

# USER MANUAL

## Manual

EN

**TX**

**Pyxis 2S**

**TX**

**Corvus 2S**

**TX**

**Libra 2S**

**TX**

**Cetus 2S**



# 1. Introduction

This manual is intended for both the installer and the end user. The operating instructions depend on the application; the person with final responsibility is responsible for this. Keep this manual and if you pass the product on to third parties, also provide them with all the documents.

## Intended use

The (end)user must keep the transmitter safe and such that it cannot be used by unauthorized or unqualified persons.

This product has been developed for the wireless, radiographic control of machines. Application examples are: winches, pumps, gates, doors, lighting and electrical control / axle control of trailers for special transport. If your application differs significantly, please contact Tyro Remotes to avoid incorrect use of this product.

## Important information

Our general terms and conditions of sale that can be requested or downloaded via our website ([www.tyroremotes.co.uk](http://www.tyroremotes.co.uk)) apply at all times. After incorporation into your system, you are responsible for having the system in combination with the remote control certified.

## Operating conditions

The hand-held transmitter cannot operate at temperatures under -20°C or above 60°C (-4°F till +140°F). The hand-held transmitter may only be charged at temperatures between 10°C and 45°C (50°F till +113°F). In order for the transmitter to operate safely and properly it must be charged every day. For transmitters with a battery, check that the battery level is sufficient through the battery indicator.

## Performance

The performance of our products depends on many factors. Issued specifications are indicative. For a detailed explanation, visit [www.tyroremotes.co.uk/tyropedia](http://www.tyroremotes.co.uk/tyropedia).

## Everything to your liking?

We do our utmost to deliver our products to your satisfaction. If this is not the case, please contact us. Keep to the following deadlines:

- Visible defects must be reported within 2 working days of the delivered goods.
- If we have not heard from you within 2 weeks after delivery, we assume that you have approved the delivered goods.
- If you have other complaints, please report this to us as soon as possible, but no later than 2 months after the delivery.

## Declarations of Conformity

The complete declaration of conformity can be found on the last pages of this manual.

## Frequencies

It is important to know what frequency is allowed in the area where the product will be used. Whether or not a particular frequency is allowed depends on national legislation. Using the correct frequency is the end customer's responsibility.

The table below shows which frequencies may be used where. This frequency table shows which frequencies are allowed in a particular continent according to the regulations in force there. Additional country-specific certification may be required. Always contact your contact person first to check whether the country certification, where you want to use the system, is already available.

| Frequency bands used                    |           |         |         |
|-----------------------------------------|-----------|---------|---------|
|                                         | 434 MHz   | 915 MHz | 2.4 GHz |
| Hopping protocol                        | LBT / AFA | FHSS    | FHSS    |
| North-America                           | ✓         | ✓       | ✓       |
| Central & South America                 |           | ✓       | ✓       |
| Brazil                                  | ✓         |         | ✓       |
| Africa                                  | ✓         |         | ✓       |
| Oceania                                 |           |         | ✓       |
| Asia                                    |           |         | ✓       |
| Japan                                   |           |         | ✓       |
| Worldwide                               |           |         | ✓       |
| LBT: Listen Before Transmit             |           |         |         |
| AFA: Automatic Frequency Aqility        |           |         |         |
| FHSS: Frequency Hopping Spread Spectrum |           |         |         |

## 2. Safety



### Warning: risk of injury or damage!

To avoid dangerous situations, please observe the following rules:

In case of changes, doubts about the rules or if something is unclear, please contact Tyro Remotes.

