

Whitepaper

Mass Notification System (MNS) Configuration Guide

1. Introduction

Bosch Intrusion Systems, when integrated with a Bosch PRAESENSA Public Address and Voice Alarm System, introduces a [UL 2572](#) compliant Mass Notification System (MNS) with comprehensive emergency mass notifications for life/safety events such as fire, CO, active shooter, tornado, etc.

2. System Overview

The integration of a Bosch PRAESENSA system with a Bosch intrusion system requires configuring one Area of the intrusion panel system as an “MNS” area.

Once a panel area is configured as the “MNS” area, you will configure all the MNS related input points, outputs, keypads and specified behaviors relating to that same MNS area.

The MNS area should be limited to only the Mass Notification life/safety related devices along with the associated panel keypad, input points and outputs. When a life/safety alarm occurs in the MNS area, the solution will be configured for the alarm to be indicated on the intrusion MNS keypads, strobe outputs, and an audible and/or visible notification from the PRAESENSA system.

The Bosch MNS integrated solution relies on configurations within the Bosch PRAESENSA and Intrusion Systems:

1. Bosch Intrusion System reacts after receiving information from the Bosch PRAESENSA MNS system. This relies on configuring outputs in the PRAESENSA system to send information and Intrusion system Points to receive information.
2. Bosch PRAESENSA MNS System reacts based on information received from its own inputs and from the Bosch Intrusion System Outputs. This relies on configuring Outputs in the Intrusion System to activate MNS related inputs within the PRAESENSA system.

2.1. System components overview

- PRAESENSA Public Address and Voice Alarm System & Components configured & operational
 - Notification Appliance Circuit(s) (ex. Altronix® R1002ULADA)
 - PRAESENSA Autonomous Control Unit (ex. PRA-FP3-US ACU)
- Bosch (RPS) Remote Programming Software (v6.12 or newer)
- Bosch MNS supported G Series Intrusion System (FW v3.12 or newer)
- Bosch MNS approved Keypad(s) (ex. B926M)
- Intrusion System Physical input modules/devices
 - Bosch Input module(s) (ex. B208 Octo Input)
 - Fire points such as fire pull stations, smoke detectors, etc
 - Gas points such as CO detectors
 - Other emergency MNS points or pull stations (active shooter, severe weather, etc)
 - Bosch Notification Appliance Circuit Supervision Module (ex. D192G)
 - Notification Appliance Circuit Module (ex. Altronix R1002ULADA)
 - Bosch MNS approved Keypad(s) (ex. B926M)
- Integrated Panel Inputs. Configured to 'listen' for PRAESENSA
 - PRAESENSA indicating any of the above types of inputs (fire, gas, or MNS)
 - PRAESENSA indicating MNS system troubles
 - Trouble inputs from strobe drivers (D192G and NAC)
- Intrusion System Physical output modules/devices
 - Bosch Output module(s) (ex. B308 Octo Output)
 - Bosch Notification Appliance Circuit Supervision Module (ex. D192G)
 - Notification Appliance Circuit Module (ex. Altronix R1002ULADA)
 - Strobes (via NAC)
 - Active alarm (fire, gas, MNS) outputs to PRAESENSA
 - Bosch MNS approved Keypad(s) (ex. B926M) again?
- Integrated Panel Outputs. Configured to 'send' to PRAESENSA
 - Fire Drill output to PRAESENSA
 - MNS related trouble output to PRAESENSA

An MNS area should have at least one B926M keypad configured with scope to the MNS area. It will also include at least one PRAESENSA PRA-FP3-US ACU control station. The B926M keypad and the PRA-FP3-US ACU are typically located next to one another in compliance with UL 2572.

Figure 1 shows an example physical interconnection of the system for an MNS area that contains at least one of each point type and output type. Actual configurations will vary in number of these items.

