

# CONFERENCE SYSTEM

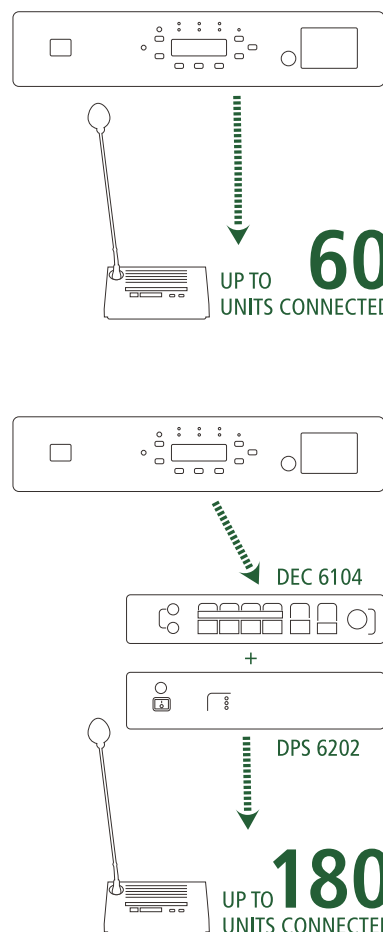
# FORUM 6000

THE IDEAL SOLUTION FOR:  
COUNCIL CHAMBERS  
CONGRESS CENTRES  
BOARD OF DIRECTORS MEETINGS  
(BANKS, INSURANCE FIRMS, ETC.)  
LAW COURTS  
AUDITORIUMS

## DIGITAL CONFERENCE AND DISCUSSION SYSTEM

The RCF Forum 6000 system has been designed to manage conference, debates, president desks in auditorium/conventions and meetings, offering outstanding versatility.

The system is simple and quick to wire, to set up and to use. It is possible to connect to the main system unit up to 60 microphone set on two different lines. Several operational modes can be chosen through the LCD display and simple menus. For more advanced use a complete set up menu adds flexibility to the system allowing you to personalize several parameters. Thanks to the DEC 6104 expander board and the DPS 6202 additional power supply is possible to connect up to 120 additional consoles on four connection lines. Forum 6000 system is designed according to IEC 60914 standard.





## THE 6000 SYSTEM

Free Discussion (where all microphones can be activated at the same time)

Discussion with limited number of active microphones (6 to 1)

Discussion with one microphone active at a time with override facility of the previous one

Simultaneous or sequential guest-language interpretation system

Booking facility can be associated to the discussion modes and queue size can be limited from 10 to 1. When the number of open microphones (NOM) has been reached, next consoles booked will be automatically switched-on according to the list as soon as someone "cuts-out" his microphone

Automatic microphone switch-off after 30 seconds of inactivity can be introduced

Configuration of the 2 universal aux inputs in combination with Vox, activation/mute command and priority setting

PC control interface based on synoptic view and dome camera control (DEC 6140 expander board required)

A/V streaming

It is also possible to transmit the video, the synoptic view and the voting results on a LCD, plasma or video projector

## EASY TO INSTALL

Two lines of 30 microphone consoles each can be linked to the main unit, just in a daisy chain mode. A software option helps the installer to know in detail the system configuration and possible connection faults through the main unit display. Consoles can be desk top or semi-flush mounted. RJ connectors and a special thin multi cable make the installation wiring extremely quick and simple. One console is usable as desk-top or semi-flush mounting, in 3 configurations: Chairman (max 3 president consoles can be configured for each system); Delegate; Interpreter (2 interpreter consoles can be configured).

## EASY TO USE AND EASY TO MOVE

Display and clear commands make the RCF Forum Discussion System simple also for non-familiar new users. The microphone console is compact and has an optimized weight to be "solid" but not over heavy to limit the portability.

## EASY TO MANAGE

Several operational modes are available to meet any conference requirements. During operation it is possible to change the operation mode without interrupting the session. For instance when passing from free-discussion to a certain Number Open Microphones the system allows the microphone to be switched "OFF" but not "ON" until the correct number has been reached.

