DF-120 SET

(D) **Digitales A/V-Funkübertragungssystem**
Bedienungsanleitung Seite 2

(F) **Émetteur et récepteur A/V numériques sans-fils**
Mode d'emploi page 9

(NL) **Digitaal draadloos A/V-overdrachtsysteem**
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(GB) **Digital wireless A/V transmitter and receiver**
Operating instructions page 21

(I) **Sistema digitale di trasmissione radio A/V**
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(D) Bedienungsanleitung

1. Einleitung

Bitte lesen Sie diese Bedienungsanleitung vollständig und sorgfältig durch. Die Bedienungsanleitung gehört zu diesem Produkt und enthält wichtige Hinweise zur Inbetriebnahme und Handhabung.
Beachten Sie immer alle Sicherheitshinweise. Sollten Sie Fragen haben oder unsicher in Bezug auf die Handhabung der Geräte sein, dann holen Sie den Rat eines Fachmannes ein.
Bewahren Sie diese Anleitung bitte sorgfältig auf und geben Sie sie ggf. an Dritte weiter.

2. Bestimmungsgemäße Verwendung

Das Funkübertragungssystem besteht aus dem Sender DF-120TX und dem Empfänger DF-120RX mit je einem Netzgerät.

Dieses System dient zur drahtlosen Übertragung von analogen Video- und Audio-Signalen sowie von Infrarot-Steuerungssignalen und ist für haushaltsübliche Audio- und Videogeräte (Kabelreceiver, Satelliten-Receiver, DVD-Player, DVD-Recorder, VCR, Camcorder oder Beamer mit Analog-Ein-/Ausgang sowie annaloge Überwachungskamera) geeignet:
Der Sender erhält die analogen Audio- und Videosignale vom AV-Quellgerät (z.B. einem DVD-Player) und wandelt diese in digitale Signale um. Diese digitalen Signale sendet er per Funk im 2,4 GHz Frequenzband an den Empfänger, welcher die Signale wieder in die ursprünglichen analogen Signale zurückverwandelt.
Die Infrarotsignale einer Fernbedienung des Quellgerätes wandelt der Empfänger in ein Funksignal um und sendet dieses an den Sender, welcher es an das Quellgerät als IR-Signal weitergibt.
Somit können in einem anderen Raum die AV-Signale eines Quellgerätes wiedergegeben werden sowie von dort aus mit einer Fernbedienung das Quellgerät gesteuert werden.

Die Funkübertragung erfolgt auf digitaler Basis auf immer wechselnden Frequenzen (Frequenzhopping), die zwischen Sender und Empfänger synchronisiert sind. Nur der Empfänger, der mit dem Sender "gepaart" ist, kann die synchronisierten Signale empfangen. Hierdurch ist eine Abhörsicherheit gegeben.

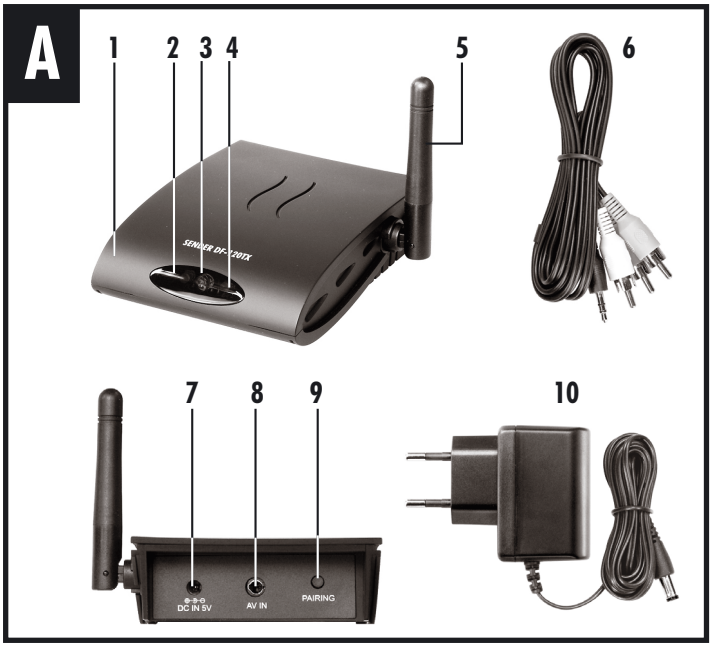
Die typische Reichweite der Funkübertragung im Freien beträgt ca. 100 m (bzw. bei optimaler Bedienung bis zu 200 m) bei Sichtkontakt zwischen Sender und Empfänger. In Gebäuden ist die Reichweite durch Wände und Decken (insbesondere aus Metall oder Stahlbeton) deutlich geringer (max. bis zu ca. 20 m).

Die Stromversorgung des Sets DF-120 erfolgt über die mitgelieferten Netzgeräte, angeschlossen am Netzstrom 230 V ~ AC, 50Hz.

Die Komponenten sind für den Betrieb in trockenen Räumen innerhalb von privaten Haushalten konzipiert.

Jede andere Verwendung oder Veränderung der Geräte gilt als nicht bestimmungsgemäß und birgt erhebliche Unfallgefahren. Der Hersteller haftet nicht für Schäden, die durch nicht bestimmungsgemäßen Gebrauch oder falsche Bedienung verursacht werden.

Dieses Gerät ist nicht dafür bestimmt, durch Personen (einschließlich Kinder) mit eingeschränkten physischen, sensorischen oder geistigen Fähigkeiten oder mangels Erfahrung und/oder mangels Wissen benutzt zu werden, es sei denn, sie werden durch eine für ihre Sicherheit zuständige Person beaufsichtigt oder erhielten von ihr Anweisungen, wie das Gerät zu benutzen ist. Kinder müssen beaufsichtigt werden, um sicherzustellen, dass sie nicht mit dem Gerät spielen.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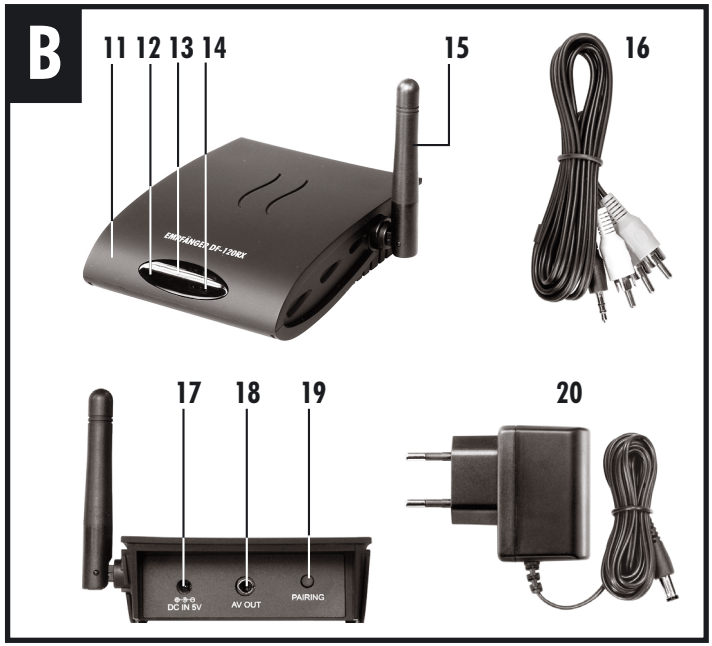
DC IN 5V
AV IN
PAIRING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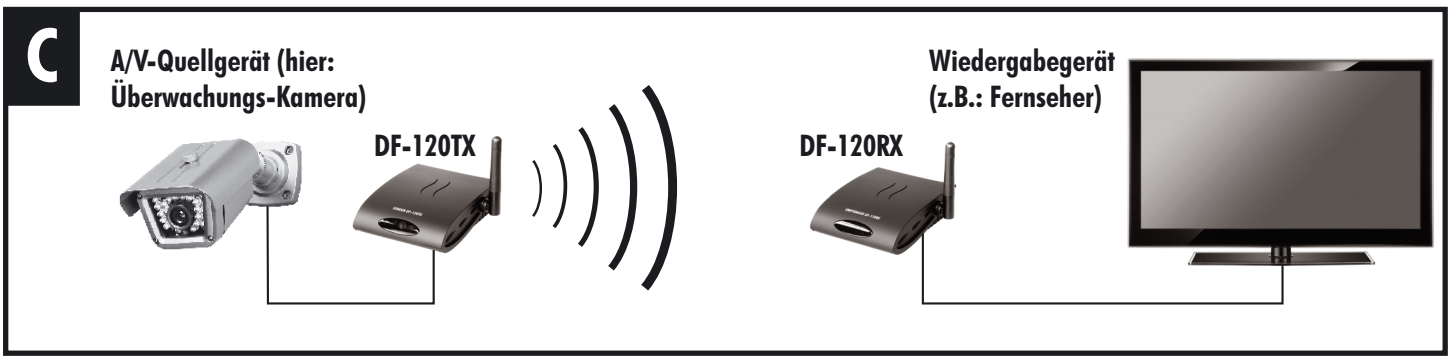
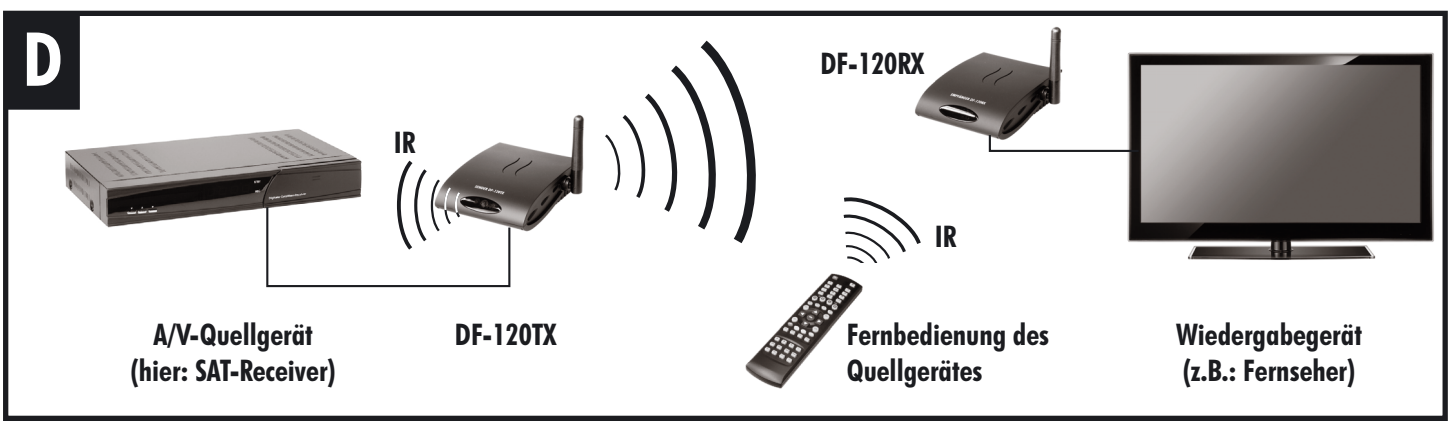
AV OUT
PAIRING


