

# TECHNICAL SPECIFICATION

## PYROMASTER SLAVE240



**Firmware version:**

1.7.x

**Hardware version:**

13240

**Document revision:**

1.4

### 1. **Features:**

1.1. Available operating modes:

- Manual (remote)
- Semi-Automatic (external trigger button)
- Sequential (remote or external trigger button)
- Automatic (remote or external trigger button)

1.2. Arming:

- locally (front-panel button)
- remotely (from Master unit)

1.3. Triggering/Firing:

- remotely (from Master unit)
- locally (external trigger button)

1.4. Channel count: 240

1.5. Max. sequences count: 240

1.6. Sequence designation range: 1 – 1023

1.7. Maximum duration of single sequence: 9:59,99

1.8. Maximum duration of automatic program: 9:59:59,99

1.9. Maximum resolution of programmed sequence: 0,01s (10ms)

1.10. Maximum resolution of automatic program 0,01s (10ms)

1.11. Adjustable channel activation time: yes (0,1s – 2,5s)

1.12. Continuous time synchronisation with Master unit during ongoing show: yes

1.13. Replicator igniter test: yes

1.14. Replicator battery level measurement: yes

1.15. External trigger button test: yes

1.16. Preview, edit and deletion of automatic program directly in the unit: yes

1.17. Preview, edit and deletion of sequences directly in the unit: yes

1.18. Preview, adding and removal of Replicator units: yes

1.19. Editing of Replicator channels directly in Slave unit: yes

- 1.20. Replicator connection confirmation: yes
- 1.21. Support for safety zones: yes
- 1.22. Radio channel selection: yes
- 1.23. Display backlit regulation: yes
- 1.24. Battery charge display: yes
- 1.25. Keyboard confirmation sound: yes
- 1.26. Arm sound alert: yes
- 1.27. Standby mode: yes
- 1.28. Standby mode activation/deactivation:
  - Locally
  - Remotely (from Master unit)

## **2. Radio link:**

- 2.1. Radio frequency: 869MHz
- 2.2. Available radio channels: 9
- 2.3. Maximum transmitter power: 500mW (27dBm)
- 2.4. Receiver sensitivity: -116dBm @BER  $10^{-3}$
- 2.5. Adjustable transmitter power: yes
- 2.6. Range in dense urban environment (without direct line-of-sight): approx. 1-2km
- 2.7. Range in open area (direct antenna line-of-sight): up to 10km
- 2.8. Transmission type: bidirectional
- 2.9. Transmission security: encryption, checksum, acknowledgements
- 2.10. Automatic switch to wired communication: yes

## **3. Wired link - Master Line:**

- 3.1. Physical layer: RS485 (differential transmission)
- 3.2. Automatic line termination: yes
- 3.3. Master Line input count: 1
- 3.4. Master Line output count: 2
- 3.5. Maximum unit count connected to single output: 32
- 3.6. Maximum line length between neighbouring units: 1,2km
- 3.7. Transmission type: bidirectional
- 3.8. Transmission security: encryption, checksum, acknowledgements
- 3.9. Signal booster feature: yes
- 3.10. Splitter feature: yes
- 3.11. Retransmission of radio signal on wired output: yes
- 3.12. Retransmission of wired signal on radio link: yes
- 3.13. Automatic switch to radio communication: yes

## **4. Wired link - Replicator Line:**

- 4.1. Physical layer: RS485 (differential transmission)
- 4.2. Automatic line termination: yes
- 4.3. Replicator Line output count: 4
- 4.4. Maximum unit count connected to single output: 32
- 4.5. Maximum number of supported Replicator units: 32
- 4.6. Maximum line length: 1,2km
- 4.7. Transmission type: bidirectional
- 4.8. Transmission security: encryption, checksum, acknowledgements

## **5. USB communication:**

- 5.1. USB device mode: yes
- 5.2. USB connector style: B

- 5.3. Automatic program upload: yes
- 5.4. Sequence upload: yes
- 5.5. Transmission security: encryption, checksum, acknowledgements

**6. Protection:**

- 6.1. ESD (Electrostatic Discharge) protection
- 6.2. Resistance to shock and weather conditions
- 6.3. System auto-diagnostics
- 6.4. Self error prompts (e.g. arm error, controller error)
- 6.5. Replicator error prompts (e.g. arm error, low battery)
- 6.6. Error reports directly to Master unit
- 6.7. Data transmission encryption

**7. Other:**

- 7.1. Continuous operation on single battery charge: approx. 150h
- 7.2. Continuous operation in standby mode on single battery charge: approx. 410h
- 7.3. Menu language: polish, english
- 7.4. Battery charge voltage: 12V
- 7.5. LCD display backlight: yes
- 7.6. Membrane keyboard: yes
- 7.7. Front panel LED indicators: yes
- 7.8. External housing LED indicators: yes
- 7.9. External antenna: yes
- 7.10. Antenna connector style N
- 7.11. Housing: Peli case (durable, water-resistant)
- 7.12. Weight: 5,6kg
- 7.13. Dimensions: 28x25x17cm
- 7.14. Working temperature range: -20°C do +40°C