

# Creasol Sender

## Multi-frequency 1÷4 ch remote control duplicator.

### Powered externally through pushbutton or brake pedal

# Creasol Sender

Simple installation schemes inside.

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|--|--|
| Supported frequencies:<br>*: not permitted inside EU | 433.92, 868.3, 315*, 288*, 300*, 303*, 306*, 310*, 318*, 330*, 390*, 403.55*, 418* MHz |
| Power (selectable):                                  | 10µW, 100µW, 1mW, 10mW   |
| Power supply:  | 12÷36Vdc or 12÷27Vac   |
| Power supply in basic mode:                          | 5÷36Vdc or 7÷27Vac   |
| Max current while transmitting:                      | 4÷30mA depending by TX code and voltage (higher voltage→lower current)                 |
| Operating temperature:                               | -20°C ÷ +70°C  |
| Dimensions:  | 41x31x11mm   |
| Weight:  | 10g  |



## ENGLISH

**Introduction:** this device can be used to transmit, when powered by a pushbutton switch, a factory-programmed code, or a code copied from an existing remote control: rolling codes are not managed. It can be powered by a wide range of voltage, is compact and fully configurable through the *Prog* button (no need to open the box). Three modes of operation are available (see Fig.2, parameter 9):

*basic mode:* only 1 code is managed, and device starts transmitting as soon as it's powered by pressing the pushbutton switch;  
*pulsed mode:* up to 4 channels, selected by a switch with 1÷4 pulses;  
*car mode:* up to 4 channels, selected by a switch with 2÷5 pulses.

**Installation:** please refer to Fig.1: connect the 2 wires marked as *Supply*, through a switch, to the power supply 12÷36Vdc or 12÷27Vac; don't care about polarity. Alternatively, connect the two wires to a 12 or 24V actuator activated through a pushbutton, like the vehicle brake lights, highbeam lights, ...  
Leave the antenna wire unconnected, and place it stretched-out and away from metal parts. If the device is used at 868 MHz, it's better to cut the antenna at 8cm.

**Configuration:** device is factory programmed in *basic mode* to transmit 16 frames with 1mW output power at 433.92MHz. To modify this configuration see Fig.2:

1. if *Ch* is specified, press quickly the button *Prog* a number of times corresponding to the selected channel (1 to 4); led goes ON;
2. push *Prog* a number of times corresponding to the *parameter* that should be modified: led will flash to notify the current value of that parameter;
3. press again the button *Prog* for the number of times corresponding to the desired value: led will flash a number of times corresponding to the new value.

If programming fails, a long flash will be emitted. If modification is not needed, just wait 5 second to exit. Four codes are managed, and can be selected pressing the pushbutton switch as shown in the Fig.1; in car mode, device does not transmit anything if a single pulse is issued, preventing unwanted transmissions.

**Learning a remote control:** press the *Prog* button a number of times corresponding to the selected channel (1 to 4); led goes ON. Press *Prog* twice to enable learning mode: then press a button on the source remote control within 10s to learn it. Led flashes twice if a fixed code is copied, 4 times if a rolling code is copied: in the latter case, be aware that it may not work if the receiver checks the rolling part of the code.

Instead of copying an existing remote control, it's possible to program a new random code pressing *Prog* for 1-4 times (channel selection), then for 10 times, and finally for 3 times. In the last step, pressing *Prog* 4 times instead of 3 do a complete factory reset.

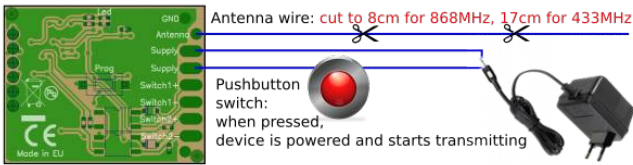
**Security, safety and disposal:** installation should be done by a qualified technician, in a well insulated enclosure, protected by dust, humidity, steam and contact with other circuits and metallic parts. All responsibility, for any damage caused by not complying with the instructions in this manual, is declined. Paper (instructions), plastic (blister and enclosure) and electronic board should be disposed of properly.

**Warranty:** complies with statutory requirements, and covers only defects, within the product itself, in material and manufacture. Your local stockist should be contacted in connection with any warranty-related matters. Your warranty entitlements only apply to the country in which the device was purchased.

