



ORILINK® MONITORING SYSTEM



TLED DISPLAY, 23429



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1. Introduction

The TLED-module can be connected to an **ORILINK®** system or together with TCM/TSM modules and used as “stand-alone” tank control.

By setting a port of a TCM/TSM module to send its analogue and pump status to the TLED the tank level and pump status is displayed on the TLED. The red dot in the upper right corner indicates the pump status.

The TLED can support up to 32 tanks with numbers 1-32. There are two basic modes of showing tank content.

1. Timed interval based auto scroll where the interval time is adjustable, 0-255 seconds.
2. Manual scroll by the <↑> or <↓> buttons on the TLED

The TLED also has a standard dispense point. If that is open for a dispense showing it on the display has higher priority than showing tank contents.

The TLED can either be powered from a TCM/TSM or by an external powersupply.

NOTE! The Orilink® installation guide should be available when installing and configuring a module.

Configuration of a TLED can be done from a keypad, by its buttons and from OriLink® PC graphics.

2. Mechanical installation

The module is mounted on a wall or similar using the four holes in the bottom of the box.

3. Electrical installation

The TLED has two 4-pole connectors (G) each marked with **A**, **B**, **+24 V** and **Gnd**, which are used for the OriLink® communication loop. Follow the cable recommendations in the OriLink® Installation Guide.

DIL switches for termination and BIAS are marked (I).

The RESET button is marked (J).

The Port (A) can be used as a standard monitoring dispense point. The TLED's at (B) indicates incoming pulses and solenoid valve and meter at the TLED at (K) indicates valve status. See also chapter "5. Configure the port."

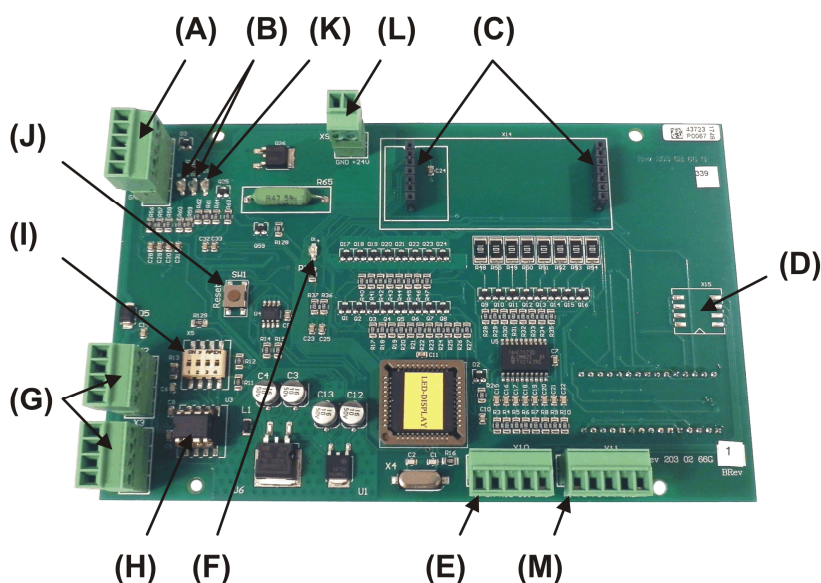
Normally a TLED is powered through the communication cable but if the dispense point (A) of the TLED should be used external power (24VDC 1.5A) must be applied to the 2-pole connector (L).

Optionally the TLED can be equipped with a clock chip at position (C), it then shows the time when nothing else is shown, see chapter "7. Installing a Clock module".

At connector (E) the TLED control buttons are connected.

If the LED (F) is flashing the module is working properly. If lit all the time or unlit something is wrong.

Footprint (D) and connector (M) are not currently supported by the TLED.



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4. Configuration in general

An OriLink® configuration sheet *should* always be filled or altered during the configuration.

NOTE! To obtain technical support a copy of the configuration sheet for the complete installation must be sent to Alentec & Orion AB at

**Alentec & Orion AB
TECHNICAL SUPPORT
Grustagsvägen 4
SE-138 40 ÄLTA
SWEDEN**

or

support@alentec.se

4.1. Check before configuration

Check that the TLED is working and communicating with the system according to the OriLink® Installation guide, chapter Testing modules.

NOTE! Do not forget to check and adjust termination and BIAS, according to Orilink® installation guide.

4.2. Recommendations for setting addresses

Each module demands a unique 16 bit hexadecimal address. There are some forbidden and some reserved addresses but it is possible to use all addresses between 0001 and 9999. To make it easier to upgrade and support the system we recommend using the chart to the right.

This means that the first TLED should have the address 6001 and the next one 6002 etc. It is a good idea not to use the default address 6000, it makes it easier to add new TLED's.

NOTE! It is essential to add modules to the configuration sheet continuously as they are configured to avoid collisions.

NOTE! Address 0000 is forbidden and addresses above 9999 are reserved for the system.

<u>Adress</u>	<u>Module</u>
0000	Forbidden
1000 – 1xxx	MPDM
2000 – 2998	PM
2999	PC-database
3000 – 3xxx	KeyPad
4000 – 4xxx	LED-display
5000 – 5xxx	PLC-Modules
6000 – 6xxx	TLED
7000 – 7xxx	Reserved
8000 – 8xxx	TCM and TSM
A000 – FFFF	Forbidden

5. Configuration from keypad

5.1. Addressing the TLED

A new TLED has the address 6000 when delivered. To set an address for a TLED with unknown address press and hold its RESET button for 5 seconds to set a temporary address. Immediately enter Set-Up mode from a keypad and type 0 and then ENTER to get to the Main menu of the TLED, see below.

NOTE! If more than one new TLED is added at the same time their addresses must be set one at a time. If the RESET buttons of all modules are pressed at the same time all will get the same address.

TIP! Follow preferably "Recommendation for setting addresses" when setting addresses.

