

RFXtrx

USB RF transceiver

User guide



www.rfxcom.com

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2. RFXtrx general information

The RFXtrx transceivers and RFXrec receivers are communicating over an USB port with the Home Automation application. The RFXtrx/rec is powered by the USB port.

At startup the RFXtrx enters for 2 seconds the boot loader (red LED is on) and after this it starts the receive/transmit firmware. If valid (decode-able) packets are received the yellow LED will blink.

The RFXtrx315 and the RFXrec433 are mainly for use in the US. The RFXtrx315 can receive US X10 lighting and security sensors **or** US Visonic PowerCode sensors at 315MHz.

The RFXrec433 can receive weather sensors of different brands at 433.92MHz.

The RFXtrx433 is a transceiver (transmitter+receiver) and can receive and control a large number of sensors and other devices.

The RFXtrx433E is an extended RFXtrx433 transceiver.

Note: the listed protocols and brands are supported!

2.1. *RFXtrx315 supported protocols*

2.1.1. RFXtrx315 configured for 310MHz

Protocol	Protocol	receive	transmit
US X10 lighting	X10	Y	Y
US X10 security	X10	Y	Y

2.1.2. RFXtrx315 configured for 315MHz

Protocol	Protocol	receive	transmit
Aoke relay - http://www.aliexpress.com/store/product/whose-sale-prices-DC12V10A-Learning-Code-Wireless-Remote-Control-Switch-System-1-Receiver-and-1-Transmitter/1211856_1774391429.html	-	-	Y
Keeloq (unencrypted part only)	Keeloq	Y	-
Visonic CodeSecure (unencrypted part only)	Visonic	Y	-
Visonic PowerCode	Visonic	Y	Y

2.1.3. RFXtrx868X

Protocol	Protocol	receive	transmit
FS20	-	Y	Y
Itho CVE RFT	-	-	Y
Keeloq (unencrypted part only)	Keeloq	Y	Y
Visonic CodeSecure (unencrypted part only)	Visonic	Y	-
Visonic PowerCode	Visonic	Y	-

2.2. RFXrec433, RFXtrx433, RFXtrx433E supported protocols

2.2.1. By function

Curtains, shades, projection screen, awning, gate openers
A-OK blind motors (RF01,AC114,AC123 controlled) - http://www.motorisationplus.com/
ASA ETR blind motors - http://www.asa-mingardi.org/en/home.php
ASP blind motors - http://www.asp-distribution.com/site%20volet/voletrenovation.aspx
BOFU blind motors - http://www.bofumotor.com/
BTX blind motors - http://www.btxinc.com
Brel blind motors - http://www.brel-motors.nl/webshop/motoren/
Chamberlain CS4330CN http://www.chamberlain24.de/epages/es122868.sf/en_GB/?ObjectPath=/Shops/es122868/Products/RA4336
Confexx CNF24-2435
Dolat DLM-1 controlled motors - http://www.dolat.com.cn/product1.asp?id=538
Dooya blind motors, remotes tested: DC305,DC306,DC307,DC313,DC1650,DC1651
Ematronic - http://www.ematronic.com/moteurs-volet-roulant/
ESMO blind motors
Forest blind/curtain motors - http://www.forestgroup.nl/index_nl.html
Harrison curtain - http://www.harrison.nl/home2.htm
Hasta blind motors - http://www.hasta.se/
JVS screens - http://www.screen-discount.nl/
Kingpin KP100 projection screen
Louvolite one touch motorised blinds
Luxaflex (RFXtrx433E only) - http://www.luxaflex.se/produkter/luxaflex/rullgardiner/
Media Mount Projector screen
Motolux - http://www.motolux.com.au/
Proluxx projection screen
Quotidom - http://www.quotidom.com/moteur-tubulaire-radio-quotidom-10-ou-20-nm-volet-roulant-ou-store-banne.html
RAEX blind motor (YR1326 controlled)
RohrMotor24 RMF blind motors - http://www.rohrmotor24.eu/rohrmotor24
RollerTrol blind motors - http://rollertrol.com/
Simu (RFXtrx433E only) - http://www.simu.com/
Somfy (RFXtrx433E only) - http://www.somfy.co.uk/
Sunpery blind motors
YOODA blind motors - http://www.sukcesgroup.pl

Temperature, humidity, weather sensors

Alecto – WS1200, WS1700, WS3500, WS4500
Auriol – H13726
Banggood – SKU174397 http://www.banggood.com/433MHz-Wireless-Weather-Station-Digital-Thermometer-Humidity-Sensor-p-965559.html
Cresta
Digimax
Hama – EWS1500
Hideki weather sensors
Honeywell – TF-ATS34C
Inovalley SM80 with plant probes - http://www.inovalley.com/detail.php?item_id=289
La Crosse
Lexibook – SM883
Maverick ET-732, ET-733 BBQ/Smoke temperature
Meade – TS33F-M, TS34C-M http://www.meade.com/products/weatherstations/sensors.html
Meteoscan – W155, W160
NEXUS – I008T
mi.sol WH2 http://www.ebay.com/itm/Transmitter-for-Wireless-Weather-Station-wireless-temperature-sensor-/121664060899
Opus XT300 /Imagintronix Soil sensor http://www.plantcaretools.com/en/webshop/wireless-moisture-sensor-en-detail/251380900939?pt=UK_Home_Garden_Garden_Plants_Fertiliser.CV&hash=item3a8778244b
Oregon Scientific / Huger
Prego P-8426 http://www.sumarket.fi/tuote.asp?TID=11990
Proove –TSS320 & TSS330 fridge/freezer thermometer & outdoor sensors 311346,311501
RFXSensor
RUBiCS0N – stektermometer 48659, 48695 -pool sensor p48019
Sunvic TLX1206
Sunvic TLX7506
TechnoLine/Proficell http://www.elv.de/output/controller.aspx?cid=74&detail=10&detail2=27621 - TX95-TH
TFA
UPM/Esic (very short receiving range)
Ventus – WS155
Viking
WT0122 pool thermometer
Xiron –EN6

Appliance modules, dimmers, relays, LED controllers

ANSLUT (learning mode)

Aoke relay http://www.aliexpress.com/store/product/whose-sale-prices-DC12V10A-Learning-Code-Wireless-Remote-Control-Switch-System-1-Receiver-and-1-Transmitter/1211856_1774391429.html

Avantek

ByeByeStandBy

Blyss lighting – <http://www.castorama.fr/store/Prise-telecommandee-et-telecommande-BLYSS---Interieur-prod4470026.html>

Brennenstuhl

Chacon – <http://www.chacon.be/>

CoCo – <http://www.coco-technology.com/en/home/>

Conrad RSL2 – <http://www.conrad.com/ce/en/product/640466/FUNK-STECKDOSENSCHALTER-RSLR2>

DI.O – <http://www.di-o.be/>

DomiaLite

Ebode

ELRO AB400/AB600 – <http://www.elro.eu/en/products/cat/home-automation/home-control1>

Energenie ENER010 – 429.935, 5-gang 429.950 - <https://energenie4u.co.uk/>

Etekcity – <http://etekcity.com/p-300-5-pack-wireless-remote-control-outlet-switch-set-with-2-remote-controls-zap-5lx.aspx>

Eurodomest NL – Action

Everflourish EMW100

Flamingo

Flamingo FA500D FA500DSS

Home Confort – <http://www.home-confort.net/en>

HomeEasy EU – <http://www.elro.eu/en/products/cat/home-automation/>

HomeEasy UK (including HE105 relay) – <http://www.homeeasy.eu/>

HQ COCO-20

Ikea Koppla

Impuls – NL – Action

Intertechno – <http://www.intertechno.at/>

Kambrook RF3672 – http://www.bunnings.com.au/kambrook-4-piece-indoor-powerpoint-kit-with-remote-control_p7030054

KlikAanKlikUit – <http://www.klikaanklikuit.nl/home/>

Legrand CAD radio – <http://docdif.fr.grp.leg.com/general/legrand-fr/NP-FT-GT/FA181DFR.pdf>

LightwaveRF – <http://www.lightwaverf.co.uk/>

Livolo - <http://www.livolo-france.com/fr/> <http://nl.aliexpress.com/w/wholesale-livolo-touch-switch.html>

Maplin <http://www.maplin.co.uk/p/remote-controlled-mains-socket-set-single-n78ka> (use Lighting1 – COCO GDR2)

MDremote LED dimmer V106, V107, V108, EKAB-10KRF - www.ultraleds.co.uk

- <http://www.ledstripkoning.nl/accessoires/dimmers-wit/draadloze-dimmer-10-knops-rf/>

Mercury appliance modules – <http://mercury.avsl.com/product?range=ME5124>

NEXA – <http://www.nexa.se/>

ORNO

OTIO

Phenix

Philips SBC SP370 series

PROmax

Proove - <http://proove.se/>

RGB LED strip driver dx.com - <http://www.dx.com/> order nbr: 130913 (**new TRC02 not supported**) , 67412

RisingSun

Sartano

Siemens (UK)

Waveman

X10 RTS10 / RFS10

X10 lighting

Xdom

Door/window, smoke and other security sensors

Aidebao security
Alecto – SA30 smoke detector
AliExpress sensors with EV1572 or PT2262 (PT2262 is preferred)
Atlantic security
Chacon KD101 smoke detector
Chuango security
Eminent security
Flamingo KD101 smoke detector FA20RF, FA21RF
Meiantech security
NEXA KD101 smoke detector
Oregon MSR939 <https://www.redealer.de/multimedia/home-living/wetterstationen/bewegungssensor-msr939/a-200667/>
Visonic CodeSecure
Visonic PowerCode
X10 security

Remotes

ATI Remote Wonder
ATI Remote Wonder Plus
ATI Remote Wonder II
SEAV TXS4
X10 PC Remote

Chimes

1byOne Easy Chime
Byron SX chime - <http://www.chbyron.eu/Byron/ByronSXRange/68/89/>
Byron MP001
Chacon
Envivo – ENV1348
HomeEasy
KlikAanKlikUit
Profiles PAC-326R Belcanto
SelectPlus200689101 & SelectPlus200689103 (Action NL)

Power, gas water metering

Cartelectronic TIC and Encoder - <http://www.cartelectronic.fr/>
cent-a-meter
Electrisave
OWL CM113, CM180, CM119, CM160, CM180, CM180i - <http://www.theowl.com/>
Revolt NC5461 - <http://www.pearl.de/a-NC5462-5452.shtml>
RFXMeter

Specials

1byone Wireless Home Security Driveway Alarm <http://www.1byone.co.uk/Home-Security/Alarms/O00QH-0511>
DEA receivers <http://www.deasystem.com/en/accessory/7/receivers> (unencrypted only)
Lucci Air Fan - <http://www.lucciair.com/>
Mertik Maxitrol – Fire Place controllers
Oregon Scientific Body weight scales – BWR101, BWR102, GR101
Prego P-8426 – sauna temperature sensor <http://www.summarket.fi/tuote.asp?TID=11990>
Smartwares radiator valve <http://www.homewizard.nl/smartwares-draadloze-radiatorkraan.html>
Siemens SF01 - LF959RA50/LF259RB50/LF959RB50 extractor hood
Wave Design extractor hood
X10 Ninja/Robocam – camera motor

2.2.2. Alphabetic list

Important notes:

- Ext and Ext2 firmware will not operate in the RFXtrx433.
- RFXrec firmware is equal to RFXtrx433 – Type1 firmware without the transmit functions.
- Protocol enabling is only necessary for receive. Transmit protocols are always enabled.

