

GENOS

Electronic Tachograph Unit User Manual

Model: DTk14 SG

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Standard: TSEK ÜBM - 03-BK-006
has EMC Certificate due to EU Directives EEC 72/245, EC 2004/104,
and EC 2006/96

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Dear Customer,

First of all, thank you for purchasing our tachograph unit, GENOS DTk 14 SG.

Please read carefully this Manual before starting to use your tachograph. We wish you and your beloved ones happy days without accidents.

Yours sincerely,

**Lika Teknoloji Biliřim Elektronik
Sanayi ve Ticaret A.ř.**

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A. MAINTENANCE, REPAIR AND USAGE RULES:

A tachograph unit is an electronic recorder, which must be installed onboard heavy vehicles and kept in operation in accordance with the Turkish Highway Traffic Law and Regulations. Please do not drive over your driving hours and do not exceed speed limits. Otherwise, the tachograph unit will record any excessive driving time and speed limit violations and you may become subject of legal actions to be taken by traffic officials as they will determine any such violations during traffic controls.

This tachograph unit will require no maintenance by end users. The only thing you will do will be to change paper of it. For changing of paper, please see item 25 of this User Manual.

Please use only our authorised services for mounting, repair, adjustment and calibration.

Please take care to protect your tachograph unit from any excessive shocks during use.

Any direct contact of your tachograph unit with water and other liquids may give damage to it.

B. REQUIREMENTS FOR HANDLING AND TRANSPORTATION OF TACHOGRAPH UNIT

The tachograph unit is shipped to the dealer, where you purchase it, as packaged to provide protection against any shipment damages. Please purchase your tachograph unit in its original package, checking it visually at our authorised dealer before mounting it, if possible. Where your tachograph unit comes onboard your vehicle as originally installed onboard it at factory, please make sure that it has not been damaged during transportation.

C. CAUTIONS AGAINST ANY HAZARDOUS OR HARMFUL SITUATIONS ON HUMAN OR THE ENVIRONMENTAL HEALTH DURING USE

GENOS DTk 14 SG does not cause any hazard on human or the environmental health during use. It is designed for use onboard the vehicle, as well as it operates at low voltage and meets the requirements of EMC Certificate in accordance with the EU Directives 72/245 EEC, 2004/104 EC and 2006/96.

D. INFORMATION ON MISUSE

Please do not forget to insert your driving licence into the smartcard slot when you use your GENOS DTk 14 SG tachograph unit (see Figures 2. b and c). If you drive under tachograph control but you do not insert your driving licence into the card reader, then the unit will perceive this as a violation since you appear to intentionally conceal your identification.

The tachograph unit perceives any intervention with the power cables as a misleading attempt and records it as a violation. Please note that you should always keep your tachograph unit energised, whether your vehicle is running or not.

Any intervention with your tachograph's sensors will constitute a crime under the Highway Traffic Law, as in any other kind of intervention. Therefore, never intervene with the unit in a manner that may result in misleading of it and never let such thing happen.

E. INFORMATION ON MAINTENANCE, REPAIR OR CLEANING OF UNIT BY USER

The operating conditions of the electronic tachograph unit are set by the law and thus your GENOS DTk 14 SG requires no maintenance by the user.

Please avoid using solvents for cleaning.

F. PERIODICAL MAINTENANCE

Your tachograph requires no periodic maintenance. In the event of any failure of it requiring repair work, please use only our authorised services.

G. USEFUL LIFE

This tachograph's useful life expires after 10 years.

H. IMPORTANT CAUTIONS

1. Please note that you should have a break for 45 minutes after an continuous 4.5 hour driving.
2. You may complete this 45 minute period with minimum 15 minute short breaks. Please note that breaks shorter than 15 minutes will not be regarded as a break, but these will be added to the continuous and total driving time.
3. Maximum 9 hours of driving is permitted.
4. Beware of the daily resting time rules. If there is more than one driver, then the daily resting time for each driver will lower down to 8 hours (for every 30 hours of driving).
5. Please note that you must have 1 full day rest in a week (or after 6 driving days).
6. GENOS DTk 14 SG has thermal printing papers. Therefore, you should keep spare paper roles and printouts away from direct sunlight and at a temperature less than 70 C°.

Otherwise, the printouts may fade out.

7. Avoid excessive speed.
8. Intercity speed limit is 80 km/h, whilst in-city speed limit is 50 km/h (see Table 1)

APPLICABLE SPEED LIMITS IN TURKEY			
VEHICLE TYPE	WITHIN SETTLEMENT AREA	OUT OF SETTLEMENT AREA	MOTORWAY
Car	50	90	120
Bus	50	80	100
Minibus, Truck and Pick-up	50	80	90
Land vehicles and motorcycles	50	70	80
Vehicles carrying hazardous cargo and vehicles entering traffic with Special Cargo Carrying Permit or Special Permit (unless the permit specifies otherwise)	30	50	60
Motorbikes and bicycles	30	50	-
Rubber-tyred tractors, Vehicles towing a broken-down vehicle and Machinery	20	20	-

Table 1

The above Table is quoted from article 100 of Repetitive Issue of Highway Traffic Regulation No. 23053 of 18/07/1997 as amended by the Regulation No. 25571 of 02/09/2004.

A speed tolerance of 10% is given to vehicles. The tachograph automatically adds this value.

