



Sepura TETRA Interface for IP-224



PROPRIETARY NOTICE

The product information and design disclosed herein were originated by and are the property of Bosch Security Systems, Inc. Bosch reserves all patent, proprietary design, manufacturing, reproduction, use and sales rights thereto, and to any article disclosed therein, except to the extent rights are expressly granted to others.

COPYRIGHT NOTICE

Copyright 2016 by Bosch Security Systems, Inc. All rights reserved. Reproduction, in whole or in part, without prior written permission from Bosch is prohibited.

*All other trademarks are property of their respective owners.

WARRANTY NOTICE (LIMITED)

For warranty and service information, refer to www.telex.com/warranty.

FACTORY SERVICE CENTER

Factory Service Center Bosch Security Systems, Inc. Radio Dispatch Products 8601 East Cornhusker Highway Lincoln, Nebraska, 68507

CONTACT INFORMATION

Sales:

Phone	
Fax	
E-mail	TelexDispatch@us.bosch.com
Customer Service Repair:	

Technical Support:

Knowledge Database http://knowledge.boschsecurity.com/
LiveChatwww.telex.com/us/dispatch/support
E-mailTelexDispatchtechsupport@us.bosch.com
Webwww.telex.com

CLAIMS

No liability will be accepted for damages directly or indirectly arising from the use of our materials or from any other causes. Our liability shall be expressly limited to replacement or repair of defective materials.

WARNING

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Do not open the unit. No user serviceable parts are contained within. Bosch cannot be responsible for damage. If the unit is opened, the warranty can be voided.

Table of Contents

1.0 I	Introduction	5
2.0	Hardware Requirements	5
3.0 \$	Software Requirements	5
4.0 \$	Supported System Features	5
5.0 (Cable Diagram	6
6.0 I	Radio Programming Application Setup	7
6.	.1 Serial Communications Setup	7
6.2	2 Trunked Mode Setup	9
6.	3 Direct Mode Setup	10
6.	.4 Emergency Setup	11
7.0 I	IP-224 Access Key Installation	12
8.0 I	IP-224 Setup	
9.0 (C-Soft Designer Setup	15
9.	.1 Configure Per Line Parameters	15
9.	2 Configure Frequencies	16
9.	3 Signal Setup	17
9.4	.4 Call Setup	19
9.	.5 User ID List	20
9.	.6 Console Design Overview	21

1.0 Introduction

The Sepura TETRA radio interface is designed as an add-on option in the Telex Radio Dispatch system. This application guide describes the Telex Radio Dispatch Sepura TETRA feature set and how to configure the interface for the IP-224 and C-Soft.

2.0 Hardware Requirements

- IP-224 Ethernet Adapter Panel (F.01U.306.547)
- IP-224 to Sepura Interface Cable (P/N F.01U.165.542)
- Sepura SRM2000/SRG3500 TETRA Radio

3.0 Software Requirements

- C-Soft version 6.500 or later
- IP-224 version 2.100 or later
- IP-224 TETRA Interface Access Key
- Telex System Manager (TSM) 2.000 or later
- Windows 7 (32-bit or 64-bit)
- Windows 8.1

4.0 Supported System Features

	Sepura TETRA Supported Features								
Feature	DMO Support	TMO Support	Feature	DMO Support	TMO Support				
Channel/Talkgroup Change	Yes	Yes	ANI Decode	Yes	Yes				
Zone Change	No	No	Emergency Decode	Yes	Yes				
			Status Message Decode	Yes	Yes				
Group Call	Yes	Yes	Text Message Decode	No	No				
Private Call	No	Yes	User Defined Scan List	No	Yes				

5.0 Cable Diagram

The IP-224 to Sepura Interface Cable allows the IP-224 to serially control a Sepura TETRA radio.



