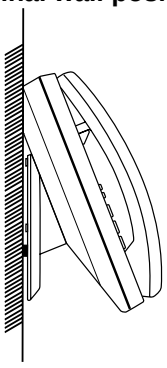


Figure 4-6
Final wall position



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Chapter 5
Verification procedures

Verification Test Routines

This chapter describes M5216 maintenance and the following acceptance tests:

- Loop check
- Polarity check
- Station Ringer test

If the criteria outlined in *Line Engineering Rules*, NTP 297–2011–180, are observed, impulse or background noise and crosstalk compatibility problems are unlikely to occur.

Before attempting to establish a communication path to another telephone and to verify the enabled features, perform the loop check and check the Tip/Ring polarity.

Maintenance

Maintenance of the Meridian Business Set is limited to replacement of the set and/or other field replaceable items as itemized in Chapter 6 “Replacement Parts”.

Loop check

Loop and linecard tests must be performed at the switching equipment (refer to NTP 297–2011–180). It is assumed that loops and linecards have been checked prior to the installation of any business sets.

Verify that the loop resistance is ≤ 1230 Ohm and that the loop loss is ≤ 24 dB at 8 kHz.

Polarity check

The M5216 is polarity sensitive. If problems arise when the set is to be put into service, follow procedure 5-1. This test must also be performed on the set whenever there is an AC power failure and the set reverts to POTS mode.

Procedure 5-1
How to verify the polarity

Step	Action
1	If the set does not respond (no dial tone) after 20 seconds, check polarity of the tip and ring leads (tip +, ring –).
2	If the tip and ring lead reversal does not solve the problem, restore tip and ring to original polarity and change the set.

Station Ringer Test

The Station Ringer Test (SRT) tests the hardware of the M5216 ACD Set and can be performed by the installer or repairman at the site with no involvement of Central Office personnel.

No incoming calls can be received for the duration of a Station Ringer test. In order to prevent prolonged line blockages, this test is limited to a 7 minute interval after which the line is automatically restored to normal and the test terminated.

When testing the dial pad, a corresponding digit is displayed (echoed) on the lower line of the display screen each time a key is pressed. If more than 23 digits are pressed, the displayed digits scroll onto the upper line of the display.

If the M5216 is equipped with a M522 add-on module(s), the LCDs on the add-on modules are not cleared until step 43.

Once the test has terminated, the system does not attempt to restore any LCD to its pre-test state. The LCDs are OFF at the end of the test, with features in the same state as before the test. A background audit restores all feature indicators at its next occurrence (audit intervals are switch and load related). Any newly activated features after termination of the test procedure are indicated normally.

Use Procedure 5-2 to conduct the test. The action to follow, the key to press, or the switch to operate is shown in the *Action or key/switch operated* column. The response must be as described in the *Response* column. LCD and key numbering are shown in Figure 5-1 (note that Key and LCD designations are for testing purposes and are not marked on the keys or LCD windows). The column *Message* indicates the messages generated to produce the correct response.

Before starting the SRT

1. Enable C.O. features using program mode.

Procedure 5-2
How to perform the Station Ringer test

Step	Action or key/switch operated	Response	Messages
1	Handset ON-hook. Press PDN key and dial STR (access code) using on-hook dialing.	All LCD's ON	LCD indicator ON
	Note: All LCD indicators should be off before you start the test. The 3–14 digit access code consists of a one to seven digit number (which is assigned by the telephone company according to local preferences) followed by the last two to seven digits of the PDN assigned to the telephone to be tested. In North America, the access code usually consists of the number 57, followed by the last five digits of the PDN. If the required digits are dialed incorrectly, a Reorder tone sounds which makes it necessary to press the Release key and start again. If all digits are correct, all LCD indicators on the set light up.		
2	Handset OFF-HOOK	All LCDs FLASH	LCD indicator FLASH
3	Handset ON-HOOK	All LCDs WINK	LCD indicator WINK
4	Handset OFF-HOOK	All LCDs ON	LCD indicator ON
5	Handset ON-HOOK	All LCDs OFF	LCD indicator OFF
6	Dial Pad key 1	LCD 1 ON	Soft Reset, LCD ON
7	Dial Pad key 2	LCD 2 ON	Soft Reset, LCD ON
8	Dial Pad key 3	LCD 3 ON	Soft Reset, LCD ON
9	Dial Pad key 4	LCD 4 ON	Soft Reset, LCD ON
10	Dial Pad key 5	LCD 5 ON	Soft Reset, LCD ON
11	Dial Pad key 6	LCD 6 ON	Soft Reset, LCD ON
12	Dial Pad key 7	LCD 7 ON	Soft Reset, LCD ON
13	Dial Pad key 8	LCD 8 ON	Soft Reset, LCD ON
14	Dial Pad key 9	LCD 1 & 8 ON	Soft Reset, LCD ON
15	Dial Pad key 0	LCD 2 & 8 ON	Soft Reset, LCD ON
16	Dial Pad key ï	All LCDs ON	Soft Reset, LCD ON
17	Dial Pad key £	All LCDs 1 OFF	Soft Reset, LCD ON
18	Feature key 1	LCD 1 ON	Soft Reset, LCD ON
19	Feature key 2	LCD 2 ON	Soft Reset, LCD ON
20	Feature key 3	LCD 3 ON	Soft Reset, LCD ON
21	Feature key 4	LCD 4 ON	Soft Reset, LCD ON