Device	Type 1	Type 2	Ext	Ext2	Protocol	rec	xmit
1byone Driveway Alarm - http://www.1byone.co.uk/Home-Security/Alarms/O00QH-0511	-	Y	Y	Y	ByronSX	Y	Y
1byone Easy Chime	-	Y	Y	Y	ByronSX	Y	Y
A-OK blind motors RF01 - http://www.motorisationplus.com/	Y	Y	-	Y	BlindsT2	Y	Y
A-OK blind motors AC114,AC123 - http://www.motorisationplus.com/	Y	Y	-	Y	BlindsT3	Y	Y
Aidebao security	Y	Y	Y	Y	Meiantech	Y	Y
Alecto – SA30 smoke detector	Y	-	Y	-	Oregon	Y	Y
Alecto – WS1200	Y	Y	Y	Y	LaCrosse	Y	-
Alecto – WS1700 and compatibles, WS3500, WS4500	-	-	Y	Y	Rubicson	Y	-
ANSLUT (learning mode)	Y	Y	Y	Y	AC	Y	Y
Aoke relay - http://www.aliexpress.com/store/product/whose-sale-prices-DC12V10A-Learning-Code-Wireless-Remote-Control-Switch-System-1-Receiver-and-1-Transmitter/1211856_1774391429.html	Y	Y	Y	Y	Lighting5 Aoke or Lighting1 ARC	N	Y
ASA ETR blind motors - http://www.asa-mingardi.org/en/home.php	-	-	Y	Y	RFY	N	Y
ASP blind motors - http://www.asp-distribution.com/site%20volet/voletronovation.aspx	Y	Y	-	Y	BlindsT11	Y	Y
ATI Remote Wonder	Y	-	-	-	ATI	Y	Y
ATI Remote Wonder Plus	Y	-	-	-	ATI	Y	Y
ATI Remote Wonder II (only available in hardware version 1.0)	Y	-	-	-	ATI	Y	-
Atlantic security	Y	Y	Y	Y	Meiantech	Y	Y
Auriol H13726	-	-	Y	Y	Rubicson	Y	-
Auriol Z31055B-TX	-	-	-	Y	Rubicson	Y	-
Avantek	-	-	Y	Y	Lighting5 *Lighting4	Y*	Y
Banggood – SKU174397	-	-	Y	Y	Rubicson	Y	-
ByeByeStandBy	Y	Y	Y	Y	ARC	Y	Y
Byron SX chime - http://www.chbyron.eu/Byron/ByronSXRRange/68/89/	Y	Y	Y	Y	ByronSX	Y	Y
Byron MP001 chime	-	-	Y	Y	Chime Byron MP001	N	Y
Blyss lighting - http://www.castorama.fr/store/Prise-telecommandee-et-telecommande-BLYSS---Interieur-prod4470026.html	Y	Y	Y	-	AE	Y	Y
BOFU blind motors - http://www.bofumotor.com/ * = receive only in Type2 used to get the remote ID.	Y	Y	Y	Y	BlindsT0	Y*	Y
Brennenstuhl	Y	Y	Y	Y	Lighting4	Y	Y
Brel blind motors – http://www.brel-motors.nl/webshop/motoren/	Y	Y	Y	Y	BlindsT6	N	Y
BTX blind motors – http://www.btxinc.com	-	Y	-	-	BlindsT9	N	Y
Cartelectronic TIC and Encoder - http://www.cartelectronic.fr/	-	-	-	Y	ATI/cartelectronic	Y	N
cent-a-meter	Y	Y	Y	-	Oregon	Y	-
Chacon (learning mode) - http://www.chacon.be/	Y	Y	Y	Y	AC	Y	Y
Chacon (with address code wheels)	Y	Y	Y	Y	ARC	Y	Y
Chacon EMW200	Y	Y	Y	-	Lighting1	N	Y

					EMW200		
Chacon 54660 (equal COCO GDR2)	Y	Y	Y	Y	Lighting1 COCO GDR2	N	Y
Chacon KD101 smoke detector	Y	Y	Y	Y	always on	Y	Y
Chamberlain CS4330CN http://www.chamberlain24.de/epages/es122868.sf/en_GB/?ObjectPath=/Shops/es122868/Products/RA4336	-	-	Y	-	BlindsT8	N	Y
Chuango * decoded as X10 in ext firmware	Y	Y	Y	Y*	Lighting4	Y	Y
CoCo (learning mode) - http://www.coco-technology.com/en/home/	Y	Y	Y	Y	AC	Y	Y
CoCo (with address code wheels)	Y	Y	Y	Y	ARC	Y	Y
CoCo GDR2 (equal Chacon 54660)	Y	Y	Y	Y	Lighting1 COCO GDR2	N	Y
Confexx CNF24-2435	-	-	-	Y	BlindsT12	N	Y
Conrad RSL2 - http://www.conrad.com/ce/en/product/640466/FUNK-STCKDOSENSCHALTER-RSLR2	Y	Y	-	Y	RSL	Y	Y
Conrad RSL sensors	-	Y	-	-	RSL	Y	Y
Conrad RSL2 motion/door-window sensors	-	Y	-	-	RSL	Y	Y
Cresta - TX-320, TS34C, anemometer, UV sensor, rain sensor	Y	Y	Y	Y	Hideki	Y	-
DEA receivers (unencrypted) http://www.deasystem.com/en/accessory/7/receivers	-	-	Y	-	KeeLoq	Y	Y
Digimax	Y	Y	Y	-	X10	Y	-
DI.O (learning mode) - http://www.di-o.be/	Y	Y	Y	Y	AC	Y	Y
DI.O (with address code wheels)	Y	Y	Y	Y	ARC	Y	Y
Dolat DLM-1 controlled motors - http://www.dolat.com.cn/product1.asp?id=538	-	Y	-	-	BlindsT10	N	Y
DomiaLite (with address code wheels)	Y	Y	Y	Y	ARC	Y	Y
Dooya blind motors, emulate remotes: DC305,DC306,DC307,DC313,DC1650,DC1651	Y	Y	Y	Y	BlindsT6	N	Y
Ebode	Y	Y	Y	Y	X10	Y	Y
Electrisave	Y	Y	Y	-	Oregon	Y	-
ELRO AB400 - http://www.elro.eu/en/products/cat/home-automation/home-control1	Y	Y	Y	-	Lighting4	Y	Y
ELRO AB600	Y	Y	Y	Y	ARC	Y	Y
Ematronic RF01 - http://www.ematronic.com/moteurs-volet-roulant/	Y	Y	-	Y	BlindsT2	Y	Y
Ematronic AC114, AC123 - http://www.ematronic.com/moteurs-volet-roulant/	Y	Y	-	Y	BlindsT3	Y	Y
Eminent * decoded as X10 in ext firmware	Y	Y	Y	Y*	Lighting4	Y	Y
Energenie - https://energenie4u.co.uk/ - ENER010 – 429.935, 5-gang 429.950	Y	Y	Y	-	Lighting1 Energenie Energenie5	N	Y
EnvIVO – Chime ENV1348	-	-	Y	-	Chime Envivo	N	Y
ESMO blind motors	Y	Y	Y	Y	BlindsT6	N	Y
Etekcity – http://etekcity.com/p-300-5-pack-wireless-remote-control-outlet-switch-set-with-2-remote-controls-zap-5lx.aspx	Y	Y	Y	-	Lighting1 Energenie5	N	Y
Eurodomest (NL – Action) * ARC only	Y*	Y	Y*	Y*	Lighting1 ARC Or Lighting5 Eurodomest	N	Y
Everflourish EMW100	Y	Y	Y	-	Lighting5 EMW100	N	Y
Flamingo	Y	Y	Y	Y	Lighting4	Y	Y
Flamingo FA500D FA500DSS	-	-	-	Y	IT	N	Y
Flamingo KD101 smoke detector FA20RF, FA21RF	Y	Y	Y	Y	always on	Y	Y
Forest blind/curtain motors - http://www.forestgroup.nl/index_nl.html	Y	Y	Y	Y	BlindsT7	N	Y
HAMA EWS1500	-	-	Y	Y	Rubicson	Y	-
Harrison curtain	Y	Y	Y	Y	Curtain Harrison	N	Y

- http://www.harrison.nl/home2.htm							
Hasta new blind motors - http://www.hasta.se/ * = receive only in Type2 used to get the remote ID.	Y	Y	Y	Y	BlindsT0	Y*	Y
Hasta old blind motors	Y	Y	-	-	BlindsT1	Y	Y
Hideki weather sensors	Y	Y	Y	Y	Hideki	-	-
Home Confort lighting - http://www.home-confort.net/en	-	-	Y	-	HomeConfort	Y	Y
HomeEasy EU (learning mode) - http://www.elro.eu/en/products/cat/home-automation/	Y	Y	Y	Y	HE EU	Y	Y
HomeEasy UK – HE105 - http://www.homeeasy.eu/	Y	Y	Y	Y	Thermostat2 HE105	N	Y
HomeEasy UK (learning mode)	Y	Y	Y	Y	AC	Y	Y
HomeEasy UK (with address code wheels)	Y	Y	Y	Y	ARC	Y	Y
Honeywell - TF-ATS34C	Y	Y	Y	Y	Hideki	-	-
HQ COCO-20	-	-	Y	Y	Lighting1 HQ COCO20	N	Y
Ikea Koppla	Y	-	-	-	Lighting3	N	Y
Impuls (NL – Action)	Y	Y	Y	Y	Lighting1 Impuls	N	Y
Inovalley SM80 with plant probes - http://www.inovalley.com/detail.php?item_id=289	-	-	Y	Y	Rubicson	Y	-
Intertechno (learning mode) - http://www.intertechno.at/	Y	Y	Y	Y	AC	Y	Y
Intertechno (with address code wheels)	Y	Y	Y	Y	ARC	Y	Y
JVS screens - http://www.screen-discount.nl/	Y	Y	Y	Y	BlindsT6	N	Y
Kambrook RF3672 – http://www.bunnings.com.au/kambrook-4-piece-indoor-powerpoint-kit-with-remote-control_p7030054	-	Y	Y	-	Lighting2 Kambrook	N	Y
Kingpin KP100 projection screen	Y	Y	Y	Y	Lighting4	N	Y
KlikAanKlikUit (learning mode) - http://www.klikaanklikuit.nl/home/	Y	Y	Y	Y	AC	Y	Y
KlikAanKlikUit (with address code wheels)	Y	Y	Y	Y	ARC	Y	Y
La Crosse - TX2, TX3, TX3P, TX4, TX7, TX17, WS2300	Y	Y	Y	Y	LaCrosse	Y	-
Legrand CAD radio	-	-	Y	-	Lighting5 LeGrand CAD	-	Y
Lexibook - SM883	Y	Y	Y	Y	Hideki	Y	-
LightwaveRF - http://www.lightwaverf.co.uk/	Y	Y	Y	Y	AD	Y	Y
Livolo - http://www.livoloneederland.nl/ - http://www.livolo-France.com/fr/ - http://nl.aliexpress.com/w/wholesale-livolo-touch-switch.html	Y	Y	Y	Y	Lighting5 Livolo	N	Y
Louvolite one touch motorised blinds * = receive only in Type2 used to get the remote ID.	Y	Y	Y	Y	BlindsT0	Y*	Y
Lucci Air fan – http://www.lucciair.com/	-	-	Y	-	Fan LucciAir	N	Y
Luxaflex – http://www.luxaflex.se/produkter/luxaflex/rullgardiner/	-	-	Y	Y	RFY	N	Y
Maplin http://www.maplin.co.uk/p/remote-controlled-mains-socket-set-single-n78ka	Y	Y	Y	Y	Lighting1 COCO GDR2	N	Y
Maverick ET-732/733 BBQ/Smoke temperature	Y	Y	Y	Y	Hideki	Y	-
MDremote LED dimmer V106 - www.ultraleds.co.uk	Y	Y	Y	Y	Lighting5 MDRemote V106	N	Y
MDremote LED dimmer V107 - www.ultraleds.co.uk	Y	Y	Y	Y	Lighting5 MDRemote V107	N	Y
MDremote LED dimmer V108, EKAB-10KRF - http://www.ledstripkoning.nl/accessoires/dimmers-wit/draadloze-dimmer-10-knops-rf/	Y	Y	Y	Y	Lighting5 MDRemote V108	N	Y
Meade – TS33F-M, TS34C-M http://www.meade.com/products/weatherstations/sensors.html	Y	Y	Y	Y	Hideki	Y	-
Media Mount Projector screen	-	Y	-	-	Lighting4	N	Y

