

Bosch Communications Systems Academy Training Course Catalog 2012

Course

Conference Systems
Public Address Systems



BOSCH
Invented for life

Consulting

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Version

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1. Booking Application

Participants should always officially enroll themselves through the NSO.
An application form for enrollment in the required course can be found on the next page.

Enrollment address:

Bosch Security Systems BV, BU Communications Systems
Kapittelweg 10
4827 HG Breda
The Netherlands
Tel : +31 76 5721313
Fax : +31 76 5721283
Email : info.breda@nl.bosch.com

1.1 Course Application Form

Bosch Communications Systems Course Application Form			
Surname:		First Name:	
Date of Birth:	Company:		
Address:		Country:	
Tel. no.:	Fax no.:	E-mail:	
Hotel Information			
Hotel reservation required?	Yes/No		
Required for?	Number of nights:	First Night:	Last night:
Hotel Preference?			
Courses Required			
Name of the course.			
Bosch courses already completed.			
Short description of relevant experience.			
Special request concerning lunch:	Vegetarian : <input type="radio"/> Halal : <input type="radio"/> Others :		
The undersigned herewith requests the above applicant to be enrolled on the mentioned course(s) and agrees with the terms stated in the Booking Procedure and Regulations.			
Name:		Date:	

2. BOSCH Communications Systems PRODUCT TRAINING

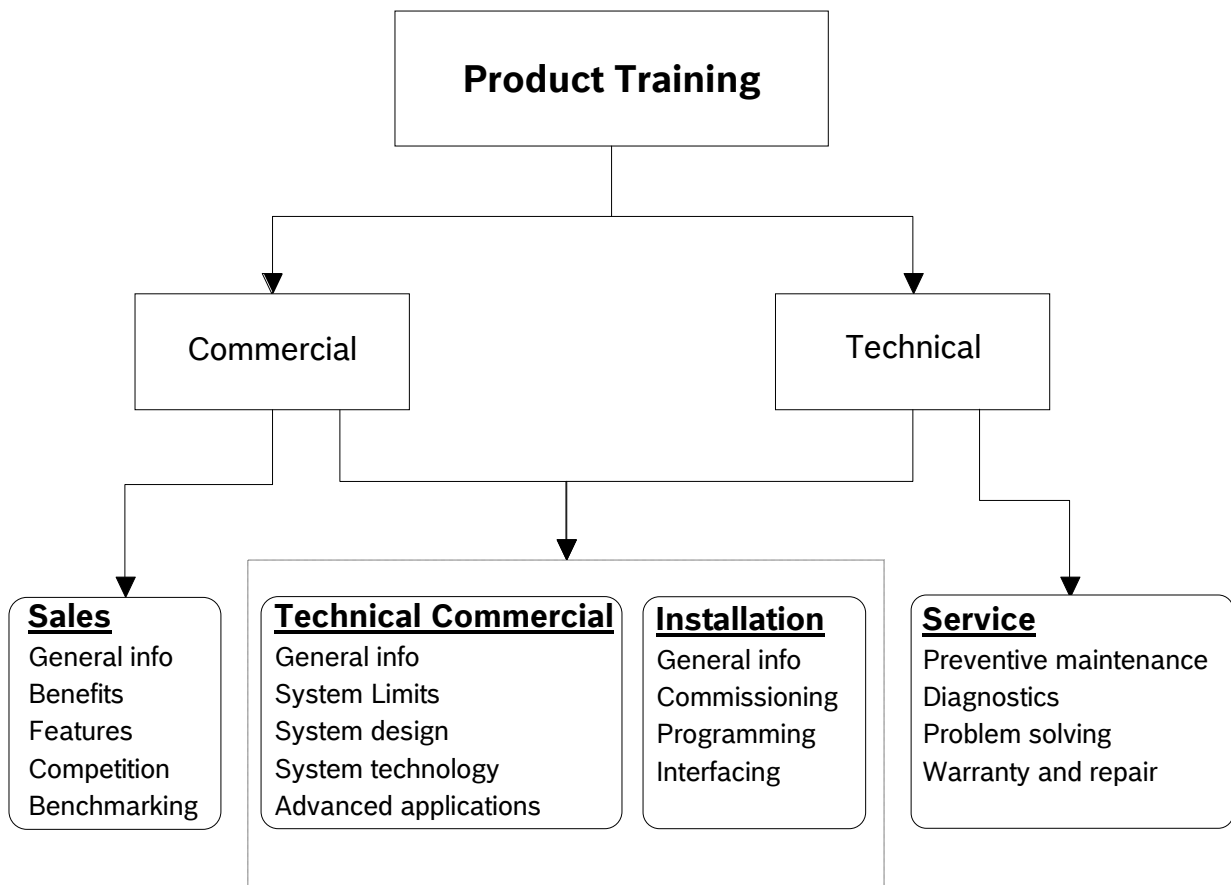
Product training within BU Communications Systems (BU.com.) is needed for people in the commercial departments and for specialists in the technical departments.

