User Manual

POWER YOUR RIDE

LEVIT

Welcome to the LEVIT family!

Dear Customer,

Thank you for your trust and purchase of a LEVIT bicycle. We build every bike to be great to ride. We choose every component carefully, we test everything. Your satisfaction is our goal.

We believe that you will have many great miles in the saddle of our product. Please remember to observe the relevant legal regulations when using your bicycle on public roads and to ride safely. Likewise, only use your bike for the purpose for which it was manufactured.

On the following pages of this manual you will find tips for the correct setting of all functions, basic maintenance, and the warranty card.

We wish you many enjoyable miles with your LEVIT e-bike!

Yours sincerely,

LEVIT s. r. o.
Dr. Teuchmann 552
542 32 Úpice
Czech Republic
www.levit.bike

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What is an e-bike and what does it consist of

An electric bicycle is any bicycle equipped with an electric motor, a control unit and a battery. This drive system serves as an assistant to make pedalling easier and more comfortable for the rider. The motor is only activated when the rider is actively pedalling and turning the cranks.

A special sensor in the centre assembly or in the centre motor senses the movement of the handles. The maximum speed of the motor-assisted e-bike is set at **25 km/h** according to **EN 15194-1**. When this speed is reached, the motor automatically deactivates the assistance and you continue riding as on a normal bike. If the battery runs out or the motor is switched off, you can continue riding under your own power. A switched-off engine does not restrict the rider from using the bike. When the motor is switched off, there is always minimal resistance, but this does not restrict the rider from using the bike. The motor always has minimum resistance.

The electric motor can also be activated without pedalling using the control button or accelerator, but only up to a maximum speed of 6 km/h. This function, known as walking assist, is useful when handling the e-bike. With walk assist, motor power is limited, this function is only for handling the bike (for example, walking the bike uphill). Higher speeds cannot be achieved without the rider actively pedaling.

Electric bicycles that meet the European standard **EN 15194-1** are considered to be normal bicycles under the Road Traffic Act. You don't need a driving licence to ride such an e-bike, you can ride on cycle paths and a cycle helmet is only compulsory up to the age of 18. Nevertheless, we recommend the use of a helmet to all e-bike users, regardless of age.

LEVIT e-bikes meet the **EPAC** (Electronically Power Assisted Cycles) standard. This standard is defined by **ČSN EN 15194** and sets out the technical requirements for the electrical equipment of electric bikes and their markings.

According to this standard, an electric bicycle must meet the following conditions:

- **Rated motor power**: 250 W.
- **Maximum speed with assistance**: 25 km/h. The motor deactivates its assistance when it reaches this speed

- **Engine activation**: the engine must be activated only by pedalling, except for the accelerator which can operate independently up to 6 km/h.

To operate the LEVIT e-bike, you do not need a registration mark, technical licence, MOT or compulsory liability insurance. A driving licence is not required and if you are over 18 years old, you do not need to wear a bicycle helmet. The legal obligation to wear a bicycle helmet for persons under 18 years of age is governed by the relevant laws of your country.

Total load capacity of the LEVIT e-bike

For the purpose of using the e-bike, the total load capacity of the product is calculated as the sum of the weight of the e-bike, rider and other accessories.

This is always indicated on the **EPAC** information label.

Technical data of the LEVIT e-bike

Motor power rating	**250 W**
System voltage	**36 V**
Operating temperature	**-10 – 40 °C**
Storage temperature	**10 – 40 °C**
Degree of coverage	**IP 54** (protection against dust and splash water)
Noise	**< 60 dB**


Handlebars
Stem
Display
Saddle
Brake levers
Rack
Shift control
Rear light
Seatpost
Battery lock
Front light
Battery
Folding
mechanism
Mudguard
Mudguard
Motor
Cranks with converter
(+ crank rotation sensor)
Shifter
Chain cover
Chain
Speed sensor
Suspension fork
Kickstand
Brake disc

LEVIT e-bike category according to EN 17406

Category 1

Electric bikes designed for use on smooth and level surfaces such as city roads or cycle paths. These e-bikes are not designed for riding on rough terrain.

Category 2

Electric bikes suitable for use on paved roads and cycle paths. They are designed for conditions less demanding than category 1. The maximum jump height must be less than 15 cm.