Meiantech security	Y	Y	Y	Y	Meiantech	Y	Y
Mercury appliance modules - http://mercury.avsl.com/product?range=ME5124	Y	Y	Y	Y	Lighting1 Energenie5	N	Y
Mertik Maxitrol Fire Place controllers - G6R-H4T1, G6R-H4T5, G6R-H4T ,G6R-H4TB, G6R-H4T21-Z22	Y	Y	Y	Y	Mertik	Y	Y
Meteoscan W155,W160	-	-	Y	Y	Rubicson	Y	-
Motorlux blinds motor	Y	Y	-	Y	BlindsT3	-	Y
mi.sol WH2 http://www.ebay.com/itm/Transmitter-for-Wireless-Weather-Station-wireless-temperature-sensor-/121664060899	Y	Y	Y	Y	FineOffset	Y	-
NEXA (learning mode) - http://www.nexa.se/	Y	Y	Y	Y	AC	Y	Y
NEXA (with address code wheels)	Y	Y	Y	Y	ARC	Y	Y
NEXA KD101 smoke detector	Y	Y	Y	Y	always on	Y	Y
NEXUS - I008T	Y	Y	Y	Y	Hideki	Y	-
Opus XT300 /Imagintronix Soil sensor http://www.plantcaretools.com/en/webshop/wireless-moisture-sensor-en-detail http://www.ebay.co.uk/itm/Wireless-Soil-Moisture-Sensor-/251380900939?pt=UK_Home_Garden_Garden_Plants_Fertiliser_CV&hash=item3a8778244b	Y	Y	Y	Y	XT300	Y	-
ORNO	Y	Y	Y	Y	AC	Y	Y
Oregon Scientific / Huger BBQ and weather sensors - AW129, AW131, BTHGN129, BTHR918, BTHR918N, BTHR968, EW109, PCR800, RGR126, RGR682, RGR918, RGR928, RTGN318, RTGR328N, RTGR328N, RTGR368N, RTGR383, RTHN318, STR918, STR928, TGHN800, TGHN801, THC138, THC238, THC268, THGN122NX, THGN123N, THGN132ES, THGN132N, THGN500, THGR122(N/NX), THGR228(N/NF), THGR238, THGR268, THGR328N, THGR810, THGR918, THGR928, THGRN228NX, THN122N, THN129, THN132N, THR128, THR138, THR288(N/NF), THRN122N, THWR288A, THWR800, UV138, UVN128, UVN800, UVR128, WGR800, WGR918, WTGR800, WTGR800	Y	Y	Y	Y	Oregon	Y	-
Oregon Scientific weighting scales - BWR101, BWR102, GR101 US BWR101, BWR102 in RFXrec	Y	-	Y	Y	Oregon	Y	-
Oregon MSR939 https://www.redealer.de/multimedia/home-living/wetterstationen/bewegungssensor-msr939/a-200667/	-	-	Y	-	Oregon	Y	-
OTIO Lighting	Y	Y	-	Y	RSL	Y	Y
OWL – CM113	Y	Y	Y	-	Oregon	Y	-
OWL - http://www.theowl.com/ - CM119, CM160, CM180, CM180i	Y	Y	Y	Y	Oregon	Y	-
Phenix	Y	Y	Y	Y	Lighting4	Y	Y
Philips SBC SP370 series	-	Y	-	-	Lighting1 Philips SBC	N	Y
Prego P-8426 http://www.summarket.fi/tuote.asp?TID=11990	Y	Y	Y	-	X10	Y	-
Profiles PAC-326R Belcanto	Y	Y	Y	Y	ByronSX	Y	Y
Proluxx projection screen	Y	Y	Y	Y	Lighting4	N	Y
PROmax	-	-	-	Y	IT	N	Y
Proove –TSS320 & TSS330 fridge/freezer thermometer & outdoor sensors 311346,311501	Y	Y	Y	Y	FineOffset or Rubicson	Y	-
Quotidom – http://www.quotidom.com/moteur-tubulaire-radio-quotidom-10-ou-20-nm-violet-roulant-ou-store-banne.html	Y	Y	Y	Y	BlindsT6	N	Y
RAEX blind motor (YR1326 controlled)	-	Y	-	-	BlindsT4	Y	Y
Revolt NC5461 - http://www.pearl.de/a-NC5462-5452.shtml	-	Y	-	-	RSL	Y	-
RFXSensor	Y	Y	Y	Y	X10	Y	-
RFXMeter	Y	Y	Y	Y	X10	Y	-
RGB LED strip driver dx.com - http://www.dx.com/ order nbr: 130913, (new TRC02 NOT supported)	Y*	Y	Y*	-	AD	Y*	Y

- http://www.dx.com/ order nbr: 67412 * = receive only in Type2 used to get the RGB remote ID.							
RGB432W LED controller	Y	Y	Y	-	Lighting5 RGB432W	N	Y
RisingSun	Y	Y	Y	Y	Lighting4	Y	Y
RUBiCSOn	Y	-	Y	Y	Rubicson	Y	-
- stektermometer 48659, 48695 -pool sensor p48019							
RohrMotor24 RMF blind motors - http://www.rohrmotor24.eu/rohrmotor24	Y	Y	Y	Y	BlindsT6	N	Y
RollerTrol blind motors - http://rollertrol.com/ * = receive only in Type2 used to get the remote ID.	Y	Y	Y	Y	BlindsT0	Y*	Y
Sartano	Y	Y	Y	Y	Lighting4	Y	Y
SEAV TXS4	-	-	-	Y	FAN SEAV TXS4	N	Y
SelectPlus200689101 & SelectPlus200689103 (Action NL)	-	Y	Y	Y	ByronSX	Y	Y
Siemens SF01 LF959RA50/LF259RB50/LF959RB50 extractor hood	-	Y	-	-	Fan SF01	N	Y
Siemens (UK)	Y	Y	Y	Y	AD	Y	Y
Simu / RTS (RFXtrx433E only) – http://www.simu.com/	-	-	Y	Y	RFY	N	Y
Smartwares radiator valve - http://www.homewizard.nl/smartwares-draadloze-radiatorkraan.html	-	-	Y	Y	Radiator1 Smartwares	N	Y
Somfy / RTS - http://www.somfy.co.uk/	-	-	Y	Y	RFY	N	Y
Sunperry blind motors	-	Y	-	-	BlindsT9	N	Y
Sunvic TLX1206	Y	Y	Y	-	X10	Y	Y
Sunvic TLX7506	Y	Y	Y	-	X10	Y	-
TechnoLine/Proficell http://www.elv.de/output/controller.aspx?cid=74&detail=10&detail2=27621 - TX95-TH	Y	-	Y	Y	Rubicson	Y	-
TFA - TS15C, TS34C, external temperature sensor 30.3133, anemometer 30.3149, UV sensor, rain sensor 30.3148, pool sensor 30.3160	Y	Y	Y	Y	Hideki	Y	-
TFA - pool sensor 30.3056.10, 30.3216.20	-	-	-	Y	Oregon	Y	-
UPM/Esic (very short receiving range) - WT260,WT260H,WT440H,WT450,WT450H,WDS500, RG700	Y	-	-	-	Hideki	Y	-
Ventus WS155	-	-	Y	Y	Rubicson	Y	-
Viking - 02035, 02038, 02811	Y	Y	Y	Y	FineOffset	Y	-
Visonic CodeSecure	Y	Y	Y	Y	Visonic	Y	-
Visonic PowerCode	Y	Y	Y	Y	Visonic	Y	-
Wave Design extractor hood	Y	Y	Y	Y	Fan SF01	N	Y
Waveman	Y	Y	Y	Y	Lighting1 Waveman	N	Y
Westinghouse fan 7226640	-	-	-	Y	Fan	N	Y
WT0122 pool sensor	-	-	Y	-	FineOffset	Y	-
YODA blind motors - http://www.sukcesgroup.pl	Y	Y	Y	Y	BlindsT6	N	Y
X10 Ninja/Robocam	-	Y	-	-	X10	Y	Y
X10 PC Remote	Y	-	-	-	X10	Y	Y
X10 RTS10 / RFS10	Y	Y	Y	Y	X10	Y	Y
X10 lighting	Y	Y	Y	Y	X10	Y	Y
X10 security	Y	Y	Y	Y	X10	Y	Y
Xdom	Y	Y	Y	Y	X10	Y	Y
Xiron – EN6	Y	-	Y	Y	Rubicson	Y	-

2.3. undec on

This parameter is for internal use by RFXCOM only!!!

If new sensor types are released they will most probably not be decoded by the RFXtrx firmware. For this reason we have added the option to enable receive of undecoded messages. This function is only to enable RFXCOM to add this new sensor type in the firmware if possible. If “undec on” is enabled in normal use the application will receive a lot of undecoded messages mostly as a result of RF noise or disturbed RF packets.

Important: For normal use “undec on” should be disabled

2.4. Sensitivity influenced by enabled protocols

The sensitivity of the receiver part is highly influenced by the number of protocols enabled. Lesser protocols enabled will make the receiver more sensitive for the enabled protocols.

There are a few protocols that will reduce or even eliminate receiving of other protocols if enabled.

For example:

If the AD (LightwaveRF, Siemens) protocol is enabled it can stop receiving of Meantech / Atlantic, Oregon 3.0, Visonic and Mertik.

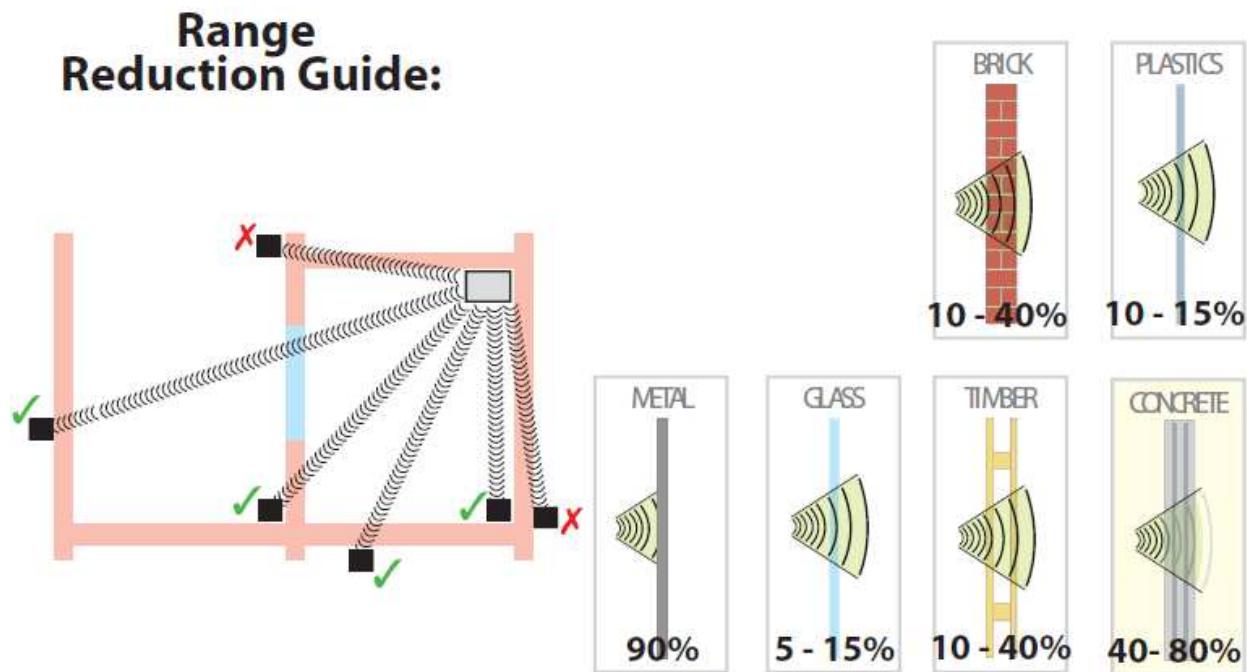
All other protocols are disabled if BlindsT0 is enabled.

	X10	ARC	AC	HomeEasy EU	Meantech/Atlantic	Oregon 1.0	Oregon 2.1	Oregon 3.0 / OWL	ATI	Visonic/Keeloq	Mertik	AD (LWRF)	Hideki/UPM	La Crosse	FS20	ProGuard	BlindsT0	BlindsT1/T2/T3/T4	AE (Blyss)	Rubicson/Alecto	FineOffset/Viking	Lighting4	RSL/Revolt	Byron SX	Imagintronix/Opus	HomeConfort
X10																										
ARC																										
AC																										
HomeEasy EU																										
Meantech/Atlantic																										
Oregon																										
ATI																										
Visonic/Keeloq																										
Mertik																										
AD (LWRF)																										
Hideki/UPM																										
La Crosse																										
FS20																										
ProGuard																										
BlindsT0																										
BlindsT1/T2/T3																										
AE (Blyss)																										
Rubicson																										
FineOffset/Viking																										
Lighting4																										
RSL																										
Byron SX																										
Imagintronix																										
HomeConfort																										

Green = enabled by default

2.5. RF range reduction

The RF signals operating distance is reduced when the signal has to pass through walls.



2.6. Home Automation software

For the list of Home Automation software that supports the RFXtrx see the web site
www.rfxcom.com

2.7. Dimensions

The dimensions of the RFXtrx/RFXrec are: 83.5 x 42 x 15 mm
Total height from bottom to antenna top is 122mm

The dimensions of the RFXtrx433E are: 83 x 59 x 22 mm
Total height from bottom to antenna top is 130mm

2.8. Electrical

The RFXtrx is powered by the 5 Volt of the USB interface.

