RFRC-1

RFRC-2

RFRC-3

RFRC-4

RFRC-5

RFRC-6

RFRC-7

1. PRODUCT OVERVIEW

The Shengxin **RFRC Series** is a 4-channel universal wireless remote control duplicator designed to clone and replace fixed-code and learning-code remote controls operating on the **433.92 MHz ISM frequency band**. Engineered for maximum versatility, the RFRC can copy up to 4 different remote control signals from 4 separate original transmitters, consolidating them into a single compact key fob — eliminating the need to carry multiple remotes.

This universal duplicate remote is compatible with a wide range of IC encoder chips spanning the 2260, 2262, 2240, 1527 series and dozens more. Its **fast one-touch cloning technology** allows users to replicate existing remote controls in seconds without specialized programming tools or technical expertise. Built with a high-impact ABS housing, an integrated metal key ring, and a bright LED transmission indicator, the RFRC delivers reliable, long-range wireless control for automotive, residential, commercial, and industrial applications.

Model	RFRC Series	**Frequency**	433.92 MHz
Channels	4-Channel (4 Buttons)	**Code Type**	Fixed Code & Learning Code
Remote Range	Up to 100 m (open field)	**Battery**	1 x A27 / 23A 12V (included)

2. TECHNICAL SPECIFICATIONS

Parameter	Specification
Product Model	**RFRC Series (Universal Duplicate 4-Channel Remote Control)**
Operating Frequency	433.92 MHz (UHF ISM Band)
Modulation Type	ASK (Amplitude Shift Keying) / OOK (On-Off Keying)
Number of Channels	4 (four independently programmable buttons)
Encoding Chip Compatibility	PT2260, PT2262, PT2240, PT2242, EV1527, HS1527, SC2260, SC2262, LX2260, LX2262, HX2260, HX2262, AX5026, AX5326-3/4, SC5262, FP527, HT600, HT680, HT6207, HT6010-HT6014, HT12D, HT46F49E, PIC16F630, CS5211, SMC918, SMC926, SCL1527, GP1527, CP1527, AD1527, TL1527, ZX1527, PT2264, PT2294, SC2294, WL1026
Code Type Supported	Fixed Code & Learning Code (**NOT** Rolling/Hopping Code)
Transmission Power	≤ 10 mW (EIRP)

Parameter	Specification
Remote Control Range	50 – 100 m (open field, line of sight)
Rated Operating Voltage	DC 12V (via 1 × A27 / 23A alkaline battery)
Rated Operating Current	≤ 10 mA (during signal transmission)
Standby Current	< 1 μA (ultra-low quiescent drain)
Battery Type	1 × A27 / 23A 12V alkaline battery (included & user-replaceable)
Battery Life	~18 – 24 months (normal use, ~20 transmissions / day)
LED Indicator	Red LED — transmission confirmation & low-battery warning flash
Housing Material	High-impact ABS engineering plastic
Housing Protection	IPX4 water-resistant (splash-proof from all directions)
Colour	Black with chrome / metallic button accents
Product Dimensions	~55 × 33 × 15 mm (L × W × H)
Product Weight	~28 – 32 g (including battery and key ring)
Key Ring	Integrated metal key ring loop for keychain attachment
Operating Temperature	-20 °C to +60 °C
Storage Temperature	-40 °C to +80 °C
Operating Humidity	5% – 95% RH (non-condensing)
Certifications	CE, FCC, RoHS
Warranty	12 months from date of purchase

3. KEY FEATURES

3.1 4-Channel Universal Cloning Technology

The RFRC supports cloning up to 4 independent remote control signals from 4 different original transmitters and consolidating them into a single compact device. Each of the four buttons can be independently programmed to replicate a different remote, effectively replacing multiple remotes with one key fob — ideal for users managing separate remotes for their car, garage, gate, and home alarm.

3.2 Broadest IC Chip Compatibility in Its Class

Compatible with the industry's widest range of fixed-code and learning-code encoder ICs spanning the PT2260, PT2262, EV1527, AX5026, HT600, SMC918 and dozens more chip families. This extensive compatibility ensures the RFRC works seamlessly with most aftermarket car alarms, central locking kits, garage door openers, electric gate controllers, home security panels, and RF automation modules operating at 433.92 MHz.

