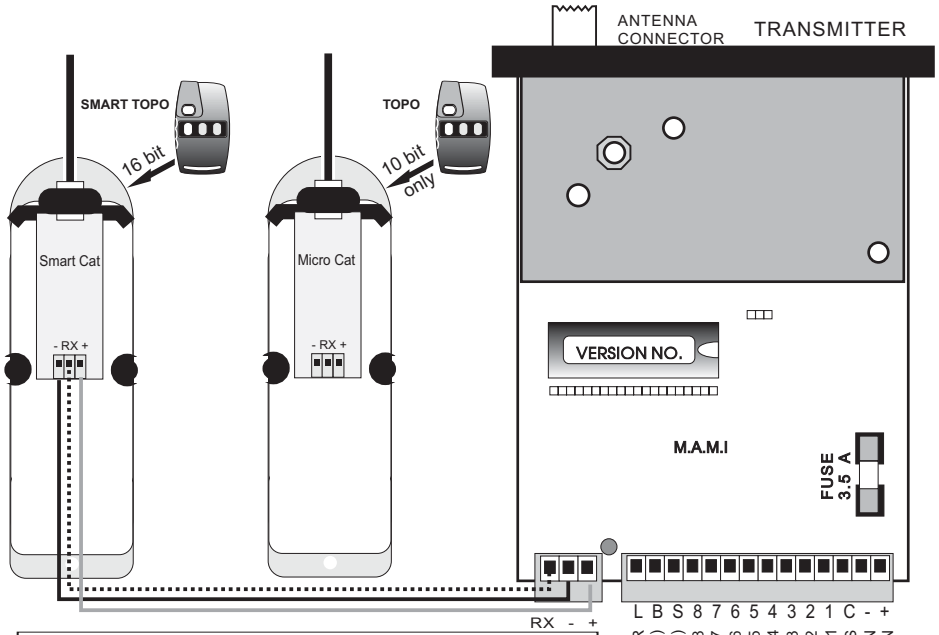
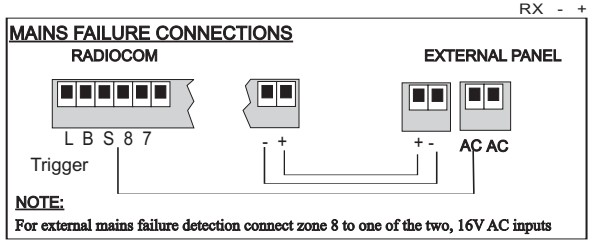
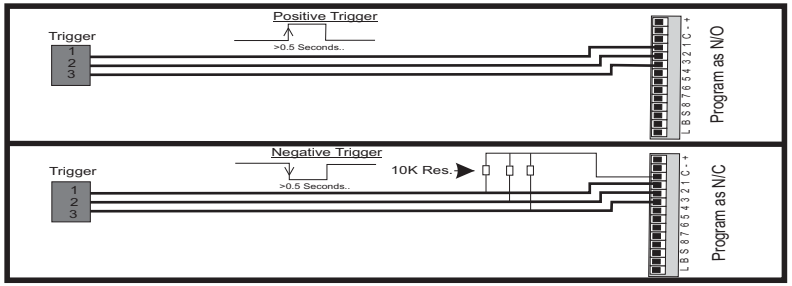
RKF 8CH TRANSMITTER





NOTE: External trigger from another alarm panel can be either N/O (by applying 12V DC) or N/C by removing 12V DC)



MAMI

MANUFACTURING AND MINOR INVENTIONS

(S0022DFX Xtal)
(S0022FXX Synth)

RKF 8CH TX INSTALLATION MANUAL

PROGRAMMING OPTION REGISTERS (USE THE RKF PROGRAMMER) 1 & 2

TO PROGRAM:
1- HOLD THE SELECTED REGISTER KEY UNTIL A "P" IS DISPLAYED (E.G. "3") — KEYPAD: 3 — DISPLAY: P
2- ENTER EIGHT "0" OR "1" AS SELECTED — KEYPAD: ? — DISPLAY: 0 OR 1

TO VISUALIZE:
PRESS SHORTLY THE NUMBER OF THE REGISTER YOU WANT TO CHECK. — KEYPAD: ? — DISPLAY: 0 OR 1
THE DISPLAY WILL SHOW , SEQUENTIALLY THE CONTENT OF THE REGISTER — DISPLAY: 0 OR 1