Operating current;

Receive mode: 28 mA (0.14Watt)
Transmit mode: 45 mA

The RFXtrx Radiated RF power is 10dBm max.

2.9. Environmental conditions

Normal operating: 15°C to 35°C
Absolute min-max temperature: -10°C to 55°C

3. Install the USB driver

The RFXtrx has the FTDI FT232R USB interface chip installed.

The USB drivers are available at <http://www.ftdichip.com/Drivers/VCP.htm>

4. Run RFXflash on Linux under Mono

Open a Terminal screen in Linux (Ctrl-Alt-T)

Execute once:

Install Mono:

[sudo] **apt-get install mono-runtime**

Install VisualBasic support under Mono:

[sudo] **apt-get install libmono-microsoft-visualbasic8.0-cil**

If the USB device is created as ttyACMx you will need to create a link between /dev/ttyACMx and a serial port /dev/ttysx.

This is not necessary if the device is created as /dev/ttyUSBx !!

[sudo] **ln -sf /dev/ttyACM1 /dev/ttys3**

Note: sudo must be entered without brackets []. sudo is required if not running as super user.

Launch the RFXflash.exe program.

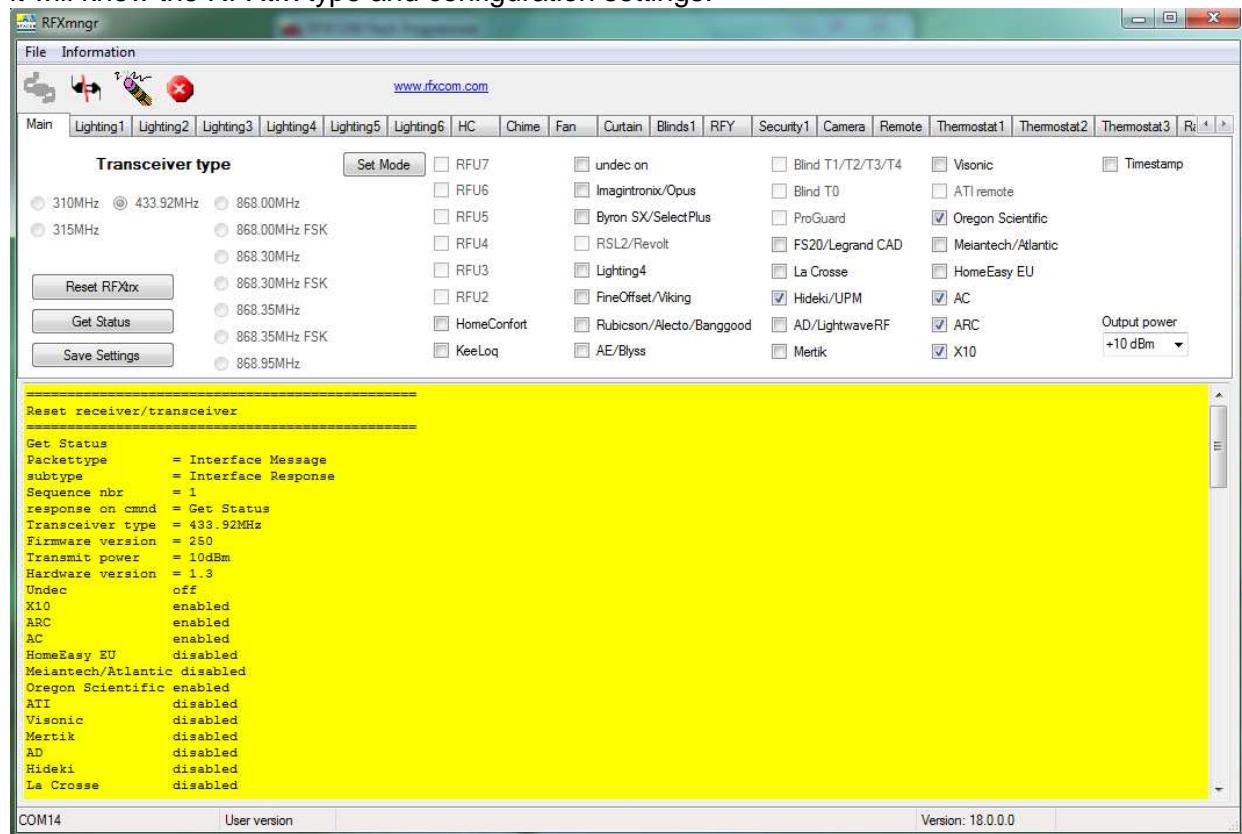
[sudo] **mono RFXflash.exe**

Note: RFXmngr does not operate under mono!

5. RFXmngr test program

The RFXmngr program supports decoding of received data and allows you to transmit commands.

After the connection the RFXmngr program transmits a Reset and Get Status command so that it will know the RFXtrx type and configuration settings:



Transmitter protocols are always enabled but receiver protocols can be disabled. This is very useful because the receiver will become more sensitive when protocols not used are disabled. So select only the protocols to be used, click **Set mode** and click **Save Settings**.

Note that these settings are lost in Type1 and Type2 firmware after an update and need to be set again.

5.1. Receiver

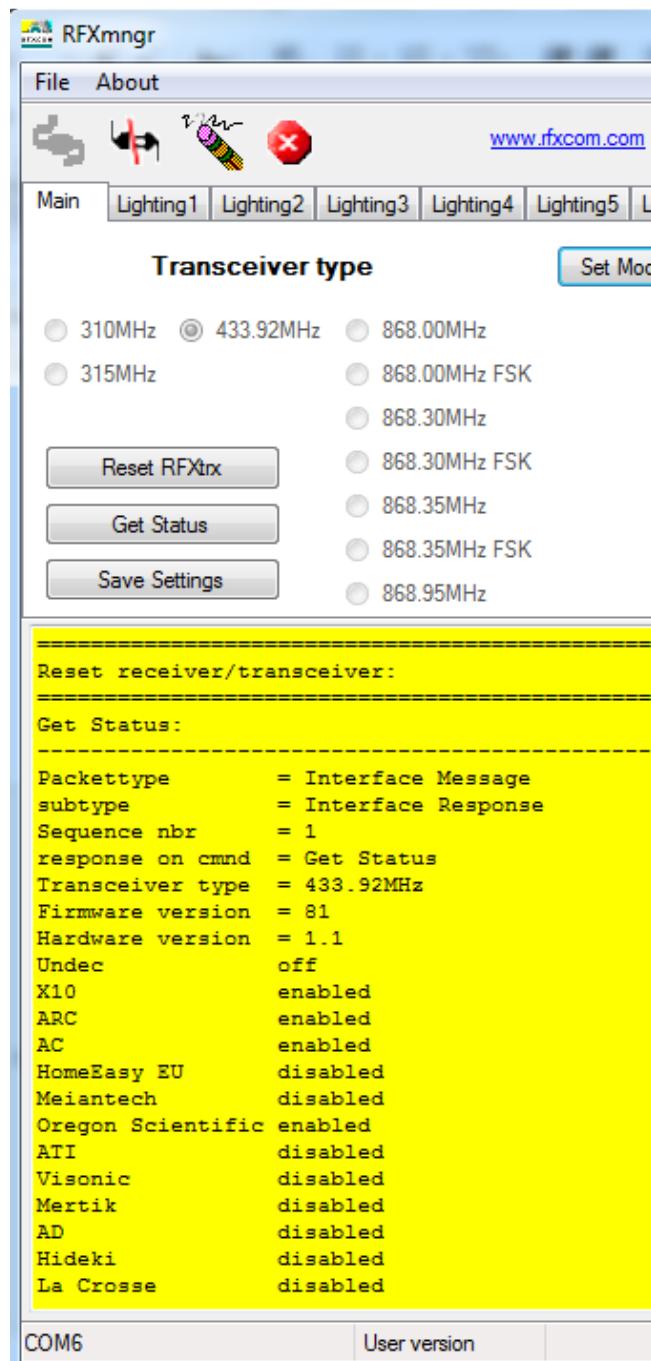
The RF protocols to be received can be configured on the Main tab at **Set Mode**.

Click **Save Settings** to save the selected protocols in non-volatile memory of the RFXtrx. This configuration is now restored every time after a power up.

Note that these settings are lost after a firmware update and need to be set again.

Note: Protocol enabling is only necessary for receive. Transmit protocols are always enabled.

The received RF data is decoded and displayed in the yellow window.



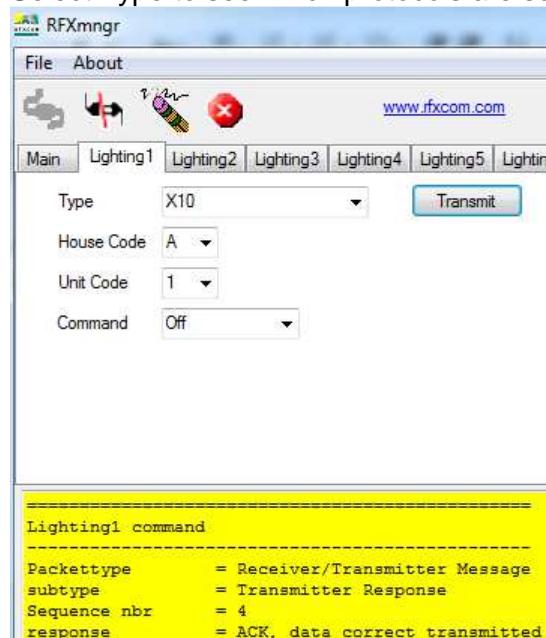
5.2. Transmitter

The tabs after the Main tab are used to send commands to the transmitter.

For example Lighting1 is used to send X10, ARC and some more.

Note: Protocol enabling is only necessary for receive. Transmit protocols are always enabled.

Select Type to see which protocols are supported on the different tabs.



The transmitted commands are displayed in the yellow window including the acknowledge send by the RFXtrx, in the example above "ACK, data correct transmitted".

6. Flash update of the RFXtrx

6.1. *Update firmware in the RFXtrx*

Firmware is flashed in the RFXtrx using this procedure:

1. Depending on the RFXtrx type download the latest RFXtrx315_yy.hex, RFXrec433_yy.hex or RFXtrx433_yy.hex firmware file.
2. Connect the RFXtrx to a Windows system or Linux under MONO
3. Stop any program that is connected to the RFXtrx.
4. Start the RFXflash program (version 4.0.0.0 or higher)
5. Select the USB RFXtrx COM port or TCP/IP port and click the CONNECT button, (the red LED on the RFXtrx should switch on now)
6. Load the correct.hex firmware file for your RFXtrx,
7. Click the WRITE button,
8. Click the Normal Execution mode button.

IMPORTANT:

1. Do not interrupt the flash procedure when started.
2. It can happen that the flash procedure ends with a pop-up screen indicating errors. Just disconnect the RFXtrx and start again at step 5 until the flash procedure is finished without errors.

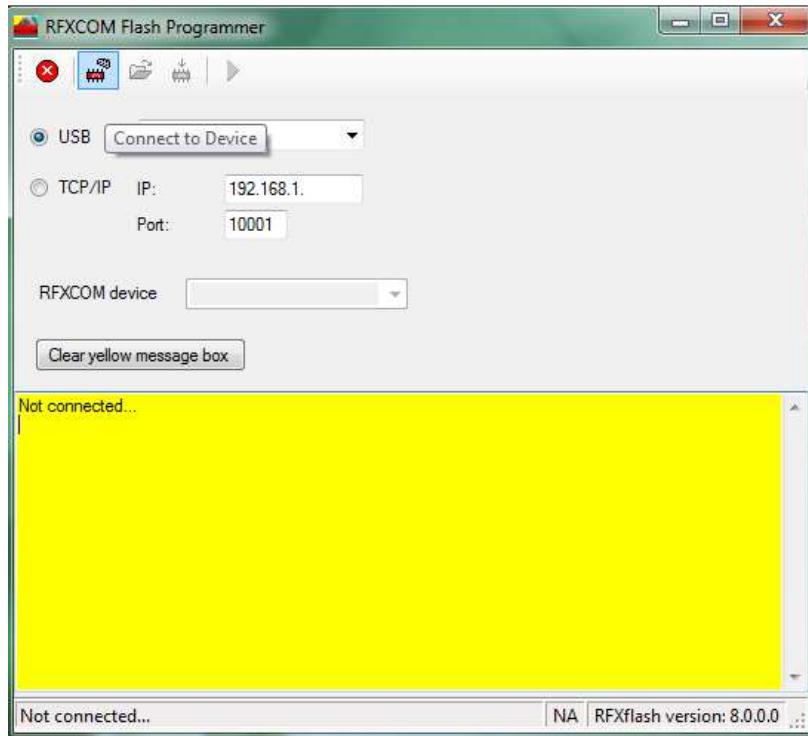
If the red LED does not switch on if you click the CONNECT button:

1. Check if you have selected the correct USB COM port.
2. If you have flashed the RFXtrx before and interrupted the flash procedure it is possible that the RFXtrx does not enter the flash state. Contact support@rfxcom.com for help.