|                       |                                                                                                                                                                                                                                                                                        |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Check before use      | Always check that all buttons and stop button* function properly before use (*if stop button is present)                                                                                                                                                                               |
| Line of sight         | The operator must have a view of the danger zone at all times. Use the hand-held transmitter only if there is a line of sight with the remote controlled application.                                                                                                                  |
| Care                  | Never leave the hand-held transmitter unattended.                                                                                                                                                                                                                                      |
| Simulate              | Always simulate operation on connection before connecting to the mains to avoid any damage.                                                                                                                                                                                            |
| ESD                   | Always follow the ESD instructions if you come into contact with internal parts to avoid any damage.                                                                                                                                                                                   |
| Instruction           | The end user must always be instructed on the safe operation of the remote control in combination with the entire system by the person responsible for the system.                                                                                                                     |
| Operation             | We advise against using the hand-held transmitter with (thick) gloves, with which you cannot feel the buttons properly.                                                                                                                                                                |
| Lifespan              | If the remote is well maintained and used normally, the expected life is 10 years. After that we recommend replacing the remote. In the case of PLD approved products, regardless of their condition, they should be replaced for safety reasons after 10 years (the expiration date). |
| Multiple transmitters | Please pay attention when using multiple transmitters with one receiver. In the standard configuration the receiver does not distinguish between the signals of the different transmitters.                                                                                            |
| Out of range          | The operator of an active system should always remain in range (varies depending on the situation) to avoid risky situations.                                                                                                                                                          |
| Damage                | In case of (visible) damage always send the product to the manufacturer or distributor for repairs, to avoid risky situations.                                                                                                                                                         |
| Installation          | Always have the system installed by a licensed electrician.                                                                                                                                                                                                                            |
| Annual inspection     | The system should be inspected annually, see section: Maintenance                                                                                                                                                                                                                      |
| Documentation         | Documentation should always be made available to the (end)user, instruction should be given if necessary.                                                                                                                                                                              |
| Risk of shutdown      | If several radio-frequency devices within the range are active on the same frequency, there is a risk that the system may unintentionally shut down.                                                                                                                                   |



### Warning: danger of property damage or personal injury!

After a safety shutdown of the system, it should not be put back into operation until the user has ascertained the safety of the operating and operating conditions.



### Warning: danger of fire and death!

The battery should not be opened or short-circuited, it may overheat or catch fire. Avoid extreme conditions and temperatures that could affect the battery, as this may cause the battery to leak and release hazardous materials.

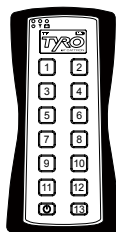
### 3. Transmitter description



**Pyxis 2S,  
Corvus 2S,  
Libra 2S**



**Pyxis 2S SAFE,  
Corvus 2S SAFE,  
Libra 2S SAFE**

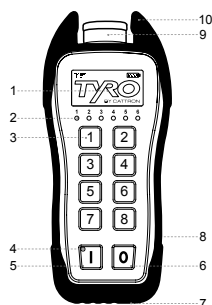


**Cetus 2S**



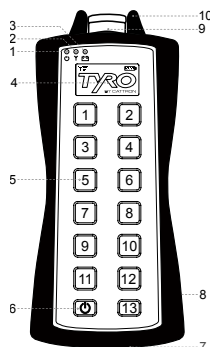
**Cetus 2S Safe**

#### Physical features



1. LCD display (optional) or Logo window
2. Function LEDs
3. Function buttons
4. Status LED
5. On-button
6. Off-button
7. Charging plug
8. Charging system for Carkit / wall holder, at the backside (optional)
9. Stop button (optional)
10. Sleeve (optional)

#### Physical features



1. Transmit power / Range indicator via LED
2. Battery indicator via LED
3. Transmit power / Range indicator on LCD\*
4. LCD display (optional) or Logo window
5. Function buttons
6. On/Off-button
7. Charging plug
8. Battery compartment, at the backside
9. Stop button (optional)
10. Sleeve (optional)

| Pyxis 2S, Corvus 2S, Libra 2S specifications |                                                                                 |                     | Cetus 2S specifications |                                                                                 |                     |
|----------------------------------------------|---------------------------------------------------------------------------------|---------------------|-------------------------|---------------------------------------------------------------------------------|---------------------|
| Battery                                      | 3x 1.2Vdc 1500 mAh Ni-MH rechargeable battery pack                              |                     | Battery                 | 3.6Vdc 1500 mAh Ni-MH rechargeable battery pack                                 |                     |
| Antenna                                      | Integrated / BNC / FLEX                                                         |                     | Antenna                 | Integrated / BNC / FLEX                                                         |                     |
| Frequencies                                  | 434 MHz / 915 MHz / 2.4 GHz                                                     |                     | Frequencies             | 434 MHz / 915 MHz / 2.4 GHz                                                     |                     |
| Battery life                                 | Approx. 40 hours*<br>With keyboard backlight 10 hours*<br>* At room temperature |                     | Battery life            | Approx. 40 hours*<br>With keyboard backlight 10 hours*<br>* At room temperature |                     |
| Weight                                       | Pyxis 2S                                                                        | 216 gram / 0.47 lbs | Weight                  | Cetus 2S                                                                        | 400 gram / 0.88 lbs |
|                                              | with Safety Package                                                             | 240 gram / 0.53 lbs |                         | With Safety Package                                                             | 457 gram / 1.01 lbs |
| IP-classification                            | IP65 (protected against jets of water)                                          |                     | IP-classification       | IP65 (protected against jets of water)                                          |                     |
| Max. Transmit power                          | 10.0 dBm at 434 MHz and 915 MHz                                                 |                     | Max. Transmit power     | 10.0 dBm at 434 MHz and 915 MHz                                                 |                     |
|                                              | 20.0 dBm at 2.4 GHz                                                             |                     |                         | 20.0 dBm at 2.4 GHz                                                             |                     |



