

**DESIGN GUIDE  
FOR THE  
OVATION SYSTEM**

**Sentex**systems



# INTRODUCTION

The purpose of this guide is to assist you in meeting any specification requirements you may encounter in installing an Ovation system. The information enclosed in this manual is to be used for reference purposes only and is not intended to be an installation or programming manual.

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**IMPORTANT:** The Sentex Systems, Inc. warranty on this system is conditioned upon Sentex Systems, Inc. being paid in full for this equipment. This warranty will not be honored until such payment is received by Sentex Systems, Inc

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Sentex Systems  
Chatsworth, CA

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# CABINET DIMENSIONS

<u>TYPE OF SYSTEM</u>		<u>Height</u>	<u>Width</u>	<u>Depth</u>
Ovation "S" System	Surface Mount	12.5"	8.5"	3.75" (top)
	Flush Mount Back Box	12.75"	8.75"	2.5"
	Flush Mount Bezel	14.0"	9.75"	
Ovation "V" System	Surface Mount	12.5"	16.5"	3.75" (top)
	Flush Mount Back Box	12.75"	16.75"	2.75"
	Flush Mount Bezel	14.0"	18.0"	
	Directory Module	12.5"	9.5"	3.75" (top)
Ovation "LP" System	Surface Mount	23.0"	14.0"	2.75"
LIB Housing	Large	13.25"	17.25"	6.25"
	Small	13.25"	7.0"	6.25"
Vandal-Proof Lobby Panel	Flush Mount Back Box	7.5"	4.75"	2.5"
	Front Panel	8.75"	6.0"	.25"

# WIRE CHART

**NOTE:** If the wires you are pulling for this installation are going to be run through an indoor, weather-proof location, it is acceptable to use unshielded cable. If the wires are going to be run through an outdoor location, we recommend that you use shielded cable. Recommendations for both types of cable are provided where needed.

## SINGLE ENTRANCE

### Cabling to the Ovation Controller

### Type of Wire

### Recommendations

From the Connector Board in the first LIB Housing

4 twisted pair cable

Shielded - Belden #9504  
Unshielded - Belden #8757

From the power transformer at the 120 VAC Outlet

2 conductor shielded cable

Shielded Only -  
See chart below

DC POWER WIRE SIZE	DISTANCE	AC POWER WIRE SIZE
18 AWG	30' and under	18 AWG
18 AWG	30'-75'	14 AWG
14 AWG	75'-150'	12 AWG
12 AWG	150'-250'	10 AWG
10 AWG	250'-500'	-----

From the Vandal-Proof Lobby Panel

22-24 awg shielded twisted

Shielded Only

pair copper cable

Belden #950

Additional Features

See requirements as specified on the product.

### Cabling to the Line Interface Boards

### Type of Wire

### Recommendations

From the power transformer at the 120 VAC Outlet

2 conductor shielded cable

Shielded Only -  
See chart below

DC POWER WIRE SIZE	DISTANCE	AC POWER WIRE SIZE
18 AWG	30' and under	16 AWG
18 AWG	30'-75'	12 AWG
14 AWG	75'-150'	10 AWG
12 AWG	150'-250'	-----
10 AWG	250'-500'	-----

Between Connector Boards in each LIB Housing

4 twisted pair cable

Shielded - Belden #9504  
Unshielded - Belden #8757

### Cabling to the Vandal-Proof Lobby Panel

### Type of Wire

### Recommendations

From the power transformer at the 120 VAC Outlet

2 conductor shielded cable

Shielded Only -  
See chart below

DC POWER WIRE SIZE	DISTANCE	AC POWER WIRE SIZE
18 AWG	30' and under	18 AWG
18 AWG	30'-75'	18 AWG
18 AWG	75'-150'	18 AWG
18 AWG	150'-250'	16 AWG
18 AWG	250'-500'	12 AWG

# MULTIPLE ENTRANCES

## Cabling to the Ovation Controller

## Type of Wire

## Recommendations

From the MUI Board in the first LIB Housing

4 twisted pair cable

Shielded - Belden #9504  
Unshielded - Belden #8757

From the power transformer at the 120 VAC Outlet

2 conductor shielded cable

Shielded Only -  
See chart below

DC POWER WIRE SIZE	DISTANCE	AC POWER WIRE SIZE
18 AWG	30' and under	18 AWG
18 AWG	30'-75'	14 AWG
14 AWG	75'-150'	12 AWG
12 AWG	150'-250'	10 AWG
10 AWG	250'-500'	-----

From each Vandal-Proof Lobby Panel

22-24 awg **shielded twisted pair copper** cable

Shielded Only - Belden #9501

Additional Features

See requirements as specified on the product.

## Cabling to the Line Interface Boards

## Type of Wire

## Recommendations

From the power transformer at the 120 VAC Outlet

2 conductor shielded cable

Shielded Only -  
See chart below

DC POWER WIRE SIZE	DISTANCE	AC POWER WIRE SIZE
18 AWG	30' and under	16 AWG
18 AWG	30'-75'	12 AWG
14 AWG	75'-150'	10 AWG
12 AWG	150'-250'	-----
10 AWG	250'-500'	-----

Between Connector Boards in each LIB Housing

4 twisted pair cable

Shielded - Belden #9504  
Unshielded - Belden #8757

## Cabling to the Vandal-Proof Lobby Panels

## Type of Wire

## Recommendations

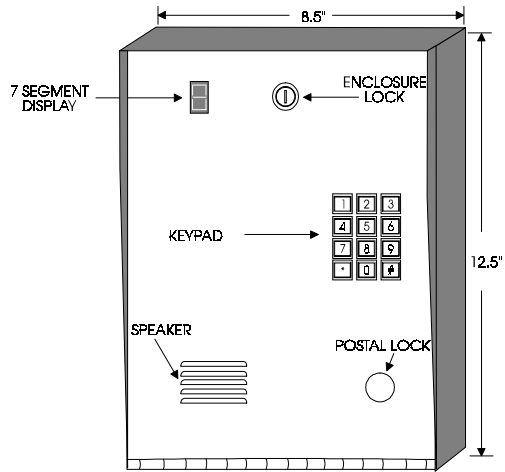
From the power transformer at the 120 VAC Outlet

2 conductor shielded cable

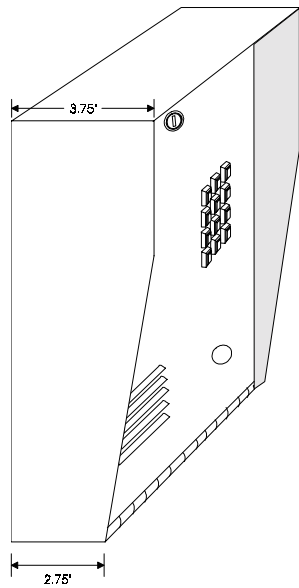
Shielded Only -  
See chart below

DC POWER WIRE SIZE	DISTANCE	AC POWER WIRE SIZE
18 AWG	30' and under	18 AWG
18 AWG	30'-75'	18 AWG
18 AWG	75'-150'	18 AWG
18 AWG	150'-250'	16 AWG
18 AWG	250'-500'	12 AWG

