Instructions for use
Emit Finish Station ECB1
ver. 1.22

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This user's guide describes the Emit ECB1 finish station, which is used to register and read emiTags.

The user's guide firstly describes the ECB1's various functions and then explains how the enclosed extra equipment should be connected and used.

Furthermore we present the ECB1's menu system and go through the different menu options, as setting and adjusting the clock, the station code, the printing versions, the display, the protocol, the range of the eLines, etc. We also review methods for troubleshooting and suggest procedures when problems occur.

You need software that is compatible with the emiTag/ECB1 to process the data from the ECB1 and to generate result lists. In Norway there is to date only one compatible program: e-Timing, which is Emit's result and race administration program. We will therefore go through the needed screen images in eTiming to establish communication between the ECB1 and the eTiming. If you need more elaborate documentation on eTiming, see eTiming's built-in troubleshooter or/and documentation and support pages on the web.

Many people have problems with the configuration of Moxa Uport 1450I in Windows, so this user's guide includes a whole chapter on this. This matter is only of interest if you need long cable stretches between ECB1/ETS1 and the computer (normally split time stations) and therefore must use the 'RS-485' port on the ECB1/ETS1. When using this port it is possible to use cables that are several hundred meters long if you convert the signal to RS-232 or USB in the other end of the cables.

All available circuit diagrams, illustrations and specifications of extra equipment are described in a separate guide. Not all of them are equally relevant, but we prefer to include too much rather than to omit information that may be of interest for some.

Spare parts and extra equipment are marked with Elfa's supply numbers and may be ordered directly from Elfa (our supplier) if you wish to install the parts yourself. Another option is to buy the parts directly from Emit, installed and ready for use, if that is preferable.

The last part of the manual treats updating of firmware in the ECB1/ETS1 and the commands you may send to the ECB1 from a terminal program like Hyperterminal (a program enclosed in Windows). Do ALWAYS confer with EMIT's technical staff before you do this on your own.

We have chosen to mark 'input' (connection ports) with green, 'light emitting diodes' with blue and 'key text' with red to make it easier to distinguish between the different functions.

When you use the emiTag system, the ECB1 represents Emit's finish station. The ECB1 replaces the traditional finish clock and registers the time when the emiTags pass the eLine circuits that represent the finishing line. The competitor's tag ID and time are transmitted from the tags and back to the ECB1 via an external radio antenna. The data is saved locally before it is transmitted to a PC via USB, RS-232, RS-485 or GPRS.

The ECB1 and the emiTags may be used for registering end results and split times in various sports. The system is now actively in use in cross country skiing, biathlon, ski orienteering, cycling (road racing, time trials, off road, track cycling), running, triathlon, etc.

You may control/configurate the ECB1 from a PC or with the built-in keyboard with 6 variable menu keys and a numeric keyboard. The ECB1 has 5 LED's (light emitting diodes) and a graphic display which shows current information. The LEDs change colour depending on the status of the event it is connected to. The ECB1 also has a built-in thermal printer which prints out all current events.

You may use the ECB1 connected to one or two eLine loops. The accuracy is better when you use two loops (ca. 1/100 second depending on the speed). When you use one loop the accuracy is about 1/10 second.

Equipment included:

The ECB1 is delivered with the following equipment:

- Double eLine loops for the finish area. The loops are long enough to cover a 12 m wide track. In addition you get 15 m power cable. If you have a stationary construction you should run a cable in a tube under the ground and buy extra cables in the exactly right length.
- USB cable
- RS-232 cable
- External Yagi antenna with a 10 m coax cable (or a Yagi antenna kit for stationary constructions, costs extra)
- Patch cable (extension), 2 m, black, for the eLine loop 1
- Patch cable (extension), 2 m, colourless, for the eLine loop 2
- CD with USB drive and various aid programs
- Table of contents and note of possible missing parts
- This user's guide

On the back of the ECB1 there are several marked connection ports (under the zipper). They include (from the left to the right seen from behind):

- **'Finish'** - For connecting an external radio antenna (not shown)
- **'Finish Loop 2'** - eLine antenna loop no. 2 (white cable) to the finishing line
- **'Finish Loop 1'** - eLine antenna loop no. 1 (blue/red cable) to the finish line
- **'GPRS'** - For connecting an external GPRS antenna
- **'GPS'** - - For connecting an external GPS module
- **'Finish'** - Double banana plugs for connecting a photo cell
- **'Start/synk.'** - Double banana plugs for connecting the starting line
- **'Key Pads'** - For connecting EKP2 keypads (clutch housing)
- **'RS-485'** - For transmitting data via RS-485 (split times)
- **'USB'** - USB port to PC
- **'RS-232'** - RS-232 (serial) port to PC
- **'Charge'** - For connecting a 220V power cable

Charging/batteries:

The ECB1 has 8 built-in rechargeable batteries 9Ah NiMH. You charge the batteries by connecting the included power cable to the plug to the right (seen from behind). Make sure that the charging switch is set on 'ON'. When the charger is connected, the LED marked 'Charge' will be lit. Charge the ECB1 until the LED turns green. The process usually takes about 8 hours if the batteries were flat when you started. If you want top charged batteries, you may continue the charging for 1 or 2 hours more. The batteries will not be damaged by being connected to the charger for a longer period of time.
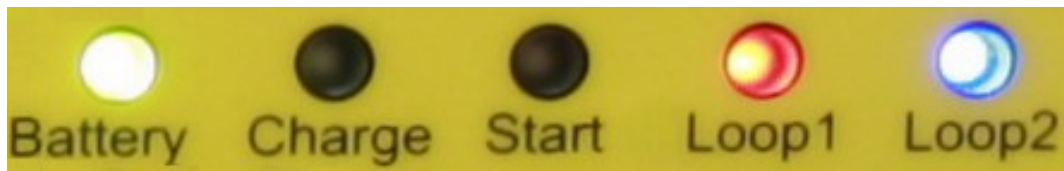
The LED marked 'Battery' indicates the remaining battery capacity. A red light indicates a battery capacity of less than 30%. An orange light indicates a battery capacity of 30--60%. A yellow light indicates 60-90% capacity, and a green light indicates that the battery capacity is more than 90%.

Surroundings

The ECB1 is not waterproof, so make sure that no water seeps into the connection ports on the back of the finish station. You may use the ECB1 in temperatures as low as -20 °C, but the ECB1 is supposed to be used indoors.

CONNECTIONS

The radio antenna

Install the six elements Yagi antenna as illustrated. Note that the antenna must be installed with vertical polarization. This antenna type is not as vulnerable for background noise, as other antenna types.   Place the antenna with an unrestricted view to the finishing line and connect it to the ECB1 with the enclosed coax cable. The distance between the antenna and the finishing line should not extend 10 - 15 m, and the antenna should be pointed towards an area right after the finishing line. It is better to place the antenna outside the timing booth (with the antenna cable leading inside) than to place the antenna inside a window. The antenna should ideally be 5 m after the finishing line and 1—2 metres above the ground.