FIGURE 1. Sepura Serial Interface Cable

Sepura SRM2	000/SRG3500 R	adio Interface C	able to IP-224
	Sepura	IP-224	Function
	PIN 2	PIN 5	PTT RELAY COM CONTRACT
	PIN 2	PIN 29	GROUND
	PIN 6 PIN 24		PTT RELAY N.O. CONTACT
CONNECTOR	PIN 7	PIN 1	TX+ AUDIO
	PIN 9	PIN 20	RX+ AUDIO
	PIN 1		
	PIN 3		
	PIN 11	PIN 17	RS-232/TTL TXD
15 PIN CONNECTOR	PIN 10	PIN 36	RS-232/TTL RXD
	PIN 15	PIN 29	GROUND

NOTE: Pin 1 and Pin 3 of the 10-pin connector on the Sepura radio must be connected for the interface to function properly.

6.0 Radio Programming Application Setup

The Sepura Radio Manger is used to configure the Sepura TETRA radio to interface properly with the IP-224.

6.1 Serial Communications Setup

To configure the Serial Communications, do the following:

- 1. From the left navigation, select **PEI Parameters**. *The PEI Parameters options appear.*
- 2. From the PEI Parameters options, select **General PEI Parameters**. *The General PEI Parameters window appears*.
- 3. Click the Parameters tab.

The Parameters window appears.

Sepura Radio Manager		
Edit Template Parameters - All Parameter	ers_v9_0_006_SRG3500W - 2 - 2nd Edition	
Parameter Index Parameter Name		00
Select Parameters to Edit		
WAP WAP Configuration MMC Accessory GPS Real Time Clock Settings Covert Facility Connector/RCU Configuration Viorator Noise Cancellation Configuration Packat Data Parameters PPP Options	Sepura Radia Manager Edit Template - All Parameters_v9_0_006_SRG3 General PEI Parameters Truried Mode Services Parameters	500W - 2 - 2nd Edition
IP Options	Default Hays Baud Rate	19200
B Language	Hayes Text Format	Mored
Language Strings	PEI PSTN Gateway	08
General PEI Parameters	PEI PABI Gateway	04
Gateway Mode PEI Profile Parameters	Default Hayes Baud Rate for Logical Port 2	38400
Repeater Mode PEI Profile Parameters	Serial Port Usage	Normal (AT on first physical port)
Audio Level Parameters	Reset to default configuration	Reboot the Radio
Product Specific Headset		

On the Parameters Page

- 4. From the Default Hays Baud Rate drop down menu, select 19200.
- 5. From the Serial Port Usage drop down menu, select Normal (AT on first physical port).
- 6. Click the **Direct Mode Services tab**. *The Direct Mode Services page appears.*

On the Direct Mode Services Page

Parameter Index Parameter Name	
elect Parameters to Edit	
⊜ WAP	
Configuration	
MMC	
Accessory	
GPS	
Real Time Clock Settings	
Time Stamp Settings	Sepura Radio Manager
- Covert Facility Connector/RCU Configuration	Edit Template - All Parameters v9 0 006 SRG3500W - 2
Vibrator	
- Vibrator Noise Cancellation Configuration	General PEI Parameters
Vibrator Noise Cancellation Configuration Packet Data Parameters PDD Optimizer	General PEI Parameters Turcled Mode Services Turcled Mode Services
Vibrator Noise Cancellation Configuration Packet Data Parameters PPP Options PP Options	General PEI Parameters Trunked Hode Services CC Voice (Route to PEI) CC Voice (Route to PEI)
Vibrator Vibrator Noise Cancellation Configuration Pope Options PP Options Poptions Language Language	General PEI Parameters Trunked Mode Services Parameters Direct Mode Services CC Voice Route to PEII CC Data Route to PEII CC Data Route to PEII
Vibrator Noise Cancellation Configuration Packet Data Parameters PPP Options POP Options Canguage Language Language Pings	General PEI Parameters Trunked Hode Services Parameters Cirect Hode Services CC Voice Route to PEII CC Data Route to PEII CV State To PEII
Visrator Visrator Noise Cancellation Configuration PPC Options PPC Options Canguage Language Strings PEL Parameters	General PEI Parameters Trusked Mode Services Parameters [Direct Mode Services] CC Voice Route to PEII CC Data Route to PEII S05 Stabus Route to PEII
Vibrator Vibrator Noise Cancellation Configuration PPP Options PPO Options Canguage Language Language PEI Parameters General PEI Parameters	General PEI Parameters Trunked Mode Services Parameters CVect Mode Services CC Voice Resulte to PEII CC Codia Route to PEII S005 Status Route to PEII S005 Status Route to PEII
Visetor Noise Cancellation Configuration Packet Data Parameters PPP Options PO Options Language Language Strings PEI Parameters General PEI Parameters Gateway Mode PEI Profile Parameters	General PEI Parameters Trunked Mode Services CC Voice CC Voice CC Voice CC Voice S05 Status S05 Status S05 FL Route to PEII
Visrator Noise Cancellation Configuration PPP Options PPP Options Canguage Language Canguage PEI Parameters General PEI Parameters Gateway Mode PEI Profile Parameters Repeater Mode PEI Profile Parameters Repeater Mode PEI Profile Parameters	General PEI Parameters Trunked Mode Services Parameters CC Voice Route to PEI CC Data Route to PEI S05 Status Route to PEI S05-TL Route to PEI