OPTIONS REGISTER NO. 1 (1)

			FACTORY DEFAULT
ON= SIREN WITH REMOTE PANIC	OFF= NO SIREN	1	
ON= 3 MINUTE SIREN	OFF= 3 SECOND SIREN	2	
ON= SIREN BEEPS WITH ARM/DISARM	OFF= NO SIREN BEEPS	3	
ON= N/A	OFF= N/A	4	
ON= see table	OFF= see table	5	
ON= see table	OFF= see table	6	
ON= see table	OFF= see table	7	
ON= see table	OFF= see table	8	

DO YOU WANT TO TRANSMIT TO THE BASE VIA A REPEATER ?

		NO REPEATER	REPEATER 1	REPEATER 2	REPEATER 3	REPEATER 4	REPEATER 5	REPEATER 6	REPEATER 7	REPEATER 8	REPEATER 9	REPEATER A	REPEATER B	REPEATER C	REPEATER D	REPEATER E	REPEATER F
5	0	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
6	0	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
7	0	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
8	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1

OPTIONS REGISTER NO. 2 (2)

			FACTORY DEFAULT
ON= N/A	OFF= N/A	1	
ON= N/A	OFF= N/A	2	
ON= REPORT BATTERY LOW IN SENSORS	OFF= NO REPORT	3	
ON= REPORT ARMING/DISARMING	OFF= NO REPORT	4	
ON= REPORT SYSTEM BATTERY LOW	OFF= DO NOT REPORT SYSTEM BATTERY LOW	5	
NEW ON= SEND ZONE 8 AS MAINSFAIL	OFF= SEND ZONE 8 AS NORMAL	6	
ON= SEND FTX PROTOCOL	OFF= SEND DTMF PROTOCOL	7	
ON= N/A	OFF= N/A	8	

BIT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
BINARY	0	1	0	1	0	1	1	1	0	0	1	0	0	0	0	0
DECIMAL	1	2	4	8	16	32	64	128	256	512	1024	2048	4096	8192	16384	32768
ADD		2	+	8	+	32+	64+	128+			1024=		1258			

PROGRAMMING THE ZONES OPTION REGISTERS 3 TO 7

DATA IS ENTERED FROM LEFT TO RIGHT. THE FACTORY DEFAULT SETTINGS ARE GIVEN BELOW THE OPTIONS.

REGISTER	ZONE NUMBER 1 2 3 4 5 6 7 8	WHAT TO ENTER
INPUT INVERT (3)	1 1 1 1 1 1 1 1 ← FACTORY DEFAULTS	1 = INPUT IS NORMALLY CLOSED 0 = INPUT IS NORMALLY OPEN
INPUT DETECT TIME (4)	0 0 0 0 0 0 0 0 ← FACTORY DEFAULTS	1 = 15 SECOND DETECTION TIME 0 = 0.5 SECOND DETECTION TIME
INPUT SIREN REQUEST (5)	1 1 1 1 1 1 1 1 ← FACTORY DEFAULTS	1 = INPUT WILL ACTIVATE SIREN 0 = INPUT WILL NOT ACTIVATE SIREN
OPEN/CLOSE REPORT (6)	0 0 0 0 0 0 0 0 ← FACTORY DEFAULTS	1 = INPUT WILL REPORT "OPEN/CLOSE" 0 = NO REPORT
ALARM/RESTORE REPORT (7)	0 0 0 0 0 0 0 0 ← FACTORY DEFAULTS	1 = INPUT WILL REPORT "ALARM/RESTORE" 0 = NO REPORT

PROGRAMMING THE IDENTIFICATION REGISTERS C, D & A

I.D. CODE OF THE TRANSMITTER OR TEL. COMMUNICATOR (C)
1 2 3 4 — 5 0 0 0 ← FACTORY DEFAULTS
ENTER A 4-DIGIT NUMBER.

ONLY WHEN USING RADIO OR TEL. COMMUNICATORS WITH UHF SMART CAT RECEIVER FOR REMOTE CONTROL.

DIP-SWITCH CODING (D)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 — 0 0 0 0 0 1 0 0 1 1 1 1 0 0 0 0 ← FACTORY DEFAULTS
1 = 'ON' 0 = 'OFF'

ONLY WHEN USING RADIO OR TEL. COMMUNICATORS WITH BUILT-IN UHF RECEIVER FOR REMOTE CONTROL.

