# Master Plus

# System

## Technical Specification

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SINCRON

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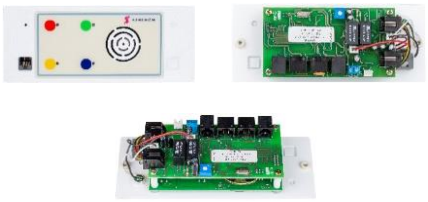
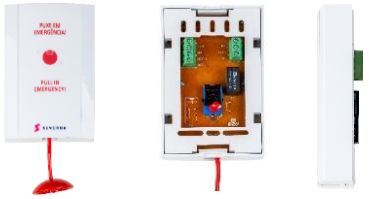
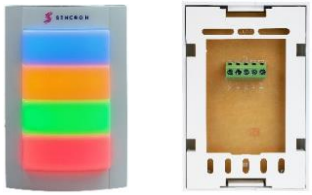
# DESCRIPTIVE

The Master Plus System allows conversation by voice, and with the optional addition of the RFID reader it is possible to identify the professionals who perform the assistance. The software issues detailed reports of all types of calls that have taken place, and the monitoring screen shows events in real time. The Master System can be fully integrated with any Hospital Management System (SGH), including different devices, such as: mobile extensions, smartphones, pagers, among others.

Manufactured according to the Technical Norms of ABNT (Brazilian Association of Technical Standards) - NBR - 5410 and the ANVISA (National Health Surveillance Agency) - RDC 50.

# 1. SYSTEM COMPOSITION

| | | | |
|---|---|---|---|
| 1 | 1.1 | | MASTER PLUS BED STATION WITH VOICE - COD. MT111 (WITHOUT RFID) / CÓD. MT110 (WITH RFID)<br>*OVERLAY INSTALLATION IN 4X2" BOX (for fixing in a 4x4 inch box, cod. 15166 finish is required)* |
| | 1.2 |  | MASTER PLUS BED STATION WITH VOICE COD. MT112 (WITHOUT RFID) / COD. MT113 (WITH RFID)<br>*FOR FIXING ON A MEDICAL GAS OUTLET LINEN* |
| 2 | | | PATIENT BUTTON COD. PD060 (WITH LED AND DISCONNECT DEVICE) |
| 3 | |  | BATHROOM STATION WITH CORD COD. PD066<br>*OVERLAY INSTALLATION IN 4X2" BOX (for fixing in a 4x4 inch box, cod. 15166 finish is required)* |
| 4 | | | INDIVIDUAL BATHROOM STATION WITH CORD COD. PD070<br>*OVERLAY INSTALLATION IN 4X2" BOX (for fixing in a 4x4 inch box, cod. 15166 finish is required)* |
| 5 | |  | LED'S DOOR SIGNAL COD. PD057<br>*OVERLAY INSTALLATION IN 4X2" BOX (for fixing in a 4x4 inch box, cod. 15166 finish is required)* |
| 6 | | | CENTRAL MASTER PLUS WITH VOICE FOR NURSING STATION COD. MT108 |
| 7 | | | ALPHANUMERIC MESSAGE PAINEL - REPEATER COD. PD022 |

| | | |
|---|---|---|
| 8 | | POWER SUPPLY 12VDC 10A COD. PD051 |
| 9 | | CABLE CLOSING BOX COD. MT035 |
| 10 | | GATEWAY TCP/IP COD. PD053 |
| 11 | | MANAGEMENT AND REGISTRATION SOFTWARE COD. MT011 |

