

MTD-ID

Additional display for TCUE, TCU & SPT



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A1 Revision History

No.	Date	Subject
0.x		Preliminary documents, changes without notice.
1.0	May 19, 2017	First released document.
1.1	June 7, 2017	Added technical data.
1.2	September 26, 2019	Changed address of Plura Europe GmbH.

The latest document describes the functions of the latest product's software. You can download the latest software version from:

<https://plurainc.com>

A2 Copyright

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A3 Warranty

Plura warrants that their products will be free from defects in materials and workmanship for a period of two years from the date of shipment. If this product proves defective during the warranty period, Plura, at its option, will repair or replace the defective product without charge, provided this product is returned to Plura freight prepaid.

In order to obtain service under this warranty, Customer must notify Plura of the defect before expiration of the warranty period and make suitable arrangements for the performance of service. Customer shall be responsible for packaging and shipping the defective product to Plura, please notice the Shipping Information given below.

This warranty shall not apply to any defect, failure or damage caused by abuse, misuse, improper use, negligence, accident, modification, alteration, or improper or inadequate maintenance and care.

This warranty is given by Plura with respect to this product in lieu of any other warranties, express or implied. Plura and its vendors disclaim any implied warranties of merchantability or fitness for a particular purpose. Plura's responsibility to repair or replace defective products is the sole and exclusive remedy provided to the customer for breach of this warranty. Plura and its vendors will not be liable for any indirect, special, incidental, or consequential damages irrespective of whether Plura or the vendor has advance notice of the possibility of such damages.

A4 Unpacking/Shipping/Repackaging Information

This product has been carefully inspected, tested and calibrated before shipment to ensure years of stable and trouble-free service.

The shipping carton and pads provide protection for the product during transit. Retain the shipping cartons in case subsequent shipment becomes necessary.

Carefully unpack the product from its transit material and carefully check the product for signs of damage. In the event that the product has been damaged during transit, contact the carrier and your Plura dealer.

Please confirm that all items listed on the packing list have been received. Check the items against your original order to ensure that you have received the correct parts. If any item is missing, please contact your Plura dealer.

Ensure that all packaging material is removed from the product and its associated components before installing the unit.

Products returned to Plura for servicing or repair should have a tag attached showing:

- Name and complete address of the owner and the name of the person that can be contacted.
- Unit's serial number and a description of the service required, or failure detected.

Products returned should be shipped prepaid in the original packaging material if possible. If the original packaging is not available or is unfit for use, supply an adequate packaging which should meet the following criteria:

- Packaging must be able to withstand the product weight.
- Product must be held rigid within the packaging.
- Allow at least two inches of space between the product and the container.
- The corners of the product must be protected.
- Seal the carton with shipping tape or an industrial stapler.

If the product is still within the warranty period, the product will be returned by prepaid shipment after servicing.

A5 Safety Instructions

The general safety information in this part is for both operating and service personnel. Plura products are only to be used as directed. Specific warnings and cautions will be found throughout the manual where they apply.

Review the following safety instructions to avoid injury and prevent damage to this product or any products connected to it.

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.

Safety Terms and Symbols

Terms and Symbols in this manual:



CAUTION: Caution statements identify conditions or practices that could result in damage to this product or other property.

Terms and Symbols which may be found on the product:



ATTENTION: Refer to the manual.



Observe precautions for handling electrostatic-sensitive devices.



Signal Ground.

Product Damage Precautions

PREVENT OVERHEATING



To prevent product overheating, position the unit only where sufficient air circulation can be maintained. Good air circulation is essential to prevent internal heat build-up, do not block any ventilation openings. Do not expose the unit to direct sun light or any other strong lights. Keep the unit away from heat sources.

PROVIDE PROPER ENVIRONMENT



Dust, humidity, shocks and strong electromagnetic fields must be avoided. Do not expose this apparatus to dripping or splashing water. Ensure that no objects filled with liquid are placed on the apparatus.

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OBSERVE EMC REGULATIONS



The EMC regulations are observed only under the following condition:

Use high quality shielded cables at data inputs and outputs.

SUSPECTED FAILURES



Whenever it is likely that safe operation is impaired, the apparatus must be made inoperative and secured against unintended operation. The appropriate service authority must then be informed. Do not operate with suspected failures. Servicing is required when the apparatus has been damaged in any way, such as power-supply is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

PREVENTIVE MAINTENANCE: CLEANING



Qualified Service Personnel Only: The apparatus should be cleaned often enough to prevent dust or dirt from accumulating. Dust accumulating in the apparatus acts as an insulating blanket, preventing proper cooling, and possibly causing overheating and component breakdown. Under high humidity conditions, accumulated dust can also provide an electrical conduction path. Remove accumulated dust with a soft cloth or small paint brush. Remove hardened dirt with a soft cloth, dampened in a mild detergent and water solution. Do not use polish or abrasive cleaners or any other chemical cleaning agents.

PREVENTIVE MAINTENANCE: VISUAL INSPECTION



Qualified Service Personnel Only: Visually inspect the apparatus for signs of damage, scorched components, and loose or disconnected pin connectors. If you discover heat damaged parts, try to determine the cause of the overheating before replacing the damaged parts; otherwise, the damage may repeat.