C
A/V-Quellgerät (hier:
Überwachungs-Kamera)
DF-120TX
DF-120RX
Wiedergabegerät
(z.B.: Fernseher)


D
IR
DF-120RX
IR
A/V-Quellgerät
(hier: SAT-Receiver)
DF-120TX
Fernbedienung des
Quellgerätes
Wiedergabegerät
(z.B.: Fernseher)

3. Lieferumfang (s. Abb. A und B)

- Sender DF-120TX
- Empfänger DF-120RX
- 2 Anschlusskabel mit Cinch-Stecker (Video, Audio L/R)
- 2 Netzgeräte 5 V DC
- Bedienungsanleitung

4. Ausstattung

Sender DF-120TX (s. Abb. A)

1 Sender
2 rote Power LED
3 Infrarotsender
4 grüne Verbindungs-LED
5 Antenne
6 AV-Kabel
7 Netzgerät-Anschluss
8 AV-Eingang
9 "Pairing"-Taste
10 Netzgerät

Empfänger DF-120RX (s. Abb. B)

11 Empfänger
12 rote Power LED
13 Infrarotempfänger
14 grüne Verbindungs-LED
15 Antenne
16 AV-Kabel
17 Netzgerät-Anschluss
18 AV-Ausgang
19 "Pairing"-Taste
20 Netzgerät

5. Technische Daten

	Sender DF-120TX	**Empfänger DF-120RX**
Betriebsspannung	5 V ⎓ DC (Netzgerät)	5 V ⎓ DC (Netzgerät)
Stromaufnahme	400 mA	300 mA
Frequenzband	2402 -2480 MHz	2402 -2480 MHz
abgestrahlte max. Sendeleistung	< 100 mW	< 100 mW
Modulation	BPSK, QPSK, 16-QAM	BPSK, QPSK, 16-QAM
Videopegel	1 Vp-p / 75 Ohm	1 Vp-p / 75 Ohm
Audiopegel Mono	1 Vp-p / 600 Ohm	1 Vp-p / 600 Ohm
max. Bildauflösung (Pixel)	720 x 576 D1	720 x 576 D1
Bildübertragungsrate (max.)		25 Bilder / Sekunde
Funk-Reichweite (max.)	100-200 m bei freier Sicht	100-200 m bei freier Sicht
Betriebstemperatur	± 0° C bis + 50° C	± 0° C bis + 50° C
Abmessungen ohne Antenne (mm)	100 x 89 x 27	100 x 89 x 27
Netzgeräte		
Betriebsspannung	230 V ~ 50 Hz	230 V ~ 50 Hz
Ausgangsspannung	5 V ⎓ DC, 1 A	5 V ⎓ DC, 1 A

6. Sicherheitshinweise

Die folgenden Hinweise dienen Ihrer Sicherheit und Zufriedenheit beim Betrieb des Gerätes. Beachten Sie, dass die Nichtbeachtung dieser Sicherheitshinweise zu erheblichen Unfallgefahren führen kann.

⚠ **Gefahr!** Bei Nichtbeachtung dieses Hinweises werden Leben und Gesundheit gefährdet.

- Lassen Sie Kleinkinder nicht unbeaufsichtigt mit dem Gerät, Verpackungsmaterial oder Kleinteilen! Andernfalls droht Lebensgefahr durch Ersticken!
- Behandeln Sie die Zuleitungen vorsichtig! Verlegen Sie diese so, dass sie nicht beschädigt werden können und keine Stolpergefahr darstellen. Ziehen Sie die Kabel nicht über scharfe Kanten, und quetschen oder klemmen Sie sie nicht anderweitig ein. Andernfalls drohen Lebens- und Verletzungsgefahr!
- Verhindern Sie, dass die Netzgeräte mit Feuchtigkeit in Berührung kommen und tauchen Sie die Geräte nicht ins Wasser ein! Andernfalls droht Lebensgefahr!
- Betreiben Sie die Geräte ausschließlich mit den mitgelieferten Netzgeräten. Vergewissern Sie sich vor dem Netzstromanschluss des Netzgerätes, dass der Netzstrom vorschriftsmäßig mit 230 V ~ AC, 50 Hz und mit einer vorschriftsmäßigen Sicherung ausgestattet ist.

⚠ **Achtung!** Bei Nichtbeachtung dieses Hinweises werden Sachwerte gefährdet.

- Setzen Sie die Geräte nicht der Nähe von Feuer, Hitze oder lang andauernder hoher Temperatureinwirkung aus!
- Schützen Sie die Geräte vor starken mechanischen Beanspruchungen und Erschütterungen!
- Schützen Sie die Geräte vor starken magnetischen oder elektrischen Feldern!
- Verwenden Sie die Geräte nur mit den gelieferten Originalteilen oder Originalzubehör!
- Überprüfen Sie vor dem Zusammenbau und der Inbetriebnahme die Lieferung auf Beschädigungen und Vollständigkeit!
- Ziehen Sie bei längerem Nichtbenutzen des Gerätes immer die Netzgeräte aus der Netzsteckdose.
- Schließen Sie kein beschädigtes Gerät (z.B. Transportschaden) an. Fragen Sie im Zweifelsfall Ihren Kundendienst. Reparaturen und Eingriffe an den Geräten dürfen nur von Fachkräften durchgeführt werden.

7. Platzierung der Geräte

Achten Sie auf folgende Punkte:

- Die typische Reichweite der Funkübertragung beträgt ca. 100 m (bzw. bei optimaler Bedienung bis zu 200 m) bei Sichtkontakt zwischen Sender und Empfänger. In Gebäuden ist die Reichweite deutlich geringer (max. bis zu ca. 20 m). Wände, Decken, Türen, Metallflächen, z.B. Kühlschränke, Blechregale und bedampfte Spiegel sowie Wassermengen schirmen auch die Funkübertragung ab.
- Ist keine gute Funkverbindung direkt zwischen dem Quellgerät und dem Standort des Wiedergabegerätes vorhanden, dann optimieren Sie die Position der Geräte sowie die Ausrichtung der Antennen. Ist dennoch keine gute Verbindung vorhanden, können die Kabel zwischen Quellgerät und Sender und/oder zwischen Empfänger und Wiedergabegerät verlängert werden. Verwenden Sie hierzu ein A/V-Verlängerungskabel bzw. bei Videoüberwachung ein RG59/75 Ohm-Kabel mit entsprechenden BNC-Verbindungen (siehe Kapitel "Optionales Zubehör").
- Die Funkübertragung kann durch starke elektrische Felder und andere Funkgeräte beeinträchtigt werden. Achten Sie auf ausreichende Entfernung zu: Mikrowellenherden, Funktelefonen, Handys, Funk-Geräten im 2,4 GHz Bereich, z.B. WLAN (Router / Computer), elektrischen Motoren und Starkstromleitungen.
- Die Geräte sollen auf feste Flächen aufgestellt werden, mindestens 1m über dem Boden (bessere Empfangsbedingungen). Der Empfänger sollte jedoch nicht direkt auf dem Wiedergabegerät platziert werden, ansonsten kann die Funk-Reichweite negativ beeinflusst werden. Achten sie auf ausreichende Entfernung zu Metallflächen oder Stahlbeton, da diese die Funkübertragung negativ beeinflussen.
- Achten Sie bei Nutzung einer Fernbedienung darauf, dass der Infrarotsender des Senders DF-120TX direkt auf den Infrarotempfänger des Quellgerätes ausgerichtet ist und dass der Infrarotsender der Fernbedienung des Quellgerätes direkt auf den Infrarotempfänger des Empfängers DF-120RX ausgerichtet ist (s. Abb. D).

- Achten Sie darauf, dass der Standort der Geräte möglichst staub- und vibrationsfrei ist, und dass eine gute Luftzirkulation gegeben ist.
- Achten Sie darauf, dass sich jeweils in der Nähe eine Netzsteckdose befindet.