5.2. Set-Up Mode

Type the word "SETUP" on a Keypad and press ENTER.

Type the **password** and press ENTER.

Type the **address** for the TLED that is to be configured and press ENTER to access its main menu.

It is possible to add the 4-digit menu code to go directly to the desired menu.

Scroll through the TLED sub menus by pressing ↑ or ↓. When the desired menu is shown press ENTER etc.

```
REEL:SETUP      ‡
EXIT STOP CE ENT
```

```
PASS:_          ‡
Enter Password
```

```
Addr:6???_     ‡
Address[CODE]
```

```
TLED:          ‡
TLED MainMenu
```

5.3. Change address [TLED//Address]

Enter menu [TLED//Address] by pressing ENTER

Press ENTER to get the cursor.

Type in the **desired address** and acknowledge by pressing ENTER. When the cursor disappears it is finished.

Press **EXIT twice** to leave Set-Up mode.

```
TLED:          ‡
TLED MainMenu
```

```
Addr:6???     ‡
Set Address 6???
```

```
Addr:6XXX     ‡
Set Address 6???
```

```
Addr:6???     ‡
Set Address 6???
```

TIP! Follow preferably "Recommendation for setting addresses" when setting addresses.

5.4. Set the automatic scroll time interval [TLED//AsTime]

Automatic scroll mode will automatically scroll between attached tanks at an interval set by the AsTime.

The interval time can be set between 0 and 255 seconds. Setting it to 0 will disable auto scroll mode.

Enter menu [TLED//AsTime] by scrolling with ↑ or ↓.

At **AsTime**: press ENTER.

Press ENTER to get the cursor.

When the cursor is visible type in the desired time. Press ENTER.

When the new time is displayed and the cursor is gone it is updated.

Press **EXIT twice** to exit set-up.

```
TLED:          ‡
TLED MainMenu
```

```
Port:          ‡
LED MainMenu
```

```
AsTime:5       ‡
Ascroll time(s)
```

```
AsTime:5       ‡
Ascroll time (s)
```

```
AsTime:15_     ‡
Ascroll time (s)
```

```
AsTime:15      ‡
Ascroll time (s)
```

5.5. Set functional Mask [TLED//Mask]

The functional mask is used to set basic functions of the TLED display. For now only one if it should time-out to show the time or only a “-“ sign.

Enter menu [TLED//Mask] by scrolling with ↑ or ↓.

At **Mask:** press **ENTER**

Press **ENTER** to get the cursor.

When the cursor is visible type the desired value for the mask and press **ENTER**.

Mask=0 (default) makes the TLED time-out to showing the current time HH:MM.

Mask=1 makes the TLED time-out to showing a “-“ sign.

When the new value is displayed and the cursor is gone it is completed.

Press **EXIT twice** to exit

5.6. Set User scroll timeout [TLED//UsTime]

During user scroll of the tanks the TLED will timeout to auto scroll after the set UsTime of inactivity.

The timeout time can be set between 0 and 255 seconds.

Setting it to 0 will disable timeout back to auto scroll mode. Press <RESET> button, to manually return to auto scroll mode,

Enter menu [TLED//UsTime] by scrolling with ↑ or ↓.

At **UsTime:** press **ENTER**.

Press **ENTER** to get the cursor.

When the cursor is visible type in the desired time. Press **ENTER**.

When the new time is displayed and the cursor is gone it is updated.

Press **EXIT twice** to exit set-up.

TLED:	‡
TLED MainMenu	

Port:	‡
LED MainMenu	

AsTime:5	‡
Ascroll time (s)	

Mask:0	‡
Mask 0-7	

Mask:0	‡
Mask 0-7	

Mask:1_	‡
Mask 0-7	

Mask:1	‡
Mask 0-7	

TLED:	‡
TLED MainMenu	

Port:	‡
LED MainMenu	

AsTime:5	‡
Ascroll time(s)	

Mask:0	‡
Mask 0-7	

MsTime:5	‡
Mscroll time(s)	

MsTime:5	‡
Mscroll time (s)	

MsTime:15_	‡
Mscroll time (s)	

MsTime:15	‡
Mscroll time (s)	

6. Configuration from the TLED itself

Press <SELECT> and <RESET> buttons at the same time will turn it into properties configuration mode. The first parameter shown is the auto scroll interval time.



6.1. Addressing the TLED

Scroll to the address parameter using <↑> or <↓> buttons.



To switch from show to edit mode press <↑> and <↓> buttons at the same time. The lighter figure is the position that is selected for editing.

Change to another position by pressing the <↑> button.



Change the figure in the active position by pressing the <↓> button

Press the <SELECT> button to save the new value.

Press the <RESET> button to cancel editing.

6.2. Setting the automatic scroll interval time

Scroll to the automatic scroll interval time parameter using $\langle \uparrow \rangle$ or $\langle \downarrow \rangle$ buttons.



To switch from show to edit mode press $\langle \uparrow \rangle$ and $\langle \downarrow \rangle$ buttons at the same time. The lighter figure is the position that is selected for editing.

Change to another position by pressing the $\langle \uparrow \rangle$ button.



Change the figure in the active position by pressing the $\langle \downarrow \rangle$ button

Press the $\langle \text{SELECT} \rangle$ button to save the new value.

Press the $\langle \text{RESET} \rangle$ button to cancel editing.

6.3. Setting the user scroll timeout time

Scroll to the automatic scroll interval time parameter using <↑> or <↓> buttons.



To switch from show to edit mode press <↑> and <↓> buttons at the same time. The lighter figure is the position that is selected for editing.

Change to another position by pressing the <↑> button.



Change the figure in the active position by pressing the <↓> button

Press the <SELECT> button to save the new value.

Press the <RESET> button to cancel editing.

