

Ethernet J1939 interface (FTI06026)

Software Installation Manual

Publication type: Software Installation Manual
Publication number: FTI06026
Title: Ethernet J1939 interface
Subject:
Issue: 1.0
Publication date: August 26, 2010
Total number of pages: 14

Author: E.J. Varkevisser

Table of contents

	Page #
Figures	3
References	5
Introduction	6
About the installation manual	6
Abbreviations list	7
Safety instructions	8
Revision history	8
1. Receiving, unpacking and checking	9
1.1 Procedure.....	9
2. Setting and adjustment.....	10
2.1 Installation procedure.....	10
2.2 IP address	10
2.3 FT NavVision configuration.....	11
3. Technical specifications	12
4. Outline drawing	13

Figures

Figure 4-1: Outline drawing	13
-----------------------------	----

NOTICE

**This document contains proprietary information.
No part of this document may be photocopied, reproduced or
translated into another language without the prior written consent of
Free Technics B.V.**

References

ICP DAS i-7540D User's manual:

http://ftp.icpdas.com/pub/cd/fieldbus_cd/can/converter/i-7540d/manual/i7540dmanual.pdf

ICP DAS i-7540D Quick start user guide:

http://ftp.icpdas.com/pub/cd/fieldbus_cd/can/converter/i-7540d/manual/i7540dquickstart.pdf

Introduction

The software installation manual provides instructions for installing and configuring the CAN-Ethernet gateway as used within FT NavVision®. The chapters and sections are organized in chronological order in which the relevant component must be installed and configured (where applicable).

About the installation manual

The software installation manual contains the following chapters:

- Chapter "Safety instructions" presents warning, caution and note information, which the user should pay attention to.
- Chapter "Receiving, unpacking and checking" contains instructions on how to receive, unpack or check the I/O modules.
- Chapter "Setting and adjustment" contains instructions on how to set and adjust the gateway.
- Chapter "Technical specifications" contains an overview of the main features and technical data.

Abbreviations list

AC	Alternating Current
API	Application Programming Interface
CAN	Controller Area Network
COM	Communication
CPU	Central Processing Unit
CTS	Clear To Send
DC	Direct Current
DHCP	Dynamic Host Configuration Protocol
DIN	Deutsches Institut für Normung
DIP	Dual In-line Package
DSR	Data Set Ready
ER	Error
GND	Ground
IM	Installation Manual
I/O	Input/Output
INIT	Initialize
LED	Light Emitting Diode
Mbps	Megabit per second
RJ	Registered Jack
RTC	Real Time Clock
RTS	Request To Send
Rx	Receive
RxD	Receive Data
SRAM	Static Random Access Memory
TCP/IP	Transmission Control Protocol/ Internet Protocol
Tx	Transmit
TxD	Transmit Data
Vrms	Voltage, root mean square

Safety instructions

NOTE:

This section provides only a summary of the most important safety requirements and notes, which will be mentioned in the individual sections. To protect your health and prevent damage to the devices, it is essential to read and carefully follow the safety instructions.

The indications NOTE, CAUTION and WARNING have the following significance:

NOTE:

An operating procedure, practice or condition etc., which it is essential to emphasize.

CAUTION

An operating procedure, practise or condition etc., which, if not strictly observed, may damage or destroy equipment.

WARNING

An operating procedure, practise or condition etc., which, if not carefully observed may result in personal injury or loss of life.

Revision history

Revisions issued since publication.

Issue	Date	Revision	Reason
1.0	August 26, 2010		First release

1. Receiving, unpacking and checking

1.1 Procedure

NOTE:

Notify your sales representative if any of the items mentioned below are missing or damaged.

1. Remove the transport casing
2. Visually inspect the respective parts
3. Check that all items are included in accordance with the delivery documents.
4. Check for transport damages.
In case of transport damage appropriate action must be taken against the latest carrier and the nearest certified dealer or representative should be informed.
5. Store the part in the original transport package in a dry and dust free place, if the unit is not to be installed immediately. Observe the environmental requirements stated in the specifications

2. Setting and adjustment

NOTE:

Always be sure that the latest version firmware is installed.

2.1 Installation procedure

Please, carry out the following steps:

- Switch-off electrical power from the i-7540D
- Install a (download) cable between i-7540D and the PC
- Interconnect TX → TX
Interconnect RX → RX
Interconnect GND → INIT
- Switch-on electrical power to the i-7540D
- The 7-segment LED displays a counter, which enters the "INIT" mode
- Start 7188xw.exe
- Select the F4 keyboard button, to start-up the firmware update
- At completion a message appears "Transfer time is: 29.157000 seconds"
- Switch-off electrical power again
- Disconnect the (download) cable (INIT pin connection released)

NOTE:

Add a sticker to indicate the installation of new firmware onto the i-7540D housing.

