

# Mounting Instructions

## Multi-Identification





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# 1 Introduction

These mounting instructions put you in the position to operate the multi-identification unit safely as intended.

- > Please read the mounting instructions carefully before putting the multi-identification unit into service.
- > Keep the mounting instructions ready and available at all times and pass it on to the next user.
- > Observe all warnings and safety instructions in these mounting instructions at all times.

## 1.1 Copyright

The copyright for these mounting instructions is reserved by Förster-Technik.

## 1.2 Disposal

All components, liquids and solids must be disposed of in compliance with the official local regulations for waste prevention and appropriate waste recycling or disposal which apply in your country. Also observe the corresponding safety data sheets.

## 1.3 Transport

The multi-identification unit is delivered in a box with the dimensions 45 x 30 x 10 cm.

- > Check the product for visible signs of damage upon delivery and report them immediately to the carrier.

## 1.4 Contact details of the manufacturer

Please get in touch with us if you have any questions on our products or require technical support!

Please note down the item number and the serial number stated on the device to have it ready and available whenever you make a call.

**Item no.:**

**Serial no.:**

Our contact details:  
Förster-Technik GmbH  
Gerwigstr. 25  
D-78234 Engen, Germany  
Phone: +49 / (0)7733 / 9406 - 0  
Fax: +49 / (0)7733 / 9406 - 99  
[info@foerster-technik.de](mailto:info@foerster-technik.de)  
[www.foerster-technik.de](http://www.foerster-technik.de)

## 2 For your safety

### 2.1 Target group

#### 2.1.1 Necessary qualifications of the owner

The owner must be a trained farmer or have good practical experience in farming. He must be familiar with the relevant accident prevention regulations and generally accepted safety regulations.

#### 2.1.2 Necessary qualifications of the service technician

Only trained service technicians are authorised to install the multi-identification unit, put it into service and subject it to maintenance and repairs.

Service technicians are electricians with appropriate qualifications, i.e. they are able to assess the work assigned to them and detect potential risks on the basis of their technical training as well as their knowledge of the relevant standards. This also includes knowledge of relevant accident prevention regulations, generally accepted safety regulations, EU guidelines and country-specific standards and provisions.

### 2.2 Intended use of the multi-identification unit

Only use the multi-identification unit as an electronic transmitter and receiver unit for RFID for Vario (+) and Compact (+) automatic calf feeders.

### 2.3 Indication of hazards

Hazards are indicated by a key word and a corresponding sign, depending on the severity and probability:

**Danger!**

For an imminent danger, resulting in serious injuries or death.

**Warning!**

For a potentially dangerous situation which may cause serious injuries or even death.

**Caution!**

For a potentially dangerous situation which may cause minor injuries or material damage.

**Attention**

For a potentially harmful situation in which the product or an item can become damaged within its environment.

**Note**

For application notes and other useful information.

However, it is just as important to observe any other notes and information which are not highlighted to avoid failures which, in turn, may cause direct or indirect injuries or material damage.

## 2.4 Safety signs on the machine

The safety signs on the machine are an important part of the safety concept and help prevent accidents.

They indicate danger areas at the machine and warn against residual risks.

Keep all safety signs completely in legible condition and renew them if they become unreadable.

**Do not spray-wash!**

Water (liquids) can damage electrical components.

- Do not spray the multi-identification unit. Do not use any high-pressure cleaners or similar equipment either.
- To clean the multi-identification unit, wipe it only with a damp cloth.



## 2.5 Obligations of the owner

The owner is obliged to:

- Rule out misuse by children,
- Carefully read and understand these mounting instructions before putting the multi-identification unit into service,
- Only allow operating personnel to work with/on the multi-identification unit who:
  - Are familiar with the basic operational safety and accident prevention regulations,
  - Have been given instructions on work with/on the multi-identification unit,
  - Have read and understood these mounting instructions,
- Operate the multi-identification unit only as intended,
- Do not change the design or functions of the multi-identification unit,
- Operate the multi-identification unit only in perfect functional condition,
- Subject the multi-identification unit to regular visual inspection for possible damage and have it rectified by a service technician if necessary,
- Make sure the multi-identification unit's connection point is easy to access at all times,
- Make sure the multi-identification unit is mounted at the point intended,
- Protect the multi-identification unit and the corresponding cable from exposure to sunlight.

