Mirror Meter MM-03

Driver manual

Version ITM30

BAF-MM-03-en

HALE® electronic

The future in taxi.

Approved according to EU Directive 2014/32/EU.

The HALE quality management system complies with the requirements of standards EN ISO 9001:2015 and IATF 16949:2016.

Driver manual
Mirror Meter MM-03 / ITM30
Version 1.1 / 17.11.2020
Author: 55, 60
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Introduction

Symbols

This information draws your attention to dangers or possible incorrect operation.

This tip provides you with advice or further information.

①②③④ Press the corresponding button.

▸ This symbol means that you should do something.

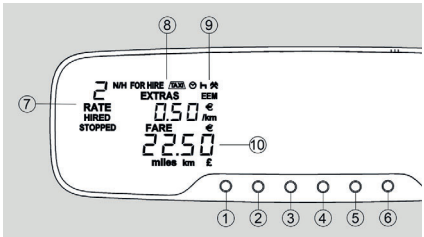
▷ See page x [▷ page x]

Modes of Operation

Normal Operation	For single proprietors: no shift operation
Operation with Driver Log-on	For multi cab owners: the driver starts the shift by entering the driver number, confirming it with button ④ and pressing the buttons ② + ③.
NFC Operation With or without data storage	For taxi fleets: Each driver starts his shift by holding the driver's card in front of the NFC reader and pressing the buttons ② + ③. The shift is ended by pressing the buttons ② + ③ and holding the driver's card in front of the NFC reader (the data of the ended shift is copied onto the card and can be evaluated in the HALE data center).

Display and Operation

Display and Buttons of the Taximeter



7-segment alphabet (alphanumeric display)

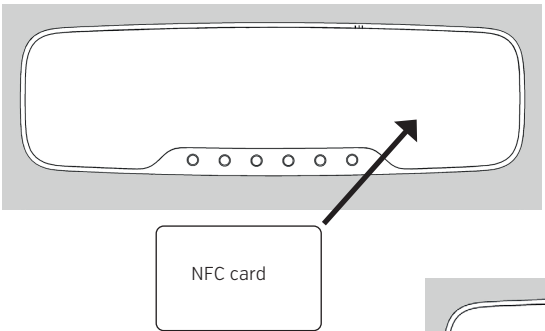
A	A	B	b	C	C	D	d	E	E	F	F
G	G	H	H	I	I	J	J	K	K	L	L
M	M	N	n	O	o	P	P	Q	q	R	r
S	S	T	t	U	U	V	u	W	"	X	H
Y	y	Z	2	0	0	1	1	2	2	3	3
4	4	5	5	6	6	7	7	8	8	9	9

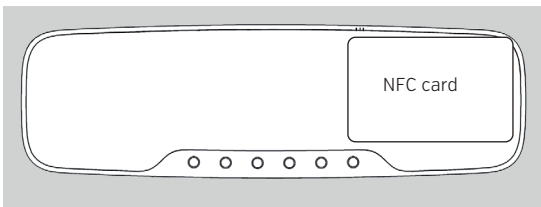
1-6	Operating buttons Button 6 long = Switch on/off Stopped light (keyboard print), e g. in FOR HIRE (can be deactivated in the tariff)
7	Alphanumeric tariff display (2 14-segment-digits), status display HIRED/STOPPED, N/H: Night or holiday tariff
8	Status display FOR HIRE TAXI: roof sign status display (if taxi sign flashes => defective roof sign illumination) Extra display
9	Waiting time display Break display Working time display Extended extras selection mode (EEM) Kilometer price display[a] (€/km)
10	Fare display

a. only distance counter, not necessary for taximeter function

NFC reader

For the efficient use of the NFC card it is important to always hold it in front of the NFC reader in such a way that it overlaps the reader as much as possible.

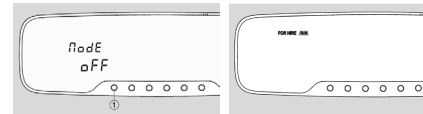




Operation - Driving Mode

Switch taximeter on*

- In sleep mode press button ① to switch to FOR HIRE, break mode or mode between shifts.

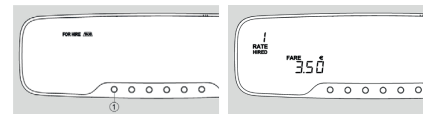


When switching on the ignition the taximeter boots up for approx. 15 seconds (if it was in OFF mode). The sleep mode is ended automatically after ignition on or a driven distance.