- 7. From the CC Voice drop down menu, select Route to PEI1.
- 8. From the CC Data drop down menu, select Route to PEI1.
- 9. From the SDS Status drop down menu, select Route to PEI1.
- 10. From the SDS-TL drop down menu, select Route to PEI1.
- 11. Click the **Trunked Mode Service tab**.

The Trunked Mode Services window appears.

On the Trunked Mode Services Page

ect Parameters to Edit		
Configuration MMC		
- Configuration MMC		
MMC		
B Accessory		
GPS		
Real Time Clock Settings		
Time Stamp Settings	Sepura Radio Manager	
- Covert Facility Connector/RCU Configuration	Edit Template - All Parameters v9 0 006 SPC35	500W - 2
Vibrator	Edit Template - Air Parameters_vo_0_000_0K000	0000 . 2
- Noise Cancellation Configuration	General PEI Parameters	
Packet Data Parameters		
- PPP Options	Trunked Mode Services Parameters Direct Mode Services	
IP Options	CC Voice	Route to PEII
E Language	CC Data	Route to PEII
Language Strings	MM Registration	Route to MT
		Doude to MT
B PEI Parameters	Mil Come Management	PILLAR 10 P11
B PEI Parameters General PEI Parameters	MM Group Management	
PEI Parameters General PEI Parameters Gateway Mode PEI Profile Parameters	MH Group Management 305 Status	Route to PEII
PEI Parameters General PEI Parameters Gateway Mode PEI Profile Parameters Repeater Mode PEI Profile Parameters	MM Group Management SCS Status SDS-TL	Route to PEII

- 12. From the CC Voice drop down menu, select Route to PEI1.
- 13. From the CC Data drop down menu, select Route to PEI1.
- 14. From the MM Registration drop down menu, select Route to MT.
- 15. From the MM Group Management drop down menu, select Route to MT.
- 16. From the SDS Status drop down menu, select Route to PEI1.
- 17. From the SDS-TL drop down menu, select Route to PEI1.

6.2 Trunked Mode Setup

To configure Trunked Mode, do the following:

- 1. From the left navigation, select **Talk Groups**. *The Talk Groups options appear*.
- 2. From the Talk Groups options, select **Talk Group/Folders etc**. *The Edit Template window appears.*

Sepura Radio Manager								
Edit Template Parameters - All Par	ameters_v9_0_006_SRG3500	W - 2 - 2n	d Edit	ion				
Parameter Index Parameter Name								00
Select Parameters to Edit								
General Menu Options General Menu Options Status Message Configuration Radio Settings SDS Settings Call History Settings Network Selection UDSL Settings Special Status Values Taik Groups	Sepura Radio Manager Edit Template - All I Talk Groups / Folders etc	Parameter 	rs_v9.	_0_006_SRG	63500W	- 2 - 2n	d Edition	
Talk Groups / Folders etc	Groups	Type	Numi	Alias	MEC	MINE	GSSI	Class
Configuration	All	TMO	1	Group 801	238	16003	800801	4: No
Short Data Application	TMO	TMO	2	Group 802	238	16003	800802	4: NO
Configuration	LIDE	TMD	3	Group 803	238	16003	800803	4: No
Action	Background	TMO	4	Group 804	238	16003	800804	4: NO
Abbress Check Value	Background	TMO	5	Group 805	238	16003	800805	4: No
Field	B Special							

3. From the left navigation of the Edit Template window, select TMO.

NOTE: The Sepura terminal needs TMO groups to affiliate and operate in Trunked Mode.