# 2. ALARMS AND HARDWARE SERVICES

| | BUTTON ACTIVATION | HOW THE ACTIVATION IS PERFORMED | DOOR SIGN | NURSING STATION BOARD |
|---|---|---|---|---|
| BED STATION | Patient | Through the headset | FLASHING RED | Visual and audible alarm |
| CALL / BATH | Patient | Through the cord | RED AND FLASHING BLUE | Differentiated visual and audible alarm |
| PRESENCE IN BED | Nursing staff | Using the red button on the bed station or RFID | CONTINUOUS RED LIGHT | Visual alarm |
| HELP REQUEST | Nursing staff | Through the green button station bed | FLASHING GREEN | Visual and audible alarm |
| PRESENCE OF HELP (GREEN CODE) | Nursing staff | Using the red button on the bed station or RFID | CONTINUOUS GREEN LIGHT | Visual alarm |
| YELLOW CODE | Nursing staff | Using the yellow button on the bed station | FLASHING YELLOW | Visual and audible alarm |
| PRESENCE OF YELLOW CODE | Doctor (s) | Through the red button on the bed station or RFID | CONTINUOUS YELLOW | Visual alarm |
| BLUE CODE | Nursing staff | Through the blue AND yellow button simultaneously from the bed station | FLASHING BLUE | Differentiated visual and audible alarm |
| PRESENCE OF BLUE CODE | Doctor (s) | Using the red button on the bed station or RFID | CONTINUOUS BLUE | Visual alarm |
| INFUSION PUMP ALARM | Contact of pump | Through the contact sent by the infusion pump | RED AND FLASHING GREEN | Visual and audible alarm |

# 3. PRODUCT DESCRIPITON

## 3.1 MASTER PLUS BED STATION WITH VOICE

Responsible for providing care through voice communication between bed and nursing. The call can only be canceled in person by a responsible professional.

Events and services: Bed Assistance Call; Bathroom Call; Bed Presence; Request for help; Presence of Assistance; Yellow Code; Yellow Code Presence; Emergency (Blue Code); Emergency Presence; Infusion Pump Alarm; Call Transfer.

| | |
|---|---|
| Basic data: | - White color;<br>- Cabinet Material: PSAI;<br>- Label Material: Polycarbonate;<br>- Audible and visual alarm;<br>- Full Duplex voice communication;<br>- Dial and configuration keys (addressing) of rooms;<br>- Accepts Customization;<br>- Serial communication with the Central Nursing Station. |
| Interfaces: | - 2x RJ45 - Connection with the communication bus with the Central of the nursing station;<br>- 2 x RJ11 - Connection with Door Sign and Bath Nurse Call;<br>- 1 x RJ11 - Connection with Patient Bottom;<br>- Jack P2 - Dry contact connection (optional). |

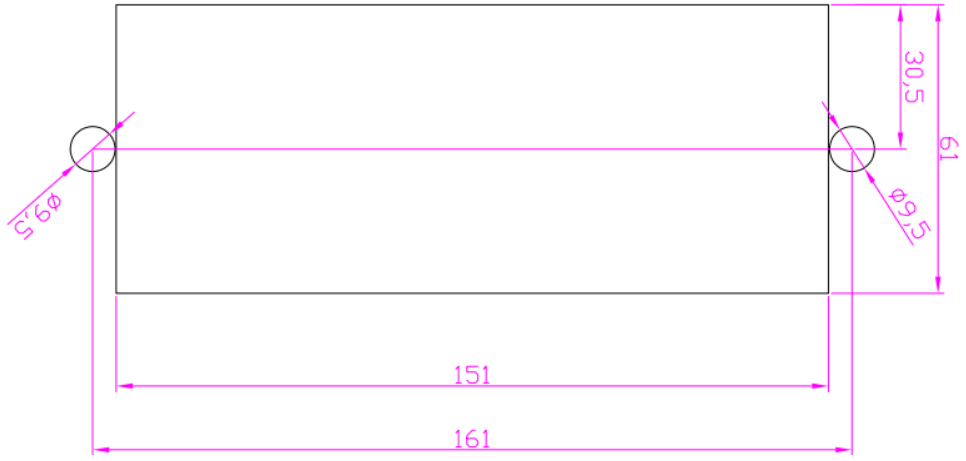
## 3.2 OVERLAPPING FIXING

Overlapping fixing in a 4x2 inch box (for fixing in a 4x4 inch box, Sincron adapter code 19019 is required).