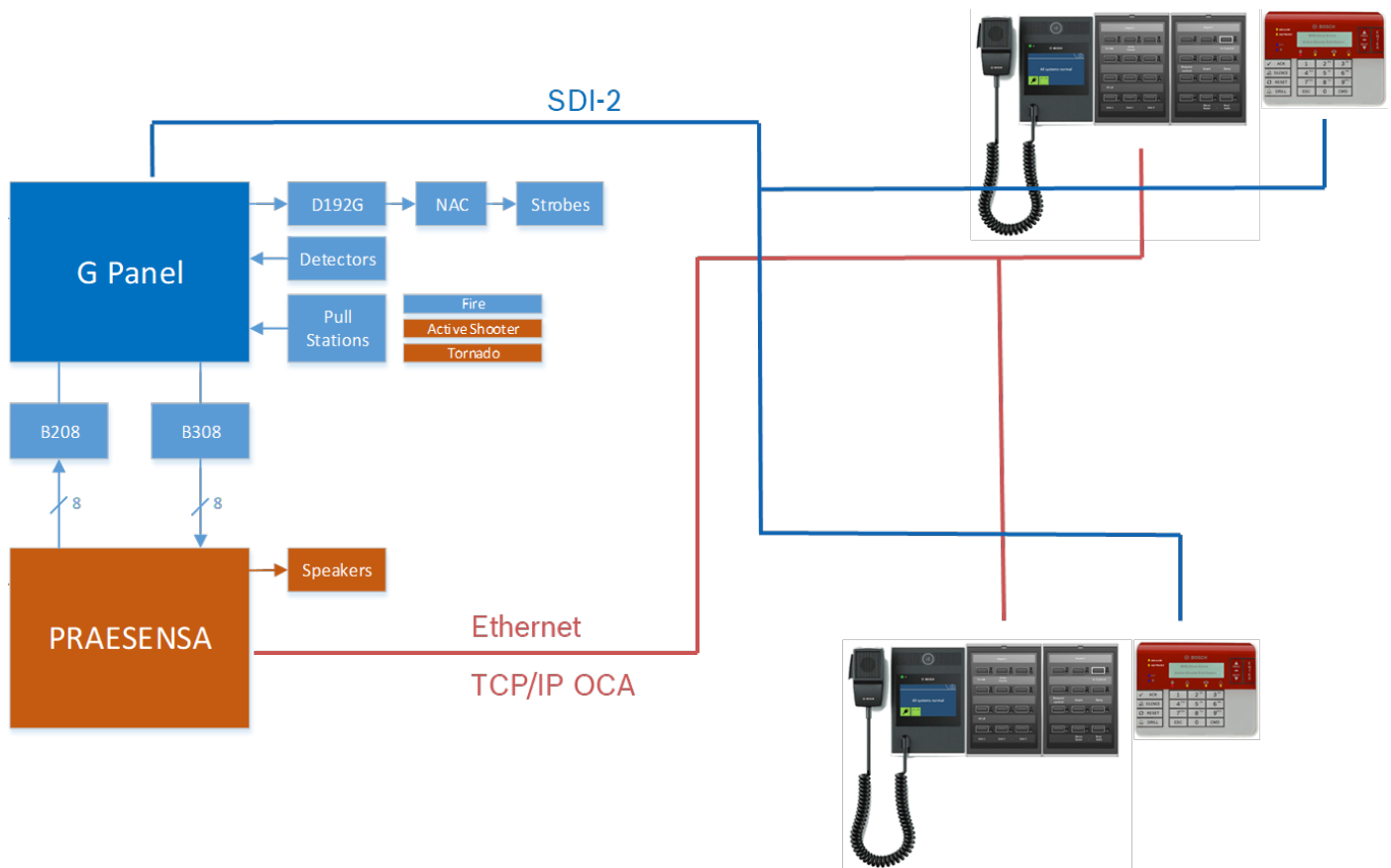


Figure 1. MNS Integrated System Pictorial Diagram

Figure 2. Schematic representation of the integrated system.

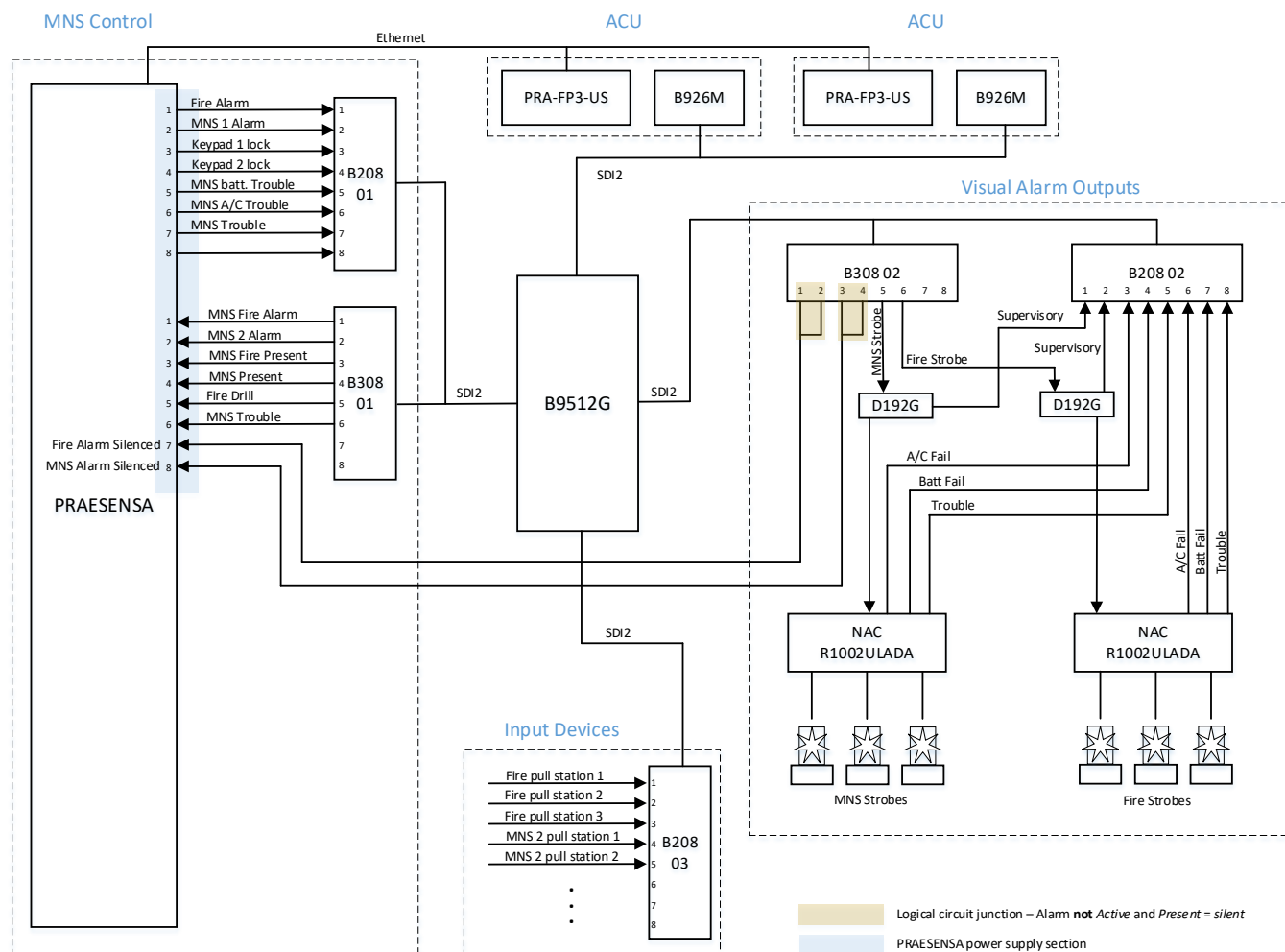


Figure 2. MNS Integrated System Block Diagram

The “logical circuit junction” highlighted in Figure 2 represents a combination of wiring that enables PRAESENSA to determine if a particular alarm type is active in the system but silenced. An example wiring of such a junction for Fire is shown below in Figure 3.