- 4. In Alias field, enter the Name of the group.
- 5. In MCC (Mobile Country Code) field, enter the MCC number. *The MCC is a 3-digit number determined by country and region.*
- 6. In **MNC** (Mobile Network Code) field, enter the **MNC number**. *The MNC is 2- to 4-digit number determined by network carrier.*
- **NOTE:** The MMC and MNC must match the TETRA network for the Sepura terminal to connect to the TETRA system.
- 7. In the GSSI (Group Short Subscriber Identity) field, enter GSSI number.
- **NOTE:** Each group requires a unique GSSI number.

6.3 Direct Mode Setup

To configure Direct Mode, do the following:

- 1. From the left navigation, select **Talk Groups**. *The Talk Groups options appear*.
- 2. From the Talk Groups options, select **Talk Group/Folders etc**. *The Edit Template Window appears*.



- 3. From the left navigation of the Edit Template window, select **DMO**.
- 4. In Alias field, enter the Name of the group.
- 5. In MCC (Mobile Country Code) field, enter the MCC number. *The MCC is a 3-digit number determined by country and region.*
- 6. In **MNC** (Mobile Network Code) field, enter the **MNC number**. *The MNC is 2- to 4-digit number determined by network carrier.*
- 7. In the GSSI (Group Short Subscriber Identity) field, enter GSSI number.

NOTE: Each group requires a unique GSSI number.

6.4 Emergency Setup

To configure Emergency, do the following:

- 1. From the left Navigation, select **Alarm**. *The Alarm Options appear*.
- 2. From the Alarm options, select **Trunked Mode**. *The Trunked Mode window appears*.

Sepura Radio Manager	
Edit Template Parameters - All Para	meters_v9_0_006_SRG3500W - 2 - 2nd Edition
Parameter Index Parameter Name	
Select Parameters to Edit	
UI Character Configuration Short Data Source Addresses Additional UI Options Privacy Mode Group Focus Paging Alerts E2E Smart Card SDS Store and Forward Alarm Alarm Button Configuration Direct Mode Transmit Inhibit Security Authentication Operation	Sepura Radio Manager Edit Template - All Parameters_v9_0_006_SRG3500W - 2 - 2nd Edition Trunked Mode Alarm Status Call Alarm Speech Call Alarm Priority Live Microphone Alarm Position Report Access Priority Marm Call Priority (Trunked Mode) 15

On the Alarm Priority Page

3. From the Alarm Call Priority (Trunked Mode) drop down menu, select 15.

7.0 IP-224 Access Key Installation

The Sepura TETRA radio interface requires an additional TETRA Interface option on the IP-224.

NOTE:

- The TETRA Interface Access Key must be purchased before you can activate the Sepura Serial Type. The TETRA Interface requires an access key to be generated specifically for each IP-224.
- If the TETRA Interface Access Key was purchased as a factory installation [TETRA-224 PI (factory installed)] it is activated by the factory prior to shipping.
- Activating the TETRA Interface via the IP-224 web interface is only required if this is a field installation [TETRA-224 FIELD (customer purchased option)].

To activate the TETRA Interface, do the following:

- 1. Open the **IP-224 webpage**.
- 2. From the left navigation, select **Additional Features**. *The Additional Features page appears*.

TELEX IP-224			
• Home	ACCESS ADDIT	IONAL FEATURES	
Ethernet Setup	Access Kev:		Submit
Multicast Setup			
Hardware Setup		Feature Name	Number Of Lines Allowed
Gain Setun		EFJohnson Radio	2
, our secup		iDEN Radio	2
Per Line Setup		Sprint Direct Connect	2
Crosspatch Setup		FleetSync Decode	2
		FleetSync Encode	2
 Account Management 		MDC1200 Decode	2
 Additional Features 		MDC1200 Encode	2
		DMR Interface	2
Save Parameters		NXDN Interface	2
Surtan Statur		P25 Interface	2
system status		TETRA Interface	2

- 3. In the Access Key field, enter the **32-character access key**.
- 4. Click the **Submit button**. *The changes are sent to the IP-224 in temporary storage.*
- 5. From the left navigation, select **Save Parameters**. *The Save Parameters page appears*.
- 6. Click the **Save Parameters button**. Changes are now permanently saved to the IP-224 console.