Dimension HxWxD (126mm x 82mm x 45mm).

## 3.3 FOR FIXING ON A MEDICAL GAS OUTLET LINEN

Built-in fixing in gas outlet linen: The gas outlet linen must be manufactured with the necessary hole (see measurements in the image below) for the perfect condition of the station.




## 3.4 SINCRON PATIENT BUTTON WITH DIN

They are lightweight, water resistant, have an anatomical design, LED for call identification, RJ11 plug and DIN connector that enable a better user experience. With a simple click, the patient activates the Central Nursing Station.

| | |
|---|---|
| Basic data: | - Ergonomic shape;<br>- Led for call identification;<br>- Din-5 connector for easy disconnection, in case of cable tensioning;<br>- RJ11 Connector - Connection to the Bed Station;<br>- Waterproof.<br>- White color;<br>- Material: ABS;<br>- Dimensions HxWxD (21mm x 38mm x 84mm). |

## 3.5 BATHROOM STATION WITH CORD (for bathrooms attached to beds)

Its drive is carried out by means of a PVC string in red color. The string should be as close to the floor as possible to facilitate the activation in case of patient fall.

Fixing in a 4x2 inch box (for fixing in a 4x4 inch box, an adaptor code 19019 is required).

This model of bathroom station is connected to the nearest bed station to the bathroom.

| | |
|---|---|
| Basic data: | - PVC cord;<br>- Led for call identification;<br>- Call cancellation button;<br>- Water resistant.<br>- White color;<br>- Material: ABS;<br>- Dimensions HxWxD (120mm x 80mm x 26mm). |

## 3.6 INDIVIDUAL BATHROOM STATION WITH CORD (for bathrooms not tied to beds)

Its activation is carried out by means of a red string. It is a system of mandatory use, determined by a Brazilian law, in bathrooms of various public and private agencies, which require accessibility.

Fixing in a 4x2 inch box (for fixing in a 4x4 inch box, an adaptor code 19019 is required).

This bathroom station model is connected directly to the MT035 Cable Lock Box.

| | |
|---|---|
| Basic data: | - PVC cord;<br>- Led for call identification;<br>- Call cancellation button;<br>- Water resistant.<br>- White color;<br>- Material: ABS;<br>- Dimensions HxWxD (120mm x 80mm x 26mm). |

## 3.7 LED DOOR SIGNAL

It can be installed over the door or on the ceiling, it has 4 colors of LEDs in high brightness, red, green, yellow and blue.

Fixing in a 4x2 inch box (for fixing in a 4x4 inch box, an adaptor code 19019 is required).

| | |
|---|---|
| Basic data: | - White color;<br>- Material: ABS and transparent CAST;<br>- Dimensions HxWxD (120mm x 80mm x 34mm). |

## 3.8 CENTRAL MASTER PLUS WITH VOICE FOR NURSNG STATION

Audible and visual alarm, 16 × 2 LCD display with visible area of 21mm x 96mm, shows events in real time, voice communication, dial keys for setting the address of each bed, serial communication with the bed stations, integrable with the network data TCP / IP.

| | |
|---|---|
| Basic data: | - Audible and visual alarm;<br>- Desktop;<br>- 16x2 LCD display with visible area (21mm x 96mm), shows events in real time;<br>- Handset sensor by approach;<br>- Full Duplex voice communication;<br>- Dial and configuration keys (addressing) of rooms;<br>- It accepts Customization;<br>- Serial communication with bed stations;<br>- Integrable with paging systems, mobile extension, PABX and other systems (through our software). |
| Interfaces: | - 1x RJ45 - communication with the bed stations;<br>- 1x RJ10 - connection with handset;<br>- 1x USB (Virtual COM Port)<br>- White color;<br>- Cabinet Material: PSAI;<br>- Label Material: Polycarbonate;<br>- Dimensions HxWxD (95mm x 190mm x 210mm) |