For stationary constructions we recommend using a Yagi antenna kit, which consists of the Yagi antenna itself, 10 meter coax cable, a mounting bracket for the antenna, a connection box and finally a 2 meter coax cable to connect the ECB1 to the connection box.
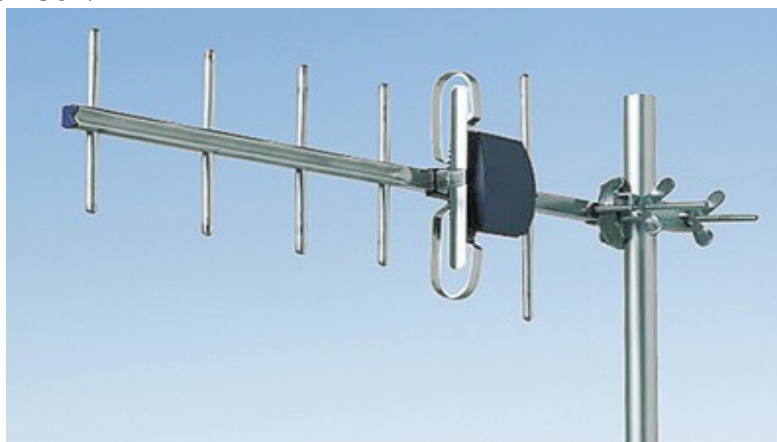
eLine loops

Place the eLine loops as shown on the illustration:
<race direction> <FINISH>
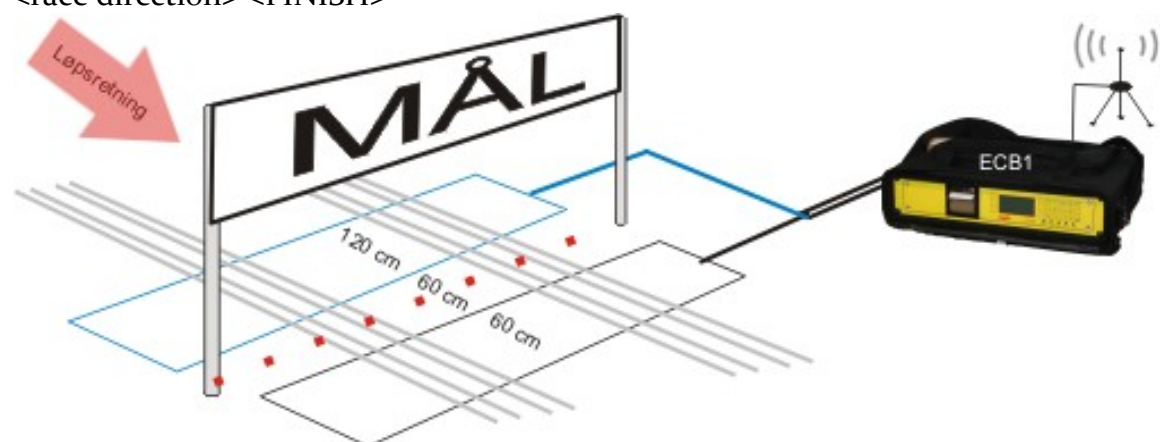
Mill off a track for the loops with a chain saw or some other suitable tool if the loops are to be placed in the snow. If the surface is asphalt or other solid ground, the loops must be taped and secured under mats suitable for the purpose. Make sure that the loops are stable and lie safely, so that they do not disconnect and cause damage!

Place the loops in the track and run the cable to the finish booth (with the ECB1). Remember that the blue loop ALWAYS must be placed in front of the finishing line and the white loop ALWAYS must be placed behind the finishing line. The blue eLine loop has a black plug which is to be connected to the black patch cable, and then to 'LOOP 1' port on the ECB1. The white eLine loop has a colourless plug which is to be connected to the patch cable with a white shrink tube (or with a colourless plug) and then to the 'LOOP 2' port on the ECB1.

Signal 'contagion'
Note that the signals from the eLine loops may have a range of several meters
You should establish a 'security zone' of about 3,5 meters to the sides of the loops
and about 5 meters parallel to the race direction to avoid errors with wrongly
registered competitors passing in another track.

Laying eLine loops for cycling races
In cycling and other sports where the competitors pass the finishing line in high
speed, you must increase the distance between the loops by the finishing line. Use
the following measures: 200 x 100 x 100 cm instead of 120 x 60 x 60 cm. In other
words: There must be a distance of 200 cm between the blue loop's cables, 100 cm
between the blue and the white loop and 100 cm between the white loop's cables.
The finish should be midway between the blue and the white loop.

The LED's marked 'LOOP 1' and 'LOOP 2' are green when the eLine loop is
connected and functioning. A red light indicates that the eLine loop is
disconnected or not functioning. An orange light indicates that the eLine loop was
disconnected when the power was switched on, or that the connection has been
broken, but is now OK. A blue light indicates that no connected antenna is needed.
This may be the case when you wish to use the ECB1 with only one eLine loop. In
such cases you connect the eLine loop to 'LOOP 1', and the 'LOOP 2' LED will be
blue.
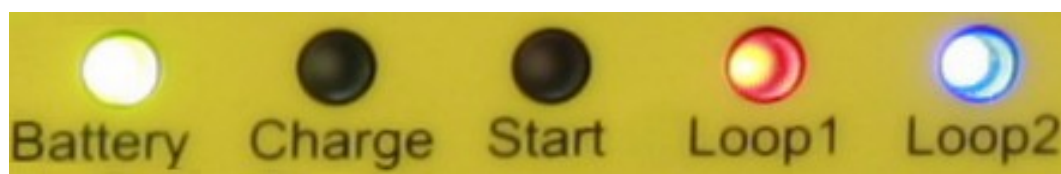
Connecting the ECB1 to a PC, RS-232
Connect the ECB1 to the PC by using the
enclosed RS-232 cable (a serial cable). If you
use the serial cable, there is no need to install
any drives. Avoid using serial cables that are
longer than 25 m.

Connecting the ECB1 to a PC, USB
Connect the ECB1 to the PC by using the
enclosed USB cable. Connect the cable to the
port marked 'USB' on the ECB1. Connect the
other end of the cable to an available USB
port on the PC.
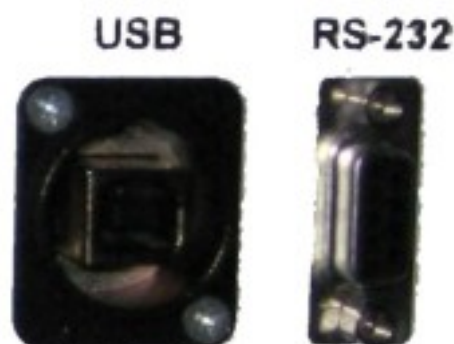
The first time you connect the ECB1 to the PC with an USB cable, you have to
install to drivers; 'USB Serial Converter' and 'USB Serial Port'. Install the USB driver

by inserting the enclosed CD in the CD/DVD player and point to this player when the PC asks for the driver file. The CD/DVD player usually has the drive letter D: or E:. Please note that the installation is done in two stages. The first stage is installing an 'USB-Serial Converter', and the second is installing an 'USB Serial Port'.

There will be established a virtual com port which will appear in the control panel when you connect external equipment. When the equipment is disconnected (or shut off), this com port will not be shown in the control panel. This often happens when you use an USB connection. The com port will often be shown as 'com3' or 'com4', depending on how mange com ports that already are installed in the PC. If you wish to keep the same com port number every time, you must connect the ECB1 to the same USB port as before.