Category 3

E-bikes designed for mixed surfaces, including moderate terrain. These e-bikes must be able to handle mild to moderate unevenness or occasional potholes. The maximum jump height must be less than 61 cm.

Basic information for using an electric bike

Riding an e-bike is very similar to riding a regular bike. You just need to get going and start pedaling. As soon as you start pedalling, the motor automatically activates and starts helping you according to the assistance mode you set. You can usually set this mode on the handlebars, where you choose how much the motor will assist you.

If you stop pedalling, the engine will shut down. On most models, the motor will shut off within two seconds after you stop pedalling. This means that if, for example, you

stop at a junction or decide to rest, the engine will automatically deactivate. This saves energy and increases safety.

Once you reach a speed of **25 km/h**, the engine will deactivate its assistance to meet legal requirements. If your speed drops below this limit, the engine will reactivate and start assisting you again. This mechanism ensures that the e-bike does not exceed the maximum speed limit with motor assistance.

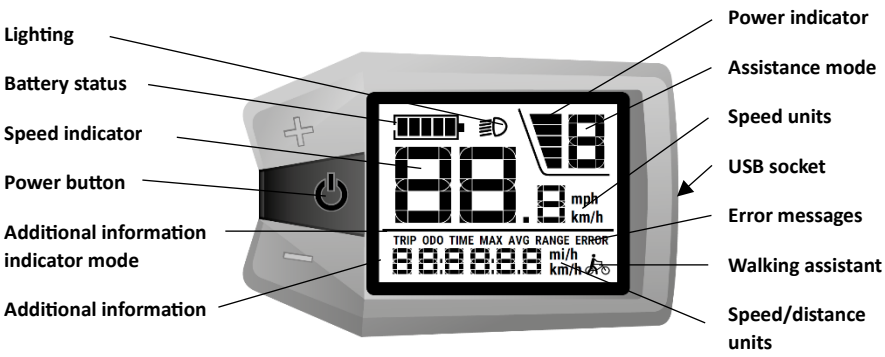
The engine also doesn't work if you don't pedal or if you turn the cranks backwards. This means that if you want to go without engine assistance, just stop pedalling or cranking backwards and the engine will switch off.

This system is designed to make riding an electric bike as natural and safe as possible. E-bikes are a great way to get around town or go on longer trips with less effort.

Prolonged driving with low engine speed and high assist mode can lead to overheating and, under heavy loads even damage to the engine. At such times, we strongly recommend that you reduce the assist mode and shift to a lighter gear.

The function of the e-bike can be affected by external electromagnetic influences.

CODAC display control



Power on and off

1. **Turn on the power of the electrical system on the battery**

Activate the battery by pressing the power button on its body.

2. **Turn on the LCD panel of the e-bike**

Press and hold the "**Power**" button on the display controller for **5 seconds**. Use the same method to turn off the electrical system. To turn off the frame battery, hold the button for **4 seconds**. To save electricity, the system will automatically shut down after **10 minutes of** inactivity.

Setting the assistance mode

To change the assist mode from **0 to 5, briefly** press the "**+** " " **-** " button. The highest assistance mode is marked with the number 5, the mode marked 0 is without electric motor assistance.

When driving at low engine speeds and in high assist mode, the engine may vibrate briefly. In this case, we recommend that you reduce the assist mode immediately.

Walking assistant

To activate the walking assistant, press and hold the "**-**" button on the control display. To activate the assistant mode, the assistant mode must be set **to 1 – 5**. This function is used to facilitate the handling of the electro wheel, typically when walking

with the power wheel at your side. The speed of the e-bike in this case is between **4 and 6 km/h**. The walking assist will be turned off as soon as the button is released.

Do not try to stop the e-bike from moving once the walking assist has been activated. Doing so may damage the motor.

To change the mode of the additional information display

To change the information shown on the display, briefly press the "**Power"** button. The information is displayed in the following order:

TRIP	**ODO**	**TIME**	**MAX**	**AVG**
Trip Distance	Total distance	Time	Maximum speed	Average speed

Deleting temporary data

To delete temporary data (TRIP, TIME, MAX, AVG) press the "**Power**" button twice. The display will show **rES**. Use the "**+** " and "**-**" buttons to select option **Y** and confirm with the "**Power**" button.