8.0 IP-224 Setup

To configure the IP-224, do the following:

- 1. Open the **IP-224 web application**. *The IP-224 Window appears*.
- 2. From the left navigation, select **Multicast Setup**. *The Multicast Setup window appears*.

Name: Telex IP-224 MAC: 00:08:7C:70:09:0A HW: 1.000 FW: 1.204 SN: 224120268 Checkso	ım: 70368561	L				T	EL	Radio	Dispate
ELEX IP-224				S	ubmit		Auto) Configur	ation:
Home]								
Ethernet Setup	LINE SET	UP							
 Multicast Setup 	Line:	Line	Line Nan	ne:	Line Type:	Serial	Type:	Vocode	er Type:
Line Setup	1	enable.	Sepura1		Local Mode *	Sepura		TELE	(32K •
IP Recorder Setup	2		Sepura2		Local Mode *	Sepura	,	TELE	(32K •
Hardware Setup	Line:	Mcast Enable:	RX Mcast: RX Port:		TX Mcast:	TX Port: TX Gr		TX Group Port B:	m:
Gain Setup	1		225.8.11.81	1054	225.8.11.81	1072	0	0	6
Per Line Setup	2		225.8.11.81 1055		225.8.11.81	1073	0	0	6
Account Management									
Additional Features	IP RECO	RDER SET	UP						
Save Parameters	Line:	Mcast Enable	Line Na	me:	Vocoder Type:	Mcast Add	ress: Ou	tgoing Port:	п.:
System Status	1		Recorder 1		TELEX 32K 👻	225.8.11.81	22	50	6
	2		Recorder 2		TELEX 32K 🝷	225.8.11.81	22	51	6
					ubmit				

3. Select the Auto Configuration check box.

Under LINE SETUP

- 4. From the Serial Type drop down menu, select Sepura.
- 5. In the RX Mcast field, enter Receive Multicast IP Address.
- 6. In the RX Port field, enter the **Receive Multicast Port number**.
- 7. In the TX Mcast field, enter the Transmit Multicast IP Address.
- 8. In the TX Port field, enter the Transmit Multicast Port number.
- 9. Click the **Submit button**.

The changes are sent to the IP-224 in temporary storage.

10. From the left navigation, select **Per Line Setup**. *The Per Line Setup page appears*.

Entry	Enable	Relay	Relay Group	Relay Time (ms)	Call Type	ISSI/GSSI Number
1	•	•	1 🔻	0	Trunked GC •	00800801
2		•	1 •	0	Trunked GC •	00800802
3		•	1 •	0	Trunked GC •	00800803
4		•	1 •	0	Trunked GC •	00800804
5		•	1 •	0	Trunked GC •	00800805
6		•	1 •	0	Trunked HDPC •	02000346
7		•	1 •	0	Trunked HDPC •	02000361
8		•	1 •	0	Trunked UDSL •	1;2;3;4;5
9		•	1 •	0	Trunked UDSL •	1;2
10	۲	•	1 •	0	Trunked UDSL •	2;3

Under FUNCTION TONE SETUP

- 11. From the Call Type drop down menu, select the desired Call Type.
- 12. In the ISSI/GSSI Number field, enter ISSI/GSSI number.
- 13. Click the **Submit button**.

The changes are sent to the IP-224 in temporary storage.

- 14. From the left navigation, select Save Parameters. *The Save Parameters page appears.*
- 15. Click the **Save Parameters button**. Changes are now permanently saved to the IP-224 console.
- **NOTE:** The ISSI/GSSI Number is an 8-digit number. This field only accepts numbers and is cleared if the user enters alpha characters and then clicks Submit.

9.0 C-Soft Designer Setup

9.1 Configure Per Line Parameters

The Per Line Parameters window is used to configure C-Soft to IP-224 communications.

To configure Per Line Parameters, do the following:

- 1. Open C-Soft Designer.
- 2. From the Edit drop down menu, select **Setup Per Line Parameters**. *The Per Line Parameters window appears*.