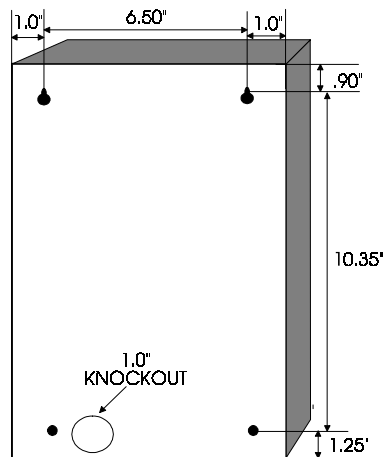
# DIMENSIONAL DRAWING OF THE OVATION "S" SURFACE MOUNT CABINET



FRONT VIEW



SIDE VIEW

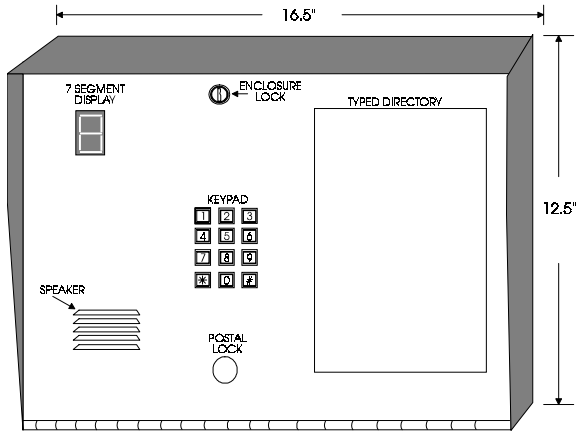


REAR VIEW

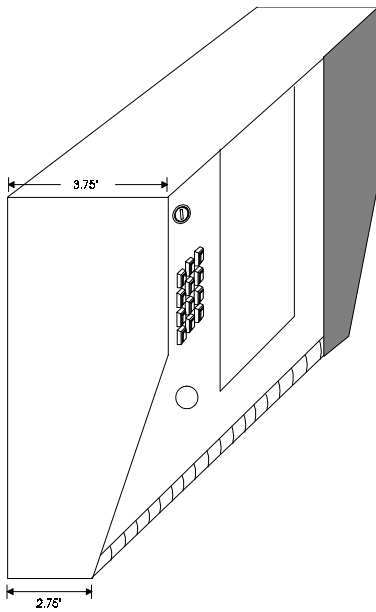
This line drawing is intended for dimensional reference purposes only and is not intended to be an actual drawing of the Ovation unit itself.

## DIMENSIONAL DRAWING OF THE

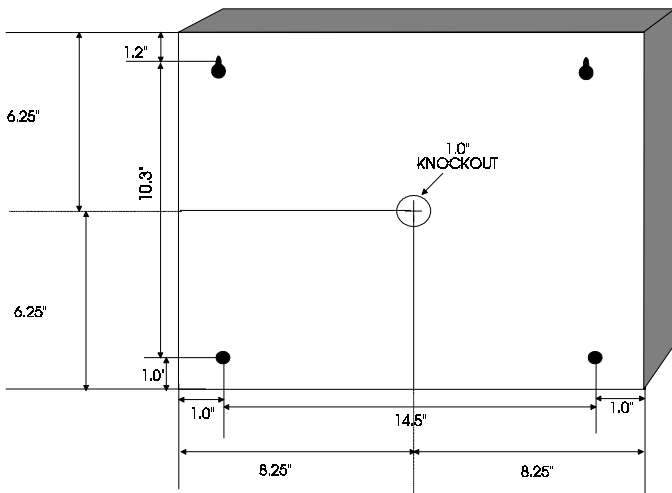
# OVATION "V" SURFACE MOUNT CABINET



FRONT VIEW



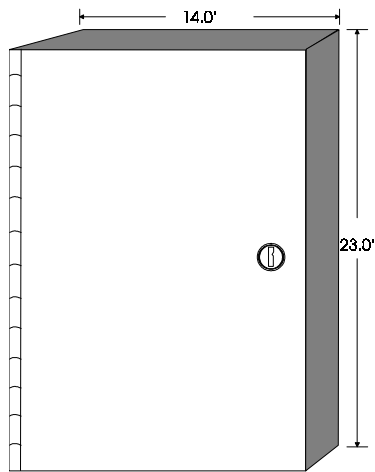
SIDE VIEW



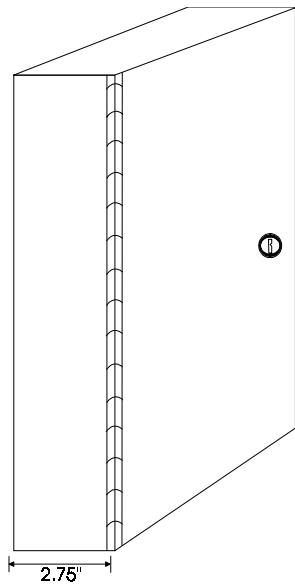
REAR VIEW

This line drawing is intended for dimensional reference purposes only and is not intended to be an actual drawing of the Ovation unit itself.

