IDS Analog Remote Receiver MKII

Installer Manual

South Africa's leading manufacturer and distributor of electronic security products.

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Contents

1. OVERVIEW

1.1 Introduction

The IDS Analog Remote Receiver MKII is a 433.92 MHz RF receiver that is designed to connect to an Alarm Panel. The receiver connects to the keypad bus (via CLK and DAT terminals), permitting the Alarm Panel to be armed and disarmed from certain code-hopping KEELOG® remote transmitters. When remotes are learned, they are assigned to USER CODES stored in the IDS Alarm Panel. This means that the Alarm Panel is able to log ARM/DISARM events per user.

Functionality of the receiver is extended with two fully programmable relay outputs, which also makes this receiver useful for stand-alone applications (without Alarm Panels).

1.2 Wiring and Configuration
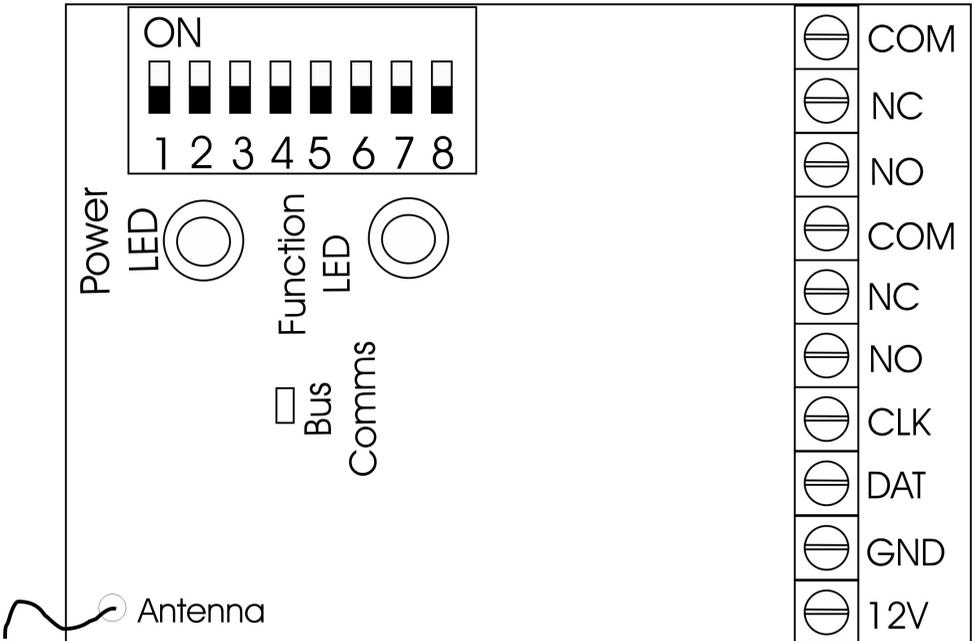
1.3 Features

➢ Up to 200 users in stand-alone mode.
➢ Up to 16 users in panel mode.
➢ Three LED's for communication.
➢ Support for bus-wired and stand-alone operation.
➢ Programmable via an 8-way DIP switch.

1.4   Electrical Specifications

Supply Voltage:	10 to 15 V_{DC}
Current Consumption:	30mA
Relay Rating Contacts:	1 A @ 30 V_{DC}
Minimum Receiver Sensitivity:	$\leq$ -100 dBm
Receiver Frequency:	433.92 MHz

1.5   DIP Switches

There are no jumpers on this receiver, as the 6-pin dual in-line connector is used for version updates.
All of the programming is performed via DIP switches (1 - 8). These are used for programming the functionality of the receiver, to learn remote buttons, change operating parameters, and to set the mode of operation. These instructions use the terms "SET" and "CLEAR" to refer to the position of the relevant DIP switches.

(Set = On, Clear = Off.)

During normal operation (STANDBY MODE) all switches are **cleared,** except the two that are used to select STANDBY MODE options - see page 8 "Selecting Standby Mode" for more details on these options.

1.6   LED Indication

There are three LEDs on the receiver PCB. A red, a green and an amber LED. Normally the red LED is on, and the green LED if off.

The amber LED is on when there is a satisfactory bus connection between the receiver and the Alarm Panel, otherwise, it pulses at a one second interval.

The green LED switches on momentarily when a "learnt" remote transmitter is received. The red LED switches off momentarily, and the green LED remains off, when an unknown remote transmitter is received.

The red and green LED's display a multitude of different signals to indicate receiver status. A full table of red and green LED indications is included on page 6.