The training is split up in modules for commercial training and modules for technical training.

For those products where a split-up into the modules as described in Figure 1 is not so obvious, we have combined them.

It is up to you to make a choice and determine your requirements, to look at the various product courses detailed within this booklet, and complete your enrolment.

2.1 Figure 1 Structure of BU.com product training



3. Time schedule Quarter 1

3.1 Conference Systems courses

Month	January					February					March			
Week	1	2	3	4	5	6	7	8	9	10	11	12	13	
DCN-NPC										5-6				
DCN-PC										7				
DCN-CC										8				
DCN-IP										8				
Integrus										9				

3.2 Public Address courses

Month	January					February					March			
Week	1	2	3	4	5	6	7	8	9	10	11	12	13	
PA – Praesideo							13-16							
PA – Praesideo Service							17							

4. Time schedule Quarter 2

4.1 Conference Systems courses

Month	April					May					June			
Week	14	15	16	17	18	19	20	21	22	23	24	25	26	
DCN-NPC											11-12			
DCN-PC											13			
DCN-CC											14			
DCN-IP											14			
Integrus											15			

4.2 Public Address courses

Month	April					May					June			
Week	1	15	16	17	18	19	20	21	22	23	24	25	26	
PA – Basics	4			23										
PA – Plena + VA				24-26										
PA – Praesideo										4-7				
PA – Praesideo Service										8				
PA – ProMatrix PM 8000			17-19											

5. Time schedule Quarter 3

5.1 Conference Systems courses

Month	July					August					September			
Week	27	28	29	30	31	32	33	34	35	36	37	38	39	
DCN-NPC										3-4				
DCN-PC										5				
DCN-CC										5				
DCN-IP										6				
Integrus										7				

5.2 Public Address courses

Month	July					August					September			
Week	27	28	29	30	31	32	33	34	35	36	37	38	39	
PA – ProMatrix PM8000	3-5													
PA – Acoustics													24	
PA – LSP													25	
PA – VARI & SSD													26-28	

6. Time schedule Quarter 4

6.1 Conference Systems courses

Month	October					November					December			
Week	40	41	42	43	44	45	46	47	48	49	50	51	52	
DCN-NPC										3-4				
DCN-PC										5				
DCN-CC										5				
DCN-IP										6				
Integrus										7				

6.2 Public Address courses

Month	October					November					December			
Week	40	41	42	43	44	45	46	47	48	49	50	51	52	
PA – Basics					29									
PA – Plena + VA					30-1									
PA – Praesideo	1-4							19-22						
PA – Praesideo Service	5							23						
PA - ProMatrix PM8000							13-15							

7. Conference Product Training

Duration : 5 days

Description : Conference course designed on a modular basis allowing participation of required aspects.

Certification : To check individual knowledge questionnaires used after each module.

Target group : Bosch employees from:

- ⇒ Sales department.
- ⇒ Service department.
- ⇒ Product management department. Solutions department.
- ⇒ System integrators, Dealers and VAR's.

Maximum number on course is 12 persons.

Entry level : Basic knowledge of Conference systems.

Dates:

Module	Week	1210	1224	1236	1249
DCN-NPC DCN Conference Solutions without PC control <ul style="list-style-type: none"> • Single-CCU2 (wired and wireless) • Multi-CCU2 (wired and wireless) 		5-6 Mar	11-12 Jun	3-4 Sep	3-4 Dec
DCN-PC DCN Conference Solutions with PC control <ul style="list-style-type: none"> • DCN-SWSMV • DCN-SW • Video Client 		7 Mar	13 Jun	5 Sep	4 Dec
DCN-CC DCN Conference Solutions with Camera Control <ul style="list-style-type: none"> • DCN-SWSACC • HD Camera Control Solutions 		8 Mar	14 Jun	6 Sep	5 Dec
DCN-IP DCN Conference Solutions third party Interface Possibilities. <ul style="list-style-type: none"> • Open Interface (LBB4187) • DCN-SWSMD • DCN-SWAPI 		8 Mar	14 Jun	6 Sep	5 Dec
INTEGRUS-LDS INTEGRUS Language Distribution System		9 Mar	15 Jun	7 Sep	6 Dec