**Please note: charge the batteries on time**

Ni/Mh batteries discharge slowly if not charged on time.

With regards to battery life, our recommendation is to recharge the batteries every 2-3 months.

## 4. Transmitter functions

### 4.1 Basic functions

#### LCD Display (optional)

- The LCD display has a resolution of: 97 x 32 pixels.
- Of this, 3 lines of 97 x 8 pixels can be freely described. (Depending on the configuration)
- Without display, a logo is shown here: 44 x 22 mm.

Handheld remotes equipped with a LCD-display include the following 'standard' functions:

#### Transmit power / Range indicator

- With simplex systems, the transmit power is shown on the display.
- With duplex systems, a range indicator is shown on the display.

#### Battery indicator

- Indicates indicatively how full the battery is.
- Battery animation when the transmitter is charging.

#### Function LEDs

- Depending on the model, 4 or 6 LEDs are present.
- These LEDs can show different functions. This depends on the systems configuration.

#### Function keys

- The function buttons can be freely programmed.
- These buttons are used to control the functions on the receiver.

#### Status LED

- Control is active, LEDS is constant green. Control is active.
- Control is active, LED flashes red, battery low or handheld is out of range.
- Control is active, LED blinks green/red. Transmitter out of range (Only for duplex systems)
- Control is off, LED flashes red, battery is charging.

#### On-button

- Press for 2 seconds, transmitter and receiver become active.

#### Off button

- Always active, immediately switches off transmitter and receiver.
- If the battery of the transmitter is empty, the receiver also switches off automatically (if within range).

#### Charging plug

- Plug for charging the hand-held transmitter.

#### Stop button (optional)

- This option is part of the optional Safety Package.
- Push button to stop the system immediately in an emergency.

#### Sleeve (optional)

- This option is part of the optional Safety Package.
- Protective rubber sleeve to protect the Stop button and body.

#### Charging system for car kit / wall holder (optional)

- Optional charging system with rear contact points on the handheld remote.

#### Cetus 2S specific functions:

##### Transmit power / Range indicator LED (Cetus 2S only)

- Lights up continuously green when the transmitter is active.
- For simplex systems, the LED shows the transmit power.
- For duplex systems, the LED shows the strength of the return signal (range indicator).

##### Battery indicator LED (Cetus 2S only)

- Blinks red when the battery is almost empty.
- Lights up continuously when the transmitter is being charged.

### 4.2 Function descriptions

#### Keyboard / LCD lighting

The remote control is equipped with keyboard and/or LCD-display lighting. You can activate the lighting by pressing down the green "on" button ("I") longer for 5 seconds, on an active transmitter. To deactivate the lighting, press and hold the green "on" button ("I"). When you switch off the transmitter, the keyboard lighting is also deactivated.

#### Buzzer function (optional)

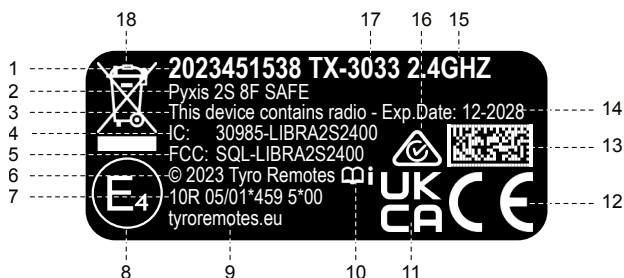
The remote control can optionally be equipped with a buzzer. The buzzer can be programmed to show an active sound when:

- When two buttons are pressed simultaneously (continuous tone).
- Battery low indication (short tone, 20x), 8 hours before battery is empty.
- Inside / outside range
- Signal strength (too) low
- Feedback when min/max values are reached

## 5. System identification

### 5.1 Identification via serialnumber sticker

The system can be identified by a serialnumber sticker on your transmitter or receiver. The actual position and the content on the label varies per product name and type. The figure below explains the contents of the serialnumber sticker.