DIP-SWITCH CODING (D)
1 2 3 4 5 6 7 8 9 10 — 0 0 0 0 0 1 1 1 1 1 ← FACTORY DEFAULTS
1 = 'ON' 0 = 'OFF' BITS 5 TO 10 MUST MATCH USER

RESET TO FACTORY DEFAULTS: HOLD KEY 9 UNTIL E IS DISPLAYED

PROGRAMMING THE EXTENDED OPTION REGISTERS FOR EACH ZONE 0 ?

	1 2 3 4 5 6 7 8	
ARMED/DISARMED INPUTS (0 1)	0 0 0 0 0 0 0 0 ← FACTORY DEFAULTS	1 = INPUT CAN BE ARMED OR DISARMED 0 = INPUT IS DISABLED
24HRS (EMERGENCY) INPUTS (0 5)	0 0 0 0 0 0 0 0 ← FACTORY DEFAULTS	1 = INPUT IS ALWAYS ACTIVE (24 HRS) 0 = INPUT IS DISABLED
INPUTS REQUIRING ENTRY DELAY (0 6)	0 0 0 0 0 0 0 0 ← FACTORY DEFAULTS	1 = INPUT WITH ENTRY DELAY 0 = INPUT WITH NO ENTRY DELAY
VALUE IN SECONDS OF ENTRY DELAY (0 7)	0 0 1 0 1 0 0 0 ← FACTORY DEFAULTS (20 SEC)	VALUE IN SECONDS OF ENTRY DELAY (USE BINARY TABLE)
AUTO TEST INTERVAL (IN HRS) (0 8)	0 0 0 0 1 1 0 0 ← FACTORY DEFAULTS (48HRS)	VALUE IN HOURS OF INTERVAL BETWEEN SELF TESTS

MAMI

MANUFACTURING AND MINOR INVENTIONS

RKF 4CH TRANSMITTER

M000014 NOVEMBER 2012

RKF T4

The “RKF T4” is a microprocessor based RADIO TRANSMITTER. It is designed to perform the functions associated with the monitoring of alarm conditions and subsequent transmission to a CONTROL ROOM FOR ALARM MONITORING .

Following are the features that make the "RKF T4 " the most versatile , efficient and innovative RADIO LINK in the security market:

1 - Four 24Hr hard wired PROGRAMMABLE INPUTS.

2 - Silent RADIO Remote PANIC button

3 -Sends the conditions of all 4 inputs when any of the INPUTS are triggered.

4 - All INPUTS are programmable to suit special installation requirements.

5 - Subscriber code and options fully programmable by the installer by making use of the M.A.M.I

SPRO1 PROGRAMMER

6 - **EEPROM** memory for retention of options and code selections during "power-down".

7 - Programmable to send a **"check-in"** transmission between 1 to 250 hours.

8 - Programmable System Battery Low.

9 - Inputs can be triggered by either a positive or negative signal.

A REMOTE PANIC BUTTON is available with the addition of the Microcat Receiver..

For complete flexibility the four wired inputs may be programmed to send a transmission whenever one of the following conditions occurs:

1.a) - When the external circuit is opened (**Normally Closed circuit**)

1.b) - When the external circuit is closed (**Normally Open circuit)**

1.c) - Both when the external circuit is being **opened and closed**.

For example : You may require that the particular circuit calls the control room both when an alarm occurs and when it is restored, or that a particular circuit calls the control room both when a door is opened or closed.

INSTALLATION NOTES :

1 - INPUT CONNECTIONS:
There are 4 inputs available on the BOARD (**1 TO 4**). These INPUTS are factory-programmed for NORMALLY-OPEN operation, that is: You need to APPLY 12 V (from the common 12V CONNECTION P+) to trigger the alarm.

If you require any of these to be NORMALLY-CLOSED (trigger on removing 12V), it is necessary to define these circuits in the INVERT register (see "PROGRAMMING THE RKF -T4 "(key .3)) Entering "1" will change that circuit from N.O to N.C

4 - RECEIVER CONNECTIONS: (for Remote Panic Button)

The external receiver (Micro-Cat - R0) must be connected before power up!
Mount the receiver no more than five metres from the unit. 12 Volts DC for the receiver is available between **(-) & P(+).** The third connection, **(RX),** to the receiver is the data connection.