8. Anschluss (s. Abb. C und D)

Anschluss des Senders

- Verbinden Sie den AV-Eingang [8] des Senders [1] über das AV-Kabel [6] mit dem Video- und ggf. dem Audio-Ausgang des Quellgerätes (gelber Stecker = Video / weißer Stecker = Audio links / roter Stecker = Audio rechts). Benutzen Sie ggf. einen SCART- Cinch- oder einen Cinch-BNC-Adapter (s. Kapitel 15).
- Verbinden Sie den Kleinspannungsstecker des Netzgerätes [10] mit dem Netzgerät-Anschluss [7] des Senders.
- Stecken Sie das Netzgerät in eine geeignete Netzsteckdose. Die Power-LED [2] und die Verbindungs-LED [4] leuchten auf, die Verbindungs-LED erlischt jedoch nach ca. 3 Sekunden wieder.

Anschluss des Empfängers

- Verbinden Sie den AV-Ausgang [18] des Empfängers [11] über das AV-Kabel [16] mit dem Video- und ggf. dem Audio-Eingang des Wiedergabegerätes (gelber Stecker = Video / weißer Stecker = Audio links / roter Stecker = Audio rechts).
- Verbinden Sie den Kleinspannungsstecker des Netzgerätes [20] mit dem Netzgerät-Anschluss [17] des Empfängers.
- Stecken Sie das Netzgerät in eine geeignete Netzsteckdose. Die Power-LED [12] und die Verbindungs-LED [14] leuchten auf, die Verbindungs-LED erlischt jedoch nach ca. 3 Sekunden wieder. Findet der Empfänger den Sender, dann leuchtet die Verbindungs-LED nach weiteren 4 Sekunden wieder.

9. Inbetriebnahme

- Nach dem Anschluss der Stromversorgung sind die Geräte in Betrieb.
- Schalten Sie Ihr Quell- und Ihr Wiedergabegeräte ein.
- Wählen Sie am Empfangs-Fernseher den entsprechenden AV-Kanal (bei manchen Fernsehgeräten auch als VCR, Kanal 0 oder mit dem Symbol ⇦ bezeichnet). Ist ein Receiver über einen Videorecorder angeschlossen, wählen Sie dessen AV-Kanal ebenfalls aus. Sie sehen nun das Bild und hören ggf. auch den Ton.
- Die Antennen [5 und 15] sind justierbar, um eine möglichst gute Übertragungsqualität zu gewährleisten. Richten Sie diese bitte vorsichtig so aus, dass Sie optimalen Empfang haben.

Hinweise:

- Wird keine Verbindung aufgebaut, so leuchten die Verbindungs-LEDs [4 und 14] nicht auf. Auf dem Bildschirm erscheint kein Bild ("NO SIGNAL"). Verringern Sie den Abstand zwischen Sender [1] und Empfänger [11]. Erscheint immer noch kein Bild, so müssen Sender und Empfänger neu gepaart werden (siehe Kapitel 10.1).
- Ist die Wiedergabe des Videosignals nicht flüssig, ändern Sie den Standort von Sender und Empfänger bzw. verringern Sie deren Abstand zueinander.
- Um die Empfangsqualität zu ermitteln, ziehen Sie das Netzgerät [20] des Empfängers kurz aus der Netzsteckdose und stecken es dann wieder ein. Wenn das Bild auf dem Wiedergabegerät erscheint, ist oben rechts auf dem Bildschirm für ca. 10 Sekunden die Empfangsqualität als Balkensymbol-Anzeige zu sehen (4 Balken bedeuten optimaler Empfang).

10. Funktionen

10.1 Verbindungsaufbau (Pairing)

Der Sender [1] und der Empfänger [11] müssen miteinander gepaart sein, um eine Funkverbindung aufbauen zu können. Der im Set enthaltene Sender ist im Werk mit dem Empfänger bereits gepaart.

Bei Bedarf kann der Verbindungsaufbau wie folgt vorgenommen werden:

- Vergewissern Sie sich, dass alle Verbindungen korrekt sind, Sender und Empfänger an die Stromverbindung angeschlossen sind (Power LEDs [2 und 12] leuchten rot) und sich beide innerhalb der Funkreichweite befinden.
- Halten Sie die "Pairing"-Taste [19] am Empfänger so lange gedrückt, bis die Verbindungs-LED [14] blinkt. Auf dem am Empfänger angeschlossenen Bildschirm erscheint: Please press pairing button of TX device" sowie die Anzeige von 60 Sekunden, die bis 0 Sekunden zählt.

- Innerhalb dieser 60 Sekunden haben Sie Zeit, die Verbindung vorzunehmen: Halten Sie die "Pairing"-Taste [9] am Sender so lange gedrückt, bis auch die Verbindungs-LED [4] am Sender blinkt. Bei erfolgreichem Verbindungsaufbau erscheint "Pairing OK save data" auf dem Bildschirm. Nach ca. 10 Sekunden erlischt die Bildschirmanzeige, die Verbindungs-LEDs [4 und 14] leuchten grün und das Bild vom Quellgerät erscheint auf dem Bildschirm.

10.2 Bedienung über Fernbedienung

Wird das Quellgerät über eine Fernbedienung gesteuert, können Sie diese auch vom Wiedergabegerät aus bedienen, indem Sie den Infrarotsender der Fernbedienung bei Tastendruck direkt auf den Infrarotempfänger [13] des Empfängers DF-120RX richten.

Hinweis:

Achten Sie unbedingt darauf, dass der Infrarotsender [3] des Senders DF-120TX direkt auf den Infrarotempfänger des Quellgerätes (in der Regel die Vorderseite des Gerätes) zeigt, da der Sender hier die Funktion der Fernbedienung übernimmt und die IR-Signale von der Fernbedienung übermittelt.

11. Funkreichweite

Die Reichweite der Funk-Übertragung ist abhängig von vielen verschiedenen Faktoren. Im Idealfall können bei freier Sicht (zwischen den beiden Antennen) bis zu 100 m erreichbar sein, in Gebäuden dagegen nur noch bis zu max. 20 m.
Eine Garantie für diese Reichweite ist jedoch nicht möglich, da die örtlichen Gegebenheiten am Aufstellungsort diese negativ beeinflussen können.
Eine Verschlechterung der Reichweite ist z.B. zu erwarten durch folgende Einflüsse:

- Wände und Decken, insbesondere solche aus Metall, Stahlbeton oder massivem Stein
- Beschichtete Fenster (z.B. Energiespar-Fenster), Heizkörper, Spiegel, Metallflächen, Türen
- Elektrische Leitungen und elektrische Geräte (z.B. Elektromotor, Mikrowellenherd)
- Geräte auf der gleichen oder benachbarten Funk-Frequenz (z.B. ein WLAN-System)

12. Wartung und Reinigung

- Die Geräte sind wartungsfrei: Öffnen Sie sie deshalb niemals.
- Überprüfen Sie regelmäßig die technische Sicherheit und die Funktion.
- Ziehen Sie vor der Reinigung die Netzgeräte aus der Steckdose.
- Äußerlich dürfen die Geräte nur mit einem weichen, nebelfeuchten Tuch oder Pinsel gereinigt werden.

13. Optionales Zubehör

- CKU-SST-U, Adapter von Cinch-Kupplung auf Scart-Stecker (kann als Ein- oder Ausgang umgeschaltet werden), Art.Nr. 25 173
- CKU-BST, Adapter von Cinch-Kupplung auf BNC-Stecker, Art. Nr. 24 241
- CKU-BKU, Adapter von Cinch-Kupplung auf BNC-Kupplung, Art. Nr. 25 170
- Koaxial-Verlängerungskabel, RG 59, mit BNC-Stecker / BNC-Stecker
  1 m Länge, Art. Nr. 25 509, 5 m Länge, Art. Nr. 25 510,
  10 m Länge, Art. Nr. 25 511, 20 m Länge, Art. Nr. 25 512

14. Entsorgung

Entsorgen Sie Verpackungsmaterial und ausgediente Geräte nicht im Hausmüll, führen Sie sie der Wiederverwertung zu. Den zuständigen Recyclinghof bzw. die nächste Sammelstelle erfragen Sie bei Ihrer Gemeinde.

15. Rechtliche Hinweise

Dieses Produkt oder diese Software kann Code unter der GNU General Public License v2, wie z.B. den linux kernel, unter der GNU Lesser General Public License v2.1 oder unter der Apache Lizenz v2.0 enthalten oder verwenden.
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die Kosten für die physikalische Durchführung der Bereitstellung des Source Codes.

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Die entsprechenden Lizenztexte finden Sie am Ende der Anleitung.

v1.0

16. Vereinfachte EU-Konformitätserklärung

Hiermit erklärt INDEXA GmbH, dass der Funkanlagentyp Set DF120 der Richtlinie 1995/5/EG entspricht. Der vollständige Text der EU-Konformitätserklärung ist unter der folgenden Internetadresse verfügbar: https://www.indexa.de/ce.htm.