* When switching on, an automatic display segment test is made, befor the taximeter is ready for operation.

Start a trip

- Press button ① in FOR HIRE. If programmed in the tariff, button ② can also be used (2,5 seconds).



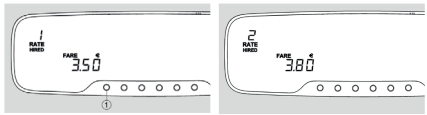
Enter driver number resp. start shift (page 22) or start the shift with driver card (page 37).

Operation - Driving Mode

Switch to next tariff

▸ Press button ① again.

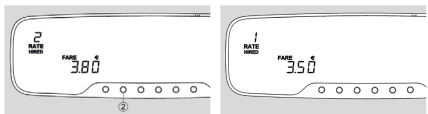
If programmed in the tariff, buttons ④ or ② can also be used.



Switch back to previous tariff

▸ Press button ② (if programmed).

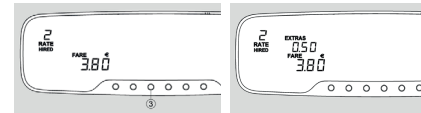
If programmed in the tariff, button ④ can also be used.



Operation - Extras

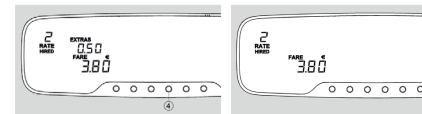
Entering Extras (depending on tariff)

- Press button ③ (extra 1) or button ④ (extra 2) repeatedly until the requested amount is displayed.



Delete Extras (depending on tariff)

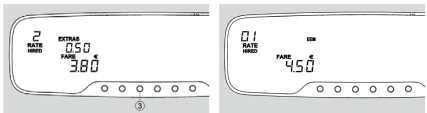
- Press button ④ to delete extras separately.



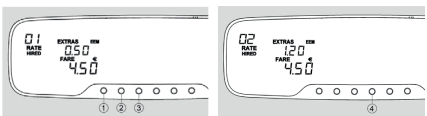
If programmed in the tariff, extras can also be charged automatically (controlled by the taximeter).

Extended Extras Selection Mode EEM (depending on tariff)

- Press button ③ until the taximeter changes to the extended extras selection mode.

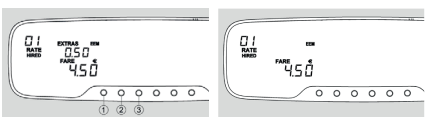


- Enter the various extras with the buttons ①② or ③.
- Exit the extended extras selection mode or change to the next EEM with button ④.



Deleting extras (depending on tariff)

- Delete the extras by pressing the buttons ①② or ③ for a long time.



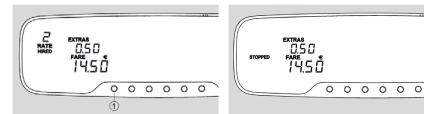
The EEM is left automatically after 10 seconds without keypress.

Operation - STOPPED

In the STOPPED position the interior light switches on automatically.

Switching the Taximeter to STOPPED

- In the highest tariff step press button ①.
  Info: If programmed in the tariff, you can also switch to STOPPED mode from any tariff with button ④.

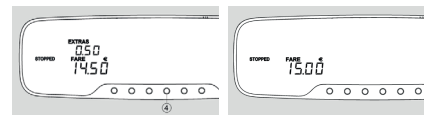


If programmed in the tariff, it is possible to switch from STOPPED mode to the previous tariff by pressing button ②.

Adding extras together

- Press button ④ in STOPPED mode.

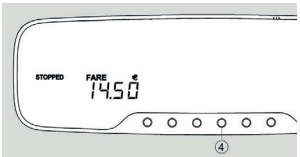
The sum total of the fare and extras is displayed for 5 sec. (time period programmed in the tariff).

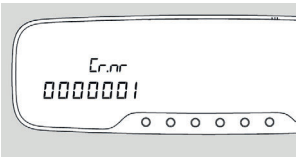


Credit customer numbers

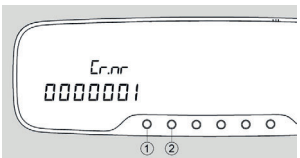
Manual input

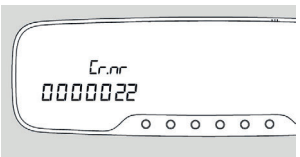
- Press button ④ in STOPPED for 2 seconds to change to the mode for entering credit customer numbers (if programmed).