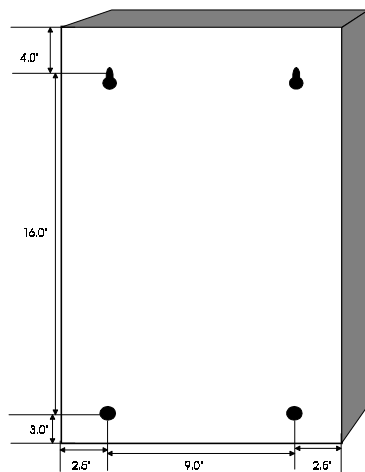
# DIMENSIONAL DRAWING OF THE OVATION "LP" CONTROLLER BOARD CABINET



FRONT VIEW



SIDE VIEW

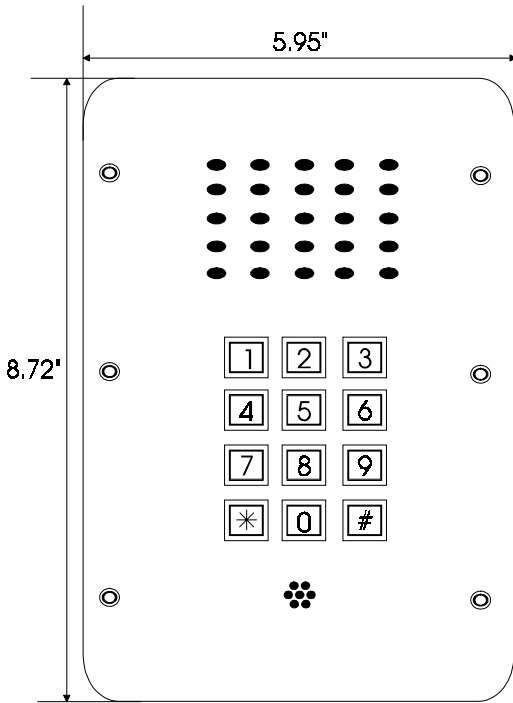


REAR VIEW

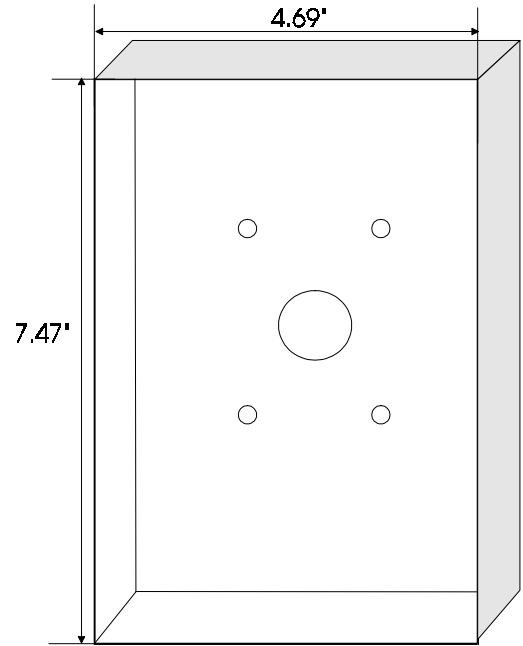
This line drawing is intended for dimensional reference purposes only and is not intended to be an actual drawing of the Ovation unit itself.

## **DIMENSIONAL DRAWING OF THE**

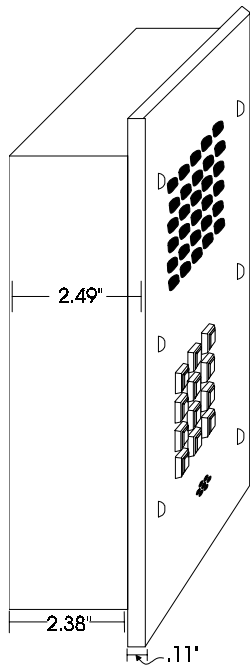
# VANDAL-PROOF LOBBY PANEL (WITH BACK BOX)



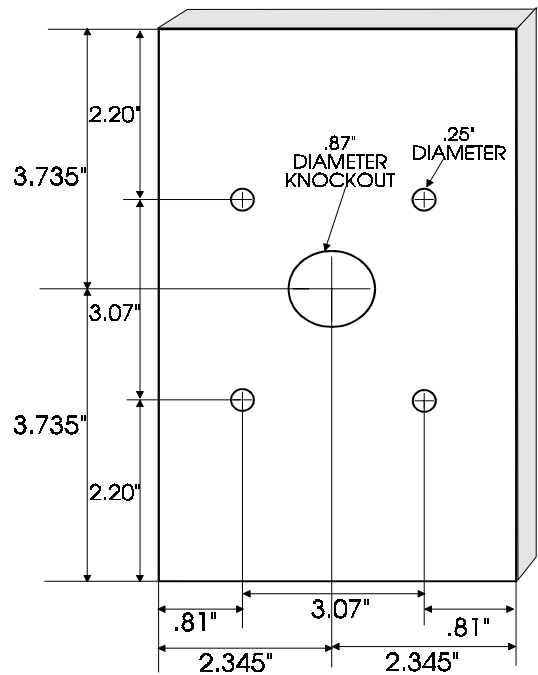
FRONT PANEL



FRONT VIEW OF ENCLOSURE



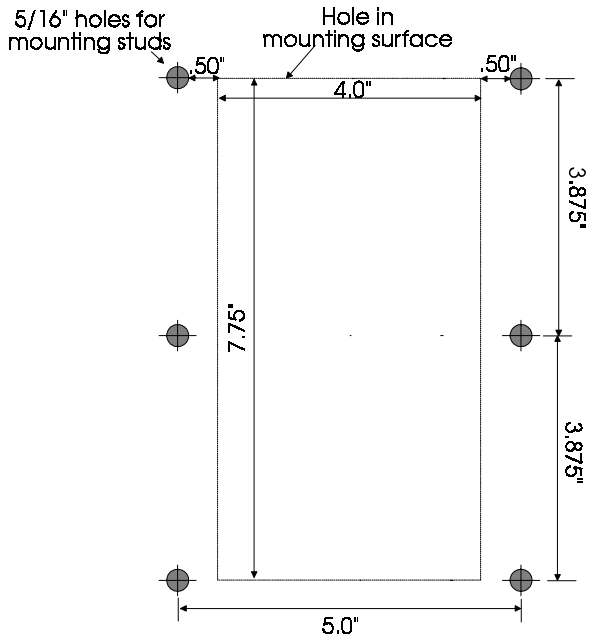
SIDE VIEW



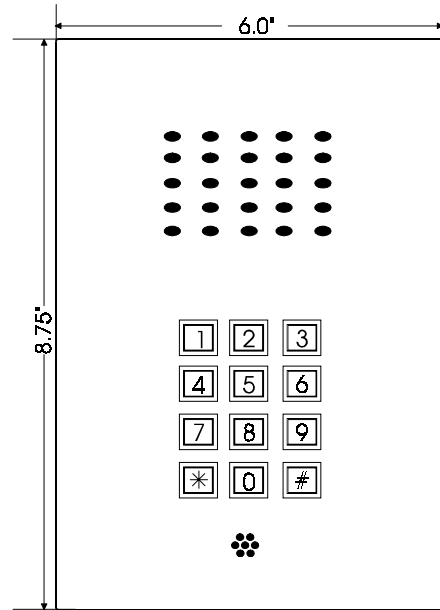
REAR VIEW OF ENCLOSURE

This line drawing is intended for dimensional reference purposes only and is not intended to be an actual drawing of the Vandal-Proof Lobby Panel itself.

