

# TrendView “Credits” Option Code Instruction Sheet

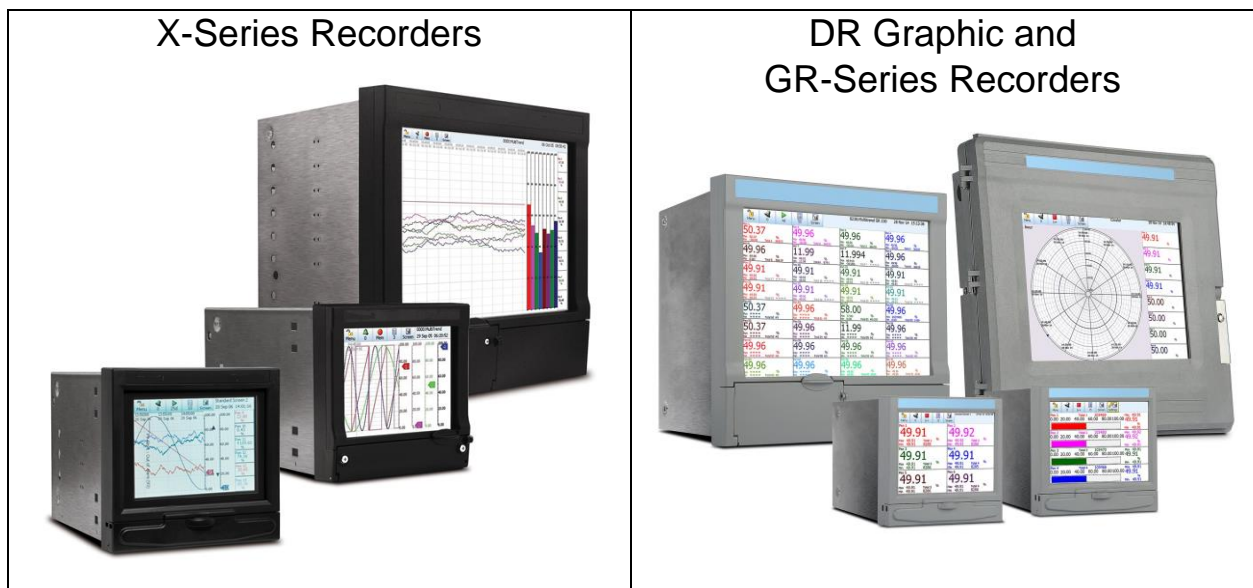
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## GR Series and X-Series Recorders

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The option code is a means of adding credits or the Extended Security System (ESS) to a recorder.