3.3 Fast & Effortless One-Touch Cloning

Programming the RFRC takes only seconds — no computer, software, or technical expertise required. Simply clear any previously stored codes, then press and hold the target button on the RFRC alongside the corresponding button on the original remote. The LED provides clear visual feedback: rapid double-flash confirms successful cloning, steady illumination

indicates ready-to-transmit status.

3.4 Long-Range & Stable RF Transmission

Delivers an effective wireless range of up to 100 metres in open-field conditions. The optimised PCB-printed antenna and low-noise ASK/OOK modulation ensure robust signal integrity with minimal interference, even in urban environments with moderate RF noise. Fast reaction time ensures near-instantaneous receiver response.

3.5 Rugged, Water-Resistant ABS Construction

Encased in high-impact ABS engineering plastic that withstands daily wear, accidental drops, and keychain abrasion. IPX4-rated splash-proof protection guards against rain, splashes, and humidity — making the RFRC reliable in all weather conditions from rainy commutes to dusty job sites.

3.6 Intelligent LED Status Indicator

A bright red LED provides at-a-glance operational feedback: solid illumination during transmission, rapid double-flash on successful cloning, rapid triple-flash on code clear, and a distinctive blink pattern when the battery voltage drops below the operational threshold — ensuring the user is never caught with a dead remote unexpectedly.

3.7 Code Restore & Anti-Accidental-Delete Protection

If stored codes are inadvertently cleared, the built-in restore function can recover the last cloned set of codes by pressing both lower buttons (C + D) simultaneously for approximately 2 seconds. This safety net prevents the frustration of having to re-clone all remotes after an accidental factory reset.

3.8 Ultra-Compact Everyday Carry Design

Measuring just 55 × 33 × 15 mm and weighing approximately 30 grams, the RFRC is one of the most compact 4-channel duplicator remotes available. The integrated metal key ring loop securely attaches to car keys, house keys, bags, or belt loops for effortless everyday carry.

4. FUNCTION LIST

#	Function	Description
1	**Signal Cloning / Copy**	**Clone fixed-code and learning-code RF signals from original transmitters with one-touch operation**
2	Multi-Device Consolidation	Store up to 4 distinct remote control profiles on a single RFRC key fob
3	433.92 MHz Signal Transmission	Transmit cloned RF signals with up to 100 m range and fast reaction time
4	Code Memory Clear (Factory Reset)	Erase all stored codes by pressing Lock + Unlock buttons simultaneously for ~2 s
5	Accidental-Delete Code Restore	Recover last cloned code set by pressing both lower buttons (C + D) simultaneously
6	LED Transmission Confirmation	Visual LED feedback confirms each button press and successful signal emission
7	Low Battery Warning	Distinctive LED flash pattern alerts user when battery replacement is required
8	4 Independent Button Channels	Each button (A/B/C/D) operates independently with its own cloned signal profile
9	Fixed Code & Learning Code Support	Compatible with all major fixed-code and learning-code encoder IC families

#	Function	Description
10	Universal Remote Replacement	Replace lost, damaged, or worn original remotes without replacing receiver units
11	One-Key Arm / Disarm	Single-button control for anti-theft alarm system arming and disarming
12	Non-Volatile Code Memory	Stored codes persist through battery removal — no re-cloning after battery change

5. APPLICATIONS & SCENARIOS

5.1 Automotive

• **Car Central Locking Systems** — Clone original remotes for aftermarket central locking kits installed in sedans, hatchbacks, SUVs, MPVs, and pickup trucks.
• **Car Alarm & Anti-Theft Systems** — Replace lost or damaged remotes for vehicle security alarm systems with one-key arm/disarm functionality.
• **Motorcycle & Scooter Alarms** — Compact size is ideal for two-wheeler security system remote control replacement and duplication.
• **Car Sunroof & Power Window Modules** — Wireless open/close control for aftermarket sunroof controllers and electric window conversion kits.
• **Remote Boot / Trunk Release** — Dedicated button for wireless boot lid or tailgate opening (requires compatible receiver module installed).