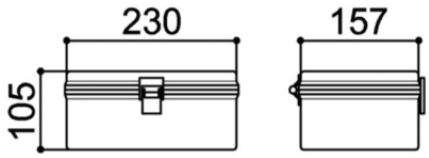
## 3.9 ALPHANUMERIC MESSAGE PANEL – REPEATER

The message panel is an option to repeat the message from the Central Nursing Station. It has an audible alarm.

| | |
|---|---|
| Basic data: | - Long reading range of the display;<br>- Accepts customization;<br>- Communication Port RS-485;<br>- White and red color;<br>- Material: PSAI;<br>- Dimensions HxWxD (75mm x 575mm x 40mm). |

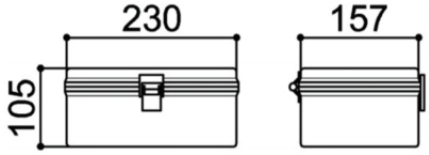
## 3.10 POWER SUPPLY 12VDC 10A COD. PD051

110-240VAC input, automatic selection 2A 50/60Hz. Output 12VDC 10A. Measurements in the image below (in mm).




## 3.11 CABLE CLOSING BOX MT035

Closure with 35 RJ45 Jacks. Measurements in the image below (in mm).



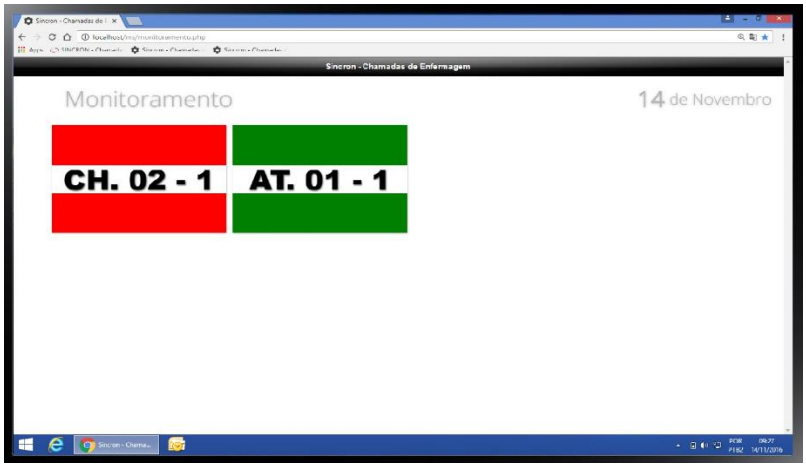

## 3.12 GATEWAY TCP / IP

| | |
|---|---|
| Network Media: | - 10BASE-T: Category UTP 3, 4, 5 cable<br>- EIA / TIA-568 100Ω STP<br>- 100BASE-TX: Category UTP 5, 5e cable<br>- EIA / TIA-568 100Ω STP<br>- 1000Base-T: UTP Category 5, 5e cable |
| Data rates: | - 10 /100 / 1000Mbps for Half-Duplex mode, 20/200 / 2000Mbps for Full-Duplex mode |
| Flow control: | - IEEE 802.3x Flow Control (Full-Duplex) |

| | |
|---|---|
| Interfaces: | - 10/100/1000 Mbps RJ45 port, Auto-Negotiation, Auto MDI / MDIX<br>- LEDs: Link / Act<br>- 4 USB ports |
| Software connections: | - 5VDC/2A Plug jack P$ 2.1. |
| Basic data: | - White color;<br>- Cabinet Material: PSAI;<br>- Dimensions HxWxD (35mm x 67mm x 97mm) |

## 3.13 MANAGEMET AND REGISTRATION SOFTWARE CODE MT011

The software will record by type of event, indicating the time when the patient activated the handset, the time when the nurse started the service and indicated his presence in bed, the time the service ended, in addition to the calls for assistance, yellow code, blue code and bathroom call.

With the RFID identification reader option, it will also show the name of the professionals who answered the calls.

The Software has the Sincron monitoring screen, which simultaneously shows all events occurring and their respective status.