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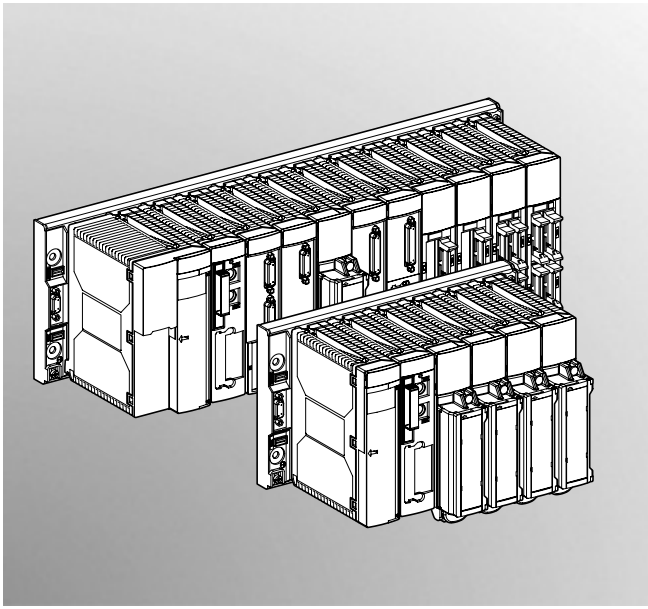
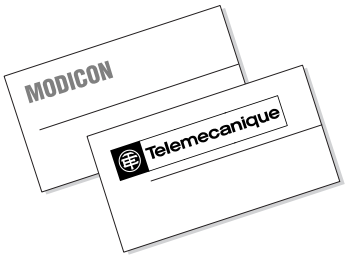
TSX Premium
TSX P 57 30

Processor Unit
User's Guide





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ENGLISH

For more information on the installation of TSX Premium PLCs, please consult the following manuals :

TSX DM 57E	TSX Premium. PLCs TSX 57	User's Manual
TLX DR PL7 13E	PL7 Micro/Junior	Languages Reference Manual
TLX DM PL7J 13E	PL7 Junior	Operating Modes Manual
TLX DS 57 PL7 13E	PL7 Junior	Application specific Functions TSX PREMIUM

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1 General presentation

This manual describes the use of the TSX P 57 30 processor V2.●.
This processor is identical to the TSX P 57 20 processor except for the two FIPWAY connections (one on the processor unit and one on a SCY module).

To run TSX P 57 30 under PL7 Junior V1.8 first install the attached disk.

This manual only describes functions specific to the TSX P 57 30. For all other functions, refer to the TSX DM 57 E manual.

Before starting up, check that your products are up to date (see 6. Compatibility).

2 Using a TSX P 57 30 with PL7 Junior V1.8

A disk labelled TSX PREMIUM, "TSX 57 30 CATALOG" is provided to allow the use of the TSX P 57 30 with PL7 Junior V1.8.

Important:
This disk should be used exclusively with PL7 Junior V1.8.

To install the disk :

1. Close all your applications including PL7 Junior.
2. Insert the disk in the disk drive.
3. In the program manager (Windows 3.1x) or the Start menu (Windows 95), select the **File/Execute...** menu.
4. Enter the **A:\SETUP** command line and validate with the **OK** button.
5. Follow the instructions displayed for PL7 Junior installation.

Notes :
• There is no registration card for this set of disks.
• The disk should be re-installed following each PL7 Junior installation.

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3 TSX P 57 30

3.1 General characteristics

	TSX P 57 30		
Maximum configuration	No. of TSX RKY ••E racks (6/8/12 positions)		8
	Maximum no. of module slots		96
Functions	Maximum no. of discrete I/O channels		1024
	Maximum no. of application-specific modules (1)		6
	No. of integrated UNI-TELWAY connections (terminal port)		1
	No. of FIPWAY network connections (3)(4)		2
	No. of FIPIO agent bus connections(4)		1
	Realtime clock		Yes
Memory (2)	Internal RAM (can be protected)		48 Kwords
	PCMCIA memory card		32/64/128 Kwords
	Max. memory size		176 Kwords
Application structure	Master task		1
	Fast task		1
	Event processing		64 (1 of which takes priority)
Execution time for 1 K instructions	Internal Ram	100% Boolean	0.31 ms
		100% numeric	0.44 ms
		65% Boolean/35% numeric	0.78 ms
	PCMCIA card	100% Boolean	0.47 ms
		65% Boolean/35% numeric	0.98 ms
System overhead	MAST task	cyclic operation	1.4 ms
		periodic operation	1.2 ms
	FAST task		0.5 ms
Programming software			PL7 Junior under Windows
Programming languages			Ladder language, Grafcet language, Structured Text language, List language

(1) Counter (TSX CTY ••), axis control (TSX CAY ••), stepper control (TSX CFY ••), communication (TSX SCY 21600), weighing (TSX ISP Y100).
(2) Kwords = K16 (16 bit word)
(3) One connection on the processor unit and one on a SCY 21600 module
(4) Total number of connections (FIPIO and FIPWAY) limited to 2

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3.2 Configuration

When creating a new application, choose TSX 57 30 in the dialog box.

The FIPWAY configuration is exactly the same as for TSX 57 20 except that the common words network number has to be entered.

Important:

- There is no consistency check between the network number entered and the TSX FPP 20 network number (set by switches).
- It is not possible to change the network number if common words are already used in the application.
  To change the network number, place the instructions using the common words between comment brackets (* *) where possible, or use the PL7 Junior export/ import feature (export the modules where common words are used, delete them, change the network number in the configuration then change the common words address while importing the modules).

4 FIPWAY support on SCY

A FIPWAY connection can be made on a SCY controlled by a TSX P 57 30.

4.1 Setup

Use a TSX FPP 20 PCMCIA FIPWAY card. Refer to theTSX Premium User's manual part D 3.3. for installation and connection.

4.2 Configuration

To configure the FIPWAY connection, double-click on the SCY module and select a TSX FPP 20 PCMCIA card on channel 1.

The SCY FIPWAY configuration screen is a subset of the CPU FIPWAY configuration screen.

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4.3 Restrictions

The following restrictions apply to the SCY FIPWAY connection :

- Telegram function not supported
- No application download
- No consistency check between the network number entered and the TSX FPP 20 network number (set by switches)

The following restrictions apply to the dual FIPWAY configuration:

- No checking of CPU and SCY shared tables overlapping
- No automatic routing between networks
- There is no check that the SCY FIPWAY network number is different from the CPU FIPWAY network number.

5 Common word syntax

The multi-network common word syntax is :

%NW {network no.station no.} word rank

Example :
%NW {1.2} 3 is word 3 of station 2 in network 1

6 Configuration of Bridge services

For each network connection point, the Bridge data contains the list of networks which can be accessed by this network. This is used to select the network module for accessing the target network from the rack.

A Bridge station can only manage 2 network modules.

A special screen is used to enter Bridge data for all the network modules of a station. It can be accessed from FIPWAY configuration screens, using the Bridge button or selecting Bridge item in services menu.

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7 Compatibility

Use of the TSX 57 30 requires the following minimum versions :

Product	Reference	Minimum version
SCY communication module	TSXSCY21600	V1.4
PL7 Junior	TLXLFPL7J••	V1.8
Fipway PCMCIA board	TSXFPP20	V1.3

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