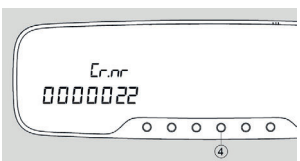


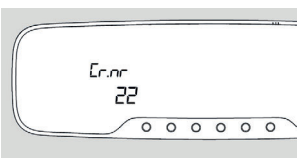
- Enter the credit customer numbers with the buttons ① and ②. (1 - 999999; 0 = cancellation trip).





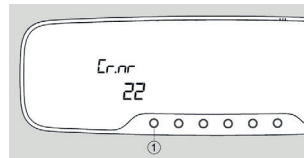
- Confirm with button ④.

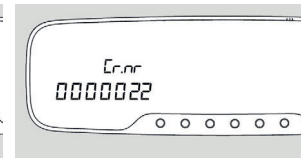




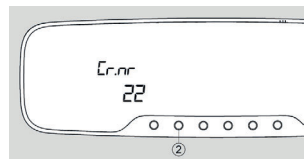
Operation - Credit customer numbers

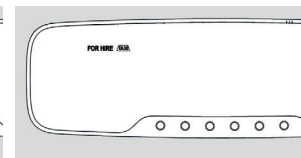
- Press button ① to change the number again.



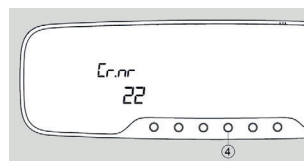


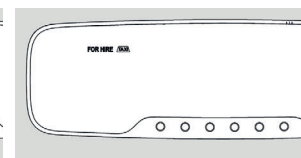
- If you like to end the trip without credit customer number, press button ② or wait in the input mode, until it is left automatically after 20 seconds.





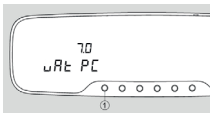
- Press button ④ to confirm the credit customer number.

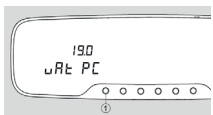


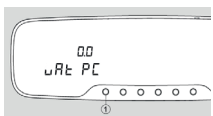


Operation - VAT Selection

- When switching to FOR HIRE, button ① changes between VAT rate 1, 2 or 0% (depending on the owner settings).
- Switch to VAT rate 2 by pressing button ①.
- Switch to 0% by pressing button ① again.
- Confirm the selected VAT rate with button ④.
- Or wait 5 sec., while no key is pressed. The displayed value is taken over.

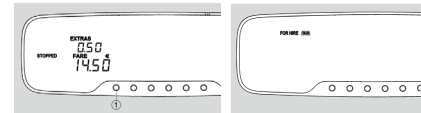






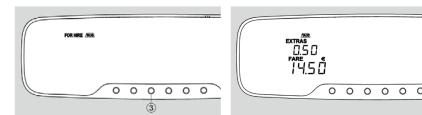
Operation - FOR HIRE

Switching the Taximeter to FOR HIRE



▸ In STOPPED mode, press button ① until the taximeter changes to FOR HIRE or the display starts to flash.
The display flashes if the taximeter has been in STOPPED mode for less than 10 seconds (time period is programmed in the tariff).

Displaying the Last Fare



▸ Press button ③ in FOR HIRE mode.
The fare and extras for the last journey are displayed for 5 seconds (not possible after an empty trip of 400 - 500 meters or after 255 seconds).

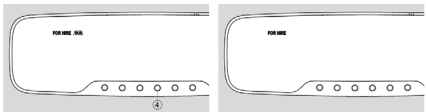
Operation - FOR HIRE

Switching the Roof Sign on and off

(This feature can be disabled by the owner)

▸ In FOR HIRE mode, press button ④ until the status display of the roof sign goes off or lights up again.

In this way you can switch off the roof sign when driving to a customer. Upon the next activation, the roof sign is switched on again automatically.



Roof sign display

Taxi sign illuminated.
Roof sign is switched on and lit up.

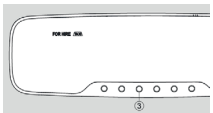
Taxi sign flashes.
The roof sign is switched on, but no current is detected (roof sign not working).

No taxi sign.
Roof sign is switched off.

