
Table of Contents

1	System Outline	
1.1	System Highlights	20
1.1.1	System Highlights	20
1.2	Basic System Construction	22
1.2.1	Basic Shelf	22
1.2.2	System Connection Diagram	23
1.3	Options	25
1.3.1	Options	25
1.4	Specifications	28
1.4.1	General Description	28
1.4.2	Characteristics	30
1.4.3	System Capacity	31
2	Installation	
2.1	Before Installation	36
2.1.1	Before Installation	36
2.2	Installation of Main Unit	38
2.2.1	Unpacking	38
2.2.2	Names and Locations	39
2.2.3	Open/Close Front Cover	40
2.2.4	Power Supply Unit Replacement	42
2.2.5	Backup Batteries Connection	44
2.2.6	Install/Remove Optional Service Cards	45
2.2.7	Types of Connectors	48
2.2.8	Holding Amphenol type Connector	49
2.2.9	Wall Mounting (KX-TDA200)	50
2.2.10	Wall Mounting (KX-TDA100)	51
2.2.11	Fixing on the Floor (KX-TDA200 Only)	52
2.2.12	Frame Ground Connection	54
2.2.13	Lightning Protector Installation	55
2.3	Installation of Main Processor Cards	58
2.3.1	Main Processing Card (MPR)	58
2.3.2	Remote Maintenance Trunk card (RMT)	60
2.4	Installation of Trunk Cards	61
2.4.1	LCOT8/LCOT16 Card	61
2.4.2	T1 Card	64
2.4.3	E1 Card	67
2.4.4	E&M8 Card	70
2.4.5	BRI4/BRI8 Card	72
2.4.6	PRI30 Card	75
2.4.7	PRI23 Card	78
2.4.8	IP-GW4 Card	80
2.5	Installation of Extension Cards	83
2.5.1	DHLC8 Card	83
2.5.2	DLC16 Card	86
2.5.3	DLC8 Card	89

2.5.4	MSLC16/SLC16 Card	91
2.5.5	SLC8 Card	94
2.5.6	CSINF4/CSIF8 Card.....	96
2.6	Installation of Option Cards.....	98
2.6.1	Option Base Circuit Card (OPB3).....	98
2.6.2	MSG4 Card.....	99
2.6.2	MSG4 Card.....	99
2.6.4	DPH2 Card	103
2.6.5	EIO4 Card.....	106
2.6.6	ECHO16 Card.....	109
2.6.7	CTI-LINK Card	110
2.7	Connection of Extensions.....	112
2.7.1	Maximum cabling distance of the extension line cord (twisted cable)	112
2.7.2	Parallel Connection of the Extensions.....	113
2.7.3	Extra Device Port (XDP) Connection.....	115
2.8	Connection of DECT	116
2.8.1	Overview.....	116
2.8.2	RF Specification	117
2.8.3	Procedure Flow Chart.....	118
2.8.4	Site Planning.....	119
2.8.5	Installing the unit.....	123
2.8.6	Site Survey.....	124
2.8.7	Wall Mounting.....	135
2.9	Connection of 2.4G FHSS	136
2.9.1	Overview.....	136
2.9.2	RF Specification	137
2.9.3	Procedure Flow Chart.....	138
2.9.4	Site Planning.....	139
2.9.5	Installing the unit.....	143
2.8.6	Site Survey.....	124
2.9.7	Wall Mounting.....	153
2.10	Connection of Peripherals.....	154
2.10.1	Connection of Peripherals	154
2.11	Auxiliary Connection for Power Failure Transfer.....	157
2.11.1	Auxiliary Connection for Power Failure Transfer.....	157
2.12	Start Up TDA100 / TDA200.....	158
2.12.1	Start Up TDA100 / TDA200.....	158
3	Maintenance Console Guide	
3.1	Connection.....	162
3.1.1	RS232C / USB port Connection.....	162
3.1.2	LAN Connection Via CTI-LINK Option card.....	163
3.2	Installation of Maintenance Console Software	164
3.2.1	System Requirements	164
3.2.2	Starting Setup	165
3.2.3	Structure of the Maintenance Console Software	166
4	Troubleshooting	
4.1	Troubleshooting	168

4.1.1	Installation	168
4.1.2	Connection.....	169
4.1.3	Operation	171

Section 1

System Outline

This section provides general information on the system, including system capacity and specifications.

1.1 System Highlights

1.1.1 System Highlights

Automatic Route Selection (ARS)

Automatically selects the pre-programmed least expensive route for outgoing toll calls.