ATTENTION:



Observe precautions for handling electrostatic-sensitive devices. See "Electrostatic Discharge (ESD) Precautions" below for details.

Electrostatic Discharge (ESD) Precautions



All semiconductor devices are sensitive to ESD. To prevent any damage or degradation on components of the product caused by ESD, observe these precautions when directed to do so (installing, removing sensitive components):

Use a Ground Strap. Wear a grounded anti-static wrist or heel strap to discharge the static voltage from your body.

1. Use a Safe Work Area. Avoid handling components in areas that have a floor or work surface covering capable of generating a static charge. Nothing capable of generating or holding a static charge should be allowed in the work area.
2. Handle ESD sensitive components carefully. Do not slide components over any surface. Do not touch exposed connector pins. Pick-up components by the body, never by the leads.
3. Transport and store sensitive components or assemblies in a static-protected bag or container.

A6 Certifications & Compliances

CE-Declaration:

We,

Plura Europe GmbH
Binger Weg 12
D- 55437 Ockenheim

herewith declare under our sole responsibility that the

MTD-ID

meets the intent of the following directives, standards and specifications:

89/336/EEC Electromagnetic Compatibility

EN 50081-1 Emissions

- EN 55022
- EN 55103-1

EN 50082-1 Immunity

- EN 55024
- EN 55103-2

Functional Description

Introduction

MTD-ID is an intelligent 4.3" Multi-Time ID Display that provides the SPT and/or TCU operator with all timing related information within the production environment in one place. The MTD-ID is a unique solution and convenient method to display 7 different timers at your fingertips in a close proximity.

The MTD-ID is an easy add-on tool with Plura TCU (Timer Control Unit) and/or SPT (Studio Production Timer). The MTD-ID screen is divided into 7 different programmable sections; each section can display one of the available Timers (A to F), local real-time, additional time zones and/or Date. The timer colors are programmable (Red, Green or Yellow).

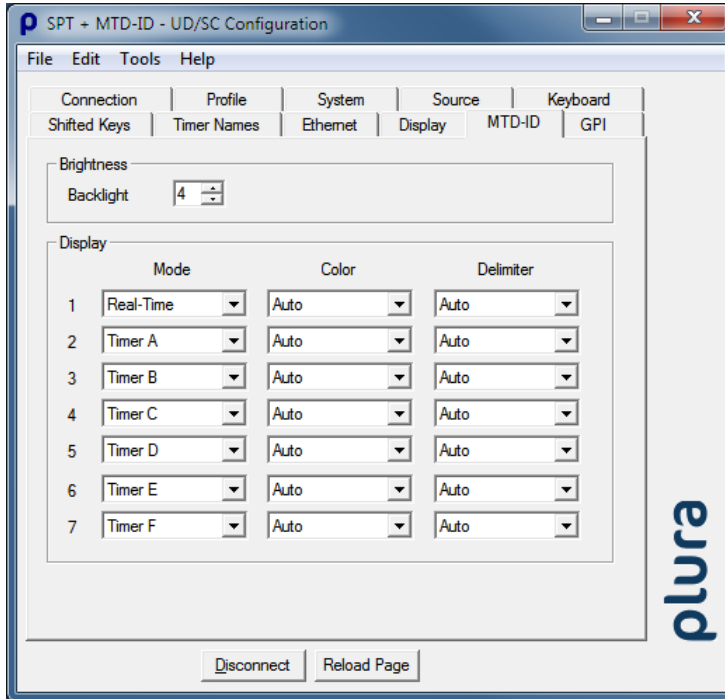


MTD-ID in combination with a TCU

Configuration

MTD-ID is configured by its base unit (SPT, TCU or TCUE resp.). Please refer to chapter “Configuration” of the base unit’s manual for details. You’ll need the **UD SC Config.exe** tool; alternative you can use the web interface.

MTD-ID is configured on the “MTD-ID” page:



Brightness

Backlight	Brightness of the display: 7 steps, 7 = maximum brightness.
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Format

Mode	Operating modes of the display – dependent on “Source” selection. Please refer to chapter “Display” of the base unit’s manual for details.	
Color	Display color: Auto Red/Yellow/Green	If “Source” = “SPT”, “LTC(MTD)” or “MTD”: The display decodes the color out of the MTD data.
Delimiter	Separating sign between pairs of digits: Auto Off Decimal Points Colon	If “Source” = “SPT”, “LTC(MTD)” or “MTD”: The display decodes the separating sign out of the MTD data. No separating sign.

Firmware Update

Firmware update of MTD-ID is done by updating the base unit. You'll need an "xxx + MTD-ID" firmware file (xxx = name of the base unit). Please refer to chapter "Firmware Update" of the base unit's manual for details.

After the firmware update is finished please check power-up messages of both MTD-ID and its base unit. Both firmware numbers have to be the same, e.g. "7.17". If they're different please repeat the firmware update process, preferable over Ethernet.