Indexa GmbH, Paul-Böhringer-Str. 3, 74229 Oedheim, Deutschland
www.indexa.de Änderungen vorbehalten

17. Fehlersuche

Fehler	Mögliche Ursache	Behebung
Anzeige "NO SIGNAL"	Sender bzw. Quellgerät wird nicht mit Strom versorgt	Überprüfen Sie die Stromversorgung der Geräte.
	Keine Verbindung der A/V Kabel	Kontrollieren Sie die Verbindung der A/V-Kabel
	Es wurde noch kein Verbindungsaufbau durchgeführt	Beachten Sie das Kapitel 10.1
	Der Sender befindet sich außer Reichweite	Verringern Sie den Abstand zwischen Sender und Empfänger
	Verbindung wurde durch Objekte unterbrochen	Entfernen Sie größere Objekte (insbesondere metallische Objekte) bzw. ändern Sie die Platzierung des Senders und/oder Empfänger
Instabiler Signal-Empfang	Antennen nicht optimal zueinander ausgerichtet	Richten Sie die Antennen durch Ausprobieren optimal zueinander aus
	Empfänger und Sender zu weit auseinander	Verringern Sie den Abstand zwischen Sender und Empfänger
	Signal wurde blockiert	Entfernen Sie größere insbesondere metallische Objekte bzw. ändern Sie die Platzierung des Senders und/oder Empfänger
	Signal wurde gestört	Stellen Sie sicher, dass sich keine Störquellen in der Nähe des Senders bzw. des Empfängers befinden, z.B. WLAN Router, Elektrogeräte, Mikrowellenherde
Störungen im Bild	Sender und Empfänger stehen zu nahe aneinander	Platzieren Sie Sender und Empfänger mit einem Abstand von mind. 2 m
Quellgerät reagiert nicht auf Fernbedienung	Infrarotsender des Senders ist nicht auf Infrarotempfänger des Quellgerätes ausgerichtet	Richten Sie den Infrarotsender des Senders auf den Infrarotempfänger des Quellgerätes aus
	Infrarotsender der Fernbedienung zeigt nicht auf Infrarotempfänger des Empfängers	Richten Sie bei Tastendruck den Infrarotsender der Fernbedienung direkt auf den Infrarotempfänger des Empfängers

(F) Mode d'emploi

1. Introduction

Veuillez lire intégralement et attentivement cette notice d'utilisation. Cette notice d'utilisation fait partie intégrante de ce produit et contient des informations importantes concernant la mise en service et la manipulation.
Respectez toujours les consignes de sécurité. Si vous avez des questions ou si vous avez un doute s'agissant de l'utilisation des appareils, veuillez demander conseil à un technicien professionnel.
Conservez soigneusement ces instructions et remettez-les à toute personne utile.

2. Utilisation conforme aux instructions

Le kit de transmission numérique sans-fil comprend l'émetteur DF-120TX et le récepteur DF-120RX, chacun avec le chargeur secteur.

Ce système est utilisé pour la transmission sans fil de signaux analogiques vidéo et audio ainsi que de signaux de commande infrarouge. Il convient aux appareils audio et vidéo des particuliers (raccords de câbles, récepteurs satellite, lecteurs DVD, enregistreurs DVD, VCR, caméscopes ou projectuer à sortie/entrée analogique, caméra de sécurité) :
L'émetteur reçoit les signaux analogiques audio et vidéo à partir du périphérique source AV (par exemple un lecteur DVD) et les convertit en signaux numériques. Il transmet ces signaux numériques par radio à une fréquence de 2,4 GHz au récepteur, qui transforme de nouveau les signaux pour obtenir les signaux analogiques de départ.
Le récepteur convertit les signaux infrarouges de la télécommande de l'appareil source en un signal radio et l'envoie à l'émetteur, qui le restitue à l'appareil source sous forme de signal IR. Ainsi les signaux AV d'un appareil source peuvent être restitués dans une autre pièce, et l'appareil source peut être contrôlé depuis cette pièce avec une télécommande.

La transmission radio s'effectue de façon numérique sur des fréquences changeant continuellement (frequency hopping ou étalement de spectre par saut de fréquence) qui sont synchronisées entre l'émetteur et le récepteur. Seul le récepteur qui est "couplé" à l'émetteur peut recevoir les signaux synchronisés. Ce qui permet une protection contre les écoutes indésirables.

La portée maximale de la transmission radio est de 100 m environ (ou dans des conditions optimales jusqu'à 200 m) avec un contact visuel entre l'émetteur et le récepteur. Dans les bâtiments, la portée est nettement plus faible (typiquement env. 20 m) à cause des murs (notamment les murs en béton armé) et des plafonds.

L'alimentation électrique de l'ensemble DF-120 est assurée par les adaptateurs fournis qui doivent être branchés au secteur 230 V~AC, 50 Hz.

Cet ensemble de surveillance est conçu pour être utilisé dans les pièces sèches des habitations privées. Pour une utilisation en extérieur, des boitiers de protections adaptés doivent être utilisés.

Toute autre utilisation ou toute modification des appareils est considérée non conforme et présente des risques d'accidents considérables. Le fabricant ne pourra nullement être tenu responsable des dommages résultant d'une utilisation non-conforme ou d'une mauvaise manipulation.

Cet appareil n'est pas prévu pour être utilisé par des personnes présentant des capacités physiques, sensorielles ou mentales réduites, ni par des personnes inexpérimentées ou ne connaissant par son fonctionnement, ni par des enfants, à moins que ces personnes soient sous la surveillance d'une personne répondant de leur sécurité ou qu'elles aient reçu des instructions sur le fonctionnement de l'appareil. Les enfants doivent être surveillés pour qu'ils ne jouent pas avec l'appareil.

3. Pièces fournies à la livraison

- Émetteur DF-120TX avec câble de raccordement
- Récepteur DF-100RX avec câble de raccordement
- 2 câbles de raccordement avec connecteur cinch (vidéo, audio à gauche / à droite)
- 2 chargeurs 5V DC
- Instructions d'utilisation

4. Équipement

Émetteur DF-120TX (voir illustration A)

1. Émetteur
2. LED de fonctionnement (LED Power)
3. Émetteur infrarouge
4. LED de liaison
5. Antenne
6. Câble audio / vidéo
7. Prise de tension
8. Entrée audio / vidéo
9. Touche "couplage"
10. Chargeur

Récepteur DF-120RX (voir illustration B)

11. Récepteur
12. LED de fonctionnement (LED Power)
13. Récepteur infrarouge
14. LED de liaison
15. Antenne
16. Câble audio / vidéo
17. Prise de tension
18. Sortie audio / vidéo
19. Touche "couplage"
20. Chargeur

5. Caractéristiques techniques

	Émetteur DF-120TX	**Récepteur DF-120RX**
Tension d'alimentation	5 V ⎓ DC(chargeur)	5 V ⎓ DC (chargeur)
Consommation électrique	400 mA	300 mA
Bande de fréquences	2402 -2480 MHZ	2402 -2480 MHZ
Puissance de transmission maximale	< 100 mW	< 100 mW
Modulation	BPSK, QPSK, 16-QAM	BPSK, QPSK, 16-QAM
Niveau de sortie vidéo	1 Vp-p / 75 ohms	1 Vp-p / 75 ohms
Niveau de sortie audio mono	1 Vp-p / 600 ohms	1 Vp-p / 600 ohms
Résolution maximale des images (Pixel)	720 x 576 (D1)	720 x 576 (D1)
débit de transfert d'images (max.)		25 images/seconde
Portée radio (max.)	100 - 200 m avec visibilité dégagée	100 - 200 m avec visibilité dégagée
Température de fonctionnement	± 0°C à + 50°C	± 0°C à + 50°C
Dimensions sans antenne (mm)	100 x 89 x 27	100 x 89 x 27
Chargeurs		
Tension d'alimentation	230 V ~ 50 Hz	230 V ~ 50 Hz
Tension de sortie	5 V ⎓ DC, 1 A	5 V ⎓ DC, 1 A

6. Consignes de sécurité

Les consignes suivantes concernent votre sécurité et votre satisfaction lors de l'utilisation de l'appareil. Veuillez notez que le non-respect de ces consignes de sécurité peut conduire à des dommages conséquents.

⚠ **Danger!** En cas de non respect des informations suivantes, il peut en résulter un danger de mort ou un danger pour la santé.

- Ne laissez pas l'appareil, l'emballage ou les petites pièces à la portée des enfants. Risque de mort par étouffement!
- N'endommagez aucunes conduites de gaz, de courant électrique ou de télécommunication lors de la fixation! Il y a un danger de mort ou de blessures!
- Veillez à ce que les appareils n'entrent pas en contact avec de l'humidité et ne plongez pas les appareils dans l'eau! Danger de mort!
- Ne faites fonctionner les appareils qu'avec les adaptateurs fournis. Avant de brancher l'appareil sur le secteur, assurez-vous que les prescriptions soient respectées, donc que le courant d'alimentation est de 230 V ~ AC, 50 Hz et qu'il y a un disjoncteur.

⚠ **Attention!** En cas de non respect des informations suivantes, il peut en résulter un risque d'occasionner des dommages!

- Ne placez pas les appareils à proximité de feux, source de chaleur et ne les soumettez pas à de hautes températures en continu. Protégez les appareils des fortes contraintes mécaniques et des vibrations! Protégez les appareils des champs magnétiques ou électriques!
- N'utilisez les appareils qu'avec les pièces d'origine livrées ou les accessoires d'origine. Vérifiez avant le montage et la mise en route que la livraison est complète et en bon état.
- En cas de non-utilisation prolongée, débranchez les chargeurs secteurs des prises de courant et retirez les batteries du combiné.
- Ne connectez pas d'appareil endommagé (par ex. dommages dus au transport). En cas de doute, contactez le service client. Les réparations et interventions sur les boitiers ne doivent être effectuées que par des experts.