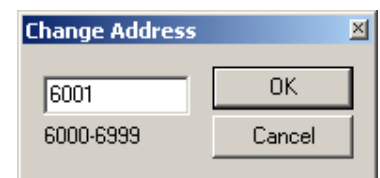
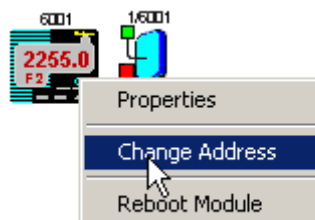
7. Configuration by a OriLink® PC graphic layout

Open the OriLink® Neighbourhood or a layout containing the TLED graphics.

7.1. Addressing the TLED

Right-click on the TLED graphics and select Change address from the menu.

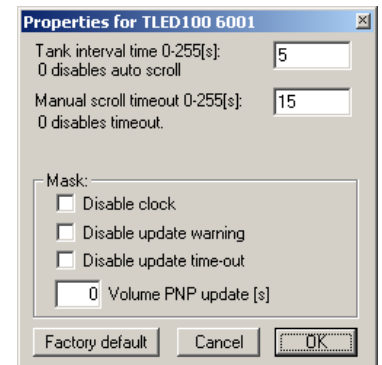
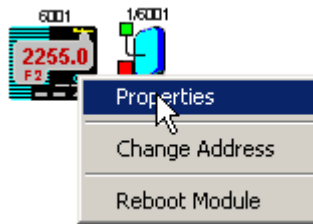
Edit the Address and then click <OK>.



7.2. Setting the automatic scroll interval time

Right-click on the TLED graphics and select Properties.

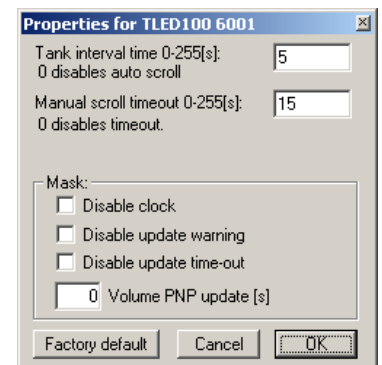
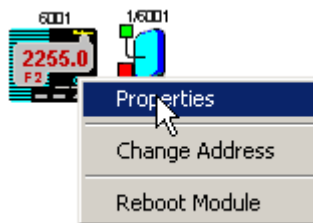
Edit the Tank interval time and then click <OK>.



7.3. Setting the user scroll timeout time

Right-click on the TLED graphics and select Properties.

Edit the Manual scroll timeout and then click <OK>.

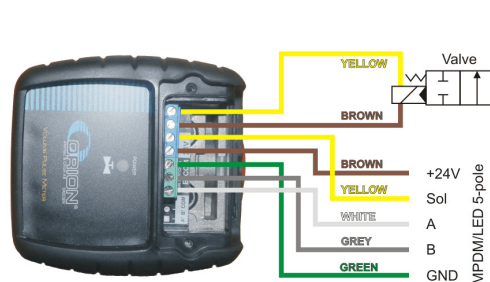


8. Configure the port

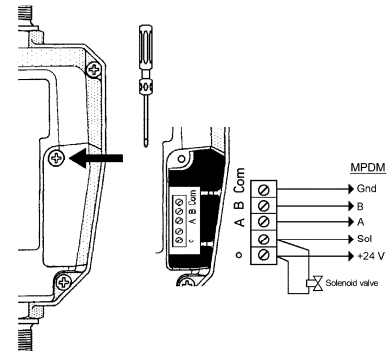
A TLED module has a port that can be used to control a dispense point (Reel).

8.1. Using the on-board dispense point.

To be able to use the on-board dispense point an external power source is needed. This power source should be 24 VDC and at least 1,5 A. The power source should be applied between +24V and GND on the dispense point connector (A).



24736 and similar



24738 and similar

Solenoid valve and meter is connected to the TLED-module as shown in figure to the right.

The dispense point is Set-Up as for a normal MPDM dispense point with one exception the only working TLED address is the address of the module itself.

TIP! If the cable Alentec & Orion AB has in stock, (part. Nr. 23393), is used the colours should match the following:

BROWN	to	+24V	
YELLOW	to	Sol	
WHITE	to	A	
GREY	to	B	A meter that has 2 pulse train outputs and cable 23412 (Optional)
GREEN	to	GND	

This will make service and support much faster.

8.2. Connect a dispense point to the port [TLED//Port/ReelNo]

Enter menu [TLED//Port] by scrolling with ↑ or ↓.

At **Port:** press ENTER.

Press ENTER to get the cursor.

Check the number of the reel that is connected to the port, type that number in and press ENTER to acknowledge. When the cursor disappears it is finished.

Press EXIT twice to leave Set-Up mode.

TLED:	‡
TLED MainMenu	

Port:	‡
TLED MainMenu	

Reel:X	‡
Set ReelNo ???	

Reel: <u>X</u>	‡
Set ReelNo ???	

8.3. Group [TLED//Port/Group]

A user can be a member of eight different groups named A-H. It is possible to make advanced and complex user rights for dispense points.

EXAMPLE: "Bob" is a member of groups AB, user "Stan" is a member of groups BC and the dispense points is divided into three bays A, B and C. In this case both users can open dispense points in bay B but only "Bob" can open dispense points in bay A and only "Stan" can open dispense points in bay C.

Each group is represented by a value shown in the chart to the right. The group value is calculated by adding the values for each desired group. Group A and E give a group value of (1+16) which are 17.

Group	Value
A	1
B	2
C	4
D	8
E	16
F	32
G	64
H	128

Enter menu [TLED//Port/] by scrolling with ↑ or ↓.

At **Port:** press ENTER.

Scroll to **Group:** using ↑ or ↓.

Press ENTER to get the cursor.

Type the **group value** and press ENTER to acknowledge. When the cursor disappears it is finished.

Press EXIT twice to leave Set-Up mode.