Technical Data

Specifications

Operating voltage	5 V DC, $\pm 5\%$	provided by base unit
Power consumption	1.0 W	typical
Environmental characteristics, operating	Temperature:	+5 °C to +40 °C
	Relative humidity:	30 % to 85 %, non-condensing
Environmental characteristics, non-operating	Temperature:	-10 °C to +60 °C
	Relative humidity:	5 % to 95 %, non-condensing

Mechanical

Material	Aluminium, rear plate made of steel
Dimensions	87 (W) x 49 (H) x 161 (D) mm; 3.43 (W) x 1.93 (H) x 6.34 (D) inches
Weight	≈ 0.4 kg

MTD-ID Kit

With the kit an existing SPT, TCU or TCUE can be complemented by an MTD-ID.

Requirements

The existing SPT, TCU (v2) or TCUE needs to be designed for MTD-ID. This is true for units with a white LCD text display (not a yellow OLED) shipped in 2017 or later. Such units have an internal connector for an MTD-ID. Most former units can be retrofitted as well in factory, please contact Plura for details.

Preparation

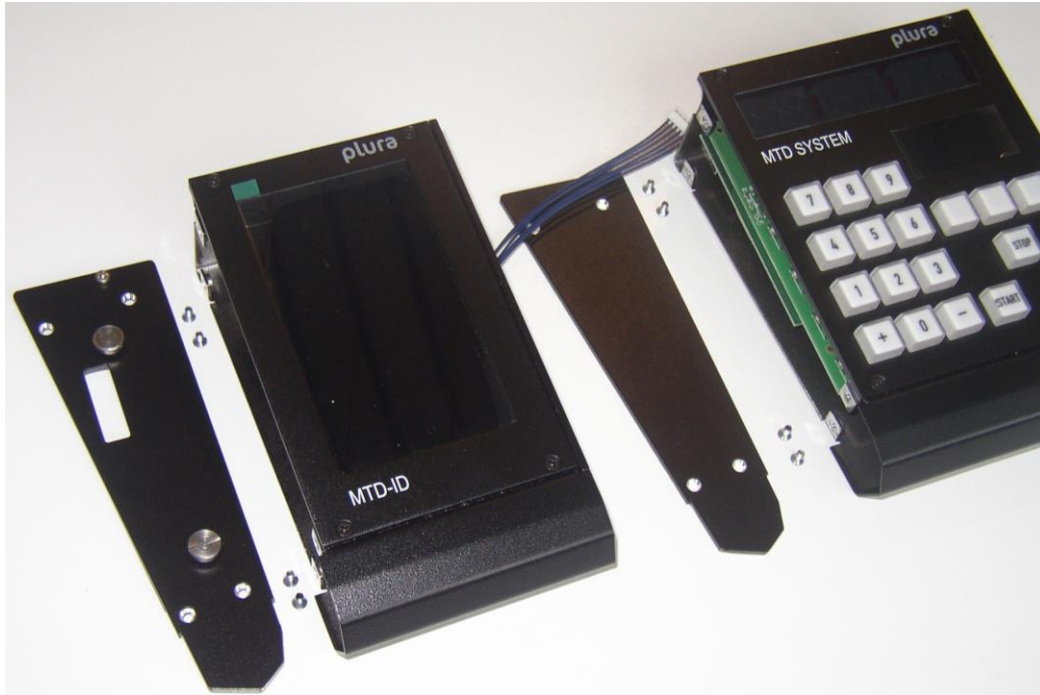
Aside from the MTD-ID kit and your SPT, TCU or TCUE you'll need a Phillips head screwdriver, size 1, for the retrofit.



Instructions

In this step by step instruction a SPT unit is complemented by an MTD-ID. Other units like TCU or TCUE will be handled the same.

1st: Remove the left side panel of both MTD-ID and SPT. You'll need to loosen four Phillips screws on each panel. The screws may be fastened very tight, so be careful not to damage the panels. In case you damage the screws please replace it by spare screws shipped with the kit. Eventually the panels adhere a bit to the case, and then you have to pull it firmly to remove it.



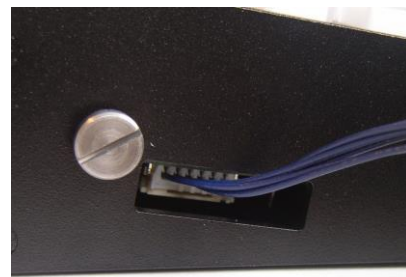
2nd: Swap both panels and fit it again with four Phillips screws each, i.e. fit the original SPT side panel to the MTD-ID and the MTD-ID side panel to the SPT. Then remove the single lock screw from the back of the panel that is now fitted to the SPT.



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3rd: Plug the connector of MTD-ID's cable to the side connector of the SPT. Push it firmly until it latches and confirm that it's locked.



4th: Place both units side by side and plug it together.



5th: Slide the MTD-ID unit towards the rear to fit both units together.



6th: At the rear fasten the lock screw you removed in step 2.



7th: Do a firmware update of the main unit. Use the firmware "SPT + MTD-ID". You'll be asked for an activation code, please contact Plura to get it.

8th: You're finished and can start to configure the MTD-ID unit as described in the preceding chapter.

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