Parameter settings

To enter the parameter setting mode, press the "**Power**" button twice. To change a parameter, use the "**+** " "**-**" buttons and to save the set parameter, press the "**Power**" button.

Turning on lighting (only if lighting is installed)

To turn on the front and rear lights, press and hold the "**+** " button for 1 second.

USB socket

The display is equipped with a micro USB socket for charging mobile devices (5 V / 0.5 W). Use an adapter or cable with a **Micro USB-B** connector to connect your device to the charging socket.

Explanatory notes

rES – resetting daily kilometres

Un – unit setting (km / miles)

Ld – wheel circumference setting in cm (max. +/- 5 % from the default circumference setting)

bL – display backlight setting in the range of 1 – 3

Ls – speed limit; the value 20 means a maximum assisted speed of 25 km/h

SPS – speed sensor signal

Cr – current value

Error messages

Code	The cause of the problem
0X0000	No mistake
0X0001	BMS error or overvoltage
0X0002	Control unit overheating
0X0004	Motor power supply
0X0008	Hall probe – motor
0X0010	Motor overheating
0X0020	Protection against undervoltage
0X0100	Too high speed
0X0200	Communication error – battery
0X0400	PAS sensor
0X0800	Speed sensor
0X1000	Communication error – display

If the error persists, or if you receive an error other than the one shown here, please contact your dealer.

Handling the spinal battery

Power on

Turn on the battery using the switch at the top of the battery.

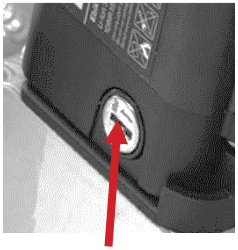
Manipulation

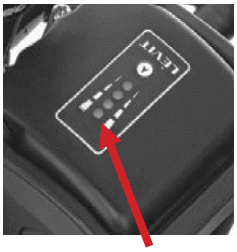
To remove the battery, first slide the seat tube and saddle out of the frame. The lock is located at the bottom of the battery. Then turn the key to the **UNLOCK** position

and remove the battery by pulling the handle upwards. Inserting the battery is done in reverse order. Insert the battery through the groove on the guide rail, otherwise it will not slide all the way down. Insert the battery carefully to avoid damaging the connector by a sharp impact. To secure the battery, turn the key to the **LOCK** position and remove the key.

Detecting battery charge status
Using the LED indicator located on the top of the battery, which is activated by pressing the button. The battery must be switched on. The battery has full capacity when the **4 LED diodes** are lit (3 green, 1 red). If only the **red LED** is lit, it means that the battery is almost **dead and must be charged as soon as possible**.


Battery switch


Castle


Battery status

Charging the battery

Lithium batteries do not have a memory effect, so **you can recharge** them **at any time**, ideally after each use of the e-bike. Due to self-discharge, which causes a gradual loss of capacity, we recommend **checking the battery regularly during long-term storage** and recharging to the recommended level if the capacity drops **60 – 80 % of** its total capacity.

You can either charge the battery directly on the e-bike, or you can remove it from the e-bike and charge it separately. Always switch off the battery **before charging**. Only charge the battery in a dry environment. The charging connector is not splash-proof. **Ideally charge the battery at ambient temperature (10 – 25 °C). Charging at an ambient temperature below 0 °C or above 40 °C can seriously damage the battery.**

Procedure

First connect the charger to the battery, then connect the charger to a power source (230 V) and wait until the LED on the charger turns **red**. This indicates that charging is in progress. Charging will stop **automatically** when the battery is fully charged. However, we recommend that you disconnect the charger from the battery and power source immediately after charging. The charging LED will then turn **green**. Interrupting the charging process does not damage the battery.

Never use a visibly damaged battery.

Keep the battery contacts clean and dry.

Do not clean the battery with solvents (alcohol, oil, solvents, ...) or cleaning agents or running water.

Never immerse the battery in water or any other liquid.

Do not allow children or mentally or psychologically handicapped persons to handle the battery without the supervision of a responsible person.

Do not open the battery.

Do not expose the battery to direct sunlight, fire or high temperatures.

Do not wear rings or other metal jewellery when handling/removing the battery from the e-bike. Careless handling could short circuit the battery or the entire system.

