




## Digital Tachograph SE5000

STONERIDGE – SETTING THE STANDARD



Company Supplement 



## **Thank you for choosing Stoneridge Digital Tachograph SE5000.**

This supplement describes the company mode of the Stoneridge Digital Tachograph SE5000, rev. 6.0, and is directed to hauliers and vehicle owners. It must be read in conjunction with the User Manual.

We recommend that you familiarise yourself with how to operate your digital tachograph before start using it.

Stoneridge Electronics reserves the right to introduce changes in design, equipment and technical features at any time. You cannot, therefore, base any claims on the data, illustrations or descriptions in these operating instructions.

Your local Stoneridge representative will be happy to assist if you should have any further questions.

If you sell the vehicle you should pass this manual on to the new owner, as the tachograph is seen as a part of the vehicle.

The technical documentation team at Stoneridge Electronics wishes you pleasant and safe motoring.

## Symbols



Warning



Important information



Tip



Action required



Sequence of actions  
(several ►)



page Page reference

**Display** Messages in the display

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You are welcome to forward any queries or suggestions you may have about the tachograph and the operating instructions to any of our sales offices, as listed below.

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Further information about  
Stoneridge Digital Tachograph SE5000  
and about Stoneridge Electronics Ltd  
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[www.stoneridgeelectronics.info](http://www.stoneridgeelectronics.info)

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**i** Please refer also to the index (▷ page 59)

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## Operating safety

### Risk of accident



Do not operate the tachograph unless the vehicle is stationary. Your attention would otherwise be diverted from the road and traffic conditions and you could therefore cause an accident.

Bear in mind that, at a speed of only 50 km/h, your vehicle is covering a distance of nearly 14 m per second.

### Repairs and modifications

The tachograph has been installed by authorised personnel.

A tachograph case must never be opened. No tampering with or modifications to the equipment or the motion sensor are permitted.

Have the tachograph checked by a digital tachograph workshop if the outside is visibly damaged.



Persons that modify this equipment may be committing a punishable offence, depending on the legislation in the country concerned.



**Requirements and recommendations**

**Tachograph in company mode**

**Care for equipment**

### Requirements and recommendations

#### Owner's responsibility

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It is the hauliers and vehicle owners responsibility to ensure that their vehicles are fitted with tachograph systems according to EU tachograph regulations 3820/85 and 561/2006, and national regulations in respective country.

#### Requirements

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The following actions are required of hauliers and vehicle owners:

- downloading data
- inspections
- storing of data

#### Downloading data

Hauliers and vehicle owners are required to download company specific data from the tachograph and driver card with enough regularity that no data risk getting overwritten.

The intervals of:

- three months for the tachograph
- three weeks for the driver card

are recommended.

#### Inspections

Hauliers and vehicle owners are responsible for:

- company inspections - regularly performed on the vehicles tachograph systems
- workshop periodic inspection - the vehicle's tachograph system must regularly go through an inspection at a digital tachograph workshop

## Requirements and recommendations

### Storing of data

Hauliers and vehicle owners are required to:

- store all downloaded data, with digital signatures, in a secure suitable way for archiving, to guard against equipment failure or data corruption in the main primary data store. Please consult your country's authority for minimum storage period
- store all downloaded data in a secure way to prevent unauthorised access, please consult your country's authority for minimum storage period
- securely store any undownloadability certificates. Please consult your country's authority for minimum storage period
- store test certificate after workshop periodic inspections in a secure location. Please consult your country's authority for minimum storage period

### Records

Hauliers and vehicle owners are required to:

- keep a record of all tachograph data downloads
- keep downloaded records, any undownloadability certificates and workshop periodic inspection certificates available during any enforcement authority investigation or audit

### Requirements and recommendations

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#### Recommendations

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The following actions are recommended to hauliers and vehicle owners:

- lock data
- certificates

#### Lock data

Hauliers and vehicle owners are recommended to perform:

- lock-in of the data in the tachograph before a driver use the vehicle
- lock-out of the data in the tachograph before transferring the vehicle to another company

#### Certificates

Hauliers and vehicle owners are recommended to:

- keep a register of undownloadability certificates issued from a digital tachograph workshop
- ensure that the information in the tachograph test certificate received after a workshop periodic inspection is accurate

## Tachograph in company mode

### Company functions

With a valid company card inserted you can carry out the following functions:

- Lock-in data
- Download data
- Lock-out data

### Lock-in data

You must perform a lock-in before start using the tachograph, in order to prevent unauthorized persons from accessing your tachograph data.

Only the data recorded after performing a lock-in will be locked and can therefore be downloaded or viewed only by the data owner. Data recorded before a lock-in is accessible to all future users.

(▷ Lock-in data, page 24)

### Download data

You must download tachograph data regularly so no data risk getting overwritten.

You can download data as many times as you wish before performing a lock-out. You can only view or download data that is unlocked or has been locked-in by you.

(▷ Download data, page 26)

### Lock-out data

You must perform a lock-out before you transfer the tachograph to another user (can be when you sell or stop leasing the vehicle), or you risk getting the next users data recorded as yours. If you forget to perform a lock-out, you will not be locked-out until the next user perform a lock-in.

(▷ Lock-out data, page 30)

A description of the data stored during company lock activity is described in the appendix.