FRONT VIEW

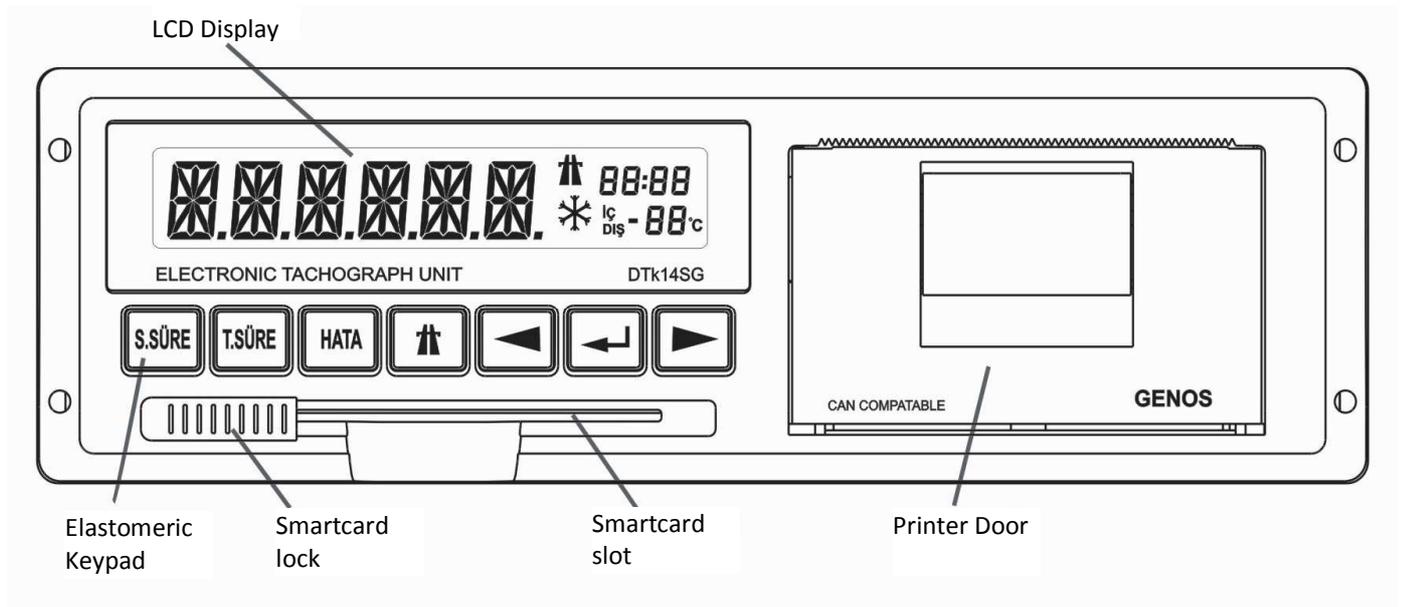


Figure 1

GENOS DTK 14 SG is an electronic tachograph unit, which records the vehicle's speed information as well as information on driving times and break times, together with drivers' identification.

The tachograph is designed to have a size of an automobile radio-tape to provide easy mounting onboard the vehicle. If necessary, this unit can be mounted on the dashboard (see article 31 of the Highway Traffic Law).

It is mandatory to carry a tachograph and keep it in operation on trucks, buses and trailers in accordance with the Highway Traffic Law.

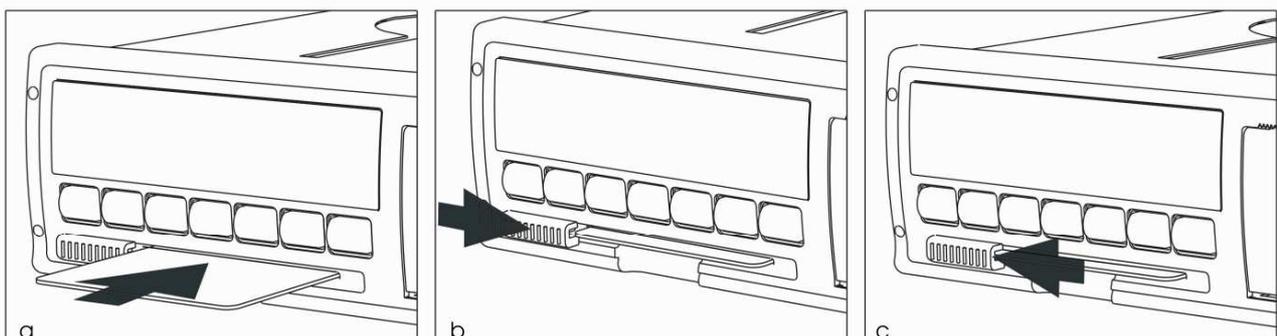
1 Electronic Driving Licence

This is a card, which stores in its memory the driver's identification and driving licence number information and contains an electronic unit where driving times are recorded. The specifications of the card are laid out in regulations.

In Turkey, Driving Licences are used as the driving card. An electronic module (chip) is inserted in driving licences. Drivers must keep their electronic driving licences inserted in the tachograph unit while driving.

2 Use of Driving Licence

Insert the driving licence (while chip on the upper side) into the smartcard slot at the bottom left of the tachograph before you start the vehicle. Pull the driving licence lock on the left of this slot toward right direction until you hear a click sound.



To take out the driving licence, pull the lock toward left direction this time until again you hear a click sound. Then, take the licence out of the slot (see Figures 2. b and c).

Figure 2

When the driving licence is inserted in the tachograph, the driver's name and family name will appear on the display as a text scrolling from right to left. When the vehicle is started, the name of driver will appear again on the display and the display moves to speed information status. After driving 50m, the new driver record will be opened, accompanied by a beep sound. Each driver record is summarised in 24-hour report, beginning with the name of driver and ending with the weekly driving time line. The driver recording process will automatically be terminated when the driving licence is removed, or before the expiration of the break time (45 minutes).

3 Driving without Driving Licence

If the driving licence is not inserted in the tachograph at the start of vehicle, then a warning message, "KIMLIK TAKIN" which means "insert driver card", will appear on the display, accompanied by a beep sound until a 400m drive is completed. If the driving licence is inserted and the driving licence lock is locked before driving this distance, no "driving without driving licence" violation will occur. Otherwise, a "driving without driving licence" violation will be recorded.

The driving licence lock should always be kept locked at its right position while driving and when the tachograph is in use. If it is unlocked, i.e. if the lock is pulled to left, while driving, this will be perceived as a violation by the tachograph. In such a case, it will generate a beep sound and following this record a Driving without Driving Licence violation.

4 Legal Speed Limit

When you exceed the legal speed limit by 10% (e.g. for buses, intercity speed limit is 80 km/h, whilst the warning limit is 88 km/h), the tachograph will begin generating beep sounds. If you drive in excess of speed limit for more than 15 seconds, the tachograph will record this as "Speed Limit Violation".

5 Interruption of Accumulator Feed

Drivers must always keep the tachograph in operation in accordance with the Highway Traffic Law. Where an interruption of accumulator feed connections of the tachograph occurs, this will be perceived by the tachograph as an attempt to deactivate it and record it as a violation. Your tachograph will report this for 24 hours following the moment of record, as in other violations.

It is recommended to carry the vehicle's maintenance and repair forms onboard the vehicle in order not to face a problem during controls because of mandatory interruption of feeds to tachograph.

6 Continuous Time

"Continuous (uninterrupted) driving time" is defined by the Highway Traffic Regulation. Regulations restrict continuous driving time with 4.5 hours. It is legally mandatory to have a break for minimum 45 minutes at the end of this period. The total break time can be completed by two or three portions of minimum 15 minute break during a 4.5 hour driving.

The tachograph will not regard the breaks shorter than 15 minutes as a break and consider the vehicle as being driven without any break. Therefore, you should note that breaks must be minimum 15 minutes long for uninterrupted driving time.