E-bike maintenance

Battery care

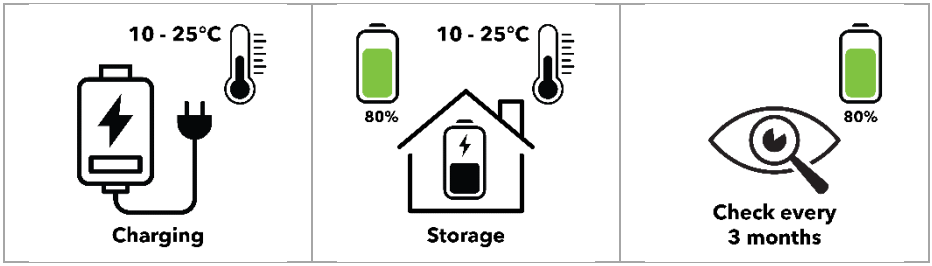
Charging – don't wait until the battery is completely drained. Ideally, charge it when it has approximately **20 %** power remaining. This helps to extend the life of the battery.

Cleaning – keep the battery clean and dry. Avoid direct contact of water with the battery when cleaning the bike.

Storage – if you do not use the e-bike for a long time, store the battery in a dry place at a temperature **of 10 – 25°C,** recharge it at least once a month to avoid complete discharge.

When storing the e-bike out of use for a longer period of time (at least 1 month), we recommend removing the batteries from the e-bike.

The battery can be discharged to **0 %** capacity during use. In this case, we recommend that you charge the battery as soon as possible. The battery can be recharged at shorter intervals (e.g. on longer trips). However, for longer battery life, we recommend charging **to 100 %** regularly.



Charge the battery at an ambient temperature **of 10 – 25°C**

Store the battery at **80 %** charge at **10 – 25°C**

Check battery capacity **every 3 months**

Preventive maintenance before each ride

Check bolts – regularly check the tightness of all bolts and nuts on the bike, especially after longer rides or transport.

Check wheel tightness in the frame and fork – check that you don't have a loose front or rear wheel in the frame.

Tires – Check tire pressure and inflate tires to the recommended pressure on the tire sidewall if necessary. The correct pressure significantly affects the maximum range of the e-bike.

Brakes – make sure the brakes are working properly and are not worn out. If the brake pads or discs are worn, replace them.

Regular wash

Gentle wash – wash your e-bike gently, avoiding strong water jets that could damage electrical components. Use a soft cloth and mild detergent.

Cleaning the chain – clean the chain and gears after every ride in mud or rain. Use a special chain cleaner and then lubricate the chain.

Lubrication

Chain – regularly lubricate the chain with special chain oil, especially after washing or riding in the rain. This helps reduce wear and improve performance.

Forks and shock absorbers – if your e-bike has suspension forks or shock absorbers, regularly lubricate them with silicone spray oil as recommended by the manufacturer.

Wheel and tire check

Tire condition – check the condition of your tires regularly and replace them if they are worn or damaged. Watch the pattern on the tires, once it starts to fade it's time for a replacement.

Tire pressure – maintain the correct tire pressure, which improves ride comfort and reduces the risk of a puncture.

Hub play – check the side play of the splined wheels regularly. Once the wheels start to have play, the hubs need to be cleaned and adjusted.

Racks and wires – periodically check the tightening of the wires in the splice at least by manually checking that the wires are squeezed together. If the braid is too soft, it must be checked and tightened. If a wire or nipple is damaged, replace the defective piece immediately.

Regular service

Professional inspection – have your e-bike checked by a professional once a year. Service includes engine diagnostics, checking electrical components and adjusting mechanical parts.

Software updates – if your e-bike has the option to update its software, check regularly for new versions that can improve performance and safety.

Security

Quality lock – use a quality lock and always secure your e-bike when leaving it unattended. Park in safe and well-lit areas.

Insurance – consider insuring your e-bike against theft and damage.

This regular maintenance will help you keep your e-bike in good condition, increase its lifespan and ensure a safe and comfortable ride.

How often to check and maintain the individual parts of the e-bike

To avoid potential problems, it is a good idea to check your e-bike regularly.