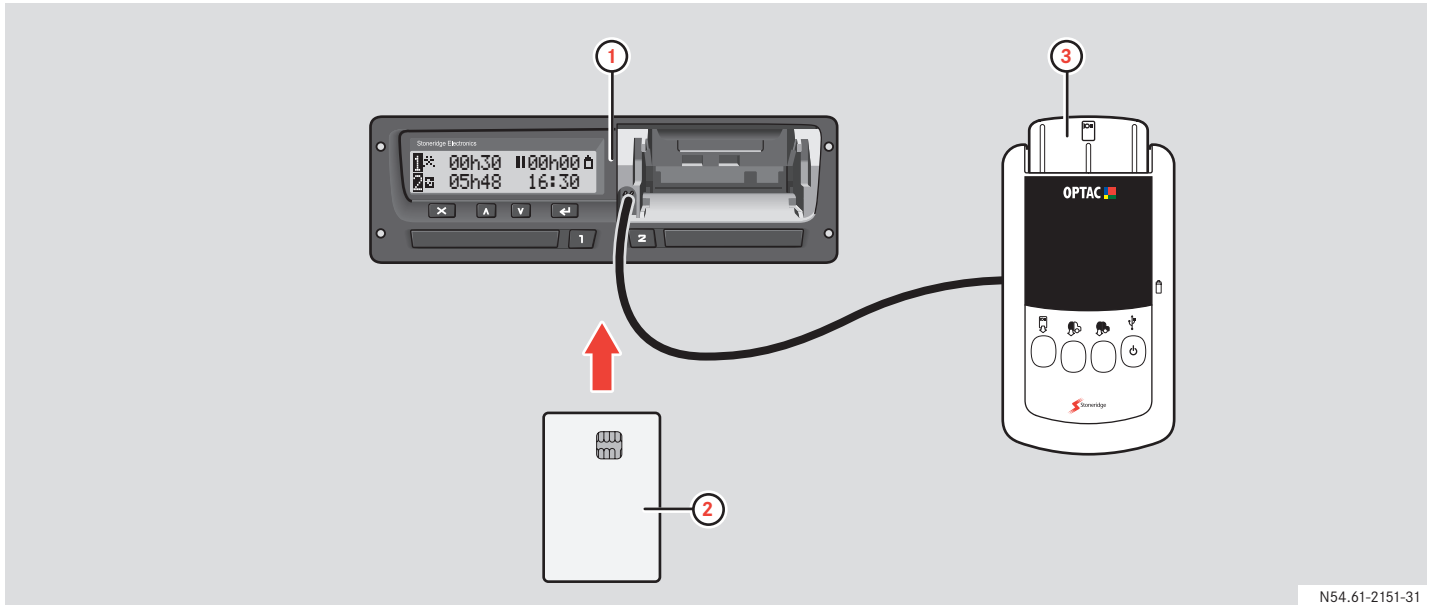
(▷ Record of activity, page 44).

### Equipment required

The equipment required for company mode is:

- tachograph
- company card
- downloading equipment (OPTAC recommended)

Tachograph in company mode



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## Tachograph in company mode

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### Tachograph in company mode

#### Tachograph

---

The tachograph records and stores data that can be shown on the tachograph's display and printed out on paper using the integrated printer.

Vehicle information that can be shown are:

- RPM
- Vehicle speed
- D1/D2

For more information contact your digital tachograph workshop or see the appendix.

(▷ Data stored in tachograph, page 46)

Detailed information on tachograph technical data is found in the Digital Tachograph SE5000 User Manual.

#### UTC time and local time

The data stored and the time displayed in the tachograph is always in UTC (Universal Time Coordinated) time.

UTC time is more or less corresponding to Greenwich Mean Time (GMT). The UTC time is not adjusted for summer/winter time.

Local time is only shown as information:

- On the driver standard display
- At manual entries of activities
- In a few printouts

Local time is the time in the country in which you and the vehicle are currently present. Local time is set manually.

#### Driver card

The driver card uniquely identifies the driver and stores various data under the driver's name.

(▷ Data stored on driver card, page 45)



The driver card can store data typically for up to 28 days. After this time, the oldest data is overwritten when new data is stored.



Drivers are responsible for ensuring that they obey driving laws in respective country.

## Tachograph in company mode

### Company card

---

With a valid company card inserted you can carry out the following functions:

- Lock-in data
- Download data
- Lock-out data

### Download equipment

---

Downloading is the copying, together with a security digital signature, of a part or a complete set of data stored in a tachograph or on a driver card.

All companies are required to download data themselves or have data downloaded for them.

Downloading of stored data from the tachograph memory or an inserted driver card is done by attaching a download equipment to the tachograph. For best result Stoneridge Electronics recommends OPTAC. However, other download equipment compliant with the protocol as laid out in the legislative document 1360/2002 Annex 7 can also be used.

For more information on data download, see the dedicated download device.

#### Care for company card

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Care for company card:

- Do not flex or bend
- Ensure that the card contacts are kept free from dirt
- Clean with a soft damp cloth if necessary
- Protect from theft, loss and damage

#### Driver or company card damaged, lost or stolen

If the driver or company card is damaged, lost or stolen the owner has to request to the responsible authority, in the country where the card was issued, for:

- A temporary permit to drive without a driver card - only for driver card
- A replacement card

(▷ Responsible authorities, page 48)

If a driver or company card is stolen or if the owner suspects that an unauthorized person has access to it, the owner has to report the incident to the police in the area and obtain a police report number.



If a company card falls into unauthorised hands, viewing and downloading of company locked data in any of a company's tachographs would be possible.

#### Temporary driving without driver card

If a driver has damaged or lost the driver card, it can be necessary to legally drive without a driver card.

That is done by, after reporting it to the responsible authority, printing out the "Daily activities from the tachograph" (**Print 24h UU**) at the beginning and end of the working day.



A driver without a valid driver card, or a temporary permit, is not permitted to drive a vehicle equipped with a digital tachograph. Doing so would contravene with EU tachograph regulations 3820/85 and 561/2006.

Please consult your country's authority for national regulations.

## Care for equipment

### Care for tachograph

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Care for tachograph:

- Do not place objects on the trays when they are open, otherwise the trays could be damaged
- The ingress of dirt can lead to premature failure of the tachograph.

Keep the trays closed at all times and only open them to insert or withdraw the cards

- Clean a dirty tachograph with a damp, soft cloth

### Avoid high voltage

Interrupt the power supply to the tachograph if:

- Electrical welding operations are to be carried out on the vehicle
- You expect that the vehicle will require several jump-starting attempts



High voltage may lead to permanent tachograph damage and to failure of the tachograph's electronic components. Damage to the tachograph caused in this way invalidates the warranty.



**Obtain company card**

**Use of company card**

**Lock-in data**

**Download data**

**Lock-out data**

**Tachograph inspection**

### Obtain company card

Company cards are issued by the responsible authorities in respective EU, EEA and AETR country.

(▷ Responsible authorities, page 48)

A company can have several company cards, and each and one is valid for a period of 5 (five) years.



EU - European Union

EEA - European Economical Area

AETR - United Nation's agreement on International Road Transport



It is very important to take care of company cards.

If a company card falls into unauthorised hands, viewing and downloading of company locked data in any of a company's tachographs would be possible.




## Use of company card

### Insert and withdraw

To insert and withdraw a card, see the Digital Tachograph SE5000 User Manual.

### Initial displays

For initial displays, see the Digital Tachograph SE5000 User Manual.