## 2.6 Obligations of the operator

Before beginning work, the operator is obliged to:

- Observe the basic operational safety and accident prevention regulations,
- Read and understand these mounting instructions,
- Observe all the safety information and instructions included in these mounting instructions.

The compulsory accident prevention regulations which apply at the operation site in the country of use and the technical rules for safety-related and specialist work must also be observed by all means.

## **2.7 Structural alterations**

The multi-identification unit must not be subjected to any unauthorised alterations at any time.

Only original spare parts, wear parts and accessories may be used, since any warranty claims will otherwise expire.

### 3 Technical data

#### 3.1 Multi-identification



Height: 430 mm

Width: 300 mm

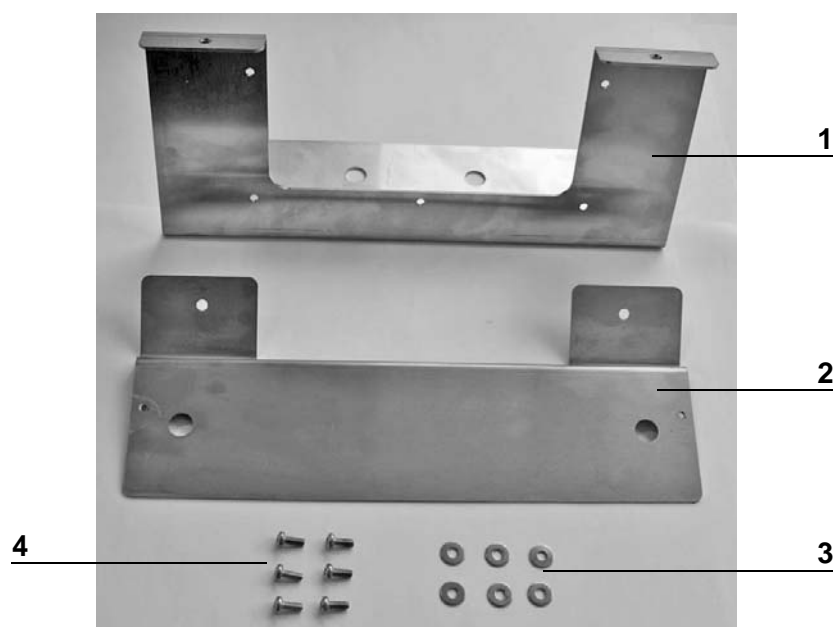
Depth: 100 mm

## 3.2 Accessories

### 3.2.1 Mounting bracket (with front plate mounting)



#### 3.2.1.1 Scope of delivery of the mounting bracket



1 Upper mounting bracket	3 Washers (6x)
2 Lower mounting bracket	4 Fillister head screws (6x)

### 3.3 FCC

This equipment complies with Part 15 of the FCC rules. Any changes or modifications not expressly approved by the Manufacturer could void the user's authority to operate the equipment. This device complies with Part 15 of the FCC rules subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept all interference received, including interference that may cause undesired operation.

<b>Note</b>	This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
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### 3.4 IC

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

This device complies with Health Canada's Safety Code 6 / IC RSS-210. The installer of this device should ensure that RF radiation is not emitted in excess of the Health Canada's requirement.

Cet appareil est conforme avec Industrie Canada RSS standard exempts de licence (s). Son utilisation est soumise à Les deux conditions suivantes: (1) cet appareil ne peut pas provoquer d'interférences et (2) cet appareil doit accepter Toute interférence, y compris les interferences qui peuvent causer un mauvais fonctionnement du dispositif.

Cet appareil est conforme avec Santé Canada Code de sécurité 6 / IC RSS-210. Le programme d'installation de cet appareil doit s'assurer que les rayonnements RF n'est pas émis au-delà de l'exigence de Santé Canada.

## 4 Putting the unit into service

### 4.1 Notes on installation

- > Keep the distance between the antenna and the transmitter as small as possible.
- > Only the animal to be identified in the box is permitted to be within the range of the antenna.
- > Check the range of the antennas using the antenna test (see **5 Diagnosis, page 21**).
- > If an animal entitled to feed is outside the feeding box, but within in the range of the antenna, a portion might be prepared that the animal will not receive. If necessary, block the area next to the feeding box.