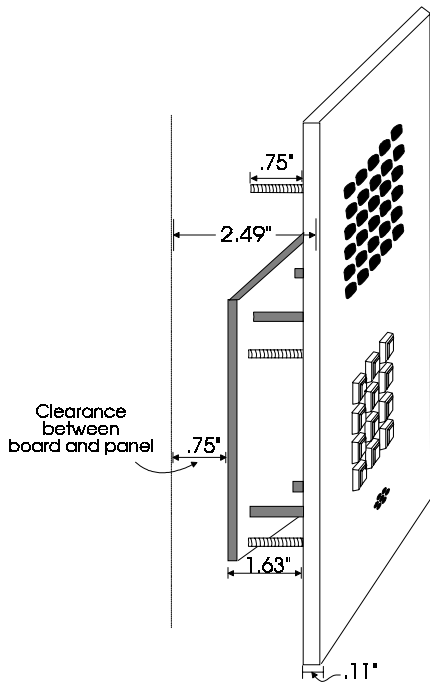
# DIMENSIONAL DRAWING OF THE VANDAL-PROOF LOBBY PANEL (WITH DIRECT-MOUNTING STUDS)



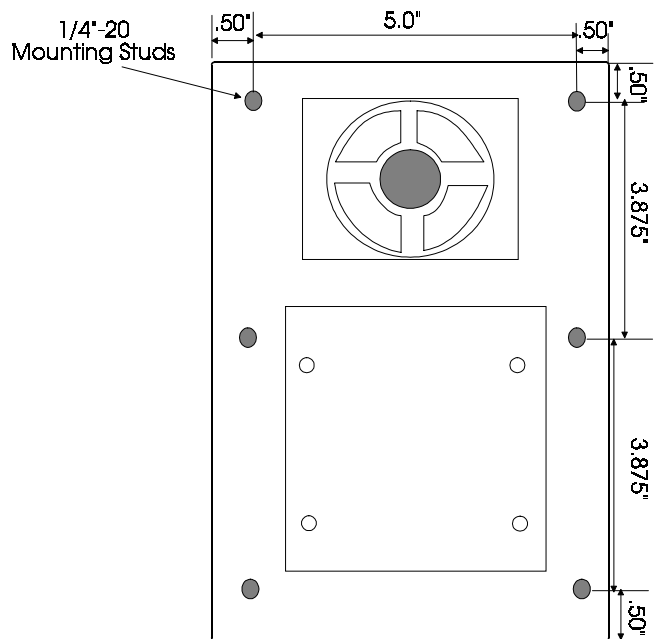
**DIMENSIONS FOR MOUNTING SURFACE**



**FRONT VIEW**



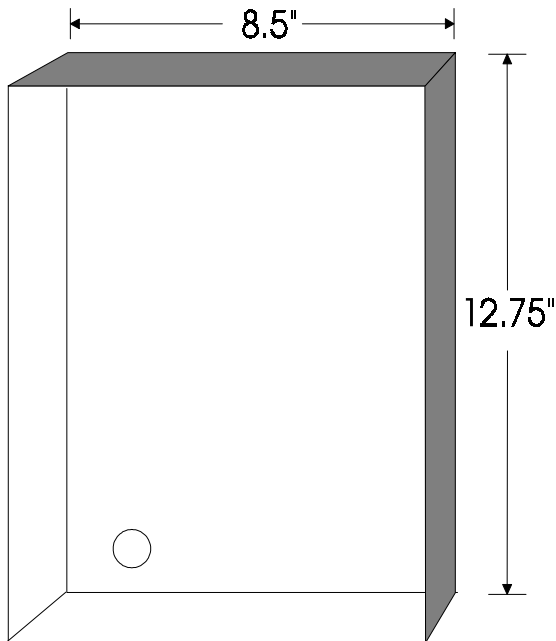
**SIDE VIEW**



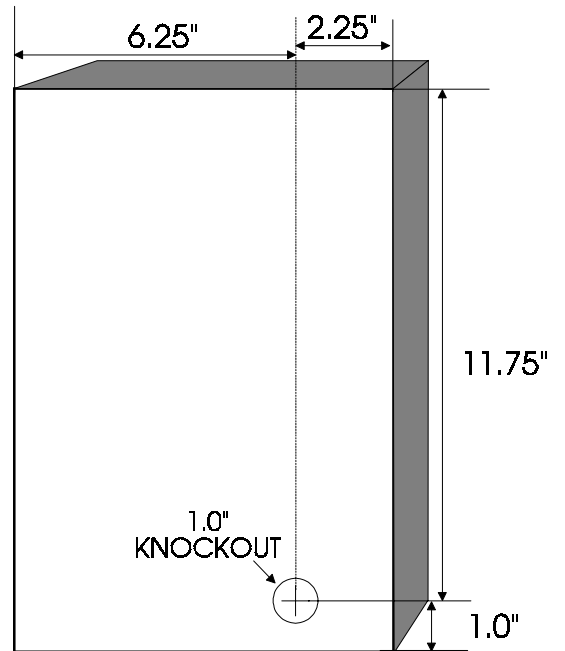
**REAR VIEW**

This line drawing is intended for dimensional reference purposes only and is not intended to be an actual drawing of the Vandal-Proof Lobby Panel itself.