When the tachograph is in company mode you will see the standard display with the  pictogram (company mode identifier) on the top right side of the display.



```

i * 00h30      1100h00  i
g □ 05h48      16:30
  
```

### Settings and printouts

For settings and printouts, see the Digital Tachograph SE5000 User Manual.

### Lock-in data





#### Lock-in data overview

---

You must perform a lock-in before start using the tachograph, in order to prevent unauthorized persons from accessing your tachograph data.

Only the data recorded after performing a lock-in will be locked and can therefore be downloaded or viewed only by the data owner. Data recorded before a lock-in is accessible to all future users.

#### How to know when you are locked-in/locked-out

- ▶ Insert a company card in either tachograph tray.
- ▶ Press the  (enter) button to enter the tachograph menu.
- ▶ Press the  (up) or  (down) buttons, and when the company lock option is highlighted, press the  (enter) button.

If the following display shows you are locked-out.

```
Company lock  
Lock-in?
```

If the following display shows, you are locked-in.

```
Company lock  
Lock-out?
```

#### Another company still locked-in

If you perform a lock-in and there is another company still locked-in, the tachograph will automatically perform a lock-out of the previous company. No data will be lost for any company.

## Lock-in data

### Perform lock-in

To perform lock-in of tachograph data a valid company card must be used.



If company cards are inserted in both trays, the card in the co-driver tray will be ignored.



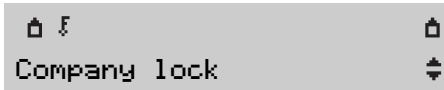
Press the (cancel) button to abort and return to the standard display.

- ▶ Insert a company card in either tachograph tray.

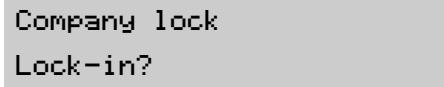
For initial displays, see the Digital Tachograph SE5000 User Manual.

The tachograph automatically enters the company mode of operation.

- ▶ Press the (enter) button to enter the tachograph menu.
- ▶ Press the (up) or (down) buttons, and when the company lock option is highlighted, press the (enter) button.



- ▶ Press the (enter) button in order to perform lock-in.



Lock-in is only possible if the present company is not already locked-in.



If the last lock-out was made by the present company, that lock-out will be cancelled and the present company lock-in will be extended to the date and time for the previous lock-in.



The tachograph is able to handle a maximum of 20 company locks. After that the oldest company lock will be removed, and that data will only be accessible in the calibration or control modes of operation, using a workshop or control card.

#### Download data overview

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Downloading is the copying, together with a periodic digital signature, of a part or a complete set of data stored in a tachograph or on a driver card.

Regular downloading of data ensures that the company has a continuous record of driver and vehicle activity. The record has to be available to enforcement authorities.

You can download data as many times as you wish before performing a lock-out. You can only view or download data that is unlocked or has been locked-in by you.

(▷ Lock-in data overview, page 24)



If a driver card is inserted in the driver card tray you can insert the company card in the co-driver card tray and perform a download.

#### Intervals for download

Hauliers and vehicle owners are required to download company specific data from the tachograph and driver card with enough regularity that no data risk getting overwritten.

The intervals of:

- three months for the tachograph
- three weeks for the driver card

are recommended.

#### Driver card data

Data from a driver card does not have to be downloaded via the tachograph, it can be downloaded directly from the download equipment.

#### Download equipment

Downloading of stored data from the tachograph memory or an inserted driver card is done by attaching a download equipment. For best result Stoneridge Electronics recommends OPTAC. Other download equipment compliant with the protocol as laid out in the legislative document 1360/2002 Annex 7 can also be used.

More information on data download is attached to the dedicated download device.

## Download data

### Store of downloaded data

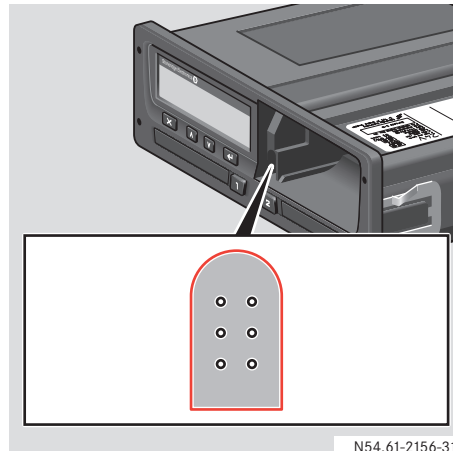
Please consult your country's authority for information on the minimum storage period.

All downloaded data must be stored:

- In a secure way to prevent unauthorised access
- With digital signatures to be able to be checked for validity later
- In a secure suitable way for archiving, to guard against equipment failure or data corruption in the main primary data store

### Download data

- ▶ Remove the printer cassette.  
For procedure, see the Digital Tachograph SE5000 User Manual.
- ▶ Attach the download equipment to the tachograph through the 6-way front download connector, located behind the paper cassette.



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- ▶ Start downloading data according to the instruction on the download equipment.

The following message will be displayed indicating that the tachograph downloading is active.

```
↓ ⌘ Downloading
busy
```

When downloading is completed, the following message will be displayed.

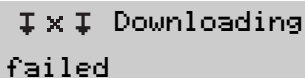
```
↓ ✓ ↓ Downloading
completed
```

### Download data

---

#### **Data download failure**

If the downloading process failed the tachograph's display will show the following warning.



↓ × ↓ Downloading  
failed

- ▶ Check the connections and the download equipment.

#### *Tachograph faulty*

If it is determined that the tachograph is faulty, the vehicle must be taken to a digital tachograph workshop for investigation.

#### *Company card faulty*

If a company card is faulty a replacement card must be used.

(▷ Driver or company card damaged, lost or stolen, page 18)

## Download data

### Workshop return of downloaded data

If a digital tachograph workshop decommissions a faulty tachograph it must download the data stored by the latest owner in the tachograph and return the data to the owner.



The workshop is not to pass on a company's downloaded data to a third party, without having a written permit from the company.

### Certificate of undownloadability

If it is not possible to download data from a faulty tachograph the workshop will issue a certificate of undownloadability.

Such certificate received by a company must be securely stored. Please consult your country's authority for minimum storage period. The certificate must be available to the enforcement authorities during any investigation or audit.

It is good practice to keep a register of undownloadability certificates issued from a digital tachograph workshop.