7.1 DCN-NPC DCN Conference Solutions without PC control

Technical training

Content	<p><u>Single CCU2 (wired and wireless)</u></p> <ul style="list-style-type: none"> ▪ Product Overview / Technical Information. ▪ System Design fundamentals. <ul style="list-style-type: none"> ▪ DCN Conference Solutions technology ▪ How to design and calculate a system. ▪ Installing and Using the DCNNGW calculation program. <ul style="list-style-type: none"> ▪ Hands-on ▪ Operating of Delegate & Chairman Unit. ▪ Installing a Single CCU2 system. <ul style="list-style-type: none"> ▪ Explanation of the system hardware. ▪ Initializing a system. ▪ Select settings on the main-menu of the CCU. ▪ Hands-on ▪ Programming of Interpreter Desks. <ul style="list-style-type: none"> ▪ Hands-on ▪ First line Service Diagnostics. ▪ Questionnaires “DCNNG Single CCU2” <p><u>Multi CCU2 (wired and wireless)</u></p> <ul style="list-style-type: none"> ▪ System Design fundamentals. <ul style="list-style-type: none"> ▪ How to design and calculate a system. ▪ Installing a Multi CCU2 system. <ul style="list-style-type: none"> ▪ Initializing a system. ▪ Select settings on the main-menu of the Master and Slave CCU2’s. ▪ Operating the Multi-CCU2 system. ▪ Programming of Interpreter Desks. ▪ First line Service Diagnostics. ▪ Questionnaires “DCNNG Multi-CCU2”
Target Audience	Participants new in DCN Conference Solutions.
Purpose	<p>After the training the trainees should:</p> <ul style="list-style-type: none"> ▪ Have a full understand of Designing, Installing and operating of DCN Conference Solutions and First Line Services.
Prerequisites	<p>Self study of Basics. Presentations available on Extranet.</p> <p>https://www.boschsecuritynet.com/internet/stemea/login</p>
Learning Methods	PowerPoint presentations, demonstrations and hands-on training. On memory stick all presentations and documentation will be hand-over.
No. of participants	Min. 5 Max. 12
Instructor	Ger van Pelt / Jeroen de Grauw
Duration	2 Days
Location	<p>Bosch Security Systems BV</p> <p>Kapittelweg 10, 4827 HG Breda, The Netherlands.</p>

Remarks	Required Materials are available in training room.
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7.2 DCN-PC DCN Conference Solutions with PC control

Single/Multi PC controlled system Technical training

Content	<p><u>DCN-SWSMV</u></p> <ul style="list-style-type: none"> ▪ Overview. ▪ Operating DCN-NG system with DCN-SWSMV. <ul style="list-style-type: none"> ▪ Hands-on <p><u>DCN-SW</u></p> <ul style="list-style-type: none"> ▪ Software modules and licenses. ▪ Software structures ▪ Installation <ul style="list-style-type: none"> ▪ Hands-on ▪ Configuration <ul style="list-style-type: none"> ▪ Hands-on ▪ Operation <ul style="list-style-type: none"> ▪ Hands-on ▪ Multi-PC <ul style="list-style-type: none"> ▪ Hands-on <p><u>Video Client</u></p> <ul style="list-style-type: none"> ▪ Based on DCN-SWSMD <ul style="list-style-type: none"> ▪ Hands-on ▪ Questionnaires “DCN PC”
Target Audience	Participants new in DCN Conference Solutions with PC Control.
Purpose	<p>After the training the trainees should:</p> <ul style="list-style-type: none"> ▪ Have a basic understand of Designing, Installing and operating of DCN Conference Solutions with PC control.
Prerequisites	<p>Self study of Basics. Presentations available on Extranet. https://www.boschsecuritynet.com/internet/stemea/login</p> <p>Previous completion of DCN-NPC.</p>
Learning Methods	PowerPoint presentations, demonstrations and hands-on training. On memory stick all presentations and documentation will be hand-over.
No. of participants	Min. 5 Max. 12
Instructor	Jeroen de Graauw / Ger van Pelt
Duration	1 Days
Location	<p>Bosch Security Systems BV</p> <p>Kapittelweg 10, 4827 HG Breda, The Netherlands.</p>
Remarks	Required Materials are available in training room.

7.3 DCN-CC DCN Conference Solutions with Camera Control

Technical training	
Content	<p><u>Camera Control</u></p> <ul style="list-style-type: none"> ▪ System Technology. ▪ Product Technology. <p><u>DCN-SWSACC</u></p> <ul style="list-style-type: none"> ▪ Install ▪ Configuration <p><u>HD Camera Control Solutions</u></p> <ul style="list-style-type: none"> ▪ Install ▪ Configuration
Target Audience	Participants new in DCN Camera Control.
Purpose	<p>After the training the trainees should:</p> <ul style="list-style-type: none"> ▪ Have a full understanding of Designing, Installing and Operating of DCN Next Generation Systems with Camera Control. ▪ Questionnaires “DCN Camera Control”
Prerequisites	<p>Self study of Basics. Presentations available on Extranet. https://www.boschsecuritynet.com/internet/stemea/login</p> <p>Previous completion DCN-NPC.</p>
Learning Methods	PowerPoint presentations, demonstrations and hands-on training. On memory stick all presentations and documentation will be hand-over.
No. of participants	Min. 5 Max. 12
Instructor	Ger van Pelt / Jeroen de Graauw
Duration	½ Day
Location	<p>Bosch Security Systems BV</p> <p>Kapittelweg 10, 4827 HG Breda, The Netherlands.</p>
Remarks	Required Materials are available in training room.