## EASY TO MANAGE AN ALTERNATIVE LANGUAGE GUEST

A simultaneous or sequential interpretation system helps to manage a bilingual conference, a second language relator or other language guest. The two 3,5mm jack available on the sides of the console can be also used as recording outputs leaving the built-in speaker working even when jack is inserted: typical application is a remote/local recording during a press-conference through the headphone outputs.

# FORUM | CENTRAL 6000 | UNIT



## CENTRAL UNIT DMU 6100

p/n 171.80.010

The DMU 6100 is the heart of the system allowing the direct connection of up to 60 microphone sets on two lines. The status is available on the LCD, including advice of the type of consoles connected. Two universal inputs are also available for connecting any additional sources such as a wireless microphone or a lectern microphone or any other complementary device, even a mixer-preamplifier. These two inputs can be configured in different ways; for instance they can be mixed with the microphones sets, have priority on them, one input mixed and one with priority etc. VOX operation mode or command operation mode are available to increase flexibility.

REC-PLAY input and outputs associated to a switch allow the connection of any recorder/player. Dedicated IN and OUT audio connections are available for linking DMU 6100 to a teleconference system. 4 additional Auxiliary Outputs are available for the independent recording of the 2 universal inputs and each of the 2 lines of microphone sets, this helps in systems where verbalization/recording must be done separately like law-courts. From the front panel of the main unit LCD, function buttons and LEDs help the installer and the user in adjusting all the parameters and volumes, while a speaker and a 1/4" jack work as audio monitoring.



## SPECIFICATIONS DMU 6100

MAINS	100 ÷ 240 Vac (50 - 60 Hz)
MAINS - MAX CURRENT	1,7 A (230 V) / 3,5 A (115 V)
MAX POWER CONSUMPTION	200 W
OPERATING TEMPERATURE	0 ÷ 50 °C / 32 ÷ 122 °F
DIMENSIONS (W X H X D)	430 X 88 X 310 MM
WEIGHT (NET)	5,6 Kg

### MIC / LINE INPUTS

FREQ. RESPONSE (-3 dB)	50 Hz ÷ 20 kHz (TO MAIN OUT)
HIGH-PASS FILTER	12 dB / OCT (- 3 dB @ 100 Hz)
S/N RATIO	≥ 65 dBA (MIC) / ≥ 85 dBA (LINE)

### PLAY INPUT

FREQ. RESPONSE (-3 dB)	50 Hz ÷ 20 kHz (TO MAIN OUT)
S/N RATIO	≥ 85 dBA

### MAIN OUT

OUTPUT LEVEL NOMINAL	0 dBu (THD <0.1%); MAX +20 dBu (THD 0.5%)
PRESENCE CONTROL	MAX + 15 dB @ 2.1 kHz

### SYSTEM REC OUTPUT

FREQ. RESPONSE (-3 dB)	35 Hz ÷ 20 kHz
S/N RATIO	≥ 85 dBA



# FORUM | CONSOLE 6000



## ■ CONSOLE DMS 6410

p/n 171.80.011

One type of console is available; through DIP switches you can configure it as Chairman, Delegate or Interpreter. The RCF Forum 6000 System has an integrated guest-language interpretation facility, simultaneous or sequential. The listening to the translated language is achieved using the headphone sockets available on each microphone set and its built-in gooseneck microphone. The consoles configured as an interpreter can be one or two, linked to the dedicated RJ connectors available on the main unit DMU 6100. Speak slowly command is available and lights-up an LED on the active microphone set. When configured as "Delegate Console" the DMS 6410 has a microphone button and mute facility, in "Chairman Mode" the system offers talk and priority buttons that, if pushed together cancel the active microphones with re-set purpose. Delegate and Chairman talk buttons are smart buttons working both as PTT or PTL (push to lock) according respectively to a long or short pressure of the buttons. On the president console