If a workshop receives a written request from an enforcement authority, a copy of stored downloaded data might be given to the authority for the purpose of investigation without the permission of the data owner.

### Control enforcement download

With a valid control card enforcement authorities can download data for investigation purposes.

### Lock-out data

#### Lock-out data overview

You must perform a lock-out before you transfer the tachograph to another user (can be when you sell or stop leasing the vehicle), or you risk getting the next users data recorded as yours. If you forget to perform a lock-out, you will not be locked-out until the next user perform a lock-in.

A description of the data stored during company lock activity is described in the appendix  
(▷ Record of activity, page 44).

#### Perform lock-out

To perform lock-out of tachograph data a valid company card must be used.



If company cards are inserted in both trays, the card in the co-driver card tray will be ignored.



Press the (cancel) button to abort and return to the standard display.

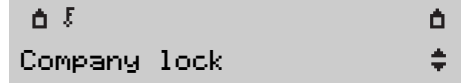
- ▶ Insert a company card in either tachograph tray.

For initial displays, see the Digital Tachograph SE5000 User Manual.

The tachograph automatically enters the company mode of operation.

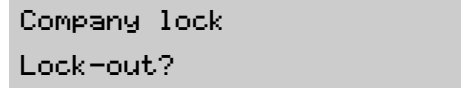
- ▶ Press the (enter) button to enter the main menu.

- ▶ Press the (up) or (down) buttons, and when the company lock option is highlighted, press the (enter) button.



Lock-out is only possible if the present company is locked-in.

- ▶ Press the (enter) button in order to perform lock-out.





## Tachograph inspection

### Company inspection

You as haulier or vehicle owner are responsible for regularly carrying out company inspections on the vehicles tachograph systems, to ensure that they adhere to the EU, EEA and AETR tachograph regulations.

The company inspection shall ensure that:

- the type approval mark is satisfactory
- the UTC time is accurate by less than 20 (twenty) minutes
- the tachograph is within the correct calibration interval
- the installation plaque is time valid and not broken  
(▷ Test certificate and installation plaque, page 33)
- the tamper label is not torn apart

The company inspection should also ensure that:

- the stored calibration factors agree with what is recorded on the installation plaque
- the tachograph's internally stored vehicle parameters (Vehicle Identification Number [VIN] and Vehicle Registration Number [VRN]) agree with the actual vehicle data
- the tachograph has no visible damages

### Tachograph inspection

#### Company inspection faulty

If there is discrepancies in any of the items included in a company inspection, or if there is any doubt regarding the company inspection the vehicle must be taken to a digital tachograph workshop for inspection. If not it will result in that the company is breaking EU, EEA and AETR tachograph regulations and the vehicle, in which the tachograph is fitted, will be invalid for use. Please consult your country's authority for national regulations.

#### Workshop periodic inspection

You as a haulier or vehicle owner are responsible for ensuring that the vehicle has its tachograph system regularly inspected at a digital tachograph workshop. A workshop periodic inspection must be done:

- After any repair
- If the motion sensor seal is broken
- After any alteration to either the vehicle characteristic coefficient (W-factor) or the effective circumference of the drive wheels (L-factor)
- If the tachograph UTC time is inaccurate by more than 20 minutes
- If the vehicle registration number (VRN) has changed
- When it has been 2 (two) years since the last workshop periodic inspection



If a tachograph fails a workshop periodic inspection, the unit will be decommissioned and replaced by another unit.

## Tachograph inspection

### Test certificate and installation plaque

After each workshop periodic inspection a tachograph test certificate is issued to the owner of the tachograph, and an installation plaque is placed in the driver cabin.

#### *Test certificate*

The owner should ensure that the following information is included in the certificate:

- Owner of the tachograph
- Tachograph's brand, model and serial number
- VIN and VRN
- Result of the inspection
- Date of the certificate issue

A company must store test certificate after workshop periodic inspections in a secure location. Please consult your country's authority for minimum storage period.

The certificate must be available to enforcement authorities during that time.

#### *Installation plaque*

The installation plaque, fixed near the tachograph, states the date for passed workshop periodic inspection.



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### List of symbols

The symbols shown on the display and in the printouts represent persons, activities or processes of the tachograph.

The symbols may also appear in combination.

(▷ Symbol combinations, page 38).

Symbol	Description
1, 1	Driver
2, 2	Co-driver
	Driver card
	Eject
	Work
	Driving
	Rest
	Available

Symbol	Description
	Ferry / train journey
OUT	“Out of scope”, i.e. no recording is required
01M, 02M,...	Manually entered activity
	Location
	Start of work
	End of work
	Break
	From or to
	Printout
	Paper
	Display
	Processing, please wait

Symbol	Description
	Time
UTC	UTC time
LOC	Local time in printout
LT	Local time
24h	Daily
	Weekly
	Two weeks
	Cumulative.../summary
	Speed
	Message, warning or malfunction
!	Message, warning or malfunction
?	Question/unknown

## Symbols

Symbol	Description
T	Workshop/test centre
♁	Company
♁	Enforcement authority
♁	Manufacturer
∠	Housing open
🔒	Security
⇩	External storage
🔒	Lock
♁	Tachograph (VU)
⊕	Tyre size
∩	Sensor
⊕	Power supply

## Symbols

### Symbol combinations

The symbol combinations shown on the display and the printouts represent persons, activities or processes of the tachograph.

Combination	Description
⏮ ? ⏭	Same working day?
⏭ ?	End of work of last working day?
⬇ ⏭ ?	Enter country in which work started
⬇ ⏭	Country in which work started
⏭ ⬇ ?	Enter country in which work ended
⏭ ⬇	Country in which work ended

Combination	Description
⌚ +	Start time (UTC time)
⌚ ⬇	Start time (local time)
+ ⌚	End time (UTC time)
⬇ ⌚	End time (local time)
⌚	Driving time for one week
⌚	Driving time for two weeks
OUT +	Start of “Out of scope”
+ OUT	End of “Out of scope”

Combination	Description
⬇ ⌚	Low temperature
⬆ ⌚	High temperature
🚫 --	No card
⌚ 🚫	Driver card
🔧 🚫	Workshop card
🏢 🚫	Company card
📄 🚫	Control card
📄 ⬇	Control location
📄 +	Data from the tachograph



**Maintenance and care**

### Maintenance and care

#### Replacement parts

Contact your local representative if you are in need of replacement parts.