The EKP2 keyboard and junction box

When using the EKP2 keyboards to register missing targets in biathlon, you may connect the keyboards to the ECB1 via a junction box which unites all the cables to one. This uniting cable is connected to the port marked 'KEY PADS"on the back of the ECB1. Use an ordinary telephone cable: 'two twisted pairs'. The older model keyboard from Emit – the RKP – is not supported by the ECB1, but may be used with the emiTag system if you connect it to a PC via the RTR2 and the RAC box.

The 485 port

Data may be transmitted long distances from the ECB1 by using the RS-485 port. When you use this port the cables may be several hundred meters long, but you have to convert the signal to RS-232 or USB in the other end. We have chosen converters from Moxa Inc. for this use, because they are among the best and the most stable converters one can get. We mostly supply Moxa Uport 1450I (4 ports, insulated), but we can also provide Uports with 1, 2 and 8 ports. We do not recommend buying Uports that are not insulated even if they are much cheaper.

Photo cell

When using a photo cell at the finish you must connect this cell to the double banana plug marked 'FINISH'. When the ECB1 is connected to a photo cell, it will use the photo cell as finish time and match this time to the correct tag number.

Starting line

When using a photo cell at the finish, you must connect this cell to the double banana plug marked 'START/SYNC'. The LED marked 'Start' is red when the starting line is not in use and is green when the starting line is in use and is open (when a competitor has started.) You may also start the ECB1 by short-circuiting this contact (with a switch or a starting line) instead of pressing the 'Enter' key when adjusting the time. This may be useful when synchronising several ECB1s.

MENU SYSTEM
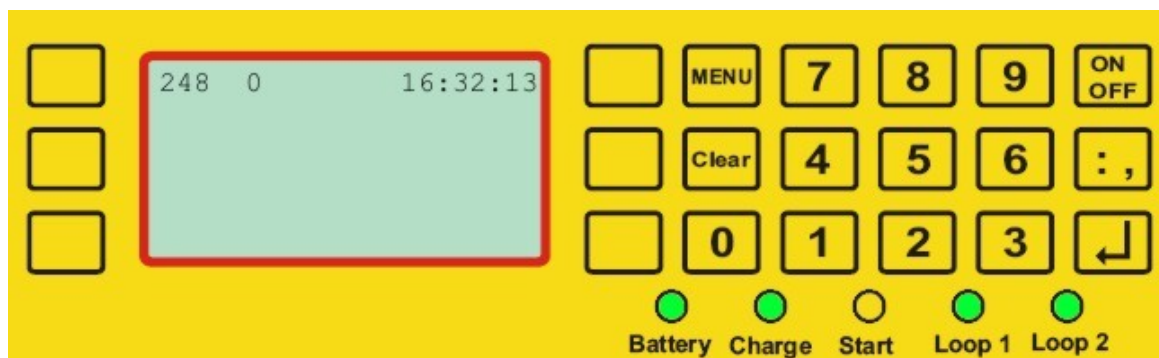
The display on the ECB1 has 7 lines and up to 20 symbols. Three keys on each side of the display control the various menu choices. In addition the keypad has numeric keys and comma, plus 4 set keys.

- 'Menu' - in or out of the menu modus
- 'Clear' - deletes the last symbol or leaves the menu
- 'On/Off' – turns on or off the ECB1 (hold for 5 sec. to turn off)
- 'Enter' - accepts choices

Normal use

You start the ECB1 by pressing the 'On/Off' key. Two seconds later you will see the version number, battery status and clock. You will also hear clicking sounds from the unit – the eLine loops' drives, which are automatically adjusted every time the ECB1 is turned on. When the start procedures are done (ca. 5 sec.) the display will show what time it is (HH:MM:SS), how many tags that are registered (zero when the unit is started anew) and to which code the ECB1 is set (usually code 248 when used at the finish).

Check that the LEDs for loop1 og loop2 have the right colours (green for use of double loops = code 248) and that all cables are connected.

The ECB1 is now ready for use if you don't wish to change any of the standard settings.

Meny

When you press 'Menu' you enter the main menu. 'Clear' or 'Menu' brings you back out.

Menu
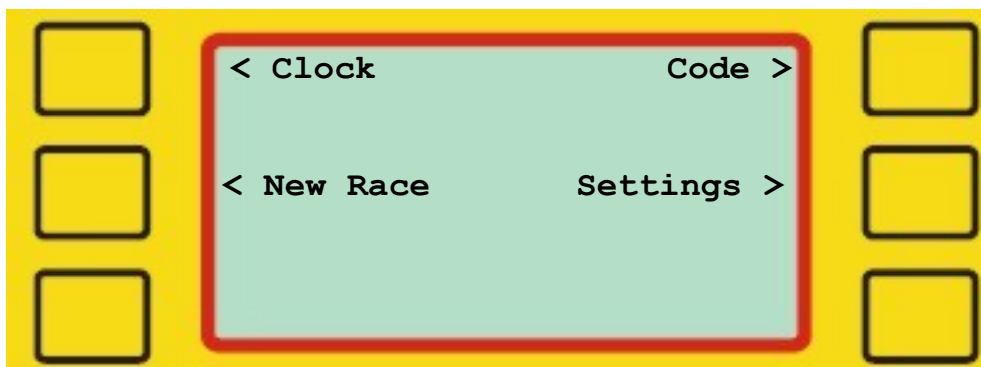
The main menu provides four choices: setting the clock, starting a new race, setting the code for the ECB1 and settings.

Clock

Use the number keys to set a valid time between 00:00:00 and 23:59:59. You start the clock by pressing 'Enter' or by passing the starting line or the photo cell.

New Race

This function resets the counter for all registered tags and empties the flash memory in the ECB1. The unit is now ready for use in a new race.

It is very important NOT to use this function after the race has started! This would cause eTiming to only download the registrations made before the counter was reset. If you have forgotten to do this before the start time of the race, it is better to leave it.

Code

```
                    CCC


< Read Tag                Start >


< Bckup Fin.             Finish >
```
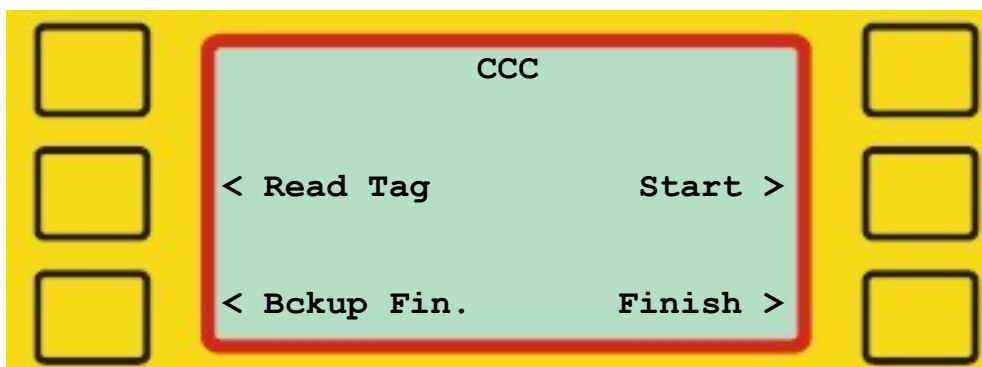
Choose one of the available choices and enter 3-digit code from 001 to 229 with the numeric keys, followed by 'Enter'.