## SPECIFICATIONS DMS 6410 / DMS 6410 - X

MICROPHONE TYPE	ELECTRET, HYPER-CARDIOID
FREQ. RESPONSE (-3 dB)	200 Hz ÷ 12 kHz
S/N RATIO	≥ 60 dBA (TO MAIN OUT)
INTERNAL LIMITER	UP TO + 32 dB OVER 100% LEVEL
MIC AUTO-OFF SIGNAL THRESHOLD	- 20 dB
DIMENSIONS (W X H X D)	200 X 135 X 60 mm (EXCLUDING GOOSENECK MICROPHONE)
WEIGHT	1,1 Kg
GOOSENECK MIC. LENGTH	450 MM
CABLE/ CONNECTORS	RCF MODEL DCA 6000/RJ45 10 P, 2.5 M CONNECTION CABLE PROVIDED
<b>JACK OUTPUTS</b>	
MAX POWER (HEADPHONES MODE)	60 MW ON 16 Ohm (<0.5% THD)
OUTPUT LEVEL (RECORDING MODE)	NOMINAL: - 4 dBu (0.2% THD), MAX. + 5 dBu
FREQ.RESPONSE (-3 dB)	125 Hz ÷ 16 kHz

NOTE: POSSIBILITY TO FIX THE MICROPHONE SET TO THE DESK /SEMI FLUSH MOUNTING.  
60 CM GOOSENECK MICROPHONE AVAILABLE

a chime-tone can be associated to the priority button; the chime sound can be also activated through an external command linked to the terminals available on the rear panel of the DMU 6100 master unit. **Audio quality is assured by a professional gooseneck hyper-cardioid microphone** that, according to the version is screwed directly into the base (fixed installations version) or plugged through an XLR connector (rental/portable version model DMS 6410X) and a high efficiency full-range speaker with neodymium magnet. Volume control is adjusted by push-buttons. The console has been designed to be semi flush-mounted in order to have a discrete visual impact when installed in particular environments. The signal of the microphone is not affected by mobile phones transmissions.



## ■ CONSOLE DMS 6410 - X p/n 171.80.013 REMOVABLE GOOSENECK

# FORUM 6000 | EXPANDER BOARD



## EXPANDER BOARD

### DEC 6104

p/n 171.80.034

The DEC 6104 Expander Board is to be installed in the slot available on the rear panel of the DMU 6100 main unit of the RCF FORUM 6000 conference system and adds important additional features to the system configuration and operation.

This new board provides a USB port and a RS 485 port (alternative) to connect the system to a PC, allowing the remote control through a synoptic application control software (provided), and it adds a simpler and intuitive system configuration tool, with audio recording possibility.

The DEC 6104 is equipped with a dome camera automatic control facility through the connected PC. Up to 4 dome cameras FDC 9900 (p/n 17180003) and the audio/video matrix FVM 9844 (p/n 17180012) can be interfaced to always get the speaker tracked. The cameras and matrix set-up are integrated into the provided PC software.

The DEC 6104 built in digital processor (DSP) presents an exclusive algorithm and an interactive functionality with the FORUM 6000 (filters are dynamically driven/triggered by the system working/operation mode) that limit the acoustic feedbacks due to

loudspeakers too close to microphone consoles, loudspeaker's at high volume or when there are several open microphones at the same time.

The DEC 6104 allows to connect 120 additional system microphone consoles DMS 6410 and/or DMS 6410X to the system on its 4 ports (30 consoles each). Whenever this feature is used, the additional power supply unit DPS 6202 is required.

In this way FORUM 6000 can reach up to 180 fully managed microphone sets.

- Up to 180 DMS 6410 microphone consoles on 6 lines (4 line outputs are on the DEC 6104 board)
- The further 120 consoles shall be powered by the DPS 6202 power supply unit
- USB port to connect the system to a PC
- FORUM 6000 control software included
- RS 485 port (alternative to the USB port) for long distance control (up to 1.2 km) of the system through the PC software
- Anti-feedback processor, useful to avoid feedbacks due to loudspeakers too close to microphones, loudspeaker high volume and many open microphones at the same time.

# FORUM 6000 | ADDITIONAL POWER SUPPLY UNIT MICROPHONE TRANSPORT CASE



## ■ ADDITIONAL POWER SUPPLY UNIT DPS 6202

p/n 171.80.033

The DPS 6202 power supply unit is strictly necessary for the console lines 3, 4, 5 and 6 placed on the DEC 6104 board to power consoles from the 61 to 180.