Replacement part	Part No.
Paper roll - 3 pack	6800-032
Paper roll - 8 pack	6800-002
Paper cassette	6800-001



Store the printer paper in a cool, dry and dark location.

#### Care for company card

Care for company card:

- Do not flex or bend
- Ensure that the card contacts are kept free from dirt
- Clean with a soft damp cloth if necessary
- Protect from theft, loss and damage



If a company card falls into unauthorised hands, viewing and downloading of company locked data in any of a company's tachographs would be possible.

#### Driver or company card damaged, lost or stolen

If the driver or company card is damaged, lost or stolen the owner has to request to the responsible authority, in the country where the card was issued, for:

- A temporary permit to drive without a driver card - only for driver card
- A replacement card

(▷ Responsible authorities, page 48)

If a driver or company card is stolen or if the owner suspects that an unauthorized person has access to it, the owner has to report the incident to the police in the area and obtain a police report number.

## Maintenance and care

### Care for tachograph

---

Care for tachograph:

- Do not place objects on the trays when they are open, otherwise the trays could be damaged
- The ingress of dirt can lead to premature failure of the tachograph. Keep the trays closed at all times and only open them to insert or withdraw the cards
- Clean a dirty tachograph with a damp, soft cloth

### Avoid high voltage

Interrupt the power supply to the tachograph if:

- Electrical welding operations are to be carried out on the vehicle
- You expect that the vehicle will require several jump-starting attempts



High voltage may lead to permanent tachograph damage and to failure of the tachograph's electronic components. Damage to the tachograph caused in this way invalidates the warranty.



**Company functions data**

**Data stored on driver card and in tachograph**

**Responsible authorities**

**National importers**

### Company functions data

#### **Record of activity**

---

When a company card is inserted into a tachograph in order to perform a lock-in/-out or a download, a record of card activity is stored on the company card and in the tachograph.

#### **Company card stored data**

A single record of the company card activity, containing the following card and card holder information, will be stored on the company card:

- Card number
- Issuing country, issuing authority name and the issue date
- Card validity - start date and expiry date
- Company name and address

Each time a company card is used to carry out a company specific activity, such as locking or downloading, the following data is stored on the company card:

- Date and time of the company activity
- Type of activity performed
- Period downloaded, if applicable
- VRN and country registration authority of the vehicle used for the activity
- Driver card number and card issuing country, in case of card download

#### **Tachograph stored company activity data**

Each time a company card is used to carry out a tachograph activity a record is stored in the tachograph.

The data stored when performing a lock-in/-out is:

- Lock-in date and time
- Lock-out date and time
- Company card number and card issuing member state
- Company name and address

The data stored when performing a download is:

- Date and time of the downloading
- Company card number
- Card issuing member state of the card used to perform the download

## Data stored on driver card and in tachograph

Various data is stored on driver card and in the tachograph respectively for each:

- Day
- Driver
- Vehicle
- Change of activity

### **Data stored on driver card**

---

Data is stored on the driver card when:

- A driver card is inserted or withdrawn from the tachograph
- The driver activity changes or is manually entered
- Warnings and malfunctions occurs
- Controls are performed by enforcement authorities

In case of two drivers, each driver's card data is stored only on respective card.

### **Insertion and withdrawal data**

Data is stored for each day and vehicle:

- Date and time for the first driver card insertion and last withdrawal
- Vehicle odometer value at first driver card insertion and last withdrawal
- The vehicle registration number and registering member state of the vehicle

### Data stored on driver card and in tachograph

---

#### Driver activity data

Data is stored for each day and change of driving activity:

- Date
- Number of card insertions per day
- The total distance travelled by the driver card holder
- The driving status at 00:00 hours or at card insertion, single driver or part of a crew
- A record of each driving activity change:
  - Driving status - single driver or co-driver
  - Card tray used in the tachograph
  - Card inserted or not inserted at the time of change of activity
  - Driver activity
  - Date and time of activity change

#### Other data

Other data stored on driver card:

- Warnings and malfunctions
- Controls performed by enforcement authorities

#### Data stored in tachograph

Data is stored in the tachograph when:

- A driver card is inserted or withdrawn
- The driver activity changes
- Events and malfunctions occurs
- Tampering with the tachograph

Vehicle speed is stored continuously.



## Data stored on driver card and in tachograph

### Insertion and withdrawal data

Data is stored for each driver card:

- Card holders surname and first name
- Driver card number, card issuing member state and the card expiry date
- Date and time at driver card insertion and withdrawal
- Vehicle odometer value at driver card insertion and withdrawal time
- The vehicle registration number and registering member state of the vehicle
- Card withdrawal time for the last vehicle in which the driver card was inserted
- In which tray is the driver card inserted
- Indication if manual entries of activities have been made
- Driver's tachograph language choice

### Driver activity data

Data is stored for each day and change of driving activity:

- Driving status - single or part of a crew
- Card tray used in the tachograph
- Card inserted or not inserted at the time of change of activity
- Driver activity
- Date and time of activity change

### Other data

Other data stored in the tachograph:

- Tachograph and driver card warnings and malfunctions
- Detailed vehicle speed
- Vehicle overspeeding for more than 1 minute
- Company and workshop events
- Tampering with the tachograph

## Responsible authorities

If a driver or company card is lost or damaged the owner has to request to the responsible authority, in the country where the card was issued, for:

- A temporary permit to drive without a driver card - only for driver card
- A replacement card

If the driver or company card is stolen the owner also has to report to the police in the area where theft occurred and obtain a police report number.

