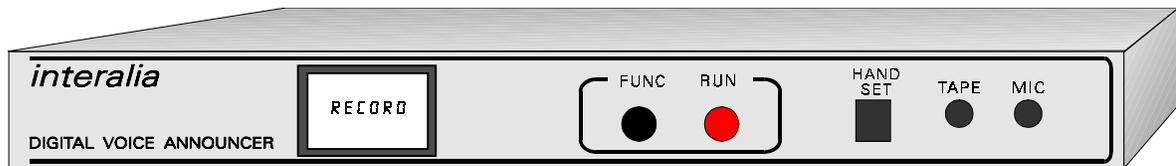# *interalia*®

DIGITAL VOICE ANNOUNCER

Models SMU, DMU and MMU2

OPERATING MANUAL

TABLE OF CONTENTS

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1.   INTRODUCTION

Interalia's Digital Voice Announcer is a microprocessor based audio recording and announcement system. A recorded message plays to a telephone line when the announcer is called. The audio recordings are stored in a solid state medium (ie. no moving parts).

The announcer will not answer a caller until a message has been recorded and turned on. Messages may be recorded using:

- a telephone handset

- a microphone

- a tape unit

- a remote access telephone line (optional)
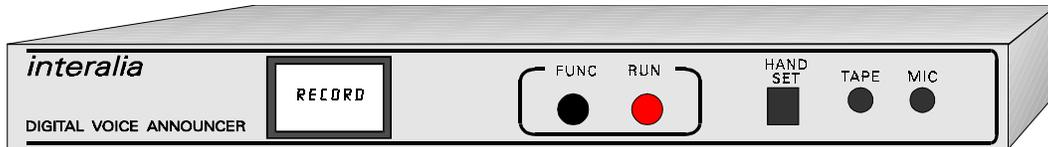
The SMU, DMU, MMU2-4 and MMU2-6 are one, two, four and six line announcers respectively. They can be ordered with the following options:

- recording time from 32 seconds to 17 minutes

- remote access

- AC or DC power supply

- battery backup

- low impedance audio output

To determine the options installed in a particular unit, locate the model number code on the rear of the unit and compare it to the model number description chart in Appendix C.

The amount of memory installed in an announcer determines the recording time. The total recording time is displayed on power up.

Messages can be recorded from a remote location over a standard telephone line on an announcer equipped with the remote access option. Remote operations are performed using a touch-tone telephone.

Announcer's equipped with battery backup operate for up to two hours, from a fully charged battery, if a power failure occurs.

2. INSTALLATION

Take the following precautions when working with telephone lines:
- *Never install telephone wiring during a lightning storm.*
- *Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.*
- *Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.*
- *Use caution when installing or modifying telephone lines.*
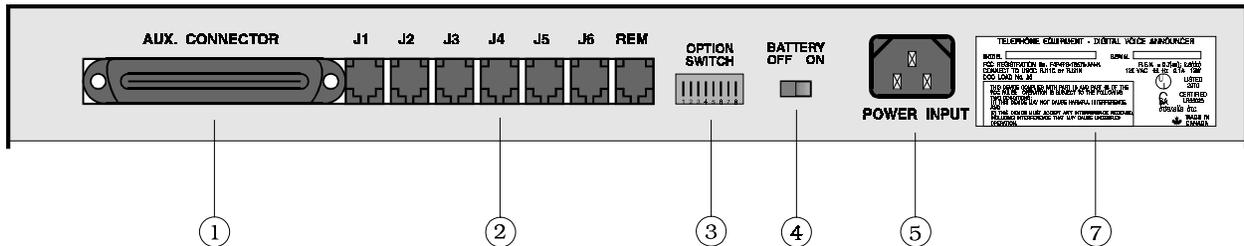
Figure 1 - AC Digital Announcer Rear Panel Detail
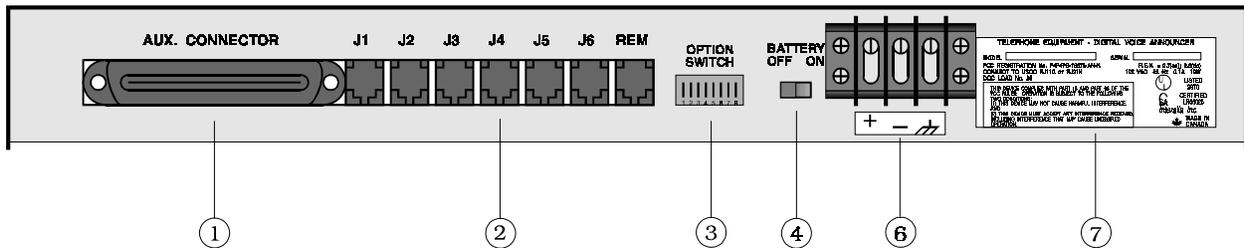
Figure 2 - DC Digital Announcer Rear Panel Detail

Rear Panel Description

① **50 POSITION CONNECTOR** - Connect to the Public Telephone Network, PABX or Key System for E&M or Continuous Play interface, or to access the Alarm contacts.

② **RJ11C MODULAR JACKS** - Connect to the Public Telephone Network, PABX or Key System for Ring (Loop or Ground) start interface.

③ **OPTION SWITCH** - Sets the message to line configuration, line operating mode and configures the system for a separate or combined announcement / remote line.

④ **BATTERY SWITCH** - Enables/disables battery backup. Turn the switch **ON** when the system is in operation to enable the battery backup.

⑤ **110/120VAC 60Hz (or 220/240VAC 50Hz) POWER INPUT** - Refer to the Model/Serial Number Label for the actual power ratings.

⑥ **48 VDC POWER INPUT**

⑦ **MODEL / SERIAL NUMBER LABEL**

Unpacking the Announcer

Verify that the following items accompany the announcer:
- Telephone Handset (Quantity 1)
- 19/23" Rack Mount Brackets (Quantity 2)
- 6-32 x 3/8" Screws (Quantity 4)
- Power Supply Cord (Quantity 1, for AC systems only)

Rack Mounting the Announcer

Attach the reversible 19/23" brackets to the announcer with the 6-32 x 3/8" screws provided.

Configuring Message to Line Assignment

The message to line assignment sets which message plays to which line(s). Messages assigned to more than one line only have to be recorded once.

The option switch positions for setting the message to line assignment are summarized as follows:

Option Switch			Message to Line Assignment					
1	2	3	1	2	3	4	5	6
On	On	On	Msg 1	Msg 1	Msg 1	Msg 1	Msg 1	Msg 1
Off	On	On	Msg 1	Msg 1	Msg 1	Msg 2	Msg 2	Msg 2
On	Off	On	Msg 1	Msg 1	Msg 2	Msg 2	Msg 2	Msg 2
Off	Off	On	Msg 1	Msg 2	Msg 2	Msg 2	Msg 2	Msg 2
On	On	Off	Msg 1	Msg 1	Msg 2	Msg 3	Msg 3	Msg 3
Off	On	Off	Msg 1	Msg 2	Msg 2	Msg 3	Msg 3	Msg 4
On	Off	Off	Msg 1	Msg 2	Msg 3	Msg 3	Msg 4	Msg 4
Off	Off	Off	Msg 1	Msg 2	Msg 3	Msg 4	Msg 5	Msg 6

Re-initialize announcer after changing option switch position.

Configuring Line Operating Mode(s)

The line operating modes are described on the following pages.

The option switch positions for setting the line operating mode are summarized as follows:

    C - Continuous Play
    S - Synchronized Continuous Play
    L1 - Level Start / Pulse Return - Single Play
    L2 - Level Start / Pulse Return - Multiple Play
    L3 - Level Start / Level Return - Single Play
    P1 - Pulse Start / Level Return
    P2 - Pulse Start / Pulse Return
    R - Ring Start
    RN - Ring Start without Loop Current Check
    R* - Ring Start with Linked Messages
    RT - Ring Start with Call Transfer

NOTE: Line 6 will not operate while the announcer is being accessed by a remote user. This may cause errors to appear on the telephone system is some ACD applications.

Option Switch				Line Operating Mode					
4	5	6	7	1	2	3	4	5	6
On	On	On	On	P1	P1	P1	P1	P1	P1
Off	On	On	On	C	R	R	R	R	R
On	Off	On	On	C	C	R	R	R	R
Off	Off	On	On	C	C	C	R	R	R
On	On	Off	On	C	C	C	C	C	C
Off	On	Off	On	R	R	R	R	R	R
On	Off	Off	On	RN	RN	RN	RN	RN	RN
Off	Off	Off	On	L1	L1	L1	L1	L1	L1
On	On	On	Off	S	S	S	S	S	S
Off	On	On	Off	L2	L2	L2	L2	L2	L2
On	Off	On	Off	R*	R*	R*	R*	R*	R*
Off	Off	On	Off	P2	P2	P2	P2	P2	P2
On	On	Off	Off	R	L1	L1	L1	L1	L1
Off	On	Off	Off	L3	L3	L3	L3	L3	L3
On	Off	Off	Off	- - Reserved for future use - -					
Off	Off	Off	Off	RT	RT	RT	RT	RT	RT

Re-initialize announcer after changing option switch position.