5.2 Residential & Commercial

• **Garage Door Openers** — Clone existing garage door remote controls for additional family members or as a replacement for lost remotes.
• **Electric Gate Controls** — Duplicate remotes for residential driveway gates, commercial sliding/swing gate operators, and parking barrier systems.
• **Home Security Systems** — Replace or create spare remotes for wireless home alarm panels, PIR motion sensors, and door/window contact transmitters.
• **Wireless Lighting & Smart Plugs** — Control RF-enabled home lighting modules, wireless wall switches, and remote-controlled power outlets.
• **Motorised Blinds, Shutters & Awnings** — Operate RF-controlled roller shutters, motorised blinds, retractable awnings, and projection screens.

5.3 Industrial & Specialised

• **Remote Pump & Motor Control** — Wireless start/stop for water pumps, irrigation systems, pond aerators, and small industrial motors.
• **Access Control Systems** — Duplicate remotes for RF-based door and gate access control panels in offices, warehouses, and gated communities.
• **Industrial Automation** — Short-range wireless control for conveyor belts, electric hoists, overhead cranes, and auxiliary factory equipment.
• **Agricultural Equipment** — Remote operation of feed dispensers, ventilation fans, poultry-house door openers, and barn lighting controls.
• **DIY & Custom RF Projects** — Pair with generic 433 MHz relay receiver modules for custom wireless switching, hobby electronics, and prototyping.

6. HOW TO USE

6.1 Battery Installation

• Slide open the battery compartment cover on the rear of the remote.
• Insert **one A27 / 23A 12V alkaline battery**, observing the correct polarity (+ / –) as marked inside the compartment.
• Replace the cover securely until it clicks into place. The LED should flash briefly to confirm power.

6.2 Clearing Existing Codes (Factory Reset)

- Press and hold both the **LOCK button (top-left)** and **UNLOCK button (top-right)** simultaneously.
- Continue holding for approximately **2 seconds** until the LED flashes rapidly **three times**, then release. All stored codes are now cleared.

6.3 Cloning / Copying a Remote Control

Step 1: Position Both Remotes

Hold the original (source) remote and the RFRC side by side, keeping their antenna areas close together (within 5–10 cm). Ensure the original remote has a fresh battery.

Step 2: Enter Cloning Mode

On the RFRC, press and hold the target button you wish to program (e.g., Button A for Lock). The red LED will illuminate and remain steady.

Step 3: Transmit from Original Remote

While continuing to hold the RFRC button, press and hold the corresponding button on the original remote. Keep both buttons pressed simultaneously.

Step 4: Confirm Successful Clone

After 1–2 seconds, the RFRC LED will flash **rapidly twice** and then stay solid. This confirms the signal has been successfully cloned. Release both buttons.

Step 5: Repeat for Additional Channels

Repeat Steps 2–4 for each button you wish to program (up to 4 total). Each button can clone a different original remote or different buttons from the same remote.

Step 6: Test the Cloned Remote

Point the RFRC toward the target receiver and press the programmed button. The receiver should respond identically to how it does with the original remote.

6.4 Restoring Accidentally Deleted Codes

- If codes were cleared by mistake, **immediately** press and hold both lower buttons (Buttons C and D) simultaneously for ~2 seconds.
- The LED will flash rapidly to confirm successful code restoration.
- **Important:** This feature only works if no new codes have been cloned since the accidental deletion. If new codes have already been saved, restoration is not possible.

6.5 Battery Replacement

- When the LED appears dim or flashes erratically during transmission, replace the battery with a standard **A27 / 23A 12V alkaline battery** (widely available at electronics and hardware stores).
- Stored codes are retained in **non-volatile memory** — no re-cloning is required after a battery change.