Note: Receiver Settings are lost in Type1 and Type2 firmware after an update and have to be set again.

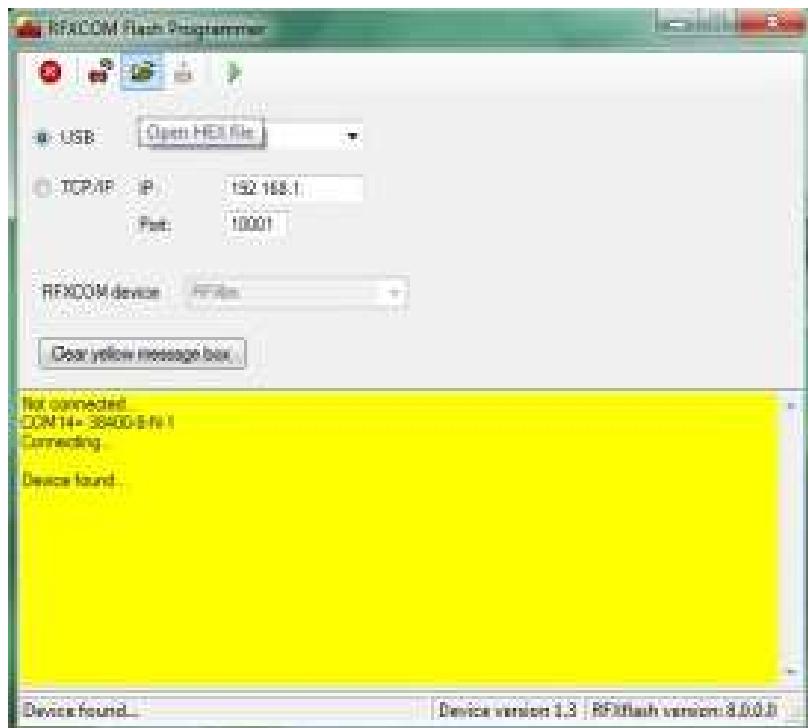
6.2. Update firmware in the RFXtrx step by step

- Click the Connect to Device button.

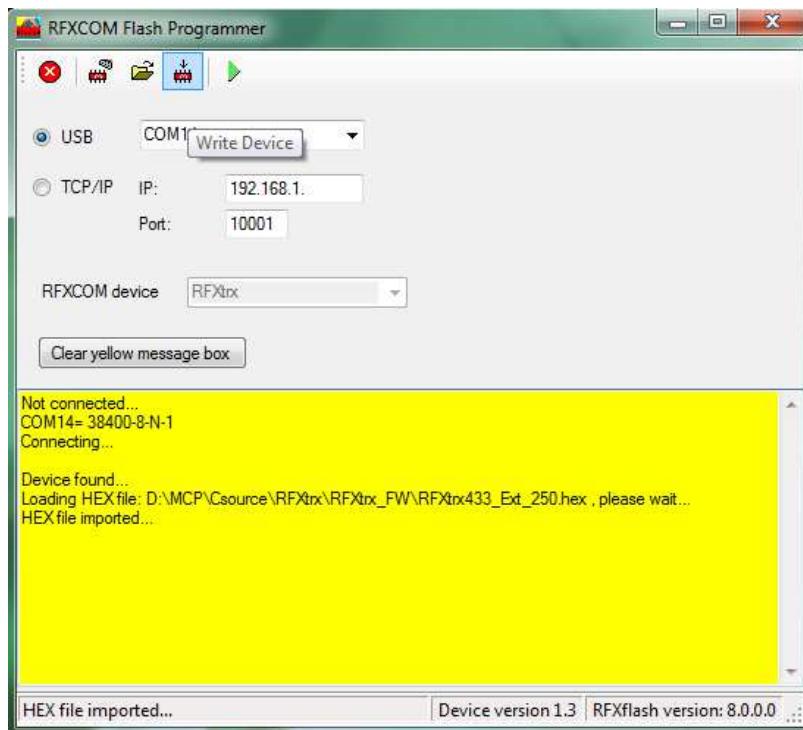


The RFXtrx will automatically switch from normal mode to the bootloader now.

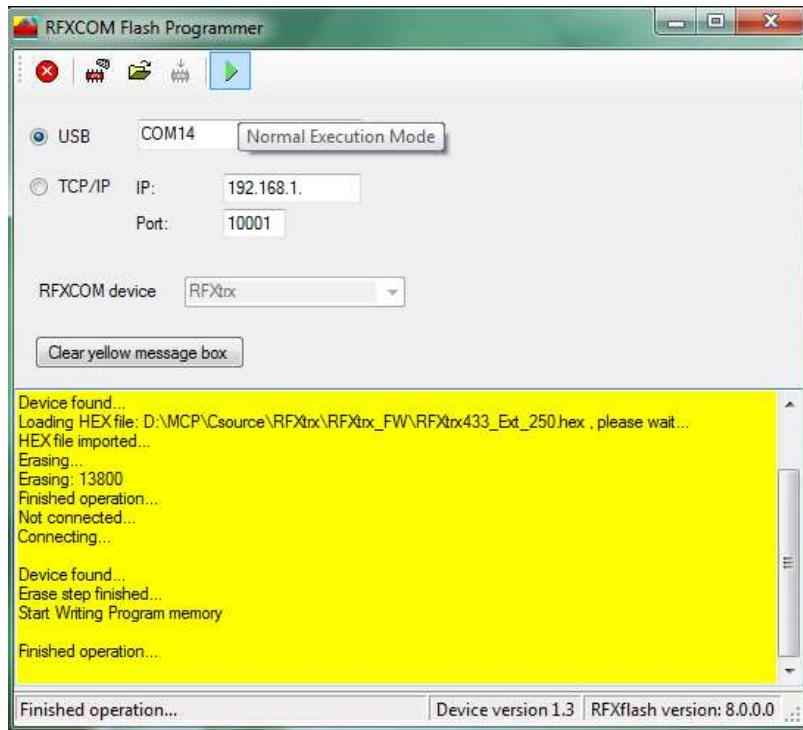
- Click the Open HEX file button and load the RFXtrxyyy_xx.hex file
Be sure to load the latest firmware file for the RFXtrx.
yyy indicates the RFXtrx frequency, so load the RFXtrx433 for an RFXtrx433!
xx indicates the firmware version.



- Click the Write device button and the RFXtrx is flashed.



- Click on the Normal Execution Mode button to set the RFXtrx to running mode.



Note: Receiver Settings are lost in Type1 and Type2 firmware after an update and have to be set again.

7. RFXtrx433 special device codes

7.1. Remote commands

7.1.1. X10 RF Remote

Dec	Hex	Button
2	02	0
18	12	8
34	22	4
56	38	Rewind
58	3A	Info
64	40	CHAN+
66	42	2
82	52	Ent
96	60	VOL+
98	62	6
99	63	Stop
100	64	Pause
112	70	Cursor-left
113	71	Cursor-right
114	72	Cursor-up
115	73	Cursor-down
116	74	Cursor-up-left
117	75	Cursor-up-right
118	76	Cursor-down-right
119	77	Cursor-down-left
120	78	left mouse
121	79	left mouse-End
123	7B	Drag
124	7C	right mouse
125	7D	right mouse-End
130	82	1
146	92	9
160	A0	MUTE
162	A2	5
176	B0	Play
182	B6	Menu
184	B8	Fast Forward
186	BA	A+B
192	C0	CHAN-
194	C2	3
201	C9	Exit
209	D1	MP3
210	D2	DVD
211	D3	CD
212	D4	PC / Shift-4
213	D5	Shift-5
214	D6	Shift-Ent
215	D7	Shift-Teletext
216	D8	Text
217	D9	Shift-Text
224	E0	VOL-
226	E2	7
242	F2	Teletext
255	FF	Record

7.1.2. ATI Remote Wonder

Dec	Hex	Button	56	38	edit image
0	00	A	57	39	Full screen
1	01	B	58	3A	DVD Audio
2	02	power	112	70	Cursor-left
3	03	TV	113	71	Cursor-right
4	04	DVD	114	72	Cursor-up
5	05	?	115	73	Cursor-down
6	06	Guide	116	74	Cursor-up-left
7	07	Drag	117	75	Cursor-up-right
8	08	VOL+	118	76	Cursor-down-right
9	09	VOL-	119	77	Cursor-down-left
10	0A	MUTE	120	78	V
11	0B	CHAN+	121	79	V-End
12	0C	CHAN-	124	7C	X
13	0D	1	125	7D	X-End
14	0E	2			
15	0F	3			
16	10	4			
17	11	5			
18	12	6			
19	13	7			
20	14	8			
21	15	9			
22	16	txt			
23	17	0			
24	18	snapshot ESC			
25	19	C			
26	1A	^			
27	1B	D			
28	1C	TV/RADIO			
29	1D	<			
30	1E	OK			
31	1F	>			
32	20	<-			
33	21	E			
34	22	v			
35	23	F			
36	24	Rewind			
37	25	Play			
38	26	Fast forward			
39	27	Record			
40	28	Stop			
41	29	Pause			
44	2C	TV			
45	2D	VCR			
46	2E	RADIO			
47	2F	TV Preview			
48	30	Channel list			
49	31	Video Desktop			
50	32	red			
51	33	green			
52	34	yellow			
53	35	blue			
54	36	rename TAB			
55	37	Acquire image			

7.1.3. ATI Remote Wonder Plus

Dec	Hex	Button				F
0	00	A	35	23		Rewind
1	01	B	36	24		Play
2	02	power	37	25		Fast forward
3	03	TV	38	26		Record
4	04	DVD	39	27		Stop
5	05	?	40	28		Pause
6	06	Guide	41	29		TV2
7	07	Drag	42	2A		Clock
8	08	VOL+	43	2B		TV
9	09	VOL-	44	2C		VCR
10	0A	MUTE	45	2D		RADIO
11	0B	CHAN+	46	2E		TV Preview
12	0C	CHAN-	47	2F		Channel list
13	0D	1	48	30		Video Desktop
14	0E	2	49	31		red
15	0F	3	50	32		green
16	10	4	51	33		yellow
17	11	5	52	34		blue
18	12	6	53	35		rename TAB
19	13	7	54	36		Acquire image
20	14	8	55	37		edit image
21	15	9	56	38		Full screen
22	16	txt	57	39		DVD Audio
23	17	0	58	3A		Cursor-left
24	18	Open Setup Menu	112	70		Cursor-right
25	19	C	113	71		Cursor-up
26	1A	^	114	72		Cursor-down
27	1B	D	115	73		Cursor-up-left
28	1C	FM	116	74		Cursor-up-right
29	1D	<	117	75		Cursor-down-right
30	1E	OK	118	76		Cursor-down-left
31	1F	>	119	77		Left Mouse Button
32	20	Max/Restore Window	120	78		V-End
33	21	E	121	79		Right Mouse Button
34	22	v	124	7C		X-End
			125	7D		

7.1.4. Medion Remote

Dec	Hex	Button		54	36	rename TAB
0	00	Mute		55	37	Acquire image
1	01	B		56	38	edit image
2	02	power		57	39	Full screen
3	03	TV		58	3A	DVD Audio
4	04	DVD		112	70	Cursor-left
5	05	Photo		113	71	Cursor-right
6	06	Music		114	72	Cursor-up
7	07	Drag		115	73	Cursor-down
8	08	VOL-		116	74	Cursor-up-left
9	09	VOL+		117	75	Cursor-up-right
10	0A	MUTE		118	76	Cursor-down-right
11	0B	CHAN+		119	77	Cursor-down-left
12	0C	CHAN-		120	78	V
13	0D	1		121	79	V-End
14	0E	2		124	7C	X
15	0F	3		125	7D	X-End
16	10	4				
17	11	5				
18	12	6				
19	13	7				
20	14	8				
21	15	9				
22	16	txt				
23	17	0				
24	18	snapshot ESC				
25	19	DVD MENU				
26	1A	^				
27	1B	Setup				
28	1C	TV/RADIO				
29	1D	<				
30	1E	OK				
31	1F	>				
32	20	<-				
33	21	E				
34	22	v				
35	23	F				
36	24	Rewind				
37	25	Play				
38	26	Fast forward				
39	27	Record				
40	28	Stop				
41	29	Pause				
44	2C	TV				
45	2D	VCR				
46	2E	RADIO				
47	2F	TV Preview				
48	30	Channel list				
49	31	Video Desktop				
50	32	red				
51	33	green				
52	34	yellow				
53	35	blue				

7.2. Harrison address conversion to switch settings

The address used is converted to the address selected in the Harrison curtain motor using the table below.

switch	1	2	3	4	5	6	7	8
	H	H	H	H	X	X	X	X
A	0	1	1	0	1	0	0	0
B	0	1	1	1	2	0	0	0
C	0	1	0	0	3	0	0	1
D	0	1	0	1	4	0	0	1
E	1	0	0	0	5	0	1	0
F	1	0	0	1	6	0	1	0
G	1	0	1	0	7	0	1	1
H	1	0	1	1	8	0	1	1
I	1	1	1	0	9	1	0	0
J	1	1	1	1	10	1	0	0
K	1	1	0	0	11	1	0	1
L	1	1	0	1	12	1	0	1
M	0	0	0	0	13	1	1	0
N	0	0	0	1	14	1	1	0
O	0	0	1	0	15	1	1	1
P	0	0	1	1	16	1	1	1

H H H H = House code

X X X X = device code

Switch position in the motor:

Up = 1

Middle = not used!!!!