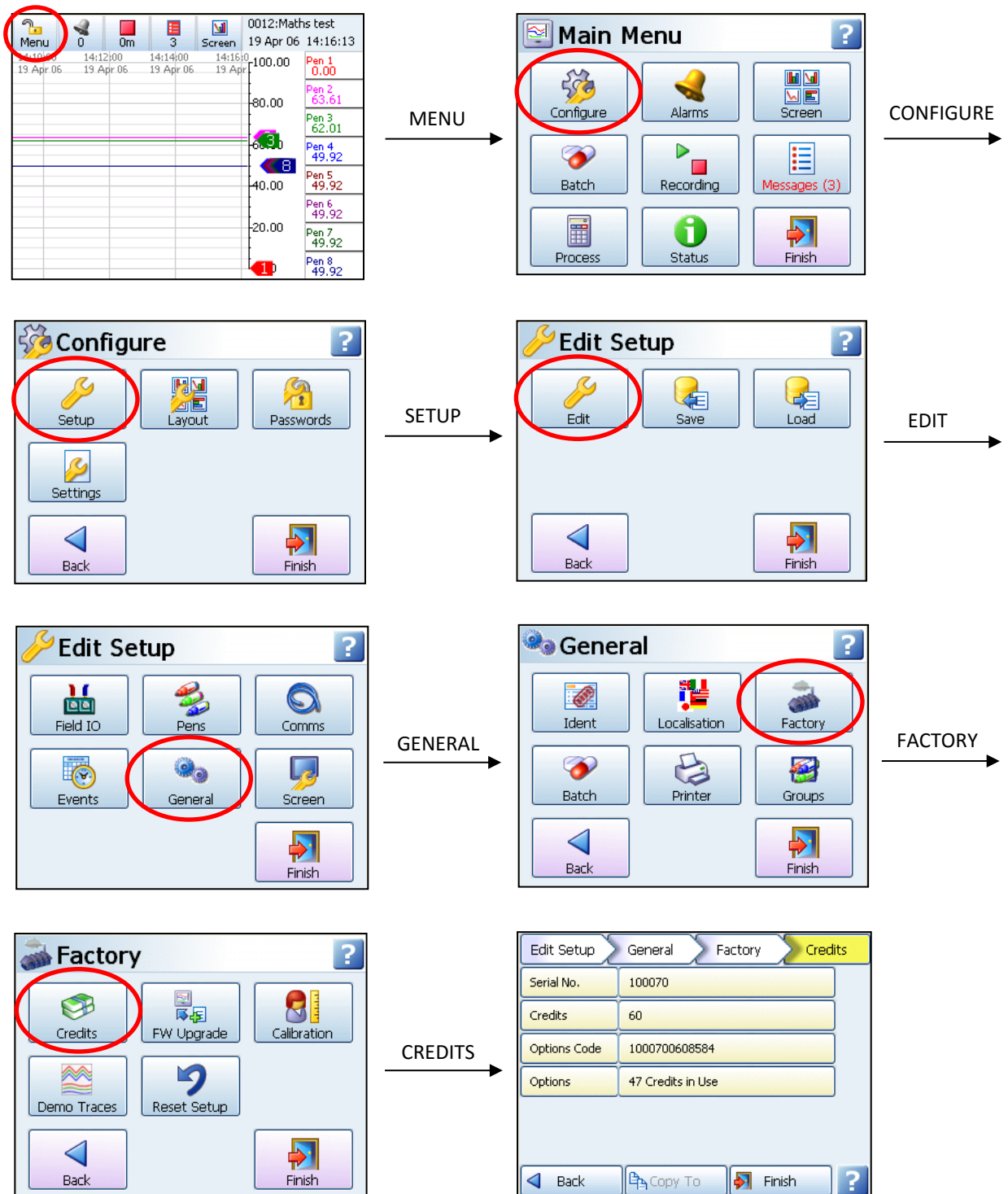
The credits system is a flexible way of changing the recorder features without having to upgrade the firmware.

When extra credits (or the ESS) are purchased you will be supplied with a new options code. This code will be specific to the recorder with the serial number supplied at the time of purchase. The first 6 digits of the option code are the internal serial number of the recorder and this code is only compatible with the options code. The next 7 digits (X-Series) or 9 digits (GR-Series) are the encoded information of the credits and options purchased for that recorder.

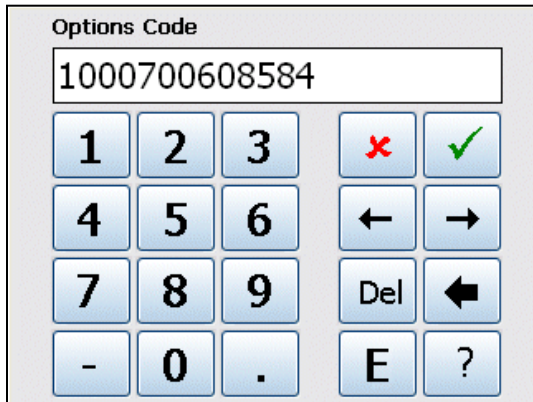
The recorders serial number is found either on the recorder label or via the menu system.

## Entering the Options code

Follow through the menus to see the Options Code and Credits in use:



Then select “Options Code” this will display a screen showing the existing options code and allowing entry of the new options code.

