BIS 2.2 Security Engine

Installation Manual

BOSCH

en English

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2 Introduction

Building Integration System (BIS) is a private Internet building management solution. It combines building management systems and access control into a single user interface. You can also manage intrusion, CCTV, fire, and other building systems using BIS. Developed using OPC (Object Linking and Embedding for Process Control) standards, BIS instantly integrates OPC-compliant systems.

2.1 About this Manual

This guide covers topics including software and hardware installation specific to the installation of the BIS 2.2 Security Engine. You can find general BIS 2.2 installation information in the *BIS 2.2 Installation Manual* (P/N F01U028709).
After the installation is complete, configure BIS 2.2 using the **BIS Manager** configuration software, as described in the *BIS Configuration online help*.

3 Installation

3.1 Software Installation

For information regarding the installation of BIS software, refer to the *BIS 2.2 Installation Manual* (P/N F01U028709).

3.2 Hardware Installation

3.2.1 Installing G-Series Control Panels

NOTE! G-Series Control Panels require Firmware version 6.0 or newer for proper operation with BIS.

To prepare a G-Series control panel to operate with BIS:

1. Configure the control panel with RPS or a D5200 Programmer. Perform the hardware setup to allow the following:
   - Automation interfaces on the control panel:
     Set **RADXAUX1** → **SDI Automation** → **Enable SDI Automation?** to **Yes**
   - Points to exist:
     Set **Points (RADXPNTS)** → **Point Assignments** → **Point Index** to a value other than **0**
   - Point texts to exist:
     In **Points (RADXPNTS)** → **Point Assignments**, enter text in the **Point Text** fields
   - Doors to exist:
     Configure **Access Control (RADXAXS)**
   - On-board relays to exist
   - Off board relays to exist
   - Authority levels to exist:
     Configure **User Interface (9000MAIN)** → **Authority Levels** and **Passcodes (RADXUSR1/RADXUSR2)** → **Passcodes & Authority Levels**

NOTE! Set **RADXAUX1** → **SDI Automation** → **Baud Rate** to **9600 Baud**, **RTS Control Settings** to **Force RTS On**, and **DTR Control Settings** to **Force DTR On**. These are the default settings. If you change these settings in the control panel, you must also change the BIS settings to match.

NOTE! Do not configure users or skeds.

2. Establish a connection between the control panel and the BIS server on which the OPC server is running.
   To establish a direct serial connection using a DX4010i RS-232 Serial Interface Module with the control panel, refer to the *DX4010i Installation Instructions* (P/N: 4998141106) and to *Figure 3.1*.

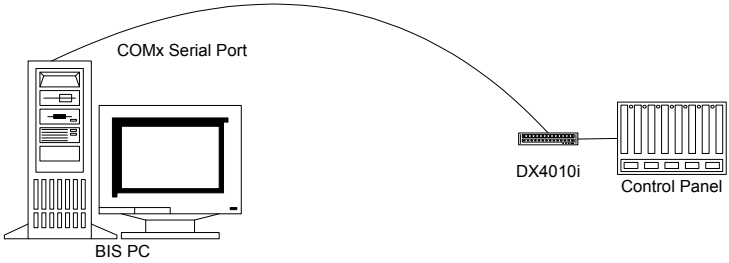

Fig. 3.1 Direct Serial Connection of PC to Panel

   To establish a TCP/IP connection using a DX4020 Network Interface Module, refer to the *DX4020 Installation Instructions* (P/N: 49522).

NOTE! The following example uses an IP address of 172.16.17.76 and a MAC Address of 00-20-4a-51-01-a7. Consult with your Network Administrator for your actual network settings.

a. Open a DOS window by clicking **Start** and selecting **All Programs** → **Accessories** → **Command prompt**. A command prompt window appears.