7. PACKAGE CONTENTS

Qty	Item
1 ×	**RFRC 4-Channel Universal Duplicate Wireless Remote Control (battery pre-installed)**
1 ×	Spare A27 / 23A 12V Alkaline Battery
1 ×	Integrated Metal Key Ring (attached to remote housing)
1 ×	Quick-Start User Guide / Programming Instructions (English)

Qty	Item
1 ×	Retail Blister Card Packaging

8. COMPATIBLE ENCODER IC CHIP REFERENCE

IC Chip Family	Supported Model Numbers
2260 Series	**PT2260, SC2260, HS2260, LX2260, HX2260, CS2260**
2262 Series	PT2262, SC2262, HS2262, LX2262, HX2262, CS2262, M1E2262
2240 Series	PT2240, PT2242, LX2240, LX2241, SCL2240, HCS2240
1527 Series	EV1527, HS1527, HX1527, SC1527, GP1527, CP1527, AD1527, SCL1527, TL1527, ZX1527, WL1527
5026 / 5326 Series	AX5026, AX5326-3, AX5326-4, SC5262, FP527, SMC926
HT Series	HT12D, HT600, HT680, HT6207, HT6010, HT6012, HT6013, HT6014, HT6015
PIC / MCU Series	HT46F49E, PIC16F630, PIC16F676, PIC12F629
Other Compatible ICs	PT2264, CS5211, SMC918, PT2294, SC2294, WL1026

9. IMPORTANT NOTES & COMPATIBILITY LIMITATIONS

/! The RFRC is designed exclusively for **FIXED CODE** and **LEARNING CODE** remote controls. It **CANNOT** clone rolling code (hopping code) systems that use HCS-series encryption chips (e.g., HCS200, HCS201, HCS300, HCS301, HCS410, HCS412). Most OEM (original equipment manufacturer) car keys manufactured after ~2005 employ rolling code technology and are **NOT compatible** with this device. Always verify the encoder IC type before purchase.

(i) The original remote control **MUST be in working condition** for cloning to succeed. The RFRC copies the transmitted RF signal — it cannot generate new codes or recover codes from a dead or non-functional original transmitter. Test your original remote before attempting to clone.

• **Frequency Check:** Verify the original remote operates at **433.92 MHz** before purchasing. Other common frequencies (315 MHz, 868 MHz, 2.4 GHz) are **NOT** supported. The frequency is typically printed on the remote's housing label or in its user manual.

• **IC Chip Verification:** Open the original remote's battery compartment and check the encoder IC chip number printed on the PCB. Cross-reference with the compatibility list in Section 8 above.

• **Two-Way / Bidirectional Remotes:** The RFRC is a one-way transmitter only. It cannot clone two-way communication remotes, remotes with LCD/LED displays, or remotes that receive confirmation signals back from the vehicle/receiver.

• **Transponder / Immobiliser Chips:** The RFRC copies the **RF signal only**. It does NOT clone RFID transponder chips (glass ampoule or ceramic chip inside the physical key head). Vehicles with engine immobilisers require the original transponder chip or a separately programmed transponder to start the engine.

• **Keep a Master Copy:** Always retain at least one original working remote as a master. Do not dispose of or lose all original remotes after cloning.

• **Optimal Range:** For maximum transmission range, avoid covering the top section of the remote (antenna area) with your hand during use. Hold the remote with the key ring facing downward.

• **Environmental Care:** Store the remote away from extreme heat, direct sunlight, prolonged moisture, and strong magnetic fields when not in use.

• **Battery Maintenance:** Replace the battery promptly when the low-battery LED indicator activates. Remove the battery if storing the remote unused for extended periods (3+ months) to prevent leakage damage.

10. ORDERING & CONTACT INFORMATION

Company	**Suzhou Shengxin Electronic Technology Co., Ltd**
Email	**nick@szsxsaw.com**
Website	**www.szsxsaw.com**
Phone	**+86 13318399345**
Address	Suzhou City, Jiangsu Province, China
Product Series	RFRC — 4-Channel Universal Wireless Remote Control Duplicator
MOQ / Pricing	Contact us for minimum order quantity and volume pricing
Lead Time	Contact us for current lead time and stock availability
OEM / ODM Service	Custom branding, colour variants, packaging design, and button configuration available for bulk orders — please enquire

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