Here are some tips for easy maintenance:

Before each ride

- **Tire pressure**
- **Brakes** (pad and disc wear, brake functionality, fluid leak)

Every week

- **Wheel condition** (hub play, broken wire, rim play)
- **Suspension fork and shock absorber** (keep sliding surface clean and dust-free, lubricate with silicone oil)

Every month

- **Wheel frame** (check for welds and cracks in exposed areas)
- **Chain** (check the level of wear, especially on electric bikes it is necessary to check regularly with a chain gauge. This will prevent damage to the chain and the entire gear system)

- **Tightening the bolts of the connections** (observe the maximum tightening torque prescribed by the manufacturer, overtightening can destroy components or the frame itself)
- **Cranks and centre assembly** (play, tightening of cranks and pedals)
- **Bowden and ropes** (condition of bowden and ropes, loose ropes and frayed ends)

Every year

- LEVIT recommends that you have your bike serviced **every year**. This will prevent possible technical problems or maintenance neglect.

Frequently Asked Questions

How should I care for the battery?

The best battery care is regular riding. The optimum battery condition for longest battery life is **between 20 % and 80 %** charge. Before using the e-bike for the first time, we recommend charging the battery first and then using the e-bike. This will calibrate the battery and increase battery life.

Try to return from your ride with at least **10 %** battery. The battery can be discharged to 0% capacity during use. In this case, we recommend that you charge the battery as soon as possible.

The battery can be recharged at shorter intervals (e.g. on longer trips). However, for longer battery life, we recommend charging **to 100 %** regularly.

If the battery is fully discharged, connect it to the charger and let it charge **to 100 %**. In winter, store the battery in a dry place with a temperature **between 10** and **25** °C and a capacity approximately **80 %**. Then just check it once a month and if the capacity has dropped, charge it for about an hour.

How many km can I ride on an electric bike?

The range can never be precisely determined or guaranteed and always depends on several factors – rider's weight, track profile, use of electric assistance, temperature conditions, technical condition of the bike etc. If you have a longer trip and you are not sure of the range, take a charger with you.

What is the battery life?

Just like the range, the battery life cannot be accurately determined. Regular use of the e-bike and recharging the battery increases the lifetime. During the life of the battery, there is a continuous loss of capacity.

What if my battery stops working?

When the battery runs out, you need to get a new battery. LEVIT has most batteries in stock for this purpose and we recommend that you visit any LEVIT partner to purchase a new battery. The original battery is recyclable and we recommend dropping it off at any collection point or at your dealer.

What should I do with the electric bike over the winter?

If you do not use your e-bike for a long time, store it in a dry place at a temperature **of 10 – 25 °C**. Remove the battery and make sure it is charged. For long-term storage, remove the battery from the e-bike and leave it charged to about **80 % (= charge to 100 % capacity, then reduce the capacity to by riding the e-bike).**

Do not leave the battery discharged for long periods of time as this may cause irreversible damage to the battery. If you find that your battery is low, recharge it to full capacity and then let it cool down. Check your battery at least **once every 3 months** to make sure it has not dropped **below 50 %** capacity. Once the battery has dropped **below 50 %** capacity, charge the battery **to 80 %** capacity again.

Speed of 25 km/h is not enough, can anything be done about it?

After reaching this speed, the e-bike switches off the motor, but the motor does not brake in any way, so you can continue pedalling as on a normal bicycle.

What is the load capacity of the carrier?

LEVIT Forteco e-bikes are equipped with a luggage carrier. The maximum load capacity is indicated on the top of the carrier. Failure to comply with this limit may result in destruction of the carrier or the frame of the e-bike and thus void the warranty!

These carriers also allow quick mounting of accessories using the patented MIK solution.

If you want to chip your e-bike, you should be aware that the e-bike is then not roadworthy and any penalties for such use are at the user's expense.

If you have your e-bike chipped, it will void the warranty on your e-bike.

Warranty and warranty inspection

Warranty

To keep your e-bike running smoothly, it is recommended to have a warranty check after you have travelled **100 to 150 km**. During this inspection, all joints will be checked for tightness, brake and gear settings and the electrical system. The inspection will be carried out by the dealer from whom you purchased the e-bike and confirmed on the warranty card.

The warranty inspection should be carried out **within 3 months** of the start of the warranty (usually the date of sale) or after the vehicle has covered approximately **100 – 150 km**. If the inspection is not carried out, the e-bike may be permanently damaged, which could lead to the warranty not being honoured.

Claim process

- Always claim your e-bike or battery from the retailer where you bought the e-bike.
- When making a claim, please present the proof of purchase, the warranty card with the confirmed warranty inspection and the serial numbers of the frame and battery. Please state the reason for the claim and a description of the defect.