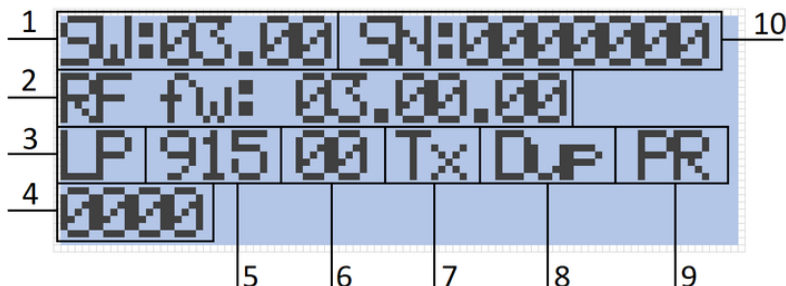
#### Serialnumber sticker explanation

|    |                                  |     |                                                          |
|----|----------------------------------|-----|----------------------------------------------------------|
| 1. | Serial number                    | 10. | For more information, please refer to instruction manual |
| 2. | Product name and type            | 11. | UKCA mark                                                |
| 3. | Contains radio mark              | 12. | CE Certification                                         |
| 4. | IC mark and # number             | 13. | QR code with serial number                               |
| 5. | FCC mark and ID-number           | 14. | Expiration date                                          |
| 6. | Copyright & Manufacturer         | 15. | Frequency in MHz                                         |
| 7. | ECER10 / E4 certification number | 16. | RCM mark                                                 |
| 8. | E4 mark                          | 17. | Type number of the print                                 |
| 9. | Website URL for full details     | 18. | WEEE Logo                                                |

### 5.2 Identification via LCD display (if available)

For systems with a display, an information screen can be activated using the steps below. The system is equipped with an information screen that provides the user with an overview of the current system settings.

From the normal operating mode, the information screen can be displayed by pressing and holding the OFF button for 2 seconds. This action activates the display of the information screen, which remains active until the OFF button is released.



#### LCD display explanation

|    |                                                      |     |                                                  |
|----|------------------------------------------------------|-----|--------------------------------------------------|
| 1. | Firmware of the transmitter.                         | 6.  | Channel number set                               |
| 2. | Firmware of the radio module                         | 7.  | Type of device. TX = Transmitter, RX = Receiver. |
| 3. | Indication of the type of radio module.              | 8.  | Communication mode. Dup = Duplex, Sim = Simplex. |
| 4. | Information about the protocol type.                 | 9.  | PR = Primary, SE = Secondary                     |
| 5. | Base frequency of the module (434, 868, 915 or 2.4). | 10. | Serial number                                    |

## 6. Safety package (optional)

The system can optionally be fitted with a Safety Package. The black rubber protective sleeve and the red stop button at the top of the transmitter indicate that a system has been fitted with this option.

### Stop button and black rubber protective sleeve

The red stop button at the top of the hand-held transmitter is intended to stop the operation as quickly as possible in case of an emergency.

### Out of range protection

If the transmitter goes out of range of the receiver, the receiver can no longer react to the transmitter's commands. When the transmitter goes out of range, the receiver will switch off automatically to avoid dangerous situations. If the transmitter's battery is empty, the receiver will also switch off automatically. When the transmitter is activated within the range of the receiver the receiver will restart. The status LED will light-up red for a few seconds.