It will not necessary to remove the driving licence from the tachograph unit during the break time.

Below is a description of the minimum values of break times (see Table 2)

Break Options (samples)

	<i>1st Break</i>	<i>2nd Break</i>	<i>3rd Break</i>	<i>Total Break Time</i>
1	-	-	45	45
2	15	15	15	45
3	-	25	20	45
4	-	30	15	45

Table 2

When the total break time of minimum 45 minutes is reached, the tachograph display will reset uninterrupted driving time to zero. So, it is considered that the driver has had enough breaks.

If the uninterrupted driving time exceeds 4.30 hours, then the tachograph will generate a beep sound and record an "Continuous Driving Time Violation".

7 Total Driving Time

"Total (daily) Driving Time" means total time a driver can drive in last 24 hours. The total driving time limit is 9 hours in accordance with the Highway Traffic Regulation.

If the driving time is exceeded in 24 hours, the tachograph will record a "Total Driving Time Violation".

8 Daily Resting Time

8.1 Single Driver

"Daily Resting Time" means minimum time of rest a driver must have in 24 hours. Drivers must have an uninterrupted rest for minimum 11 hours every 24 hours.

This resting time can be used in portions: The daily resting time can be used in two or three portions each lasting minimum 8 uninterrupted hours. However, in this case, the total daily resting time must be minimum 12 hours. This is mandatory.

8.2 Multiple Drivers

If there is more than one driver, each driver must have a rest for minimum 8 uninterrupted hours every (last) 30 hours.

The tachograph will not consider a driving without driving licence as a driving under the command of the second driver, i.e. if in that day a driving under the command of one driver and with possibly no identification, the daily resting time calculation will be made according to single driver rules.

Based on the Highway Traffic Regulation: Onboard the vehicles with an accommodation facility, and onboard the vehicles specially fitted with an onboard resting space as well as with comfortable resting spaces where the driver can sleep, the daily resting time can be used when the vehicle is at a park, at a garage, or by parking the vehicle at a place out of the pavement on the highways out of settlement areas, taking appropriate precautions.

In the event of any violation of daily resting time, the tachograph will generate a beep sound and record this as a "Daily Resting Time Violation".

9 Number of Shortening Daily Resting Time

Drivers can shorten daily resting times to a certain extent. The 11 hour uninterrupted daily resting time can be shortened to minimum 9 uninterrupted hours, provided that this is done maximum 3 times a week.

That's to say, a driver can have an uninterrupted 9 hours of rest (between 9 hours and 10 hours and 59 minutes) 3 times a week. However, the driver must rest in the remaining days of the week as described in section: Daily Resting Time.

If there is more than one driver, there will be no need to shorten the daily resting time (this time, each driver should have a rest for 8 uninterrupted hours and this will be sufficient).

The tachograph will automatically record such shortening of time and rests.

Where daily resting time is shortened more than 3 times, the tachograph will record this as a "Daily Resting Time Violation".

10 Week Holiday

Drivers must use a one-day week holiday after 6 days of driving at most in a week. Week holiday will be minimum 24 hours, which period will be uninterrupted.

If the week holiday is not used (i.e. 7 days of driving), the tachograph will record this as "Week Holiday Violation".

11 Combined Week

In international passenger transportation other than scheduled passenger transportation, drivers can drive for 12 days without having their week holidays. This type of driving is defined as Combined Week Driving in the Highway Traffic Regulations.

If the driver does not use a week holiday after 6 days of driving (i.e. 7 days of driving), then the driver will be subject to the combined week scheme.

A driver must use a minimum 2 day week holiday (uninterrupted 48 hours) after 12 days of driving at most under the combined week scheme. The combined week will only be a case for international passenger transportation. Therefore, the driver must carry with him/her foreign country carrier permit.

12 Combined Week Holiday

Drivers must have a minimum 48 hour (2 days) week holiday after driving under the combined week scheme (between day 7 and day 12).

The tachograph will show a week holiday violation when the combined week scheme is used. However, if the driver has a foreign country carrier permit, the traffic officer will not take this violation into consideration. If driving more than 12 days (driving on day 13) is a case, i.e. if no combined week holiday is used, then the tachograph will show a combined week holiday violation together with the week holiday violation.

The driver can leave the combined week driving scheme only after 48 hours of rest.

13 Total Driving Time in a Combined Week

In a combined week, the total driving time is limited to 90 hours and if this is exceeded, the tachograph will record it as a violation. The driver must have a rest before the expiration of this 90 hour driving time. In 24 hour reports, weekly driving time from the week start time is printed.

14 Week Start Time

The first time the driver begins driving after the end of the week holiday is recorded as the week start time.

With the week start time, the driver's total weekly (combined) driving time and the number of shortening daily resting time are automatically reset to zero.

The driver must have a rest of 24 hours (without driving) after maximum 6 days of driving from the week start time. The week start time and the time elapsed from that time are printed on the 24-hour report.

Example: If we take the week start time as at 12.40 hours on 10 May 2008, the driver can drive, but not interruptedly, until 12.40 hours on 17 May 2008 (after 6 uninterrupted driving days). However, if the driver does not have a rest for 24 hours after that time, he/she will violate the week holiday rule and be subject to the combined week scheme.

15 Display

GENOS has an LCD display. The display can show all the letters of the alphabet and long messages that come with scrolling text containing 6 digits and 14 segments (see Figure 3).

This display with 14 segments and 6 digits offers more efficient use of tachograph which is capable of showing Turkish message texts which are readable and if necessary are longer than 6 digits.

The time information is always shown on the upper right of the display.

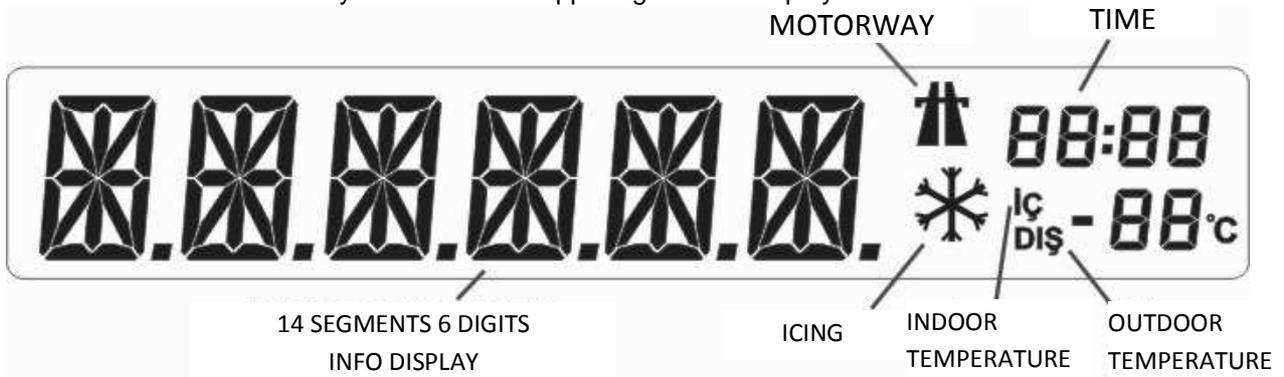


Figure 3

When the motorway function is activated, the LCD display will show a motorway symbol.