Warranty

- **24 months** on the frame and components of the e-bike – covers manufacturing and material defects beyond normal wear and tear.

- **12 months** on battery capacity – the nominal capacity of the battery will not fall below 70 % of its total capacity within 12 months of the sale of the e-bike.
- The warranty period is extended by the time the product has been under warranty repair.
- The warranty applies to the first owner only.

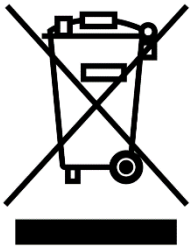
Terms and conditions

- The electric bicycle must be used only for the purpose for which it was manufactured (see Bicycle categories according to EN 17406, page 6)
- The e-bike must be used, stored and maintained according to the user manual.
- The warranty inspection must be carried out **within 3 months** of the start of the warranty or after the vehicle has covered approximately **100 – 150 km**.

The warranty entitlement ends

- If the product has been damaged by the user (accident, improper handling, interference with the design or electrical system, poor storage etc.).
- Expiration of the warranty period.
- In case of normal wear (e.g. wear on tires, chain, cassette, gears, brake pads etc.).
- If the e-bike has been "chipped".

Disposal of electrical equipment



The electrical and electronic components of the e-bike, such as the motor, battery, display, sensors and wiring, must not be disposed of in normal municipal waste. These components contain materials that can be harmful to the environment and human health if not disposed of properly.

To dispose of these parts correctly, it is important to take them to the designated collection points. These sites are equipped for the safe

treatment and recycling of electrical and electronic equipment. Dropping off at collection points is usually free of charge.

By disposing of these products properly, you help to protect valuable natural resources. Recycling allows you to reuse materials such as metals and plastics, reducing the need to extract new raw materials. This also helps reduce the amount of waste in landfills and prevents potential negative impacts on the environment and human health.

For more information on the correct disposal of electrical and electronic equipment, contact your local authority or visit your nearest collection point. Local authorities and collection points will give you details on how and where you can dispose of these products.

Improper disposal of this type of waste can lead to fines or other penalties under national regulations. It is important to comply with laws and regulations regarding the disposal of electrical and electronic equipment to avoid these legal consequences.

By following these guidelines, you will help protect the environment and the health of people in your community.

Electric bike models

This manual applies to the following models:

- LEVIT Forteco

Declaration of conformity

Producer
LEVIT s. r. o.,
Dr. Teuchmann 552, Úpice 542 32, Czech Republic
ICKO: 05565375, DIC: CZ05565375

Authorised representative
LEVIT s. r. o.,
Dr. Teuchmann 552, Úpice 542 32, Czech Republic

Machinery
Name: electric bicycle LEVIT
Type: CITY lowstep 1, CITY lowstep 3, CITY lowstep 5, CITY lowstep 7, CITY overstep 1, CITY overstep 3, CITY overstep 5, CITY overstep 7, SUV lowstep, MTB HT overstep, MTB HT lowstep, FS overstep, CITY folding
Model: LEVIT Atlas, LEVIT Beleco 1, LEVIT Beleco 3, LEVIT Beleco 5, LEVIT Beleco 7, LEVIT Flueco, LEVIT Forteco 1, LEVIT Forteco 3, LEVIT Negulo, LEVIT Rivero

Description of machinery
Bicycle with electronic power assist (EPAC)

The machinery complies with all relevant provisions

Directives (government regulations):

- Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery and amending Directive 95/16/EC (recast) (Government Regulation No 176/2008 Coll.)

Harmonised standards:

EN 15194+A1:2024
EN 17404:2022
EN 614-1+A1:2009
EN ISO 12100:2011
EN ISO 13849-1:2017

In Úpice on 2.1.2025

Person in charge: Petr Svoboda, CEO

Warranty Card

Seller	
E-bike dealer: Date of sale:	Stamp: Signature:

Data about the bike	
Model: Colour:	Production number: Size:

Warranty inspection	
Notes: Inspection Date:	Stamp: Signature:

Service inspections

Service records	
Notes: Inspection Date:	Stamp: Signature:
Notes: Inspection Date:	Stamp: Signature:
Notes: Inspection Date:	Stamp: Signature:

Service inspections

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