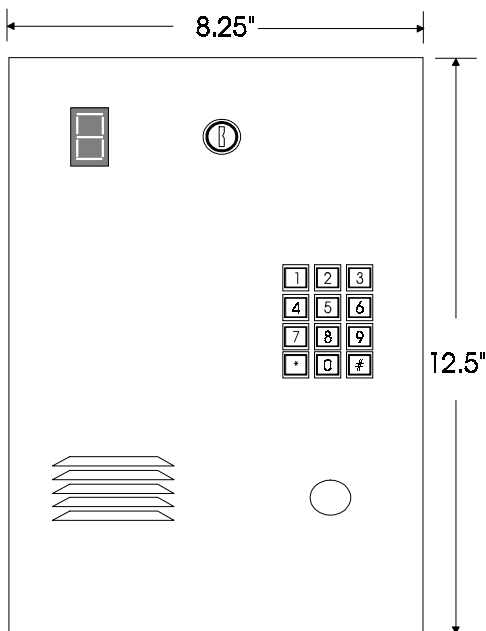
# DIMENSIONAL DRAWING OF THE OVATION "S" FLUSH MOUNT CABINET



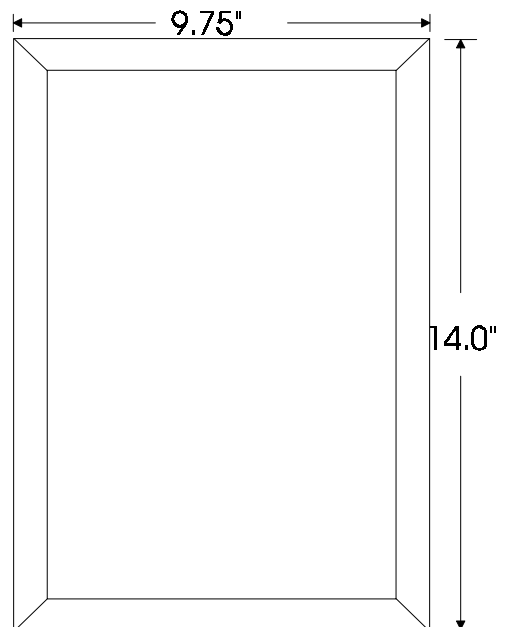
**FLUSH MOUNT BACK BOX  
(FRONT VIEW)**



**FLUSH MOUNT BACK BOX  
(REAR VIEW)**



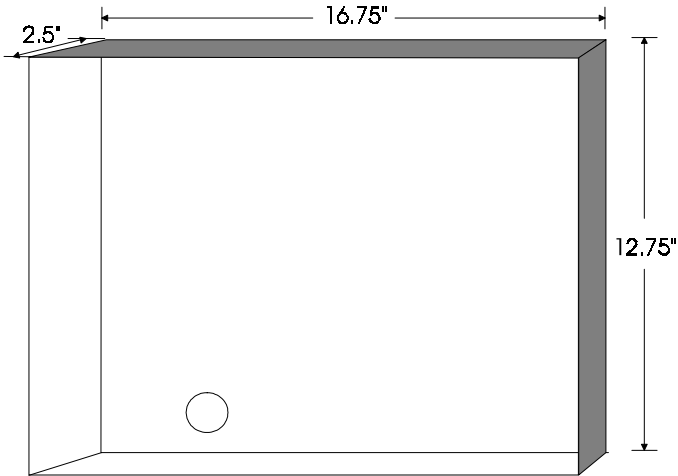
**FRONT PANEL**



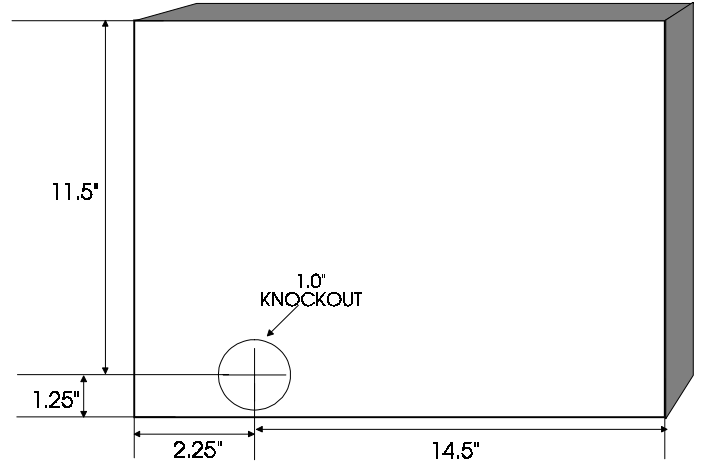
**FRONT PANEL BEZEL**

This line drawing is intended for dimensional reference purposes only and is not intended to be an actual drawing of the Ovation unit itself.

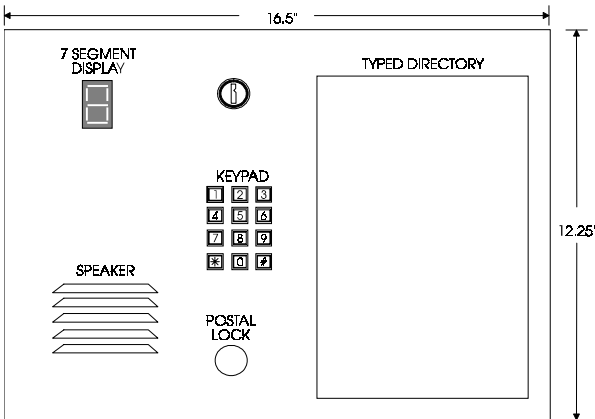
# DIMENSIONAL DRAWING OF THE OVATION "V" FLUSH MOUNT CABINET



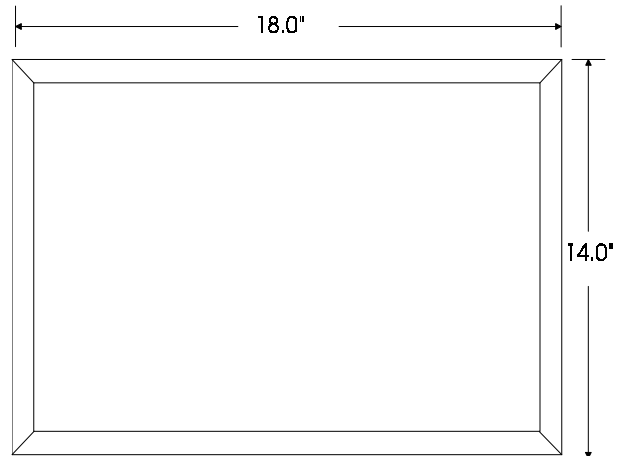
FLUSH MOUNT BACK BOX  
(FRONT VIEW)



FLUSH MOUNT BACK BOX  
(REAR VIEW)



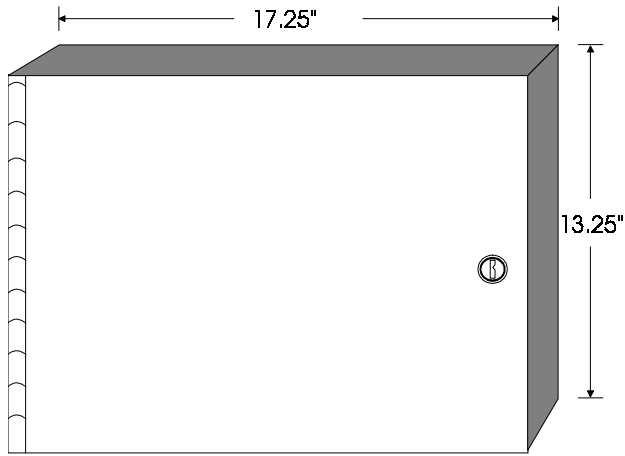
FRONT PANEL



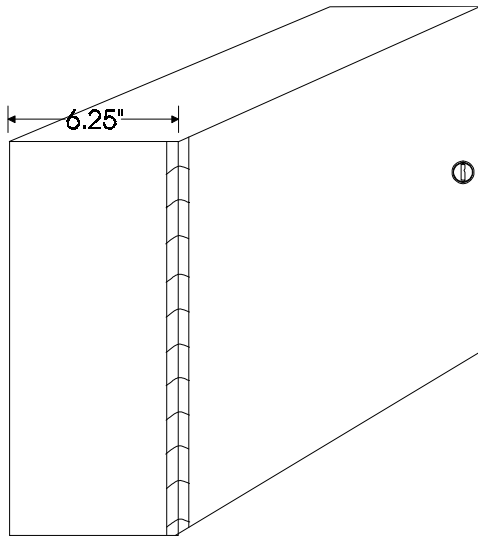
FRONT PANEL BEZEL

This line drawing is intended for dimensional reference purposes only and is not intended to be an actual drawing of the Ovation unit itself.