A snow crystal symbol appears when the outdoor temperature falls down to 3 C° level. This is accompanied by a beep sound, warning the driver about the likelihood of an iced road.

Your tachograph is capable of showing on its display both the outdoor and indoor temperatures with the help of additional sensors connected to it.

When these additional sensors are not connected to the tachograph, no temperature information is displayed.

CAUTION! Your tachograph comes with no temperature display feature.

16 Keypad

GENOS has 7 backlit elastomeric key, which are placed in sequence on the keypad.



Figure 4

Keys are placed under the display in the following sequence: “SSÜRE”, “TSÜRE”, “HATA”, “OTOBAN”, as well as ◀ (left arrow), “◀” (approve, select) and ▶ (right arrow) (see Figure 4).

FUNCTIONS OF KEYS

16.1 SSÜRE (Continuous Driving Time)



S.SÜRE is the short name of Continuous (uninterrupted) Driving Time. Pressing this key consecutively will display Continuous Driving Time, Last Break Time, Number of Shortening Daily Resting Time and (combined) Total Weekly Driving Time information.

16.1.1 Continuous Driving Time

Pressing the SSÜRE key first time will display a scrolling text reading “SUREKLI KULLANIM SURESI “ (means: continuous driving time). After this, the uninterrupted driving time of the last driver (or if a new driving licence is inserted, the last data of that licence) will be displayed.

Example:

SS. 4.26 (4 minutes left to reach legal uninterrupted driving limit. Driver must have a break)

SS. 4.42 (uninterrupted driving limit exceeded. Driver must complete the break time to 45 minutes)

SS 0.00 (reset either because of a break time of 45 minutes or over)

16.1.2 Last Break Time

Pressing the SSÜRE key second time will display the last break time, i.e. the time elapsed after the stop of vehicle.

If had a break, the driver should note that the last break time should read 15 minutes or over before he/she drives the vehicle again.

The break time of the last driver will continue counting even though the driver has removed his/her driving licence from the unit.

If a different driver has driven the vehicle before your drive, you should check the break time inserting your driving licence into the tachograph before hand over process is completed.

Examples:

“**ML. 0.15**” (the last break 15 minutes. Driver can drive again)

“**ML. 0.45**” (the last break 45 minutes. Driver can drive again)

“**ML. 0.12**” (15 minutes not completed yet. If the vehicle restarts, this break time will be added to the total and uninterrupted driving times of the driver)

“**ML. 1.23**” (break time 1 hour and 23 minutes. Driver can drive again)

“ML.24.00” (break time over 1 full day. Week holiday is completed)

The driver can check his/her week holiday, monitoring the break time. For this, driver can confirm that he/she has used week holiday of one full day when driver verifies that his/her last break time is 24 hours or over from the driving licence after inserting it into the tachograph (when the vehicle is not being driven). When the driver starts driving after this time, the tachograph will record the week holiday information and the new week start time.

16.1.3 Number of Shortening Daily Resting Time

Pressing the SSÜRE key third time will display the number of shortening daily resting time. This information is read from the driving licence already inserted in the tachograph unit (or belongs to the last driver if the driving licence has been removed). Examples:

9KS 0 (no shortening done from the week start)

9KS 3

9KS 4 (shortening done more than 3 times. Driver must have a week holiday)

16.1.4 Combined Week Driving Time

Pressing the SSÜRE key fourth time will display the combined week driving time. This information is read from the driving licence already inserted in the tachograph unit (or belongs to the last driver if the driving licence has been removed).

Examples:

HK. 1.46 (hour and 46 minutes driving time from the first start of the vehicle after the week holiday)

HK.89.04 (combined week driving time limit nearly reached. Driver must have a week holiday)

HK 92.38 (90-hour limit exceeded. Driver must have a week holiday)

16.2 TSÜRE (Total driving time)



T.SÜRE is the short name of Total Driving Time. Pressing this key consecutively will display Total Driving Time, Daily Resting Time, as well as the longest resting time used for daily resting time calculation.

16.2.1 Total Driving Time

Pressing the TSÜRE key first time will display a scrolling text reading “TOPLAM KULLANIM SURESİ” (total/daily driving time). After this, the total driving time within 24 hours of the last driver (or if a new driving licence is inserted, of the holder of that licence) will be displayed.

Example:

TS. 8.56 (4 minutes left to reach legal total driving limit)

TS. 9.02 (uninterrupted driving limit exceeded)

16.2.2 Daily Resting Time

Pressing the TSÜRE key second time will display the daily resting time. This information is read from the driving licence already inserted in the tachograph unit (or belongs to the last driver if the driving licence has been removed).

Examples:

GD.12.47

GD.07.48

GD.24.00 (had a minimum one full day rest)

The driver can check his/her week holiday, monitoring the daily resting time, as well. For this, driver can confirm that he/she has used week holiday of one full day when he/she verifies that his/her daily resting time is 24 hours or over (GD.24.00) from the driving licence after inserting it into the tachograph (when the vehicle is not being driven). When the driver starts driving after this time, the tachograph will record the week holiday information and the new week start time.

16.2.3 The longest uninterrupted resting time within the last 24 hours

Pressing the TSÜRE key third, fourth and fifth time will display D1, D2 and D3.

If only one driver has driven the vehicle within the last 30 hours, then the daily resting time will be calculated, as specified in item 8. If no rest is taken for minimum 11 uninterrupted hours, the total of minimum 3 portions of resting time, one of which must be minimum 8 hours, within the last 24 hours must be longer than 12 hours. Under this calculation, the longest 3 uninterrupted resting time portions can be monitored from the display in a descending order of D1, D2 and D3.

Example:

D1. 8.28

D2. 2.54

D3. 0.20

16.4 HATA (Violations)



Pressing the HATA key will display the violations during driving within the last 24 hours. The two digits reading 00 next to the abbreviated error information means zero error.