7.4 DCN-IP DCN Conference Solutions third party Interface Possibilities

Technical training

Content	<u>Application areas and tools</u> <ul style="list-style-type: none"> ▪ Open Interface (LBB4187). ▪ DCN-SWSMD <ul style="list-style-type: none"> ▪ DCN-MR ▪ DCN-SWAPI
Target Audience	Software Engineers who need to create custom made software.
Purpose	<p>After the training the trainees should:</p> <ul style="list-style-type: none"> ▪ Have a basic understanding of: <ul style="list-style-type: none"> ▪ Open Interface (LBB4187). ▪ DCN-SWSMD ▪ DCN-SWAPI
Prerequisites	<p>Self study of Basics. Presentations available on Extranet. https://www.boschsecuritynet.com/internet/stemea/login</p> <p>Previous completion DCN-NPC.</p>
Learning Methods	PowerPoint presentations, demonstrations and hands-on training. On memory stick all presentations and documentation will be hand-over.
No. of participants	Min. 5 Max. 12
Instructor	Jeroen de Graauw / Ger van Pelt
Duration	½ Day
Location	<p>Bosch Security Systems BV</p> <p>Kapittelweg 10, 4827 HG Breda, The Netherlands.</p>
Remarks	Required Materials are available in training room.

7.5 INTEGRUS Language Distribution System

Technical training

Content	<ul style="list-style-type: none"> ▪ System Technology. ▪ Product Technology. ▪ System Design. ▪ Exercise. ▪ Installing and Operating. ▪ Connecting and testing an INTEGRUS system. ▪ First line Service Diagnostics. ▪ Questionnaires “INTEGRUS Language Distribution”
Target Audience	Participants new in Integrus Language Distribution Systems.
Purpose	<p>After the training the trainees should:</p> <ul style="list-style-type: none"> ▪ Have a full understanding of Designing, Installing and Operating of INTEGRUS Language Distribution System and First Line Services.
Prerequisites	<p>Self study of Basics. Presentations available on Extranet.</p> <p>https://www.boschsecuritynet.com/internet/stemea/login</p>
Learning Methods	PowerPoint presentations, demonstrations and hands-on training. On memory stick all presentations and documentation will be hand-over.
No. of participants	Min. 5 Max. 12
Instructor	Jeroen de Graauw / Ger van Pelt
Duration	1 Day
Location	<p>Bosch Security Systems BV</p> <p>Kapittelweg 10, 4827 HG Breda, The Netherlands.</p>
Remarks	Required Materials are available in training room.

8. Public Address Product Training

Duration : 4 weeks

Description : Public Address course designed on a modular basis allowing participation of required aspects.

Target group : Bosch employees from:

- ⇒ Sales department.
- ⇒ Service department.
- ⇒ Product management department. Solutions department.
- ⇒ System integrators, Dealers and VAR's.

Maximum number on course is 12 persons.

Entry level : Specified per course.

Dates:

Module Week	1207	1216	1217	1223	1227	1239	1240	1244	1246	1247
PA - Basics Basics Public Address			23					29		
PA – Plena Easy line, Solutions and Voice Alarm System			24-26					30-1		
PA - Praesideo	13-16			4-7			1-4			19-22
PA – Praesideo service	17			8			5			23
PA – ProMatrix PM 8000		17-19			3-5				13-15	
PA – Acoustics Basics of acoustics						24				
PA – LSP Bosch loudspeakers						25				
PA – VARI & SSD Sound System Design & Vari-Directional Array						26-28				

8.1 PA – Basics Basic Public Address Training

Technical training	
Content	<ul style="list-style-type: none"> ▪ Public Address basics ▪ 100Volt Basics ▪ Microphones ▪ Loudspeakers ▪ Amplifiers ▪ Mixing amplifiers ▪ Installation tips ▪ Application and characteristics of Public Address systems
Target Audience	Employees, commercial and technical, with no or limited experience in PA. This training is strongly recommended for 'newbie's', who hardly have experience in the Public Address business and want to attend other Public Address trainings.
Purpose	<p>After the training the trainees should:</p> <ul style="list-style-type: none"> ▪ Have a basic understand of the principles of operation of public address ▪ Know the different components and techniques used in a public address ▪ Have a basic understanding of the applications and markets of public address ▪ Be provided with the fundamentals for the rest of the training week(s)
Prerequisites	Basic knowledge of electricity/electronics
Learning Methods	PowerPoint presentations, demonstration and training material (handouts & memory stick)
No. of participants	min. 5 Max. 12
Instructor	Peter Opheij
Duration	1 Day
Location	<p>Bosch Security Systems BV</p> <p>Kapittelweg 10, 4827 HG Breda, The Netherlands.</p>
Remarks	Required Materials are available in training room.