«Read Tag» allows an arbitrary code from 250 to 253 for reading tags.
«Bckup. Fin.» sets the code 249. Should only be used when you need an extra back-up ECB1 at the finish.
«Finish» sets the code 248 and activates both loop1 and loop2.
«Start» sets the code 0, which resets the internal clock in the emiTags.

The set code for the ECB1 decides what kind of registration you will get and which frequency the radio will transmit on. Therefore it is very important to set the right code. We recommend using the following codes:

- Finish, double antenna loops   -   248
- Back-up, finish   -   249
- Finish, single antenna loop -   90
- Split time/forewarning   -   70
- Registration of penalty loops   -   67
- Relay handover   -   66
- Start   -   0

Settings

```
< Printer          Reset All >


< Display           Protocol >


< Status               Eline >
```
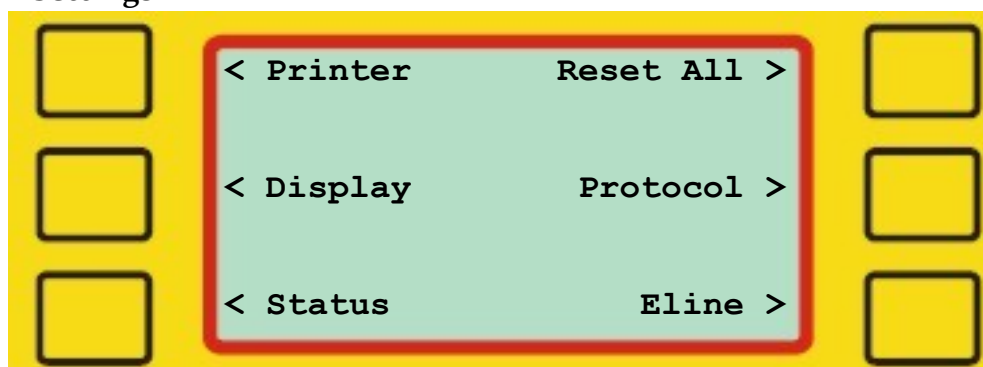
Here you may change various settings like printing alternatives, protocol, display, the eLine loops' amperage, etc.

Printer

```
< Normal                  4 >


< 2                       5 >


< 3                     Off >
```
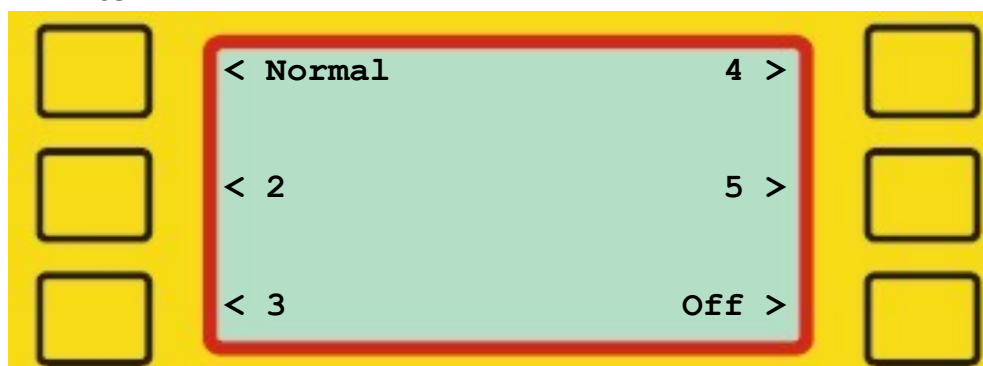
Choose print format:

1 - normal: Shows one line with tag number, station code and the registered time from the ECB1.

2 – tag time: Shows one line with tag number, station code and the tag's registered time, assuming that the tag was reset when the race started.

3 – normal + tag time: Shows two lines with tag number and station code on the f irst line. The ECB1-time and the tag time are shown on the second line.

4 – reading: Used when reading results. Shows the tag times and the split times for each registered passing.

5 – reading ver.2: Used when reading results. Shows calculated ECB1 times and split times for each registered passing.

6 – off: The printer is turned off.

Changes in port status (starting line/photo cell) and incoming data from the RAC will be registered in all modes but OFF.

Display

```
< Normal

< RSSI/Dev

< Eline status
```

Choose display modus:

Normal: Shows running time, station code, tag number and finishing time.
RSSI/Dev: Shows the radio's deviations in frequency and transmitting ability
eLine status: Shows the eLine loops' consumption of electricity far down on the display.

Status

A list with a status report will be printed as follows:
- Headline: EMIT TIMING SYSTEM, The unit's serial number and the time for the status report.
- Battery capacity in %.
- Display mode – Shows the settings for /DM.
- Printer – Shows the chosen printer settings.
- Protocol – Shows the chosen transmitting protocol for PC.
- Last passing number – Shows the last registered competitor who has passed.
- Today's number of passings.
- GPRS:
  - 0 = No GPRS
  - not 0: The GPRS modus is on. A status report will be made once every minute.
- Eline 1: Code and indication for loop status. Numbers higher than 1535 indicate that the loop is OK
- Eline 2: See Eline1,
- Canal 0-20: The radio goes through each channel and the receiver conditions are checked. The numbers should be -30 or lower if there are no transmitting from the tags during the test.

Reset all

ECB1 is reset; all data is erased and the original settings are restored! ONLY TO BE DONE BY AUTHORIZED PERSONNEL!

Protocol

```
                           Normal >

                            Short >

                        Ext. dump >
```
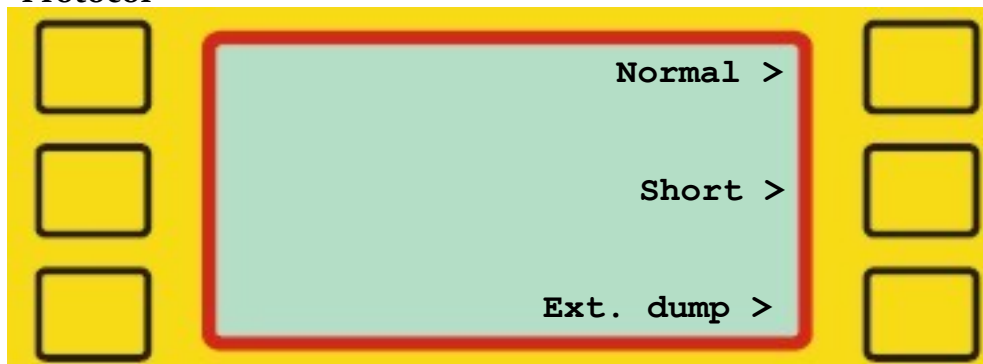
Choose protocol (for transmitting data to PC):

Normal: Standard values, set on normal.
Short: Sends 34 bytes. Use with Skotselv radios.
Ext dump: Sets a protocol that will give extended information when reading the tags.

Eline

```
< Reset L1          Reset L2 >



                         |
0                        |              0
<          | | | | | | |               >
```

With this function you may move the finishing line electronically by adjusting the loops' amperage. Do not try this if you're not sure of what you are doing!

You may reset the amperage by choosing «Reset L1» or «Reset L2», or by turning off the ECB and switching it on again.