Caller ID

Allows the extension user to see the name or telephone number of a caller on the telephone display before answering the call.

Digital Proprietary Telephones (DPTs)

The system supports a wide variety of digital proprietary telephones ranging from a monitor set to a large display hands-free version.

EXtra Device Port (XDP)

Each extension port on the DHLC card supports the connection of a digital proprietary telephone and a single line device. The devices have different extension numbers and are treated as two completely different extensions.

Paralleled Telephone Connection

Each extension port on the DHLC8 card supports the parallel connection of a proprietary telephone and a single line device. They share the same extension number and are considered by the system to be one extension.

PC Console, PC Phone

The Panasonic PC Console is designed to provide access to all of the features available on a physical Panasonic KX-TD desktop telephone in a familiar, user-friendly Microsoft® Windows® based application.

The application's PC-based nature enables you to utilize the resources and graphical capabilities of your PC, providing a range of telephone features that improve and enhance your call handling efficiency.

Remote Maintenance

You can perform the remote maintenance and programming as well as the on-site maintenance by using a personal computer through the Integrated Services Digital Network (ISDN) or analogue telephone line through RMT card.

Super Hybrid System

This system supports the connection of digital and analogue proprietary telephones, DSS Consoles and single line devices such as single line telephones, facsimiles, and data terminals.

Uniform Call Distribution (UCD)

Allows incoming calls to be distributed uniformly to their specified group of extensions called UCD Group.

Voice over Internet Protocol (VoIP)

Allows delivery of voice information using the Internet Protocol.

VPS Integration

The system supports Voice Processing Systems with in-band DTMF signalling as well as DPT integration. The Panasonic Voice Processing System provides automated attendant, voice mail, interview and custom services.

1.2 Basic System Construction

1.2.1 Basic Shelf

Basic Shelf contains its own power supply and 7 (12 for KX-TDA200) mounting spaces called "Slots." One slot is reserved for the MPR (Main Central Processing Unit Circuit) card, and a second slot is reserved for OPB3 (Option Base 3) card. The remaining 5 (10 for KX-TDA200) slots provide mounting space for various cards that can be used. Any optional service card can be mounted in any one of these free slots.