8.2 PA – Plena and Plena Voice Alarm Systems - Product Training

System Training Plena and Plena Voice Alarm Systems

Content	<ul style="list-style-type: none"> ▪ Market and product positioning ▪ Features, benefits, do's and don'ts of individual Plena hardware and software products ▪ Installation, setup and operation of latest hardware and software (including hands-on) ▪ Extending installed PA systems ▪ System architecture and system integration (e.g. with Fire FPA5000) ▪ Overall field knowledge -> transferred to practical solutions (including Hands-on) ▪ Out of the “product” box thinking & building ▪ If possible – “sneak preview of new expected products” (<i>pre-training</i>) ▪ An examination is part of the training
Target Audience	Sales person, sales engineer, project engineer, system integrator, product manager or support engineer of Bosch NSO's, VARs or installers.
Purpose	<p>After the training the trainees should:</p> <ul style="list-style-type: none"> ▪ Understand the application areas and targeted markets ▪ Know the relation between the benefits and features of each product. ▪ Know in- and outs of the Plena and the Plena Voice Alarm Systems ▪ Be able to make a system design ▪ Be able to combine and to install and configure the correct system components ▪ Be able to upgrade the Plena solutions and Plena Voice Alarm Systems ▪ Be able to make a competent report & presentation to customers ▪ Be able to support and train wholesalers and installers ▪ Be able to think & build “out of the product box”
Prerequisites	Basic knowledge of public address and MS-Windows (XP), the <u>PA-Basics</u> training is recommended. English Language.
Learning Methods	PowerPoint presentations, hands-on training, calculation exercises, Application notes, demonstration and training material (memory stick with all presentations and accurate software), Training ends with an Examination.
No. of participants	Min. 5 Max. 12
Instructor	Wilbert Maximus
Duration	3 Day
Location	Bosch Security Systems BV Kapittelweg 10, 4827 HG Breda, The Netherlands.
Remarks	<ul style="list-style-type: none"> ▪ All required materials are available in training room. ▪ Using an own laptop requires Windows XP with administrator rights.

8.3 PA – Praesideo Praesideo Product Training

Technical Training Praesideo

Content	<ul style="list-style-type: none"> ▪ General / commercial introduction ▪ Operating principles ▪ Praesideo components ▪ Install and upgrade to the latest SW release ▪ Configuring the Praesideo system ▪ Recording messages and assembling message sets ▪ Be able to work with the off-line configuration tool ▪ Storing vital system data ▪ Powering, back-up powering and power consumption ▪ Ethernet connection and local/remote access ▪ Fault, Call and Event logging ▪ PC Call station and Telephone interface ▪ IP-Audio ▪ Cobra Net principles and the Praesideo solution using Cobra Net ▪ Designing a Praesideo system ▪ Hands-on configuring a Praesideo system
Target Audience	Sales person, sales engineer, project engineer, product manager, commissioning and support engineers of Bosch NSO's or VARs
Purpose	<p>After the training the trainees should:</p> <ul style="list-style-type: none"> ▪ Know the Praesideo product range ▪ Be able to select Praesideo products and make a system design ▪ Be able to upgrade the software ▪ Be able to configure a Praesideo system ▪ Be able to use the additional SW packages for Praesideo ▪ Be able to commission a system
Prerequisites	<p>Broad experience in PA is required.</p> <p>Persons, with limited experience, who are active in PA business the PA-Basics training is strongly recommended.</p>
Learning Methods	PowerPoint presentations, hands-on training, demonstration and training material (handouts & memory stick)
No. of participants	min. 5 Max. 12 (Max. 2 persons per company if training is fully booked)
Instructor	Peter Opheij
Duration	4 Day
Location	<p>Bosch Security Systems BV</p> <p>Kapittelweg 10, 4827 HG The Netherlands.</p>
Remarks	<ul style="list-style-type: none"> ▪ A max. of 2 persons per company if the training is fully booked ▪ Required Materials are available in training room

8.4 PA – Praesideo Praesideo Service Training

Technical Training Praesideo

Content	<ul style="list-style-type: none"> ▪ Preventive maintenance ▪ Problems at an installation (system diagnostics) ▪ Fault events and indications ▪ Firmware download recovery ▪ PC to NCO connection ▪ HyperTerminal ▪ Software version related problems ▪ Praesideo warranty & repair
Target Audience	Installers, Service technicians, Product Managers, Commissioning and support engineers of Bosch NSO's and VARs
Purpose	<p>After the training the trainees should:</p> <ul style="list-style-type: none"> ▪ Be able to apply service on a Praesideo system ▪ Be able to diagnose if a unit is faulty ▪ Be able to solve application / installation related problems ▪ Be able to recover a download failed unit ▪ Be able to recover TCP/IP settings with HyperTerminal
Prerequisites	The Praesideo product training
Learning Methods	PowerPoint presentation, hands-on training, demonstration and training material (handouts)
No. of participants	min. 5 Max. 12 (Max. 2 persons per company if training is fully booked)
Instructor	Dave Rutjens
Duration	1 Day
Location	<p>Bosch Security Systems BV</p> <p>Kapittelweg 10, 4827 HG Breda, The Netherlands.</p>
Remarks	<ul style="list-style-type: none"> ▪ The training typically ends at +/- 15.00 (depending on questions and requests)