2.   DEFAULTING PROCEDURE

When installing a remote receiver for the first time, it is necessary to default the unit first.

2.1   Clearing and Defaulting the Receiver

*There are three "reset" functions. These enable you to erase all remote users, or restore the factory default settings for the relay parameters - or perform a **complete** clear and reset. The three options work as seen in points 2.2 – 2.4.*

2.2   Erase All Learnt Users and Remote Transmitters

(All remotes are erased - Parameter settings are not changed)

Set DIP switches 2, 5, 6, 7, and then 8.
Clear DIP switch 8 to erase all the remotes.
Clear all remaining switches to return to standby mode.

2.3   Restore Factory Defaults without Erasing Remotes

Set DIP switches 1, 5, 6, 7, and then 8.
Clear 8 to affect the reset.
Clear all remaining switches to return to standby mode.

2.4   Erase Remotes and Restore Factory Default

This will restore the receiver to its "as-new" factory default condition, ALL remotes are erased.

Set DIP switch 1, 2, 5, 6, 7, and then 8.
Clear 8 to restore the factory defaults and erase all remotes.
Clear all remaining switches to return to standby mode.

NOTE:
The above clears all remote receivers, including remotes with ID's that have been assigned by the Alarm Panel.

3.   PANEL MODE FOR IDS805

3.1   Learning and Erasing Individual Users

NOTE 1:
DIP switch 3 must be **ON** to learn and erase users using the Alarm Panel keypad. When DIP switch 3 is **OFF** the receiver is protected against learning and erasing of remotes from the receiver unit.

NOTE 2:
It is important to note that if learning is disabled on the receiver, changing of a user code on the panel will NOT be stored on the receiver rendering the remote inoperable.

NOTE 3:

DIP switch 3 may be left **ON**, as the receiver automatically detects when the panel is in the learn new user code mode and it will only then enter the learning mode operation i.e. when the Alarm Panel is not in learn new user code mode the receiver will be in normal operation mode with only the RED LED on. When the Alarm Panel is then put into the mode to learn a new user code, the receiver will also enter learning mode and the GREEN LED will start flashing.

3.2　　　　　To Learn a New Remote (with DIP switch 3 ON)

1. Enter the learning mode on the Alarm Panel and enter a new user code as per normal.

2. After entering a new user code and pressing the "*" key; press a button on the remote to be learned. If the remote is not known to the system and it is the correct type of remote, the keypad will give a short beep. If the remote was already associated with a different user, the keypad will give an error beep sequence.

N.B. *Please note that the receiver is only capable of learning 16 remotes when connected to the panel. Once all locations are filled, it will not be possible to learn any new remotes before some remotes are erased. If after adding a user, you do not wish to add a remote, press [#] key twice.*
Button 1 default is is Arm / Disarm.
Button 2 default is Stay Arm on the remote.

3.3　　　　　Erasing Individual Users (with DIP switch 3 ON)

1. Follow the normal procedure used to erase a user from the alarm system.

2. The receiver will automatically erase the selected user.

3.4　　　　　Arming and Disarming of the System

On arming or disarming of the system, there is always a 2 second delay before the remote will be allowed to arm or disarm the system again. If the 3 minute retrigger protect is activated, there will be a 2 second delay from disarming the system until the system may be armed again, but a 3 minute period from arming the system until it may be disarmed again.
When using a remote to arm or disarm, it is recommended that the siren toot on arm and disarm feature is used, **and that the panel is set to always arm in the away mode.**

3.5　　　　　The Panic Feature

When connected to a keypad bus, the remote receiver uses the bus to transmit remote events and panic signals on the panel.

4. OPERATIONAL MODE (PANEL AND STAND-ALONE)

It is recommended that all re-assignments should be carried out before learning remotes.

4.1 Programming Quick Reference Table

NOTE
*Familiarise yourself fully with the relevant sections **before** programming the receiver. (This table is for quick reference purposes only, and does not show the full details.)*

IMPORTANT
Before beginning any programming:
***Clear** all DIP switches to ensure that they are set and reset in the correct logical sequence.*

The following table shows the LED indication for each programming function selected:

FUNCTION	DIP SWITCH SETTING								LED STATUS	
	1	2	3	4	5	6	7	8	RED	GRN
Learn Relay Pulse Period	0	0	0	0	0	0	1	0	Fast	OFF
Relay Normal or Fail Safe	0	0	0	0	0	1	0	0	Slow	Fast
Assign Panic Relay	0	0	0	0	0	1	1	0	Slow	OFF
Enable Relay Retrigger Protection	0	0	0	0	1	0	1	0	Fast	ON
Relay Pulse/Toggle	0	0	0	0	1	1	1	0	Fast	Fast
Assign Button to Remote	0	0	0	0	1	0	0	0	Slow	ON
Assign Panic Button	0	0	0	1	0	0	0	0	OFF	Fast
Assign Arm/Disarm Button	0	0	1	0	0	0	0	0	OFF	Fast
Assign Stay Arm Button	0	1	0	0	0	0	0	0	OFF	Fast
Factory Default	1	0	0	0	1	1	1	0	Fast	Fast
Erase All Users	0	1	0	0	1	1	1	0	Slow	Slow
Erase Offline Users	1	0	0	0	0	0	0	0	On	Pulse

Factory Defaults

Both relays set to pulse for 3 seconds.
No retrigger protection.
No panic button enabled.
Relay 1 for button 1.
Relay 2 for button 3.
Button 1 for – ARM / DISARM.
Button 3 for Stay ARM.
Relay 2 for Panic when enabled.

| 4.2 | Relay Retrigger Protection |

*Default is off for both relays. This prevents a relay from being triggered more than once for each button press. With this option selected, the relevant relay will ignore any input for **twenty seconds** after the last trigger.*

Set DIP switches 5 and 7, and then 8.
Set DIP switch 1 and/or 2 to select the relays for which this feature is to be enabled.
Clear DIP switch 8 to save settings.
Clear other switches to return to standby.

| 4.3 | Relay Pulse/Toggle |

Default – both relays are set to pulse. The relays can be set to either pulse, default, for the programmed time, or toggle when activated.

Warning
Follow these steps exactly; otherwise, it is possible to erase learnt remotes.

Set DIP switches 5, 6, and 7, and then 8.
The red and green LEDs flash fast, now.
Set DIP switches 1 **and**/**or** 2 for the corresponding relay/s to pulse or clear switches 1 and/or 2 to toggle.
Clear 8 to save settings.
Clear other switches to return to standby.

| 4.4 | Assign Panic Relay *(Default is Relay 2)* |

A panic relay will be triggered by a panic remote - or by holding down any button on a learned remote for 3 seconds (if this feature is enabled).

Set DIP switches 6, 7, and then 8.
Set DIP switch 1 **OR** 2 to select which relay to activate when a Panic Event occurs.
Clear DIP switch 8 to commit panic relay choice to memory.
Clear other switches to return to standby mode.

| 4.5 | Assign Relay Button |

*Changing the button that triggers a relay will affect the remote used to change **it as well as any remotes that are subsequently learned.** The remotes that have already been learned will keep their previous button to relay settings. (When pressing a button to assign a relay, the keypad will give two beeps to indicate the change.)*

Set DIP switch 5, then 8.
Set either DIP switch 1 or 2 to select the desired relay.
Press the button on the remote that is required to activate the relay.

Any button (on that remote) that was previously programmed to activate that relay will no longer do so.

Repeat for the other relay if so required.
Clear 8 to save this setting.
Clear other switches to return to standby mode.

4.6   Relay Pulse Period

Default 3 seconds for both relays.

Set DIP switch 7, then 8
Select DIP switch 1 (for relay 1) or 2 (for relay 2) or both 1 and 2 for relays 1 and 2.
Wait for the time you would like the relay to pulse
Clear DIP switch 8 to commit timed period to memory
Clear other switches to return to standby mode

4.7   Relay Secure/Safe Mode

Default is secure for both relays.
*Secure mode: Loss of supply power will **not** switch the state of the relay – (Normally relaxed)*
*Safe Mode: Loss of supply power **will** cause the relay to switch state – (Normally activated)*

Set DIP switch 6, then 8.
Use DIP switches 1 and 2 to select which relays to set for safe mode.
Clear DIP switch 8, then **clear** DIP switch 6.
Clear other switches to return to standby mode.

When relays are set to Safe Mode, relay terminal contacts N/O and N/C will be switch around.

5.   SELECTING STANDBY MODE

On power up (with all the DIP switches **cleared**), the receiver enters standby mode, with the red LED on and the green LED off. The following standby options can be selected via the DIP switches. (These options function in stand-alone mode or panel mode).

Standby Mode	DIP switches							Default Settings
	1	2	3	4	5	6	7	
Panic Disable	0	0	0	0	0	0	1	*Panic active when switch is OFF*
Arm Protect	0	1	0	0	0	0	0	*Prevents arm & stay arm signal re-triggering for 20 second period*

NOTE:
 The above may be selected (on) simultaneously, but must be switched off for Learn and Erase modes.