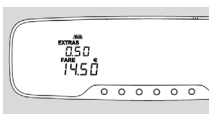
Printing a Receipt

Switch Taximeter to FOR HIRE

- In FOR HIRE mode, press button ③ until the printer starts to print (not possible after a trip of 500m + distance from F3.0100 (standard 100m)). If allowed in the tariff, the print-out can be stopped with button ④ (if no forced receipt printing has been set).



The fare and extras for the last trip are displayed.



RECEIPT No. 1

Transport & Co.

13:31 - 13:42	17. 2. 2015
K	p/km 24000
MAX. SPEED	km/h 102
ATCS	B87B 36E8
LICENCE No.	10101
DRIVER No.	DRI 1
CAR No.	VEH 65534
DISTANCE km	3.0

FROM: .....

TO: .....

TARIFFS	1,2
FLAG DROP	€ 3,50
FARE	€ 5,90
EXTRAS:	
AIRPORT	€ 2,40
1 x 2,40	
TOTAL	€ 11,80
incl. VAT	

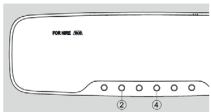
TIP €

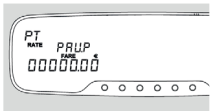
Thank you for using our service!

Setting the print-out parameters of the receipt: ▷ owner manual.

Operation - All-inclusive Trip

All-inclusive Trip (if programmed)

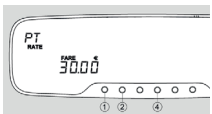




- In FOR HIRE mode, press the buttons ② and ④ at the same time.

The first digit flashes.

Entering an All-inclusive Price



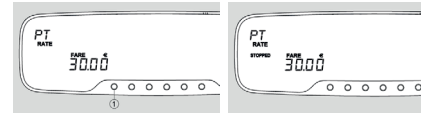
- Press button ① to increase the value of the flashing digit.
- Press button ② to change to the next digit.
- Press button ④ to confirm the price.

After a time set by the owner (standard 20 sec.), you can still correct the all-inclusive price:

- Press button ② to return to the all-inclusive price input.

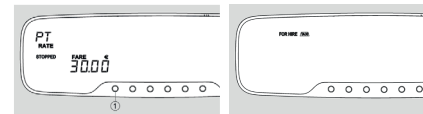
Switching the Taximeter to STOPPED

- Press button ① to switch to STOPPED.



Switching the Taximeter to FOR HIRE

- Press button ① until the taximeter changes to FOR HIRE or the display starts to flash.

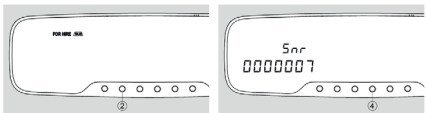


Operation - Totalizers

The 14 shift totalizers of the taximeter (d1 - d14) contain the current values of the ongoing shift and are automatically reset at end of the shift.

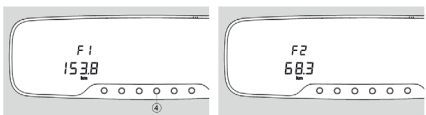
Reading off the Shift Totalizers

- In FOR HIRE mode, press button ② - the current shift number is displayed.
- Press button ④ - the first shift totalizer (total km) is displayed.



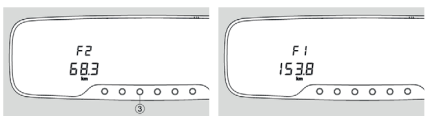
Switching to next Totalizers

- Press button ④ to change to the next totalizer.



Switching to previous Totalizers

- Press button ③ to return to the previous totalizer.



Overview of the Shift and Absolute Totalizers

Counter	Function	Counter	Function
A1/F1	Total kilometers (km)	**A8/F8**	Increments (number)
A2/F2	Hired kilometers (km)	**A9/F9**	Incremental amounts (amount)
A3/F3	Number of trips (number)	**A10/F10**	Flag drops (number)
A4/F4	Total extras (amount)	**A11/F11**	Waiting time increments (amount)
A5/F5	Total fares without extras (amount)	**A12/F12**	Seat sensor in use (km)
A6/F6	Total fares including extras (amount)	**A13/F13**	Special trips (km)
A7/F7	Number of selected extras (number)	**A14/F14**	km in stopped (km)

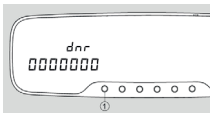
Totalizers which have been blocked by the owner do not appear in the readout.
If programmed, the absolute totalizers are displayed after or instead of the shift totalizers.
You can cancel reading the totalizers at any time with the buttons ④ and ③.