Country	Authority	Phone number	Address
Austria	ASFINAG	Phone: +43 (0)5 010815861 Fax: +43 (0)5 010815862	E-mail: <a href="mailto:office@asfinag.at">office@asfinag.at</a> Website: <a href="http://www.asfinag.at">http://www.asfinag.at</a> <a href="http://www.digitaltacho.at">http://www.digitaltacho.at</a>
Belgium	Instituut voor Wegtransport- Institut du Transport Routier (IWT-ITR)	Phone: +32 (0)2 2820960 Fax: +32 (0)2 2820969	E-mail: <a href="mailto:digitach@iwt-itr.be">digitach@iwt-itr.be</a> Website: <a href="http://www.digitach.be">http://www.digitach.be</a>
Cyprus	Ministry of Communications and Works	Phone: +357 (0)22 800301 Fax: +357 (0)22 348202	E-mail: <a href="mailto:mkyllis@ems.mcw.gov.cy">mkyllis@ems.mcw.gov.cy</a> Website: <a href="http://www.mcw.gov.cy">http://www.mcw.gov.cy</a>
Denmark	Danish Police, Traffic Department	Phone: +45 (0)33 148888 Fax: +45 (0)33 430166	E-mail: <a href="mailto:rpchi-tvs@politi.dk">rpchi-tvs@politi.dk</a> Website: <a href="http://www.politi.dk">http://www.politi.dk</a>
Estonia	Estonian Motor Vehicle Registration Centre (ARK)	Phone: +372 (0)6201200 Fax: +372 (0)6201201	E-mail: <a href="mailto:smkarhivv@ark.ee">smkarhivv@ark.ee</a> Website: <a href="http://www.ark.ee">http://www.ark.ee</a>
Finland	Vehicle Administration- Professional Transportation Unit	Phone: +358 (0)1007843 Fax: +358 (0)961853607	E-mail: <a href="mailto:ammattiliikenne@ake.fi">ammattiliikenne@ake.fi</a> Website: <a href="http://www.ake.fi">http://www.ake.fi</a>

## Responsible authorities

Country	Authority	Phone number	Address
France	ChronoServices	Phone: +33 (0)1 40583479 Fax: +33 (0)1 40583497	E-mail: <a href="mailto:contact@chronoservices.fr">contact@chronoservices.fr</a> Website: <a href="http://www.chronoservices.fr">http://www.chronoservices.fr</a>
Germany	Kraftfahrt-Bundesamt	Phone: +49 (0)4613161282 Fax: +49 (0)4613162941	E-mail: <a href="mailto:digital-tachograph@kba.de">digital-tachograph@kba.de</a> Website: <a href="http://www.kba.de/Stabstelle/ZentraleRegister/zkr/EG_0.htm">http://www.kba.de/Stabstelle/ZentraleRegister/zkr/EG_0.htm</a>
Hungary	General Inspectorate of Transport Közlekedési Fofelügyelet	Phone: +36 (0)6 1 477 1569 Fax: +36 (0)6 1 477 1562	E-mail: <a href="mailto:office@foigazgatosag.kff.hu">office@foigazgatosag.kff.hu</a> Website: <a href="http://www.kff.hu">http://www.kff.hu</a>
Iceland	Road Traffic Directorate	Phone: +354 (0)5802000 Fax: +354 (0)5802001	E-mail: <a href="mailto:us@us.is">us@us.is</a> Website: <a href="http://www.us.is">http://www.us.is</a>
Ireland	Ministry of Transport	Phone: + 353 (0)16040502 Fax: +353 (0)16040599	E-mail: <a href="mailto:info@transport.ie">info@transport.ie</a> Website: <a href="http://www.transport.ie">http://www.transport.ie</a>
Italy	Italian Union of the Chambres of Commerce/Aera Formalità per il Commercio Internazionale  alternatively InfoCamere Spa	Phone: +39 (0)64704235 Fax: +39 (0)64871995  Phone: +39 (0)498288353 Fax: +39 (0)498288406	E-mail: <a href="mailto:cronotachigrafo@unioncamere.it">cronotachigrafo@unioncamere.it</a> Website: <a href="http://www.unioncamere.it">http://www.unioncamere.it</a>  E-mail: <a href="mailto:cronotachigrafi@infocamere.it">cronotachigrafi@infocamere.it</a> Website: <a href="http://www.infocamere.it">http://www.infocamere.it</a>
Latvia	Ministry of Transport-Road Transport Administration	Phone: + 371 (0)7280485 Fax: + 371 (0)7821107	E-mail: <a href="mailto:atd@atd.lv">atd@atd.lv</a> Website: <a href="http://www.atd.lv">http://www.atd.lv</a>

## Responsible authorities

Country	Authority	Phone number	Address
Lichtenstein	Office of Customs Affairs	Phone: +423 (0)2366904 Fax: +423 (0)2366907	E-mail: <a href="mailto:azw@llv.li">azw@llv.li</a> Website: <a href="http://www.azw.llv.li">http://www.azw.llv.li</a>
Lithuania	State Road Transport Inspectorate under the Ministry of Transport and Communications of the Republic of Lithuania	Phone: +370 (0)52785602 Fax: +370 (0)52132270	E-mail: <a href="mailto:vkti@vkti.gov.lt">vkti@vkti.gov.lt</a> Website: <a href="http://www.vkti.gov.lt">http://www.vkti.gov.lt</a>
Luxembourg	Société Nationale de Contrôle Technique (SNCT)	Phone: +352 (0)357214710 Fax: +352 (0)357214210	E-mail: <a href="mailto:nplaques@snct.lu">nplaques@snct.lu</a> Website: <a href="http://www.snct.lu">http://www.snct.lu</a>
Malta	See France		
Netherlands	Inspectie Verkeer en Waterstaat/ Transport Inspectorate Netherlands	Phone: +31 (0)704563612 Fax: +31 (0)704562451	E-mail: <a href="mailto:informatiecentrum@ivw.nl">informatiecentrum@ivw.nl</a> Website: <a href="http://www.digitaletachograaf.nl">http://www.digitaletachograaf.nl</a>
Norway	Public Roads Administration	Phone: +47 (0)22073500 Fax: +47 (0)22073768	E-mail: <a href="mailto:firmapost@vegvesen.no">firmapost@vegvesen.no</a> Website: <a href="http://www.vegvesen.no">http://www.vegvesen.no</a>
Poland	Polish Security Printing Works/ Polska Wytwórnia Papierow Wartosciowych	Phone: +48 (0)22 3329262 Fax: +48 (0)22 3329199	E-mail: <a href="mailto:b.naumienko@pwp.pl">b.naumienko@pwp.pl</a> Website: <a href="http://www.pwpw.pl">http://www.pwpw.pl</a>
Slovakia	TEMPEST a.s.	Phone: +421 (0)2 50267111 Fax: +421 (0)2 502267100	E-mail: <a href="mailto:tempest@tempest.sk">tempest@tempest.sk</a> Website: <a href="http://www.tempest.sk">http://www.tempest.sk</a>