## 7. Resolving problems

If the system is not working properly, check the following points:

| The receiver does not react when you give a command on the transmitter: |                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The receiver does not have any power.                                   | Check that the receiver is connected correctly and/or the fuse is intact. *Note not all receivers have an removable fuse.                                                                                                                                                                                                                                                 |
| You are out of range of the receiver.                                   | Make sure you are within range of the receiver and there are no large (metal) objects between you and the receiver or antenna of the receiver.                                                                                                                                                                                                                            |
| The transmitter is not programmed to the receiver.                      | Follow the steps in section "Programming (an additional or new) transmitter to the receiver" to program the transmitter to the receiver again.                                                                                                                                                                                                                            |
| Frequency overlap                                                       | If you use multiple wireless (Tyro) systems in 1 room or within a radius of 200 meters (219 yards), check that no frequencies overlap, the frequency of Tyro systems can be checked on the sticker attached to both the transmitter and the receiver.<br><br>If you use multiple Tyro systems, please contact Tyro Remotes to check if the frequency need to be adjusted. |
| Button blocking                                                         | Multiple buttons may be pressed simultaneously. This may cause certain functions not to be activated or blocked.                                                                                                                                                                                                                                                          |

| The transmitter is not working                                                                                                    |                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The transmitter does not switch on when you push a button.                                                                        | The battery may be empty, recharge the battery.<br><br>Make sure no other buttons are pressed other than the ON button.<br><br>For a handheld transmitter with Safety Package, the stop button may be depressed, pull out the stop button. |
| You are out of the receiver's range.                                                                                              | Position the handheld transmitter closer to the receiver.                                                                                                                                                                                  |
| The transmitter does not switch on when you pull out the stop button<br>*Only if your transmitter is equipped with a stop button) | The battery may be empty, charge the battery.<br>If not, the transmitter is defective and you must provide the system for repair.                                                                                                          |

### Range

The maximum range indicated is based on a measurement with the line of sight without interference. The indicated range cannot be guaranteed because it is always subjective to variable environmental factors. In particular deflection, reflection and shadows can decrease the maximum range.

Objects present in between the transmitter and the receiver, in particular metals, reinforced concrete or absorbing objects like trees or snow, have an unpredictable influence on the maximum range. In general the optimal range can be achieved when there is a line of sight between the transmitter and the receiver. Please also see [www.tyroremotes.com/tyropedia](http://www.tyroremotes.com/tyropedia) for more information about range.

### Frequencies

Check if there are no other wireless devices that operate on the same frequency as that will have a negative impact on the performance and the range of the system.

## 8. Pairing (an additional or new) transmitter to the receiver



**Please note: all systems have already been programmed at the factory!**

You can skip this part unless you wish to program an additional or replacement hand-held transmitter to the receiver!

If you wish to program an additional or replacement hand-held transmitter to the receiver, take the following steps:

### Put the hand-held transmitter in 'pairing mode'

| Step | Description                                                                                                                                                                                                                                                                                       |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | Turn the transmitter off using the "OFF" button.                                                                                                                                                                                                                                                  |
| 2    | Press and hold the transmitter ON and OFF buttons simultaneously until the system boots up. The menu LEDs indicate that the "learning mode" is active. (These fill from left to right)                                                                                                            |
| 3    | The screen shows the progress of the learning process. At 100%, the system automatically switches to "normal mode."                                                                                                                                                                               |
| 4    | If no receiver is found, the system returns to "normal mode" after 60 seconds. Previously paired receivers remain active. In a standard configuration, 8 handheld transmitters can be paired per receiver. Each additional handheld transmitter overwrites the first paired handheld transmitter. |

### Put the receiver in 'pairing mode'

| Step | Description                                                                                                                                                                     |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | Locate the pairing button on the receiver. Depending on the model of transmitter there are two types of 'paring buttons'.                                                       |
| 2    | <b>Models: Aquarius, Hydrus, Scorpius</b><br>Black programming button on the bottom.                                                                                            |
|      | <b>Models: Auriga, Pavo, Aquila, Norma, Virgo</b><br>White programming button on the PCB                                                                                        |
|      | Open the casing by loosen the screws. You will see 2 circuit-boards: one on top of the other. Locate the white button.                                                          |
|      |               |
| 3    | Press and hold the programming button for 1 second.                                                                                                                             |
| 4    | When both transmitter and receiver are in pairing mode they should find each other to make pairing succesfull.                                                                  |
| 5    | Check the functionality by pressing a button, if the status LED on the receiver blinks green or yellow ( $\pm 2x$ per second), the programming has been completed successfully. |

### Limitation

Multiple transmitters can be programmed. The limitation is that only one transmitter can be active at the same time. This is the transmitter that switches on the receiver. Another transmitter is ignored until the receiver is switched off and started by that other transmitter.