Starting the Shift

If the taximeter is in FOR HIRE mode, you should first of all log off the current shift [▷ page 27 or page 38].

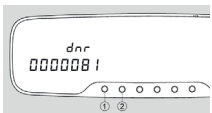
The taximeter is in signed-off mode.

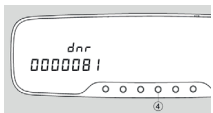
- Press button ① to enter the driver number input mode.



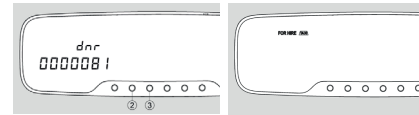
Entering the Driver Number

- Press button ① to increase the value of the flashing digit.
- Press button ② to change to the next digit.
- Press button ④ to confirm the input.





Shift log-on



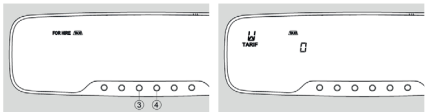
▸ Press and hold button ②.

▸ Press button ③ as well.
The taximeter changes to FOR HIRE. The roof sign is switched on automatically.

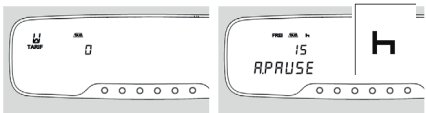
Active Break (By default this function is disabled; it can be enabled by the owner.)

- In FOR HIRE mode, press and hold button ④.
  The current time is displayed.
- Press button ③ as well.

If enabled, the taximeter does not switch to the OFF mode if the shift has been logged on, but instead to break mode.

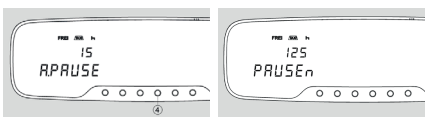


Until the minimum break time is reached, the taximeter shows **W**. The minutes displayed in this extra field do not yet count as a break.
After the minimum break time has been reached, the taximeter shows **A.PAUSE**. The minutes displayed in the extra field are considered to be a break and are not added to the shift working time.



Depending on the owner settings the roof sign can be switched on or off during the break. The taximeter status for data radio can also be active or not active depending on the owner settings.

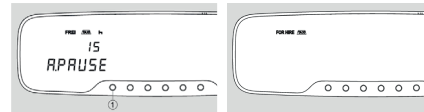
- While **W** or **PAUSE** is displayed, press button ④ to move to the display of the total break time of the current shift.



Exiting Break Mode

- Press button ①.
- Alternatively, also possible with the buttons ② and ③.

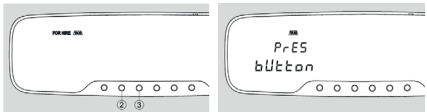
The taximeter is in FOR HIRE mode.



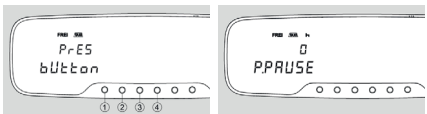
If enabled by the owner, the break is automatically exited when a programmable speed is exceeded.

Passive Break

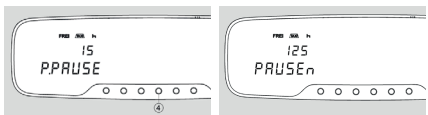
If enabled by the owner, the taximeter also registers passive breaks. If this function is enabled, the message **PrES bUtton** appears each time in FOR HIRE mode 1 minute before reaching the time that has been set by the owner. After 1 minute (without cancellation by driver) the passive break starts.



The driver can exit the warning display of the passive break (**PrES bUtton**) by pressing the buttons ①②③④.
The passive break (**P.PAUSE**) can be ended at any time by pressing the buttons ①②③. The passive break is always exited automatically, if the vehicle drives (from approx. 3km/h).



- While **P.PAUSE** is displayed, press button ④ to move to the display of the total break time of the current shift.

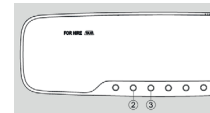


Depending on the owner settings the roof sign can be switched on or off during the break. The taximeter status for data radio can also be active or not active depending on the owner settings.

Shift log-off

- In FOR HIRE mode, press and hold button ②.
- Press button ③ as well.