Continuous Play (C)

The message plays continuously to the line, independent of what is happening on other lines. The CP contacts toggle position for approximately 250 msec. at the start of the message.
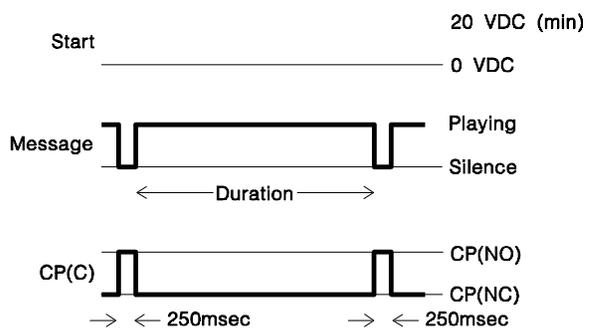
Synchronized Continuous Play (S)

The message plays continuously to the line. All lines begin playing the message(s) at the same time. The CP contacts toggle position for approximately 500 msec. at the start of the message(s).
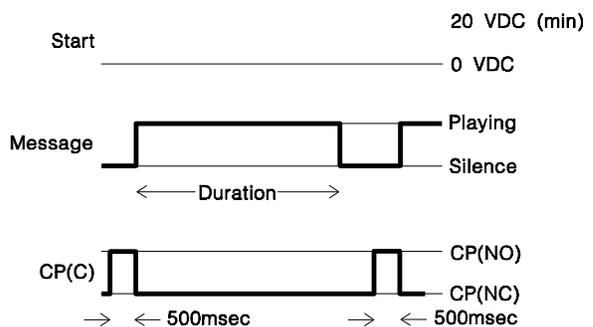
Level Start / Pulse Return - Single Play (L1)

The message plays in response to a start signal. The CP contacts toggle position for approximately 250 msec. at the start and end of the message. The message stops playing if the start signal is removed.

Level Start / Pulse Return - Multiple Play (L2)
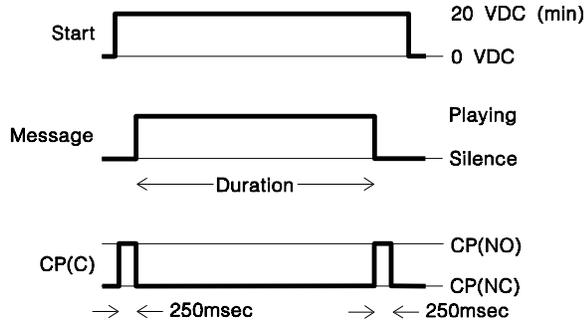
The message plays in response to a start signal. The CP contacts toggle position for approximately 250 msec. at the start and end of the message. The message stops playing if the start signal is removed. The message plays repeatedly until the start signal is removed.
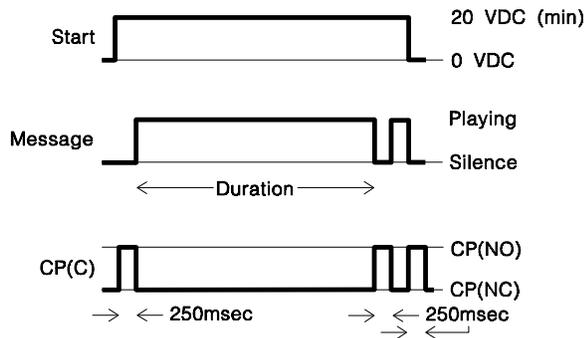
Level Start / Level Return - Single Play (L3)

The message plays in response to a start signal. The CP contacts toggle position while the message is playing. The message stops playing if the start signal is removed.
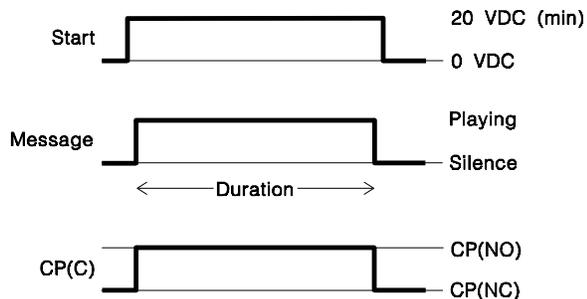
Pulse Start / Level Return (P1)

The message plays in response to a start signal. The CP contacts toggle position while the message is playing.
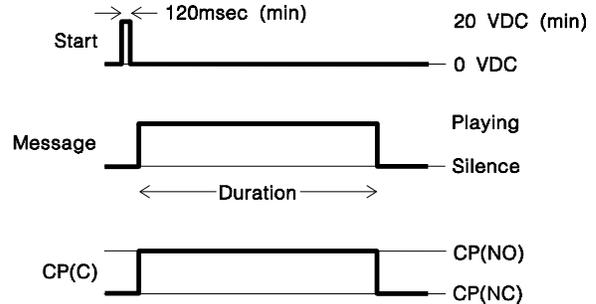
Pulse Start / Pulse Return (P2)

The message plays in response to a start signal. The CP contacts toggle position for approximately 250 msec. at the end of the message.
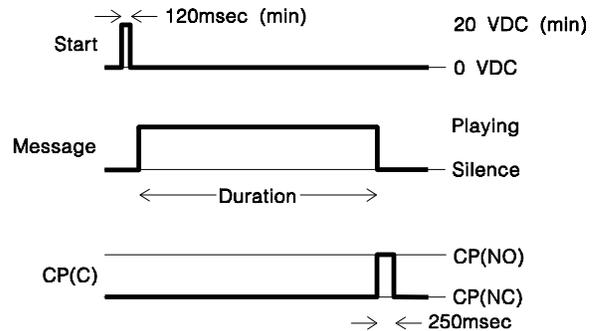
Ring Start (R)

The message plays in response to a Loop or Ground Start signal. The message will stop playing, before completion, if loop current is removed from the line.

Ring Start without Loop Current Check (RN)

The message plays in response to a Loop or Ground Start signal. The message will not stop playing if loop current is removed from the line.

Ring Start with Call Transfer (RT)

The message plays in response to a Loop or Ground Start signal.

At the end of the message, the announcer performs a 500 msec hook-flash, dials a touch-tone '0', then disconnects from the line.

If required, the dialing sequence can be customized to dial any PABX extension or outside telephone number using the 'TRANSFER' function.

Ring Start with Linked Messages (R*)

The message plays in response to a Loop or Ground Start signal. A sequence of messages, 'linked' together, play to the caller.

If a 'linked' message is not recorded, it is skipped and the next recorded message plays to the caller.

The option switch positions for setting the linked message sequences are summarized as follows:

| Option Switch | | | Linked Message Play Sequence |
1	2	3	
On	On	On	Messages 1, 2, 3, 4, 5 and 6 play to all lines.
Off	On	On	Messages 1, 3 and 5 play to lines 1, 2 and 3. Messages 2, 4 and 6 play to lines 4, 5 and 6.
On	Off	On	Messages 1, 3 and 5 play to lines 1 and 2. Messages 2, 4 and 6 play to lines 3, 4, 5 and 6.
Off	Off	On	Messages 1, 3 and 5 play to line 1. Messages 2, 4 and 6 play to lines 2, 3, 4, 5 and 6.
On	On	Off	Messages 1 and 4 play to lines 1 and 2. Messages 2 and 5 play to line 3. Messages 3 and 6 play to lines 4, 5 and 6.

* Re-initialize announcer after changing option switch position.

Configuring Remote Line

Separate Announcement / Remote Line

Line 6 is a dedicated announcement channel operating in the mode specified by the option switches. The Remote line, operating in the Ring start mode, is a dedicated remote access channel.

Combined Announcement / Remote Line

Line 6 is not available and the remote line, operating in the Ring start mode, provides both announcement and remote access features.

Option Switch 8	Announcement / Remote Line
On	Separate
Off	Combined

* Re-initialize announcer after changing option switch position.

Applying Power to the Announcer

On systems with an AC Power Supply, connect the detachable power cord between a 110/120 (or 220/240) VAC outlet and the announcer. On systems with a DC Power Supply, connect 48 VDC between the '+' and '-' screw terminals and connect GROUND to the GROUND screw terminal.

Turn the battery switch **ON** if the announcer is equipped with battery backup.

Verify that the Eight Character Display illuminates and indicates the system configuration as shown below. If the front panel display does not illuminate, ensure that the power is being supplied to the announcer. If power is supplied, remove the unit's cover and check the condition of fuse F9. If the fuse is intact and the display still does not illuminate contact the nearest Interalia office for technical assistance.

The display shows the software version, ie:

```
V5.00
```
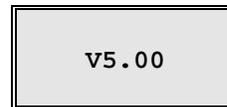
followed by the 'system' remote access code:

```
8615
```

if configured for a combined announcement/remote line:

```
COMB REM
```
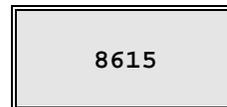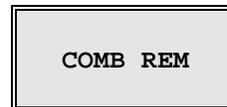
followed by the line operating mode, ie:

```
RRRRRR
```

This example shows lines 1 to 6 operating in the ring start mode. The line operating mode is indicated as follows:

C - Continuous Play (C)
L - Level Start (L1, L2 or L3)
M - Pulse Start / Pulse Return (P2)
P - Pulse Start / Level Return (P1)
R - Ring Start (R, R*, RN, RT)
S - Synchronized Continuous Play (S)
-- - Line not available

followed by the message to line configuration, ie:

```
123456
```
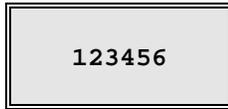
This example shows that message 1 is assigned to line 1, message 2 to line 2 ... and message 6 to line 6. '--' indicates the line is not installed

followed by the total recording time available, ie:

```
2:11
```
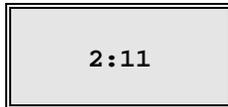
and finally the line status:

```
I I I I I I
```

Connecting Telephone Lines

NOTE: On SMU models only line 1 is available, on DMU models only lines 1 and 2 are available and on MMU2-4 models only lines 1 to 4 are available.