## 9. Maintenance

### Maintenance check-list

To ensure that the system continues to function optimally during the service life, it is essential that annual maintenance is performed. Check-list below must therefore be carried out annually.

#### Check the system on the following points:

- Visible damage to the transmitter or the receiver, if so offer to repair the set.
- Make sure that the system still is connected correctly, if not repeat the control in chapter "assembly of a standard system".
- Check if the expiration date of the product is expired, if so the set should not be used anymore.
- Verify system operation by verifying that the system enters a safe state when the safety inputs are disabled. If not, submit the set for repair.

|                                          |  |                                          |                      |
|------------------------------------------|--|------------------------------------------|----------------------|
| Year 1, after checking<br>sign off here: |  | Year 6, after checking<br>sign off here: |                      |
| Year 2, after checking<br>sign off here: |  | Year 7, after checking<br>sign off here: |                      |
| Year 3, after checking<br>sign off here: |  | Year 8, after checking<br>sign off here: |                      |
| Year 4, after checking<br>sign off here: |  | Year 9, after checking<br>sign off here: |                      |
| Year 5, after checking<br>sign off here: |  | Year 10, replace set                     | REPLACE COMPLETE SET |

### Lifespan

A product version with emergency stop and PLd performance approval has a life of up to 10 years, depending on use and maintenance. Each PLd certified product is marked with an expiration date, after which the product may no longer be used. This date is shown on the serialnumber sticker at "exp. date". If the system is repaired, the expiration date remains the same. The stated service life comes from Performance Level certification (ISO 13849-1) and is not a form of warranty for planned product phase-out or quality assurance.

## 10. Service

If a Tyro Remotes' remote control has a problem or requires service, please send the entire system (transmitter and receiver) to Tyro Remotes for repairs. To ensure that this occurs smoothly, please print out the service form, fill it in and send it to us together with the system. The service form can be downloaded from our website [www.tyroremotes.com/support](http://www.tyroremotes.com/support)

### Cleaning and maintenance

- Do not use chemical cleaning agents or abrasives for cleaning, this can damage the service panel.
- We recommend you use a damp cloth with slightly soapy water.
- If the device is soiled, please contact Tyro Remotes to consult how to best clean it.
- Never submerge the appliance in water or other liquids, this can cause the appliance to become defective.
- Make sure that no water enters the appliance. Should this happen anyway, only use the appliance once it has been dried completely and tested.

### Conditions of sale and certification

All deliveries are made according to our conditions of sale. These are available upon request or can be downloaded directly from our website ([www.tyroremotes.com](http://www.tyroremotes.com)). The products are certified for many applications. These certificates are also available upon request. You are responsible to take into account the machine directive guidelines that are applicable to your machine in the corresponding application area. In case you provide your machine with a Tyro remote control as standard, the certification of the entire system - including the Tyro remote control - is your responsibility.



#### Please note:

Tyro Remotes is not responsible for personal, material and consequential damages caused by improper or careless use, which are in conflict with the provisions, instructions and guidelines included in this manual.

## 11. Disclaimer

Tyro Remotes is a subsidiary of Cattron™.

Any information furnished by Cattron™ and its agents is believed to be accurate and reliable. All specification are subject to change without notice. Responsibility for the use and application of Cattron product rests with the end user since Cattron and its agents cannot be aware of all potential uses.

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| Production & Service |                                                                         |
|----------------------|-------------------------------------------------------------------------|
| Name                 | Cattron Production Centre EMEA<br>- Tyro Remotes Production & Service - |
| Address              | Minkovická 696                                                          |
| Zipcode              | 46312                                                                   |
| Location             | Liberec, Czech Republic                                                 |
| Manufacturer         |                                                                         |
| Name                 | Tyro Remotes                                                            |
| Address              | Bedrijvenpark Twente 299                                                |
| Zipcode              | 7602 KK                                                                 |
| Location             | Almelo, The Netherlands                                                 |
| Phone number         | +31 546 588790                                                          |
| Website              | www.tyroremotes.eu                                                      |