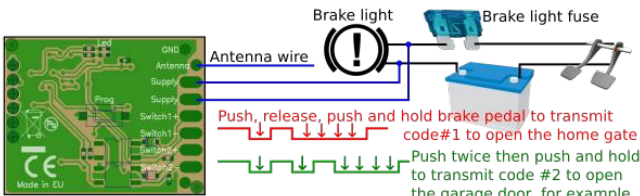
**CE Declaration of Conformity:** Creasol hereby declares that the device *Sender* meets the essential requirements of the European Directive 1999/5/EC (R&TTE). Applied standards: EN300220, EN301489, EN60950, EN62479.

Declaration of Conformity can be obtained from <http://www.ce.creasol.it>

### Example 1: 1 channel transmitter connected to a switch



### Example 2: 1÷4 ch. transmitter, connected to the brake pedal



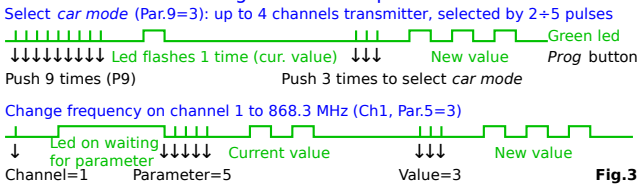
Alternatively it's possible to connect the transmitter to high-beam headlights

Antenna wire should be 17cm long for 433MHz, 8cm long for 868 MHz **Fig.1**  
Supply wires should be connected to 5÷36Vdc or 7÷27Vac. Polarity is not important.

| Parameter                      | Value (default value underlined>)  |
|--------------------------------|--|
| Ch 5=set the frequency         | 2=433.92, 3=868.3, 4=315*, 5=288*, 6=300*, 7=303*, 8=306*, 9=310*, 10=318*, 11=330*, 12=390*, 13=403.55*, 14=418* MHz  |
| Ch 6=TX length                 | 1=transmission disabled, 2=hold-to-run (max 20s), 3=2 codes, 4=4 codes, 5=8 codes, 6=16 codes, 7=32, 8=64, 9=128 codes   |
| Ch 7=extra blank between codes | 1=extra blank time disabled, 2=random short blank, 3=random medium blank, 4=random long blank (used to avoid collisions)   |
| Ch 8=TX power                  | 1=10µW, 2=100µW, 3=1mW, 4=10mW   |
| 9=operation mode               | 1=basic mode: 1 channel transmitter/duplicator, 2=pulsed mode: 4 channel transmitter/duplicator controlled by a switch: 1pulse→ch1, 2pulses→ch2, 3pulses→ch3, 4pulses→ch4 3=car mode: 4 channels transmitter/duplicator controlled by a switch: 2pulses→ch1, 3pulses→ch2, 4pulses→ch3, 5pulses→ch4 |
| Ch 10=init. code               | 3=initialize a new random code for the selected channel, 4=factory reset: device totally reprogrammed <b>Fig.2</b>   |

When *Ch* is specified, *Prog* button must be pushed in advance a number of times corresponding to the channel (from 1 to 4). The green Led will go ON. Press *Prog* button a number of times corresponding the parameter: the green Led will flash a number of times corresponding with the actual value. If Parameter is less equal of 4, start program/erase procedure, else press *Prog* button a number of times corresponding to the desired value. Frequencies marked with an asterisk are not enabled if product is distributed in Europe.

### Configuration Examples



**Fig.3**

## FRANÇAIS

**Introduction:** cet appareil peut être utilisé pour transmettre, lorsqu'il est enclenché par un bouton poussoir ou autre contact, un code programmé en usine, ou un code copié depuis télécommande existante. Les codes tournants ne sont pas gérés.

Il est compact et entièrement configurable via le bouton *Prog*.

Trois modes de fonctionnement sont disponibles (voir Fig.2, paramètre 9) :

*Mode basique:* seulement 1 code est géré, et l'appareil commence la transmission dès qu'il est alimenté par le bouton poussoir.

*Mode impulsion:* jusqu'à 4 canaux, choisis par l'interrupteur entre 1 et 4 appuis.

*Mode voiture:* jusqu'à 4 canaux, choisis par un interrupteur entre 2 et 5 appuis.

**Installation:** Référez-vous au schéma 1 : connectez les 2 fils indiqués *Supply*, via un interrupteur, à l'alimentation 12÷36Vdc ou 12÷27Vac. La polarité n'est pas importante. Vous pouvez aussi connectez les deux fils à un actionneur 12 ou 24V activé par un poussoir, tels que les feux de freinage ou les phares d'un véhicule. Laissez le fil de l'antenne libre de toute connexion et placez-le de manière éloignée des parties métalliques. Si l'appareil est utilisé à 868 MHz, il vaut mieux couper l'antenne à 8 cm.