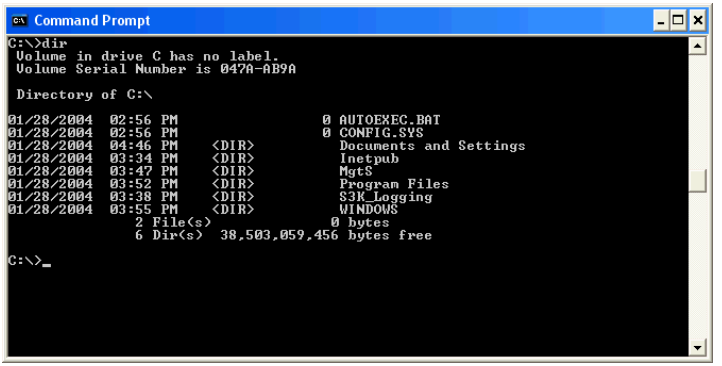

Fig. 3.2 Command Prompt

b. At the **C:\>** prompt, type **arp -s (IP ADDRESS) (PANEL MAC ADDRESS)**, then press [ENTER].
For example, type **arp -s** (space) **172.16.17.76** (space) **00-20-4a-51-01-a7**, then press [ENTER].

c. At the **C:\>** prompt, type **telnet**, then press [ENTER].

d. At the **Microsoft Telnet>** prompt, type **OPEN** (space) **IP ADDRESS** (space) **PORT NUMBER** (use 1).
For example, type **open 172.16.17.76 1**, then press [ENTER].

e. The connection fails the first time. This failure is normal. At the prompt enter the same sequence but use port **9999** instead of **1**.
For example, **open 172.16.17.76 9999** [ENTER].

f. Press [ENTER] to view the DX4020 setup menu.

g. Select **0 Server configuration**.

h. Enter the desired IP address.
If the DX4020 Network Interface was already programmed with an IP address, the address appears in parentheses.
To properly program the IP address 172.16.17.76, type: **172** [ENTER] **16** [ENTER] **17** [ENTER] **76** [ENTER].

i. See your network administrator for the proper gateway address settings.

j. If the subnet mask must be changed from the default, enter the number of bits that correspond to the subnet mask your network uses.
See your network administrator for more information.
Press [ENTER] after entering the correct number of bits for the subnet mask. Refer to *Table 3.1*.

Number of Host Bits	Netmask
1	255.255.255.254
2	255.255.255.252
3	255.255.255.248
4	255.255.255.240
5	255.255.255.224
6	255.255.255.192
7	255.255.255.128
8	255.255.255.0
9	255.255.254.0
10	255.255.252.0
11	255.255.248.0
12	255.255.240.0
13	255.255.224.0
14	255.255.192.0
15	255.255.128.0

Table 3.1 Netmask Address

Number of Host Bits	Netmask
16	255.255.0.0
17	255.254.0.0
18	255.252.0.0
19	255.248.0.0
20	255.240.0.0
21	255.224.0.0
22	255.192.0.0
23	255.128.0.0
24	255.0.0.0
25	254.0.0.0
26	252.0.0.0
27	248.0.0.0
28	240.0.0.0
29	224.0.0.0
30	192.0.0.0
31	128.0.0.0

Table 3.1 Netmask Address

k. Press [N] to leave the telnet config password as **No**.
l. Select **7** for **Factory defaults**, then press [ENTER].

m. Press **1** [ENTER] to enter setup Channel 1 configuration. Refer to *Table 3.2* for the Channel 1 configuration.

Property	Value
Baud rate	Must match the baud rate configured in BIS.
I/F Mode	4C
Flow	00
Port No.	Must match the port number configured in BIS. Refer to *Step 3*, page 14.
ConnectMode	C0
Remote IP Address	000.000.000.000
Remote Port	Normally 00000. If access is only allowed from one IP address, enter that IP address here.
DisConnMode	01
FlushMode	00
DisConnTime	00:00
SendChar1	00
SendChar2	00

Table 3.2 Channel 1 Configuration

n. Select **9 Save and Exit**, then press [ENTER].
o. At the Microsoft Telnet prompt, type **quit**, then press [ENTER].

p. Activate the automation interface in RPS or the D5200 Programmer by connecting to the control panel, selecting **RADXAUX1**, and setting **Enable SDI automation?** to **Yes**.

q. Connect the PC to the LAN using a router, hub, or switch. The PC and the control panel are now connected to the LAN (*Figure 3.3*).