Check the loops' amperage if the loops don't function as they should. The amperage should ideally be ca. 2300 (+/- 100). If the amperage is less than 1500, the loop will not function and must be reset.
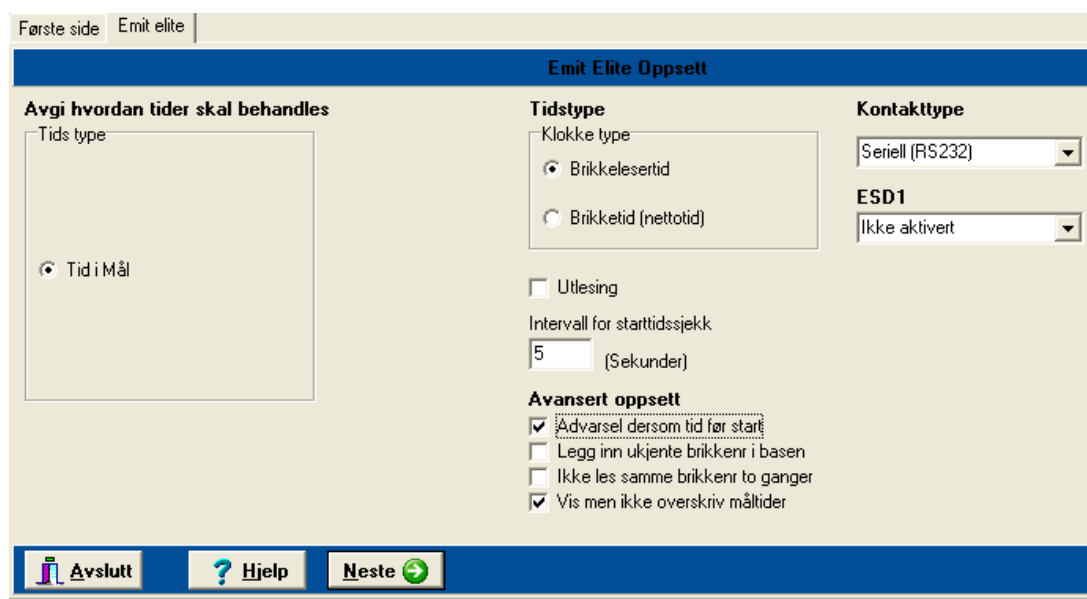
eTiming and how to use the ECB1
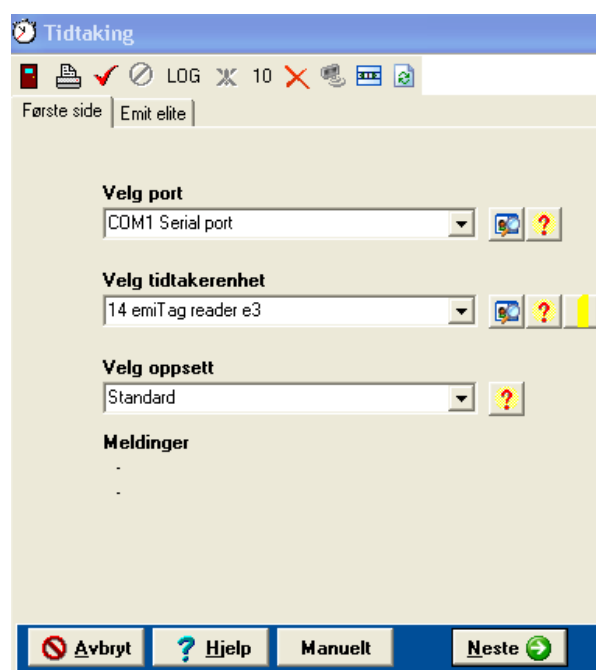
Press 'Next' to continue when the ECB1 (called emiTag reader e3 in eTiming) is found or chosen. If the ECB doesn't appear automatically, you should check if it is switched on and that the cable is connected. If you use an USB cable, you may remove it, wait for 30 seconds and reconnect it. Press to search for the ECB. We recommend connecting the USB cable after switching on the ECB1.

When using a serial cable with a USB converter, check that the program chooses 'serial communication'.

Decide how to do and update the timing

Normally you only need to press 'Next'. Note that you may choose if you want to use the tag's or the tag reader's time. If you prefer using the tag's time, you will need a tag reader at the starting point to start the tag's clock.

'Intervall for starttidssjekk' (Interval for checking the starting time): This is where you decide how big the deviation between the tag's time and the calculated time may be before a warning appears in the timing grid.

'Utlesning' (Reading): Is only used if you wish to read the tags after they have passed the finishing line.

The tag system will normally ignore all incoming times from before the competitor has started and from after he has finished the competition. You may decide which error messages you want to show in the timing grid by choosing 'advanced settings'.

Synchronizing the clock

You now may set the ECB1's internal clock. You see the running time in the white field up to the left. You may leave it as it is, set it on the ECB1, synchronize it with the PC clock or set a new fixed starting time. Remember that the ECB1's internal clock must be synchronized with the starting clock.

It is also important to set the station number. See the tag reader's code up to the right. The most used codes are as follows:

- Finish, double antenna loops   -   248
- Backup finish   -   249
- Finish, single antenna loop   -   90
- Split time/forewarning   -   70
- Penalty loop registration   -   67
- Relay handover   -   66
- Start   -   0

Press 'Next' to continue.

The timing display

The status display will turn from red and the text 'Venter' (Waiting) will turn yellow and show the tag reader's serial number when there is contact. Down below in the left corner there is information on electricity and charging. If the electrical capacity is less than 10%, you will see a battery warning and the PC will start to beep.

In this display you get all the messages from the ECB1.

Functions in the timing display

Transfer data from the clock again. You will be asked how many times to transfer.

Deletes all data in the error log.

Reads the last ten times from the file log again.

- Notification on unupdated times. The icon will only be active if there are times read from the ECB1 but not updated in the data base. If you leave the screen when the icon is active, you will be asked if you want to import this times.

Import the log file. Use as a backup/ correction possibility in cases where all the times are wrong.

⊘　　　Stops the communication.

✓　　　 Starts the communication.

🖶　　　Prints out all the times or the display.

- Ends the timing display. You will be asked if you want to end if the communication is active. Note that you may open other windows while the timing continues in the background.

The status line

The status field shows that the tag reader is connected. The fields will turn from red (which indicates no contact) to yellow (which indicates that the ECB1 is connected).

Incoming times

The illustration above is a typical display during timing, apart from that many common errors appear simultaneously.

Column explanation:

#　　　Shows the tag reader's station code, a running message number and the tag's deviation in radio frequency and intensity.

Startnr　　The competitor's start number. Unknown competitors will be listed as no number.

Brikke　　The tag number the competitor had when crossing the finishing line.

Tid　　The calculated time, or the read time if the time is wrong or not updated.

StatusShows where the time was recorded and possibly status messages if there should be deviations.

Tid nr Indicates which of the split times that is shown.

Brikketid The tag's internal time measured from when the tag's clock was started. This square is red when the time deviates from the calculated time by more than the number of seconds you have allowed. The times will always differ some if you don't use a starting station.

Innk.tid The time when the ECB1 read the tag.

Error messages:
- Common errors are displayed in green.
- Start number 4 is registered as quitted or disqualified. If this tag passes the finishing line, you will get an error report.
- The tag passing the finishing line after no. 4 is unknown. No competitor in the data base is registered with this tag number.
- Start number 2 finishes the competition for the second time. The time will not be adjusted, but is reported as an error.
- Start number 5 crosses the finishing line before he has started. The time will not be registered.