RJ11C Modular Jacks
Use the RJ11C modular jacks to connect lines operating in the Ring start mode.

Connect the telephone lines to the announcer through FCC/DOC approved RJ11C modular plugs. Insert the modular plugs into the modular jacks on the rear of the announcer. Connect line 1 to J1, line 2 to J2, ... and line 6 to J6.

NOTE: If desired, the 50 position connector can alternatively be used to connect lines operating in the Ring start mode.

50 Position Connector
Use the 50 position connector to connect the announcer to telephone lines or PABX trunks.

On the 50 position connector, each line (except Remote) has:
- a Tip/Ring pair,
- Start '+/-' inputs, and
- Common (C), Normally Closed (NC) and Normally Open (NO) Control Pulse (CP) contact outputs.

The Tip/Ring pair acts like a regular telephone extension on lines operating in the Ring start mode. On lines operating in other modes, the Tip/Ring pairs provides the message's audio output.

The Start '+/-' inputs initiate message play on lines operating in the Pulse or Level start mode. The message starts playing when a voltage, greater than 20 VDC, is detected between the Start '+/-' inputs.

The CP outputs indicate the message play status in all operating modes.

Use **Figure 3A** for lines operating in the following modes:
- Ring Start (R, R*, RN, RT)
- Pulse Start / Level Return (P1)
- Level Start / Level Return - Single Play (L3)

Use **Figure 3B** for lines operating in the following modes:
- Continuous Play (C)
- Synchronized Continuous Play (S)
- Pulse Start / Pulse Return (P2)
- Level Start / Pulse Return - Single Play (L1)
- Level Start / Pulse Return - Multiple Play (L2)

NOTE: Appendix A contains a set of tables describing how to connect the 50 position connector to telephone lines and to some common PABXs.

Announcement / Remote Line
If configured for Separate Announcement / Remote Lines, Line 6 is a dedicated announcement channel operating in the mode specified by the option switches. The Remote line, operating in the Ring start mode, is a dedicated remote access channel.

Combined Announcement / Remote Line
If configured for a Combined Announcement / Remote Line, Line 6 is not available and the remote line, operating in the Ring start mode, provides both announcement and remote access features.

NOTE: The Remote line operates **only** in the Ring start mode.

Figure 3A

Signal	Pin	Pin	Signal
TIP 1	26	1	RING 1
START 1 (--)	27	2	CP 1 (C)
START 1 (+)	28	3	CP 1 (NC)
--	29	4	CP 1 (NO)
TIP 2	30	5	RING 2
START 2 (--)	31	6	CP 2 (C)
START 2 (+)	32	7	CP 2 (NC)
--	33	8	CP 2 (NO)
TIP 3	34	9	RING 3
START 3 (--)	35	10	CP 3 (C)
START 3 (+)	36	11	CP 3 (NC)
--	37	12	CP 3 (NO)
TIP 4	38	13	RING 4
START 4 (--)	39	14	CP 4 (C)
START 4 (+)	40	15	CP 4 (NC)
ALARM (NC)	41	16	CP 4 (NO)
TIP 5	42	17	RING 5
START 5 (--)	43	18	CP 5 (C)
START 5 (+)	44	19	CP 5 (NC)
ALARM (NO)	45	20	CP 5 (NO)
TIP 6	46	21	RING 6
START 6 (--)	47	22	CP 6 (C)
START 6 (+)	48	23	CP 6 (NC)
ALARM (C)	49	24	CP 6 (NO)
TIP REMOTE	50	25	RING REMOTE

Figure 3B

Signal	Pin	Pin	Signal
TIP 1	26	1	RING 1
START 1 (--)	27	2	CP 1 (C)
START 1 (+)	28	3	CP 1 (NO)
--	29	4	CP 1 (NC)
TIP 2	30	5	RING 2
START 2 (--)	31	6	CP 2 (C)
START 2 (+)	32	7	CP 2 (NO)
--	33	8	CP 2 (NC)
TIP 3	34	9	RING 3
START 3 (--)	35	10	CP 3 (C)
START 3 (+)	36	11	CP 3 (NO)
--	37	12	CP 3 (NC)
TIP 4	38	13	RING 4
START 4 (--)	39	14	CP 4 (C)
START 4 (+)	40	15	CP 4 (NO)
ALARM (NC)	41	16	CP 4 (NC)
TIP 5	42	17	RING 5
START 5 (--)	43	18	CP 5 (C)
START 5 (+)	44	19	CP 5 (NO)
ALARM (NO)	45	20	CP 5 (NC)
TIP 6	46	21	RING 6
START 6 (-)	47	22	CP 6 (C)
START 6 (+)	48	23	CP 6 (NO)
ALARM (C)	49	24	CP 6 (NC)
TIP REMOTE	50	25	RING REMOTE

50-PIN CONNECTOR PINOUT

Connecting Alarm Contacts

The announcer provides alarm contacts that can be used to trigger an external device, such as a light or buzzer, in the event of a system failure.

The announcer generates an alarm if:
- no messages are recorded,
- the input power is lost,
- the microprocessor fails, or
- the operator executes one of the test functions.

The alarm contacts; Common (C), Normally Open (NO) and Normally Closed (NC) are accessed through the 50 position connector as shown in Figures 3A and 3B.

Under normal conditions, there is a closed circuit between the (C) and the (NC) contacts and an open circuit between the (C) and (NO) contacts.

When an alarm condition occurs, there is an open circuit between the (C) and (NC) contacts and a closed circuit between the (C) and (NO) contacts.

7

3.   NORMAL OPERATIONS
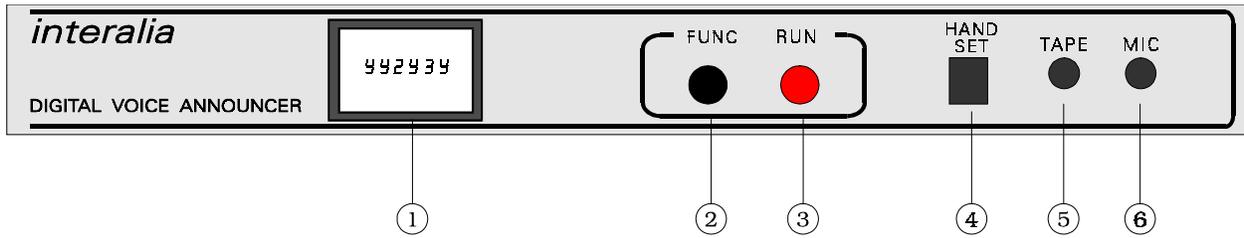
Figure 4 - Front Panel Detail

① **EIGHT CHARACTER DISPLAY** - Displays function information and line status to the operator. When displaying the line status, the first character indicates the status of line 1, the second of line two, etc. The line status indicators are:

  I - (IDLE) The message assigned to this line is not recorded.

  N - (OFF) The message assigned to this line is recorded, but turned "Off".

  Y - (ON) The message assigned to this line is recorded and turned "On". The line is ready to answer callers.

  n - (ANSWER) Message "n" is playing to a caller. "n" is the message number.

  -- - (NOT INSTALLED) The line is not installed.

② **FUNCTION KEY** - Press to select a function.

③ **RUN KEY** - Press to execute a selected function.

④ **HANDSET INPUT/OUTPUT** - Connect a handset to record/playback messages.

⑤ **TAPE DECK INPUT** - Connect a tape deck to record messages (mono plug only).

⑥ **MICROPHONE INPUT** - Connect a microphone to record messages (mono plug only).

Executing Functions

The announcer is operated by the FUNC and RUN keys. To execute a function, press FUNC repeatedly until the desired function appears on the display, then press RUN. If 30 seconds elapse before a selected function is executed the announcer abandons the function and returns to displaying the line status.

Function information only appears on the display when the announcer is operated by the FUNC and RUN keys, or remotely. At all other times the line status is displayed.

Functions are only available when they are applicable. For example, the 'PLAY' function is only available after a message has been recorded.

If an error is made in selecting a function, press FUNC repeatedly to return to the line status display, then return to the selected function.

Record Message

```
RECORD
```

1) Connect a handset, microphone or tape deck to the announcer.

2) Press FUNC until **RECORD** is displayed, then press RUN.

3) **MSG1** is displayed. Press RUN to record message 1, or press FUNC until the desired message (**MSG2**, **MSG3** ... **MSG6** or **STANDBY**) is displayed, then press RUN.

   If the desired message does not appear, it is not available.

   SURE is displayed if the message is already recorded. Press RUN to record over the previous message, or press FUNC to escape from the record function.

4) Recording begins when the recording time available starts counting down. **WAIT** may appear briefly before the announcer starts recording.

Press RUN to pause/unpause recording.

Press FUNC to end recording.