8.5 PA – ProMatrix ProMatrix PM 8000 Product Training

Technical Training PM 8000

Content	<p>Day 1 (Presentations):</p> <ul style="list-style-type: none"> ▪ PM 8000 components ▪ System overview ▪ IRISNet configuration software ▪ System examples ▪ Making a bill of material <p>Day 2/3 (Hands-on):</p> <ul style="list-style-type: none"> ▪ Getting up and running ▪ Upgrade to the latest firmware ▪ A basic system setup ▪ Supervision ▪ 100V relay switching ▪ Task engine ▪ Networking
Target Audience	Day 1: Sales and technical people. Day 2/3: technical people.
Purpose	<p>After the training the trainees should:</p> <ul style="list-style-type: none"> ▪ Know the PM 8000 product range ▪ Be able to select PM 8000 products and make a basic system design ▪ Be able to configure a basic PM 8000 system
Prerequisites	<p>Broad experience in PA is required.</p> <p>Persons, with limited experience, who are active in PA business the <u>PA-Basics</u> training is strongly recommended.</p>
Learning Methods	PowerPoint presentations, hands-on training, demonstration and training material (memory stick). Every day will end with a small exam. The last day will end with a practical exam.
No. of participants	min. 5 Max. 8 (Max. 2 persons per company if training is fully booked)
Instructor	Vytautas Valancius
Duration	3 Days
Location	<p>Bosch Security Systems BV</p> <p>Kapittelweg 10, 4827 HG The Netherlands.</p>
Remarks	<ul style="list-style-type: none"> ▪ A max. of 2 persons per company if the training is fully booked ▪ It is advised to bring your own laptop with administrator rights, to install the IRISNet configuration software. ▪ Required Materials are available in training room

8.6 PA – Acoustics

Basics of Acoustics	
Content	<ul style="list-style-type: none"> ▪ Sound Terminology: SPL, frequency, ▪ Modeling sound sources ▪ EASE Address: simulation of ceiling speaker systems ▪ Room acoustics: <ul style="list-style-type: none"> ▪ Absorption, reflection, scattering ▪ Reverberation time ▪ Impulse response ▪ Prediction programs ▪ Speech intelligibility ▪ Sound measurements: SPL, STI
Target Audience	Technicians and salesmen unfamiliar with basic acoustic terminology.
Purpose	<p>After the training the trainees should:</p> <ul style="list-style-type: none"> ▪ Have an understanding of the basics of sound ▪ Have an understanding of how sound interacts at room boundaries ▪ Have an understanding of what reverberation time is ▪ Know what influences speech intelligibility ▪ Be able to measure basic acoustical parameters with a handheld meter ▪ Have an understanding of measurement of the impulse response of a room ▪ Have an understanding of the basics of acoustical modeling
Prerequisites	No experience is required.
Learning Methods	PowerPoint presentations, hands-on training, demonstration and training material (handouts & memory stick)
No. of participants	min. 5 Max. 12 (Max. 2 persons per company if training is fully booked)
Instructor	Michel van Loon
Duration	1 Day
Location	<p>Bosch Security Systems BV</p> <p>Kapittelweg 10, 4827 HG Breda, The Netherlands.</p>
Remarks	<ul style="list-style-type: none"> ▪ Participants who also subscribed for the LSP and VARI & SSD training will get priority over participants who only subscribe for the Acoustics Basic training. ▪ Required Materials are available in training room

8.7 PA – LSP

Bosch loudspeaker product training	
Content	<ul style="list-style-type: none"> ▪ Loudspeaker specifications <ul style="list-style-type: none"> ▪ Acoustical specifications ▪ Electrical specifications ▪ Certifications ▪ All passive Bosch loudspeakers <ul style="list-style-type: none"> ▪ Sound projectors ▪ Ceiling speakers ▪ Premium-sound loudspeakers ▪ Horn loudspeakers ▪ Hemi-directional loudspeaker ▪ Column speakers ▪ Cabinets ▪ The maximum possible SPL ▪ Calculation in EASE
Target Audience	People unfamiliar with the Bosch loudspeaker products
Purpose	After the training the trainees should: <ul style="list-style-type: none"> ▪ Know the differences between the different product ranges and products in terms of technical properties, acoustical performance and sound quality. ▪ Know which type of loudspeaker to use in what application
Prerequisites	No experience is required.
Learning Methods	Product demonstration, PowerPoint presentations, hands-on training and training material (handouts & memory stick)
No. of participants	min. 5 Max. 12 (Max. 2 persons per company if training is fully booked)
Instructor	Michel van Loon
Duration	1 Day
Location	Bosch Security Systems BV Kapittelweg 10, 4827 HG Breda, The Netherlands.
Remarks	<ul style="list-style-type: none"> ▪ Required Materials are available in training room