TLED:	‡
TLED Huvudmeny	

Port:	‡
TLED Huvudmeny	

Reel:X	‡
Set ReelNr ???	

Group:XXX	‡
Set Group 0-255	

Group: <u>XXX</u>	‡
Set Group 0-255	

NOTE: Which group a user is a member of is set when administrating users.

8.4. Mask [TLED//Port/Mask]

How a dispense point should work is controlled by a mask. This is done by adding the values for the desired functions, in the chart to the right.

EXAMPLE: At a dispense point you want to use JOB number but you do not want to type in a desired volume or a PIN code. The meter has two reed switches and you want to use them. In this case you should add the values 2 and 16. $2+16=18$. The mask should be set to 18.

Enter menu [TLED//PortX] by scrolling with ↑ or ↓.

At **PortX:** press **ENTER**.

Scroll to **Mask:** using ↑ or ↓.

Press **ENTER** to get the cursor.

Type the **mask value** and press **ENTER** to acknowledge. When the cursor disappears it is finished.

Press **EXIT** twice to leave Set-Up mode.

Name	Value
Use PIN-code	1
Use JOB-no	2
Use Volume	4
Use Pulse compensation	8
Use two REED switches	16
Use Ext User Validation	32
Use Ext JOB Validation	64
Use Ext Tank Validation	128
Use Input B as a trigger	256
LED counts down	512
Dual/Quadra pulse count	1024
Cyclic Dispense mode	No support

8.4.1. Use PIN code

Sets if the dispense point should ask for a PIN code input or not.

8.4.2. Use JOB no

Sets if the dispense point should ask for a Work order/JOB code input or not.

8.4.3. Use Volume

Sets if the dispense point should ask for a volume input or not. If set the dispense point will ask for a volume to dispense. If not set the dispense point will open for the volume defined in MaxVol.

8.4.4. Use Pulse compensation

Sets if the dispense point should auto adjust for after run. If it is set the dispense point will adjust the valve shut-of to compensate for flow and temperature changes.

8.4.5. Use two REED switches

Enables/Disables the use of a meter with two REED switches (Two pulse train output). If a meter with two pulse trains (Alentec & Orion AB part no. 24738) is used and "Use two REED switches is enabled the flow direction will be detected.

This cannot be used if "Use Input B as a trigger" is set.

8.4.6. Use external User Validation

If this is set the dispense point will validate the PIN code to the source specified in DBAddress. If it is not set the dispense point will validate the PIN code to the internal PIN code database of the TLED and the TLED does not have an internal database so the validation would fail.

8.4.7. Use external JOB validation

If this is set the dispense point will validate the Work order/Job number to the source specified in DB address. If it is not set the dispense point will only register the Work order/Job number but not validate it.

TLED:	‡
TLED MainMenu	

PortX:	‡
TLED MainMenu	

Reel:X	‡
Set ReelNo ???	

Mask:XXX	‡
Set Mask 0-3567	

Mask:XXX	‡
Set Mask 0-3567	

Mask:XXX	‡
Set Mask 0-3567	

8.4.8. Use external Tank validation

If this is set the dispense point will validate the Requested volume to the specified Tank number at the source specified in DB address. If the “Current Stock” minus the “Requested Volume” is above the specified “Stop Volume” the dispense point will open.

8.4.9. Use Input B as a trigger

If this parameter is set it enables the use of an external signal connected to the Input B pin of the port connector.

The function is active low and can be done with a push button connected between Input B and GND of the port connector.

When Input B goes low the dispense point will open for the volume specified by the MaxVol parameter.

This cannot be used if “Use two REED switches” is set.

8.4.10. TLED counts down

Sets if the TLED specified by the parameter TLED address should count the dispensed volume forwards or backwards, 0 -> Requested volume or Requested volume ->0.

8.4.11. Dual/Quadra pulse count

This sets if the pulse input of the dispense point should count only rising edge or rising and falling edge of the pulse train. If a single pulse train meter is used the PPU will be doubled and if a two pulses train meter is used the PPU will increased 4 times.

This can be used to increase accuracy for grease dispensing and large meters with low PPU.

8.4.12. Cyclic Dispense mode

Not supported by the TLED module.

8.5. Set “Time-Out” function [TLED//Port/TimeOut]

The function Time-Out set the time for how long a dispense point should be open if no fluid is taken. After the time-out time the solenoid valve shuts automatically. As soon as fluid is passing the meter the time will start from 0.

Enter menu [TLED//Port] by scrolling with ↑ or ↓.

At **Port:** press **ENTER**.

Scroll to **Timer:** using ↑ or ↓.

Press **ENTER** to get the cursor.

Type the number of minutes, 0=OFF max 255, the dispense point should be open without being used press **ENTER** to acknowledge. When the cursor disappears it is finished.

Press **EXIT twice** to leave Set-Up mode.

TLED:	‡
TLED MainMenu	

Port:	‡
TLED MainMenu	

Reel:X	‡
Set ReelNo ???	

Timer:X	‡
1-255 Min 0=Off	

Timer:X	‡
1-255 Min 0=Off	

Timer:X	‡
1-255 Min 0=Off	

8.6. Calibrating [TLED//Port/PPU]

For the TLED module two ways of calibration is possible.

8.6.1. Manual

Meters generate pulses according to the amount of fluid that has passed. By opening a dispense point for a certain amount of fluid and then compare how much that has been dispensed (RECORDED) to how much fluid you really received (RECEIVED) you will know if the meter is calibrated or not. If you receive more than the requested amount the PPU value should be decreased and increased if you received less (see formula below). The system default is set to the Orion meter 24728 which generate 328 pulses per litre. If another meter is connected it must be calibrated to dispense the correct requested amount.

$$PPU_{New} = PPU_{Present} \cdot \frac{RECORDED}{RECEIVED}$$

NOTE! Be very thorough when the received volume is measured because a small error at calibration can result in a large volume error at large volume. Use an accurate measuring vessel that is completely empty and make sure that all visible air is gone before the vessel is read.