Down = 0

Examples:

If you assign the address E7 (1000 0110) to the curtain motor then set the switches to: 1=up, 2=down, 3=down, 4=down, 5=down, 6=up, 7=up, 8=down

If you assign the address A2 (0110 0001) to the curtain motor then set the switches to: 1=down, 2=up, 3=up, 4=down, 5=down, 6=down, 7=down, 8=up

7.3. Flamingo, AB400, IMPULS, Sartano, Brennenstuhl switch settings

Use type ELRO AB400D

Note that the HC (House Code A-P) is the house code used in programs and has no direct relation with the A,B,C,D,E buttons on the remotes!

1	2	3	4	<== switches									
HC=====													
A	0	0	0	0									
B	0	0	0	1									
C	0	0	1	0									
D	0	0	1	1									
E	0	1	0	0									
F	0	1	0	1									
G	0	1	1	0									
H	0	1	1	1									
I	1	0	0	0									
J	1	0	0	1									
K	1	0	1	0									
L	1	0	1	1									
M	1	1	0	0									
N	1	1	0	1									
O	1	1	1	0									
P	1	1	1	1									
5	A	B	C	D	E	<== switches							
5	6	7	8	9	10	<== OR switches							
DC=====DC=====													
1	0	0	0	0	0	0	33	0	0	0	0	0	1
2	0	0	0	1	0	0	34	0	0	0	1	0	1
3	0	0	1	0	0	0	35	0	0	1	0	0	1
4	0	0	1	1	0	0	36	0	0	1	1	0	1
5	0	1	0	0	0	0	37	0	1	0	0	0	1
6	0	1	0	1	0	0	38	0	1	0	1	0	1
7	0	1	1	0	0	0	39	0	1	1	0	0	1
8	0	1	1	1	0	0	40	0	1	1	1	0	1
9	1	0	0	0	0	0	41	1	0	0	0	0	1
10	1	0	0	1	0	0	42	1	0	0	1	0	1
11	1	0	1	0	0	0	43	1	0	1	0	0	1
12	1	0	1	1	0	0	44	1	0	1	1	0	1
13	1	1	0	0	0	0	45	1	1	0	0	0	1
14	1	1	0	1	0	0	46	1	1	0	1	0	1
15	1	1	1	0	0	0	47	1	1	1	0	0	1
16	1	1	1	1	0	0	48	1	1	1	1	0	1
17	0	0	0	0	1	0	49	0	0	0	0	1	1
18	0	0	0	1	1	0	50	0	0	0	1	1	1
19	0	0	1	0	1	0	51	0	0	1	0	1	1
20	0	0	1	1	1	0	52	0	0	1	1	1	1
21	0	1	0	0	1	0	53	0	1	0	0	1	1
22	0	1	0	1	1	0	54	0	1	0	1	1	1
23	0	1	1	0	1	0	55	0	1	1	0	1	1
24	0	1	1	1	1	0	56	0	1	1	1	1	1
25	1	0	0	0	1	0	57	1	0	0	0	1	1
26	1	0	0	1	1	0	58	1	0	0	1	1	1
27	1	0	1	0	1	0	59	1	0	1	0	1	1
28	1	0	1	1	1	0	60	1	0	1	1	1	1
29	1	1	0	0	1	0	61	1	1	0	0	1	1
30	1	1	0	1	1	0	62	1	1	0	1	1	1
31	1	1	1	0	1	0	63	1	1	1	0	1	1
32	1	1	1	1	1	0	64	1	1	1	1	1	1

Examples:

A1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A15	0	0	0	0	1	1	1	0	0	0	0	0	0	0
N2	1	1	0	1	0	0	0	1	0	0	0	0	0	0
N11	1	1	0	1	1	0	1	0	0	0	0	0	0	0

0 = switch off

1 = switch on

7.4. Energenie 5-gang 429.950

To know the codes to use open the remote and check the 1 to 5 jumpers connected.
If a jumper connection is open it is a 1. If connected it is a 0 (zero)

	1	2	3	4	jumper setting in the remote
HC=====					
A	0	0	0	0	
B	0	0	0	1	
C	0	0	1	0	
D	0	0	1	1	
E	0	1	0	0	
F	0	1	0	1	
G	0	1	1	0	
H	0	1	1	1	
I	1	0	0	0	
J	1	0	0	1	
K	1	0	1	0	
L	1	0	1	1	
M	1	1	0	0	
N	1	1	0	1	
O	1	1	1	0	
P	1	1	1	1	

If jumper 5 is open (1) than add 5 to the remote code.

Examples:

Button Code	1	2	3	4	5	Jumper
1 0 0 0 0	1					I1
1 0 0 0 1	1				1	I6

7.5. Phenix, IDK YC-4000S switch settings

Use type ELRO AB400D

Note that the HC (House Code A-P) is the house code used in programs and has no direct relation with the A,B,C,D,E buttons on the remotes!

```
HC  switch  
1 2 3 4  
======  
A  0 0 0 0  
B  0 0 0 1  
C  0 0 1 0  
D  0 0 1 1  
E  0 1 0 0  
F  0 1 0 1  
G  0 1 1 0  
H  0 1 1 1  
I  1 0 0 0  
J  1 0 0 1  
K  1 0 1 0  
L  1 0 1 1  
M  1 1 0 0  
N  1 1 0 1  
O  1 1 1 0  
P  1 1 1 1
```

```
DC  switch  
5 A B C D  
======  
1  0 0 0 0 0  
2  0 0 0 1 0  
3  0 0 1 0 0  
4  0 0 1 1 0  
5  0 1 0 0 0  
6  0 1 0 1 0  
7  0 1 1 0 0  
8  0 1 1 1 0  
9  1 0 0 0 0  
10 1 0 0 1 0  
11 1 0 1 0 0  
12 1 0 1 1 0  
13 1 1 0 0 0  
14 1 1 0 1 0  
15 1 1 1 0 0  
16 1 1 1 1 0  
17 0 0 0 0 1  
18 0 0 0 1 1  
19 0 0 1 0 1  
20 0 0 1 1 1  
21 0 1 0 0 1  
22 0 1 0 1 1  
23 0 1 1 0 1  
24 0 1 1 1 1  
25 1 0 0 0 1  
26 1 0 0 1 1  
27 1 0 1 0 1  
28 1 0 1 1 1  
29 1 1 0 0 1  
30 1 1 0 1 1  
31 1 1 1 0 1  
32 1 1 1 1 1
```

7.6. HE105 switch settings

Unitnr	HE105 switches
0	1 2 3 4 5 0 0 0 0 0
1	0 0 0 0 1
2	0 0 0 1 0
3	0 0 0 1 1
4	0 0 1 0 0
5	0 0 1 0 1
6	0 0 1 1 0
7	0 0 1 1 1
8	0 1 0 0 0
9	0 1 0 0 1
10	0 1 0 1 0
11	0 1 0 1 1
12	0 1 1 0 0
13	0 1 1 0 1
14	0 1 1 1 0
15	0 1 1 1 1
16	1 0 0 0 0
17	1 0 0 0 1
18	1 0 0 1 0
19	1 0 0 1 1
20	1 0 1 0 0
21	1 0 1 0 1
22	1 0 1 1 0
23	1 0 1 1 1
24	1 1 0 0 0
25	1 1 0 0 1
26	1 1 0 1 0
27	1 1 0 1 1
28	1 1 1 0 0
29	1 1 1 0 1
30	1 1 1 1 0
31	1 1 1 1 1

7.7. HQ COCO-20

Note that the HC (House Code A-P) is the house code used in programs and has no direct relation with the A,B,C,D,E buttons on the remotes!

```
6 7 8 9 <== switches in module
HC=====
A 0 0 0 0
B 0 0 0 1
C 0 0 1 0
D 0 0 1 1
E 0 1 0 0
F 0 1 0 1
G 0 1 1 0
H 0 1 1 1
I 1 0 0 0
J 1 0 0 1
K 1 0 1 0
L 1 0 1 1
M 1 1 0 0
N 1 1 0 1
O 1 1 1 0
P 1 1 1 1

10 1 2 3 4 5      10 1 2 3 4 5 <== switches in module
DC=====DC=====
1 0 0 0 0 0 0    33 1 0 0 0 0 0
2 0 0 0 0 0 1    34 1 0 0 0 0 1
3 0 0 0 0 1 0    35 1 0 0 0 1 0
4 0 0 0 0 1 1    36 1 0 0 0 1 1
5 0 0 0 1 0 0    37 1 0 0 1 0 0
6 0 0 0 1 0 1    38 1 0 0 1 0 1
7 0 0 0 1 1 0    39 1 0 0 1 1 0
8 0 0 0 1 1 1    40 1 0 0 1 1 1
9 0 0 1 0 0 0    41 1 0 1 0 0 0
10 0 0 1 0 0 1   42 1 0 1 0 0 1
11 0 0 1 0 1 0   43 1 0 1 0 1 0
12 0 0 1 0 1 1   44 1 0 1 0 1 1
13 0 0 1 1 0 0   45 1 0 1 1 0 0
14 0 0 1 1 0 1   46 1 0 1 1 0 1
15 0 0 1 1 1 0   47 1 0 1 1 1 0
16 0 0 1 1 1 1   48 1 0 1 1 1 1
17 0 1 0 0 0 0   49 1 1 0 0 0 0
18 0 1 0 0 0 1   50 1 1 0 0 0 1
19 0 1 0 0 1 0   51 1 1 0 0 1 0
20 0 1 0 0 1 1   52 1 1 0 0 1 1
21 0 1 0 1 0 0   53 1 1 0 1 0 0
22 0 1 0 1 0 1   54 1 1 0 1 0 1
23 0 1 0 1 1 0   55 1 1 0 1 1 0
24 0 1 0 1 1 1   56 1 1 0 1 1 1
25 0 1 1 0 0 0   57 1 1 1 0 0 0
26 0 1 1 0 0 1   58 1 1 1 0 0 1
27 0 1 1 0 1 0   59 1 1 1 0 1 0
28 0 1 1 0 1 1   60 1 1 1 0 1 1
29 0 1 1 1 0 0   61 1 1 1 1 0 0
30 0 1 1 1 0 1   62 1 1 1 1 0 1
31 0 1 1 1 1 0   63 1 1 1 1 1 0
32 0 1 1 1 1 1   64 1 1 1 1 1 1
```

Examples:

Switch 6 7 8 9 0 1 2 3 4 5

```
=====
A1 0 0 0 0 0 0 0 0 0 0 0
A15 0 0 0 0 1 1 1 0 0 0
N2 1 1 0 1 0 0 0 1 0 0
N11 1 1 0 1 1 0 1 0 0 0
```

0 = switch off

1 = switch on

7.8. MDREMOTE V106, V107

This MDREMOTE has been tested.