The status field:
- *'Status' indicates if there is communication with the tag reader.*
- 'Tider/Oppdaterte' logs the number of times updated in the data base.
- 'Sist lest' shows when the last tag was read.
- 'Feil' shows the number of errors during the timing.
- 'Ukjente løpere' shows the number of read unregistered tags.

For sprint there is a special field for the starting time, which is the same for all the competitors in the same heat.

CORRECTING ERRORS

The tags are registered inthe ECB1, but nothing is transferred to the eTiming:
- Check that the cable between the ECB1 and the PC is conncted to the correct port.
- Check if the 'Sist lest'('Last read) field is being updated. If it does, the competitor probably hasn't started yet.
- Go to the 'Oppsett' (Setup) tab and turn on 'Advarsel dersom tid før start' (Warning when times appear before start) and 'Vis men ikke overskriv måltider' (Show, but do not adjust finishing times).
- Check that 'Seriell kommunikasjon' (serial communication) is chosen as form for contact (the tab 'Emit Elite') when you use a serial cable or a serial USB converter.
- USB: If you are warned of communication errors when you start the timing, the reason often is that the USB port is busy or not ready for use. Try another USB port and reconnect.
- You may have chosen a port that is in use by other programmes. Examples: mobile synchronizing or modem.

The ECB1 will not read the tags:
- A tag passing the finishing line will normally be read by the ECB1, and the printer and the display will indicate a reading. Note that it is possible to disconnect both the display and the printer directly from the PC. You may override them from the tab 'Brikkeleserklokke' (Tag reader clock).
- The reader may have been given the wrong protocol. Go to the menu choice 'Emit elite' and choose 'Protokoll'. Set the protocol as 'o'.
- The tag reader may have been given the wrong code. Go to the 'Brikkeleser klokke' (Tag reader Clock) and set the correct code.
- You need a double loop if you have chosen the finish code 248. If the tag doesn't find the other loop, no times will be transferred for 9 seconds. Set the code to 85 and check if there are incoming times on the first loop.

Do the following test to check if the system is functioning:
- Check that there is communication and that the ECB1 is connected and switched on.
- Check that the eLine loop is connected to 'LOOP1' when you use one eLine loop at the finish.
- Pass the finishing line in the correct direction. The tag will blink rapidly when it reaches the finish area and blink more slowly for 15 seconds after passing the finishing line. Check that the time was transferred.
- Check that the white eLine loop is placed at the very back and is connected to 'LOOP2' when you use two eLine loops. The other (coloured) eLine loop should be connected to 'LOOP1'.
- Walk 20 metres into the track (in the race direction) and wait for 10 seconds.
- Walk slowly towards the finishing line with the tag 1,5 metres above the ground, and with the point pointing downwards.
- When the first eLine loop is detected, the tag will start blinking. When the second eLine loop is detected, the tag will stop blinking immediately. The tag may blink slowly a few times between the detections of the two eLine loops.
- If the tag doesn't start blinking at the finishing line, the other loop is not working. Another possibility is that the ECB1 is not set on code 248.

This is a preliminary version of the user manual for the ECB1. Updated versions will be available on the Emit websides; www.emit.no

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*Translated 2009 by LS (Lene Stokseth)*