Enter menu [TLED//Port] by scrolling with ↑ or ↓.

TLED:	⌵
TLED MainMenu	

At **Port:** press ENTER.

Port:	⌵
TLED MainMenu	

Scroll to **PPU:** using ↑ or ↓.

Reel:X	⌵
Set ReelNo ???	

Press **ENTER** to get the cursor.

PPU:XXX	⌵
Set PPU 1-5000	

Type the **number of pulses per unit**, max 5000 for the meter connected to the port. Then press **ENTER** to acknowledge.

PPU:XXX	⌵
Set PPU 1-5000	

When the cursor disappears it is finished.

PPU:XXX	⌵
Set PPU 1-5000	

Press **EXIT** twice to leave Set-Up mode.

8.6.2. Semi automatic

The semi automatic method was developed after that OriLink® WinTools R8 was released. To use it the following must be present.

The LED100 (old type without clock module sockets) must have chip software 1.00.06RC12 recommended version is 1.00.06RC27

The LED101 must have chip software 1.01.04RC12 recommended version is 1.01.04RC27 or later

The keypad must have chip software 1.00.010RC17 or later

The PC must have REEL100.ocx version 1.09RC3 and KP100.ocx version 1.09RC3 or later

Open the dispense point for a volume (normally not less than 2 L) and dispense. When the dispense point is closed, and before it is used again, go to the **PPU:** value for this dispense point either on a keypad or in properties on the PC. Type in the received volume with a leading “-” sign like “-1.45” followed by <ENTER>. The dispense point will then calculate the proper PPU value.

For keypad “-” is two times ↓ (yellow arrow down) and then the “?” button.

Make one more dispense to verify that it is now correct.

8.6.3. Decimal PPU

If a MPDM is flashed with a chip software named MPDM.....(PPUFloat).bin it will support the use of decimal (float number) PPU.

Decimal PPU: looks like this “326.54” compared to integer PPU: like 326.

To be able to set decimal PPU the keypad must have chip software 1.00.10RC17 and the PC must have the REEL100.ocx version 1.09RC3.

Version 1.00.10RC28 and later always uses float number PPU.

8.7. Set volume intervals [TLED//Port/MinV] and [TLED//Port/MaxV]

Enter menu [TLED//Port] by scrolling with ↑ or ↓.

TLED:	‡
TLED MainMenu	

At **Port:** press **ENTER**.

Port:	‡
TLED MainMenu	

Scroll to **MinV:** using ↑ or ↓. (Or scroll directly to MaxV:)

Reel:X	‡
Set ReelNo ???	

Press **ENTER** to get the cursor.

MinV:X.XX	‡
Min Vol ??.	

Type the **smallest volume** (min 0.5) to be dispensed by this dispense point and press **ENTER**. When the cursor disappears it is finished.

MinV:X.XX	‡
Min Vol ??.	

Press **EXIT twice** to leave Set-Up mode.

MinV:X.XX	‡
Min Vol ??.	

Press ↓ to **MaxV:** (Or press EXIT two times to leave Set-Up mode.)

MaxV:X.XX	‡
Max Vol ?????.	

Press **ENTER** to get the cursor.

MaxV:X.XX	‡
Max Vol ?????.	

Type the **largest volume**, min 0.5 /max 9999.99 (depends on calibration and set number of decimals), to be from this dispense point and press **ENTER** to acknowledge. When the cursor disappears it is finished.

MaxV:X.XX	‡
Max Vol ?????.	

Press **EXIT twice** to leave Set-Up mode.

8.8. Validation of JOB number

A TLED dispense point can internally log JOB numbers entered when dispenses is done. If there is a printer/database module in the system or WinDB service is loaded in a PC system dispenses demanded can be validated from a JOB number database, Se also chapter “5.4. Mask [TLED//Port/Mask]”.

8.9. Connect the dispense point to a Database [TLED//Port/DB]

Enter menu [TLED//Port] by scrolling with ↑ or ↓.

At Port: press ENTER.

Scroll to DB: using ↑ or ↓.

Press ENTER to get the cursor.

Type the **address** to the desired database and press ENTER to acknowledge. When the cursor disappears it is finished.

For a PC database type 2999, for a PM database type the proper address.

Press EXIT twice to leave Set-Up mode.

NOTE! Each information module can be connected to multiple ports.

TLED:	‡
TLED MainMenu	

Port:	‡
TLED MainMenu	

Reel:X	‡
Set ReelNo ???	

DB:2???	‡
DB Address 2???	

DB:2???	‡
DB Address 2???	

DB:2???	‡
DB Address 2???	

8.10. Connect the dispense point to a TLED module [TLED//Port/LED]

Enter menu [TLED//Port] by scrolling with ↑ or ↓.

At Port: press ENTER.

Scroll to LED: using ↑ or ↓.

Press ENTER to get the cursor.

Type the **address** to the desired LED module and press ENTER to acknowledge. When the cursor disappears it is finished.

Note: The only possible address is the modules own address !

Press EXIT twice to leave Set-Up mode.

TLED:	‡
TLED MainMenu	

Port:	‡
TLED MainMenu	

Reel:X	‡
Set ReelNo ???	

LED:6???	‡
LED Address 6???	

LED:6???	‡
LED Address 6???	

LED:6???	‡
LED Address 4???	

8.11. Connect the dispense point to a tank [TLED//Port/Tank]

If there is a printer module in the system or if it is a PC system a dispense point can be connected to a database tank, max 8 tanks per PM. In this case the system will be able to check if there is enough oil in the tank and subtract the oil dispensed from it.

Enter menu [TLED//Port], scroll with ↑ or ↓.

Press **ENTER**.