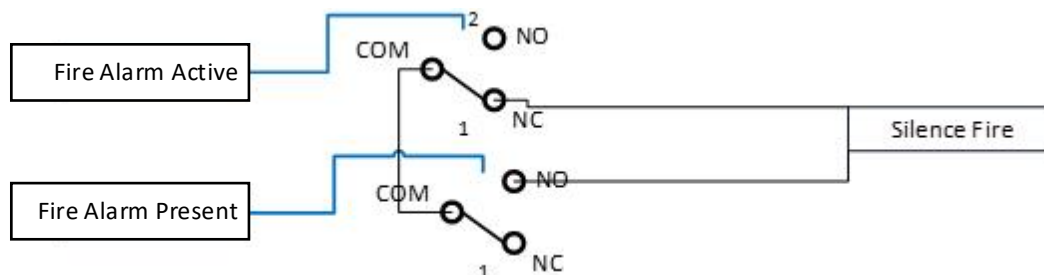


Figure 3. Logical Circuit Junction for Alarm Silence State

In Figure 3, the alarm signals from the panel are as follows:

- Alarm Active – the alarm is currently visible or audible via strobe or alarm outputs from the intrusion panel
- Alarm Present – the alarm is currently indicated in the intrusion panel, may either be audible, visible, or silenced, and has not been cleared

3. RPS Configuration

3.1. Use Case

The use case detailed in this document and configurations represent a typical MNS integration, as illustrated in Figure 2. The following sections detail the RPS configuration in each category related to an MNS integration. Most of these settings are included in the MNS-related RPS templates provided by Bosch. At time of publication, two B9512G example templates are available:

- “MNS Template – Typical.xml”: Provides a Panel template pre-configured to align with the scenario detail in this document.
- “MNS Template – Large.xml”: Provides a Panel template pre-configured for an expanded MNS integration. The integration follows the same basic structure as an Average integration with additional MNS related monitoring, hardware, Input devices, Output devices, Keypads, ACU stations and Alarms.

3.2. PANEL WIDE PARAMETERS

3.2.1. PANEL WIDE PARAMETERS > Alarm Reporting

Non-fire and non-gas MNS alarms are reported to the Central Station as burglar alarms. The report groups (Figure 4.) should be set according to desired route group reporting. The default settings shown are typically acceptable but can be changed to meet local requirements.

B9512G Program Record Sheet

COMPLIANCE SETTINGS

PANEL WIDE PARAMETERS

Phone and Phone Parameters

On Board Ethernet Communicator

Cellular Plug-in Module

Cloud Remote Connect

IP Cameras

Report Routing

Fire Reports

Gas Reports

Burglar Reports

Personal Emergency Reports

User Reports

Test Reports

Diagnostic Reports

BURGLAR REPORTS	Route Group 1	Route Group 2	Route Group 3	Route Group 4
Alarm Report	Yes	Yes	Yes	Yes
Burg Restore (After Trouble)	Yes	Yes	Yes	No
Duress	Yes	Yes	Yes	Yes
Missing Alarm	Yes	Yes	Yes	No
User Code Tamper	Yes	Yes	Yes	No
Trouble Report	Yes	Yes	Yes	No
Missing Trouble	Yes	Yes	Yes	No
Non-Fire Supervision	Yes	Yes	Yes	No
Point Bus Fail	Yes	Yes	Yes	No
Point Bus Restoral	Yes	Yes	Yes	No
Non-Fire Cancel	Yes	Yes	Yes	No
Alarm Restore	Yes	Yes	Yes	No
Supervision Missing	Yes	Yes	Yes	No
Unverified Event	Yes	Yes	Yes	No

Figure 4. Communicator route group devices and Enhanced Communication destination should be set as usual.

3.2.2. PANEL WIDE PARAMETERS > Miscellaneous Settings (Figure 5.)

Miscellaneous > Fire Alarm Priority over MNS should be set to Yes or No per the AHJ (Authority Having Jurisdiction). The default is No.

Miscellaneous > MNS Summary Sustain must be set to Yes (default) to meet UL 2572 requirements.

Miscellaneous > MNS Resound defaults to “None” but can be set to “Noon” or “Midnight” as desired.

B9512G Program Record Sheet COMPLIANCE SETTINGS PANEL WIDE PARAMETERS Phone and Phone Parameters On Board Ethernet Communicator Cellular Plug-in Module Cloud Remote Connect IP Cameras Report Routing Communicator Enhanced Communication SDI2 RPS / Enhanced Comm Power Supervision RPS Parameters Miscellaneous Personal Notification AREA WIDE PARAMETERS	MISCELLANEOUS	Entry
	Duress Type	1
	Cancel Reports	Yes
	Call for Service Text - First Language	Contact your dealer
	Call for Service Text - Second Language	
	On-site Authorization for Firmware Update	No
	System Tamper Response	Trouble
	Enclosure Tamper Enable	No
	Fire and Gas Summary Sustain	Yes
	Fire Supervision Event Type	Fire Supervision Restoral
	Fire and Gas Resound	None
	Fire Alarm Priority over MNS	No
	MNS Summary Sustain	Yes
	MNS Resound	None
	Fire Drill Duration	20
	Early Ambush Time	10

3.2.3. PANEL WIDE PARAMETERS > Personal Notification (Figure 6.)

Personal notifications are **not** permitted in an MNS integrated system per UL 2572 regulatory requirements, so personal notifications will need to be turned off (all disabled).

Figure 6. RPS Personal Notification Reports for MNS

B9512G Program Record Sheet COMPLIANCE SETTINGS PANEL WIDE PARAMETERS Phone and Phone Parameters On Board Ethernet Communicator Cellular Plug-in Module Cloud Remote Connect IP Cameras Report Routing Communicator Enhanced Communication SDI2 RPS / Enhanced Comm Power Supervision RPS Parameters Miscellaneous Personal Notification AREA WIDE PARAMETERS	Personal Notification Reports	Route Group 1	Route Group 2	Route Group 3	Route Group 4
	Personal Notification 1	0:Disabled	0:Disabled	0:Disabled	1:
	Personal Notification 2	0:Disabled	0:Disabled	0:Disabled	2:
	Personal Notification 3	0:Disabled	0:Disabled	0:Disabled	3:
	Personal Notification 4	0:Disabled	0:Disabled	0:Disabled	4:
	Personal Notification 5	0:Disabled	0:Disabled	0:Disabled	5:
	Personal Notification 6	0:Disabled	0:Disabled	0:Disabled	6:
	Personal Notification 7	0:Disabled	0:Disabled	0:Disabled	7:
	Personal Notification 8	0:Disabled	0:Disabled	0:Disabled	8:

3.3. AREA WIDE PARAMETERS

3.3.1. AREA WIDE PARAMETERS > Area/Bell Parameters, Open/Close Options (Figure 7.)

Area Type needs to be set to MNS in order to operate as the MNS area. This use case example will assume Area 1 with a name of “MNS Area”.