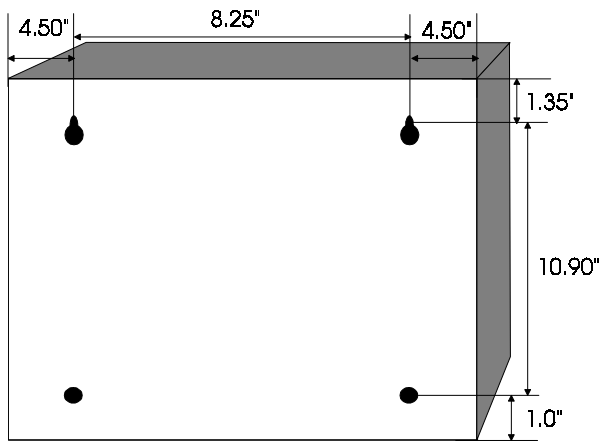
# DIMENSIONAL DRAWING OF THE LARGE LIB CABINET



FRONT VIEW



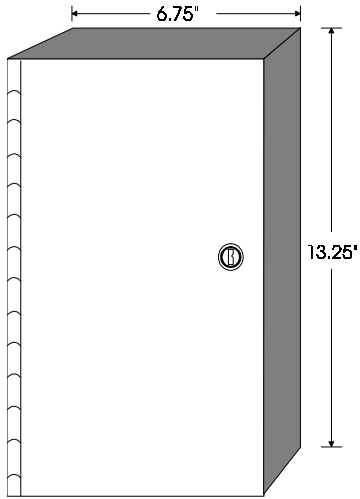
SIDE VIEW



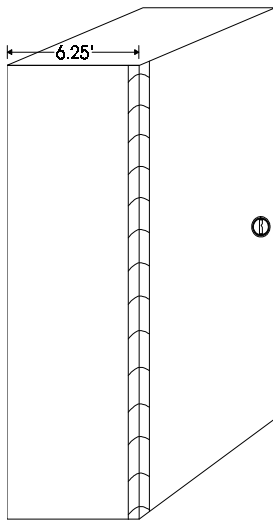
REAR VIEW

This line drawing is intended for dimensional reference purposes only and is not intended to be an actual drawing of the LIB cabinet itself.

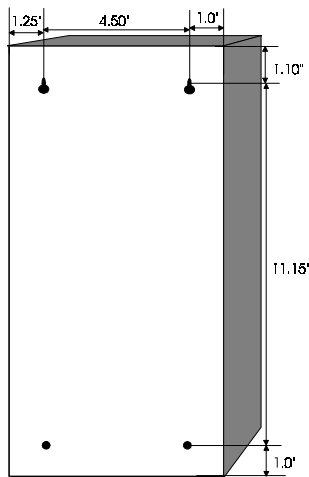
**DIMENSIONAL DRAWING  
OF THE SMALL LIB CABINET**



FRONT VIEW



SIDE VIEW

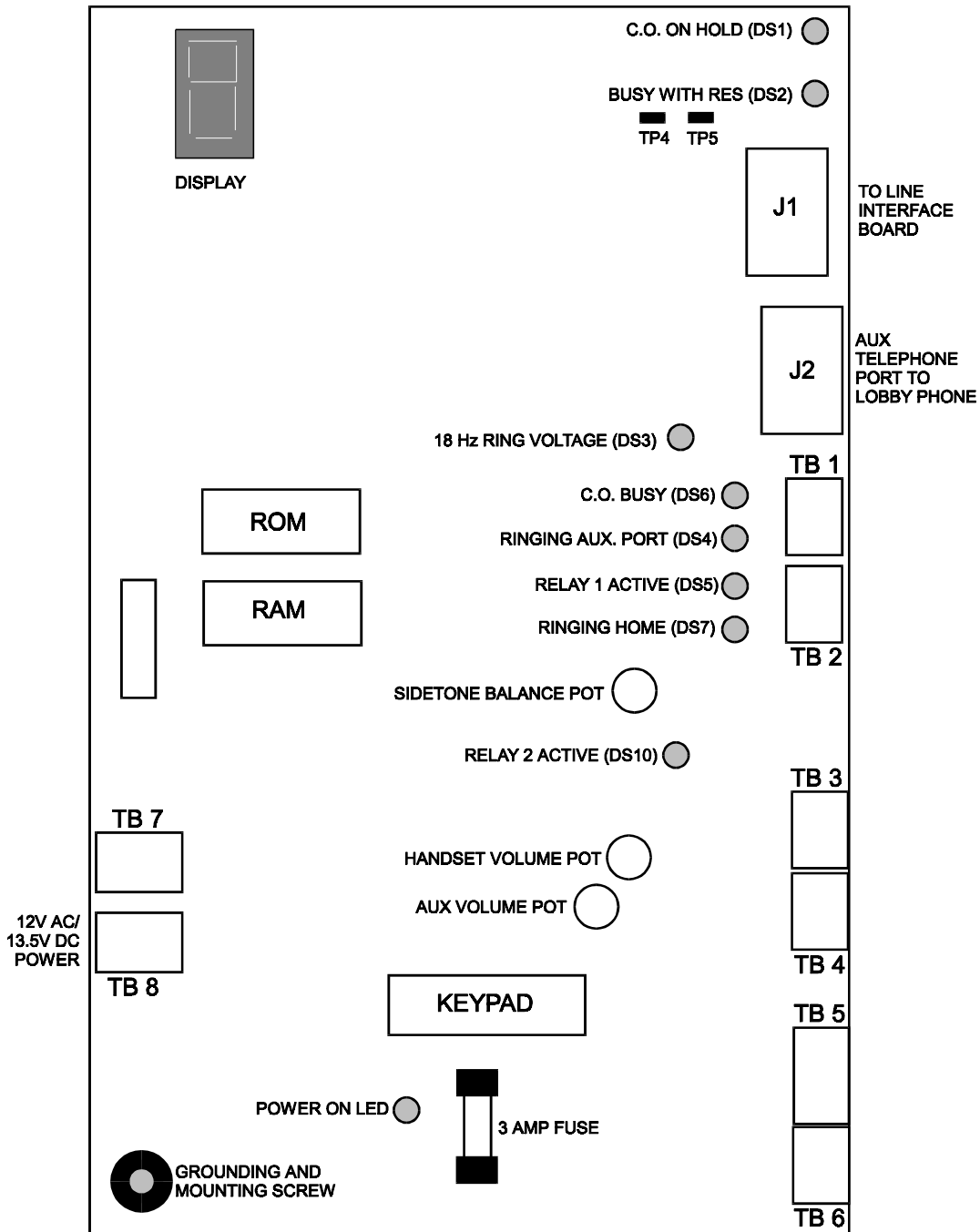


REAR VIEW

This line drawing is intended for dimensional reference purposes only and is not intended to be an actual drawing of the LIB cabinet itself.