NOTE:
- The display shows **PAUSED** while the recording is paused.
- When recording from a microphone or tape deck, the announcer displays **NO AUDIO** and does not begin recording, until audio is detected. Press RUN to bypass this feature and start recording.
- Messages are automatically turned "On" after being recorded.
- To erase a message, record a short message (less than one second). The display will briefly show **ERASED**.

| REPLACE | **Replace Recorded Message** |

1) Record the Standby message.

2) Press FUNC until **REPLACE** is displayed, then press RUN.

3) **MSG1** is displayed. Press FUNC until the desired message (**MSG2**, **MSG3** ... **MSG6**) is displayed, then press RUN.

If the desired message does not appear, it is not available.

NOTE:
- The Standby message is an extra message that temporarily stores new recordings.
- Any outgoing message can be replaced with the Standby message.
- The Standby message immediately replaces the outgoing message without interrupting callers.
- The Standby message is automatically erased after it replaces an outgoing message.

| PLAY | **Playback Message** |

1) Connect a handset to the announcer.

2) Press FUNC until **PLAY** is displayed, then press RUN.

3) Press FUNC until the desired message (**MSG1**, **MSG2** ... **MSG6** or **STANDBY**) is displayed, then press RUN.

If the desired message does not appear, it has not been recorded.

4) Playback begins when the time remaining in the recorded message starts counting down. **WAIT** may appear briefly before the announcer plays the message.

Press FUNC to stop the message playback.

| TURN ON | **Turn Message On** |

1) Press FUNC until **TURN ON** is displayed, then press RUN.

2) The display will show **ALL**. Press RUN to turn all recorded messages "On", or press FUNC until the desired message (**MSG1**, **MSG2** ... **MSG6**) is displayed, then press RUN.

If the desired message does not appear, it isn't available, hasn't been recorded or is already "On".

NOTE:
- The announcer only answers calls if the message assigned to the line is turned "On".

| TURN OFF | **Turn Message Off** |

1) Press FUNC until **TURN OFF** is displayed, then press RUN.

2) The display will show **ALL**. Press RUN to turn all recorded messages "Off", or press FUNC until the desired message (**MSG1**, **MSG2** ... **MSG6**) is displayed, then press RUN.

If the desired message does not appear, it isn't available, hasn't been recorded or is already "Off".

NOTE:
- The announcer will not answer calls if the message assigned to the line is turned "Off".

| COUNTS | **Obtain Line Counts**
(applicable to Ring, Pulse and Level Start modes only) |

1) Press FUNC until **MISC** is displayed, then press RUN.

2) Press FUNC until **COUNTS** is displayed, then press RUN.

3) The number of calls received on each line will be displayed.

NOTE:
- Line counts exceeding 999,999 are reset to zero.
- If all line counts are zero, this function is not available.

RST CNTS	**Reset Line Counts** *(applicable to Ring, Pulse and Level Start modes only)*

1) Press FUNC until **MISC** is displayed, then press RUN.

2) Press FUNC until **RST CNTS** is displayed, then press RUN.

3) The number of calls received on each line will be reset to zero.

NOTE:
- If all line counts are zero, this function is not available.

TIME	**Display Time**

1) Press FUNC until **MISC** is displayed, then press RUN.

2) Press FUNC until **TIME** is displayed, then press RUN.

3) The length of each message will be displayed.

4) Following the length of the last message, the remaining recording time available will be displayed.

TRANSFER	**Set Call Transfer Sequence** *(applicable to Ring Start with Call Transfer mode only)*

1) Press FUNC until **MISC** is displayed, then press RUN.

2) Press FUNC until **TRANSFER** is displayed, then press RUN.

3) Press FUNC until the desired line is displayed, then press RUN.

4) The display will show the first 8 characters of the current Call Transfer Sequence.

   The first character blinks. Press FUNC to change the 'blinking' character, or press RUN to store it and advance to the next character.

   Once the first 8 characters are entered, the display scrolls left after entering each subsequent character.

   The Call Transfer Sequence is saved once '**--**' (disconnect), or 15 characters have been entered.

5) The Call Transfer Sequence will be displayed.

NOTE:
- The Call Transfer feature requires connection to a Centrex line or a PABX extension.
- The following characters can be programmed in the Call Transfer Sequence:

0 - **9, *, #**	Dial touch-tone 0 - 9, * or #
@	Delay for 500 msec.
?	Perform a 100 msec. hookflash
!	Perform a 500 msec. hook flash
--	Disconnect from the line

VOLUME	**Adjust Output Volume**

1) Press FUNC until **MISC** is displayed, then press RUN.

2) Press FUNC until **VOLUME** is displayed, then press RUN.

3) The display will show **ALL**. Press RUN to adjust the volume on all lines, or press FUNC until the desired line is displayed, then press RUN.

4) The display will show the current volume setting (**0** = quiet, **9** = loud). Press FUNC to change the volume setting, then press RUN to save the setting.

| INIT | **Re-initialize the Announcer** |

Anytime the position of the option switch is changed, execute the re-initialize function to have the announcer read the option switch.

When the re-initialize function is executed, the Remote Access codes, the Call Transfer number and the Volume setting are all reset to their default values.

1) Press FUNC until **MISC** is displayed, then press RUN.

2) Press FUNC until **INIT** is displayed, then press RUN.

3) The display will show **SURE**. Press RUN to re-initialize the announcer to its default settings, or press FUNC to escape from the re-initialize function.

| TEST | **Self Diagnostic Tests** |

Accesses a sub menu of test functions used by the factory to test the announcer.

| LINE CHK | **Telephone Line Check** *(applicable to Ring Start modes only)* |

1) Press FUNC until **MISC** is displayed, then press RUN.

2) Press FUNC until **LINE CHK** is displayed, then press RUN.

3) The announcer tests each line for loop current. If loop current is found, the line number followed by **GOOD** is displayed. If loop current is <u>not</u> found, the line number followed by **BAD** is displayed.

| VERSION | **Display Software Version** |

1) Press FUNC until **MISC** is displayed, then press RUN.

2) Press FUNC until **VERSION** is displayed, then press RUN.

3) The software version will be displayed.

| BATTERY | **Battery Backup Indicator** |

The announcer periodically displays **BATTERY** when the power fails and the system is running off the battery backup.

4. REMOTE OPERATIONS

General

The remote access option allows a person at a remote location to operate the announcer using a touch-tone telephone. Each digit on the touch-tone keypad initiates a remote operation. When a key is pressed, the announcer responds with a voice prompt informing the operator on how to proceed.

WARNING: Some telephones have a keypad but actually use pulse dialing (like a rotary dial) rather than touch-tones. These telephones cannot be used for remote access.

User selectable remote access codes prevent unauthorized use of the system. Individual message access codes allow the remote operator to work with the corresponding message (and the Standby message). The 'System' access code allows the remote operator to work with any message. The default access codes are shown below:

      8615 - System
      0101 - Message 1
      0202 - Message 2
      0303 - Message 3
      0404 - Message 4
      0505 - Message 5
      0606 - Message 6

Remote operations differ from normal operations in that a message must be selected before a function is executed. Once a message is selected, the selection remains in effect until a new message selection is made.

If an invalid message is selected (a message not present in the message to line configuration), the announcer responds *"Error - No Message"* and the previous message selection remains in effect.

If a remote command is not received within 30 seconds after completion of the previous command, the announcer automatically disconnects the remote line.

Gaining Access

To access the announcer remotely:

1) Dial the remote access telephone number and wait for the announcer to answer the line.

   In some applications, it may take more than one ring before the announcer answers the remote line.

2) **Separate Announcement / Remote Line** - The announcer answers and responds *"Enter Access Code"*.

   Combined Announcement / Remote Line - The announcer answers, responds with a beep, delays 2 seconds, then begins playing a message. Enter '#' after the beep to interrupt the message play and initiate remote operations any time after the beep. The announcer responds *"Enter Access Code"*.

3) Enter a valid access code. The announcer will respond *"Enter Command"*. The announcer is now ready to accept remote commands.

   If an invalid access code is entered, the announcer will respond *"Error, Enter Access Code"*. Enter a valid access code. If an invalid access code is entered on the second attempt, the announcer will disconnect from the line.

Select Message One

1

Enter '1'. The announcer responds *"Message One"*.
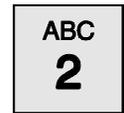
Select Message Two

ABC 2

Enter '2'. The announcer responds *"Message Two"*.

If the announcer is configured to disallow message two, the announcer responds *"Error - No Message"*.

Select Message Three

DEF 3

Enter '3'. The announcer responds *"Message Three"*.

If the announcer is configured to disallow message three, the announcer responds *"Error-No Message"*.

Select Message Four

GHI 4

Enter '4'. The announcer responds *"Message Four"*.

If the announcer is configured to disallow message four, the announcer responds *"Error - No Message"*.

Select Message Five

JKL 5

Enter '5'. The announcer responds *"Message Five"*.

If the announcer is configured to disallow message five, the announcer responds *"Error - No Message"*.

Select Message Six

MNO 6

Enter '6'. The announcer responds *"Message Six"*.

If the announcer is configured to disallow message six, the announcer responds *"Error - No Message"*.

Record Message

PRS 7

1) Select the message to record.

2) Enter '7'. The announcer responds *"Record Message n"* followed by a beep.

   If all of the recording time is used, the announcer responds *"Record Error"* and aborts recording.

3) Begin speaking after the beep.

4) Enter any key to stop recording. The announcer responds *"Message n - Done"*.

