

Intelligent Display Unit

DS/DA-CT, Direct Connection Technical Support Manual

CE



Preface

Thank you very much for selecting Autonics products.

Please familiarize yourself with the information contained in the **Safety Precautions** section before using this product.

This user manual contains information about the product and its proper use, and should be kept in a place where it will be easy to access.

Technical Support Manual Guide

- Please familiarize yourself with the information in this manual before using the product.
- This manual provides detailed information on the product's features. It does not offer any guarantee concerning matters beyond the scope of this manual.
- This manual may not be edited or reproduced in either part or whole without permission.
- This manual is not provided as part of the product package. Please visit our home-page (www.autonics.com) to download a copy.
- The manual's content may vary depending on changes to the product's software and other unforeseen developments within Autonics, and is subject to change without prior notice. Upgrade notice is provided through our homepage.
- We contrived to describe this manual more easily and correctly. However, if there are any corrections or questions, please notify us these on our homepage.

Technical Support Manual Symbols

Symbol	Description
 Note	Supplementary information for a particular feature.
 Warning	Failure to follow instructions can result in serious injury or death.
 Caution	Failure to follow instructions can lead to a minor injury or product damage.
 Ex.	An example of the concerned feature's use.
※1	Annotation mark.

Safety Precautions

- Following these safety precautions will ensure the safe and proper use of the product and help prevent accidents, as well as minimizing possible hazards.
- Safety precautions are categorized as Warnings and Cautions, as defined below:

 Warning	Warning	Failure to follow the instructions may lead to a serious injury or accident.
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 Caution	Caution	Failure to follow the instructions may lead to a minor injury or accident.
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Warning

- Fail-safe device must be installed when using the unit with machinery that may cause serious injury or substantial economic loss. (e.g. nuclear power control, medical equipment, ships, vehicles, railways, aircraft, combustion apparatus, safety equipment, crime/disaster prevention devices, etc.)
Failure to follow this instruction may result in personal injury, fire, or economic loss.
- Do not disassemble or modify the unit. Please contact us if necessary.
Failure to follow this instruction may result in fire.

Caution

- Do not use the unit outdoors.
Failure to follow this instruction may result in shortening the life cycle of the unit or product malfunction.
- Use the unit within the rated specifications.
Failure to follow this instruction may result in shortening the life cycle of the unit.
- Do not use water or oil-based detergent when cleaning the unit. Use dry cloth to clean the unit.
Failure to follow this instruction may result in fire.
- Do not use the unit where flammable or explosive gas, humidity, direct sunlight, radiant heat, vibration, or impact may be present.
Failure to follow this instruction may result in fire or explosion.
- Keep dust and wire residue from flowing into the unit.
Failure to follow this instruction may result in fire or product damage.

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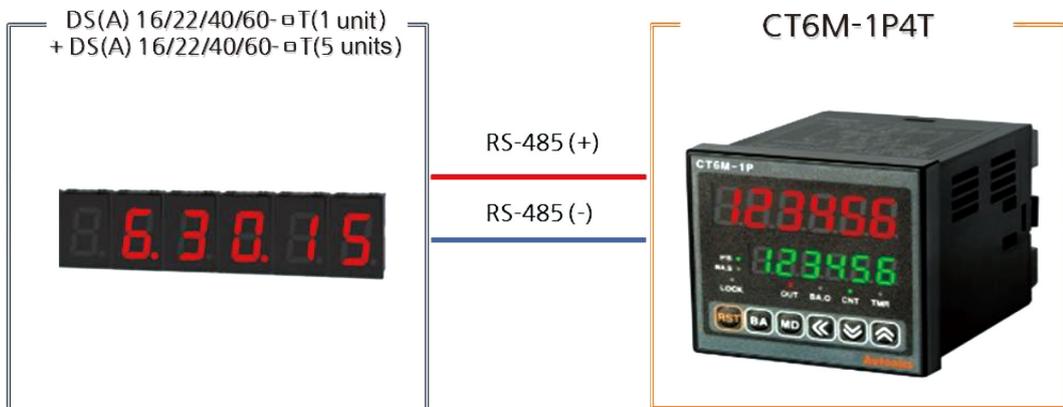
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1 System

1.1 Product composition

Software	No. of units	Note
DS16-GT	1 unit	Display RS485 comm. unit
DS16-GE	5 units	Display expansion unit
CT6M-1P4T	1 unit	Counter RS485 comm. model

1.2 Connections

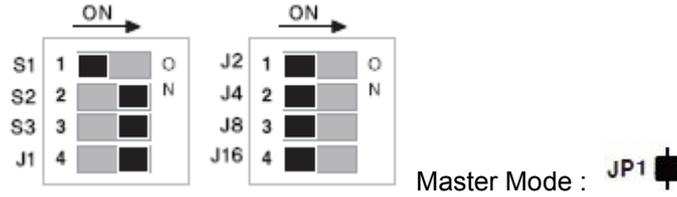


1.3 Communication cable connection

DS/DA	Cable connection	CT6M-1P4T
4 : RS – 485 A(+)		RS – 485 (+)
5 : RS – 485 B(-)		RS – 485 (-)