- Dual switching power supply
- Main switch with ON LED indicator on front panel

- LINE LEDs indicate when console lines are correctly powered
- Power output on 7-pin XLR connector (connection cable to DEC 6104 provided)

## ■ DMS 6410X MICROPHONE TRANSPORT CASE DCT 6012



p/n 171.80.037

The DCT 6012 Transport Case for 12 DMS 6410X Microphone Consoles is the perfect to storage and transport the Forum 6000 system.

- 12 DMS 6410X microphone consoles can be stored in the case

- Aluminum hi-composite construction with rugged chromium-plated metal reinforced angles
- Separated microphone and cables compartments
- Soft inner protections against shocks for a safer transport
- Comfortable top handle





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PARLIAMENTARY CHAMBERS  
CONVENTIONS

## SIMULTANEOUS TRANSLATION SYSTEM

With the FORUM 2000 simultaneous translation system RCF introduces not only a state of the art technology but also a new way to think, install, configure and use an interpretation system. In fact Forum 2000 uses a digital wireless ultra-high-frequency transmission with double encryption to always operate with maximum privacy and safety. The speech intelligibility and clarity are of the highest standards expected from a fully digital system. The RCF wireless technology utilizes a twin antenna (diversity) approach combined with an exclusive algorithm that guarantee a perfect coverage without shadow-areas and interference. All this is possible through a couple of discrete transmitting antennas which can be installed in a corner of the hall, connected to the transmitting unit which is the heart of the Forum 2000 system. The antennas are very compact and they can even be over-painted to perfectly match the decor of the hall. The radio transmission is not affected by bright ambient light conditions, offering always the maximum audio performance.

RCF Forum 2000 can be configured to manage up to 10 languages, 3 interpreters per booth and allows the operation of up to ten Forum 2000 independent systems in the same building location thanks to the 99 digital radio channels available. All wirings necessary to link the different hardwares are, following the RCF Forum philosophy, of simple CAT 5 UTP cable technology.





## SPECIFICATIONS SIS 2411X

MAIN SUPPLY	70 Vdc THROUGH FMU 9100
ABSORPTION CURRENT	30 mA
<b>AUDIO SPECIFICATIONS</b>	
AUDIO OUTPUT POWER	0,5 W @ 16 Ohm (HEADPHONE) 1 W @ 8 Ohm (SPEAKER)
S/N RATIO	85 dB DIN AUDIO
FREQ. RESPONSE	20 - 13 kHz +/-1dB
MICROPHONE	REMOVABLE ELECTRET TYPE WITH DYNAMIC COMPRESSION
HEADPHONE OUTPUT	MONO 6,3 MM JACK AND 3,5 MM JACK
DISPLAY	DOUBLE DISPLAY, GRAPHIC WITH BACKLIGHT
N° MANAGED LANGUAGES	10
N° SIS 2411X PER BOOTH	3 (CONNECTED TO THE FMU 9100)
MAX CONNECTION DISTANCE	80 METER FROM THE FMU 9100

NOTE: FIRMWARE UP-GRADABLE FROM FMU 9100.



## INTERPRETER CONSOLE TRANSLATOR SIS 2411 - X

p/n 171.80.017

The SIS 2411X interpreter set is intuitive to use and it has been designed into a strong metal die-cast construction, with detachable gooseneck microphone on XLR5 connector.

Wiring to FMU 9100 main unit is quick and simple through category 5 UTP cable and RJ45 connectors. Up to three SIS 2411X sets can be used in every interpreter booth.

The two LCD graphic displays respectively for input and output languages and the related encoder allow the quick configuration of input and output presets. The accurate construction permits semi-flush-mounting installation as well. SIS 2411X has a built in monitor speaker, double headphone connector (Jack 6,3 mm and jack 3,5 mm) and all controls and features required to meet the international standard ISO 2603.



## INTERPRETER HEADPHONES SHI 2612

p/n 171.80.016



## RADIO TRANSMITTING UNIT STU 2200

p/n 171.80.021

STU 2200 is the digital radio transmitting unit of the Forum 2000 system. It has to be connected to the system main unit FMU 9100, able to directly manage the Forum 9000 microphone sets or to interface any analogue system like RCF Forum 6000 or even a simple mixer-preamplifier, through one CAT 5 UTP cable.

STU 2200 sends "by UHF radio frequencies" the floor language and the translated languages with proper data encryption, in order to guarantee privacy and total safety.