# OVATION CONTROLLER BOARD

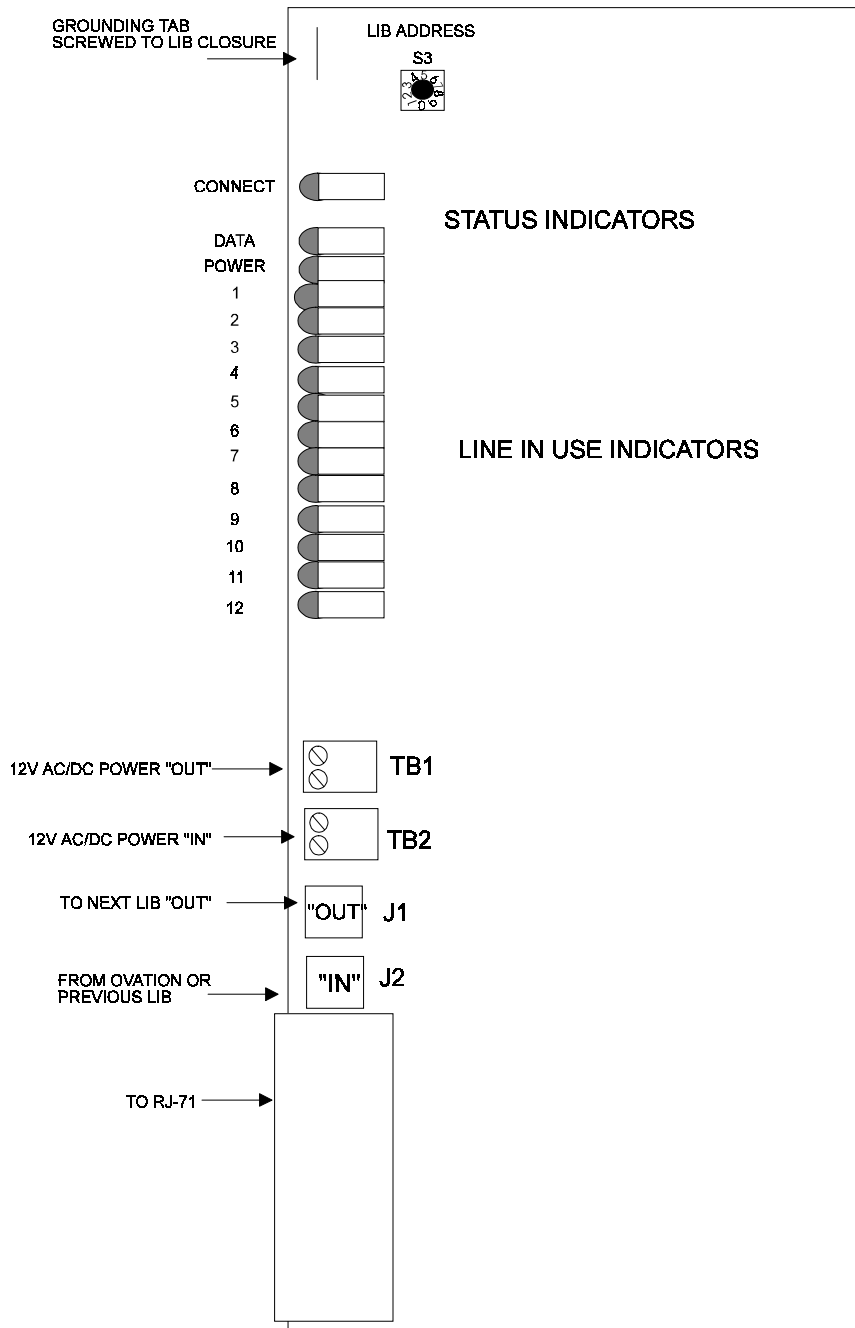
(Located in the "S", "V", or "LP" Housing)



(1111F1.CDR)

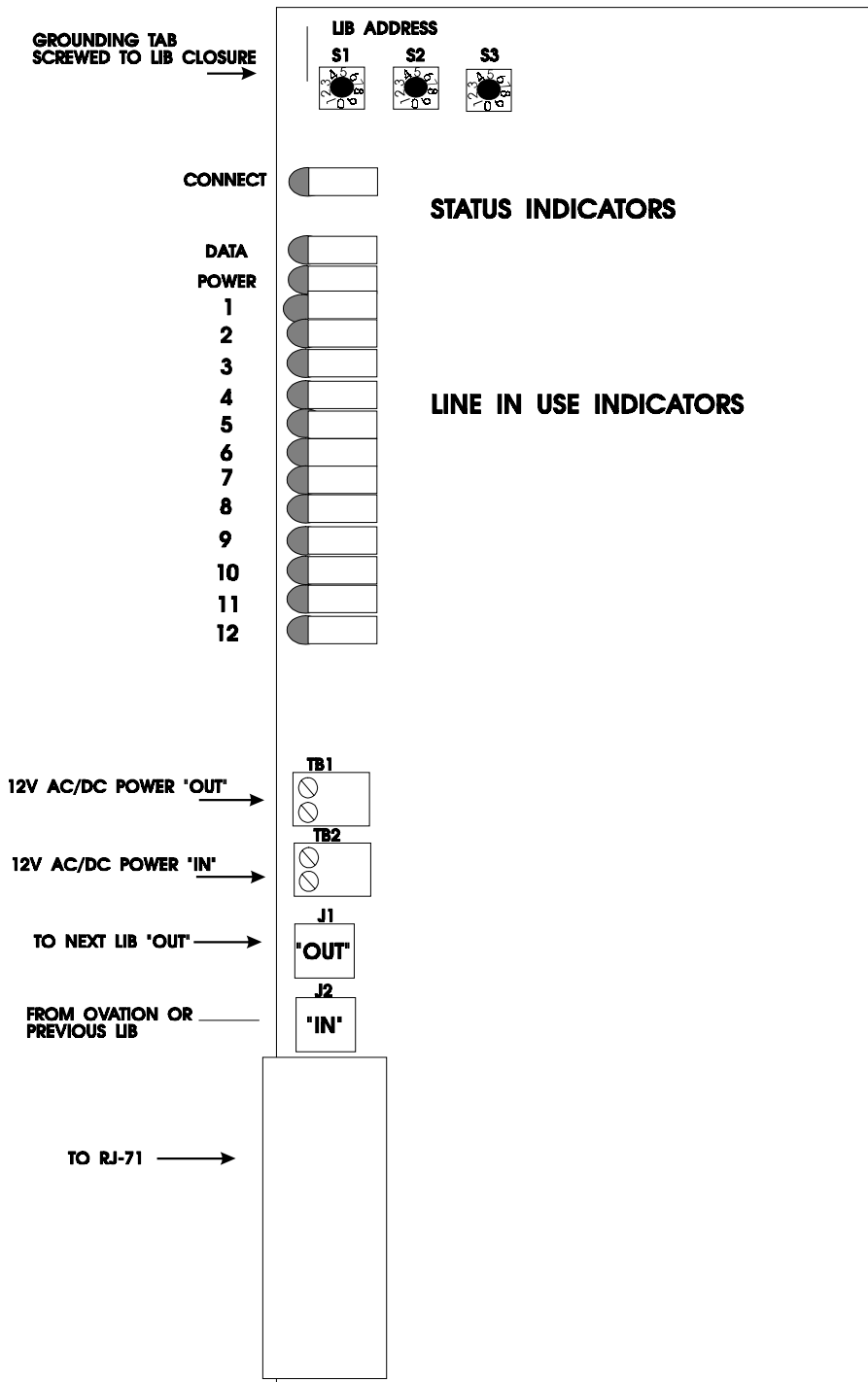
# LINE INTERFACE BOARD (LIB) WITH A SINGLE DECADE SWITCH

(Located in LIB Housing)