8.8 PA – VARI & SSD

Vari-Directional Array product training

Content	<ul style="list-style-type: none"> ▪ Excellent speech intelligibility ▪ Easy configuration ▪ Product family ▪ Inside the box: technology ▪ Installation ▪ Modeling in EASE ▪ Design considerations ▪ Test cases
Target Audience	Technicians and salesmen unfamiliar with the Bosch Vari-Directional Array.
Purpose	<p>After the training the trainees should:</p> <ul style="list-style-type: none"> ▪ Understand why excellent speech intelligibility can be achieved ▪ Be able to configure a unit ▪ Be able to make a basic planning for a project ▪ Be able to simulate a project in EASE
Prerequisites	Participants should have attended the ‘Acoustics basics’ and ‘Bosch loudspeakers’ training or should be familiar with its content.
Learning Methods	PowerPoint presentations, hands-on training, working with EASE, setting up a complete system in a church, demonstration and training material (handouts & memory stick)
No. of participants	min. 5 Max. 12 (Max. 2 persons per company if training is fully booked)
Instructor	Michel van Loon
Duration	3 Days (1½ of these days is fully dedicated to the Vari-Directional Array)
Location	<p>Bosch Security Systems BV</p> <p>Kapittelweg 10, 4827 HG Breda, The Netherlands.</p>
Remarks	<ul style="list-style-type: none"> ▪ A max. of 2 persons per company if the training is fully booked ▪ Required Materials are available in training room ▪ The Sound system design training and Vari-Directional Array training cannot be separately booked.

Sound System Design training

Content	<ul style="list-style-type: none"> ▪ Planning projects with Bosch loudspeakers ▪ Planning projects in EASE ▪ Interpreting calculation results in EASE ▪ Basic model building in EASE ▪ Setting up a real project in a church ▪ Determining the performance of a real project by measurement
Target Audience	Technicians and salesmen that need to plan or offer sound systems.
Purpose	<p>After the training the trainees should:</p> <ul style="list-style-type: none"> ▪ Be able to make a basic loudspeaker planning ▪ Be able to use EASE as a support tool in loudspeaker planning ▪ Make a very simplistic model in EASE ▪ Be able to setup and test a planned project
Prerequisites	Participants should have attended the 'Acoustics basics' and 'Bosch loudspeakers' training or should be familiar with its content.
Learning Methods	PowerPoint presentations, hands-on training, working with EASE, setting up a complete system in a church, demonstration and training material (handouts & memory stick)
No. of participants	Min. 5 Max. 12 (Max. 2 persons per company if training is fully booked)
Instructor	Michel van Loon
Duration	3 Days (1½ of these days is dedicated to the sound system design part)
Location	<p>Theoretical part:</p> <ul style="list-style-type: none"> • Bosch Security Systems BV Kapittelweg 10, 4827 HG Breda, The Netherlands. <p>Practical part:</p> <ul style="list-style-type: none"> • H. Willibrordus Church Kerkstraat 1, Teteringen, The Netherlands
Remarks	<ul style="list-style-type: none"> ▪ A max. of 2 persons per company if the training is fully booked ▪ Required Materials are available in training room ▪ The Sound system design training and active line array training cannot be separately booked.

9. Extra Training in Breda, initiated and conducted by the NSO

9.1 Procedures

Our training room in Breda, the Netherlands, available for our NSO's. At times there are no courses scheduled, the NSO is given the opportunity to use this room and our equipment to train their customers. Reservation of the training room must be done via info@breda.com

9.2 Time schedule availability training room Y:

Month	January				February				March				
Week	1201			1204	1205			1208				1212	1213
Month	April				May				June				
Week	1214				1218	1219	1220	1221					1226
Month	July				August				September				
Week		1228	1229	1230	1231	1232	1233	1234					
Month	October				November				December				
Week		1241	1242						1248			1251	

9.3 Arrange catering and hotel reservations.

In order to arrange catering and hotel reservations in a timely and efficient way, the following regulations are applicable:

- The NSO-trainer makes course reservations and a time schedule, at least 6 weeks before start of the course.
- The NSO-trainer takes care of registration and confirmation of trainees.
- A course of a NSO-trainer in Breda, the Netherlands, can be cancelled up to 10 working days before the start of the course.