## 12. Delarations of conformity

### 12.1 CE declaration (page 1/2)



#### Declaration of incorporation of partly completed machinery

*In accordance with Annex IIA from the Machinery Directive 2006/42/EG*

|                   |                   |                   |                  |
|-------------------|-------------------|-------------------|------------------|
| <b>TX-models:</b> | TX-3033 Pyxis 2S  | <b>RX-models:</b> | RX3033 Auriga 2S |
|                   | TX-3033 Corvus 2S |                   | RX3033 Pavo 2S   |
|                   | TX-3033 Libra 2S  |                   | RX3033 Aquila 2S |
|                   | TRX-3033 Cetus 2S |                   |                  |
|                   | TX-3033 Pollux 2S |                   |                  |

#### TYRO PRODUCTS B.V.

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 info@tyroremotes.eu  
 www.tyroremotes.eu  
 VAT: NL813300642B01  
 KVK: 08126497

Tyro Remotes declares that a radio remote control system consisting of a transmitting unit listed from **TX-models** and a receiving unit listed from **RX-models** is in compliance with:

- Low Voltage Directive 2014/35/EU
- EMC Directive 2014/30/EU
- Radio Equipment Directive 2014/53/EG
- All relevant and essential health and safety requirements mentioned in appendix I of the Machinery Directive 2006/42/EG

The following harmonized standards and, where appropriate, technical standards, guidelines and specifications are used:

- |                                 |                                                      |
|---------------------------------|------------------------------------------------------|
| • EN 301 489-1/3:2019/2017/2023 | Electro Magnetic Compatibility (EMC)                 |
| • EN 300 220-1/2:2017/18        | Radiospectrum Matters (ERM)                          |
| • EN 62368-1:2014               | IT Equipment, Safety Part 1: General Demands         |
| • EN 13849-1/2:2015/2012        | Performance Level (PL)&Validation, certified as PL:C |
| • UN Agreement R10              |                                                      |

The radio remote control system shall not be put into service until the system in which it is installed has been tested with the essential health and safety requirements of the Machinery Directive Annex I. Compliance with the applicable guidelines apply only if installed and maintained as shown in the manual that comes with each new product.

Almelo, September 9th 2023

GJA Nijkrake, Engineering & Certificeringen

**Notified Body**  
 Liftinstituut  
 Buikslotermeer plein 381  
 1025 XE Amsterdam  
 Notified Body number: 0400

**EG type nr:**  
 (currently in progress)



Rabobank, Nederland  
 IBAN: NL38 RABO 0311 6406 80  
 BIC/SWIFT: RABONL2U

Commerzbank, Deutschland  
 IBAN: DE78 2674 0044 0583 0021 00  
 BIC/SWIFT: COBADEFF267

CIC Banque, France  
 IBAN: FR76 3002 7175 3300 0200 2800 144  
 BIC/SWIFT: CMCIFRPP  
 Code Banque: 30027, Code Guichet: 17533, Clé: 44

## 12.2 FCC statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**Caution:** Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### RF Exposure Information

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

### 12.3 ISET statement



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.

The digital apparatus complies with Canadian CAN ICES-3 (B)/NMB-3(B).

This device meets the exemption from the routine evaluation limits in section 2.5 of RSS 102 and compliance with RSS 102 RF exposure, users can obtain Canadian information on RF exposure and compliance.

This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment.

RF Exposure Statement:

The device has been evaluated to meet general RF-exposure requirement. The device can be used installed and operated with minimum distance 0 mm between the radiator and your body.



Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

L'appareil numérique est conforme à CAN ICES-3 (B) / NMB-3 (B).

Cet appareil est conforme à l'exemption des limites d'évaluation courante dans la section 2.5 du cnr - 102 et conformité avec rss 102 de l'exposition aux rf, les utilisateurs peuvent obtenir des données canadiennes sur l'exposition aux champs rf et la conformité.

Cet équipement est conforme aux limites d'exposition aux rayonnements du Canada établies pour un environnement non contrôlé.

Déclaration d'exposition aux RF:

L'appareil a été évalué pour répondre aux exigences générales d'exposition aux RF. Cet équipement doit être installé et utilisé avec une distance minimale de 0 mm entre le radiateur et votre corps.





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| <b>VERSION</b>  | V0.2 |
| <b>ART.CODE</b> | 1812 |



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