Pressing the HATA key consecutively will display the following violation information. If after the first time the key is not pressed again, the display will jump to the next information every 3 seconds.

Short name of violation: **Description of violation**

HH	:	Speed Limit Violation (speed over 88 km/h or motorway speed limit)
ID	:	Driving without Driving Licence Violation
SS	:	Uninterrupted Driving Time Violation
TS	:	Total Driving Time Violation
AC	:	Electric Power Interruption Violation
SD	:	Daily Resting Time Rule Violation
HT	:	Week Holiday Violation (including the Combined Week Holiday)
HS	:	Combined Week Driving Time Limit Exceeded

Örnek:

HH = 01 (one time speed violation)

SS = 00 (uninterrupted driving time not violated)

HT = 01 (week holiday not used)

The above violations can be seen in the Short Report.

17 MENU FUNCTIONS

The tachograph has a menu similar with that of a mobile phone. In the menu you can make selections to access the features you want. Menu keys are “▶”, “◀” and “↶”. You can scroll between menu options using arrow keys. When you press either right or left arrow, new menu options will be displayed.

You can select menu options in a circular way. It is possible to start on the circle from any direction and return to that direction using arrow keys. Using “↶” key, you can select a displayed function or a sub-menu.

Functions of the main menu are displayed in the following sequence: HIZ, SAAT, TARİH, TOPYOL (Total Driving), AYAR, RAPOR and HAFTA.

17.1 HIZ (SPEED)

When the driving licence is inserted in the tachograph and the vehicle is started, vehicle speed will automatically appear on the display.

However, to display speed information when in another mode, you should press either left or right arrow until HIZ is displayed. When HIZ is displayed, press “↶” key. The display will show the vehicle’s speed as km/h (see Figure 5).

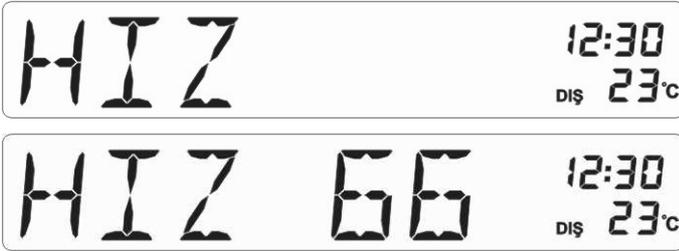


Figure 5

17.2 . TARİH (DATE)

Press either left or right arrow until TARİH is displayed. Then press “↶” key to display the date information (as DD/MM/YY) (see Figure 6).

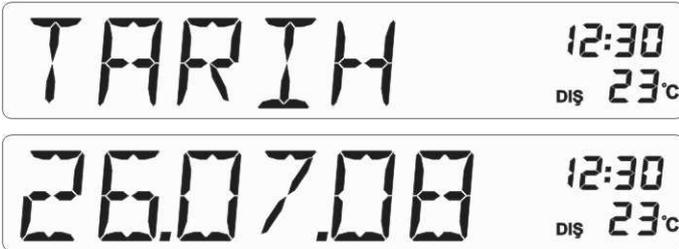


Figure 6

17.3 TOPLAM YOL (TOTAL DRIVE) (Odometer)

Scroll between main menu items using arrow keys until TOPLAM YOL is displayed. When the short name, TOP.YOL, is displayed, pressing “↶” key will display the odometer value with 100m accuracy.

The authorised service will store the total drive (odometer) value shown on the kilometer count of your vehicle in tachograph when mounting it onboard your vehicle. The total drive value will automatically be reset after 99999.9km (see Figure 7).



Figure 7

17.4 AYAR (ADJUST) (Put clock one minute forward/back)

In the "AYAR" menu, when you press "←" key, you'll enter the adjustment sub-menu. First, a scrolling text of "1 DAKIKA ILERI" (ONE MINUTE FORWARD) and afterwards the fixed text of "1 DAK +" (1 MIN +) will be displayed. When you press the right arrow second time, the scrolling text of "1 DAKIKA GERI" (ONE MINUTE BACK) (and the fixed text of "1 DAK -" (1 MIN -)) will be displayed. You can scroll between these two options using arrow keys.

In the "1 DAK +" sub-menu, when you press "←" key, the tachograph's clock will be put one minute forward following a "KAYDEDILDI" (SAVED) text. Similarly, in the "1 DAK -" sub-menu, the tachograph's clock can be put one minute back following the steps above. After the text KAYDEDILDI, the display will go back to upper menu.

These actions can be performed when the vehicle is not being driven at any time of the day, but once a day. No clock adjustment, i.e. putting the clock one minute forward/back, will be allowed from the moment of first adjustment unless 24 hour cycle expires and if in a single 24 hour cycle you press "←" key in the 1 DAK + or 1 DAK - sub-menu, the text of KAYDEDILDI will not be displayed. In this case, you should press either arrow after pressing SSÜRE or TSÜRE or HATA key to move to upper menu.

17.5 RAPOR (REPORT)

You can print 6 different reports showing driving and violation information within the last 24 hours using the thermal printer of GENOS.

When you press "←" key in the RAPOR menu using either arrow, the RAPOR sub-menu will be opened. In the RAPOR sub-menu, the long names of reports are scrolled on the display from right to left. When scrolling of report names stops, a 6-digit short name of the report will be displayed. In the RAPOR sub-menu, you can select the report you want in a circular manner using either arrow.



Figure 8

CAUTION! : To print any report, the vehicle must be stopped.

Report Names/Short Names

	<i>Report Type</i>	<i>Long Name</i>	<i>6-digit Short Name</i>
1	Short Report	"KISA RAPOR"	"K.RAPOR"
2	24-hour Report	"24 SAAT RAPORU"	"24.S.RAP"
3	Speed-Time Graph	"HIZ-ZAMAN GRAFIGI"	"GRAFIK"
4	Speed Restricted Graph	"HIZ SINIRLI GRAFIK"	"H.S.GRAF"
5	Distance Restricted Graph	"YOL SINIRLI GRAFIK"	"Y.S.GRAF"
6	Time Restricted Graph	"ZAMAN SINIRLI GRAFIK"	"Z.S.GRAF"

Table 3

Moving to the desired report name press "←" key to take a printout. The short report, 24-hour report and speed-time graph report will start immediately after pressing "←" key. You can find details of the remaining three reports in the respective sections.

You should press SSÜRE or TSÜRE or HATA and after that, either arrow to exit the RAPOR menu.

All reports print vehicle information (plate number, vehicle owner, vehicle make/model, traffic registration no), as well as the short code of the service that has installed the vehicle's calibration coefficient and information.