7. Placement des appareils

Respectez les points suivants :

- La portée maximale de la transmission radio est de 100 m environ (ou dans des conditions optimales jusqu'à 200 m) avec un contact visuel entre l'émetteur et le récepteur. Dans les bâtiments, la portée est nettement plus faible (typiquement env. 20 m) à cause des murs (notamment les murs en béton armé) et des plafonds. Les surfaces en tôle par exemple un réfrigérateur, des étagères en tôle ou encore un miroir avec de la buée constituent une barrière pour la transmission radio.
- Si une bonne connexion radio n'est pas directement disponible entre l'appareil source et l'emplacement de l'appareil de restitution, alors le câble entre l'appareil source et l'émetteur et/ou entre le récepteur et l'appareil de restitution doit être prolongé. Pour cela, utilisez un câble d'extension A/V ou dans le cas de la surveillance vidéo un câble RG59/75 ohms avec les connecteurs BNC correspondants (voir la section "Accessoires en option").
- La transmission radio peut être altérée par les champs électriques forts et d'autres appareils radio. Veillez à ce que les appareils suivants soient suffisamment éloignés : fours à micro-ondes, téléphones radio, appareils radio en 2,4 GHz, moteurs électriques et câbles à courant fort.
- Les boitiers doivent être mis en place sur des surfaces planes, au mieux 1 m environ au-dessus du sol (meilleures conditions de réception). Le récepteur ne peut pas être mis en place directement sur l'appareil de restitution car la portée radio pourrait être altérée. Veillez à éloigner les boitiers des surfaces métalliques et mur en béton armé car ils abaissent la portée radio.
- Lors de l'utilisation d'une télécommande, assurez-vous que l'émetteur infrarouge de l'émetteur DF-120TX est dirigé directement vers le récepteur infrarouge de l'appareil source et que l'émetteur infrarouge de la télécommande de l'appareil source est dirigé directement vers le récepteur infrarouge du récepteur DF-120RX (voir la figure D).
- Veillez à que l'emplacement de montage d'émetteur et du récepteur soit si possible exempt de poussière et de vibrations et qu'il y ait une bonne circulation d'air.
- Veillez à ce qu'il y ait une prise de courant à proximité.

8. Raccordement

Raccordement de l'émetteur

- Connectez l'entrée AV [8] de l'émetteur [1] avec le câble AV [6] à la sortie vidéo ou audio de l'appareil source (connecteur jaune = vidéo / connecteur blanc = audio à gauche / connecteur rouge = audio à droite). Si nécessaire, utilisez un adaptateur Cinch-BNC (voir la section 15).
- Branchez la fiche mâle de petite tension du chargeur [10] sur la prise de tension [7] de l'émetteur.
- Branchez le chargeur secteur sur une prise électrique qui convient. La LED Power [2] et la LED de liaison [4] s'allument, la LED de liaison s'éteint cependant de nouveau après environ 3 secondes.

Raccordement du récepteur

- Connectez l'entrée AV [18] du récepteur [11] avec le câble AV [16] à la sortie vidéo ou audio de l'appareil source (connecteur jaune = vidéo / connecteur blanc = audio à gauche / connecteur rouge = audio à droite).
- Branchez la fiche mâle de petite tension du chargeur [20] sur la prise de tension [17] du récepteur .
- Branchez le chargeur secteur sur une prise électrique qui convient. La LED Power [12] et la LED de liaison [14] s'allument, la LED de liaison s'éteint cependant de nouveau après environ 3 secondes. Si le récepteur trouve l'émetteur, alors la LED de liaison s'allume de nouveau après 4 secondes.

9. Mise en service

- Après branchement de l'alimentation électrique, les appareils sont en fonctionnement.
- Allumez votre appareil source et votre appareil de restitution.
- Sélectionnez le canal AV (également désigné VCR, canal 0 ou avec le symbole sur de nombreux appareils de télévision). Si une récepteur est branchée sur un magnétoscope, sélectionnez également le canal AV. Vous voyez alors l'image de la caméra et vous entendez également le son.
- Les antennes [5 et 15] sont réglables, afin de garantir une qualité de transmission optimale. Tournez-les avec précaution jusqu'à ce que vous obteniez une réception optimale.

Remarque :

- Si aucune liaison n'est établie, les LED de liaison [4 et 14] ne s'allument pas. Aucune image n'apparaît sur l'écran ("NO SIGNAL"). Réduisez la distance entre l'émetteur [1] et le récepteur [11]. Si vous n'obtenez toujours pas d'image, alors l'émetteur et le récepteur doivent être couplés à nouveau (voir la section 10.1).
- Si la restitution du signal vidéo n'est pas fluide, modifiez l'emplacement de l'émetteur et du récepteur ou réduisez la distance entre les deux.
- Pour connaître la qualité de la réception, coupez le chargeur [20] du récepteur en débranchant la prise murale, puis rebranchez-la. Lorsque l'image s'affiche sur l'appareil de restitution, la qualité de réception est visible en haut et à droite de l'écran pendant environ 10 secondes sous la forme d'un indicateur à barres (4 barres indiquent une réception optimale).

10. Fonctions de base

10.1 Connexion radio

L'émetteur [1] et le récepteur [11] doivent être reliés (pairing) pour établir une connexion radio. L'émetteur contenu dans le kit est couplé par défaut avec le récepteur.

Si nécessaire, la connexion peut être établie comme suit :

- Assurez-vous que toutes les connexions sont correctes, que l'émetteur et le récepteur sont connectés au système d'alimentation (les LED Power [2 et 12] s'allument en rouge) et qu'ils sont tous deux situés dans la zone de portée radio.
- Maintenez la touche "couplage" [19] du récepteur enfoncé jusqu'à ce que la LED de liaison [14] clignote. Sur l'écran connecté au récepteur s'affiche la mention : "Please press pairing button of TX device" ainsi qu'un compte à rebours de 60 secondes à 0 secondes.
- Pendant ces 60 secondes, vous avez le temps d'établir la connexion : Maintenez la touche "couplage" [9] de l'émetteur enfoncé jusqu'à ce que la LED de liaison [4] clignote. Lorsque la connexion est réussie, la mention "Pairing OK save data" s'affiche sur l'écran. Après environ 10 secondes,

la mention sur l'écran disparaît, les LED de liaison [4 et 14] s'allument en vert et l'image de l'appareil source s'affiche sur l'écran.

10.2 Utilisation via la télécommande

- Si l'appareil source est contrôlé par une télécommande, vous pouvez utiliser celle-ci également depuis l'appareil de restitution, si vous orientez directement l'émetteur infrarouge de la télécommande vers le récepteur infrarouge [13] du récepteur DF-120RX lorsque vous appuyez sur les touches.

Remarque :

Veillez absolument à ce que l'émetteur infrarouge [3] de l'émetteur DF-120TX soit orienté directement vers le récepteur infrarouge de l'appareil source (généralement à l'avant de l'appareil), car c'est là que l'émetteur prend en charge la fonction de télécommande et transmet les signaux IR de la télécommande.

11. Portée radio

La portée de la transmission radio dépend de nombreux facteurs différents. Lorsque les conditions sont idéales, il est possible de capter avec une visibilité dégagée (entre les deux antennes) jusqu'à 100 m, mais dans les bâtiments seulement jusqu'à 20 m.

Cette portée ne peut toutefois pas être garantie car les conditions du site d'utilisation peuvent avoir une incidence négative.

La portée peut être altérée dans les cas suivants :

- Murs et plafonds, notamment s'ils sont en béton armé ou en métal
- Fenêtres à double vitrage (par exemple les fenêtres pour l'économie d'énergie), les radiateurs, les miroirs, les surfaces métalliques
- Si la télécommande devient faible, vous remplacez la batterie (CR2025)
- Lignes électriques et appareils électriques (par exemple moteur électrique, four à micro-ondes)
- Appareils à la même fréquence radio ou à une fréquence radio avoisinante (par exemple un système WLAN)

12. Entretien et nettoyage

- Les appareils ne demandent aucun entretien: C'est pourquoi, vous ne devez jamais les ouvrir.
- Vérifiez régulièrement la sécurité technique et le fonctionnement de l'appareil.
- Avant le nettoyage, débranchez les adapteurs de la prise de courant.
- Extérieurement, les appareils ne doivent êt

13. Accessoires optionnels

- CKU-SST-U, Adaptateur du couplage Cinch à la fiche Scart (on peut changer comme sortie/entrée), n° d'art. 25 173
- CKU-BST, Adaptateur du couplage Cinch à la fiche BNC, n° d'art. 24 241
- CKU-BKU, Adaptateur du couplage Cinch au couplage BNC, n° d'art. 25 170
- Câble d'extension coaxial, RG 59, avec fiche BNC/fiche BNC: longueur 1m, n° d'art. 25 509, longueur 5 m, n° d'art. 25 510, longueur 1 0 m, n° d'art. 25 511, longueur 2 0 m, n° d'art. 25 512

14. Élimination

Ne jetez pas le matériel d'emballage, les piles usagées et les appareils eux-mêmes, mais amenez-les à des emplacements de récupération. La déchetterie ou l'emplacement de recyclage le plus proche vous seront communiqués par votre administration communale.

15. Mentions légales

Ce produit ou ce logiciel peut contenir ou utiliser des codes sous la licence GNU General Public License v2, comme par exemple le noyau Linux (Linux kernel), sous la licence GNU Lesser General Public License v2.1 ou sous la licence Apache v2.0.

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Vous trouverez les textes relatifs à la licence en fin de notice explicative.
v1.0

16. Simplifié Déclaration de conformité CE

Le soussigné, INDEXA GmbH, déclare que l'équipement radioélectrique du type DF120 SET est conforme à la directive 1995/5/CE. Le texte complet de la déclaration UE de conformité est disponible à l'adresse internet suivante: https://www.indexa.de/ce.htm.