- Switch-on electrical power again, to activate i-7540D (incl. new firmware).

2.2 IP address

Please, do the following steps:

- Connect the i-7540D to the network
- IP address = 192.168.255.1 (by default)
- The subnetmask = 255.255.0.0
- In your browser, go to this IP address

NOTE:

If necessary change the IP address of the PC you are trying to connect with.

- Change the IP address of the i-7540D to a desired address.

REMINDER:

Password: icpdas 7540D

Check: "Reset system"

Push: "Set TCP/IP and COM/CAN PORT"

The current IP address will be shown on the display.

2.3 FT NavVision configuration

NOTE:

Without this license there will be no communication possible.

To use i-7540D within FT NavVision®, please follow the following steps:

- Put the license in "CAN/J1708/J1939 Ethernet Interface"

Change the file "CommCan.ini"

For the channel in use ([channel_<number>]):

Interface=l7540D

IPAddress_1=<IP Address>

Example

[CAN Channels]

Channel_0=On,J1939

[Channel_0]

Interface=l7540D

IPAddress_1=10.10.10.202

There is no need to change any settings in the configuration screen of FT NavVision®.

3. Technical specifications

Description	Detail
CPU	
CPU	80186, 80 MHz or compatible
SRAM	512K Bytes
Flash	512K Bytes
EEPROM	16K Bytes
NVRAM	31 Bytes (battery backup, data valid up to 10 years)
RTC (Real Time Clock)	Yes
64-bit hardware serial number	Yes
Build-in watchdog timer	Yes
Communication interface	
COM1	RS-232 (TxD, RxD, RTS, CTS, GND)
COM2	RS-485 (D2+, D2-)
CAN	One CAN port with two CAN bus connector interfaces (CAN_H and CAN_L)
Ethernet port	10/100 Base-TX Ethernet controller
COM port formats	
Data bit	7, 8
Parity	Even, Odd, None
Stop bit	1
Baud-rate	115.2 Kbps max.
CAN port formats	
CAN controller	Phillip SJA1000T
CAN Transceiver	Phillip 82C250
Isolated	2500 Vrms on CAN side
Baud-rate	1 Mbps max.
Dimensions	
i-7540D	123 x 72 x 33 mm
Operating environment	
Operating temperature	-25°C to +75°C
Storage temperature	-40°C to +80°C
Power	
Protection	Power reverse polarity protection
Frame ground for ESD protection	Yes
Required supply voltage	-10 to +30 VDC (non-regulated)
Power consumption	2.5 W

4. Outline drawing

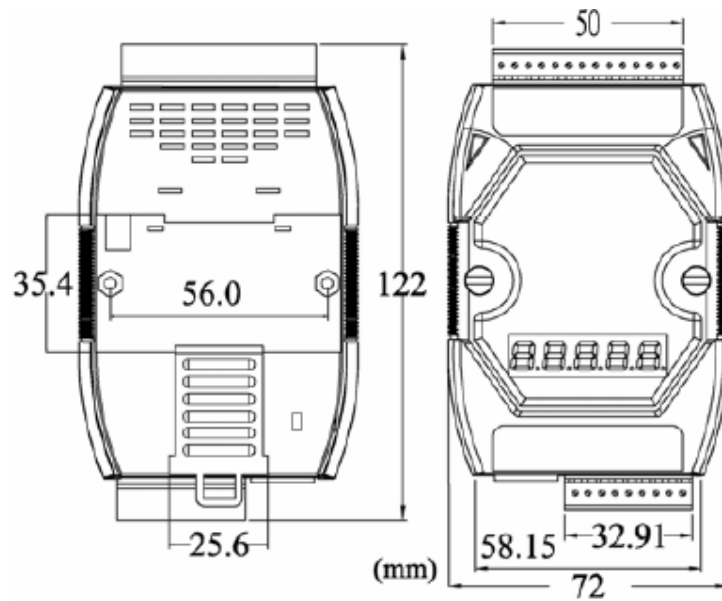


Figure 4-1: Outline drawing

Free Technics

Technical & customer support
The Netherlands

Free Technics B.V.
Eikenlaan 259J
2404 BP, Alphen aan den Rijn
The Netherlands

Telephone: +31 172418 890
Fax: +31 172418 899
www.freetechnics.eu