**Configuration:** l'appareil est programmé au mode basique pour transmettre 16 frames avec une sortie de 1mW à 433,92MHz. Pour modifier cette configuration voir Fig.2:

1. Si *Ch* est indiqué, pressez rapidement le bouton *Prog* le nombre de fois correspondant au canal choisi (1 à 4). La Led s'allume.
2. Appuyez sur *Prog* le nombre de fois correspondant au paramètre que vous souhaitez modifier: la Led va clignoter pour indiquer la valeur actuelle de ce paramètre;
3. Appuyez à nouveau sur le bouton *Prog* le nombre de fois correspondant à la valeur souhaitée: la Led va clignoter un nombre de fois correspondant à la nouvelle valeur.

Si la programmation échoue, un flash prolongé va être émis. Si la modification n'est pas nécessaire, veuillez simplement attendre 5 secondes pour quitter le menu. Quatre codes sont gérés et peuvent être sélectionnés en appuyant sur le bouton poussoir montré sur la Fig.1; en mode voiture, l'appareil ne transmet rien si une impulsion seule est envoyée, évitant ainsi des transmissions envoyées par erreur.

**Apprentissage d'une télécommande:** appuyez sur le bouton *Prog* un nombre de fois correspondant au canal choisi (1 à 4) ; la LED s'allume. Appuyez sur *Prog* deux fois pour activer le mode apprentissage: appuyez ensuite sur un bouton de la télécommande source dans les 10 secondes qui suivent pour l'apprendre. La LED clignote deux fois si un code fixe est copié, 4 fois si un code tournant est copié : dans ce second cas, prenez en compte que cela peut ne pas fonctionner si le récepteur vérifie la partie tournante du code. Au lieu de copier une télécommande existante, il est possible de programmer un nouveau code aléatoire en pressant le bouton *Prog* 1 à 4 fois (sélection du canal), puis 10 fois, et enfin 3 fois. A la dernière étape, appuyer *Prog* 4 fois au lieu de 3 permet de charger le paramétrage d'usine par défaut.

**Recommandations de sécurité et de disposition :** l'installation doit être effectuée par un technicien qualifié, dans un emplacement suffisamment isolé, protégé de la poussière, de l'humidité, de la vapeur et en contact avec d'autres circuits et des parties métalliques. Toute responsabilité est déclinée pour les dommages résultant d'un non respect des instructions de ce manuel. Le papier (mode d'emploi), le plastique (boîtier et blister) doivent être éliminés de manière appropriée.

**Garantie:** respecte les exigences légales, et couvre uniquement les défauts propres au produit lui-même, sur le matériel et la fabrication. Votre revendeur local devrait être contacté pour toute question relative à la garantie. Votre droit à la garantie ne peut s'exercer que dans le pays dans lequel le produit a été acheté.

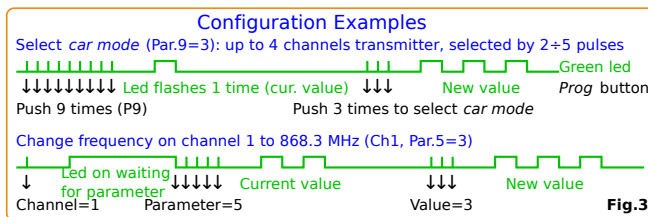
**Déclaration de Conformité CE:** Creasol déclare par la présente que l'appareil *Sender* suit les obligations de la Directive Européenne 1999/5/EC (R&TTE). Standards appliqués : EN300220, EN301489, EN60950, EN62479.

La Déclaration de Conformité peut être obtenue sur <http://www.ce.creasol.it>

| Parameter                      | Value (default value underlined>)  |
|--------------------------------|--|
| Ch 5=set the frequency         | <u>2</u> =433.92, <u>3</u> =868.3, <u>4</u> =315*, <u>5</u> =288*, <u>6</u> =300*, <u>7</u> =303*, <u>8</u> =306*, <u>9</u> =310*, <u>10</u> =318*, <u>11</u> =330*, <u>12</u> =390*, <u>13</u> =403.55*, <u>14</u> =418* MHz  |
| Ch 6=TX length                 | 1=transmission disabled, <u>2</u> =hold-to-run (max 20s), <u>3</u> =2 codes, <u>4</u> =4 codes, <u>5</u> =8 codes, <u>6</u> =16 codes, <u>7</u> =32, <u>8</u> =64, <u>9</u> =128 codes   |
| Ch 7=extra blank between codes | 1=extra blank time disabled, <u>2</u> =random short blank, <u>3</u> =random medium blank, <u>4</u> =random long blank (used to avoid collisions)   |
| Ch 8=TX power                  | 1=10μW, <u>2</u> =100μW, <u>3</u> =1mW, <u>4</u> =10mW   |
| 9=operation mode               | 1=basic mode: 1 channel transmitter/duplicator, <u>2</u> =pulsed mode: 4 channel transmitter/duplicator controlled by a switch: 1pulses→ch1, 2pulses→ch2, 3pulses→ch3,4pulses→ch4<br>3=car mode: 4 channels transmitter/duplicator controlled by a switch: 2pulses→ch1, 3pulses→ch2, 4pulses→ch3,5pulses→ch4 |
| Ch 10=init. code               | 3=initialize a new random code for the selected channel, <u>4</u> =factory reset: device totally reprogrammed  |