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17. Recherche d'anomalies

Anomalies	Cause possible	Élimination des anomalies
Affichage "NO SIGNAL"	L'émetteur (ou l'appareil) source n'est pas alimenté en courant	Vérifiez l'alimentation en électricité de l'appareil.
	A/V-câbles ne sont pas connectés	Vérifiez l'alimentation du A/V-câbles
	Aucune connexion n'a encore été établie	Respectez les indications du chapitre 10.1
	L'émetteur se trouve hors de porté	Réduisez la distance entre l'émetteur et le récepteur
	La connexion a été interrompue par des objets	Retirez les objets (métalliques) relativement importants ou modifiez l'emplacement de l'émetteur et/ou du récepteur
Réception du signal instable	Les antennes sont pas alignées de façon optimale	Orientez les antennes de façon optimale en procédant à des essais
	Récepteur et émetteur trop éloignés l'un de l'autre	Réduisez la distance entre la caméra et le récepteur
	Les antennes ne sont pas parallèles l'une à l'autre	Orientez les deux antennes l'une parallèle à l'autre
	Le signal a été bloqué	Retirez les objets métalliques relativement importants ou modifiez l'emplacement de la caméra et/ou du récepteur
	Le signal été perturbé	Assurez-vous qu'il n'y a aucune source de perturbation à proximité de l'émetteur ou du récepteur, par exemple un routeur WLAN, des appareils électriques, un four à micro-onde
Image brouillée	L'émetteur et le récepteur sont trop proches l'un de l'autre	Placez l'émetteur et le récepteur à une distance d'au moins 2 m
L'appareil source ne réagit pas à la télécommande	L'émetteur infrarouge de l'émetteur n'est pas orienté vers le récepteur infrarouge de l'appareil source	Dirigez l'émetteur infrarouge de l'émetteur vers le récepteur infrarouge de l'appareil source
	L'émetteur infrarouge de la télécommande n'est pas dirigé vers le récepteur infrarouge du récepteur	Lorsque vous appuyez sur les touches, dirigez l'émetteur infrarouge de la télécommande directement vers le récepteur infrarouge du récepteur

(NL) Gebruiksaanwijzing

1. Inleiding

Lees deze gebruiksaanwijzing s.v.p. volledig en zorgvuldig door. De gebruiksaanwijzing behoort bij dit product en bevat belangrijke aanwijzingen voor de ingebruikneming en het gebruik.
Let steeds op alle veiligheidsaanwijzingen. Als u vragen hebt of onzeker bent over het gebruik van de apparaten, vraag dan advies aan een deskundige.
Bewaar deze gebruiksaanwijzing zorgvuldig en geef die indien nodig door aan derden.

2. Gebruik volgens de voorschriften

Het draadloze overdrachtsysteem bestaat uit de zender DF-120TX en de ontvanger DF-120RX met elk een nettransformator.

Dit systeem is bestemd voor de draadloze overdracht van analoge video- en audiosignalen evenals van infrarood sturingssignalen en is geschikt voor normaal huishoudelijk gebruik van audio- en videoapparatuur (kabelaansluiting, satelliet receivers, dvd-spelers, dvd-recorders, vcr, camcorders of projector met een analoge uit-/ingang, bewakingscamera´s):
De zender ontvangt de analoge audio- en videosignalen van het A/V-bronapparaat (bijv. een dvd-speler) en transformeert deze in digitale signalen. Deze digitale signalen zendt hij radiotelegrafisch met een frequentie van 2,4 GHz aan de ontvanger, die de signalen wederom in de oorspronkelijke analoge signalen transformeert.
De infrarood signalen van de afstandsbediening van het bronapparaat zet de ontvanger om in een radiotelegrafisch signaal en stuurt deze aan de zender, die het aan het bronapparaat als IR-signaal doorstuurt. Hierdoor kunnen de A/V-signalen van een bronapparaat in een andere ruimte worden weergegeven en het bronapparaat kan daar vandaan met een afstandsbediening worden bediend.

De draadloze overdracht vindt digitaal plaats op steeds wisselende frequenties (frequentie hopping) die tussen zender en ontvanger zijn gesynchroniseerd. Alleen de ontvanger die aan de zender is "gekoppeld" (pairing), kan de gesynchroniseerde signalen opvangen. Hierdoor ontstaat een afluisterbeveiliging.

Het maximale bereik van de draadloze overdracht bedraagt ca. 100 m (bij een optimale bediening tot 200 m) bij gezichtsafstand tussen zender en ontvanger. In gebouwen is het bereik door wanden (vooral staalbetonnen wanden) en plafonds duidelijk geringer (normaal ca. 20 m).

De stroomvoorziening van de set DF-120 vindt plaats via de meegeleverde nettransformatoren, aangesloten aan het netstroom 230 V ~ AC, 50Hz.

De componenten zijn geconcipieerd voor gebruik in droge ruimtes in privé-huishoudens.

Elk ander gebruik van of wijziging aan de apparaten geldt als niet volgens de voorschriften en heeft wezenlijke risico's op ongelukken. De producent is niet aansprakelijk voor schades, die door onbedoeld gebruik of verkeerde bediening worden veroorzaakt.

Dit apparaat is niet geschikt om te worden gebruikt door personen (inclusief kinderen) met beperkte fysieke, sensorische of geestelijke vermogens of met gebrek aan ervaring en/of kennis, tenzij zij onder toezicht staan van een persoon die voor hun veiligheid verantwoordelijk is of van hem aanwijzingen hebben gekregen, hoe ze het apparaat moeten gebruiken. Men dient erop toe te zien, dat kinderen niet met het apparaat spelen.

3. Omvang van de levering (zie afb. A en B)

- Zender DF-120TX
- Ontvanger DF-120RX
- 2 verbindingskabels met cinch-stekker (video, audio L/R)
- 2 nettransformators 5 V DC
- Gebruiksaanwijzing

4. Uitrusting

Zender DF-120TX (zie afb. A)

1 Zender
2 Power-lampje
3 Infraroodzender
4 Verbindingslampje
5 Antenne
6 A/V-kabel
7 Aansluiting voor nettransformator
8 A/V-ingang
9 "Pairing"-knop
10 Nettransformator

Ontvanger DF-120RX (zie afb. B)

11 Ontvanger
12 Power-lampje
13 Infraroodontvanger
14 Verbindingslampje
15 Antenne
16 A/V-kabel
17 Aansluiting voor nettransformator
18 A/V-uitgang
19 "Pairing"-knop
20 Nettransformator

5. Technische gegevens

	Zender DF-120TX	**Ontvanger DF-120RX**
Bedrijfsspanning	5 V ⎓ DC (nettransformator)	5 V ⎓ DC (nettransformator)
Stroomopname	400 mA	300 mA
Frequentieband	2402 -2480 MHz	2402 -2480 MHZ
Uitgestraald maximaal zendvermogen	< 100 mW	< 100 mW
Modulatie	BPSK, QPSK, 16-QAM	BPSK, QPSK, 16-QAM
Videoniveau	1 Vp-p / 75 Ohm	1 Vp-p / 75 Ohm
Audioniveau mono	1 Vp-p / 600 Ohm	1 Vp-p / 600 Ohm
Max. beeldresolutie (pixel)	720 x 576 D1	720 x 576 D1
Beeldoverdracht (max.)		25 beelden / seconde
Bereik (max.)	100-200 m in vrije veld	100-200 m in vrije veld
Bedrijfstemperatuur	± 0° C bis + 50° C	± 10° C bis + 50° C
Afmetingen zonder antenne (mm)	100 x 89 x 27	100 x 89 x 27
Nettransformators		
Bedrijfsspanning	230 V ~ 50 Hz	230 V ~ 50 Hz
Uitgangspanning	5 V ⎓ DC , 1 A	5 V ⎓ DC , 1 A

6. Veiligheidsaanwijzingen

De volgende aanwijzingen dienen uw veiligheid en tevredenheid bij het gebruik van het apparaat. Let erop dat het veronachtzamen van deze veiligheidsaanwijzingen tot aanzienlijke ongevalrisico's kan leiden.

⚠ **Gevaar!** Bij veronachtzaming van deze aanwijzing bestaat er gevaar voor leven en gezondheid.

- Laat kleine kinderen niet zonder toezicht met het apparaat, verpakkingsmateriaal of onderdelen spelen! Anders dreigt levensgevaar door verstikking!
- Beschadig bij boorwerkzaamheden en bij het bevestigen geen leidingen voor gas, stroom, water of telecommunicatie! Anders dreigt levens- of verwondingsgevaar!
- Verhinder, dat de nettransformatoren met vocht in aanraking komen en doop de apparaten niet in het water! Anders dreigt levensgevaar!
- Bedien de apparaten uitsluitend met de meegeleverde nettransformatoren. Vergewis u er, voordat u de nettransformator aan het elektriciteitsnet aansluit, van dat de netstroom volgens voorschrift voorzien is van 230 V ~ AC, 50 Hz en dat die voorzien is van een voorgeschreven beveiliging.

⚠ **Let op!** Bij veronachtzaming van deze aanwijzing kan er schade aan voorwerpen ontstaan.

- Stel de apparaten niet bloot aan de nabijheid van vuur, hitte of langdurige inwerking van hoge temperaturen!
- Bescherm de apparaten tegen sterke mechanische belastingen en schokken!
- Bescherm de apparaten tegen sterke magnetische of elektrische velden!
- Gebruik de apparaten alleen met de geleverde originele delen of originele onderdelen!
- Controleer voor de montage en de ingebruikneming de levering op beschadigingen en volledigheid!
- Koppel bij langer niet-gebruiken van het apparaat steeds de nettransformatoren af van het stopcontact.
- Sluit geen beschadigd apparaat (bijv. transportschade) aan. Vraag bij twijfel uw klantendienst om raad. Reparaties en operaties aan de apparaten mogen alleen door deskundigen worden gedaan.