18 SHORT REPORT

The short report will list all the violations of rule occurred and the number of violations during driving within the last 24 hours. In addition, this report will print the driving times defined by the Law and the speed limit value, calibration coefficient and service information.



Figure 9

```
=====
25571 SAYILI
KAR.TRAFİK YÖN.
98.MAD. UYGUNDUR
=====
KATSAYI: 3600 M          ---> Vehicle (calibration) Constant
BAYI NO: GNS1           ---> Service/Dealer code
=====
-----GENOS-----
21/09/2008 14:57        ---> report print time
KISA HATA RAPORU
=====
PLAKA: 06 AB 234        ---> vehicle's plate number
ARAC SAHIBI:
TRANSPORT INC           ---> name of vehicle's owner (company or individual)
TRF. SNO: A-95362       ---> vehicle licence traffic serial no
ARACIN MARKASI:
DAF 3641 2006
=====
--- HATA YOK ---        ---> means no violation
SURUCU KAYDI YOK
=====
YASAL SINIRLAR:        ---> legal limits
```

```

HIZ SIN. 88 KM/S          ---> upper speed limit (110%)
OTOYOLSIN 99 KM/S       ---> upper speed limit (110%) for motorway
MOLA SURE.45 DAK        ---> minimum break time (45 min.)
SSÜRE 4 SAAT 30D        ---> continuous driving time limit (4h30m)
TSÜRE 9 SAAT            ---> total driving time limit (9 h)
== RAPOR SONU ==

BAYI NO: GNS1           -----> address and telephone
LİKA FAB ANKARA         -----  of the service/dealer, which made the calibration
TEL:0 3123977941

```

If a violation of rule has occurred within the last 24 hours, the report will only print the current violations in the violations list. Below is an example showing all possible violations.

```

=====
İHLALLER:
HIZ IHL. 02 KEZ
BESLEME 01 KEZ
EHL.SİZ 01 KEZ
SÜR.SÜRE 02 KEZ
TOP.SÜRE 01 KEZ
HAF.TATİL 01 KEZ
GÜN.DİNL. 01 KEZ
BH.K.SÜRE 01 KEZ
=====

```

The tachographs memory runs on circular cycle principle. Following recording, the tachograph will delete violation records beginning from those older than the last 24 hour and update violations and number of violations.

The number of speed violations is the total of speed limit violations by the drivers, who have driven the vehicle within the last 24 hours.

The total driving time, week holiday violation, daily resting time violation, etc. will be counted once for every driver.

Where there is more than one driver, e.g. two drivers, and where they exceed the total driving time, two printouts will be taken for the total time violation.

A driver may violate continuous driving time more than one time, however the tachograph will consider a continuous driving time violation only one violation until the break time of 45 minutes is completed.

19 24-HOUR REPORT

The 24-hour Report will print detailed records of the drivers, who have driven the vehicle within the last 24 hours, beginning from the report time to older records.

Where more than one driver has driven the vehicle within the last 30 hours, a list of the drivers, who have driven the vehicle between 24th hour and 30th hour, again beginning from the report time to older records will be added to the end of the report.



Figure 10

The 24-hour report will print each driver's record in different sections beginning with the driver's name

and ending with the weekly driving time line.

Example:

```
=====
25571 SAYILI
KAR.TRAFİK YÖN.
98.MAD. UYGUNDUR
=====
KATSAYI: 3600 M          ---> Vehicle (calibration) Constant
BAYI NO: GNS1           ---> Service/Dealer code
=====
-----GENOS-----
21/03/2008 14:57        ---> Report date/time
24 SAAT ÖZETİ
=====
PLAKA: 06 AB 234        ---> vehicle's plate number
ARAC SAHIBI:
TRANSPORT INC          ---> name of vehicle's owner (company or individual)
TRF.SNO: A-95362        ---> vehicle licence traffic serial no
ARACIN MARKASI:
DAF 3641 2006
=====
AKU KESILDI:
12/01/2008 12:11        ---> Accumulator interruption time within the first (24 hours)
AKU BAGLANDI:
12/01/2008 13:13
( 3 KEZ KESILDI)
=====
SURUCU:
AHMET KAHRAMAN
06-00012737708V1      ---> driving licence no.

INME ZAMANI:
12/01/2008 16:31        ---> end of driving (end of report)
BINME ZAMANI:
12/01/2008 16:19        ---> start of driving
AL.YOL: 0024.7KM        ---> drive distance

T.SURE: 09s12           ---> total driving time as to end of driving
TOP.SÜRE İHLALİ
S.SURE: 04s50           ---> last uninterrupted driving time
KULLANIM 01s00          ---> break time and driving time within the last uninterrupted
                        driving time

MOLA 00s16
KULLANIM 02s00
MOLA 00s22
KULLANIM 01s50
SÜR.SÜRE İHLALİ

88 KM/S İHLALİ          ---> speed violation (110% of legal limit of 80km/h exceeded)
002 KEZ 0004.9KM        ---> number of violations and drive distance at that speed
104 KM/S İHLALİ         ---> 130% of legal limit exceeded)
001 KEZ 0001.4KM        ---> number of violations and drive distance at that speed
GÜN.DİNL. İHLALİ        ---> daily resting time violaiton
GÜN.DİNL. 08S12         ---> total daily resting time as added value of three portions
                        < 12 hours
h (04:08)> 08s12         ---> 3 longest resting portions within the last 24 hours
h (12:56)> 01s22         ---> only printed in the event of resting violation.
h (14:20)> 02s00         ---> h: international symbol for rest
9 SAAT KIS. 00          ---> number of shortening daily resting time

HAFTA BAŞLANGICI
10/01/2008 12h00        ----> weekly driving hours start time
HU. 01 GUN 04s31        ----> time elapsed from week start to end of record
                        (as dd/hh/mm)
HAF.K.SÜR 18s12         ----> (combined) weekly driving time

-----
KIMLIKSIZ SURUCU       ----> driving without driving licence
```

```

INME ZAMANI:
12/01/2008 16:31          --> end of driving (record)
BINME ZAMANI:
12/01/2008 16:19          ---> start of driving (record)
AL.YOL: 0033.7KM          ---> drive distance

T.SÜRE: 02s12
S.SÜRE: 04s50
.....                    ---> the records of the other driver, if any, are printed
== END OF REPORT ==

```

20 SPEED-TIME GRAPH

Individual speed graphs will be printed for each driver's record within the last 24 hours (including driving without driving licence).