Setup of the MOXA UPort 1450I - RS-485 to USB

The displays in this document is from Windows Vista and may diverge from other Windows versions (and languages).
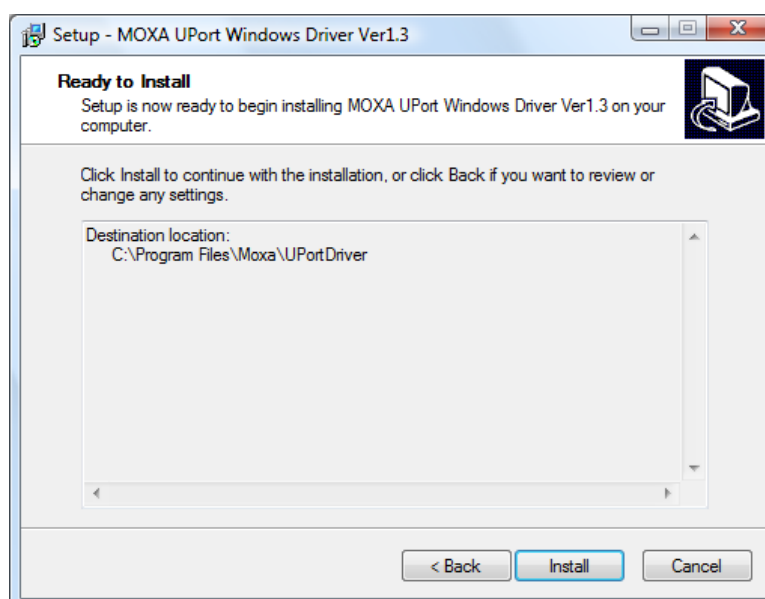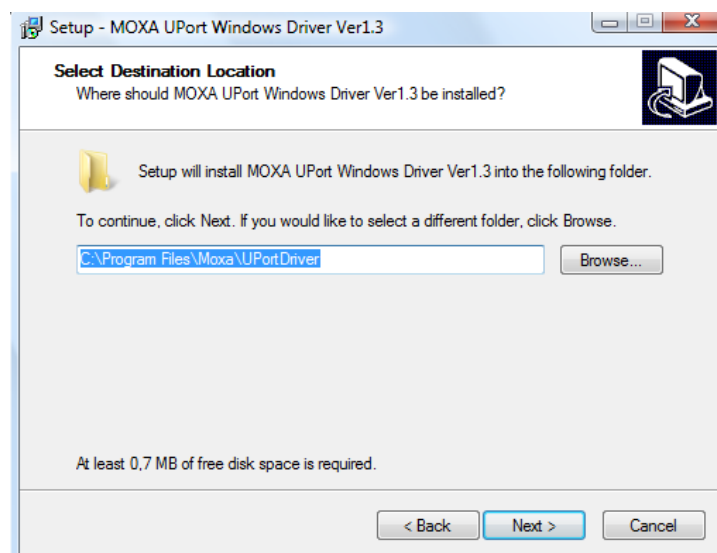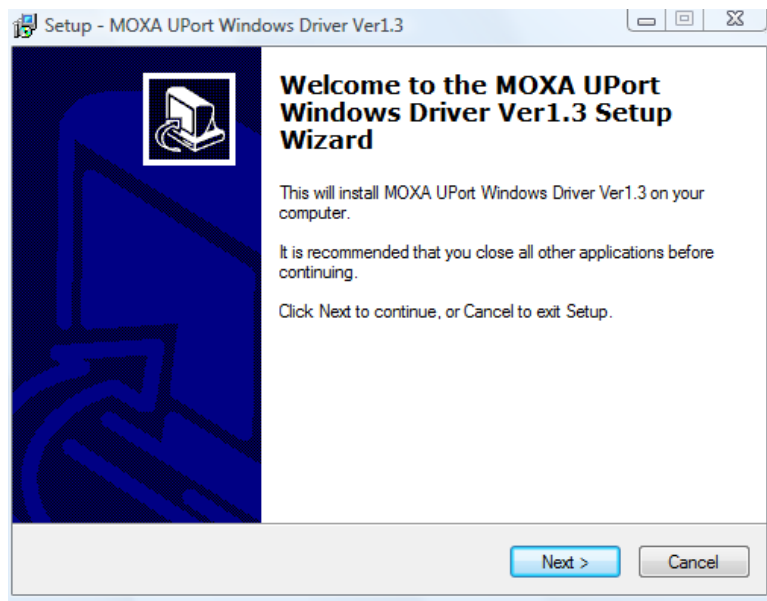
- Plug in the MOXA UPort1450I
- Inject the driver CD enclosed with the UPort14501 in the CD/DVD player in your PC. You may also download the newest version of the driver from www.moxa.com. Wait. Don't connect the Uport1450I to the PC yet.
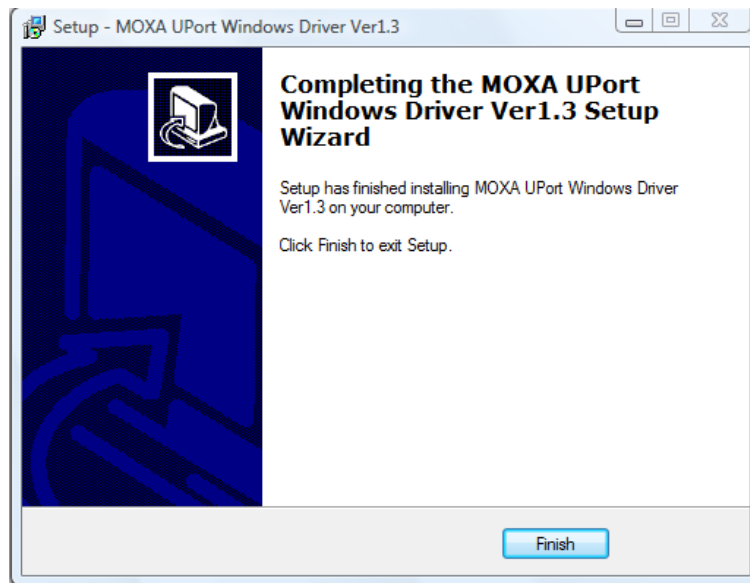- Start Windows Utforsker (Explorer) and check that you can see the driver CD:
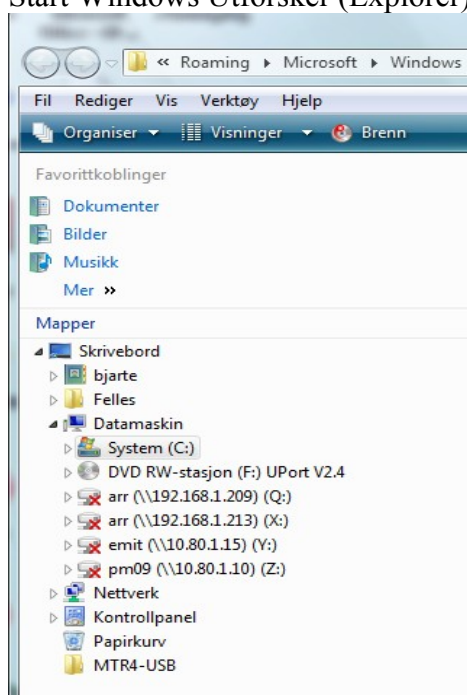
- Find the catalogue (as shown over) and click on the driv_win_uport file.
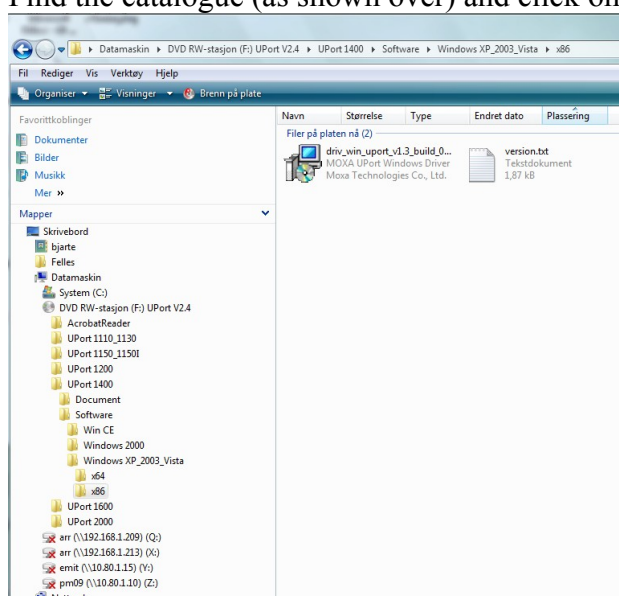
- Click on driv_win_uport…, as shown. The installation program will start. Click 'Neste' (next) to continue through the next displays.

The Moxa Uport 1450I drivers are now installed correctly.

PC setup

Connect the Moxa Uport 1450I to the PC with the enclosed USB cable. The first time you use the Uport you must configurate it by starting the Device Manager:
- Click on 'Start' and write 'devmgmt.msc in the 'Search' field directly above the 'Start' icon.
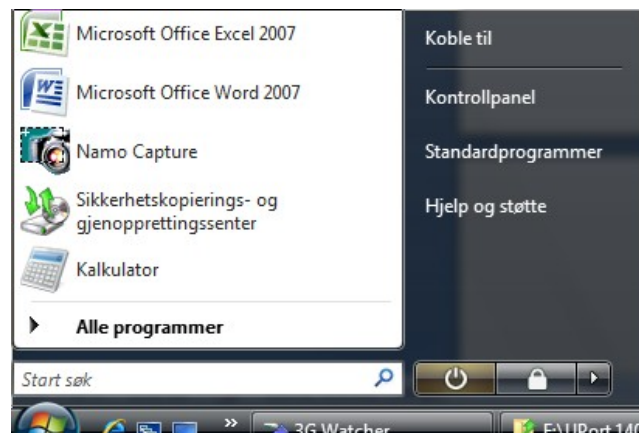
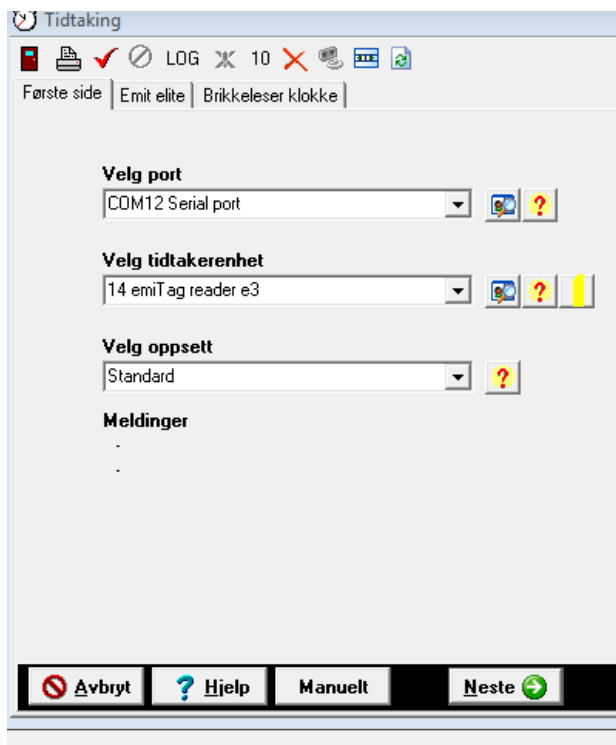- Find the MOXA Uport 1450I under 'Flerporters serielle kort' (Multi-port serial
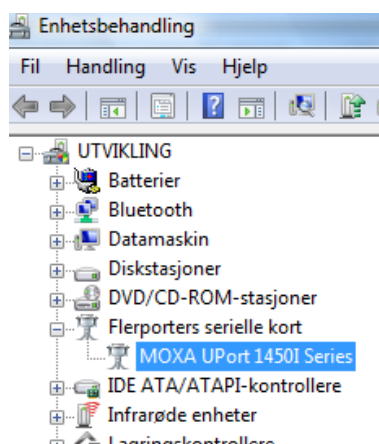
adapter).