5 - POWER SUPPLY: The unit works on a 12 V DC Supply.(Not less that 0.5mm cable)

8 - BATTERY CONNECTIONS: The standby battery ratings must be : 12v with a recommended capacity of 6.5 A/hr . The standby battery must be connected between **BATT(NEGATIVE)** and **BATT(POSITIVE)**. As a protection for battery polarity reversal, **crow-bar polarity protection has been implemented**. It may be therefore necessary to change the "BATTERY" fuse after connecting the battery incorrectly.

Guarantee DOES NOT cover damages caused by REVERSE/ INCORRECT connection to the battery.

PROGRAMMING THE RKF - T4

INSTALLER CODE

THE RKF-T4 IS PROGRAMMED WITH A "FACTORY DEFAULT" SET OF OPTIONS.

ALTHOUGH THE"FACTORY" OPTIONS REFLECT THE CHOICE OF THE MAJORITY OF INSTALLERS AND END-USERS, PROPER OPERATION AND COMPLIANCE WITH SPECIFIC REQUIREMENTS CAN BE ACHIEVED THROUGH REPROGRAMMING.

THE PROGRAMMABLE OPTIONS ARE DIVIDED INTO 3 SECTIONS:

- 1 - SYSTEM OPTION REGISTERS.
- 2 - SYSTEM I.D. CODES
- 3 - CIRCUIT (ZONE) OPTION REGISTERS.

PROGRAMMING:

1) Connect the programmer (SPRO 1) as indicated in ***FIG.02***.
2) Hold down programming button on SPRO and apply power by connecting the 12V, release the programming button
   WARNING: observe the polarity markings on the board.
3) Press the # (ENTER) key on the programmer. The unit will "Lock" onto the 4channel TX and will, for a brief moment, display the product number (03) of the transmitter.
4) Following a successful "LOCK ON ", an "F" will be displayed by the programmer.
5) The system is now ready to program any of the registers indicated below.
6) Enter # after programming each register.

SECTION 1 : SYSTEM OPTION REGISTERS

NOTE: ● = ON ○ = OFF

OPTIONS REGISTER NO. 1 — 0 1 #

ON= N/A	OFF= N/A	1
ON= N/A	OFF= N/A	2
ON= N/A	OFF= N/A	3
ON= N/A	OFF= N/A	4

FACTORY DEFAULT

	NO REPEATER	REPEATER 1	REPEATER 2	REPEATER 3	REPEATER 4	REPEATER 5	REPEATER 7	
REPEATER BIT 1	OFF	ON	OFF	ON	OFF	ON	ON	5
REPEATER BIT 2	OFF	OFF	ON	ON	OFF	OFF	ON	6
REPEATER BIT 3	OFF	OFF	OFF	OFF	ON	ON	ON	7
REPEATER BIT 4	OFF	OFF	OFF	OFF	OFF	OFF	ON	8

OPTIONS REGISTER NO. 2 — 0 2 #

NEW! ON= SEND FTX FORMAT	OFF= SEND DTMF FORMAT	1
ON= N/A	OFF= N/A	2
ON= N/A	OFF= N/A	3
ON= N/A	OFF= N/A	4
ON= REPORT SYSTEM BATTERY LOW	OFF= DO NOT REPORT SYSTEM BATTERY LOW	5
ON= N/A	OFF= N/A	6
ON= CHECK-IN AT TIMED INTERVALS	OFF= DO NOT CHECK-IN	7
ON= N/A	OFF= N/A	8

FACTORY DEFAULT

LOAD FACTORY DEFAULTS	3 7 #	**NOTE: THIS OPERATION WILL ERASE ALL USER PROGRAMMING AND RESET THE RKF T4 TO FACTORY DEFAULT VALUES.**
EXIT PROGRAMMING MODE	3 0 #	**THIS OPERATION WILL TERMINATE THE PROGRAMMING SESSION.**

SECTION 2 : SYSTEM I.D. CODES

Transmitter ID code

To change the ID code enter: 2 0 #

To view the ID code enter : 2 0 *

1	2	3	4	
				ENTER A 4-DIGIT NUMBER
0	0	0	1	← FACTORY DEFAULTS

Wnet Block Code

To change the block code enter: 2 8 #

1	2	
		ENTER A 2-DIGIT NUMBER
0	0	← FACTORY DEFAULTS

To view the block code enter : 2 8 *

ONLY WHEN USING RADIO WITH UHF RECEIVER FOR REMOTE CONTROL (10BIT ONLY).