Fig.2

When Ch is specified, Prog button must be pushed in advance a number of times corresponding to the channel (from 1 to 4). The green Led will go ON. Press Prog button a number of times corresponding the parameter: the green Led will flashes a number of times corresponding with the actual value. If Parameter is less equal of 4, start program/erase procedure, else press Prog button a number of times corresponding to the desired value. Frequencies marked with an asterisk are not enabled if product is distributed in Europe.



**Introduzione:** il dispositivo può essere utilizzato per trasmettere, quando alimentato attraverso un pulsante, un codice preimpostato, oppure un codice copiato da un radiocomando esistente: non sono gestiti i codici rolling. Ampio range di tensione di alimentazione, compatto e completamente configurabile attraverso il pulsante Prog. Due modalità operative sono disponibili (vedi Fig.2, parametro 9):  
*basic mode:* gestisce un solo canale, e la trasmissione inizia appena viene alimentato il dispositivo premendo il pulsante esterno;  
*pulsed mode:* 4 canali, selezionabili attraverso pulsante con 1÷4 impulsi;  
*car mode:* gestisce fino a 4 canali, selezionabili premendo il pulsante esterno da 2 a 5 volte, come mostrato in Fig.1; in questo modo non viene trasmesso nulla qualora il pulsante esterno venga premuto una sola volta, prevenendo quindi trasmissioni indesiderate.

**Installazione:** vedere Fig.1: collegare i due fili Supply, attraverso un pulsante, ad una sorgente di alimentazione 5÷36Vdc o 7÷27Vac; non serve rispettare alcuna polarità. In alternativa collegare i due fili ad un attuttore a 12 o 24V, attivabile attraverso pulsante, come il claxon, luci, ...

Lasciare il filo antenna scollegato e disporlo, dritto e disteso, lontano da parti metalliche. Tagliare il filo a 8cm nel caso si utilizzi la frequenza 868MHz.  
**Configurazione:** il dispositivo viene fornito programmato per funzionare a 433.92 MHz, in basic mode, e trasmettere 16 frame con 1mW di potenza. Per modificare questa configurazione:

- se in Fig.2 è specificato Ch, premere Prog un numero di volte corrispondente al canale (da 1 a 4): il led si accende fisso;
- premere Prog un numero di volte corrispondente al parametro da modificare: il led emetterà un numero di lampeggi corrispondente al valore corrente del parametro;
- premere ancora Prog un numero di volte corrispondente al valore desiderato: il led mostrerà il nuovo valore impostato.

Se la programmazione fallisce, verrà emesso un lampeggio lungo. Se non si intende modificare i parametri, basta attendere 5 secondi affinché la procedura termini.

**Copiare un radiocomando:** premere il pulsante Prog un numero di volte corrispondente al canale da copiare (da 1 a 4); il led rimarrà acceso fisso. Premere Prog due volte per abilitare l'apprendimento: poi premere il tasto sul radiocomando sorgente entro 10s per apprendere. Il led lampeggia 2 volte nel caso di radiocomandi copiable, 4 volte nel caso di rolling code: in tal caso attenzione che il dispositivo potrebbe non funzionare se l'automazione controlla la parte variabile del codice rolling. Anziché copiare un codice esistente, è possibile programmare un nuovo codice casuale premendo Prog un numero di volte corrispondente al canale, poi premere Prog per 10 volte ed infine premerlo 3 volte. Premendo Prog 4 volte anziché 3 verrà ripristinata la configurazione di fabbrica.

**Sicurezza e smaltimento:** l'installazione va fatta da un tecnico qualificato, in una scatola isolata protetta da polvere, umidità, vapore e contatto con altri circuiti metallici. Si declina ogni responsabilità per danni causati dall'inosservanza di quanto riportato nel manuale. Carta (istruzioni), plastica (contenitore e blister) ed il circuito elettronico vanno smaltiti correttamente.