   If all of the recording time is used before the recording is stopped, the announcer responds *"Message n - Done"* and automatically stops recording.

Playback Message

TUV 8

1) Select the message to playback.

2) Enter '8'. The announcer responds *"Play Message n"* followed by the recorded message.

   If the message is not recorded, the announcer responds *"Error, No Message"* and aborts the operation.

3) Enter '8' to stop playback. (It may be necessary to enter '8' more than once to stop playback)

Change Remote Access Code

WXY 9

Users who remotely access the announcer using the 'System' access code are capable of changing both 'System' and individual message access codes.

Users who remotely access the announcer using an individual message access code are only capable of changing the message access code used to access the announcer.

1) Select the Standby message (Enter '*') to change the 'System' access code, or

   Select message 'n' (Enter 'n', n = 1, 2, 3, 4, 5 or 6) to change the corresponding individual message access code.

2) Enter '9'. When the Standby message is selected in step 1, the announcer responds *"Enter System Access Code"*.

   When message 'n' is selected in step 1, the announcer responds *"Enter Access Code n"*.

   If the remote user is not capable of changing the selected access code, the announcer responds *"Access Error"* and aborts the operation.

3) Enter the new four digit access code. The announcer responds *"Enter Access Code"*.

   If an invalid code is entered the announcer responds *"Invalid Access Code"* and the old access code remains in effect.

4) Enter the new four digit access code again. The announcer responds *"Access Code Replaced"* to indicate the access code has been changed.

If a different code is entered the second time, the announcer responds *"Error - Access Code"* and the old access code remains in effect.
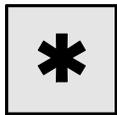
Select Standby Message

Enter '*'. The announcer responds *"Standby Message"*.

Error! Not Replace Recorded Message
a valid link.

1) Record the Standby message.

2) Select the message to replace.

3) Enter '#'. The announcer responds *"Message n - Replaced"*.

If the Standby message is not recorded, the announcer responds *"Error, No Message"* and aborts the operation.
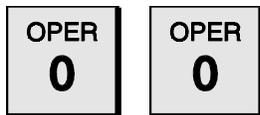
Disconnect Announcer

Enter '0 0'. The announcer responds *"Done"* and disconnects the remote line.
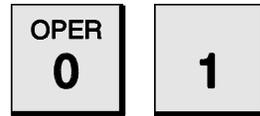
Obtain Line Counts

Enter '0 1'. The announcer responds with the number of calls received on each line.

Turn Message On

1) Select the message to turn "On".

2) Enter '0 2'. The announcer responds *"Message n - On"*.

Turn Message Off

1) Select the message to turn "Off".

2) Enter '0 3'. The announcer responds *"Message n - Off"*.

5. MAINTENANCE

Trouble Shooting

Unit does not power up
- Verify that fuse F9, located on the printed circuit board, is intact. If not, replace with 0.25A, 250V fuse for AC systems or 0.5A, 250V fuse for DC systems.

Unit does not operate during power failure
- Verify that the unit is equipped with the battery backup option.
- Verify that the battery switch is turned **ON**.
- Verify that fuse F8, located on the printed circuit board, is intact. If not, replace with 2.0A, 250V fuse.
- Verify that the battery is fully charged. Allow 48 hours to fully charge.
- Verify that the battery is okay.

Unit does not answer callers
- Verify that messages are recorded.
- Verify that the messages are turned 'On' and the line status shows 'Y'.
- Verify that the option switch is set correctly.
- Verify that the telephone line is working properly.

Poor recording quality from Handset
- Verify that a Microphone or Tape Deck are not connected to the announcer.
- Verify that the Handset used is an electronic type supplied by Interalia.

Poor recording quality from Microphone or Tape Deck
- Verify that only a Microphone or Tape Deck, not both, are connected to the announcer.
- Verify that the Microphone or Tape Deck is connected to the announcer via a 'mono' type plug.
- Verify that the Microphone is switched On.
- On some lower quality Tape Decks, an external load must be attached to the Tape Deck's audio output to improve quality.

Rechargeable Battery

The suggested reliable lifetime of the rechargeable battery used in the equipment is 36 months. To ensure that the system has reliable battery backup it is recommended that the battery be replaced every 30 months.

Battery Replacement Procedure

*** WARNING ***
All messages will be lost during this procedure.

1) Disconnect the announcer from the power source and all telephone lines.

2) Turn the battery switch at the rear of the unit **OFF**.

3) Remove the rack mount brackets (if they are attached to the announcer).

4) Remove the ten screws that secure the top to the chassis and gently slide the top forward and lift up. The battery and circuitry of the digital voice announcer are now exposed.

5) Remove the battery bracket. The battery bracket is secured by four screws located on the bottom of the chassis.

6) Disconnect the red and black wires from the battery.

7) Remove the old battery and replace it with the new battery.

8) Reconnect the red wire to the red(+), and the black wire to the black(-), battery terminals.

9) Install the battery bracket.

10) Replace the top by sliding it back on to the chassis and secure it with the ten screws removed in step 4. Ensure that the switches and jacks on the front panel are aligned with the appropriate holes.

11) Reattach the rack mount brackets (if necessary).

12) Connect the announcer to the power source and telephone lines.

13) Turn the battery switch **ON**.

Support or Repairs

In the event of a problem, in the United States, please contact:
   Interalia Communications Inc.
   Suite 135, 10340 Viking Drive
   Eden Prairie, Minnesota, USA 55344
   1-800-531-0115

or, in Canada, contact:
   Interalia Inc.
   4110 - 79 Street N.W.
   Calgary, Alberta, CANADA T3B 5C2
   1-800-661-9406

6. FCC / DOC INFORMATION

FCC

This equipment complies with Part 68 of the FCC rules. On the rear of the digital voice announcer is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this information must be provided to the telephone company.

The USOC for this equipment is RJ11C. The facility interface code is 02LS2 and the service order code is 9.0F. This equipment is hearing aid compatible.

The ringer equivalence number (REN) is used to determine the quantity of devices which may be connected to the telephone line. Excessive REN's on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of the REN's should not exceed five (5.0). To be certain of the number of devices that may be connected to the line, as determined by the total REN's contact the telephone company to determine the maximum REN for the calling area.

If the digital voice announcer causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in it's facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications in order to maintain uninterrupted service.

If trouble is experienced with the digital voice announcer, please contact Interalia Communications Inc. @ (800) 531-0115 for repair and warranty information. If the trouble is causing harm to the telephone network, the telephone company may request you remove the equipment from the network until the problem is resolved. All repairs must be carried out by Interalia at their repair facility located in Minneapolis, Minnesota.

This equipment cannot be used on public coin service provided by the telephone company. Connection to Party Line Service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

FCC Registration Number: F4PCAN-20988-AN-N
Ringer Equivalence Number: 1.6B(ac)

Warning: This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

DOC

The Canadian Department of Communications label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements. The Department does not guarantee that the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an approved method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of a certified jack-plug-cord ensemble (telephone extension cord). The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations. Existing telecommunications company requirements do not permit their equipment to be connected to customer-provided jacks, except where specified by individual telecommunications company tariffs.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Caution: Users should not attempt to make such connections themselves, but should contact the appropriate electrical inspection authority, or electrician, as appropriate.

DOC Certification Number: 557 6016 A
Load Number: 6

The Load Number (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop which is used by the device, to prevent overloading. The termination on a loop may consist of any combination of devices subject only to the requirement that the total of the Load Numbers of all the devices does not exceed 100.

NOTE: This Class A digital apparatus meets all requirements of the Canadian Interface Causing Equipment Regulations.

APPENDIX A - COMMON ANNOUNCER CONNECTIONS

The following conventions are used in the announcer connection tables:

- PIN - Refers to the pin number on the announcer's 50 position connector (refer to Figures 3A and 3B).

- COLOR - Refers to the wire color / stripe color for the wire corresponding the pin on the 50 position connector.

- Color abbreviations:

Blk	-	Black	Grn	-	Green
Brn	-	Brown	Blu	-	Blue
Red	-	Red	Vlt	-	Violet
Org	-	Orange	Slt	-	Slate
Yel	-	Yellow	Wht	-	White

- ⸯ - Identifies signal from PABX power supply or system ground.