<http://www.ultraleds.co.uk/mini-dimmer-with-rf-remote-control-12-or-24v-dc-12a-maximum.html>

The RFXtrx433 can only transmit MDREMOTE commands.

Procedure to find the ID of the MDREMOTE: In RFXmngr enable the X10 protocol and enable "Undec on". Press a button on the MDREMOTE remote.

The undecoded message contains the ID in the 2nd and 3rd byte, for example:

UNDECODERD NEC:20AF6801D1

The 2 bytes after 20 is the MDREMOTE ID, in this example AF 68

7.9. MDREMOTE V108, EKAB-10KRF

This MDREMOTE has been tested.

- <http://www.ledstripkoning.nl/accessoires/dimmers-wit/draadloze-dimmer-10-knops-rf/>

Procedure to find the ID of the MDREMOTE: In RFXmngr enable the Lighting4 protocol and enable "Undec on". Press a button on the MDREMOTE remote.

The undecoded message contains the ID in the 2nd and 3rd byte, for example:

UNDECODERD ARC:201A0703FCFC

The 2 bytes after 20 is the MDREMOTE ID, in this example 1A 07

7.10. Aoke relay

The Aoke 12V DC - 315MHz or 433.92MHz 1 channel relay is available at www.aliexpress.com store No.110758. Indicate clearly the required frequency when ordering!

The 1 channel learning relays can be used, see the picture below.

For example, for 1 relay:

http://www.aliexpress.com/store/product/DC12V-1CH-wireless-switch-remote-control-system-remote-control-switch-for-guard-door-window-curtain/110758_936534863.html

or for 6 relays:

http://www.aliexpress.com/store/product/ak-DC12V-1CH-RF-rocker-switch-livolo-switch-system-in-china-j-12a-108d-smart-house/110758_1007306574.html



The jumper next to the learning button defines to operating mode:
Open = momentary
1-2 = toggle mode
2-3 = on/off mode (to be used with the RFXtrx)

7.11. SEAV TXS4

The ID can be found using RFXmngr and enable only ByronSX and undec on.

Or calculate the ID:

A SW1 switch on = 1

-----SW1-----									
1	2	3	4	5	6	7	8	9	10
0	x	x	x	x	x	x	x	0	0 1 0 1

For example SW1 = **on off on off on off on off on off**

The ID will become:

-----SW1-----									
1	2	3	4	5	6	7	8	9	10
0	1	0	1	0	1	0	1	0	0 1 0 1 this is hex: 5 5 4 5

7.12. How to find the dx.com RGB LED strip driver ID

Valid for the TRC02 remote with 2 batteries.

Flash the RFXtrx433 with Type2 firmware to be able to receive the remote ID in RFXmngr.
In RFXmngr enable only the LightwaveRF (AD) protocol.

```
Packettype      = Lighting5
subtype        = RGB TRC02
Sequence nbr   = 5
ID             = FCC48B
Command        = On
Signal level   = 8
```

The ID is: FC C4 8B

If necessary flash the RFXtrx433 back to Type1 or ext if Type2 does not support devices you need. (See chapter 2.2)

7.13. How to find the dx.com RGB LED strip driver ID (rev. 2)

Valid for the TRC02 remote with 3 batteries and ebay.com 191481664563.

In RFXmngr enable only the Lighting4 protocol.

```
Packettype      = Lighting4
subtype        = PT2262
Sequence nbr   = 29
Code           = 161C84
```

The ID is: 16 1C

7.14. How to find the Eurodomest ID

You can assign a random ID to the Eurodomest. If you want to use the same ID as the remote you can find the ID of the remote using RFXmngr.

Start RFXmngr and enable only the Lighting4 protocol.

Press a button on the remote and you will receive a message like:

```
Packettype      = Lighting4
subtype        = PT2262
Sequence nbr   = 12
Code           = 6DFE0F
```

The ID is: 6 DF E0

Note: Eurodomest can also be controlled using ARC.

8. Blyss commands

Some Blyss devices, like the Blyss motors, require a special command sequence number. To simplify it; 0,1,2,3,4,0,1,...

This sequence number is normally created by the Blyss remote but now also by the RFXtrx433.

If you use a Blyss remote and the application (Domoticz, DomotGa, Homeseer...) does not sync with the received Blyss command you will see that you need to send multiple commands with the RFXtrx433 before the Blyss device will respond.

For example,

The Blyss remote transmits with the sequence numbers 0,1,2

If the RFXtrx433 transmits now with sequence number 0 it will not be seen by the Blyss device as a valid command and at the time the RFXtrx433 transmits the commands 1,2,3 the command will be detected as valid when it receives the command with sequence number 3.

The same is true for the remote. If you transmit commands with the RFXtrx433 and after that with a Blyss remote you need to transmit several commands with the remote before the Blyss device responds.

I guess the same behaviour will show if you use multiple Blyss remotes.

9. Somfy RTS

Somfy RTS* devices can only be controlled by the RFXtrx433E. (not with the RFXtrx433) The RFXtrx433E version is an RFXtrx433 with additional hardware to enable the RFY protocol used to control Somfy RTS.

The 433.42MHz transmitter in the RFXtrx433E is used for a reliable control of the Somfy RTS devices over a large distance and through walls.

The RFXtrx433E 433.92MHz transmitter is used to control all other devices.

To pair the Somfy RTS device:

- Select a unique ID and unitcode for the RFXCOM RFY device.
- Disconnect power from all Somfy RTS devices except the device to pair.
- Press the Program button > 2 seconds on the original Somfy remote until the Somfy device responds.
- Transmit a Program command with the RFXtrx433E. The Somfy RTS device should respond indicating the pair command was successful.

The RFXCOM RFY remote is registered in the RFXtrx433E by sending a Program command.

Up to 40 RFXCOM RFY remotes can be registered in the RFXtrx433E.

Remotes can be erased from the RFXtrx433E using the RFXmngr program.

The Somfy RTS device can be controlled by any application as long as the same ID and Unit Code are used.

For example if the RTS device is paired using RFXmngr with ID=1 02 03 and Unit Code 1, the RTS device can be controlled with Homeseer using the same ID and unit code.

* Somfy RTS are registered trademarks of Somfy System, Inc.

10. BlindsT6

To add a RFXtrx433(E) BlindsT6 device to the blinds motor:

1. press the "program" button twice on the original remote ==> 2 beeps
2. transmit the "confirm" command with the RFXtrx433(E) ==> 5 beeps

11. Lucci Air fan

Select the ID for switch settings:

ID	Remote switches
	1 2 3 4
0	0 0 0 0
1	0 0 0 1
2	0 0 1 0
3	0 0 1 1
4	0 1 0 0
5	0 1 0 1
6	0 1 1 0
7	0 1 1 1
8	1 0 0 0
9	1 0 0 1
A	1 0 1 0
B	1 0 1 1
C	1 1 0 0
D	1 1 0 1
E	1 1 1 0
F	1 1 1 1

0 = ON

12. Transmit undecoded ARC commands.

Plug-in modules or other equipment with a PT2262 can be controlled using Lighting4.

There are a lot of brands using the PT2262 and some of them use the same timing (350) as used by the ARC devices but a different protocol definition.

Messages will be received as undecoded ARC messages if the protocol definition does not match the definition of the ARC protocol. Remote commands are received as ARC commands with a wrong house and device code and/or command code or as undecoded ARC messages if “undec on” is enabled. Decoding of these remotes is therefore not possible because they overlap the ARC protocol partly.

But transmitting these commands is possible using the Lighting4 command.

So if we receive this command UNDECODERD ARC:18014403:

(18 is not used)

hex to binary table

0=0	0	0	0	0
1=0	0	0	0	1
2=0	0	0	1	0
3=0	0	0	1	1
4=0	1	0	0	0
5=0	1	0	0	1
6=0	1	0	1	0
7=0	1	1	1	1
8=1	0	0	0	0
9=1	0	0	0	1
A=1	0	1	0	0
B=1	0	1	0	1
C=1	1	0	0	0
D=1	1	0	0	1
E=1	1	1	0	0
F=1	1	1	1	0

0 1 4 4 0 3 = selection box 0000 0001 0100 0100 0000 0011

Not selected = 0, box selected = 1

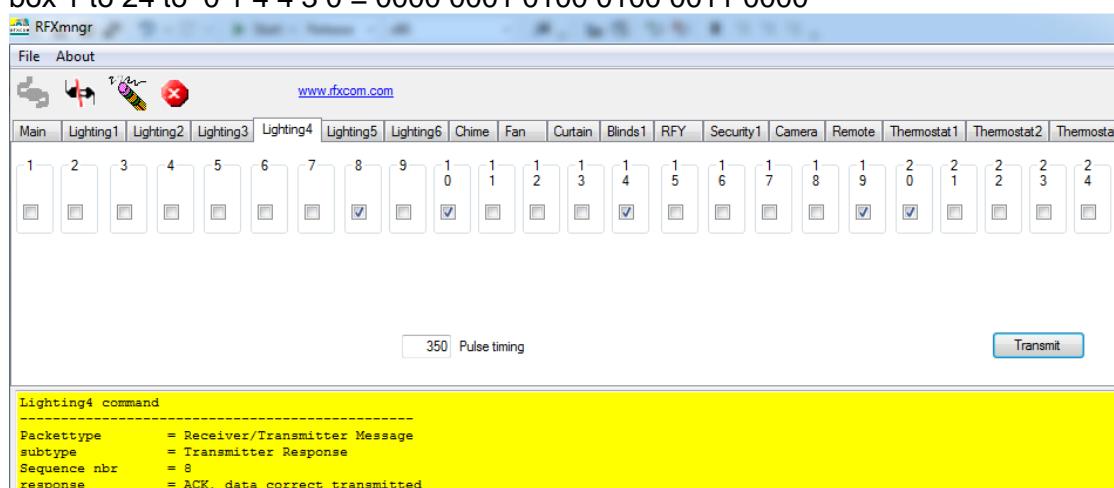
And the Lighting4 command contains the same “undec code” 01 44 03:

Lighting4 command:09 13 00 04 **01 44 03** 01 5E 00

pulse timing is 350 = hex 015E

Another example:

For this command UNDECODERD ARC:18014430 set on the Lighting4 tab in RFXmngr selection box 1 to 24 to 0 1 4 4 3 0 = 0000 0001 0100 0100 0011 0000



13. Known Lighting4 devices

13.1. Proluxx projection screen

Use Lighting4 with a pulse timing of 360

UP	1110	1101	0101	1001	0101	0010		ED	59	52
STOP	1110	1101	0101	1001	0101	1000		ED	59	58
DOWN	1110	1101	0101	1001	0101	0100		ED	59	54
RESET	1110	1101	0101	1001	0101	0001		ED	59	51

13.2. Kingpin (KP100) projection screen

Use Lighting4 with a pulse timing of 1040

UP	1110 0001 0100 0010 0010 0010	E1 42 22
STOP	1110 0001 0100 0010 0010 0100	E1 42 24
DOWN	1110 0001 0100 0010 0010 1000	E1 42 28
PROGRAM	1110 0001 0100 0010 0010 0001	E1 42 21

13.3. Mercury remote control mains sockets

<http://mercury.aysl.com/product?range=ME5124>

Use Lighting4 with a pulse timing of 188

1	OFF	01000100010101010011	1100
1	ON	01000100010101010011	0011
2	OFF	01000100010101011100	1100
2	ON	01000100010101011100	0011
3	OFF	01000100010101110000	1100
3	ON	01000100010101110000	0011
4	OFF	01000100010111010000	1100
4	ON	01000100010111010000	0011
5	OFF	01000100011101010000	1100
5	ON	01000100011101010000	0011

13.4. Conrad 034911 sockets

<http://www.conrad.nl/ce/nl/product/034911/Draadloze-schakelaarset-5-delig>

<http://www.conrad.li/com/picard/0310>

Off = last 2 digits: 00

ON = last 2 digits: 01

Group	Unit	1	OFF	00	01	01	01	00	01	01	01	01	01	00
I		1	OFF	00	01	01	01	00	01	01	01	01	01	00
II		1	OFF	01	00	01	01	00	01	01	01	01	01	00
III		1	OFF	01	01	00	01	00	01	01	01	01	01	00
IV		1	OFF	01	01	01	00	00	01	01	01	01	01	00
I		1	OFF	00	01	01	01	00	01	01	01	01	01	00
I		2	OFF	00	01	01	01	01	00	01	01	01	01	00
I		3	OFF	00	01	01	01	01	01	00	01	01	01	00
I		4	OFF	00	01	01	01	01	01	01	01	01	01	00
I		1	OFF	00	01	01	01	00	01	01	01	01	01	00
I		1	ON	00	01	01	01	00	01	01	01	01	01	01

14. FAQ

14.1. *Receive has stopped suddenly but transmit works.*

Most probably a sensor is transmitting constantly. This could be for example an X10 MS13 motion sensor or weather sensor with almost empty battery. Or an outside weather sensor filled with water. Or a remote with a button pressed.