2 Communication Setting

2.1 DS/DA Series: function set switches (manual setting)

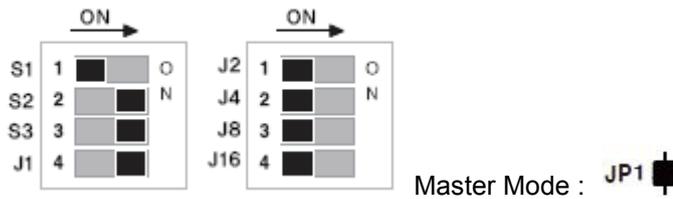


1st Function set switches: Set as the communication setting of CT.

No.	Function	Setting	
S1	Series setting method	Manual setting	
S2	Comm. speed selection (bps)	38400	
S3			
J1	Series selection (manual setting)	CT6	
J2			
J4			
J8			
J16	Unit-display unit	No	

* For connecting the other product with auto setting or manual setting mode, refer to the instruction manual; part descriptions and function setting.

2.2 DS/DA Series: function set switches (auto setting)



2nd Function set switches: Set as the communication setting of CT.

No.	Function	Setting	
S1	Series setting method	Auto setting	<input checked="" type="checkbox"/>
S2	Comm. speed selection (bps)	38400	<input checked="" type="checkbox"/>
S3			<input checked="" type="checkbox"/>
J1	Series selection (auto setting)	Address 1	<input checked="" type="checkbox"/>
J2			<input checked="" type="checkbox"/>
J4			<input checked="" type="checkbox"/>
J8			<input checked="" type="checkbox"/>
J16			<input checked="" type="checkbox"/>

* For connecting the other product with auto setting or manual setting mode, refer to the instruction manual; part descriptions and function setting.

2.3 CT communication setting

1st Supply power to the CT unit. Hold the MODE key for 5 sec and enter parameter 2 group.

2nd Set the communication settings as below at parameter 2 group [GrP.2].

Parameter	Display	Setting	Note
Communication address	Addr	1	Same as DS/DA
Communication speed	bPS	384	Same as DS/DA
Communication parity bit	Prty	nonE	Same as DS/DA
Communication stop bit	StP	2	Same as DS/DA
Communication response waiting time	r54t	20	User setting
Communication writing	Con.2	EnR	Fixed

<Parameter 2 group>



<Comm. address setting >



<Comm. speed setting>



<Comm. parity bit setting>



<Comm. stop bit setting>



<Comm. response waiting time>



<Comm. write setting>



* Press the direction keys to select or set the desired value.

* Press the MODE key once after changing the setting value, to save the setting value and move to the next parameter.

* Hold the MODE key for 3 sec to save the setting value and return to RUN mode after changing the setting value.

3 RS485 Master Mode

3.1 Supported Autonics device for RS485 Master mode

Item	Series
Temperature controller/sensor	TK, TX, TM2, TM4, THD
Counter/Timer	CT4, CT6
Pulse meter	MP5
Panel meter	MT4

* Connect input terminal of display unit to RS485 communication output terminal of the dedicated device.

3.2 Example of display

In case of manual connection setting, the highest digit may be not used.

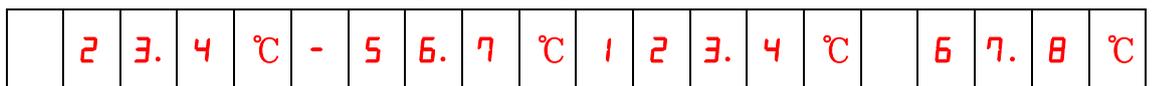
- CT6 Series (6digit > 5digit)



- MP5 Series (5digit > 4digit)



- TM4 Series (4CH connection, using unit-display unit)



- THD Series (using unit-display unit)

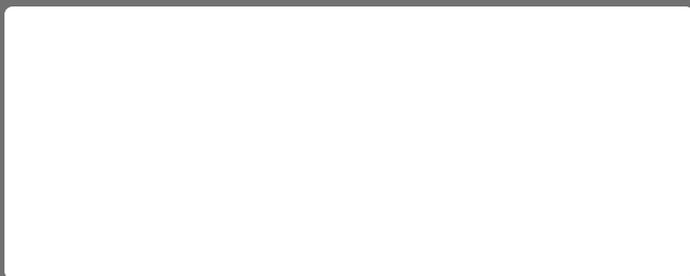


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·Stepper Motors·Drivers·Motion Controllers·I/O Terminal Blocks & Cables·Display Units
·Control Switches/Lamps/Buzzers·Field Network Devices·Tachometer/Pulse(Rate) Meters
·Laser Marking System(Fiber, CO₂, Nd:YAG)·Laser Welding/Cutting System

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