Per Lin	e Paramete	ers												×
Lin Numi	e ber Line T	ype Line Name	Rx Multicast Address	Rx Port	Tx Multicast Address	Tx Port	Base Radio IP:	TTL	Packet Delay			C	Clos	æ
1	Telex		225. 8 . 11 . 81	1054	225. 8 . 11 . 81	1254	0.0.0.0	6	10	Ontinna		Signal	CID	-
		Echo Packets Enable:	0.0.0.0	1054	0.0.0.0	1254				opuons	rieds	Setup	SIP	
2	Disabled	Line 2	225. 8 . 11 . 81	1055	225. 8 . 11 . 81	1255	0.0.0.0	6	10			Signal		
		Echo Packets Enable:	0.0.0.0	1055	0.0.0.0	1255				Uptions	Freqs	Setup	SIP	
3	Disabled	▼ Line 3	225. 8 . 11 . 81	1056	225. 8 . 11 . 81	1256	0.0.0.0	6	10		-	Signal		
		Echo Packets Enable:	0.0.0.0	1056	0.0.0.0	1256						Setup	SIP	

- 3. In the Rx Multicast Address field, enter the **Receive Multicast IP Address** of the connected IP-224.
- 4. In the Rx Port field, enter the Receive Multicast Port number of the connected IP-224.
- 5. In the Tx Multicast Address field, enter the **Transmit Multicast IP Address** of the connected IP-224.
- 6. In the Tx Port field, enter the **Transmit Multicast Port number** of the connected IP-224.
- 7. In the Base Radio IP field, enter the IP address of the connected IP-224.
- 8. Click the Close button.
- **NOTE:** The Multicast settings of the IP-224 and C-Soft must match for the interface to function properly. Verify that the RX and TX Multicast Addresses match, as well as the RX and TX Ports.

9.2 Configure Frequencies

To configure frequencies, do the following:

1. From the Per Line Parameters window, select the Freqs button for the TETRA Radio

line. Frequency Parameters window appears.

Freque	ncy Pa	rameters: TETRA-1		
Enable	Freq Number	Frequency Name		Close
	1	TMO 1	^	Load File
	2	TMO 2		Court File
	3	TMO 3		Saverile
	4	TMO 4		
	5	TMO 5		
	6	UDSL		
	7	HDPC 345		
	8	HDPC 346		
	9	HDPC 348		
	10	DMO 1		
	11			
	12			
	13_			

- 2. Select the Enable check box for each frequency.
- 3. In the Frequency Name field for each frequency, enter a **name** to be associated with the IP-224's function tone allocation.
- **NOTE:** The console operator is able to select the various call types defined within the IP-224 Per Line Setup.
- 4. Click the Close button.
- **NOTE:** The C-Soft frequency list has a maximum of 1000 entries, so all 1000 IP-224 function tones/calls can be addressed.

9.3 Signal Setup

- 1. From the Per Line Parameters Setup window, click **Signal Setup**. *The General Signal Setup page appears in the Signaling Parameters window.*
- 2. From the System Type drop down menu, select 5/6 Tone/DTMF ANI.

Signaling Parameters: TETRA-1	X
General Signal Setup 5-6 Tone/DTMF ANI Setup Call Setup System Settings System Type: 5/6 Tone/DTMF ANI System Name: None	
Enable Signaling AutoFill Starting Line Number: 1 Ending Line Number: 1	
Call Logging	
OK	Cancel

3. From the Signaling Parameters window, click the **5-6 Tone/DTMF ANI Setup tab**. *The 5-6 Tone/DTMF ANI Setup tab appears*.