Scroll to Tank: using ↑ or ↓.

Press **ENTER** to get the cursor

Type which tank is connected to the port and press **ENTER** to acknowledge.

When the cursor disappears it is finished.

Press **EXIT** twice to exit Mode-mode

TLED:	‡
TLED MainMenu	

Port:	‡
TLED MainMenu	

Reel:X	‡
Set ReelNo ???	

Tank:X	‡
Set TankNo	

Tank:X	‡
Set TankNo	

Tank:X	‡
Set TankNo	

8.12. Set date [CLOCK/Date] and [CLOCK/Time].

Type "CLOCK" on a Keypad and press **ENTER**.

The current system date is displayed. Press **ENTER** to set date or ↓ and **ENTER** to set time.

When the cursor is visible type the correct date or time and press **ENTER**.

When the cursor is gone the time is updated

NOTE! Do not forget the dots between HH.MM.SS / YY.MM.DD

Press **EXIT** twice to exit.

NOTE! It may take up to five minutes before all modules are updated.

REEL:CLOCK_	‡
EXIT STOP CE ENT	

Date:01.11.28	‡
FORMAT YY.MM.DD	

Date:01.11.28	‡
FORMAT YY.MM.DD	

Time:09.30.25	‡
FORMAT HH.MM.SS	

Time:09.30.25	‡
FORMAT HH.MM.SS	

10. Connecting a TCM or TSM analogue tank sensor to the TLED

A TLED gets the analogue tank level sensor from a TCM (23408) or TSM (23430) based on the properties setting of the TCM/TSM port.

10.1. Example for a TCM port 1 sending tank content to a TLED with address 6000

From either a keypad or a OriLink® PC graphic layout edit the port 1 properties marked with blue.

The value of the parameter Update interval is important to set carefully.

Generally a tank volume changes relatively slow so setting a too short time will only give communication load without purpose.

For a big tanks with “low” consumption, setting a high value like , 60, 120, or higher is fine.

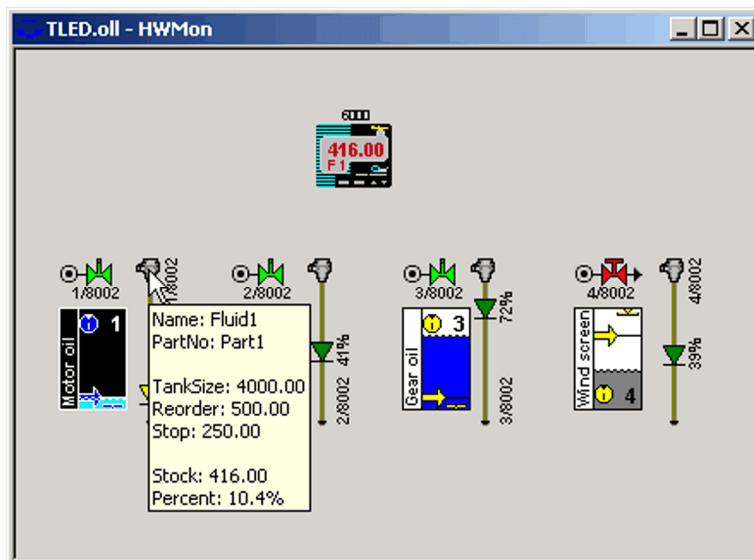
For a small tank with high consumption , setting low values like 5, 10, ..., is fine

In big systems with many tanks, setting higher values is fine

In small systems with few tanks, setting lower values are fine

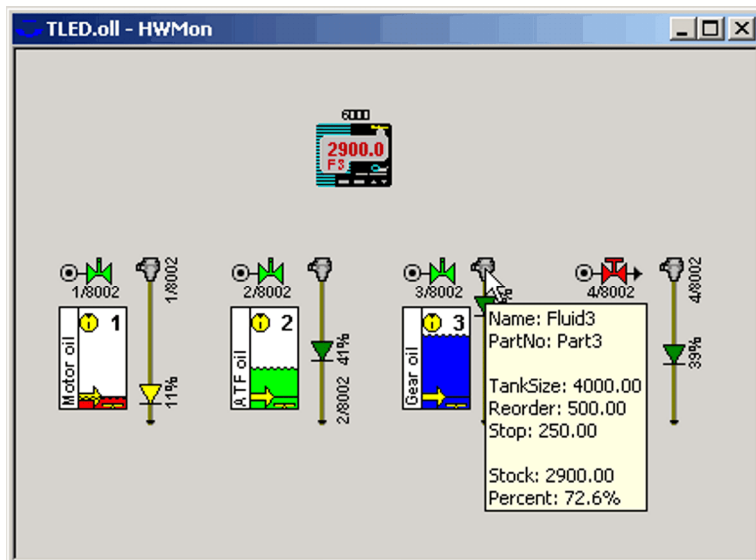
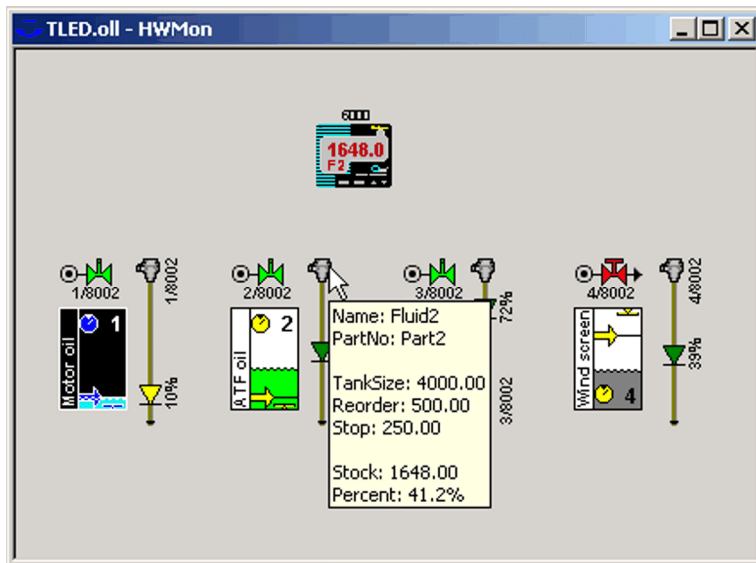
The result with the setting in the picture is that the TCM port 1 is sending the tank content according to the analogue sensor to the TLED with address 6000 every 5 seconds.