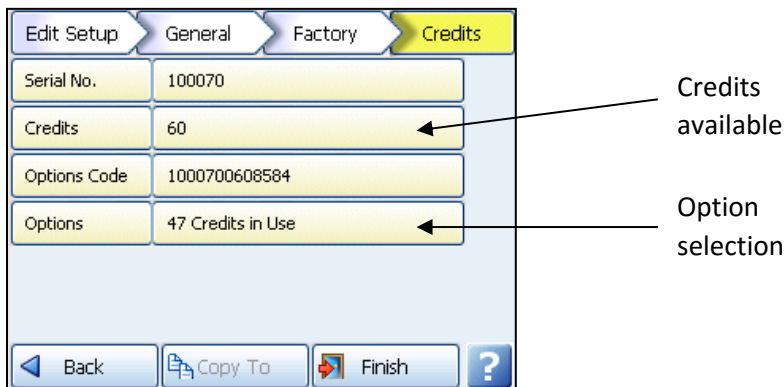


The image shows a screen titled "Options Code". At the top, there is a text input field containing the number "1000700608584". Below the input field is a numeric keypad with buttons for digits 1-9, 0, and a decimal point. To the right of the numeric keypad are several function buttons: a red 'x' (clear), a green checkmark (confirm), left and right arrow keys, a "Del" button with a left arrow, an "E" button, and a "?" button.

When the new options code has been entered press the green tick to accept the new options code. Assuming it is entered correctly, the screen will go back to the previous screen and now show the new number of credits available.

## Selecting Options

To use the credits to enable new functionality on the recorder, press the “Options” button. This will bring up a list of options and the number of credits required to activate each function.



The image shows a screen with a navigation bar at the top containing "Edit Setup", "General", "Factory", and "Credits" (which is highlighted in yellow). Below the navigation bar is a table with the following data:

Serial No.	100070
Credits	60
Options Code	1000700608584
Options	47 Credits in Use

At the bottom of the screen are four buttons: "Back", "Copy To", "Finish", and "?".

Two arrows point from text labels to the table:

- An arrow points from the text "Credits available" to the "Credits" row.
- An arrow points from the text "Option selection" to the "Options" row.

To allow the maximum flexibility the options selected may be changed at any time, so that by disabling some unused options new options can be enabled. Any combination of options can be selected provided there are sufficient credits.

When the options have been selected press “Finish” then “Commit”.

For some option changes, the recorder will reset. Once reset the newly enabled options will be available for use.