Figure 11

Real-time graphs beginning from that moment to older records will be printed. Graphs will print the legal speed limit line as well as time labels at the lower axis and half-hour scores and at the upper axis the scores at every 25, 50 and 100km for the drive distance and the drive value at every 100km.

21 SPEED RESTRICTED GRAPH

This report is the same with the previous graph, i.e. speed and time graph. The only difference is that you can check if any movement has occurred over a certain speed by just changing speed line value (e.g 50 km/h, which is the speed limit within settlement areas).



Figure 12

In the "H.S.GRAF" sub-menu, pressing "←" key will display the text "HIZ SINIRINI GIRIN" (ENTER SPEED LIMIT) first and after that, the text "HS=88". When you reach the desired speed value using arrow keys (left arrow will descend, while right arrow will increase), press "←" (SELECT) to take graph printout.

22 DRIVE (DISTANCE) RESTRICTED GRAPH

This graph will print graphic speed records of the driver's records between the two desired distance points backwards. Multiples of 100km will be entered.



Figure 13

In the "Y.S.GRAF" sub-menu, pressing "←" key will display the text "YOL BASLANGICI" (DRIVE START) first and in the "YB. 0" sub-menu, the first drive value will be queried. Using arrow keys, the desired value is reached (e.g. 200) and "←" will be pressed. In the "YOL SONU" (DRIVE END) and after that, "YS. 300" sub-menus, the second drive value will be queried. When you press "←" key after adjusting the second value, the report will be printed.

If there is no speed record between the desired drive values this will be shown on the report with a message reading "ISTENILEN ARALIKTA KAYIT YOK" (NO RECORD AVAILABLE IN THE DESIRED

RANGE).

23 TIME-RESTRICTED GRAPH

This graph will print graphic speed records of the driver's records between the two desired drives backwards within the last 24 hours. The values will be entered with minute accuracy. In the "Z.S.GRAF" sub-menu, pressing "←" key will display "BITIS ZAMANI" (END TIME) first and using "S. hhss", the first time value will be queried. The first value displayed is the time value of the tachograph at that moment.



Figure 14

Using arrow keys, the desired value is reached (e.g. **S. 18.12**) and "←" will be pressed. In the "BASLANGIC ZAMANI" (START TIME) after that, "**B. 17.12**" sub-menus, the time value will be queried. The last value will be 1 hour before the value entered as the end time. After adjusting the second value, pressing "←" key will print the report.

If there is no record between the desired time ranges this will be shown on the report with a message reading "ISTENILEN ARALIKTA KAYIT YOK".

24 MOTORWAY (AUTOBAHN) FUNCTION



24.1 ACCESS TO MOTORWAY MODE:

On GENOS DTK 14 SG, press "MOTORWAY" key to access the "MOTORWAY" mode. Pressing this key will display the text "OTOBANA GİR" (ENTER MOTORWAY MODE) and this will be fixed on the display with its short name, "OTO.GİR", as shown below.



Figure 15

Pressing "←" key after this will display the text "OTOBANA GİRİLDİ" (MOTORWAY MODE ACCESSED) and you will move to the "MOTORWAY" mode. In the "MOTORWAY" mode, the text "OTOBAN" will be displayed every 60 seconds.

24.2 EXIT FROM MOTORWAY MODE:

When you press the "MOTORWAY" key, a scrolling text "OTOBANDAN ÇIK" (EXIT FROM MOTORWAY MODE) will be displayed and the short name, "OTO.CIK", will be fixed on the display.

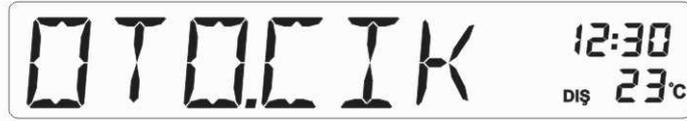


Figure 16

While in this sub-menu, pressing “←” key will display the text “OTOBANDAN ÇIKILDI” (EXITED FROM MOTORWAY MODE) and you will leave the “MOTORWAY” mode.

25 CHANGING OF PAPER

Changing of tachograph’s paper will be performed following the steps given below:
Remove the print door latch (see Figure 17 a)

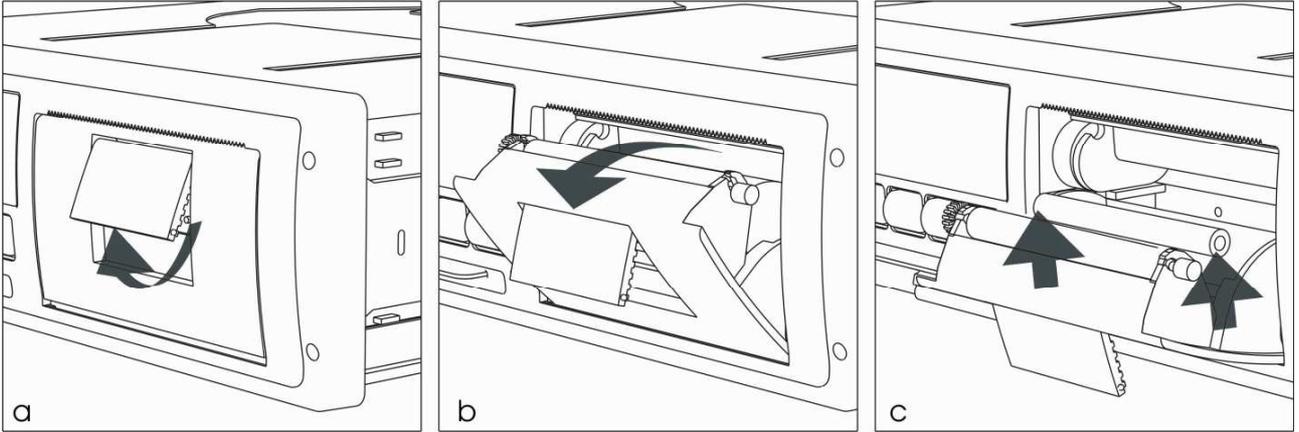


Figure 17

Pull the print door latch toward you (see Figure 17 b)

When the print door is opened, take the empty paper roll at the bottom of the door out (see Figure 17 c).