Public Telephone Network
ITT 3100
Mitel SX50, SX200 and SX2000
Rolm 9751, CBX 8000, CBX 9000
Toshiba Perception

PABX SIGNAL	ANNOUNCER SIGNAL	LINE 1 PIN - COLOR	LINE 2 PIN - COLOR	LINE 3 PIN - COLOR	LINE 4 PIN - COLOR	LINE 5 PIN - COLOR	LINE 6 PIN - COLOR	REMOTE PIN - COLOR
Ring	Ring	1 - Blu/Wht	5 - Slt/Wht	9 - Brn/Red	13 -Grn/Blk	17 - Org/Yel	21 - Blu/Vlt	25 - Slt/Vlt
Tip	Tip	26 - Wht/Blu	30 - Wht/Slt	34 - Red/Brn	38 - Blk/Grn	42 - Yel/Org	46 - Vlt/Blu	50 - Vlt/Slt

Configure announcer to **RING START** as follows: Switch 4 - Off   Switch 6 - Off
     Switch 5 - On   Switch 7 - On

AT&T System 75/85

PABX SIGNAL	ANNOUNCER SIGNAL	LINE 1 PIN - COLOR	LINE 2 PIN - COLOR	LINE 3 PIN - COLOR	LINE 4 PIN - COLOR	LINE 5 PIN - COLOR	LINE 6 PIN - COLOR	REMOTE PIN - COLOR
Ring	Ring	1 - Blu/Wht	5 - Slt/Wht	9 - Brn/Red	13 -Grn/Blk	17 - Org/Yel	21 - Blu/Vlt	25 - Slt/Vlt
Tip	Tip	26 - Wht/Blu	30 - Wht/Slt	34 - Red/Brn	38 - Blk/Grn	42 - Yel/Org	46 - Vlt/Blu	50 - Vlt/Slt
Battery ⸯ	Start-	27 - Wht/Org	31 - Red/Blu	35 - Red/Slt	39 - Blk/Brn	43 - Yel/Grn	47 - Vlt/Org	
S	Start+	28 - Wht/Grn	32 - Red/Org	36 - Blk/Blu	40 - Blk/Slt	44 - Yel/Brn	48 - Vlt/Grn	
AL1	CP (C)	2 - Org/Wht	6 - Blu/Red	10 - Slt/Red	14 - Brn/Blk	18 - Grn/Yel	22 - Org/Vlt	
Ground	CP (NO)	4 - Brn/Wht	8 - Grn/Red	12 - Org/Blk	16 - Blu/Yel	20 - Slt/Yel	24 - Brn/Vlt	

Configure announcer to **PULSE START / LEVEL RETURN** as follows: Switch 4 - On   Switch 6 - On
     Switch 5 - On   Switch 7 - On

Ground must come from Circuit Pack.

AT&T Dimension 2000

PABX SIGNAL	ANNOUNCER SIGNAL	LINE 1 PIN - COLOR	LINE 2 PIN - COLOR	LINE 3 PIN - COLOR	LINE 4 PIN - COLOR	LINE 5 PIN - COLOR	LINE 6 PIN - COLOR	REMOTE PIN - COLOR
Ring	Ring	1 - Blu/Wht	5 - Slt/Wht	9 - Brn/Red	13 - Grn/Blk	17 - Org/Yel	21 - Blu/Vlt	25 - Slt/Vlt
Tip	Tip	26 - Wht/Blu	30 - Wht/Slt	34 - Red/Brn	38 - Blk/Grn	42 - Yel/Org	46 - Vlt/Blu	50 - Vlt/Slt
Battery ⸯ	Start-	27 - Wht/Org	31 - Red/Blu	35 - Red/Slt	39 - Blk/Brn	43 - Yel/Grn	47 - Vlt/Org	
S2	Start+	28 - Wht/Grn	32 - Red/Org	36 - Blk/Blu	40 - Blk/Slt	44 - Yel/Brn	48 - Vlt/Grn	
AL1	CP (C)	2 - Org/Wht	6 - Blu/Red	10 - Slt/Red	14 - Brn/Blk	18 - Grn/Yel	22 - Org/Vlt	
Battery ⸯ	CP (NC)	3 - Grn/Wht	7 - Org/Red	11 - Blu/Blk	15 - Slt/Blk	19 - Brn/Yel	23 - Grn/Vlt	

Configure announcer to **PULSE START / LEVEL RETURN** as follows: Switch 4 - On   Switch 6 - On
     Switch 5 - On   Switch 7 - On

Set the switches on the LC13 circuit pack as follows: **CIRCUIT 0**   **CIRCUIT 1**
     Switch 4 - Open   Switch 1 - Open
     Switch 5 - Closed   Switch 2 - Closed
     Switch 6 - Open   Switch 3 - Open

Connect announcer to Dimension 2000 LC13 Circuit Pack, Recorded Announcement Interface.

Harris 20/20 LH, 20/20 M

PABX SIGNAL	ANNOUNCER SIGNAL	LINE 1 PIN - COLOR	LINE 2 PIN - COLOR	LINE 3 PIN - COLOR	LINE 4 PIN - COLOR	LINE 5 PIN - COLOR	LINE 6 PIN - COLOR	REMOTE PIN - COLOR
Ring	Ring	1 - Blu/Wht	5 - Slt/Wht	9 - Brn/Red	13 - Grn/Blk	17 - Org/Yel	21 - Blu/Vlt	25 - Slt/Vlt
Tip	Tip	26 - Wht/Blu	30 - Wht/Slt	34 - Red/Brn	38 - Blk/Grn	42 - Yel/Org	46 - Vlt/Blu	50 - Vlt/Slt
M	Start-	27 - Wht/Org	31 - Red/Blu	35 - Red/Slt	39 - Blk/Brn	43 - Yel/Grn	47 - Vlt/Org	
Ground ˈ	Start+	28 - Wht/Grn	32 - Red/Org	36 - Blk/Blu	40 - Blk/Slt	44 - Yel/Brn	48 - Vlt/Grn	
E	CP (C)	2 - Org/Wht	6 - Blu/Red	10 - Slt/Red	14 - Brn/Blk	18 - Grn/Yel	22 - Org/Vlt	
Ground ˈ	CP (NO)	3 - Grn/Wht	7 - Org/Red	11 - Blu/Blk	15 - Slt/Blk	19 - Brn/Yel	23 - Grn/Vlt	

Configure announcer to **LEVEL START / PULSE RETURN (SINGLE PLAY)** as follows:　　Switch 4 - Off　　Switch 6 - Off
　　Switch 5 - Off　　Switch 7 - On

Connect announcer to a 2-wire or 4-wire E&M Trunk Card.
Configure E&M Trunk Card for Type I E&M signalling.

Hitachi EDX, MDX & LDX

PABX SIGNAL	ANNOUNCER SIGNAL	LINE 1 PIN - COLOR	LINE 2 PIN - COLOR	LINE 3 PIN - COLOR	LINE 4 PIN - COLOR	LINE 5 PIN - COLOR	LINE 6 PIN - COLOR	REMOTE PIN - COLOR
Ring	Ring	1 - Blu/Wht	5 - Slt/Wht	9 - Brn/Red	13 - Grn/Blk	17 - Org/Yel	21 - Blu/Vlt	25 - Slt/Vlt
Tip	Tip	26 - Wht/Blu	30 - Wht/Slt	34 - Red/Brn	38 - Blk/Grn	42 - Yel/Org	46 - Vlt/Blu	50 - Vlt/Slt
Battery ˈ	Start-	27 - Wht/Org	31 - Red/Blu	35 - Red/Slt	39 - Blk/Brn	43 - Yel/Grn	47 - Vlt/Org	
SSL0	Start+	28 - Wht/Grn	32 - Red/Org	36 - Blk/Blu	40 - Blk/Slt	44 - Yel/Brn	48 - Vlt/Grn	

Configure announcer to **LEVEL START / PULSE RETURN (SINGLE PLAY)** as follows:　　Switch 4 - Off　　Switch 6 - Off
　　Switch 5 - Off　　Switch 7 - On

Connect announcer to Hitachi card number 4SRBWT.
Connect SS0 lead to system ground.

Hitachi HCX-5000

PABX SIGNAL	ANNOUNCER SIGNAL	LINE 1 PIN - COLOR	LINE 2 PIN - COLOR	LINE 3 PIN - COLOR	LINE 4 PIN - COLOR	LINE 5 PIN - COLOR	LINE 6 PIN - COLOR	REMOTE PIN - COLOR
Ring	Ring	1 - Blu/Wht	5 - Slt/Wht	9 - Brn/Red	13 - Grn/Blk	17 - Org/Yel	21 - Blu/Vlt	25 - Slt/Vlt
Tip	Tip	26 - Wht/Blu	30 - Wht/Slt	34 - Red/Brn	38 - Blk/Grn	42 - Yel/Org	46 - Vlt/Blu	50 - Vlt/Slt
M	Start-	27 - Wht/Org	31 - Red/Blu	35 - Red/Slt	39 - Blk/Brn	43 - Yel/Grn	47 - Vlt/Org	
SG	Start+	28 - Wht/Grn	32 - Red/Org	36 - Blk/Blu	40 - Blk/Slt	44 - Yel/Brn	48 - Vlt/Grn	
SG	CP (C)	2 - Org/Wht	6 - Blu/Red	10 - Slt/Red	14 - Brn/Blk	18 - Grn/Yel	22 - Org/Vlt	
E	CP (NO)	3 - Grn/Wht	7 - Org/Red	11 - Blu/Blk	15 - Slt/Blk	19 - Brn/Yel	23 - Grn/Vlt	

Configure announcer to **LEVEL START / PULSE RETURN (MULTIPLE PLAY)** as follows:　　Switch 4 - Off　　Switch 6 - On
　　Switch 5 - On　　Switch 7 - Off

Set the strapping on the 4ANIF card as follows:　　TM00 1-2　　TM02 3-4
　　TM01 1-2　　TM03 1-2

HCX Programming: System Features Screen 2.1.2.1 (Specify one or two announcements played to caller. This affects announcements system wide)
　　Announcement Trunk Group Set Up Screen 2.1.5.1 (Trunk Type=OGT, Connection Class=TKTH)