7. Plaatsing van de apparaten

Let op de volgende punten:

- Het maximale bereik van de draadloze overdracht bedraagt ca. 100 m (bij een optimale bediening tot 200 m) bij gezichtsafstand tussen zender en ontvanger. In gebouwen is het bereik door wanden (vooral staalbetonnen wanden) en plafonds duidelijk geringer (normaal ca. 20 m). Ook oppervlakten met blik bijvoorbeeld koelkasten, stellingkasten en opgedampte spiegels evenals water verhinderen een draadloze overdracht tegen.
- Indien er geen goede rechtstreekse verbinding tussen het bronapparaat en de plaats van het weergavetoestel voorhanden is, moet de bedrading tussen het bronapparaat en de zender en/of tussen ontvanger en weergavetoestel worden verlengd. Gebruik hiervoor een A/V-verlengsnoer dan wel bij videobewaking een RG59/75 Ohm kabel met bijbehorende BNC pluggen (zie hoofdstuk "mogelijke toebehoren").
- De draadloze overdracht kan door sterke elektrische velden en andere zendontvangapparaten worden belemmerd. Let op voldoende afstand bij: magnetrons, draadloze telefoons, mobiele telefoons, zendontvangapparaten met 2,4 GHz, elektrische motors en sterkstroomleidingen.
- De apparaate moet op een effen en vaste plaats worden opgesteld, bij voorkeur ca. 1 m boven de grond (betere ontvangstcondities). De ontvanger kan niet nochtans direct op de weergavetoestel worden geplaatst, anders kan de radiowaaier negatief worden beïnvloed. Besteed aandacht aan voldoende afstand aan metaaloppervlakten of gewapend beton, aangezien deze de radiotransmissie negatief beïnvloeden.
- Let er bij het gebruik van een afstandsbediening op dat de infraroodzender van de zender DF-120TX direct op de infraroodontvanger van het bronapparaat is afgesteld en dat de infraroodzender van de afstandsbediening van het bronapparaat precies op de infraroodontvanger van de ontvanger DF-120RX wordt gericht (zie afb. D).
- Let erop, dat de montageplaats van de apparaate zoveel mogelijk stof- en trillingsvrij is, en dat er sprake is van een goede luchtcirculatie.
- Let erop, dat er een stopcontact in de buurt is.

8. Aansluiting

Aansluiten van de ontvanger

- Verbind de A/V-ingang [8] van de zender [1] door middel van het A/V-kabel [6] met de video-uitgang en indien nodig met de audio-uitgang van het bronapparaat (gele stekker = video / witte stekker = audio links / rode stekker = audio rechts). Gebruik indien nodig een cinch-BNC-adapter (zie hoofdstuk 15).
- Verbind de kleinspanningstekker [10] met de aansluiting van de nettransformator [7] van de zender.
- Steek de nettransformator in een daartoe geschikt stopcontact. Het power-lampje [2] en het verbindingslampje [4] gaan branden, het verbindingslampje gaat echter na ca. 3 seconden weer uit.

Aansluiten van de ontvanger

- Verbind de A/V-uitgang [18] van de ontvanger [11] door middel van het A/V-kabel [16] met de video-ingang en indien nodig met de audio-ingang van het bronapparaat (gele stekker = video / witte stekker = audio links / rode stekker = audio rechts).
- Verbind de kleinspanningstekker [20] met de aansluiting van de nettransformator [17] van de ontvanger.
- Steek de nettransformator in een daartoe geschikt stopcontact. Het power-lampje [12] en het verbindingslampje [14] gaan branden, het verbindingslampje gaat echter na ca. 3 seconden weer uit. Indien de ontvanger de zender heeft gevonden, brandt het verbindingslampje na 4 seconden opnieuw.

9. Ingebruikneming

- Na het aansluiten aan het stroom zijn de apparaten bedrijfsklaar. Schakel uw bron- en weergavetoestel in.
- Selecteer op de ontvangende televisie het betreffende A/V kanaal (bij sommige televisietoestellen aangeduid als VCR, kanaal 0 of met het symbool ⊏◄—). Indien er via een videorecorder een ontvanger is aangesloten, selecteer dan dit A/V-kanaal. Nu ziet u het beeld en hoort u eventueel ook het geluid.
- De antennes [5 en 15] kunnen zodanig worden afgesteld dat een zo goed mogelijke overdrachtskwaliteit kan worden gewaarborgd. Draai deze voorzichtig, totdat u een optimaal ontvangst hebt.

Tip:

- Indien er geen verbinding wordt opgebouwd, branden de verbindingslampjes [4 en 14] niet. Er verschijnt geen beeld op het scherm ("NO SIGNAL"). Maak de afstand tussen zender [1] en ontvanger [11] kleiner. Indien er nog steeds geen beeld verschijnt, moeten de zender en de ontvanger opnieuw aan elkaar worden gekoppeld (zie hoofdstuk 10.1).
- Indien de weergave van het videosignaal niet vloeiend is, verander dan de plaats van de zender en ontvanger of maak de afstand tussen hen kleiner.
- Om de ontvangstkwaliteit te controleren, kan de nettransformator [20] van de ontvanger heel even uit het stopcontact worden gehaald en er daarna weer ingedaan worden. Indien het beeld op het weergavetoestel verschijnt, wordt rechts boven op het beeldscherm ca. 10 seconden lang de ontvangstkwaliteit door middel van balkjes aangeduid (4 balkjes betekenen een optimaal ontvangst).

10. Bediening

10.1 Verbindingsopbouw (Pairing)

De zender [1] en de ontvanger [11] moeten aan elkaar zijn gekoppeld om een draadloze verbinding te kunnen opbouwen. De in de set meegeleverde zender is al in de fabriek aan de ontvanger gekoppeld.

Desgewenst kan de verbindingsopbouw als volgt plaatsvinden:

- Controleer of alle verbindingen correct zijn, of zender en ontvanger aan het stroom zijn aangesloten (power-lampjes [2 en 12] zijn rood) en of beide apparaten zich binnen het bereik bevinden.
- Houd de "Pairing"-knop [19] aan de ontvanger zo lang ingedrukt tot het verbindingslampje [14] knippert. Op het beeldscherm dat aan de ontvanger is aangesloten, verschijnt: Please press pairing button of TX device" en een klokje met 60 seconden dat tot 0 seconden terugtelt.
- Binnen deze 60 seconden heeft u de tijd om de verbinding op te bouwen: Houd de "Pairing"-knop [9] van de zender zo lang ingedrukt tot ook het verbindingslampje [4] van de zender knippert. Bij een succesvolle verbindingsopbouw verschijnt op het beeldscherm "Pairing OK save data". Na ca. 10 seconden verdwijnt de tekst op het beeldscherm, de verbindingslampjes [4 en 14] zijn groen en het beeld van het

bronapparaat verschijnt op het beeldscherm.

10.2 Bediening door middel van de afstandsbediening

Indien het bronapparaat door middel van een afstandsbediening wordt bediend, kunt u deze ook vanaf het weergavetoestel bedienen, als de infraroodzender van de afstandsbediening bij een druk op een knop direct op de infraroodontvanger [13] van de ontvanger DF-120RX wordt gericht.

Tip:

Let er op dat de infraroodzender [3] van de zender DF-120TX direct op de infraroodontvanger van het bronapparaat (normaliter aan de voorkant van het toestel) wordt gericht, omdat de zender hier de functie van de afstandsbediening overneemt en de IR-signalen van de afstandsbediening doorgeeft.

11. Bereik

Het bereik van de draadloze overdracht is van veel verschillende factoren afhankelijk. Idealiter is bij een vrij veld (tussen de antennes) een bereik van 100m mogelijk, in gebouwen daarentegen slechts nog max. 20m.

Een garantie ten aanzien van het bereik kan echter niet worden gegeven, omdat de plaatselijke omstandigheden dit op negatieve wijze kunnen beïnvloeden.

Een verslechtering van het bereik is bijvoorbeeld door volgende invloeden mogelijk:

- Wanden en plafonds, vooral indien zij van staal, staalbeton of metaal zijn,
- gelamelleerde vensters (bijv. energiebesparende vensters), radiators, spiegels, oppervlakten van metaal
- elektrische leidingen en apparaten (bijv. elektrische motors, magnetrons)
- apparaten die (bijna) dezelfde of frequentie hebben (bijv. een WLAN-systeem)

12. Onderhoud en reiniging

De apparaten zijn onderhoudsvrij: Maak ze daarom nooit open.

- Controleer regelmatig de technische veiligheid en de functie.
- Koppel de nettransformatoren af van het stopcontact voordat u ze schoonmaakt.
- Gebruik een zachte, droge doek om de oppervlakken van het apparaat te reinigen. Aansluiten van de zender

13. Optionele accessoires

- CKU-SST-U, adapter van cinch-koppeling op Scart plug (kan worden geschakeld zoals ingang of uitgang), art. nr. 25 173
- CKU-BST, adapter van cinch-koppeling op BNC plug, art. nr. 24 241
- CKU-BKU, adapter van cinch-koppeling op BNC-koppeling, art. nr. 25 170
- Coaxiaal verlengsnoer, uit RG 59 met BNC plug / BNC plug
  lengte 1 m, art. nr. 25 509
  lengte 5 m, art. nr. 25 510
  lengte 10 m, art. nr. 25 511
  lengte 20 m, art. nr. 25 512

14. Afvalverwijdering

Verpakkingsmateriaal en uitgewerkte apparaten niet Zomaar weggooien. Zorg dat ze milieuvriendelijk worden opgeruimd. Uw gemeentehuis kan u aan het adres van de milieustraat helpen.