MNS Time, the number of minutes that an MNS alarm will remain active once triggered, is to be set as needed for Area 1(the MNS Area). The default is 0, which means a triggered MNS alarm will remain on until it has been silenced or cleared.

B9512G Program Record Sheet COMPLIANCE SETTINGS PANEL WIDE PARAMETERS AREA WIDE PARAMETERS Area/Bell Parameters, Open/Close Options Area 1 - 16 Area 17 - 32 Area Arming Text KEYPADS Keypad Assignments Global Keypad Setting Global Wireless Keypad Settings CUSTOM FUNCTIONS SHORTCUT MENU OUTPUTS USER CONFIGURATION POINTS Point Assignments Cross Point Parameters Point Profiles Point Profiles 1 - 16 Point Profiles 17 - 32 Point Profiles 33 - 48 Point Profiles 49 - 63 SCHEDULES ACCESS	Area 1 - 16	Area 1	Area 2	Area 3
	Area Name Text	MNS Area	Area 2	Area 3
	Area Name Text (Second Language)			
	Area On	Yes	No	No
	Account Number	0000	0000	0000
	Force Arm / Bypass Max	2	2	2
	Delay Restorals	No Delay	No Delay	No Delay
	Exit Tone	Yes	Yes	Yes
	Exit Delay Time	60	60	60
	Auto Watch	Manual	Manual	Manual
	Restart Time	5	5	5
	Duress Enable	No	No	No
	Area Type	MNS	Regular	Regular
	Two Man Rule?	No	No	No
	Early Ambush?	No	No	No
	Fire and Gas Time	6	6	6
	Fire Pattern	Pulsed	Pulsed	Pulsed
	Burg Time	6	6	6
	Burg Pattern	Steady	Steady	Steady
	Gas Pattern	Temporal Code 4	Temporal Code 4	Temporal Code 4
	Environmental Time	6	6	6
	Environmental Pattern	Steady	Steady	Steady
	MNS Time	0	0	0
	Single Ring	No	No	No
	Bell Test	No	No	No

Area Arming Text > Area # Is Off text for Area 1 can be set to “System Ready” or other similar text to avoid burglary-related language. (Figure 8.)

Figure 8. Area Arming Text for MNS

B9512G Program Record Sheet	AREA ARMING TEXT			
	Area # Not Ready Text (Second Language)	Area # Is Off Text (First Language)	Area # Is Off Text (Second Language)	Area # Is Off Text (Third Language)
COMPLIANCE SETTINGS	Area 1	System Ready		
PANEL WIDE PARAMETERS	Area 2			
Phone and Phone Parameters	Area 3			
On Board Ethernet Communicator	Area 4			
Cellular Plug-in Module	Area 5			
Cloud Remote Connect	Area 6			
IP Cameras	Area 7			
Report Routing	Area 8			
Communicator	Area 9			
Enhanced Communication	Area 10			
SDI2 RPS / Enhanced Comm	Area 11			
Power Supervision	Area 12			
RPS Parameters	Area 13			
Miscellaneous	Area 14			
Personal Notification	Area 15			
AREA WIDE PARAMETERS	Area 16			
Area/Bell Parameters, Open/Close Options	Area 17			
Area 1 - 16	Area 18			
Area 17 - 32	Area 19			
Area Arming Text				
KEYPADS				

3.4. POINTS

The following assumes the integrated system has been configured with inputs as shown in Figure 2. Table 1 indicates the point number to be configured for the various inputs.

Table 1. Point Assignments for MNS

Input (Point)	Point Number
PRAESENSA Fire Alarm	11
PRAESENSA Active Shooter Alarm	12
PRAESENSA Keypad 1 lock	13
PRAESENSA Keypad 2 lock	14
PRAESENSA MNS Battery Trouble from PRAESENSA	15
PRAESENSA Main A/C Missing	16
PRAESENSA MNS Trouble	17
D192G (MNS) Supervisory input	21
D192G (Fire) Supervisory input	22
MNS NAC A/C Fail	23
MNS NAC Battery Fail	24
MNS NAC Trouble	25
Fire NAC A/C Fail	26
Fire NAC Battery Fail	27
Fire NAC Trouble	28
Fire pull station 1	31
Fire pull station 2	32
Fire pull station 3	33
Weather pull station 1	34
Weather pull station 2	35
... (others as needed)	...

Table 2 details the point profiles assumed to be configured in RPS (*POINTS > Point Profiles*)

Table 2. Point Profiles for MNS

Profile	Point Type	Point Profile Text	Configuration
33	MNS Point 1	MNS Type 1	Circuit Style: EOL 1k Point Response: 1 (T/I/T/I) Other parameters default same as Fire Pull Station (profile 3)
34	MNS Point 2	MNS Type 2	Circuit Style: EOL 1k Point Response: 1 (T/I/T/I) Other parameters default same as Fire Pull Station (profile 3)
35	MNS Point 3	MNS Type 3	Circuit Style: EOL 1k Point Response: 1 (T/I/T/I) Other parameters default same as Fire Pull Station (profile 3)
36	MNS Point 1	MNS Trouble	Circuit Style: EOL 1k Point Response: 3 (T/T/T/T) Other parameters default same as Fire Pull Station (profile 3)
37	MNS Point 1	Keypad Lockout	Circuit Style: EOL 1k Point Response: 7 (T/b/T/b) Other parameters default NOTE: in this configuration, the PRAESENSA system will short the point to lockout the keypad

3.4.1. POINTS > Point Assignments

Each point used by the integration is aligned with Table 1 listing of inputs by configuring the following details shown in Figure 9.

