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Novax Leda Rev 1108

A few new features have been added to the meter. Broadly fitting into three categories.

- 1/ Wireless networking using cellular SMS text service.
- 2/ Working hours timers.
- 3/ Receipt changes

SMS Text Network

This is basically a low-priority messaging service which operates on mobile digital telephone networks. Messages are restricted to 256 characters, and tend to be used to 'fill-in' unused capacity on the network. All mobile providers support SMS, as such it is likely to continue to be low cost. Messages can take several seconds to be delivered, but in the general application this is not considered to be a problem. The main purpose of networking meters is to allow real-time data transfer between the meters and the office.

Description of SMS Network Operation

With the meter configured for the SMS network and a compatible modem attached, the meter will send an unsolicited message each time it changes state; *For Hire*, *Hired* or *Logged Off*. The office will always know the meter status!

Payment Card Transactions

At the end of a fare, (return to Vacant) the meter message will contain the fare and transaction details, if a payment card was used, thus real-time data transfer to the office is also achieved.

Working Hours and Rest Periods

With the new regulations regarding driver working hours and rest times, the network system can help the office to comply with the requirements. When taking a rest the driver will switch his meter to "Off", a text-message is sent by the meter to the office to log him off, and the rest period begins. Driver's rests and working hours can thus be logged by the office software, warnings can be issued if the working hours limits are exceeded. If required, an "End Shift" command can be sent from the office, this will switch the driver's meter "Off" and end the current SHIFT. If the meter is so configured, the meter is effectively locked, until the office sends a "Start Shift" command. This can be used as a "log-on"/"log-off" facility, thus all the tools to enforcing the regulatory rests.

Working Hours displays

To assist drivers to monitor their own working hours, three new timers have been provided and will be displayed on the "For Hire" screen of the meter should the legal limit be exceeded. The first timer logs hours worked since the driver last took a thirty minute break, and will display in the "For Hire mode" should this period exceed seven hours. The second timer records hours worked since the driver last took a ten hour break, and will display in the "For Hire mode" should this period exceed thirteen



hours. The third timer logs the time since a 24 hour break was taken, and will display in the "For Hire mode" should this period exceed seventy hours. The timers will be automatically reset when the appropriate breaks have been taken, ie the meter switched to the "off" mode for the required period (30 minutes/ten hours/24 hours). "Hours worked" timers accumulate whenever the meter is "For Hire" and "Hired".

Meter Lock controlled by Daily-Working-Hours Timer.

Working hours timers are a configurable options. It is also possible to use the *thirteen-hour* timer to control the meter's shift. This simply means that the meter will be shut down thirteen hours after the last ten-hour break was taken. The meter will remain locked in the 'Off' mode for a *ten hour period*. Thus limiting driver's daily working hours to thirteen hours.

Notes:

- 1) These functions have limited effectiveness on double-shifted cars.
- 2) Timers and Daily-Control are not dependent on network connection.

Printed Receipt Changes

The receipt now includes the Taxi's *Vehicle Registration Number*. This is now a requirement of LTSA.

Where the meter is fitted with a swipe reader, and a payment card is used for the transaction; the card's expiry date is printed on the receipt, and the second copy of the receipt is printed "Customer Copy" across "signature" space.

The "job number" is also included for easy referencing to the data transferred via the network.

Costs of the SMS Network

Commercial rates of \$0.01c or less, per SMS text message are now quite common.. One network provider is offering an unlimited number of texts for \$6 per month as an add-on to their prepaid system. That's a total of around \$10 per month, for a full two-way unlimited bi-directional network. No doubt other phone companies offer similar rates.

Upgrades to release version 1108

All Novax Ledas can be upgraded to provide the above features. The cost could depend on the age of the meter, but will be typically around \$50 plus GST.

Receipt printers, Printer/ Swipe Readers, GSM/GPRS modems are all available for the Novax Leda, and of course for the Novax 2020 which also takes a GPS sensor, and provides dispatch messaging functions.

Support software for the Taxi Office network node is also available at a variety of levels; Vehicle logging, "Fare-back" and payment card batching, Taxi tracking and dispatch.



Meter "For Hire", showing working-hours limit has been exceeded, and is thus displayed.