Set all the ports you are going to use to 'RS-485 2W' under 'Interface'. Note the Com numbers allotted to the different ports. Click 'Save' to save the changes in the box, so that you avoid going via the control panel every time you use the box.
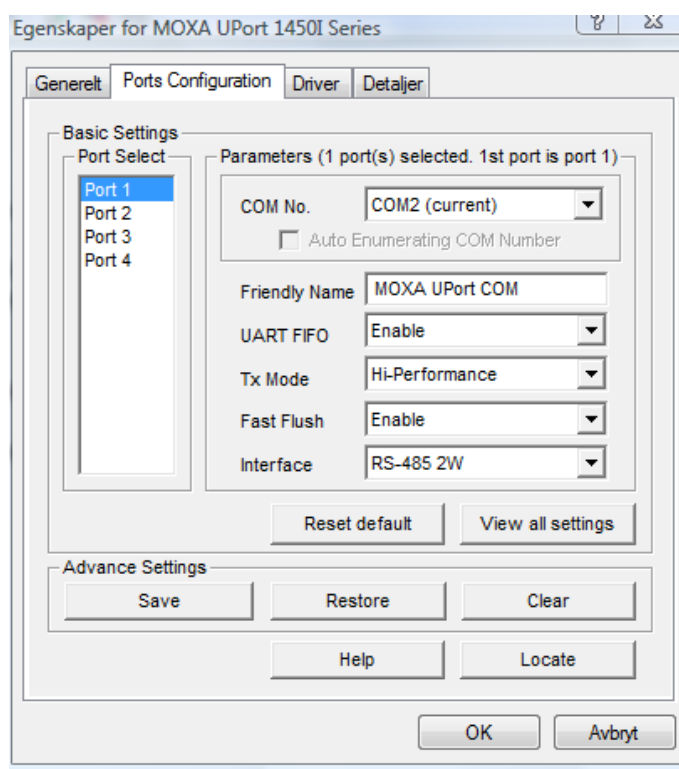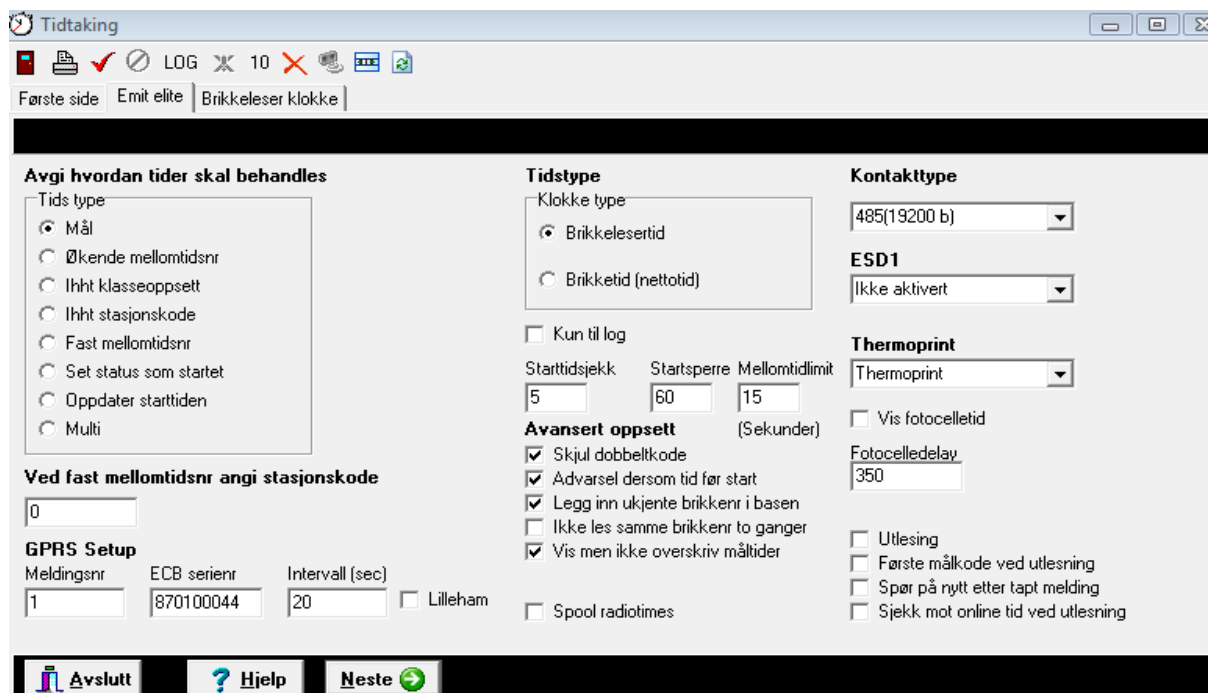

Setup of Etiming

Start the timing and choose port in accordance with the allotted port numbers.

Choose the correct type of contact in this display; set 485 (19200 b).

Good advice

Try to use the same USB-port every time you use the MOXA Uport 1450I.
If the communication fails, check as follows:
- Have you set the right connection in eTiming? Normally it will be 485(19200 b)
- Do you use the right cables? Do they have polarity defects? Maybe you should alter the cables' pairing?
- Have you set the interface for Uport 1450I to 485 2W in the control panel?

For å oppgradere en ECB/ETS må du gjøre følgende steg.

1. Koble en enhet til PCen vha USB eller RS232
2. Start programmet EmitFirmwareUpgrade.exe
3. Gå til «Trinn 1 – sett opp forbindelse»
    1. Velg COM-porten som enheten er koblet til. Angi om det er RS232 eller USB.
    2. Trykk «Connect». Dersom knappen blir grønn har vi fått kontakt med enheten.
4. Gå til «Trinn 2 – Oppdater ECB»
    1. Velg fil. Filen har ending .a43 og heter noe slikt som ETS_0122.a43 eller ECB_0121.a43
    2. Trykk på last opp. Nå starter overføringen av nytt program til enheten. Ingenting vli bli endret i dette steget.
    3. Vent til programmet er ferdig opplastet. Dette tar tid. Følg utviklingen i den liggende søylen.
5. Når overføringen er ferdig kan du trykke «Oppgrader»
6. Dette tar ca 10 sekunder.
7. Enheten starter på nytt, og nytt versjonsnummer tilsvarende nummeret i filnavnet du valgte, vil vises i displayet under oppstarten.

emit

- when time counts...