MNS Points (Table 1) are associated with individual MNS Point Profiles (Table 2) by programming the Point Assignment details shown in Figure 9.

- Point Number: 11-17, 21-28, 31-35 (per this example setup)
- Source (Octo-Input)
- Text (description of the input as desired)
- Profile (select the profile number that matches the input type)
- Area (set to the designated MNS area, in this case, Area 1)

B9512G Program Record Sheet COMPLIANCE SETTINGS PANEL WIDE PARAMETERS AREA WIDE PARAMETERS KEYPADS CUSTOM FUNCTIONS SHORTCUT MENU OUTPUTS USER CONFIGURATION POINTS Point Assignments Cross Point Parameters Point Profiles SCHEDULES ACCESS AUTOMATION / REMOTE APP SDI2 MODULES HARDWARE SWITCH SETTINGS	<table><tr><th>POINT</th><th>Source</th><th>Text</th><th>2nd Lang</th><th>Profile</th><th>Area</th><th>Debounce</th><th>Output</th></tr><tr><td>Point 1</td><td>Onboard</td><td>Point 1</td><td></td><td>4: Smoke Detector</td><td>1: MNS Area</td><td>820 ms</td><td>0: Unassigned</td></tr><tr><td>Point 2</td><td>Onboard</td><td>Point 2</td><td></td><td>8: Part On: Delay</td><td>1: MNS Area</td><td>820 ms</td><td>0: Unassigned</td></tr><tr><td>Point 3</td><td>Onboard</td><td>Point 3</td><td></td><td>8: Part On: Delay</td><td>1: MNS Area</td><td>820 ms</td><td>0: Unassigned</td></tr><tr><td>Point 4</td><td>Onboard</td><td>Point 4</td><td></td><td>13: Interior: Follower</td><td>1: MNS Area</td><td>820 ms</td><td>0: Unassigned</td></tr><tr><td>Point 5</td><td>Onboard</td><td>Point 5</td><td></td><td>13: Interior: Follower</td><td>1: MNS Area</td><td>820 ms</td><td>0: Unassigned</td></tr><tr><td>Point 6</td><td>Onboard</td><td>Point 6</td><td></td><td>7: Part On: Instant</td><td>1: MNS Area</td><td>820 ms</td><td>0: Unassigned</td></tr><tr><td>Point 7</td><td>Onboard</td><td>Point 7</td><td></td><td>7: Part On: Instant</td><td>1: MNS Area</td><td>820 ms</td><td>0: Unassigned</td></tr><tr><td>Point 8</td><td>Onboard</td><td>Point 8</td><td></td><td>1: 24-hr Inst Open/Short</td><td>1: MNS Area</td><td>820 ms</td><td>0: Unassigned</td></tr><tr><td>Point 11</td><td>Octo-Input</td><td>PRAESENSA Fire Alarm</td><td></td><td>3: Pull Station</td><td>1: MNS Area</td><td>820 ms</td><td>0: Unassigned</td></tr><tr><td>Point 12</td><td>Octo-Input</td><td>PRAESENSA Active Shooter Alarm</td><td></td><td>33: MNS Type 1</td><td>1: MNS Area</td><td>820 ms</td><td>0: Unassigned</td></tr><tr><td>Point 13</td><td>Octo-Input</td><td>PRAESENSA Keypad 1 Lock</td><td></td><td>37: Keypad Lockout</td><td>1: MNS Area</td><td>820 ms</td><td>0: Unassigned</td></tr><tr><td>Point 14</td><td>Octo-Input</td><td>PRAESENSA Keypad 2 Lock</td><td></td><td>37: Keypad Lockout</td><td>1: MNS Area</td><td>820 ms</td><td>0: Unassigned</td></tr><tr><td>Point 15</td><td>Octo-Input</td><td>PRAESENSA PA Battery Trouble</td><td></td><td>36: MNS Trouble</td><td>1: MNS Area</td><td>820 ms</td><td>0: Unassigned</td></tr><tr><td>Point 16</td><td>Octo-Input</td><td>PRAESENSA Main A/C Missing</td><td></td><td>36: MNS Trouble</td><td>1: MNS Area</td><td>820 ms</td><td>0: Unassigned</td></tr><tr><td>Point 17</td><td>Octo-Input</td><td>PRAESENSA MNS Trouble</td><td></td><td>36: MNS Trouble</td><td>1: MNS Area</td><td>820 ms</td><td>0: Unassigned</td></tr><tr><td>Point 21</td><td>Octo-Input</td><td>D192G MNS Supervisory</td><td></td><td>36: MNS Trouble</td><td>1: MNS Area</td><td>820 ms</td><td>0: Unassigned</td></tr><tr><td>Point 22</td><td>Octo-Input</td><td>D192G Fire Supervisory</td><td></td><td>36: MNS Trouble</td><td>1: MNS Area</td><td>820 ms</td><td>0: Unassigned</td></tr><tr><td>Point 23</td><td>Octo-Input</td><td>MNS NAC A/C Fail</td><td></td><td>36: MNS Trouble</td><td>1: MNS Area</td><td>820 ms</td><td>0: Unassigned</td></tr><tr><td>Point 24</td><td>Octo-Input</td><td>MNS NAC Batt Fail</td><td></td><td>36: MNS Trouble</td><td>1: MNS Area</td><td>820 ms</td><td>0: Unassigned</td></tr><tr><td>Point 25</td><td>Octo-Input</td><td>MNS NAC Trouble</td><td></td><td>36: MNS Trouble</td><td>1: MNS Area</td><td>820 ms</td><td>0: Unassigned</td></tr><tr><td>Point 26</td><td>Octo-Input</td><td>Fire NAC A/C Fail</td><td></td><td>36: MNS Trouble</td><td>1: MNS Area</td><td>820 ms</td><td>0: Unassigned</td></tr><tr><td>Point 27</td><td>Octo-Input</td><td>Fire NAC Batt Fail</td><td></td><td>36: MNS Trouble</td><td>1: MNS Area</td><td>820 ms</td><td>0: Unassigned</td></tr><tr><td>Point 28</td><td>Octo-Input</td><td>Fire NAC Trouble</td><td></td><td>36: MNS Trouble</td><td>1: MNS Area</td><td>820 ms</td><td>0: Unassigned</td></tr><tr><td>Point 31</td><td>Octo-Input</td><td>Fire Pull Station 1</td><td></td><td>3: Pull Station</td><td>1: MNS Area</td><td>820 ms</td><td>0: Unassigned</td></tr><tr><td>Point 32</td><td>Octo-Input</td><td>Fire Pull Station 2</td><td></td><td>3: Pull Station</td><td>1: MNS Area</td><td>820 ms</td><td>0: Unassigned</td></tr><tr><td>Point 33</td><td>Octo-Input</td><td>Fire Pull Station 3</td><td></td><td>3: Pull Station</td><td>1: MNS Area</td><td>820 ms</td><td>0: Unassigned</td></tr><tr><td>Point 34</td><td>Octo-Input</td><td>Severe Weather Pull Station 1</td><td></td><td>34: MNS Type 2</td><td>1: MNS Area</td><td>820 ms</td><td>0: Unassigned</td></tr><tr><td>Point 35</td><td>Octo-Input</td><td>Severe Weather Pull Station 2</td><td></td><td>34: MNS Type 2</td><td>1: MNS Area</td><td>820 ms</td><td>0: Unassigned</td></tr></table>	POINT	Source	Text	2nd Lang	Profile	Area	Debounce	Output	Point 1	Onboard	Point 1		4: Smoke Detector	1: MNS Area	820 ms	0: Unassigned	Point 2	Onboard	Point 2		8: Part On: Delay	1: MNS Area	820 ms	0: Unassigned	Point 3	Onboard	Point 3		8: Part On: Delay	1: MNS Area	820 ms	0: Unassigned	Point 4	Onboard	Point 4		13: Interior: Follower	1: MNS Area	820 ms	0: Unassigned	Point 5	Onboard	Point 5		13: Interior: Follower	1: MNS Area	820 ms	0: Unassigned	Point 6	Onboard	Point 6		7: Part On: Instant	1: MNS Area	820 ms	0: Unassigned	Point 7	Onboard	Point 7		7: Part On: Instant	1: MNS Area	820 ms	0: Unassigned	Point 8	Onboard	Point 8		1: 24-hr Inst Open/Short	1: MNS Area	820 ms	0: Unassigned	Point 11	Octo-Input	PRAESENSA Fire Alarm		3: Pull Station	1: MNS Area	820 ms	0: Unassigned	Point 12	Octo-Input	PRAESENSA Active Shooter Alarm		33: MNS Type 1	1: MNS Area	820 ms	0: Unassigned	Point 13	Octo-Input	PRAESENSA Keypad 1 Lock		37: Keypad Lockout	1: MNS Area	820 ms	0: 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Point 6	Onboard	Point 6		7: Part On: Instant	1: MNS Area	820 ms	0: Unassigned																																																																																																																																																																																																																																		