Panic disable
By default, this receiver will register a panic condition if **ANY** button on **ANY** learned IDS remote is held down for three seconds. Setting DIP switch 7 will *DISABLE* this feature
 "Hold ANY button for three seconds" panic facility. Clearing this switch will permit a 3-second panic press on **any** button of **any** learned remote to trigger the panic relay and cause a panic signal to be sent to the Alarm Panel, triggering a panic event – which would also be recorded in the Alarm Panel's event log.

Arm protect
Setting DIP switch 2 will prevent ARM and STAY ARM signals from being received any more than once every 20 seconds.

Clear other switches to return to standby mode.

6. STAND-ALONE MODE

The stand-alone function does not need an Alarm Panel to work.

This is accomplished by setting the desired state on DIP switches 1 to 7 then switching DIP switch 8 on then off.

NOTE 1:
The re-assignment of buttons and parameters is also the same when connected to the panel.

Standby Mode		DIP switches							Default Settings
		1	2	3	4	5	6	7	
Learn Remote TX	*	0	0	1	0	0	0	0	Press remote TX button
Learn Panic Remote	*	0	0	0	0	0	1	0	Press remote TX button
Erase Remote	**	1	0	0	0	0	0	0	Press remote TX button

NOTE 2:
* - Learns whether connected to a panic or remote transmitter.
** - Erases remote transmitters learn of line.

6.1 Learning Remotes   (NO PANEL)

If the receiver is connected to an Alarm Panel, you need to follow the instructions in the Alarm Panel installer manual for adding user remotes to the Alarm Panel memory.

Note
Before learning remotes, make sure that the relay assignment is the way you require it.

6.2 Adding Remotes

Set DIP switch 3.
Press any button on any IDS remote to add that remote.
When all the required remotes have been added **clear** DIP switch 3.
These remotes will now operate as per the default settings – if these were not altered.

6.3 Erasing Remotes

Set DIP switch 1.
Press any button on any IDS remote to erase that remote.
When all the required remotes have been erased **clear** DIP switch 1.

7.   FAULT FINDING

7.1   Amber LED Indicator

The sole function of this LED is to indicate when there is a valid bus connection between the receiver and an IDS Alarm Panel.

7.2   Red and Green LED Indicators

LED behaviour in STANDBY MODE

When the receiver decodes a valid (but unlearned IDS remote), the red LED will temporarily turn off. If it decodes a learned remote, the green LED will turn on for the period that the receiver signal is present. Upon decoding the learned remote, the respective relay is triggered and an appropriate message is sent to the Alarm Panel.

LED behaviour in PROGRAMMING MODE

During the programming process, the green and red LEDs indicate the current programming function with combinations of FOUR different indications:

Status	Action
OFF	the LED is OFF
ON	the LED is shining continuously
Slow	the LED is blinking slowly (one pulse per second)
Fast	the LED is blinking fast (five pulses per second)

**Setting DIP switch 8 causes the receiver
to read the DIP switch settings
Clearing DIP switch 8 commits the selection
and returns the receiver to STANDBY MODE.**
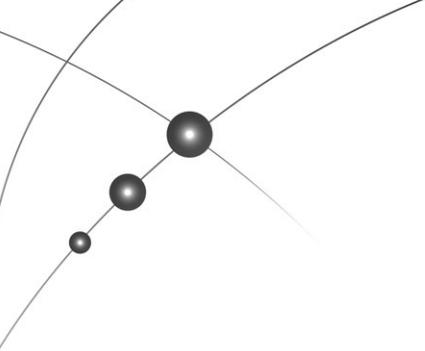
Warranty

Inhep Electronics Holdings (Pty) Ltd guarantees all IDS Control Panels against defective parts and workmanship for 24 months from date of purchase. Inhep Electronics Holdings shall, at its option, repair or replace the defective equipment upon the return of such equipment to any Inhep Electronics Holdings branch. This warranty applies ONLY to defects in components and workmanship and NOT to damage due to causes beyond the control of Inhep Electronics Holdings, such as incorrect voltage, lightning damage, mechanical shock, water damage, fire damage, or damage arising out of abuse and improper application of the equipment.

NOTE: Wherever possible, return only the PCB to Inhep Electronics Holdings service Centres.

The **IDS Analog Remote Receiver MKII** is a product of **IDS (Inhep Digital Security)** and is manufactured by **Inhep Electronics Holdings (Pty) Ltd**

WARNING
For safety reasons, only connect equipment with a telecommunications compliance label. This includes customer equipment previously labelled permitted or certified.