## Responsible authorities

Country	Authority	Phone number	Address
Slovenia	Prometni inšpektorat	Phone: +386 (0)1 4788000 Fax: +386 (0)1 4788139	E-mail: <a href="mailto:gp.mzp@gov.si">gp.mzp@gov.si</a> Website: <a href="http://www.gov.si/mpz">http://www.gov.si/mpz</a>
Spain	Ministerio de Fomento-Direccion General de Transportes por Carretera	Phone: +34 (0)915978189 Fax: +34 (0)915975188	E-mail: <a href="mailto:atencionciudadano@fomento.es">atencionciudadano@fomento.es</a> / <a href="mailto:portal@administracion.es">portal@administracion.es</a> Website: <a href="http://www.fomento.es">http://www.fomento.es</a>
Sweden	Vägverket Trafikregistret	Phone: +46 (0)771 119 119 Fax: +46 (0)19 26 26 12	E-mail: <a href="mailto:vagverket.ore@vv.se">vagverket.ore@vv.se</a> Website: <a href="http://www.vv.se">http://www.vv.se</a>
Switzerland	Federal Roads Authority	Phone: +41 (0)31 3229411 Fax: +41 (0)31 3232303	E-mail: <a href="mailto:info@astra.admin.ch">info@astra.admin.ch</a> Website: <a href="http://www.astra.admin.ch">http://www.astra.admin.ch</a>
United Kingdom	Driver and Vehicle Licensing Agencing (DVLA)	Phone: +44 (0)179 2484200 Fax: +44 (0)179 4484209	E-mail: <a href="mailto:drivers.dvla@gtnet.gov.uk">drivers.dvla@gtnet.gov.uk</a> Website: <a href="http://www.dvla.gov.uk">http://www.dvla.gov.uk</a>

## Appendix

### National importers

Below follows a list of national importers.

Contact your local representative for information, support or replacement parts.

Country	Importer	Phone number	Address
Austria	See Germany		
Belgium	See France		
Bosnia-Herzegovina	See Croatia		
Bulgaria	Globus Commerce Ltd	Phone: +359 (0)2 9745040 Fax: +359 (0)2 9559548	Tzar Boris 3 Str. 126, BG-1612 Sofia, Bulgaria E-mail: <a href="mailto:globus@globuscommerce.com">globus@globuscommerce.com</a> Website: <a href="http://www.globuscommerce.com">http://www.globuscommerce.com</a>
Croatia	Auto Konzalting d.o.o.	Phone: +385 (0)1 3077124 Fax: +385 (0)1 3077124	Hanamanova 26, HR-1000 Zagreb, Croatia E-mail: <a href="mailto:auto-konzalting@zg.htnet.hr">auto-konzalting@zg.htnet.hr</a>
Cyprus	K A Hiras Parts Ltd.	Phone: +357 (0)25 571230 Fax: +357 (0)25 571230	Soudas 16B, CY-3048 Limassol, Cyprus E-mail: <a href="mailto:k.a.hiras@cytanet.com.cy">k.a.hiras@cytanet.com.cy</a>
Czech Republic	HALE spol. s r o.	Phone: +420 (0)283870024 Fax: +420 (0)283870091	Dělnická 15, CZ-170 00 Praha 7, Czech Republic E-mail: <a href="mailto:halesro@hale.cz">halesro@hale.cz</a> Website: <a href="http://www.hale.cz">http://www.hale.cz</a>

## National importers

Country	Importer	Phone number	Address
Denmark	Aktieselskabet BG Service Center	Phone: +45 (0)87 418010 Fax: +45 (0)86174444	Grenåvej 148, DK-8240 Risskov, Denmark E-mail: info@bgteknik.dk Website: http://www.bgdk.com
Estonia	AS Lajos	Phone: +372 (0)3 221068 Fax: +372 (0)3 221193	Jaama 18, EE-44106 Kunda, Estonia E-mail: lajos@lajos.ee Website: http://www.lajos.ee
Finland	Piirla Oy	Phone: +358 (0)017 2931595 Fax: +358 (0)017 2831644	Hopekatu 4, FI-70150 Kuopio, Finland E-mail: piirla@piirla.fi Website: http://www.digipiirturi.fi
France	Stoneridge Electronics	Phone: +33 (0)5 59508040 Fax: +33 (0)5 59508041	Zone Industrielle de St Etienne - Chermin de Casenave FR-64100 Bayonne, France E-mail: france.amsales@elc.stoneridge.com Website: http://www.stoneridgeelectronics.info
Germany	IVEKA Automotive Technologies Schauz GmbH	Phone: +49 (0)7041 9696-0 Fax: +49 (0)70419695-55	Talweg 8, DE-75417 Mühlacker-Lomersheim, Germany E-mail: info@iveka.de Website: http://www.iveka.de
Greece	P. Theodosiou Ltd	Phone: +30 (0)210 3474500 Fax: +30 (0)210 3477315	115 Avenue Athinon, GR-104 47 Athens, Greece E-mail: info@theodosiou.gr Website: http://www.theodosiou.gr
Holland	See Netherlands		

## Appendix

### National importers

Country	Importer	Phone number	Address
Hungary	Szelpo Auto Control Systems Kft.	Phone: +36 (0)22 500 863 Fax: +36 (0)22 500 862	Havranek Jozsef Utca1/Budai ut 390/fszt 1, HU-8000 Szekesfehervar, Hungary  E-mail: szelpo@mail.datatrans.hu Website: <a href="http://www.szelpo.hu">http://www.szelpo.hu</a>
Iceland	Sportbud-Titan	Phone: +354 (0)354 551 6080 Fax: +354 (0)354 511 1653	Seijavegi 2 / P. O. Box 1180, IS-108 Reykavik, Iceland
Ireland	See United Kingdom		
Italy, Regions of Puglia, Basilicata and Molise	D.D.R.	Phone: +39 (0)805352863 Fax: +39 (0)805353590	S.S. 98km 79, 400, IT-70026 Modugno (Bari), Italy  E-mail: ddr.ddr@libero.it
Italy, Regions of Emilia Romagna, Veneto, Trentino e Friuli and Marche	S B R	Phone: - Fax: -	Via di Jola 5, IT-40141 Bologna, Italy
Italy, Region of Sardegna	Inter-Ricambi Srl	Phone: +39 (0)70541652 Fax: +39 (0)70541652	Viale Monastir 196, IT-09122 Cagliari, Italy  E-mail: <a href="mailto:interricambi@tiscalinet.it">interricambi@tiscalinet.it</a>