10. Procedures and Regulations

10.1 Procedures

In order to enable organization of courses in a timely and efficient way, the following regulations are applicable:

- Course reservations can only be accepted by mail, E-mail or fax.
- An authorized person from the NSO should sign application forms.
- Application forms should be sent at least 6 weeks prior to the course start. In exceptional situations when it is not possible to subscribe within the required period, we will try to find a solution.
- Bosch has the right to cancel a course in the case of insufficient enrolments.
- Each participant will receive a confirmation not later than one week before the start of the course.
- **Enrolment to a course can be cancelled by a participant up to 4 weeks before the start of the course. Later cancellations are charged with 50% of the total course fee. In case of a “no-show”, the full amount of the course will be charged.**
- It is always allowed to send a substitute participant to the course; no further charges will be made in that case.

10.2 Hotel

- We will make and confirm hotel reservation according to your wishes on the application form.
- Hotel to be paid by participants.
- In case of last minute cancellation you have to notify the hotel yourself to avoid unnecessary costs.
- You have to arrive to the hotel before 19.00 hrs. Should you arrive later you have to contact the hotel.
- Hotels in Breda:
 - Hotel Apollo : www.apollohotelsresorts.com
 - Hotel Campanile : www.campanile.com

10.3 Course Fees

- The course fee value is euro 150,- p.p.p.d.
- This course fee includes supplied documentation and handouts. For courses held at the premises, drinks and lunches during the course are included.
- In case all participants are from the same organization the course fee per day will be Euro 750,-.
- Bosch employees will get training free of charge.
- In special cases training can be held abroad/on-site, but this has to be agreed on before hand between the NSO Product Manager and the RSO Product Marketing Manager.
- For courses held abroad, the costs for traveling, board and lodging of the trainer are added to the standard costs of euro 750,- per day. If these courses are part of a first time introduction of new products or in case special arrangements are made, there can be a deviation in the mentioned prices.

10.4 Non-Bosch Participants

Non-Bosch employees can be enrolled for courses. It is required to enroll the participant via the NSO. It is up to the NSO-sales manager to decide for charging the above mentioned course fees.

10.5 Test / Certificate

All courses incorporate a test for participants. This will enable us to follow and monitor the knowledge. Upon successful completion of a course, a Bosch Academy Certificate is awarded. Enrolment in a course means that you agree to these terms and conditions.

10.6 About Breda

The city of Breda is located in the south of Holland, at approx. 100 km distance from Amsterdam Schiphol-Airport, approx. 50 km from Rotterdam Airport Zestienhoven and Eindhoven Airport. Breda is a bustling city with a rich past. It is famous for its historic city centre and its many monuments, such as the Grote or Onze Lieve Vrouwe Kerk, the Spanjaardsgat, the Royal Military Academy and the Begijnhof (beguinage). 'The historic kilometer', a city itinerary available from the Breda Tourist Office (VVV), will lead you along all these sights. Breda is also the place for shopping, as it hosts numerous pleasant shopping streets. A shopping mall called 'The Barones' is situated in the heart of the city.

At night Breda offers lots of entertainment. The lively nightlife is mainly concentrated in the Grote Markt, Havermarkt and Ginneken areas.

11. How to travel to Breda

11.1 By plane to Schiphol Airport

The Dutch international airport Schiphol, situated close to Amsterdam.

Currency can be changed at Schiphol, even outside the normal banking hours (including Saturday and Sunday).

In the arrival area you will find some helpful features of Schiphol such as: KLM's hotel reservation desk, car rental desks, and airport information desk.

Entry to the railway station is located in the arrival area. In front of the arrival hall is a taxi rank and a shuttle bus to the nearby airport hotels.

KLM Reservation and Travel Information: Tel: +31 (0)20 474 77 47

11.2 By rail from Schiphol to Breda

From Schiphol you can travel to Breda from different directions.

You can take the following trains:

From Schiphol to Leiden, from Leiden to Breda

From Schiphol to Dordrecht, from Dordrecht to Breda

From Schiphol to Rotterdam, from Rotterdam to Breda

The traveling time of all options is about 1 1/2 hour.

Information about Dutch railways: Tel: +31 (0)900 9292 or www.ns.nl

11.3 By car to Breda

11.3.1 Coming from Utrecht/Eindhoven (E37/A27):

Exit 16 Breda Noord.

- From Utrecht turn right at the traffic lights.
- From Eindhoven turn left at the traffic lights.

At the 3rd traffic lights turn right (N260). At the second traffic lights turn right, into the Kapittelweg. The entrance to the Bosch premises is at approx. 200 meter on the right.

11.3.2 Coming from Rotterdam/Antwerp (E10/A16):

Exit 17 Breda Noord.

- From Rotterdam turn left at the traffic lights and at the 2nd traffic lights turn left and keep to the right.
- From Antwerp turn right at the traffic lights and keep to the right at the next traffic lights.

Follow direction Breda-Noord. Follow this road (N260). At the 6th traffic lights turn left, into the Kapittelweg. The entrance to the Bosch premises is at approx. 200 meter on the right.