For as long as button ② is held, the current shift number is displayed.
Then the taximeter is in signed-off mode again and the shift totalizers are set to 0.



Shift log-off

If a printer is available, the taximeter now prints the shift account automatically (depending on the owner settings).

Setting the print-out parameters of the shift report:
▷ Owner Manual.

SHIFT REPORT No. 37

Transport	& Co.
18:51	20. 02. 2015
LICENCE No.	10101
DRIVER No.	1
CAR No.	65534

SHIFT TOTALIZERS

1. TOTAL	km 149,8
2. HIRED	km 121,7
3. TRIPS	6
4. EXTRAS	€ 0,00
5. FARES	€ 74,10
6. TOTAL REVENUES	€ 74,10
7. NO. EXTRAS	0
8. INCREMENTS	178
9. INCR. AMOUNTS	€ 17,80
10. FLAG DROPS	€ 9,00
11. TIME INCR. AMOUNTS	€ 1,41
12. SEAT SENSOR	km 0.0
13. SPECIAL TRIP	km 0.0
14. KM IN STOPPED	km 0.0

HIRED UTILIZATION	70 %
REVENUES PER km	€ 2,12

ABSOLUTE TOTALIZERS

1. TOTAL	km 985,2
2. HIRED	km 437,3
3. TRIPS	52
4. EXTRAS	€ 0,00
5. FARES	€ 151,70
6. TOTAL REVENUES	€ 151,70
7. NO. EXTRAS	0
8. INCREMENTS	235
9. INCR. AMOUNTS	€ 98,99
10. FLAG DROPS	€ 15,00
11. TIME INCR. AMOUNTS	€ 4,39
12. SEAT SENSOR	km 0.0
13. SPECIAL TRIP	km 0.0
14. KM IN STOPPED	km 0.0

BEG.	END	EMPTY	OCC.	PRICE
		DATE:		20.02.2015
08:32	08:44	0.1	5.9	***SF
BEG.:	08:44		DRIVER No. 1	
08:44	08:49	0.0	3.0	9,10
08:49	08:53	0.0	2.9	8,80
08:56	08:56	0.0	0.0	***SF
POWER FAILURE:			06:38	20.02.
			06:41	20.02.
VINFO ERROR:			09:05	20.02.
			09:17	20.02.
09:02	09:16	0.1	7.7	11,00*
EXTRAS 1,00				
09:19	09:23	0,1	1,3	***SF*
09:30	A.BREAK:			00:45
10:15	10:30	0,0	5,0	***SF
10:49	11:13	8,0	11,2	25,00p
12:00	P.BREAK			01:10
END:	18:51	3,4		

SHIFT-A.BREAK TIME:	00:45
SHIFT-P.BREAK TIME:	01.15
SHIFT WORKING TIME:	08.07

Signed-Off Mode

Printing the Shift Report manually or repeating the Print-out

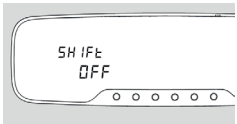
If no automatic print-out is set and not more than 4 minutes have passed since the last end of shift, you can start this printout manually or print out the last (automatically) printed shift report again.

▸ To do this, press button ③ in signed-off mode until the printout begins.

Signed-Off Mode

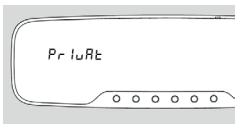
Private use

If you drive without having started a shift, a short warning signal sounds. During the trip **SHIFt oFF** is displayed, which indicates the private trip.



If activated, the taximeter may record private trips as well as work-related trips in signed-off mode.

Switching between work-related (**SHIFt oFF**) and private (**PrIvAt**) is possible at any time during the trip. The new trip type is valid since the time of switching.

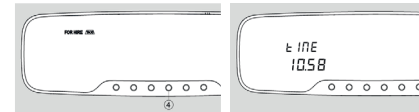


▸ Press one of the buttons ① ② ③ ④.

Date and Time

Reading off the Time

▸ In FOR HIRE or signed-off mode, press button ④.

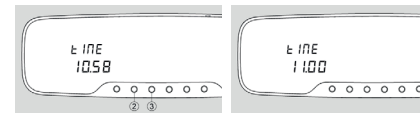


Correcting the time to 00 minutes

You can change the time once a week (set mniutes to 0):
• Every hour on the hour
• max. +/- 2 min. per week

▸ Press and hold button ②.

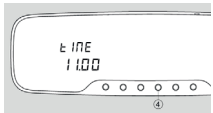
▸ On the hour (radio gong) you can also press button ③.