## Available Options

Firmware option	Credit value	Description
<b>Full Maths* (Note 1)</b>	4	Full Maths - this can handle math expressions that can consist of expressions up to 100-characters in length.
<b>Full Maths with Scripting* (Note 1 &amp; 4)</b>	6	A powerful multi-line scripting ability available to solve complex state based applications. Eg. building an application for: "If .. X happens, then Y will happen, <b>else</b> .. Z will occur.
<b>Events (Note 3)</b>	6	Events is a firmware option that can be activated using the credit system. Events are certain conditions or operations which can be set up and logged according to the time and date of the occurrence. Subsequently events can be reviewed in a list or represented on a graph.
<b>Fast Scanning mode (Note 4)</b>	5	For fast processes, the scan rate and recording of the data can be set for up to 50 times per second (20ms) for up to 8 inputs for the QX and 16 inputs for the SX.
<b>Totalizers/ Sterilisation calculation (Note 1)</b>	4	Each pen can be associated with a totalizer. Using extra pens, the totalised values can be displayed and recorded; multiple totals can be calculated out of the same variable (weekly, monthly, etc.). The totalizer function can handle Fo and Po sterilisation calculation.
<b>Custom Screens (Note 2)</b>	4	Import custom built screens that have been created in Screen Designer. (Note 2)
<b>Reports</b>	3	Generate reports manually or using the event system to show daily/weekly/monthly Totals, Max/Mins, Averages, Current Value. Messages, Message Lists - Alarm, System, Diagnostic, Security & User, Counters, Digital Inputs, and Digital Outputs. Reports can be printed, e-mailed as an attachment or exported to external media in RTF format.
<b>AMS2750 Process</b>	5	AMS2750 Process activates the Process Mode screen and the AMS2750 process configuration menus for furnaces and sensors in accordance with AMS2750 specification, including Thermo-couple tracking.
<b>Health Watch/ Maintenance</b>	2	The recorder keeps track of important "life actions" for improved diagnostics and preventative maintenance notification. Including Power cycles, Last powered up, Total On time, Total Off time, Longest off time, Battery life left, Backlight life left at 100% brightness, Compact Flash insertions, Hi/Lo CJC value (Hi & Lo temps), Analogue In last factory/user cal, Relay operations.
<b>Print Support</b>	2	Enables the printer option to print text from various screens using a standard PCL3 or PCL 3 GUI or PCL5 (Printer Command Language) printer, connected to the USB 2.0 port or to the network
<b>AMS2750 TUS</b>	10	AMS2750 TUS activates the TUS screen and the AMS2750 TUS configuration menus for furnaces and sensors in accordance with AMS2750 specification, including Thermocouple tracking. All of the survey information can be exported to a Report Generating tool. Multitrend GR and DR Graphic only
<b>Batch / Groups</b>	3	The Batch function allows the user to segment portions of data for further analysis. The Batch function manages sections of data. Concurrent batches are now associated with a group of pens. The pens within each group will belong to the batch that is controlled by that group. Batches can be controlled through the event system and batch markers are setup by the user and are used to identify and analyse batches of data. Supports up to 6 concurrent batches.
<b>Counters</b>	2	User Counters can be set up and used as a part of the Events system to count an occurrence. Other counters are available depending on hardware availability. Eg. Alarm, Event, Digital Input, Relay Output and Pulse counters.
<b>Modbus Master</b>	10	Modbus master enables the recorder to communicate with up to 32 Slave devices on both Ether-net and RS485. The recorder itself can also act as a slave device while also being a master. RS485 is not available for eZtrend GR.
<b>Remote Viewer</b>	3	Extends the user interface of the recorder onto the desktop PC. Providing full remote control of the recorder launched from a web browser.
<b>Email</b>	3	Setup email accounts to send the following: When an Alarm is triggered or an Email can be sent as a part of an Event occurring, such as: Alarms - In/Out/Ack , Totalizer – Start, Stop or Reset, Digital Inputs – On, Off or State change, TC Burnout – on a specific Analogue Input channel, Scheduled Events – Once, Interval, Specific days, Month End.

<b>Pwd Net Sync</b>	<b>5</b>	Password Network Synchronisation. Password can be synchronised over the network, a recorder can be designated as a master of a password group and other recorders can be added to that group as slaves, the master will ensure all passwords are synchronised with all recorders in its group.
<b>Extra Pens (4 pens)</b>	<b>2</b>	4 extra pens to store and display totalised values, results of calculations, etc. Maximum is up to 16 extra pens for the Minitrend GR, 12 extra pens for the eZtrend GR recorders, and 48 extra pens for the Multitrend GR and DR Graphic recorder.
<b>Hardware Lock</b>	<b>2</b>	Uses the password permission areas to lock access to the hardware configuration functionality leaving some areas view only.
<b>Ext. SD</b>	<b>5</b>	This feature is available only on the eZtrend GR. Access to external SD card for setup load/save or data export would be credit based. If the external SD credits are enabled than only user will be able to access external SD for tasks like setup load or save data or report export.
<b>OPC UA</b>	<b>8</b>	OPC UA server that provides Data Access functionality to OPC UA clients.

## Notes

\* Basic maths is standard in all recorders. Basic Maths math comprises of: Add, Subtract, Multiply and Divide

1) Additional pens (“Extra Pens”) can be used to display and store the results of calculations, totalizers, variables imported via communications, or to store values.

2) Custom Screens must be built using Screen Designer (.lay). Screens from V5 Screen Designer versions cannot be imported (.lyt). (not available for the eZtrend GR)

3) Event markers are required to automatically reset the totalizers, for example on a periodic basis or on an external condition. (Not necessary if the totalizers are reset manually)

4) Not available for the eZtrend GR.