Point 7	Onboard	Point 7		7: Part On: Instant	1: MNS Area	820 ms	0: Unassigned																																																																																																																																																																																																																																		
Point 8	Onboard	Point 8		1: 24-hr Inst Open/Short	1: MNS Area	820 ms	0: Unassigned																																																																																																																																																																																																																																		
Point 11	Octo-Input	PRAESENSA Fire Alarm		3: Pull Station	1: MNS Area	820 ms	0: Unassigned																																																																																																																																																																																																																																		
Point 12	Octo-Input	PRAESENSA Active Shooter Alarm		33: MNS Type 1	1: MNS Area	820 ms	0: Unassigned																																																																																																																																																																																																																																		
Point 13	Octo-Input	PRAESENSA Keypad 1 Lock		37: Keypad Lockout	1: MNS Area	820 ms	0: Unassigned																																																																																																																																																																																																																																		
Point 14	Octo-Input	PRAESENSA Keypad 2 Lock		37: Keypad Lockout	1: MNS Area	820 ms	0: Unassigned																																																																																																																																																																																																																																		
Point 15	Octo-Input	PRAESENSA PA Battery Trouble		36: MNS Trouble	1: MNS Area	820 ms	0: Unassigned																																																																																																																																																																																																																																		
Point 16	Octo-Input	PRAESENSA Main A/C Missing		36: MNS Trouble	1: MNS Area	820 ms	0: Unassigned																																																																																																																																																																																																																																		
Point 17	Octo-Input	PRAESENSA MNS Trouble		36: MNS Trouble	1: MNS Area	820 ms	0: Unassigned																																																																																																																																																																																																																																		
Point 21	Octo-Input	D192G MNS Supervisory		36: MNS Trouble	1: MNS Area	820 ms	0: Unassigned																																																																																																																																																																																																																																		
Point 22	Octo-Input	D192G Fire Supervisory		36: MNS Trouble	1: MNS Area	820 ms	0: Unassigned																																																																																																																																																																																																																																		
Point 23	Octo-Input	MNS NAC A/C Fail		36: MNS Trouble	1: MNS Area	820 ms	0: Unassigned																																																																																																																																																																																																																																		
Point 24	Octo-Input	MNS NAC Batt Fail		36: MNS Trouble	1: MNS Area	820 ms	0: Unassigned																																																																																																																																																																																																																																		
Point 25	Octo-Input	MNS NAC Trouble		36: MNS Trouble	1: MNS Area	820 ms	0: Unassigned																																																																																																																																																																																																																																		
Point 26	Octo-Input	Fire NAC A/C Fail		36: MNS Trouble	1: MNS Area	820 ms	0: Unassigned																																																																																																																																																																																																																																		
Point 27	Octo-Input	Fire NAC Batt Fail		36: MNS Trouble	1: MNS Area	820 ms	0: Unassigned																																																																																																																																																																																																																																		
Point 28	Octo-Input	Fire NAC Trouble		36: MNS Trouble	1: MNS Area	820 ms	0: Unassigned																																																																																																																																																																																																																																		
Point 31	Octo-Input	Fire Pull Station 1		3: Pull Station	1: MNS Area	820 ms	0: Unassigned																																																																																																																																																																																																																																		
Point 32	Octo-Input	Fire Pull Station 2		3: Pull Station	1: MNS Area	820 ms	0: Unassigned																																																																																																																																																																																																																																		
Point 33	Octo-Input	Fire Pull Station 3		3: Pull Station	1: MNS Area	820 ms	0: Unassigned																																																																																																																																																																																																																																		
Point 34	Octo-Input	Severe Weather Pull Station 1		34: MNS Type 2	1: MNS Area	820 ms	0: Unassigned																																																																																																																																																																																																																																		
Point 35	Octo-Input	Severe Weather Pull Station 2		34: MNS Type 2	1: MNS Area	820 ms	0: Unassigned																																																																																																																																																																																																																																		