It will look like this on the TLED and in a OriLink® PC graphic layout.

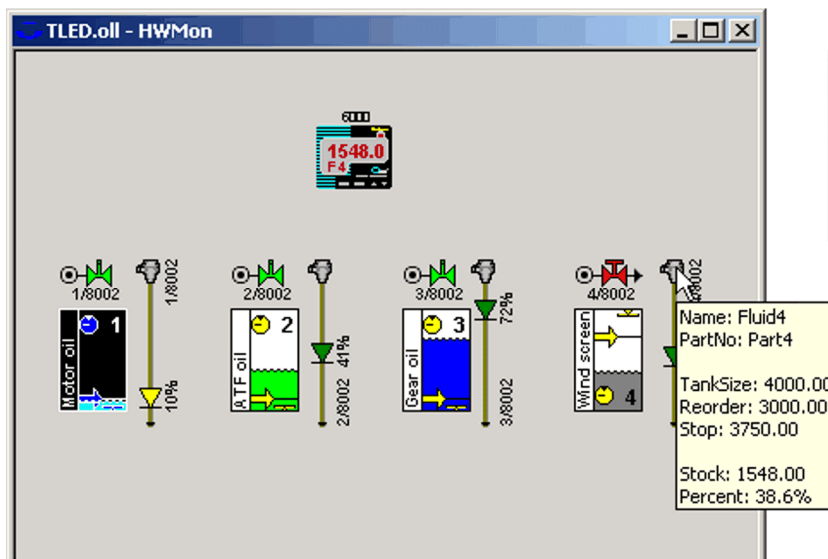


10.2. Setting up ports 2, 3 and 4 of the same TCM will give these results

When adding more TCM ports sending tank contents to the TLED they will automatically appear on the TLED.



The 4 led's in the upper right corner of the TLED shows the pump status ON/OFF of the tank



10.3. How to remove a tank from showing on a TLED?

When you set tanks to send data to a TLED it will automatically appear on the TLED but if you set a TCM/TSM port to stop sending data to the TLED there is no way for the TLED to know if it is removed for good or only temporarily so it will keep on showing the last received data.

To remove it from the TLED you need to reboot the TLED. This can be done in four ways.

- Press <RESET> on the TLED
- Power down-Power up the TLED.
- Right click on it in a PC layout and select Reboot module from the menu that pops-up.
- Use the command C:\OriLink\OISet reboot from a command window.

11. Installing a Clock module.

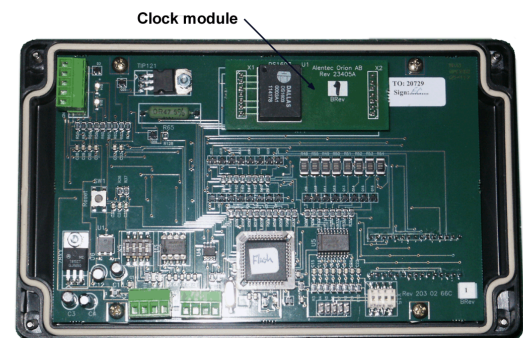
The TLED module has connectors for a Clock module (23 405).

NOTE! You can only use one Clock Module (Time Source) in a system.

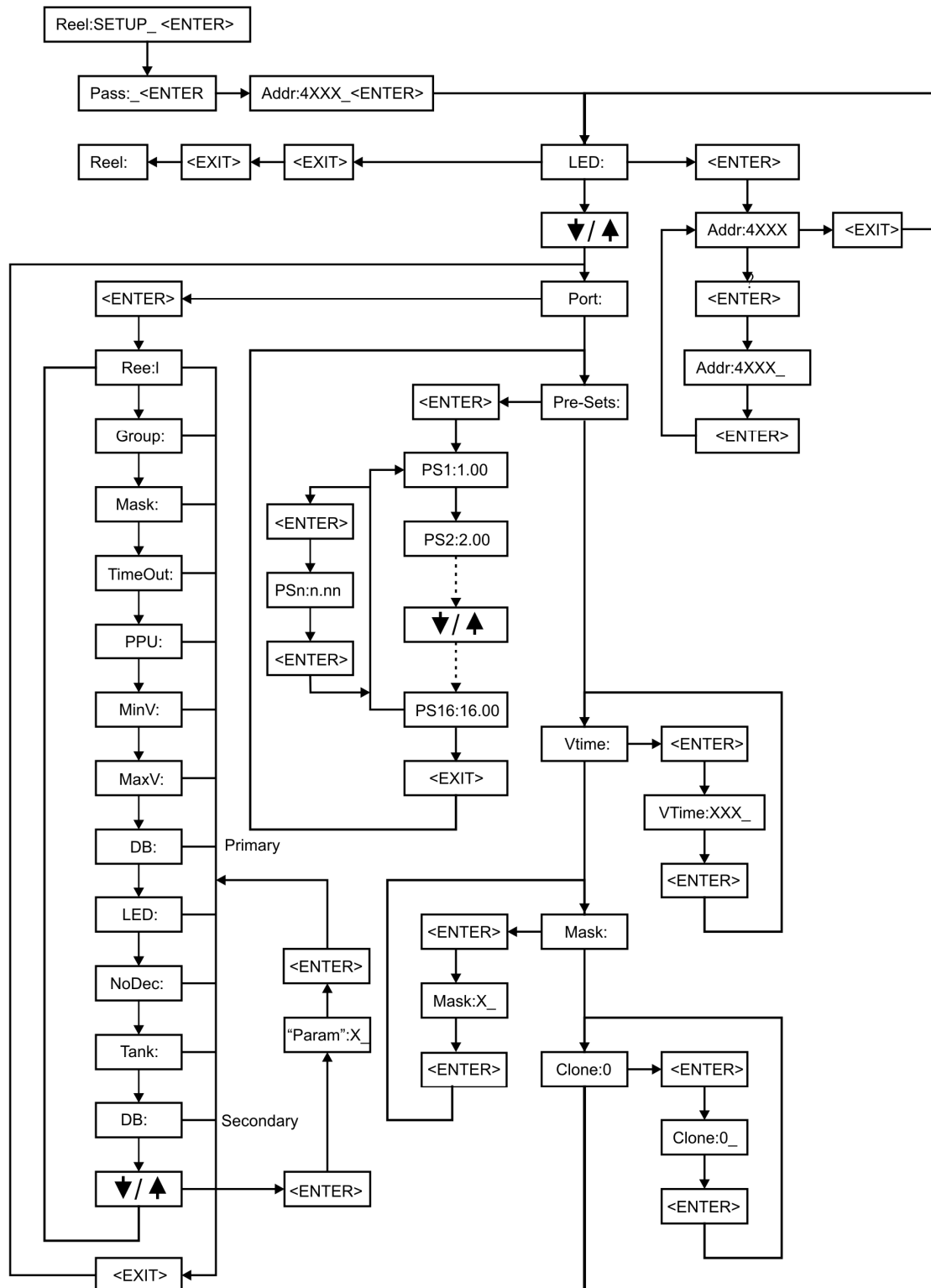
Before installing any clock module make sure that you do not have a Clock module in another module (TLED/LED/PM) or loaded Clock service in a PC running OriLink® WinTools.