It has a graphic display with related keys to simply select among the 99 available channels, in case two or more FORUM 2000 systems work together in close environments like a congress centre.

The STU 2200 has four built-in digital transmitter modules; one or two 3-channel extension kits STM

### SPECIFICATIONS STU 2200

MAINS SUPPLY	230 / 115 Vac AUTO - CHANGE
POWER CONSUMPTION	150 W
<b>RF CHARACTERISTICS</b>	
OPERATING FREQ. RANGE	UHF: 800 TO 869,3 MHz
MAX NUMBER OF TX PER UNIT	10
RF OUTPUT	4
RF OUTPUT CONNECTOR	BNC
MAX NUMBER OF ANTENNA	4
DISTRIBUTION	1 ANTENNA EVERY 3 TX + 1 ANTENNA FOR FLOOR LANGUAGE
ANTENNA	YAGI 9 dB GAIN
TRANSMITTER TYPE	PLL SYNTHESIZER
RF OUTPUT POWER	+ 11 dBm +/- 1 dB ON 50 Ohm
CHANNEL PER TRANSMITTER	99
CHANNEL SPACING	700 kHz
TYPE OF TRANSMISSION	DIGITAL TYPE, RETURN TO ZERO
TYPE OF MODULATION	GMFSK BT 0.3
TRANSMISSION BIT RATE	96 kBit/s
STANDARD ELECTRICAL	ETSI 300 422
<b>CHARACTERISTICS</b>	
OUTPUT SIGNAL	DIGITAL AUDIO ENCRYPTED WITH TELEMETRY

NOTE: FIRMWARE UP-GRADABLE FROM PC THROUGH USB / SMART CARD FOR DATA LOADING / EASY CONNECTION TO THE CENTRAL UNIT FMU 9100 AS A STANDARD CONSOLE / TERMINATION IN CASE OF LAST UNIT OF A CASCADE CONSOLE.

2203 can be plugged-in to manage up to 10 channels if more languages are needed.

The transmitter has a USB port to allow an intuitive configuration through a PC.

High performance antennas are provided to easily and quickly cover an area of up to 6.000 to 10.000 sq. metres.



## PORTABLE RECEIVER SDR 2599

p/n 171.80.023

The SDR 2599 receiver is a robust compact lightweight construction, intuitive to use and fitted with just the essential push-button commands for channel and volume selection.

The high contrast type display is visible in any light condition. When no signal is detected and the headphone is not connected the receiver is automatically switched off.

The audio quality always offers high voice intelligibility and the RCF digital UHF system guarantees noiseless reception without gaps. It is fitted with a Li-Ion rechargeable battery to avoid memory effect and increasing battery working life, thanks to the intelligent charger device built into the SRC 2756 case.



## PAVILION HEADPHONES SPH 2605

p/n 171.80.035



### SPECIFICATIONS SDR 2599

BATTERY TYPE	LITHIUM RECHARGEABLE
BATTERY CAPACITY	3,7 V TO 1.800 mA/h
AVERAGE AUTONOMY	UP TO 24 HOURS WHEN USED WITH 16 Ohm HEADPHONE
CHARGING TIME	MAX 6 HOURS
SWITCH ON SYSTEM	WITH KEY (TOGETHER WITH THE HEADPHONE CONNECTED)
SWITCH OFF SYSTEM	DISCONNECTION OF THE HEADPHONE
SWITCH OFF SYSTEM AUTOMATIC	ABSENCE OF TELEMETRY DATA OR IN CASE OF MINIMUM VOLTAGE
LEVEL INDICATION BATTERY	FLASHING RED LED (1 HOUR STILL)
DISPLAY	LED TYPE

### RF CHARACTERISTICS

RECEIVER TYPE	SUPERETERODINA DOUBLE CONVERSION DIVERSITY
OPERATING FREQ. RANGE	UHF: 800 TO 869,3 MHz
CHANNEL FOR RECEIVER	99
CHANNEL SPACING	700 kHz
TYPE OF DE-MODULATION	DIGITAL GMFSK
AUDIO DECODER	DIGITAL SIGNAL PROCESSOR
SENSITIVITY	-98 dBm
ANTENNA	2 INTERNAL, DIVERSITY