3.6. OUTPUTS

The following assumes a system that has been configured as shown in Figure 2 and will primarily use the Output Profiles feature. Table 3 indicates the Intrusion System Output numbers to be configured for the various MNS related outputs.

Table 3. Outputs for MNS

Output	Output Number
MNS Fire Alarm to PRAESENSA	11
Severe Weather Alarm to PRAESENSA	12
MNS Fire Present	13
MNS Present	14
Fire Drill to PRAESENSA	15
MNS Trouble to PRAESENSA	16
Fire Alarm Active to PRAESENSA	21
Fire Alarm Present to PRAESENSA	22
MNS Alarm Active to PRAESENSA	23
MNS Alarm Present to PRAESENSA	24
MNS Strobe	25
Fire Strobe	26

**** See section 2.1 for explanations of “Alarm Active” and “Alarm Present”.**

The RPS Output Profiles (*OUTPUTS > Output Profiles*) should be configured as detailed in Table 4 and shown in Figures 11a and 11b. These Output Profiles will be pre-configured when using the RPS MNS template.

Table 4. Output Profiles Configuration for MNS

Profile	Name	Trigger	Setting
14	MNS 1 Alarm Active	MNS 1 Alarm	Scope: Area Wide Scope Filter: 1 Pattern: On Steady Duration: Until Off
15	MNS 2 Alarm Active	MNS 2 Alarm	Scope: Area Wide Scope Filter: 1 Pattern: On Steady Duration: Until Off
16	MNS 3 Alarm Active	MNS 3 Alarm	Scope: Area Wide Scope Filter: 1 Pattern: On Steady Duration: Until Off
17	Fire Alarm Active	Fire MNS Alarm	Scope: Area Wide Scope Filter: 1 Pattern: On Steady Duration: Until Off
18	Gas Alarm Active	Gas MNS Alarm	Scope: Area Wide Scope Filter: 1 Pattern: On Steady Duration: Until Off
19	MNS Alarm Active	Summary MNS Alarm	Scope: Area Wide Scope Filter: 1 Pattern: On Steady Duration: Until Off
20	Fire Drill Active	Fire Drill	Scope: Area Wide Scope Filter: 1 Pattern: On Steady Duration: Follows Trigger
21	MNS Alarm Present	Summary MNS Alarm	Scope: Area Wide Scope Filter: 1 Pattern: On Steady Duration: Until Clear
22	Fire Alarm Present	Fire MNS Alarm	Scope: Area Wide Scope Filter: 1 Pattern: On Steady Duration: Until Clear
23	Gas Alarm Present	Gas MNS Alarm	Scope: Area Wide Scope Filter: 1 Pattern: On Steady Duration: Until Clear

Figure 11a. Output Profiles (14-16) for MNS.

B9512G Program Record Sheet						
COMPLIANCE SETTINGS						
PANEL WIDE PARAMETERS						
AREA WIDE PARAMETERS						
KEYPADS						
CUSTOM FUNCTIONS						
SHORTCUT MENU						
OUTPUTS						
Area Wide Outputs						
Panel Wide Outputs						
Output Assignments						
Output Profiles						
Output Profiles 1 - 16						
Output Profiles 17 - 32						
Output Profiles 33 - 48						
Output Profiles 49 - 64						
USER CONFIGURATION						
OUTPUT PROFILES 1 - 16		12	13	14	15	16
Profile Name		Burg Supervisory (Monitor)	Entry / Exit Delay	MNS 1 Alarm Active	MNS 2 Alarm Active	MNS 3 Alarm Active
Output Behavior [A]						
Trigger 1		Burglary Supervisory	Entry / Exit delay	MNS 1 Alarm	MNS 2 Alarm	MNS 3 Alarm
Scope		Panel Wide	Panel Wide	Area Wide	Area Wide	Area Wide
Scope Filter		0	0	1: MNS Area	1: MNS Area	1: MNS Area
AND Trigger 2		Disabled	Disabled	Disabled	Disabled	Disabled
Scope		Panel Wide	Panel Wide	Panel Wide	Panel Wide	Panel Wide
Scope Filter		0	0	0	0	0
Pattern		On Steady	Half Second Pulses	On Steady	On Steady	On Steady
Delay		00:00:00	00:00:00	00:00:00	00:00:00	00:00:00
Duration		Until Off	Follows Trigger	Until Off	Until Off	Until Off

Figure 11b. Output Profiles (17-23) for MNS.

B9512G Program Record Sheet						
COMPLIANCE SETTINGS						
PANEL WIDE PARAMETERS						
AREA WIDE PARAMETERS						
KEYPADS						
CUSTOM FUNCTIONS						
SHORTCUT MENU						
OUTPUTS						
Area Wide Outputs						
Panel Wide Outputs						
Output Assignments						
Output Profiles						
Output Profiles 1 - 16						
Output Profiles 17 - 32						
Output Profiles 33 - 48						
Output Profiles 49 - 64						
USER CONFIGURATION						
OUTPUT PROFILES 17 - 32		17	18	19	20	21
Profile Name		Fire Alarm Active	Gas Alarm Active	MNS Alarm Active	Fire Drill Active	MNS Alarm Present
Output Behavior [A]						
Trigger 1		Fire MNS Alarm	Gas MNS Alarm	Summary MNS Alarm	Fire Drill	Summary MNS Alarm
Scope		Area Wide	Area Wide	Area Wide	Area Wide	Area Wide
Scope Filter		1: MNS Area	1: MNS Area	1: MNS Area	1: MNS Area	1: MNS Area
AND Trigger 2		Disabled	Disabled	Disabled	Disabled	Disabled
Scope		Panel Wide	Panel Wide	Panel Wide	Panel Wide	Panel Wide
Scope Filter		0	0	0	0	0
Pattern		On Steady	On Steady	On Steady	On Steady	On Steady
Delay		00:00:00	00:00:00	00:00:00	00:00:00	00:00:00
Duration		Until Off	Until Off	Until Off	Follows Trigger	Until Cleared