If two animals are identified simultaneously by one antenna, animal identification is interrupted for both animals.

- > The distance between two antennas should be approx. 100 cm to avoid any range overlapping. In the event of double or external identification, the antennas will need to be shielded using earthed metal plates.

### 4.2 Squelch values and identification ranges

The approx. range of the antennas is 15 - 25 cm.

The antenna version is decisive for the identification range. With Nedap micro-identification, you can set the range via the squelch value.

The squelch values and the identification ranges for the various identification systems are listed in the following table. These squelch values are based on experience and are set at the factory.

System	Squelch (default values)	Identification range
Collar (X responder system)	-	20 - 25 cm
Earmark in the collar Earmark (Nedap system)	0	15 - 18 cm
Earmark in the collar ear- mark (Tiris system)	-	15 - 18 cm

### 4.3 Installing the multi-identification unit

The multi-identification unit can be fastened at three different positions to the Flex100 partition:

- Front plate
- Left side
- Right side

<b>Note</b>	If mounted at the side, the height of the identification unit can be adapted to the position of the transponder.
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<b>Note</b>	If X-Responders are used, it is recommended to mount the multi-identification unit with the bracket (optional) on the front plate.
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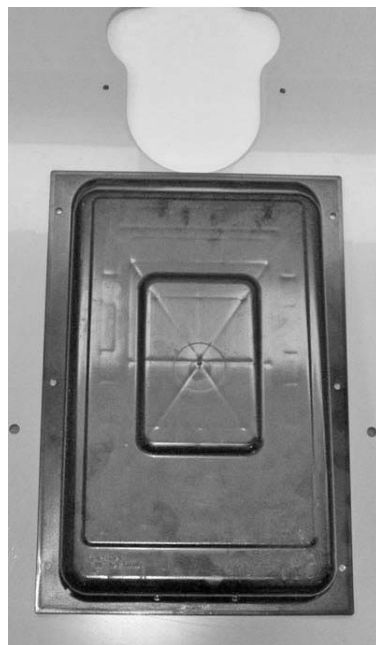


### 4.3.1 On front plate

#### 4.3.1.1 Without bracket

Proceed as follows for the installation:

1. Place the antenna box on the front plate, in the centre. Please make sure that:
  - The flat side faces upwards,
  - The upper edge of the antenna box is flush with the lower edge of the recess on the front plate.
2. Fasten the antenna box to the front plate using the screws enclosed (see figure).



3. Drill a hole into the front plate directly beneath the antenna box and feed the antenna cable through it.

<b>Attention</b>	Make sure the antenna cable is installed outside the animal area to prevent it from being damaged.
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#### 4.3.1.2 With bracket (optional)

1. Fasten the bracket from the rear to the antenna box using the screws and washers enclosed to the scope of delivery of the bracket.
2. Screw the antenna box to the antenna cover using the remaining screws and washers.
3. Place the antenna box on the front plate, in the centre. Please make sure that:
  - The flat side faces upwards,
  - The upper edge of the antenna box is flush with the lower edge of the recess on the front plate.
4. Fasten the antenna box to the front plate using the screws enclosed (the drill holes are already pre-drilled on the bracket).



5. Drill a hole into the front plate directly beneath the antenna box and feed the antenna cable through it.

<b>Attention</b>	Make sure the antenna cable is installed outside the animal area to prevent it from being damaged.
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#### 4.3.2 On the left or right in the Flex100 partition

Proceed as follows for the installation:

1. Before attaching the antenna, drill the opening for the cable at the position displayed below.



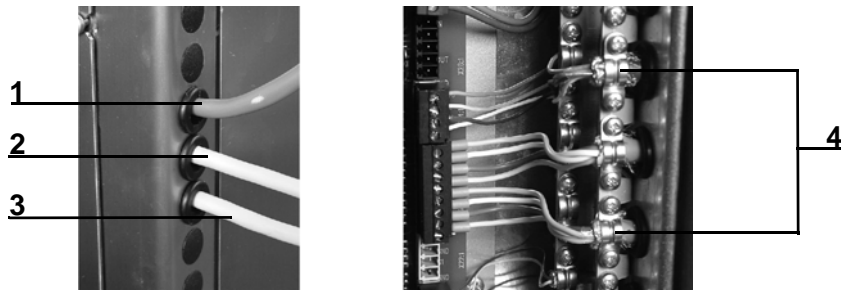
2. Fasten the antenna box to the side part of the feeding box using the screws enclosed so that the flat side faces the rear (see figure).