**Garanzia:** è conforme ai termini di legge e copre solo i difetti del prodotto.  
**Dichiarazione di Conformità CE:** Creasol dichiara che il dispositivo Sender soddisfa i requisiti essenziali della Direttiva Europea 1999/5/EC (R&TTE). Norme applicate: EN300220, EN301489, EN60950, EN62479.  
 La dichiarazione di conformità è scaricabile da <http://www.ce.creasol.it>

**Creasol Sender**  
 Multi-frequency 1÷4 ch remote control duplicator.  
 Powered externally through pushbutton or brake pedal



**Creasol Sender**  
 Simple installation schemes inside.

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|---------------------------------|--|
| Supported frequencies:          | 433.92, 868.3, 315*, 288*, 300*, 303*, 306*, 310*, 318*, 330*, 390*, 403.55*, 418* MHz |
| Power (selectable):             | 10μW, 100μW, 1mW, 10mW   |
| Power supply:                   | 12÷36Vdc or 12÷27Vac   |
| Power supply in basic mode:     | 5÷36Vdc or 7÷27Vac   |
| Max current while transmitting: | 4÷30mA depending by TX code and voltage (higher voltage→lower current)                 |
| Operating temperature:          | -20°C ÷ +70°C  |
| Dimensions:                     | 41x31x11mm   |
| Weight:                         | 10g  |



**Introduction:** this device can be used to transmit, when powered by a pushbutton switch, a factory-programmed code, or a code copied from an existing remote control: rolling codes are not managed. It can be powered by a wide range of voltage, is compact and fully configurable through the Prog button (no need to open the box).

Three modes of operation are available (see Fig.2, parameter 9):  
*basic mode:* only 1 code is managed, and device starts transmitting as soon as it's powered by pressing the pushbutton switch;  
*pulsed mode:* up to 4 channels, selected by a switch with 1÷4 pulses;  
*car mode:* up to 4 channels, selected by a switch with 2÷5 pulses.

**Installation:** please refer to Fig.1: connect the 2 wires marked as Supply, through a switch, to the power supply 12÷36Vdc or 12÷27Vac; don't care about polarity. Alternatively, connect the two wires to a 12 or 24V actuator activated through a pushbutton, like the vehicle brake lights, highbeam lights, ...  
 Leave the antenna wire unconnected, and place it stretched-out and away from metal parts. If the device is used at 868 MHz, it's better to cut the antenna at 8cm.

**Configuration:** device is factory programmed in basic mode to transmit 16 frames with 1mW output power at 433.92MHz. To modify this configuration see Fig.2:  
 4. if Ch is specified, press quickly the button Prog a number of times corresponding to the selected channel (1 to 4); led goes ON;  
 5. push Prog a number of times corresponding to the parameter that should be modified: led will flash to notify the current value of that parameter;  
 6. press again the button Prog for the number of times corresponding to the desired value: led will flash a number of times corresponding to the new value.

If programming fails, a long flash will be emitted. If modification is not needed, just wait 5 second to exit. Four codes are managed, and can be selected pressing the pushbutton switch as shown in the Fig.1; in car mode, device does not transmit anything if a single pulse is issued, preventing unwanted transmissions.

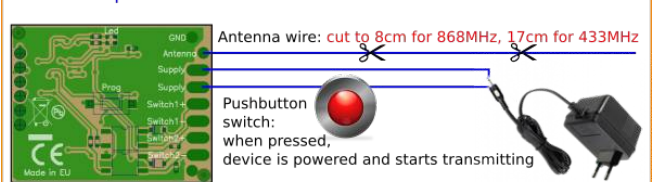
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Instead of copying an existing remote control, it's possible to program a new random code pressing Prog for 1-4 times (channel selection), then for 10 times, and finally for 3 times. In the last step, pressing Prog 4 times instead of 3 do a complete factory reset.  
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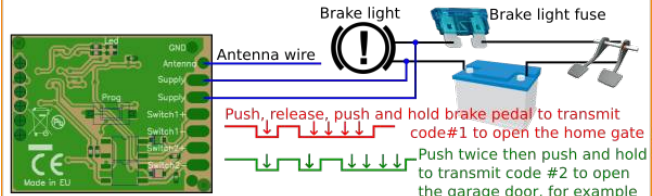
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**Example 1: 1 channel transmitter connected to a switch**



**Example 2: 1÷4 ch. transmitter, connected to the brake pedal**



Alternatively it's possible to connect the transmitter to high-beam headlights  
 Antenna wire should be 17cm long for 433MHz, 8cm long for 868 MHz  
 Supply wires should be connected to 5÷36Vdc or 7÷27Vac. Polarity is not important.

Fig.1