Disconnect the TLED from the system before installing the clock module.

Install the clock module as in picture below, make sure that all pins in the right places.



12. Menu tree



13. Fast Menu codes

With a PC, the OriLink® WinTools software and a SIO, you can customize the quick menu that appear when you press ”?”. To do this, assign a name to the menu, a module address and then a code. Password is optional. This code can also be used together with the address after you have typed SETUP followed by the password.

For a TLED-module it will look like this,

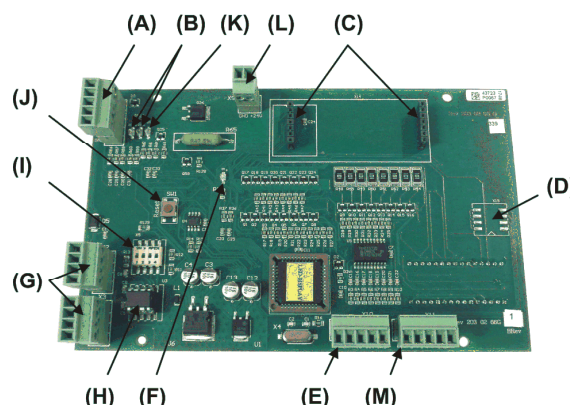
Change Visual Time 40000010 YYYYYY where YYYYYY=password

Part	Function	Address	Code	Comment
Main menu	Change Address		0800	
	Change Sphere		0801	
Port	Change Dispense point Nr.		0100	
	Change Group		0101	
	Change Mask		0102	
	Change Time-Out		0103	
	Change PPU		0104	
	Change Min Volume		0105	
	Change Max Volume		0106	
	Change DB address		0107	
	Change LED address		0108	Is always the module address
	Change Tank number		0109	
	Change number of decimals		0110	
	Change secondary DbAddress		0111	0 disables secondary database
	<i>Chip soft needed is</i>			<i>TLED10011RC7 or later</i>
AsTime	Change Auto Scroll interval time		0010	
Mask	Change Mask		0011	
UsTo	Change User Scroll timeout		0012	0 disables cloning

14. Technical specification

Printed circuit board

Net ports:	2 pcs of OriLink® ports (G) for data communication.
Meter input:	1 pcs (A) 32 bit for one or two pulse trains. Breaking or active signal max 50 V. Can detect flow direction and phase errors.
Control input:	2 pcs of 5-pin connector (E) for the TLED control buttons. (M) currently no support for TLED.
Control output:	1 (A) for solenoid valve 24 VDC max 1.25 A. External power supply connected to +24VDC and GND of the 5-pole connector needed.
Max current:	As display only 250 mA, as a display with dispense point 1,5 A.
Other:	RISC-based microprocessor EEPROM, 64KB. Port for real-time clock module (C)



Casing

	Current model	Old model	Comment
Power supply	24VDC, 250mA as display only. 24VDC, 1.5A using both display and integrated dispense point	24VDC, 250mA as display only. 24VDC, 1.5A using both display and integrated dispense point	
Casing:	Steel, painted black, Pre prepared with 2 x M4 screws suitable for a short DIN rail.	Black plastic	
Front cover:	Polyester overlay with transparent smoke coloured window.	Transparent red plastic "glass"	
Outer meassures:	185 x 140 x 75	200 x 121 x 90 mm	
Mounting:	4 x ø5mm, CC = 97 x 145	4 x ø4.3 mm CC = 88,5 x 188,5 mm or 2 x ø5.8 mm, CC = 62,5 mm with pivot mounting bracket	Pivot mounting bracket for New model not available yet.
Weight:	1.5 kg	0,8 kg	

Environment

Use:	Indoors. Temperature 0 - +55°C Humidity 90-95%, not condensing
Transport:	Temperature -40 - +70°C Humidity 90-95%, not condensing
Storage:	Temperature -40 - +70°C Humidity 90-95%, not condensing