DIP-SWITCH CODING 2 4 #

1	2	3	4	5	6	7	8	9	10	
										1 = 'ON' 0 = 'OFF'
0	0	0	0	0	1	1	1	1	1	← FACTORY DEFAULTS

SECTION 3 : INPUT OPTION REGISTER

(Use only the 1st four digits)

REGISTER	INPUT CHANNEL				WHAT TO ENTER
	0	0	0	0	← FACTORY DEFAULTS
	1	2	3	4	
INPUT INVERT 0 3 #					1 = INPUT IS NORMALLY CLOSED 0 = INPUT IS NORMALLY OPEN
OPEN/CLOSE REPORT 0 6 #					1 = INPUT WILL REPORT "OPEN/CLOSE" 0 = NORMAL INPUT
	0	0	0	0	← FACTORY DEFAULTS
ALARM/RESTORE REPORT 0 7 #					1 = INPUT WILL REPORT "ALARM/RESTORE" 0 = NORMAL INPUT
	0	0	0	0	← FACTORY DEFAULTS

SECTION 4 : EXTENDED OPTION REGISTER

CHECK-IN INTERVAL (IN HRS) 1 5 #

1	2	4	8	16	32	64	128	
								VALUE IN HOURS OF INTERVAL BETWEEN SELF TESTS
0	0	0	1	1	0	0	0	← FACTORY DEFAULTS (24HRS)

FACTORY DEFAULTS

THIS OPTION NEEDS A VALUE ***(0 TO 255)*** TO BE ENTERED RATHER THAN INDIVIDUAL SELECTION.
TO CHANGE THESE VALUES DO AS FOLLOWS:
WORK OUT WHICH OF THE INDICATED AMOUNTS CAN BE ADDED TO MAKE UP THE REQUIRED VALUE

EXAMPLE: TO CHANGE FROM **24** TO *48* HOURS.
ENTER "***15 #***".... THE CURRENT VALUE WILL BE DISPLAYED (LEDS **4** AND **5** = ON)
ENTER "**4 , 5 "**... THIS WILL SWITCH OFF THESE LEDS

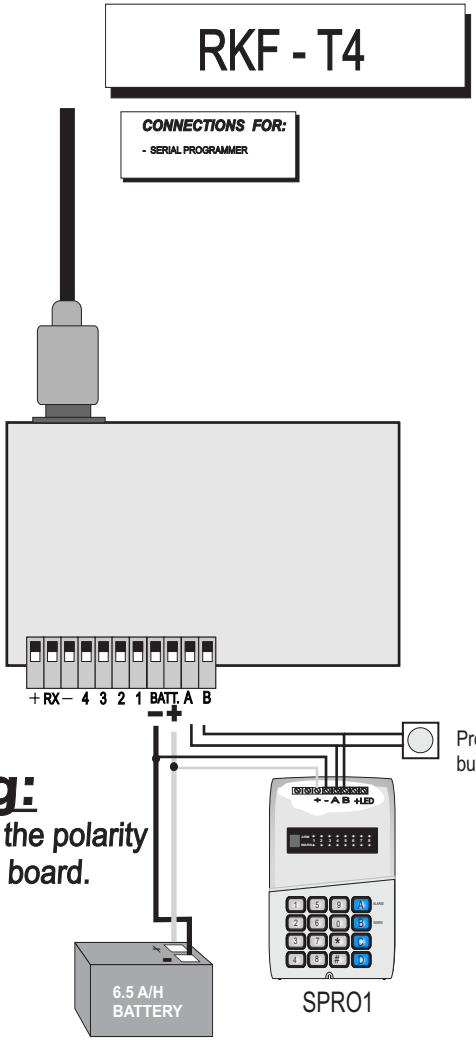
48 IS THE SUM OF AMOUNTS **16 + 32,** WHICH CORRESPOND TO LEDS **5**, and **6**
ENTER "**5, 6**" TO TURN THESE LED's ON.
ENTER **"# "** TO EXIT.