NEC NEAX2400

PABX SIGNAL	ANNOUNCER SIGNAL	LINE 1 PIN - COLOR	LINE 2 PIN - COLOR	LINE 3 PIN - COLOR	LINE 4 PIN - COLOR	LINE 5 PIN - COLOR	LINE 6 PIN - COLOR	REMOTE PIN - COLOR
Ring	Ring	1 - Blu/Wht	5 - Slt/Wht	9 - Brn/Red	13 - Grn/Blk	17 - Org/Yel	21 - Blu/Vlt	25 - Slt/Vlt
Tip	Tip	26 - Wht/Blu	30 - Wht/Slt	34 - Red/Brn	38 - Blk/Grn	42 - Yel/Org	46 - Vlt/Blu	50 - Vlt/Slt
M	Start-	27 - Wht/Org	31 - Red/Blu	35 - Red/Slt	39 - Blk/Brn	43 - Yel/Grn	47 - Vlt/Org	
Ground ˅	Start+	28 - Wht/Grn	32 - Red/Org	36 - Blk/Blu	40 - Blk/Slt	44 - Yel/Brn	48 - Vlt/Grn	

Configure announcer to **LEVEL START / PULSE RETURN (SINGLE PLAY)** as follows:

Switch 4 - Off Switch 6 - Off
Switch 5 - Off Switch 7 - On

Set the switches on the TLT circuit card as follows:

Switch 00 - EM Switch 02 - EM
Switch 10 - 600 Ω Switch 12 - 600 Ω
Switch 20 - Ground Idle Switch 22 - Ground Idle

Switch 01 - EM Switch 03 - EM
Switch 11 - 600 Ω Switch 13 - 600 Ω
Switch 21 - Ground Idle Switch 23 - Ground Idle

Connect announcer to NEC 4TLT - Loop and Tie-Line Interface Circuit Card.

Northern Telecom SL-1® or Meridian® (Option 1), DMS-100 and SL-100

PABX SIGNAL	ANNOUNCER SIGNAL	LINE 1 PIN - COLOR	LINE 2 PIN - COLOR	LINE 3 PIN - COLOR	LINE 4 PIN - COLOR	LINE 5 PIN - COLOR	LINE 6 PIN - COLOR	REMOTE PIN - COLOR
Ring	Ring	1 - Blu/Wht	5 - Slt/Wht	9 - Brn/Red	13 - Grn/Blk	17 - Org/Yel	21 - Blu/Vlt	25 - Slt/Vlt
Tip	Tip	26 - Wht/Blu	30 - Wht/Slt	34 - Red/Brn	38 - Blk/Grn	42 - Yel/Org	46 - Vlt/Blu	50 - Vlt/Slt
CP / E	CP (C)	2 - Org/Wht	6 - Blu/Red	10 - Slt/Red	14 - Brn/Blk	18 - Grn/Yel	22 - Org/Vlt	
Ground ˅	CP (NO)	3 - Grn/Wht	7 - Org/Red	11 - Blu/Blk	15 - Slt/Blk	19 - Brn/Yel	23 - Grn/Vlt	

Configure announcer to **CONTINUOUS PLAY** as follows:

Switch 4 - On Switch 6 - Off
Switch 5 - On Switch 7 - On

Meridian-1: Connect announcer to NT8D14 Universal Trunk Card.
Configure Meridian-1 for an Audichron Announcer.
Do not connect MB lead.
Software must be downloaded to card by disabling, then re-enabling card.

SL-1: Connect announcer to QPC74 Recorded Announcement Circuit Pack.
Configure SL-1 for an Audichron Announcer.

NOTE: The 'Low Impedance' option is required when 4 or more RAN trunks connected in parallel to a single line.

Northern Telecom SL-1®or Meridian® (Option 2)

PABX SIGNAL	ANNOUNCER SIGNAL	LINE 1 PIN - COLOR	LINE 2 PIN - COLOR	LINE 3 PIN - COLOR	LINE 4 PIN - COLOR	LINE 5 PIN - COLOR	LINE 6 PIN - COLOR	REMOTE PIN - COLOR
Ring	Ring	1 - Blu/Wht	5 - Slt/Wht	9 - Brn/Red	13 - Grn/Blk	17 - Org/Yel	21 - Blu/Vlt	25 - Slt/Vlt
Tip	Tip	26 - Wht/Blu	30 - Wht/Slt	34 - Red/Brn	38 - Blk/Grn	42 - Yel/Org	46 - Vlt/Blu	50 - Vlt/Slt
Battery ˅	Start-	27 - Wht/Org	31 - Red/Blu	35 - Red/Slt	39 - Blk/Brn	43 - Yel/Grn	47 - Vlt/Org	
Start / MB	Start+	28 - Wht/Grn	32 - Red/Org	36 - Blk/Blu	40 - Blk/Slt	44 - Yel/Brn	48 - Vlt/Grn	
CP	CP (C)	2 - Org/Wht	6 - Blu/Red	10 - Slt/Red	14 - Brn/Blk	18 - Grn/Yel	22 - Org/Vlt	
Ground ˅	CP (NC)	3 - Grn/Wht	7 - Org/Red	11 - Blu/Blk	15 - Slt/Blk	19 - Brn/Yel	23 - Grn/Vlt	

Configure announcer to **PULSE START / LEVEL RETURN** as follows:

Switch 4 - On Switch 6 - On
Switch 5 - On Switch 7 - On

Meridian-1: Connect announcer to QPC74 Recorded Announcement Circuit Pack or NT8D14BA (or later) Universal Trunk Card.
Software release X19 (or later) must be used when connecting to the Universal Trunk Card.
Configure Meridian-1 for a Cook Electric 201 Announcer.
Software must be downloaded to card by disabling, then re-enabling card.

SL-1: Connect announcer to QPC74 Recorded Announcement Circuit Pack.
Configure SL-1 for a Cook Electric 201 Announcer.

NOTE: The 'Low Impedance' option is required when 4 or more RAN trunks connected in parallel to a single line.

Microtel GTD-5

PABX SIGNAL	ANNOUNCER SIGNAL	LINE 1 PIN - COLOR	LINE 2 PIN - COLOR	LINE 3 PIN - COLOR	LINE 4 PIN - COLOR	LINE 5 PIN - COLOR	LINE 6 PIN - COLOR	REMOTE PIN - COLOR
Ring	Ring	1 - Blu/Wht	5 - Slt/Wht	9 - Brn/Red	13 - Grn/Blk	17 - Org/Yel	21 - Blu/Vlt	25 - Slt/Vlt
Tip	Tip	26 - Wht/Blu	30 - Wht/Slt	34 - Red/Brn	38 - Blk/Grn	42 - Yel/Org	46 - Vlt/Blu	50 - Vlt/Slt
Battery ⁱ	Start-	27 - Wht/Org	31 - Red/Blu	35 - Red/Slt	39 - Blk/Brn	43 - Yel/Grn	47 - Vlt/Org	
C	Start+	28 - Wht/Grn	32 - Red/Org	36 - Blk/Blu	40 - Blk/Slt	44 - Yel/Brn	48 - Vlt/Grn	
SSG	CP (C)	2 - Org/Wht	6 - Blu/Red	10 - Slt/Red	14 - Brn/Blk	18 - Grn/Yel	22 - Org/Vlt	
EC	CP (NO)	3 - Grn/Wht	7 - Org/Red	11 - Blu/Blk	15 - Slt/Blk	19 - Brn/Yel	23 - Grn/Vlt	

Configure announcer to **LEVEL START / PULSE RETURN (MULTIPLE PLAY)** as follows: Switch 4 - Off Switch 6 - On Switch 5 - On Switch 7 - Off

Connect SSG lead to system ground.

Microtel Omni

PABX SIGNAL	ANNOUNCER SIGNAL	LINE 1 PIN - COLOR	LINE 2 PIN - COLOR	LINE 3 PIN - COLOR	LINE 4 PIN - COLOR	LINE 5 PIN - COLOR	LINE 6 PIN - COLOR	REMOTE PIN - COLOR
Ring	Ring	1 - Blu/Wht	5 - Slt/Wht	9 - Brn/Red	13 - Grn/Blk	17 - Org/Yel	21 - Blu/Vlt	25 - Slt/Vlt
Tip	Tip	26 - Wht/Blu	30 - Wht/Slt	34 - Red/Brn	38 - Blk/Grn	42 - Yel/Org	46 - Vlt/Blu	50 - Vlt/Slt
M	Start-	27 - Wht/Org	31 - Red/Blu	35 - Red/Slt	39 - Blk/Brn	43 - Yel/Grn	47 - Vlt/Org	
Ground ⁱ	Start+	28 - Wht/Grn	32 - Red/Org	36 - Blk/Blu	40 - Blk/Slt	44 - Yel/Brn	48 - Vlt/Grn	
E	CP (C)	2 - Org/Wht	6 - Blu/Red	10 - Slt/Red	14 - Brn/Blk	18 - Grn/Yel	22 - Org/Vlt	
Ground ⁱ	CP (NO)	4 - Brn/Wht	8 - Grn/Red	12 - Org/Blk	16 - Blu/Yel	20 - Slt/Yel	24 - Brn/Vlt	

Configure announcer to **PULSE START / LEVEL RETURN** as follows: Switch 4 - On Switch 6 - On Switch 5 - On Switch 7 - On