3.6.1. OUTPUTS > Area Wide Outputs (Figure 12)

For UL 2572 compliance reasons, the MNS area will not use Area Wide Outputs for Fire and Gas bells. These will be set to 0 here. The Fire and Gas strobe and PRAESENSA output will be configured later using *Output Profiles*.

Figure 12. Area Wide Outputs disabled for MNS

Template - B9512G Customer MNS - Full (Account - 0000)						
B9512G Program Record Sheet						
COMPLIANCE SETTINGS						
PANEL WIDE PARAMETERS						
AREA WIDE PARAMETERS						
KEYPADS						
CUSTOM FUNCTIONS						
SHORTCUT MENU						
OUTPUTS						
Area Wide Outputs						
Output Area 1 - 16						
Output Area 17 - 32						
Panel Wide Outputs						
Output Assignments						
Output Profiles						
Output Profiles 1 - 16						
Output Profiles 17 - 32						
Output Profiles 33 - 48						
Output Profiles 49 - 64						
USER CONFIGURATION						
Output Area 1 - 16		Area 1	Area 2	Area 3	Area 4	Area 5
Alarm Bell		0		1	1	1
Fire Bell		0		1	1	1
Reset Sensors		3	3	3	3	3
Fail To Close / Part On Armed		0	0	0	0	0
Force Armed		0	0	0	0	0
Watch Mode		0	0	0	0	0
Area Armed		0	0	0	0	0
Area Off		0	0	0	0	0
Area Fault		0	0	0	0	0
Duress Output		0	0	0	0	0
Part On Fault		0	0	0	0	0
Silent Alarm		0	0	0	0	0
Gas Bell		0		1	1	1
Environmental Bell		0	0	0	0	0

3.6.2. OUTPUTS > Panel Wide Outputs (Figure 13.)

The panel wide output, *Summary MNS Trouble*, will provide the MNS trouble output to the PRAESENSA system. Per Table 3, this Summary MNS Trouble output was defined to be Output number 16.

Figure 13. Panel Wide Outputs for MNS

B9512G Program Record Sheet COMPLIANCE SETTINGS PANEL WIDE PARAMETERS AREA WIDE PARAMETERS KEYPADS CUSTOM FUNCTIONS SHORTCUT MENU OUTPUTS Area Wide Outputs Panel Wide Outputs Output Assignments Output Profiles Output Profiles 1 - 16 Output Profiles 17 - 32 Output Profiles 33 - 48 Output Profiles 49 - 64 USER CONFIGURATION POINTS SCHEDULES	PANEL WIDE OUTPUTS		Entry
	AC Failure		0
	Battery Trouble		0
	Phone Fail		0
	Comm Fail		0
	Log % Full		0
	Summary Fire		0
	Summary Alarm		0
	Summary Fire Trouble		0
	Summary Supervisory Fire		0
	Summary Trouble		0
	Summary Supervisory Burg		0
	Summary Gas Output		0
	Summary Gas Supervisory Output		0
	Summary Gas Trouble Output		0
	Summary MNS		0
	Summary MNS Trouble		16

3.6.3. OUTPUTS > Output Assignments (Figure 14.)

The remaining MNS related outputs will be configured using predefined Output Profiles (*OUTPUTS > Output Profiles*). The numbering and purpose of each output correspond to Table 3.

B9512G Program Record Sheet COMPLIANCE SETTINGS PANEL WIDE PARAMETERS AREA WIDE PARAMETERS KEYPADS CUSTOM FUNCTIONS SHORTCUT MENU OUTPUTS Area Wide Outputs Panel Wide Outputs Output Assignments Output Profiles Output Profiles 1 - 16 Output Profiles 17 - 32 Output Profiles 33 - 48 Output Profiles 49 - 64 USER CONFIGURATION POINTS SCHEDULES	Output Assignments	Output Source	Output Text	Output Text (Second Language)	Output Profile	Hide Fr
	Output A(1)	On-board A	Output A (1)		0: Unassigned	No
	Output B(2)	On-board B	Output B (2)		0: Unassigned	No
	Output C(3)	On-board C	Output C (3)		0: Unassigned	No
	Output 11	Octo-output	Fire Alarm to PRAESENSA		17: Fire Alarm Active	No
	Output 12	Octo-output	MNS 2 Alarm to PRAESENSA		15: MNS 2 Alarm Active	No
	Output 13	Octo-output	Fire Alarm Present to PRAESENSA		22: Fire Alarm Present	No
	Output 14	Octo-output	MNS Alarm Present to PRAESENSA		21: MNS Alarm Present	No
	Output 15	Octo-output	Fire Drill To PRAESENSA		20: Fire Drill Active	No
	Output 16	Octo-output	Summary MNS Trouble		0: Unassigned	No
	Output 21	Octo-output	Fire Alarm Active to PRAESENSA		17: Fire Alarm Active	No
	Output 22	Octo-output	Fire Alarm Present to PRAESENSA		22: Fire Alarm Present	No
	Output 23	Octo-output	MNS Alarm Active to PRAESENSA		19: MNS Alarm Active	No
	Output 24	Octo-output	MNS Alarm Present to PRAESENSA		21: MNS Alarm Present	No
	Output 25	Octo-output	MNS Strobe		19: MNS Alarm Active	No
	Output 26	Octo-output	Fire Strobe		17: Fire Alarm Active	No

Bosch Security Systems B.V.

Torenallee 49

5617 BA Eindhoven

Netherlands

www.boschsecurity.com

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