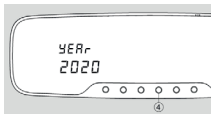
Date and Time

Reading off the Day, Month and Year

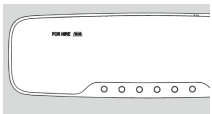
▸ If the time is displayed, press button ④.
The current day and month is displayed.



▸ Press button ④ again.
The current year is displayed.



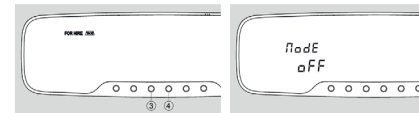
▸ Press button ④ again to change to FOR HIRE mode.



Manual Sleep Mode

(Power consumption approx. 50 mA)

Switching off the Taximeter manually

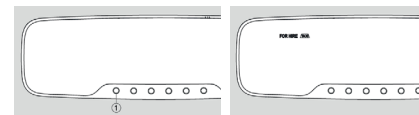


(if programmed by the owner, in FOR HIRE only if no breaks have been set)

- In FOR HIRE or signed-off mode, press and hold button ④.
- Press button ③ as well.

A beep sounds and the taximeter and the roof sign are switched off.

Switching the Taximeter on manually



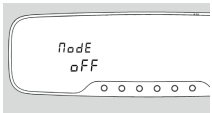
- Press button ①.

The taximeter is in FOR HIRE or signed-off mode.

Automatic OFF Mode

(power-saving mode approx. 500 µA)

The taximeter switches automatically to OFF mode.

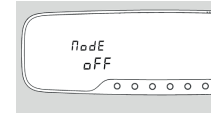


The taximeter requires 15 seconds until it is ready for operation (boot time).

Automatic Sleep Mode

(power-saving mode approx. 50 mA)

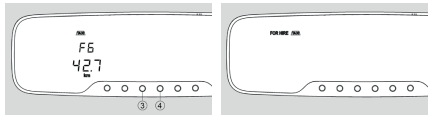
The taximeter switches automatically to sleep mode (if programmed by the owner):
- in signed-off mode after the ignition is turned off (after-running time can be adjusted by the owner)



If the taximeter is in sleep mode, the display is off, but all bus functions remain enabled.

General Information

Back to FOR HIRE at any time



You can cancel reading the time and date or the totalizer at any time:

- Press and hold button ④.
- Press button ③ as well.

The taximeter changes to FOR HIRE.

After 10 seconds switching automatically to FOR HIRE:

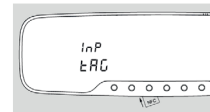
If you do not press a button for a period of 10 seconds when you are reading off the time and date or the totalizers, the taximeter automatically switches to FOR HIRE.

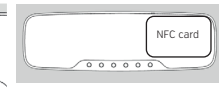
Voltage Interruption (switching to FOR HIRE after 15-20 sec.):

If the supply voltage of the taximeter – and therefore the display in HIRED or STOPPED mode – has been interrupted for more than 15-20 sec., the display of the taximeter flashes for approximately 10 seconds when the taximeter is switched on again (depending on tariff). Then the taximeter automatically changes to FOR HIRE.

Starting a Shift with the Driver Card

- In signed-off mode (**InP tAG**), hold the driver card in front of the NFC reader until the taximeter displays your driver number.

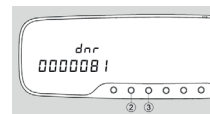


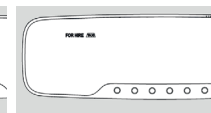


- If the taximeter displays your driver number, you can remove the driver card again.

- Press and hold button ②.
- Press button ③ as well to log on to a shift.

The taximeter changes to FOR HIRE. The roof sign is switched on automatically.

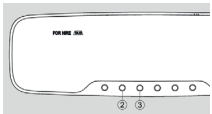


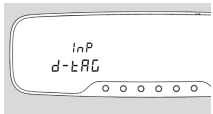


Ending the Shift with Driver Card

- In FOR HIRE mode, press and hold button ②.
- Press button ③ as well.

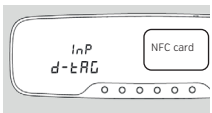
For as long as button ② is held, the current shift. number is displayed.

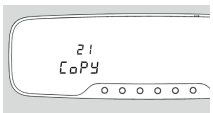




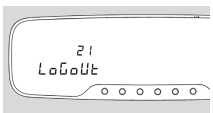
- Hold your driver card in front of the NFC reader until **tAG rEMoVE** appears.