LED NO	AMOUNT REPRESENTED BY LED ON
1	1
2	2
3	4
4	8
5	16
6	32
7	64
8	128

N.B. A CHECK-IN INTERVAL OF "0" (ALL LEDS OFF) WILL AUTOMATICALLY DISABLE THE OPTION (NO CHECKING-IN TRANSMISSION).

RKF T4 PROGRAMMING

PROGRAMMING THE RKF TX 4, USE A SPRO1 (SEE CONNECTIONS BELOW)



Warning:

Please observe the polarity markings on the board.

FIG. 02

PLEASE CONNECT ALL:
"A" on Serial Programmer to "A" on control panel
"B" on Serial Programmer to "B" on control panel
"+" to "+"
"-" to "-"

RKF T4 INSTALLATION

Installing the RKF T4 is a very simple matter. All you have to do is follow the wiring diagram to connect the Inputs,, Micro-Cat Receiver and Battery.

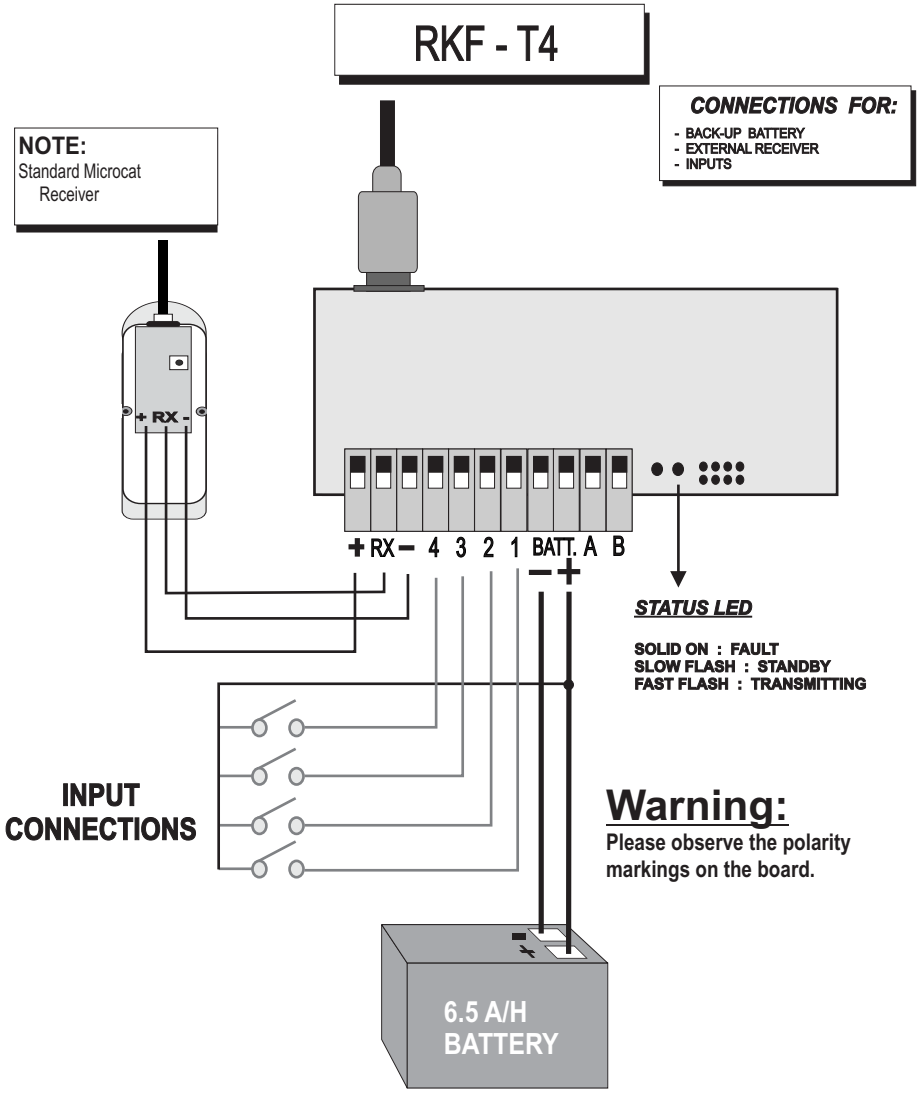


FIG. 01