Per Line Console ID	D.()
Unit ID: 02000350	Auto Ack Setup
Signaling Setup	Auto Ack Type: Disabled 💌
Signaling Type: DTMF	Auto Ack Delay: 1000 ms
Digit Duration: 100 ms	
Interdigit Duration: 100 ms	Single Tone Auto Ack Setup
Pause Duration: 200 ms	Frequency: 1000 Hz
Preamble Duration: 100 ms	Duration: 25 ms
Levet -3 dB	Levet dB
Twist Level: 0 dB	Signaling Delays
Group Digit: A	Initial Delay: 0 ms
Repeat Digit: E	End Delay: 100 ms

- 4. In the Unit ID field, enter the **8-digit unit ID** of the TETRA terminal connected to the associated IP-224.
- 5. From the Signaling Type drop down menu, select DTMF.
- 6. In the Digit Duration field, enter 100ms.
- 7. In the Interdigit Duration field, enter 100ms.
- 8. In the Pause Duration field, enter **200ms**.
- 9. In the Preamble Duration field, enter 100ms.
- 10. In the Level field, enter -3dB.
- 11. In the Twist Level field, enter **0dB**.
- 12. In the Group Digit field, enter A.
- 13. From the Auto Ack Type drop down menu, select Disabled.
- 14. In the Initial Delay field, enter **Oms** (required).
- 15. In the End Delay field, enter **100ms.**
- 16. Click the **OK button**.

9.4 Call Setup

The **Call Setup** page is used to define a call button to make a Half-Duplex Private Call (HDPC) on the TETRA radio line. The button appears in the Call History, Manual Call List, and Call List windows when the appropriate line is selected.

To setup a call button for HDPC, do the following:

- 1. From the Signaling Parameters window, click the **Call Setup tab**. *The Call Setup window appears*.
- 2. In the Call 1 Format field, enter **KD**.
- **NOTE:** When this button is activated, the *K* loads the contents of the currently selected User ID and the *D* creates the HDPC.
- 3. In the Call 1 Label field, enter HDPC.
- 4. Click the **OK button.**

eneral Signal Setup	5-6 Tone/DTMF ANI Setup Call Setup	
Call Setup	Format	Defaults
Auto Ack:	1201	
Emerg. Resolved:		-
PTT BOT:		
PTT EOT:		– Label
Call 1:	KD	HDPC
Call 2:		Call2
Call 3:		Call3
Call 4:		Call4
Call 5:		Call5
Call 6:		Call6
Call 7:		Call7
Call 8:		Call8
Call 9:		Call9
Call 10:		Call10

9.5 User ID List

The User ID List is used to translate IDs and aliases for ANI display and call history logging, in addition to forming the console's call directory.

To configure a TETRA User ID List, do the following:

1. From the Edit drop down menu, select **Edit User ID List**. *The User ID List window appears*.

User ID	List				
	Name:	User ID:	Туре:	TX Inhibit:	
1	Disposa	352	Generic 💌	Filters	^
2	Dispch B	351	Generic 🔽	Filters	
3	Dispch A	350	Generic 🔽	Filters	
4	Clean Up	348	Generic 🔽	Filters	
5	Recovery	346	Generic 🔽	Filters	
6	Tech Support	345	Generic 🔽	Filters	
7	Car 2	329	Generic 🗸	Filters	
8	Car 1	327	Generic 🔽	Filters	
9	Red 4	316	Generic 🗸	Filters	
10	Red 3	314	Generic 🔽	Filters	
11	Red 2	312	Generic 🗸	Filters	
12	Red 1	310	Generic 🔽	Filters	~
Load	File Save File				lose

- 2. In the Name field, enter a Name for the User ID.
- 3. In the User ID, enter the **ID number**.
- 4. In the Type drop down menu, select Generic.
- 5. Click the Close button.

NOTE:

• The User ID List can contain up to 6,000 entries.

9.6 Console Design Overview

The console operator requires relevant buttons associated with the TETRA radio line to use TETRA radio functions.

The console example contains per line user interface elements, such as Select, Mute, Call History, Frequency Change, Individual PTT, and Volume Control.

The console operator should use the Call List to make calls. If a user is not contained in the User ID List, the console operator can use the Manual Call List.

Active Emergency and Emergency History buttons, used to access the emergency windows, have also been added so the console operator can manage emergency calls.



Notes:

Suggestions or comments:

Contact technical support with suggestions or comments concerning this application note.

Technical Support:

Email:	TelexDispatchtechsupport@us.bosch.com
Fax:	1-402-467-3279
Phone:	1-800-898-6723

Bosch Security Systems, Inc

8601 East Cornhusker Highway Lincoln, Nebraska 68507