The taximeter now copies the data of the shift on to the driver card (display shows shift number).
If the shift is ended without errors, a short beep is heard. In the case of a shift end error a beep sounds and a message is displayed until the error has been corrected.



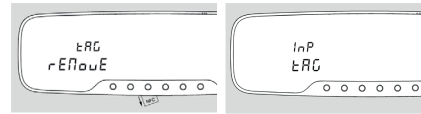


If a shift end with driver card without data transfer (F3.0211) is programmed, **LoGoUt** will be displayed instead of **CoPy**.



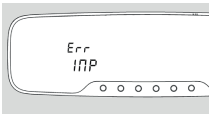
Ending the Shift with Driver Card

The shift totalizers are set to 0, the shift is ended. The taximeter is in signed-off mode.
If the complete data do not fit on one card, **COPy nEXt** is displayed. Hold another driver card in front of the NFC reader until **tAG rEMoVE** is displayed.



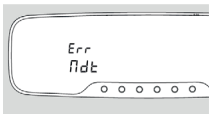
If a printer is available and programmed by the owner, the taximeter now automatically prints the shift accounting.

Remarks and Warnings



Vehicle speed > 260 km/h or distance signal implausible

Displayed in HIRED mode for 2.5 seconds.



Data radio occupied blockade

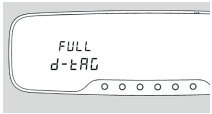
The taximeter is blocked by the data radio (Mdt = mobile data terminal).

▸ Switch on the radio data.

Occupied blockade

Required external device is not available (national additional appliance).

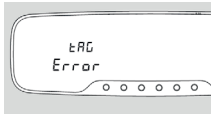
Warnings Driver Card



Driver Card is full

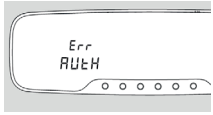
The driver card used does not contain any free storage space and cannot store any new data.

▸ Account the driver card on the PC and delete the data.



NFC Card Error

Other NFC card error.



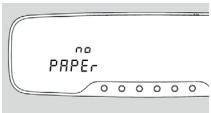
Communication error with NFC card

Hold the NFC card again (longer!) in front of the NFC reader.

Card faulty

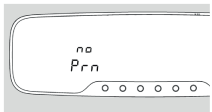
Please use a new card.

Printer Remarks and Warnings



Printer Paper off

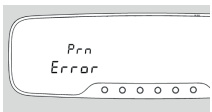
▸ Insert a new paper and start a new print try.



No Printer

Occupied blockade activated after an attempt to print a receipt with a disabled printer (if programmed).

▸ If not, check the supply and data cable of the printer.
▸ Check with customer service whether a CAN termination is connected.



Printer Error

Other printer error.

Taximeter

Taxi software
Driver and working time accounting
INSIKA data center
Cab Tracking and dispatching

Roof sign

Accessories
Printer
Seat Sensors
CAN adapter
Taxi alarm

www.hale.at
www.taxameter.de
www.dachzeichen.de
www.hale-electronic.com
www.fiskaltaxameter.expert
Mailto: marketing@hale.at

CE CE

Konformitätserklärung
Declaration of conformity

Hersteller: Manufacturer:	HALE electronic GmbH Eugen-Müller-Str. 18, A-5020 Salzburg
Typ/Modell: Type/Model:	Taxameter MM-03 Taximeter MM-03
Nr. der EG-Baumusterprüfbescheinigung: No. of the EC type examination certificate:	T11772
Notifizierte Stelle: Notified Body:	BEV 0445
Seriennummer: Serial:	
Genauigkeit: Accuracy:	Zeit +/- 0,1%, Strecke +/- 0,2% time +/- 0,1%, distance +/- 0,2%
Temperaturbereich: Temperature range:	-25°C - +85°C
Mechanische Umgebungsklasse: Mechanical environment class:	M3
Elektromagnetische Umgebungsklasse: Electromagnetic environment class:	E3

Entspricht dem in der Bescheinigung über die Bauartzulassung beschriebenen Baumuster gemäß den Anforderungen der EU-Richtlinie 2014/32/EU.
Corresponds to the production model described in the EU type-approval certificate according to the requirements of the Council Directive 2014/32/EU.

	7.5.2020
Unterschrift Signature	Datum Date