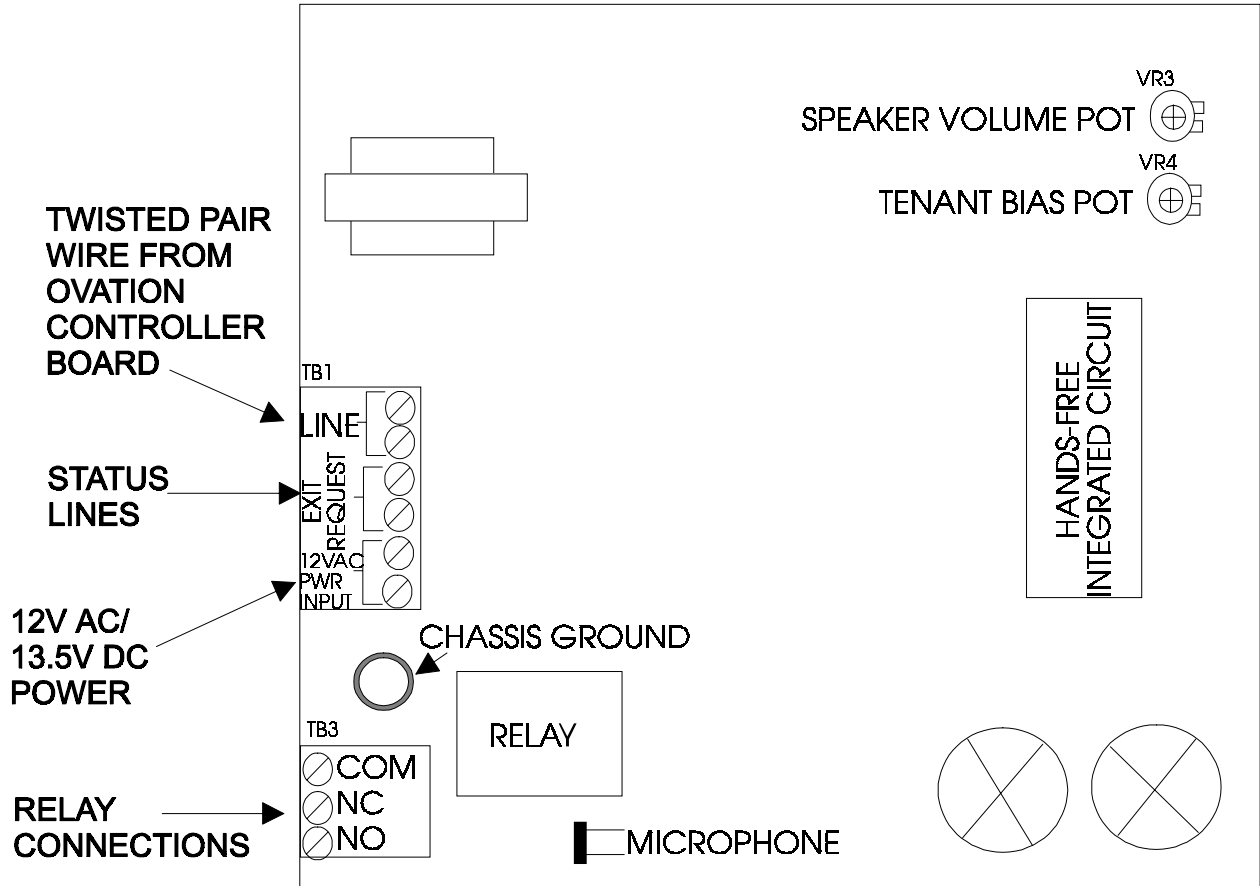
# LINE INTERFACE BOARD (LIB) WITH THREE DECADE SWITCHES

(Located in LIB Housing)



# VANDAL-PROOF LOBBY PANEL BOARD

(Located in Vandal-Proof Lobby Panel)

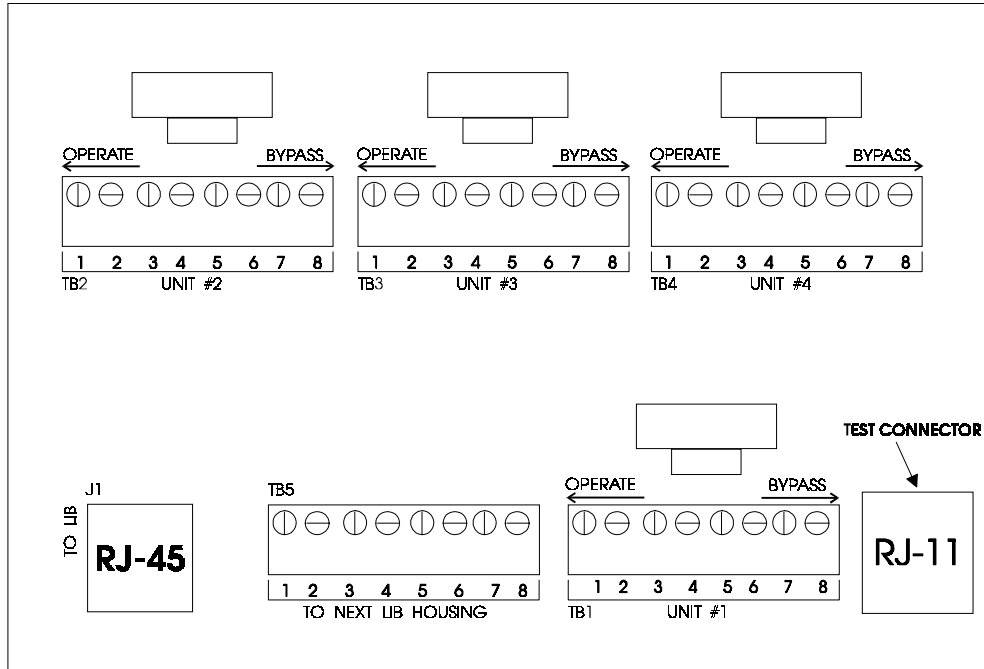


(1111F2.CDR)

# MULTIPLE UNIT INTERFACE (MUI)

(For multiple unit installations only)

(Located in LIB Housing)



# CONNECTOR BOARD

(For single unit installations only)

(Located in LIB Housing)