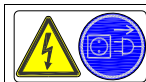
3. Feed the antenna cable through the cable opening that you drilled before.

<b>Attention</b>	Make sure the antenna cable is installed outside the animal area to prevent it from being damaged.
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#### 4.4 Connecting the multi-identification unit to the main board



1 Cable of the hand-held terminal	3 Antenna cable of feeding station 2
2 Antenna cable of feeding station 1	4 Cable clamps



#### **Danger due to live electrical components!**

Live electrical components.

Danger of death by electric shock!

- Always disconnect the mains plug before starting any work on the control box of the automatic feeder.

1. Remove the housing cover from the control box.
2. There are two more cable sleeves under the cable sleeve for the hand terminal cable. Push the antenna cables through them into the control box.
3. Connect the cables of the multi-identification unit / antenna to the main board in accordance with the wiring diagram.
4. Fasten the wiring looms to the cable brides.

<b>Attention</b>	To ensure earthing, you must also connect a shield of approx. 1 cm (if available). Make sure that the shield lies on the sheath and not on the cable insulation.
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5. Connect the control box.

## 5 Diagnosis


The **Diagnosis** menu of the automatic feeder is for checking the multi-identification unit and its functions. It facilitates troubleshooting if there is a technical problem with the multi-identification unit. The menus relevant for the multi-identification unit are available via the following menu path:

 > **Diagnosis** > **Boxes**

```
Diagnosis
  Valves
  Motors
  Heating
  Sensors
  ► Stations
  Control
  Version
```

### 5.1 Checking the feeding boxes

You can check whether the identification of the feeding box works here.

1.  > **Diagnosis** > **Stations** > **Feed** > **Feeding station 1...**
2. To check the identification (antenna test), hold the transmitter near the antenna. The transmitter number is displayed in the **No.** line.

If the transmitter number is not recognised, proceed as follows:

1. Check in the setup whether the correct identification system is configured.
2. Check the data line between antenna and automatic feeder for damage.
3. Check the setup for the allocation of the box that causes identification problems.

```
Station
  ► Feed
    Concentrate
```


```
<Feeding station 1>
  ► No. #: 11456
    Pump: start?
    Teat slider: open?
    C.Protect: close?
    Feed sensor: active
    Motor pulses: 22
    Control: IFS-F 1
    Animal scales
    search?
```



## 6 Warnings

**Warnings** indicate problems that do **not interrupt the automatic operation of the automatic feeder**. Warnings are indicated by the LED flashing on the hand terminal of the automatic feeder.

Some warnings disappear when the fault has been rectified.

Some need to be (additionally) deleted by pressing .

### 6.1 Identification

If the identification system is not working, this message appears on the display:

- > Check the cables leading to the antenna for any visible damage (example: animal bites).

- > Also check that the (correct) antenna is activated.

The warning is automatically deleted when the fault has been rectified.

Warning

► Identification

<Identification>

▷ No connection





## 7 Maintenance

The visual inspection of the components can be conducted by the owner/operator.

Repair work must **always** be performed by a service technician.

### 7.1 Maintenance intervals and activities


<b>Note</b>	If you detect any faults or damage to the multi-identification unit between the maintenance intervals recommended below, you must make sure they are rectified immediately by a service technician as required.
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#### 7.1.1 Daily

##### Visual inspection of the components

All components must be checked visually every day for damage and deposits. If any damage is detected during the visual inspection, the faulty components have to be replaced by a service technician before work can be resumed with the multi-identification unit.

### 7.2 Care

	<p><b>Do not spray-wash!</b></p> <p>Water (liquids) can damage electrical components.</p> <ul style="list-style-type: none"> <li>• Do not spray-wash the multi-identification unit. Do not use any high-pressure cleaners or similar equipment either.</li> <li>• To clean the multi-identification unit, only wipe it with a damp cloth.</li> </ul>
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You should have dirt removed from the multi-identification unit from time to time. However, soiling does not have any negative effects on the identification results.