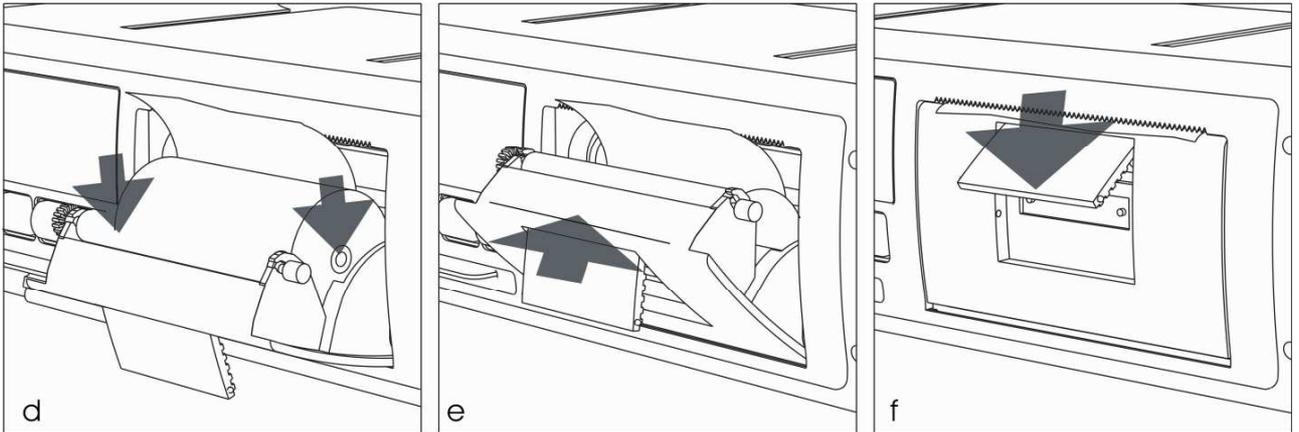


Figure 18

Unroll the new paper roll and place it into the tray leaving paper end out of the unit (see Figure 18 d).

Push the print door until it snaps into place (bkz: Şekil 18 e).

Seat the print door latch pressing it in the arrow direction (see Figure 18 f)

26 Installation Diagram

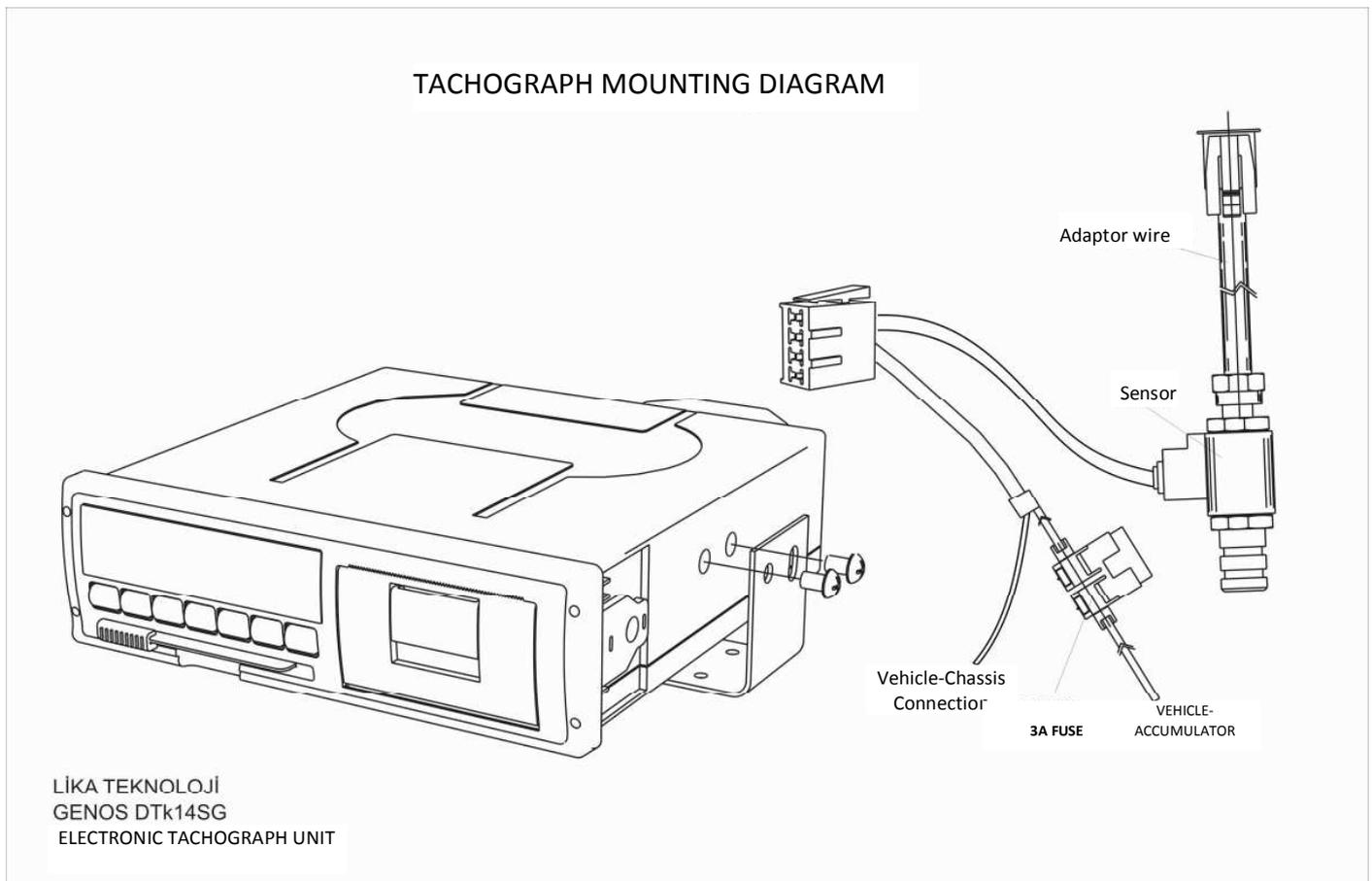


Figure 19

CAUTION: Please use only our authorised services for mounting/demounting of your tachograph.

27 Technical Data

Display	LCD display
Keypad	Backlit Elastomeric Keys
Beep Sound	Audible beep sound when violations occur
Speed Sensor	Electronical or mechanical
Sensor Pulse Range	500.. 20000 pulse/ km (0..24V pk-pk)
Speed Measuring Error	Max. ± 2 Km/h
Clock Accuracy	Max. ± 5 sec in 24 h
Driving Measurement Error	$\pm 4\%$ for each 1000 m
Working Temperature	-10°C , $+70^{\circ}\text{C}$
Storage Temperature	-40°C , $+70^{\circ}\text{C}$
Operating Voltage	8-28 VDC (reverse connection and surge protected)
Rated Current	100 mA @ 24VDC
Weight	650 g.
Standard	TSEK UBM-03-BK-006
Network	CAN J 1939 (OPTIONAL)
Dimensions	180x165x51 mm (W x Lx H)

Table 4