Test the RFXtrx with a remote or sensor on another location (> 1km away) using RFXmngr on a Windows system or laptop.

14.2. *Can I increase the receive/transmit range of the RFXtrx?*

First check chapter 2.5 for the best place for the RFXtrx antenna.

The switch board is not the best place for the RFXtrx because of all metal objects that will absorb or reflect the RF signals.

It is also advised to place the RFXtrx far away from PC's, routers, Raspberry PI ... because of the RF noise those products produce and this will reduce the receive range very much.

You can connect another 50ohm 70cm/433MHz antenna with more gain.

For example <http://www.ebay.com/item/290979680030>

Install this antenna on a metal plate of at least 30 cm for optimum result.

14.3. *The RFXtrx USB connection disconnects sometimes.*

This happens mostly on Raspberry PI with a low quality power supply. Solution is to use a powered USB hub with a good quality power supply.

It can also happen if the USB cable is running along a power cable and a power device is switched on that produces a high power spike like TL. Solution is to separate the USB cable from all other cables and/or use a powered USB hub with a good quality power supply.

14.4. *I have a 433.92MHz sensor/remote but this device is not received.*

Besides the frequency the used protocol and modulation type is also important.

See chapter 2 for the list of supported devices.

14.5. *The wall plug is switched by the remote. The remote is received but the RFXtrx does not switch the module.*

The remote transmits several protocols. The protocol used by the wall plug is not received by the RFXtrx but some other protocols are received.

Solution:

For the HomeEasy EU- HE8xx series: reset the module to remove all paired remotes and pair the module with the RFXtrx433E and one of remote codes that is received.

For IT modules FA500/PROmax: Pair the RFXtrx433E with the module using an IT device and select a random ID. The received remote code can be used to know if the module is switched by the remote.

15. EC Declaration of Conformity

EC Declaration of Conformity

RFXCOM declares that the product:

RFXtrx

Brand: RFXCOM Type: RFXtrx433E

conforms with the essential requirements and other relevant provisions of the following directives and complies with the following standards applied:

R&TTE Directive 99/5/EC EN 300 220-1 V2.3.1 (2010-02)
 EN 300 220-2 V2.3.1 (2010-02)

Low-voltage Directive 2006/95/EC IEC 60950-1 (2005-12)

EMC Directive 2004/108/EC EN 301 489-1 V1.9.2 (2011-09)
 EN 301 489-3 V1.4.1 (2002-08)

16. Warning:

- RF signals are possible disturbed and it has not been justified for this equipment at uses in circumstances where life-threatening or dangerous situations are possible.
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19. Revision history

- Version 0.0 – August 18, 2011
Initial version.
- Version 1.0 – October 30, 2011
RFXflash under Mono added.
- Version 2.0 – December 30, 2011
Updated for the production version with FTDI USB chip
- Version 2.1 – January 18, 2012
Link for ACM to serial port added in Linux instruction.
EC Declaration of Conformity added
- Version 2.2 – February 8, 2012
Protocols overview added
Screen dumps updated
- Version 2.3 – February 16, 2012
Novatys planned
- Version 2.4 – February 25, 2012
General information updated
- Version 2.5 – March 1, 2012
Chapter added how to run RFXmngr or RFXflash on Linux.
- Version 2.6 – March 14, 2012
Code tables added
Cresta, UPM added
- Version 2.7 – March 15, 2012
Flash procedure updated
- Version 2.8 – March 31, 2012
Phenix table added
- Version 2.9 – March 31, 2012
AB400 and Phenix address extended
- Version 2.10 – April 16, 2012
Linux USB - tty configuration updated
- Version 2.11 – May 14, 2012
List of supported protocols updated.
- Version 2.12 – June 8, 2012
Chapter added how to run RFXmngr or RFXflash on Mac OS
- Version 2.13 – July 15, 2012
List of supported protocols updated
- Version 2.14 – August 4, 2012
List of enabled protocols influence added
RFXtrx315 added
- Version 2.15 – August 18, 2012
Enabled protocols table changed
- Version 2.16 – August 26, 2012
Rubicson stektermometer added
ATI Remote Wonder II added
- Version 2.17 – August 28, 2012
Table “sensitivity influenced” updated
- Version 2.18 – September 18, 2012
Chapter 2.3 updated: BlindsT0 disables all other protocols
- Version 2.19 – September 25, 2012
RFXFlash version required changed to 4.0.0.0
- Version 2.20 – September 28, 2012
RF range reduction guide added
- Version 2.21 – October 18, 2012
BlindsT2 and BlindsT3 added
- Version 2.22 – October 24, 2012
Sartano added
- Version 2.23 – October 31, 2012

Sensitivity table updated
Version 2.24 – November 7, 2012
Protocol table extended with the protocols to enable for receive
Version 2.25 – November 14, 2012
HE105 switch settings added
Version 2.26 – November 28, 2012
undec on explained
Version 2.27 – December 4, 2012
Use of Lighting4 commands for undec ARC
Brennenstuhl added
Version 2.28 – December 18, 2012
Receiver tab removed from RFXmngr
Version 2.29 – December 27, 2012
Lighting4 receive added
Version 2.30 – January 1, 2013
Raex motor added
Version 3.00 – January 4, 2013
RFXtrx433 Type1/Type2 firmware added
Version 3.01 – February 4, 2013
Supported protocols list updated
Version 4.00 – February 21, 2013
Chapter 8 - Lighting4 screen updated for RFXmngr 11.0.0.0
Known Lighting4 chapter added
Version 4.01 – March 13, 2013
Receive of LaCrosse sometimes influenced by enabled Hideki
Version 4.02 – June 8, 2013
MDREMOTE LED dimmer added
Conrad RSL2 added
Energenie added
Version 4.03 – September 27, 2013
How to find the MDREMOTE ID (chapter 7.6)
WS1200 added
Byron SX Chime added
Version 4.04 – November 15, 2013
Maverick ET-732 added
Alecto SA30 added
Oregon EW109 added
Revolt added
Version 4.05 – December 5, 2013
Blyss command explanation added.
Lighting4 - Mercury added
Lighting5 – dx.com RGB LED controller added
Version 4.06 – December 27, 2013
Chapter 2.2 updated
Version 4.07 – February 10, 2014
Chapter 7.8 added: how to find the dx.com RGB LED strip driver ID
Version 4.08 – March 20, 2014
ARC and Oregon3.0 updated in table 2.4.
Energenie 5-gang 429.950 added
Version 4.09 – April 4, 2014
BlindsT6 - DC106, YOODA, Röhrmotor24 RMF added
Version 4.10 – April 7, 2014
BlindsT7 - Forest added
Version 4.11 – April 28, 2014
RGB LED – clarified AD is LightwaveRF
Version 4.12 – May 21, 2014
Kambrook RF3672 added
RFY protocol added

Somfy programming instructions added
Supported protocol list RFXtrx433 updated.
Protocol list by function added

Version 4.13 – May 31, 2014
Opus TX300/Imagintronix Soil sensor added

Version 4.14 – June 18, 2014
Prega sensor added
Conrad 34911 Lighting4 coding added

Version 4.15 – June 25, 2014
Kambrook, Rubicson, Viking supported in ext firmware
Number of RFY remotes increased from 16 to 30

Version 4.16 – June 29, 2014
RFXmngr cannot be used on Linux

Version 4.17 – July 3, 2014
CoCo GDR2 added

Version 4.18 – July 14, 2014
Opus TX300 link added

Version 4.19 – July 25, 2014
Aoke relay added

Version 4.20 – August 25, 2014
Enabling protocols clarified.

Version 4.21 – September 5, 2014
Meade sensors added
Oregon BTHGN129 sensor added

Version 4.22 – September 18, 2014
Eurodomest added (NL - Action)
Byron MP001 added
WT0122 added
Procedures added to find the Eurodomest and TRC02 ver2 ID

Version 4.23 – September 24, 2014
Proove TSS330 fridge/freezer sensor added

Version 4.24 – October 9, 2014
BlindsT0 added in ext firmware
Alecto WS1700 and compatibles added

Version 4.25 – December 13, 2014
Smartwares radiator valve added
Proove TSS320 sensor added

Version 4.26 – January 2, 2015
SelectPlus200689101 White Chime (Action NL) added

Version 4.27 – January 6, 2015
SelectPlus200689103 Black Chime (Action NL) added

Version 4.28 – January 7, 2015
Proove outdoor sensors 311346 & 311501 added
Etekcity Wireless Remote Control Outlet Switch (US)

Version 5.00 – January 10, 2015
Copyright message updated
License chapter added
RFXmngr information updated

Version 5.01 – February 27, 2015
Chapter 2.5 Lighting4 receive is reduced with HomeEasy EU enabled.
Chamberlain tubular motor added
Sunpery blind motors added
DEA Systems receivers added
Envivo ENV-1348 chime added
Alecto WS4500 added

Version 5.02 – March 18, 2015
1byOne Easy Chime added
BTX blind motors added
Dolat DLM-1 blind motors added
OTIO added

Version 5.03 – March 19, 2015
TFA 30.3160 pool sensor added

Version 5.04 – April 14, 2015
Chapter 4 updated with restrictions on Lighting4
Siemens SF01 LF959RA50/LF259RB50/LF959RB50 extractor hood added
Maplin N78KA added

Version 5.05 – May 2, 2015
Dooya blind motors added
Louvolite one touch motorised blinds added
Alecto WS3500 added

Version 5.06 – May 4, 2015
Current dx.com TRC02 LED drivers have a different protocol and are not supported.

Version 5.07 – June 1, 2015
WH2 temperature humidity sensor added
RGB LED controller <http://www.ebay.com/itm/191481664563> (maybe dx.com 227892)

Version 5.08 – July 31, 2015
Oregon MSR939 added
ESMO blind motors added
Brel blind motors added
Blinds T6 type motors now also supported in Ext firmware
Supported devices table 2.2.2. updated

Version 5.09 – Aug 12, 2015
Luxaflex blind motors added

Version 5.10 – Aug 17, 2015
JVS screen motors added
Livolo NL link added

Version 5.11 – Aug 31, 2015
ASA motors added

Version 5.12 – Sept 14, 2015
Home Confort added

Version 5.13 – Oct 2, 2015
Oregon GR101 received in Type1 firmware
Conrad RSL sensors received in Type2 firmware

Version 5.14 – Oct 7, 2015
Quotidom blinds motor added

Version 5.15 – Nov 06, 2015
Banggood temp-hum sensor added
Legrand CAD radio added

Version 5.16 – Nov 26, 2015
Proluxx codes corrected

Version 5.17 – Dec 24, 2015
RFXflash procedure updated
Rubicson pool sensor 48.019 added
Inovalley SM80 plant sensor added
Lucci Air fan added

Version 5.18 – Jan 1, 2016
1byone Drive Way alarm added

Version 5.19 – Feb 6, 2016
Avantek added
ASP blinds motors BlindsT11 added
Maverick ET-733 added
Profiles PAC-326R Belcanto chime added
HQ COCO-20 added

Version 5.20– Feb 18, 2016

- BlindsT12 Confexx CNF24-2435 added
- IT FA500, PROmax... added
- Ext2 firmware overview added in chapter 2
- Auriol Z31055B-TX added
- Chuango, Eminent security sensors added

Version 5.21– May 6, 2016

- Cartelectronic TIC and Encoder added
- FAQ chapter added

Version 5.22– May 14, 2016

- Corrected: TX95 is using the Rubicson protocol
- MDRemote V108 added

Version 5.23– June 10, 2016

- Motolux blinds motor added
- Auriol H13726, Hama EWS1500, Meteoscan W155/W160, Ventus WS155 added
- FAQ updated

Version 5.24– June 21, 2016

- Seav TXS4 added

Version 5.25– Aug 6, 2016

- ORNO added

Version 5.26– Sept 6, 2016

- Added: How to find the SEAV TXS4 ID

Version 5.27– Oct 09, 2016

- Westinghouse fan 7226640 added

- THN129 added

- TFA 30.3056 pool sensor added