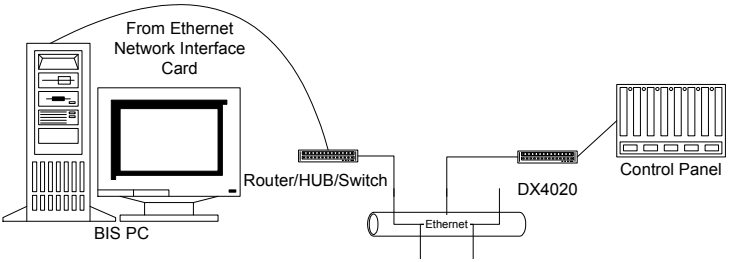

Fig. 3.3 PC and Control Panel to LAN Interconnect Diagram

3. Make the new control panel known to BIS:

NOTE! The following steps need to be performed only once on any BIS server.

a. Start the BIS Manager.

NOTE! The default BIS Manager operator name and password is **Administrator**.

b. Click **Start** Configuration Browser.

c. Click **New configuration**.

d. Under **Group**, select **Security Engine**.

e. Under **Name**, select either **Default_6600** or **Default_9412**.

f. Click **Make New Folder**, then give the folder a unique name.

g. Log into the new configuration.

NOTE! The new configuration's default operator name and password is **Administrator**.

h. From the Configuration Browser's **Connections** tab, right-click the server to which the control panel will connect and select **Add subsystem...**.
i. In the **Select new subsystem** dialog, select **G-Series Panel**.
j. In the **Subsystem name** field, enter a name for the control panel, then click **OK**.
The control panel connection appears below the server.
k. Right-click on the control panel and select **Properties...**.
l. Click **Launch**.
m. In the **OPC3Tconfig** window, click **Add**.
n. In the **Panel configuration** window, select **LAN (TCP)** in the **Communication** field.
o. Configure the **Communication parameters** fields as recommended by your network administrator.
p. Close the **OPC3TConfig** dialog. Click **Yes** to save changes.

4. Configure the associations as described in the *BIS Configuration online help*:
   a. Define the messages that BIS generates.
   b. Specify if BIS should execute automatic controls.
5. Map devices as described in the *BIS Configuration online help* and the *Security Engine Configuration online help*.

3.2.2 Installing D6600 Receiver

1. Configure the receiver.
2. Connect the D6600 Receiver to the BIS remote server, where the D6600 OPC server is running.

3. Make the new receiver known to BIS using the BIS Manager:
   a. From the Configuration Browser's **Connections** tab, right-click the server to which the control panel will connect and select **Add subsystem...**.
   b. In the **Select new subsystem** dialog, click **D6600 family**.
   c. In the **Subsystem name** field, enter a name for the receiver, then click **OK**.
   d. BIS adds the receiver connection below the server. Right-click on the receiver and select **Properties...**.
   e. Click the **Launch** button.
   f. In the **OPC3Tconfig** window**, click Add.**
   g. In the **Receiver configuration** window, enter the new receiver's parameters (name, type, communication parameters, and so on), then click **OK**.
   h. Close the **OPC3Tconfig** window. When asked to save changes, click **Yes**, then click **OK**.
   i. Click **OK** to close the **Subsystem properties** dialog.
   j. At the top of the Configuration Browser's **Connections** tab, click **Connect**.
   k. Click **Start** in the **Browse OPC servers** window. The OPC server starts, establishing connections with all receivers and querying the connected hardware.
4. Configure the associations as described in the *BIS Configuration online help:*
   a. Define the messages that BIS generates.
   b. Specify if BIS should execute automatic controls.
5. Map devices as described in the *BIS Configuration online help*.

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