Siemens Saturn

PABX SIGNAL	ANNOUNCER SIGNAL	LINE 1 PIN - COLOR	LINE 2 PIN - COLOR	LINE 3 PIN - COLOR	LINE 4 PIN - COLOR	LINE 5 PIN - COLOR	LINE 6 PIN - COLOR	REMOTE PIN - COLOR
Ring	Ring	1 - Blu/Wht	5 - Slt/Wht	9 - Brn/Red	13 - Grn/Blk	17 - Org/Yel	21 - Blu/Vlt	25 - Slt/Vlt
Tip	Tip	26 - Wht/Blu	30 - Wht/Slt	34 - Red/Brn	38 - Blk/Grn	42 - Yel/Org	46 - Vlt/Blu	50 - Vlt/Slt
Battery ⁱ	Start-	27 - Wht/Org	31 - Red/Blu	35 - Red/Slt	39 - Blk/Brn	43 - Yel/Grn	47 - Vlt/Org	
EB & MB	Start+	28 - Wht/Grn	32 - Red/Org	36 - Blk/Blu	40 - Blk/Slt	44 - Yel/Brn	48 - Vlt/Grn	
EA	CP (C)	2 - Org/Wht	6 - Blu/Red	10 - Slt/Red	14 - Brn/Blk	18 - Grn/Yel	22 - Org/Vlt	
Ground ⁱ	CP (NC)	3 - Grn/Wht	7 - Org/Red	11 - Blu/Blk	15 - Slt/Blk	19 - Brn/Yel	23 - Grn/Vlt	

Configure announcer to **PULSE START / LEVEL RETURN** as follows: Switch 4 - On Switch 6 - On Switch 5 - On Switch 7 - On

Connect announcer to E&M Trunk Card.

Solid State Junior and Senior Executive

PABX SIGNAL	ANNOUNCER SIGNAL	LINE 1 PIN - COLOR	LINE 2 PIN - COLOR	LINE 3 PIN - COLOR	LINE 4 PIN - COLOR	LINE 5 PIN - COLOR	LINE 6 PIN - COLOR	REMOTE PIN - COLOR
Ring	Ring	1 - Blu/Wht	5 - Slt/Wht	9 - Brn/Red	13 - Grn/Blk	17 - Org/Yel	21 - Blu/Vlt	25 - Slt/Vlt
Tip	Tip	26 - Wht/Blu	30 - Wht/Slt	34 - Red/Brn	38 - Blk/Grn	42 - Yel/Org	46 - Vlt/Blu	50 - Vlt/Slt
M Sync	CP (C)	2 - Org/Wht	6 - Blu/Red	10 - Slt/Red	14 - Brn/Blk	18 - Grn/Yel	22 - Org/Vlt	
Ground '	CP (NC)	4 - Brn/Wht	8 - Grn/Red	12 - Org/Blk	16 - Blu/Yel	20 - Slt/Yel	24 - Brn/Vlt	
Configure announcer to **SYNCHRONIZED CONTINUOUS PLAY** as follows:						Switch 4 - On Switch 5 - On	Switch 6 - On Switch 7 - Off	

APPENDIX B - TECHNICAL SPECIFICATIONS

RECORDING TIME AVAILABLE
- Model SMU: 32 second base unit
- Model DMU: 64 second base unit
- Model MMU2-4: 64 second base unit
- Model MMU2-6: 64 second base unit
- Additional memory is available in 32 second increments up to a maximum of 17 minutes, 4 seconds

NUMBER OF LINES
- Model SMU: 1 announcement line
- Model DMU: 2 announcement lines
- Model MMU2-4: 4 announcement lines
- Model MMU2-6: 6 announcement lines

NUMBER OF MESSAGES
- One to six announcement messages (user configurable)
- One standby message

REMOTE ACCESS
- Allows announcer to be programmed from a remote location

BATTERY BACKUP
- Announcer operates for up to 2 hours, from a fully charged battery, during a power interruption
- 48 hour battery recharge

CONTROL PULSE / ALARM CONTACTS
- 0.3 A / 60 VDC
- 1.0 A / 24 VDC
- 0.5 A / 120 VAC

VOICE ENCODING/DECODING
- 8 Khz sampling rate, 8 bits/sample (PCM)

FREQUENCY RESPONSE
- 200 Hz to 3.4 Khz ($\pm$3 dB)

OUTPUT LEVEL
- Adjustable to a maximum of -9 dBm

INPUT IMPEDANCE
- Tape: 10KΩ (1/4" phone plug)
- Microphone: 600 Ω (1/4" phone plug)
- Handset: 220 Ω

POWER SUPPLY
- 110/120 VAC, 60 Hz, 0.2 A, 15W; or
- 220/240 VAC, 50 Hz, 0.1 A, 15W; or
- 48 VDC, 0.3 A, 12W, or
- 12 VDC, 1.0 A, 12W

FUSE RATINGS
- AC Power: MDL 0.25A Slow Blow
- DC Power: MDL 0.5A Slow Blow
- Battery: MDL 2.0A Slow Blow

DIMENSIONS
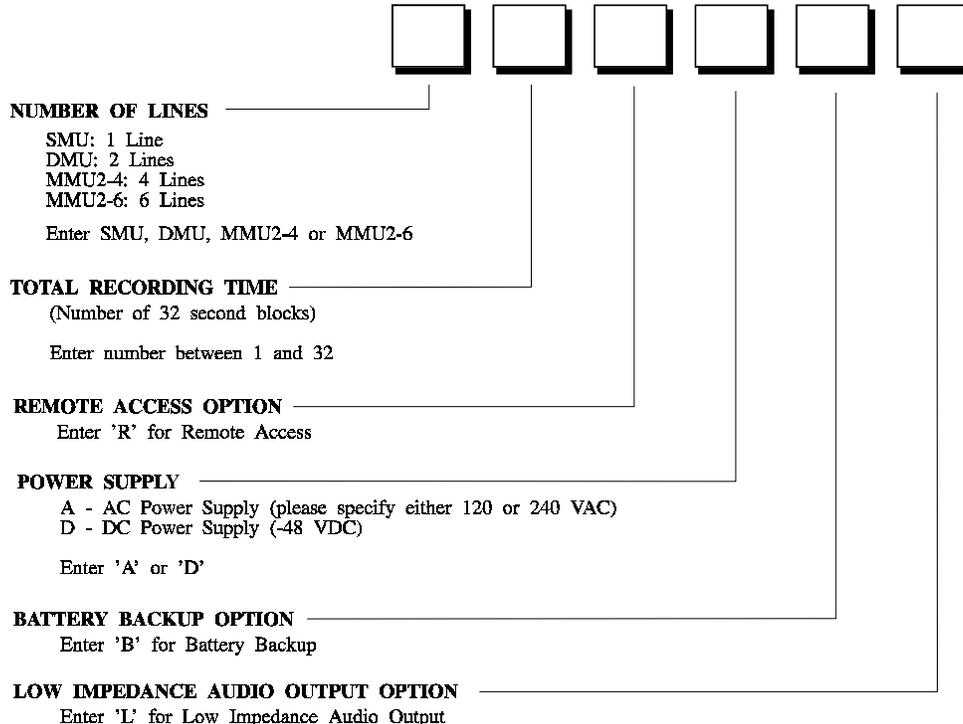- 1.75in. (4.5cm) H x 16.25in. (41cm) W x 9.25in. (23.5cm) D

WEIGHT
- 13 lbs (6 Kg)

APPROVALS
- FCC, CSA NRTL/C, DOC

Specifications are approximate and are subject to change without notice.

APPENDIX C - MODEL NUMBER DESCRIPTION

NUMBER OF LINES
SMU: 1 Line
DMU: 2 Lines
MMU2-4: 4 Lines
MMU2-6: 6 Lines

Enter SMU, DMU, MMU2-4 or MMU2-6

TOTAL RECORDING TIME
(Number of 32 second blocks)

Enter number between 1 and 32

REMOTE ACCESS OPTION
Enter 'R' for Remote Access

POWER SUPPLY
A - AC Power Supply (please specify either 120 or 240 VAC)
D - DC Power Supply (-48 VDC)

Enter 'A' or 'D'

BATTERY BACKUP OPTION
Enter 'B' for Battery Backup

LOW IMPEDANCE AUDIO OUTPUT OPTION
Enter 'L' for Low Impedance Audio Output

LIMITED WARRANTY

Interalia warrants this equipment to be free of defects in materials and workmanship for a period of one year from the date of shipment. All defects will be repaired without charge upon return of the unit to the factory.

This warranty is null and void if any modifications have been made to the unit or if the unit has been subjected to physical or electrical stress as determined by the manufacturer.

This warranty covers parts and labour only and does not include shipping costs, travel expenses or travel time.

Installation of the equipment is the sole responsibility of the purchaser. The manufacturer, its agents or distributors, accept no responsibility for malfunction or damage caused by improper connection of the unit.

THE MANUFACTURER, ITS AGENTS OR DISTRIBUTORS, ARE NOT LIABLE FOR ANY LOSSES INCURRED THROUGH THE USE OF THE EQUIPMENT OR BY THE MALFUNCTION OF THE EQUIPMENT OR FOR ANY LOSSES OR DAMAGES INCURRED BY THE USE OF THE EQUIPMENT IN ANY MEANS WHATSOEVER.

THIS WARRANTY IS LIMITED TO THE REPAIR OF THE EQUIPMENT TO ITS NORMAL FUNCTIONAL CAPABILITY.

THIS WARRANTY IS COMPLETE AS STATED AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE NOT VALID.