### AUDIO SPECIFICATIONS

MODE	MONO
AUDIO OUTPUT POWER	0,5 W @ 16 Ohm (DIGITAL AMPLIFIER)
S/N RATIO	80 dB DIN AUDIO
FREQ. RESPONSE	20 TO 5.500 Hz +/-1dB
CONNECTOR	JACK 3,5 MM

NOTE: FIRMWARE UP-GRADABLE FROM PC THROUGH USB WHEN THE RECEIVER IS PLACED IN THE RECHARGING CASE / FACTORY DEFAULT CONFIGURATION DOWNLOAD FROM THE RECHARGING CASE / REAL TIME ALGORITHM ERROR CORRECTION.

The receiver is able to detect up to 99 different channels in case more Forum 2000 systems need to work together in the same environment at the same time. The double encrypting facility is guaranteed by using a programmable pod included in the case SRC 2756.



### SPECIFICATIONS SAI 2855

MAIN SUPPLY	70 Vdc
POWER CONSUMPTION	7 W
<b>AUDIO SPECIFICATIONS</b>	
AUDIO INPUTS BALANCED	5, XLR CONNECTOR, VARIABLE GAIN
AUDIO INPUTS UN-BALANCED	5, RCA WITH VARIABLE GAIN
AUDIO OUTPUTS BALANCED	5, XLR WITH VARIABLE VOLUME
AUDIO OUTPUTS UN-BALANCED	5, RCA WITH VARIABLE VOLUME
INPUT LEVEL	3 V MAX
INPUT GAIN	40 dB VARIABLE
INPUT INPEDANCE	10 kOhm
OUTPUT LEVEL	3 V
OUTPUT IMPEDANCE	600 Ohm
S/N RATIO	85 dB DIN AUDIO
FREQ. RESPONSE	20 - 13 kHz +/-1dB

NOTE: FIRMWARE UP-GRADABLE FROM USB INTERFACE / MUTING PULSE PER INPUTS/OUTPUTS / PRESET MUTING SELECTABLE WITH KEY / LINK BETWEEN FMU 9100 AND INTERPRETER CONSOLES.

## ANALOG INTERFACE SAI 2855

p/n 171.80.022

SAI 2855 is a rack unit interface able to manage 5 analogue inputs and 5 analogue outputs to and from the language channels digital system bus.

It is equipped with XLR and RCA connectors to permit the recording of 5 translated languages and to send 5 audio channels into 5 slots of the simultaneous translation system; this is important, for instance, when

is needed to send to the delegates (having SDR 2599 wireless receivers or the Forum 9000 series FMS 9411 microphone consoles) pre-translated contributions alternative to the ones processed by the interpreters. LED signal indicators and mute buttons are available on each channel. A smart pre-set facility to "ON" and "OFF" group of channels is available too.





## SPECIFICATIONS SRC 2756

MAINS SUPPLY	110 / 240 AUTOMATIC
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POWER CONSUMPTION	150 W
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### GENERAL SPECIFICATIONS

MAX NUMBER OF RX PER CASE	56 RECEIVERS SDR 2599
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PROGRAM/ENCRYPTING INTERFACE	USB
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CHARGING TIME	MAX 6 HOURS
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CHARGING CURRENT	480 mA MAX
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CHARGER TYPE	CONSTANT VOLTAGE AND CURRENT
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CHARGING INDICATIONS	LEDS ON EACH RECEIVER
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CHARGING PROCESS	INDEPENDENT PER EACH RX
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NOTE: DISPLAY AND USB INTERFACE FOR FIRMWARE UPGRADE AND ENCRYPTION / ENCRYPTING PRESETS AVAILABLE IN THE CASE / RESET OF ALL RECEIVERS STORED IN THE CASE.

## RECHARGING CASE SRC 2756

p/n 171.80.018

The SRC 2756 is a strong and practical recharging and transport case, allowing the smart charging of 56 receivers and the programmability/ implementation of the double encrypting facility through a dedicated POD present inside the case.

Recharging process is independent for each receiver and it is conveniently indicated. A dedicated USB connection is available to upload the unique code. The SRC 2756 has a main socket to link a second case and the charging can be done with the cover positioned.