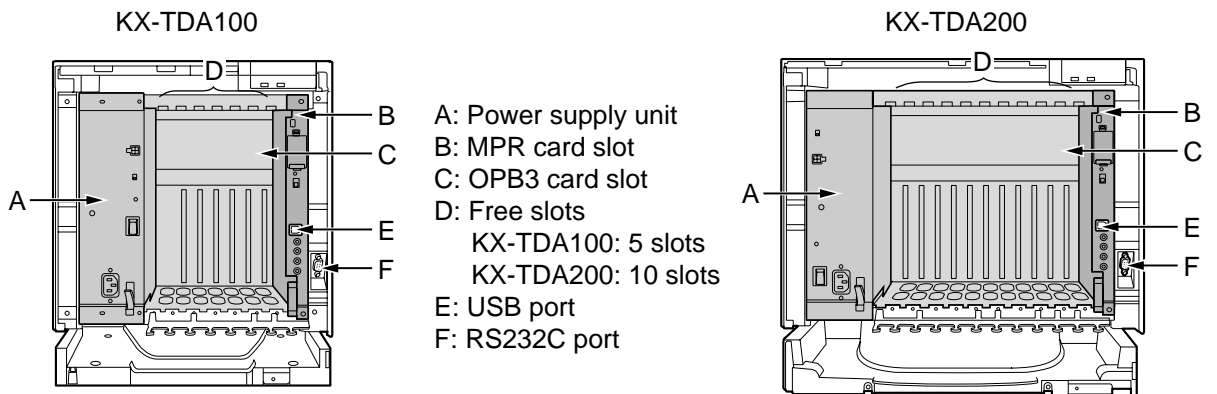


KX-TDA100

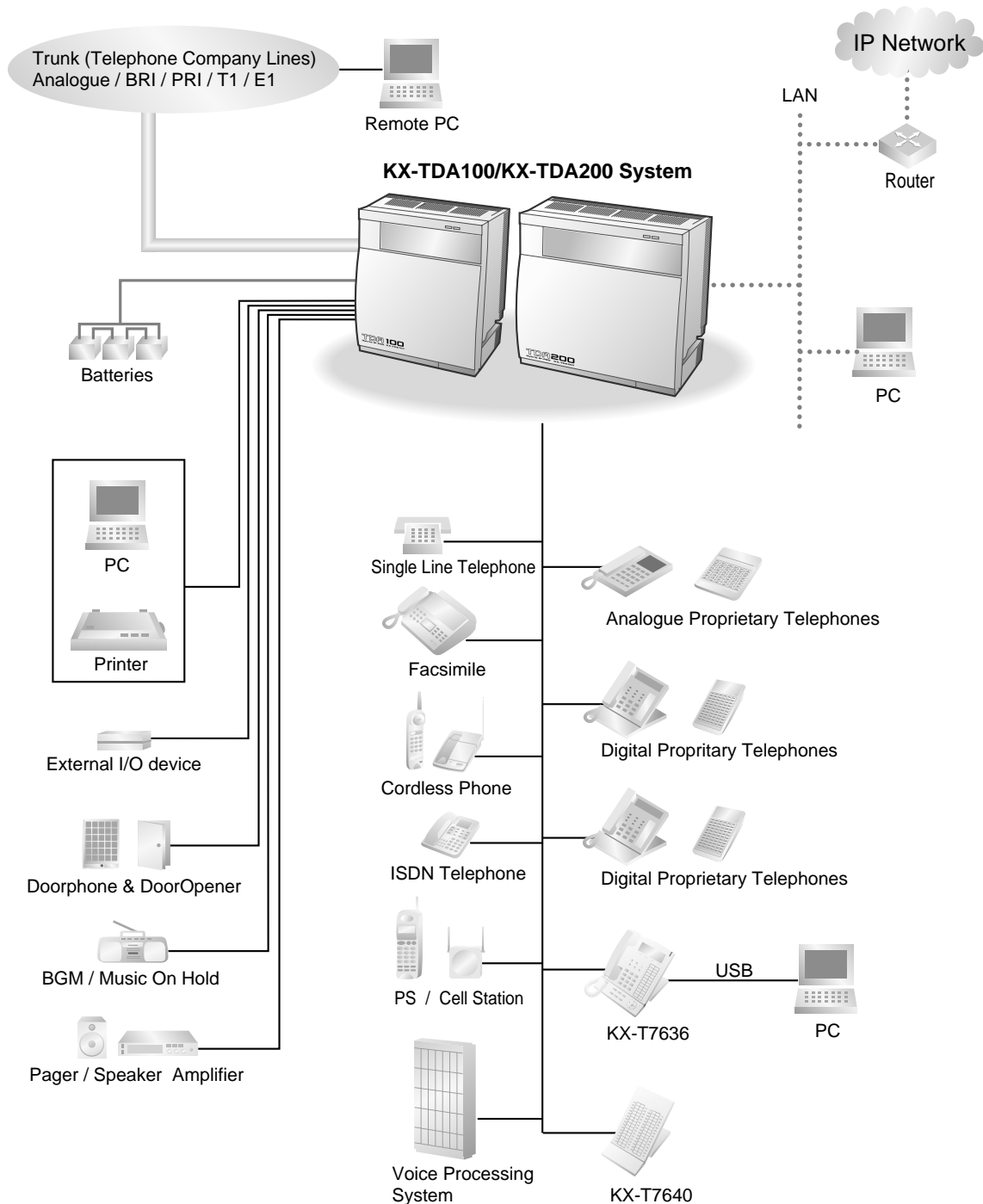


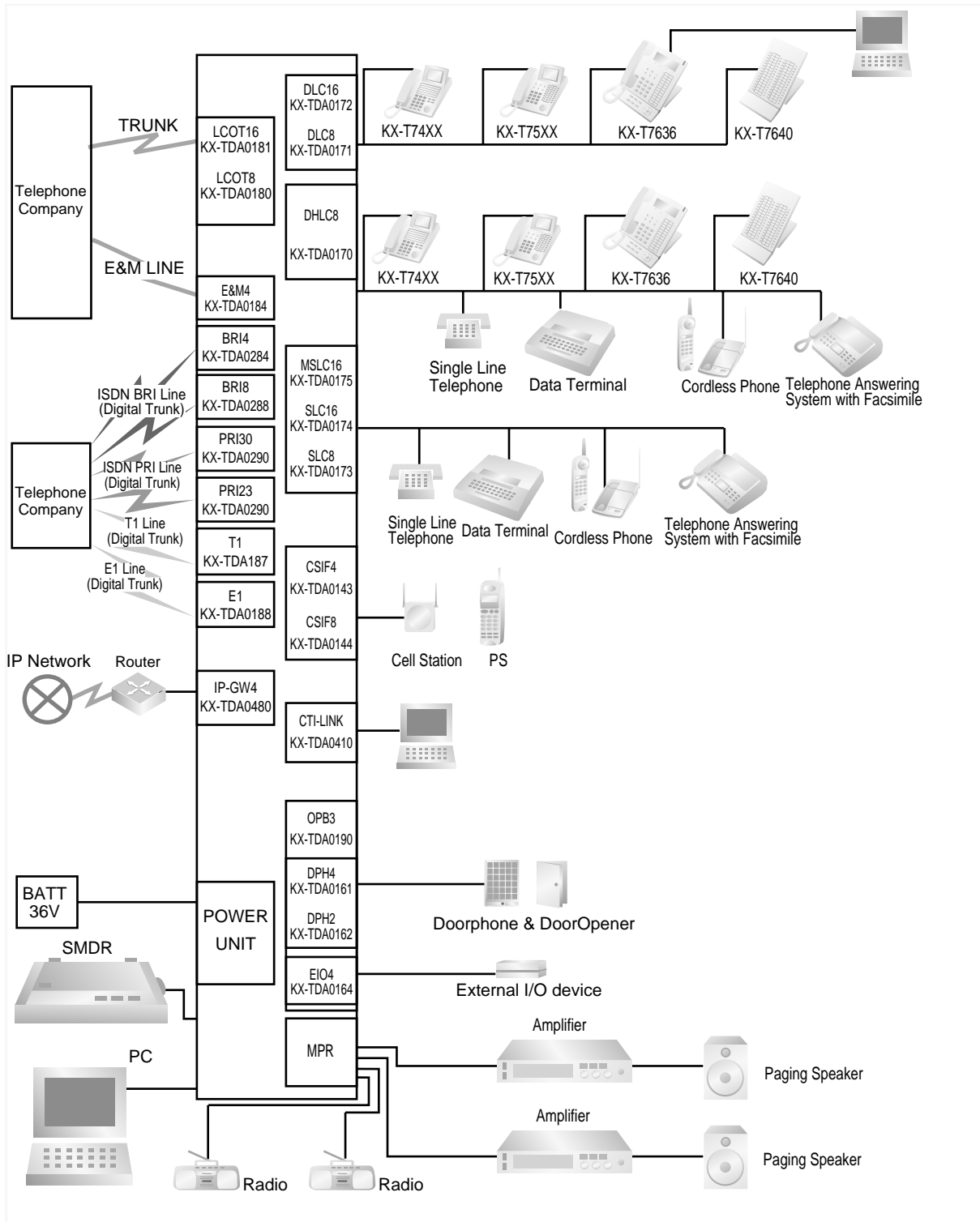
KX-TDA200

Construction of Basic Shelf



1.2.2 System Connection Diagram





2.9 Connection of 2.4G FHSS

2.9.1 Overview

To connect the wireless system, the following equipment is required.

Cell Station Interface Card (KX-TDA0143)

One KX-TDA0143 supports up to four Cell Stations (KX-TDA0142).

Four KX-TDA0143 can be connected to the KX-TDA100 and up to eight KX-TDA0143 can be connected to the KX-TDA200.

Cell Station Interface Card (KX-TDA0144)

One KX-TDA0144 supports up to eight Cell Stations (KX-TDA0142).

Two KX-TDA0144 can be connected to the KX-TDA100 and up to four KX-TDA0144 can be connected to the KX-TDA200.

CS: Cell Station (KX-TDA0142)

This unit determines the range of the supporting PSs. Up to three calls can be made at the same time in one range.

PS: 2.4G Portable Station (KX-TD7690)

Up to 64 PSs in the KX-TDA100 system and up to 128 PSs in the KX-TDA200 system can be used as extensions. For more details about the PS, please refer to the User Manual.

2.9.2 RF Specification

Item	Description
Radio Access method	Multi Carrier TDMA-TDD
Frequency Band	2400—2483.5MHz
Number of Carriers	91
Carrier Spacing	864kHz
Bit Rate	576kbps
Carrier Multiplex	TDMA, 8(Tx4, Rx4) slots per frame
Frame Length	10ms
Modulation Scheme	GFSK Roll-off factor=0.5 50% roll-off in the transmitter.
Data Coding for Modulator	Differential Coding
Voice CODEC	32kbps ADPCM(CCITT G.721)
Transmission Output	Maximum 250mW