## National importers

Country	Importer	Phone number	Address
Italy, Regions of Toscana and Umbria	CFF	Phone: +39 (0)558825512 Fax: +39 (0)558825513	Via Vittorio Emanuele 8/d, IT-50041 Calenzano (Firenze), Italy E-mail: info@cff.191.it
Italy, Regions of Lombardia, Piemonte, Liguria and Valle d'Aosta	L T Instruments	Phone: +39 (0)226926196 Fax: +39 (0)226922334	Via Don Sturzo 10/12, IT-20090 Segrate (Milano), Italy E-mail: lt_instruments@virgilio.it Website: http://www.ltinstrumentsrl.it/prodotti.html
Italy, Region of Lazio e Abruzzo	Maurelli	Phone: +39 (0)812508134 Fax: +39 (0)812508174	Via San Salvatore 30, IT-80026 Casoria (Napoli), Italy E-mail: info@maurelli.it Website: http://www.maurelli.it
Italy, Regions of Campania, Cosenza and Vibo Valentia	T.S.A. Srl	Phone: +39 (0)812508838 Fax: +39 (0)815847859	Via G Bonito V Lotto III trav.N.7, IT-80026 Casoria (Napoli), Italy E-mail: tsaricambi@virgilio.it
Italy, Regions of Sicilia, Reggio Calabria and Catanzaro	SCAUT s.n.c.	Phone: +39 (0)916760381 Fax: +39 (0)916760382	Via L. da Vinci 276, IT-90135 Palermo, Italy E-mail: scautsnc@tiscalinet.it

## Appendix

### National importers

Country	Importer	Phone number	Address
Latvia	Nord Trans SIA ku	Phone: +371 (0)756 3753 Fax: +371 (0)9455860	Braslas iela 22, LV-1035 Riga, Latvia E-mail: ntrans@ilad.lv
Lithuania	Vectis UAB Uzdaroji Akcine Bendrovedlvr	Phone: +370 (0)(8-37) 408888 Fax: +370 (0)(8-37) 473141	Ateities pl 54, LT-3023 Kaunas, Lithuania E-mail: vectis@vectis.lt / kestutis@vectis.lt Website: <a href="http://www.vectis.lt">http://www.vectis.lt</a>
Luxembourg	See Germany		
Macedonia	See Croatia		
Malta	Pater Holding Company Ltd	Phone: +356 (0)483879 Fax: +356 (0)483884	Ucimco Buildings, Birkirkara Road, MT-Birkirkara, BKR14 Malta E-mail: cheryl.vella@pater.com.mt Website: <a href="http://www.ucim.com.mt">http://www.ucim.com.mt</a>
Montenegro	See Serbia		
Netherlands	C.A.S.U. Utrecht b. v.	Phone: +31 (0)30 288 4470 Fax: +31 (0)30 289 8792	Ravenswade 118 (Industrieterrein de Liesbosch) NL-3439 LD Nieuwegein, Netherlands E-mail: <a href="mailto:info@casuutrecht.nl">info@casuutrecht.nl</a> Website: <a href="http://www.casuutrecht.nl">http://www.casuutrecht.nl</a>
Norway	Instek A/S	Phone: +47 (0)628 16833 Fax: +47 (0)628 12250	Morveien 6, Boks 1227, NO-2201 Kongsvinger, Norway E-mail: <a href="mailto:instek@instek.no">instek@instek.no</a> Website: <a href="http://www.instek.no">http://www.instek.no</a>

## National importers

Country	Importer	Phone number	Address
Poland	Neris	Phone: +48 (0)22 66 222 99 Fax: +48 (0)22 66 222 99	Spisaka 90A, PL-02-495 Warszawa, Poland E-mail: neris@neris.pl Website: <a href="http://www.neris.pl/">http://www.neris.pl/</a>
Portugal	Lusilectra Lda	Phone: +351 (0)226 198 750 Fax: +351 (0)226 158 669	Rua Eng Ferreira Días 953 / 993, PL-4100 Porto, Portugal E-mail: lusilectra@lusilectra.pt Website: <a href="http://www.lusilectra.com">http://www.lusilectra.com</a>
Romania	S C Fornco Prodimpex SRL	Phone: +40 (0)10 265 318008 Fax: +40 744 396853	Str Ratul Mori Nr 1295 - Jud Mures Romania RO-4328 Sangeorgiu de Mures, Romania
Serbia	AMSS-CMV	Phone: +381 (0)11 2750971 Fax: +381 (0)11 2750722	Porecka 4, XS-11000 Belgrade, Serbia E-mail: panta@amss-cmv.co.yu Website: <a href="http://www.amss-cmv.co.yu">http://www.amss-cmv.co.yu</a>
Slovenia	See Croatia		
Spain	Stoneridge Electronics	Phone: +34 (0)1 662 3222 Fax: +34 (0)1 662 3226	Avda. Servero Ochoa 38 - Pol. Ind. Casa Blanca ES-28108 Alcobendas, Madrid, Spain E-mail: info@elc.stoneridge.com Website: <a href="http://www.stoneridgeelectronics.info">http://www.stoneridgeelectronics.info</a>
Sweden	Magnum Trade AB Industrielektronik	Phone: +46 (0)8 154400 Fax: +46 (0)8 154403	Frejgatan 4, SE114 20 Stockholm, Sweden E-mail: info@magnumtrade.se Website: <a href="http://www.magnumtrade.se">http://www.magnumtrade.se</a>

## Appendix

### National importers

Country	Importer	Phone number	Address
Switzerland	Auto Meter AG	Phone: +41 (0)41 349 4050 Fax: +41 (0)41 349 4060	Grabenhofstrasse 3, CH-6010 Kriens, Switzerland E-mail: <a href="mailto:info@autometer.ch">info@autometer.ch</a> Website: <a href="http://www.autometer.ch">http://www.autometer.ch</a>
United Kingdom	Stoneridge Electronics	Phone: +44 (0)871 700 7070 Fax: +44 (0)870 704 0002	Charles Bowman Avenue, Claverhouse Industrial Park, Dundee DDB 9UB, Scotland, UK E-mail: <a href="mailto:sales@elc.stoneridge.com">sales@elc.stoneridge.com</a> Website: <a href="http://www.stoneridgeelectronics.info">http://www.stoneridgeelectronics.info</a>
Yugoslavia	See Serbia		

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