—continued—

Procedure 5-2
How to perform the Station Ringer Test (continued)

Step	Action or key/switch operated	Response	Messages
22	Feature key 5	LCD 5 ON	Soft Reset, LCD ON
23	Feature key 6	LCD 6 ON	Soft Reset, LCD ON
24	Feature key 7	LCD 7 ON	Soft Reset, LCD ON
25	Feature key 8	LCD 8 ON	Soft Reset, LCD ON
26	Feature key 9	LCD 9 ON	Soft Reset, LCD ON
27	Feature key 10	LCD 10 ON	Soft Reset, LCD ON
28	Feature key 11	LCD 11 ON	Soft Reset, LCD ON
29	Feature key 12	LCD 12 ON	Soft Reset, LCD ON
30	Feature key 13	LCD 13 ON	Soft Reset, LCD ON
31	Feature key 14	LCD 14 ON	Soft Reset, LCD ON
32	RELEASE key	LCD 2 & 8 ON	Soft Reset, LCD ON
33	HOLD key	Dial tone, LCDs 1 –5 ON	Soft Reset. Turn on TIP/Ring to Speaker. LCD ON
34	Vol UP	Volume up	None (Test Voice Volume control)
35	Vol DOWN	Volume down	None (Test Voice Volume control)
36	Handset OFF-HOOK	Dial tone switches to Handsfree speaker. All LCDs WINK with the exception of the Handsfree indicator which is ON.	Turn on TIP/Ring to Speaker. Turn off Handset. LCD WINK.
37	Handset ON-HOOK	Dial tone switches to Handsfree speaker. All LCDs WINK.	Turn on TIP/Ring to Speaker. Turn off Handset. LCD WINK.
38	HOLD key	1 second buzz (500 Hz). LCDs 6–14 ON.	Turn On/Off Alert B, LCD ON.
39	HOLD key	Ringing. All LCDs OFF.	None (Ring tone from CO).
40	Vol UP	Volume up	None (Test Ring Volume control.

—continued—

Procedure 5-2
How to perform the Station Ringer Test (continued)

Step	Action or key/switch operated	Response	Messages
41	Vol DOWN	Volume down	None (Test Ring Volume control.
42	HOLD key	LCDs 1–14 are ON. 10/10 is shown on the LCD display.	Soft reset

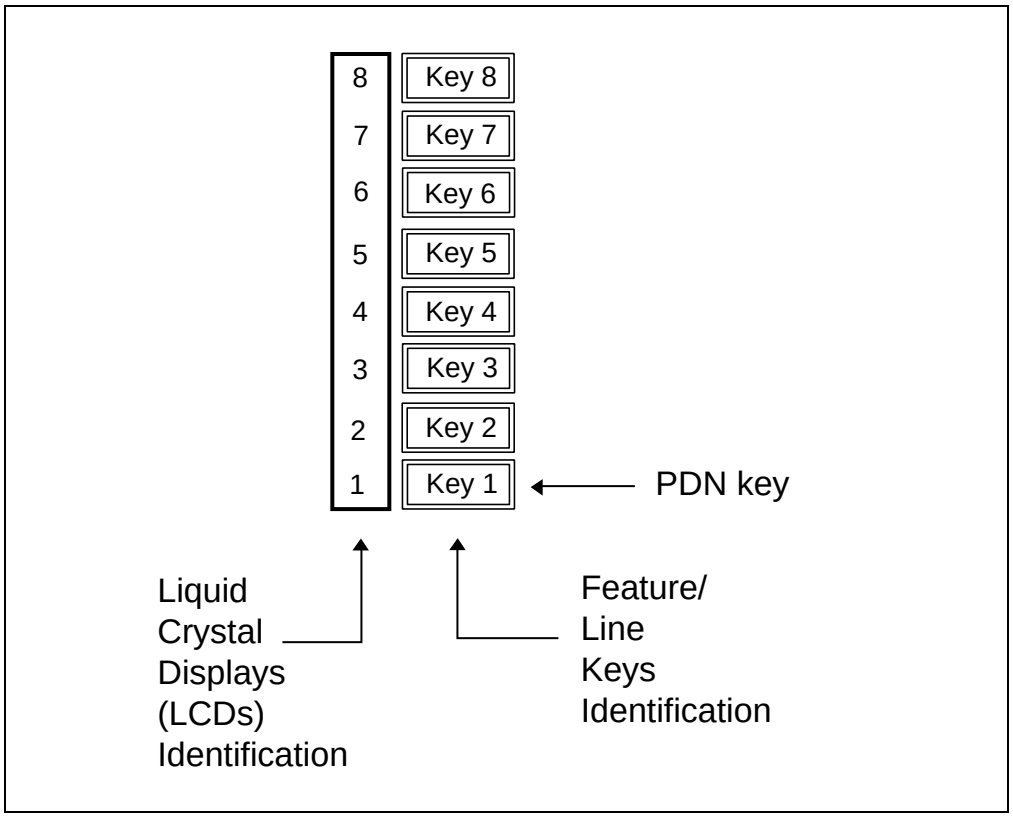
Note: When the Hold key is pressed, the LCD indicators for keys 2,3, and 4 flash for approximately 2–4 seconds. This indicates that a circuit test is running. No keys can be operated during this time as this may cause test failure. When the circuit test is completed, 10/10 is displayed in the display screen in most cases. The numbers depend upon the CO parameter table and may vary from 10 to 50; however, the number to the left of the slash should equal the number to the right. If the indications are as described above, the test has passed. A test failure is indicated when the following occurs:

- the two numbers are not equal
- only the LCD indicators for keys 1, 2, and 8 are ON
- LCD indicators for keys 1, 2, and 8 wink
  (press the Hold key again to repeat the SRT.

43	HOLD key	Display is cleared	Hard reset

—end—

Figure 5-1
Feature/Line Key and LCD assignments



Chapter 6
Replacement parts

The M5216 Business Set has few field replaceable parts. The handset, handset cord, line cord equipped with Teladapt connectors, key lenses and labels can be changed. If a Business Set fails to function properly, or if mechanical breakage occurs, do not attempt to effect repairs in the field. Return the unit to the manufacturer using the original packing materials.

Table 6-1
Ordering information

Description	Ordering code	Engineering code
Meridian M5216 Basic Business Set, Chameleon-grey, made in Australia	B0240411	NT4X44AA
Meridian M5216 Basic Business Set, BTS light-grey, made in Australia	B0240412	NT4X44BA
Meridian M5216 Basic Business Set, Black, made in Australia	B0240413	NT4X44CA
Meridian M5216 Basic Business Set, Chameleon-grey, made in Canada (Brocktel)	B0246080	NT4X44KA
Meridian M5216 Basic Business Set, BTS light-grey, made in Canada (Brocktel)	B0246081	NT4X44LB
Meridian M5216 Basic Business Set, Black, made in Canada (Brocktel)	B0246082	NT4X44MC
Meridian M5216 Basic Business Set, Chameleon-grey, made in Australia (AUSTRALASIA)	B0242916	NT4X44DA
Meridian M5216 Basic Business Set, BTS light-grey, made in Australia (AUSTRALASIA)	B0242917	NT4X44EA
Meridian M5216 Basic Business Set, Black made in Australia (AUSTRALASIA)	B0242918	NT4X44FA
—continued—		

Table 6-1
Ordering information (continued)

Description	Ordering code	Engineering code
Meridian M5216 Basic Business Set, Chameleon-grey, made in Australia (TELSTRA)	B0242930	NT4X44GA
Meridian M5216 Basic Business Set, BTS light grey, made in Australia (TELSTRA)	B0242930	NT4X44HA
Meridian M5216 Basic Business Set, Black, made in Australia (TELSTRA)	B0242930	NT4X44JA
Card, Key Button Labels (English/French)	P0749551	P0749551
Card, Key Button Labels (Spanish)	P0744292	P0744292
M5216 User Documentation package	B0240553	NT4X4460
M5216 Documentation package (AUSTRALASIA	B0242937	NT4X4470
M5216 Documentation package (TELSTRA)	B0242942	NT4X4480
Handset assembly (Chameleon grey) for NT4X44AA	A0358849	NT0C09EE-3S
Handset assembly (BTS light- grey) for NT4X44BA	A0358850	NT0C09EE-93
Handset assembly (Black) for NT4X44CA	A0388557	NT0C09EE-03
Handset cord, 2.5m (8 ft) long (Chameleon grey) for NT4X44AA	A0327131	NE-H4DUQC-35
Handset cord, 2.5m (8 ft) long (BTS light-grey) for NT4X44BA	A0327132	NE-H4DUQC-93
Handset cord, 2.5m (8 ft) long (Black) for NT4X44CA	A0327133	NE-H4DUQC-03
M5216 Base, Chameleon grey	P1013635	
M5216 Base, BTS light-grey	P1013693	
M5216 Base, Black	P1013603	
M5216 Key cap set	B0240556	NT4X4461
M5316/M5216 Cover, Chameleon grey	P1013735	
M5316/M5216 Cover, BTS light-grey	P1013793	
M5316/M5216 Cover, Black	P1013703	
AC Power Adaptor	B0230393	NPS50220-08L6
Line cord, silver-grey, 1.84 m (6 ft) long	A0346862	NPS50318-04L02
—end—		

DMS-100 Family

M5216 Meridian ACD Set

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