15. Legal Notices

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v1.0

16. Vereenvoudigd EU-Conformiteitsverklaring

CE

Hierbij verklaar ik, INDEXA GmbH, dat het type radioapparatuur, Set DF120, conform is met Richtlijn 1995/5/EG. De volledige tekst van de EU-conformiteitsverklaring kan worden geraadpleegd op het volgende internetadres:
https://www.indexa.de/ce.htm.

Indexa GmbH, Paul-Böhringer-Str. 3, 74229 Oedheim, Duitsland
www.indexa.de Wijzigingen voorbehouden

17. Storingen verhelpen

Storing	Oorzaak	Oplossing
Aanwijzing "NO SIGNAL"	Zender c.q. bronapparaat heeft geen stroom	Controleer de stroomvoorziening van de apparaten.
	A/V-kabels verbinding onderbroken	Controleer de A/V-kabels verbinding
	Nog werd geen verbinding verwezenlijkt	Bespreek hoofdstuk 10.1
	De zender bevindt zich buiten de reikwijdte	Verklein de afstand tussen zender en ontvanger
	Verbinding werd door objecten onderbroken	Verwijder grotere, en vooral metalen objecten objecten resp. verander de plaats van de camera's en/of ontvangers
Onstabiele signaalontvangst	Antennes niet optimaal op elkaar afgesteld	Stel de antennes optimaal op elkaar af door het uit te proberen
	Ontvanger en zender te ver bij elkaar vandaan	Verklein de afstand tussen zender en ontvanger
	Signaal werd geblokkeerd	Verwijder grotere, en vooral metalen objecten resp. verander de plaats van de zender en/of ontvanger
	Signaal werd gestoord	Verzeker u ervan dat zich geen stoorbronnen in de buurt van de zender resp. de ontvanger bevinden, bijv. WLAN router, elektrische apparaten, magnetron
Interferentie in het beeld	Zender en ontvanger staan te dicht bij elkaar	Zet de zender en ontvanger ten minste 2m uit elkaar
Bronapparaat reageert niet op de afstandsbediening	Infraroodzender van de zender is niet op de infraroodontvanger van het bronapparaat afgesteld	Stel de infraroodzender van de zender op de infraroodontvanger van het bronapparaat af
	Infraroodzender van de afstandsbediening is niet gericht op de infraroodontvanger van de ontvanger	Richt de infraroodzender van afstandsbediening direct op de infraroodontvanger van de ontvanger indien u op een knop drukt

GB Operating instructions

1. Introduction

Read through these operating instructions fully and carefully. The operating instructions belong to this product and contain important points concerning bringing the appliance into service and its operation.
Always pay attention to all safety instructions. Should you have any questions or be unsure about operating the appliance ask a specialist. Keep these instructions in a safe place and should the need arise pass them on to a third party.

2. Proper use

The digital wireless transmission set consists of the transmitter DF-120TX and receiver DF-120RX each with a mains adaptor.

This system is intended to be used for the wireless transmission of video and audio signals from an Audio/Video (A/V) source device. It can be used with, for example, a satellite receiver, DVD players, VCR, camcorder or projector with analog input/output, CCTV-cameras etc.
The A/V source (from a DVD player for example) input into the transmitter is converted to a digital wireless signal which is transmitted in the 2.4 GHz frequency band. The receiver converts this signal back to analog A/V signals as output to a display device (for example a TV set).
The receiver also has the ability to transmit infrared remote control signals. In this case the original remote control of the A/V source device can be used with the receiver, and the transmitter will relay the infrared signals to the A/V source device.
For example: With the DF-120 set it is possible to watch for example SAT-TV in a room without a wired SAT connection and to control the SAT-Receiver or TV using the original Infrared remote control.

The wireless transmission is digital and on constantly changing frequencies (frequency hopping) which are synchronised between the transmitter and the receiver. Only the receiver which has been "paired" with the transmitter can receive the synchronised signals. This security feature is designed to prevent access to the transmitted signal by third parties.

The maximum range of the wireless signal in open spaces is typically 100m (up to 200m in optimal conditions) with line of sight contact between transmitter and receiver. Within buildings the range is greatly reduced by walls and floors, in particular those made of steel reinforced concrete, to a typically about 20m.

The power is supplied through the supplied mains adapters connected to a 230VAC, 50Hz mains supply.

The components are for indoor use only and must be protected from moisture. The set is for use in private households.

Any other use or modification of the device is not authorised. No liability will be accepted for consequential damages or for damages caused by improper use or incorrect operation. No liability will be accepted for consequential damages caused by any function or by malfunction. Unless any liability is specifically required by law, claims for damages, in particular those for personal injury or property damage caused by non-functioning or malfunctioning of the device, are excluded.

This appliance is not intended to be used by people (including children) with restricted physical, sensory or mental capacities, or a lack of experience and/or knowledge, unless they are supervised by, or receive instructions how to use the appliance from a person responsible for their safety.

3. Package contents (see Fig. A and B)

- DF-120TX transmitter
- DF-120RX receiver with connection cables
- 2x connection cables with Cinch (RCA) plugs (video, audio L/R)
- 2x mains adapter 5 V DC
- user manual

4. Features and Equipment

Transmitter DF-120TX (see Fig. A)

1 Transmitter
2 red Power LED
3 Infrared transmitter
4 green Connection-LED
5 Antenna
6 A/V cable
7 Mains adapter connection
8 A/V connection
9 "Pairing"-button
10 Mains adapter

Receiver DF-120RX (see Fig. B)

11 Receiver
12 red Power LED
13 Infrared receiver
14 green Connection-LED
15 Antenna
16 A/V cable
17 Mains adapter connection
18 A/V connection
19 "Pairing"-button
20 Mains adapter

5. Technical data

	Transmitter DF-120TX	**Receiver DF-120RX**
Operating Voltage	5 V ⎓ DC (mains adapter)	5 V ⎓ DC (mains adapter)
Current consumption	400 mA	300 mA
Frequency band	2402 -2480 MHz	2402 -2480 MHz
Maximum radiated transmission power	< 100 mW	< 100 mW
Modulation	BPSK, QPSK, 16-QAM	BPSK, QPSK, 16-QAM
Video signal	1 Vp-p / 75 Ohm	1 Vp-p / 75 Ohm
Audio signal mono	1 Vp-p / 600 Ohm	1 Vp-p / 600 Ohm
Max. Resolution (Pixel)	720 x 576 (D1)	720 x 576 (D1)
Frame Rate (max.)		25 frames / s.
Radio range (max.)	100 - 200 m (open space)	100 - 200 m (open space)
Operating temperature	± 0° C to + 50° C	± 0° C to + 50° C
Dimensions without antenna (mm)	100 x 89 x 27	100 x 89 x 27
Mains Adapter		
Operating Voltage	230 V ~ 50 Hz	230 V ~ 50 Hz
Output	5 V ⎓ DC, 1 A	5 V ⎓ DC, 1 A

6. Safety instructions

The following instructions are provided for your safety and satisfaction during operation of the device. Note that non-observance of these safety instructions results in significant risks of accident.

⚠ **Danger!** If this point is not heeded life and health is endangered.

- Do not leave small children unsupervised with the device, cables, packaging material or small parts. Otherwise there is a risk of fatal injury due to choking, strangulation or suffocation.
- Treat the cables carefully. Lay these so that they cannot be damaged and do not present any tripping hazard. Otherwise there are dangers of fire, personal and fatal injury.
- Prevent the device from coming into contact with moisture and do not submerge in water. Otherwise there is a danger of fatal injury.
- Only operate the device from the supplied power supply. Before connecting the power supply to the mains, ensure that the mains current complies with 230 V ~, 50 Hz and is fitted with a fuse according to regulations. Otherwise there are dangers of fire and fatal injury.

⚠ **Attention!** Non-observance of these instructions puts property at risk of damage.

- Do not place the equipment near fire, heat or in areas of high temperature.
- Protect the equipment and the cables against strong magnetic or electrical fields and against strong mechanical loads and vibrations.
- Only use the equipment with the supplied original parts or original accessories.
- Before installing and operating the product check the package for damages and completeness.
- If the unit is to be unused for a longer period, disconnect the mains adapter from the mains supply and remove the batteries.
- Do not connect any damaged device (e.g. transport damage) and disconnect the power supply immediately in the case of damage. Unplug the mains adapter from the mains socket. Arrange for the damage to be repaired immediately by a specialist!

7. Location of equipment

Observe the following points:

- The maximum range of the wireless signal is typically 100m in free space (and up to 200m in optimal conditions) with line of sight contact between transmitter and receiver. Within buildings the range is greatly reduced by walls and floors, in particular those made of metal or steel reinforced concrete, to a maximum of 20m. Metal housings, shelves, mirrors and water masses also block the wireless signal.
- If the wireless connection is weak or non-existant between the locations of the source and display devices then first try adjusting the antennas and moving the transmitter and the receiver. If necessary, extension cables can be used between these devices and the DF-120 components to enable these to be located such that there is wireless connection. Use A/V extension cables or for CCTV applications use RG59, 75 Ohm coaxial cable with the necessary BNC connectors (see chapter "Optional Accessories").
- The wireless transmission can also be affected by strong electric fields and other wireless equipment. Ensure an adequate distance of the transmitter and receiver to microwave ovens, cordless phones, mobile phones, wireless devices in the 2.4GHz frequency band (WiFi), electric motors and high voltage devices or power cables.
- The devices must be placed on a solid and level surface, ideally a minimum of 1m above the floor (optimal reception). They can be located nearby a TV set or monitor, however not directly on top of the casing otherwise the reception quality can be reduced. Locate the devices away from metalic objects and steel reinforced concrete as these reduce the wireless range.
- When using an infrared remote control make sure that the infrared transmitter window on the DF-120 TX is pointing at the infrared window of the source device and that the remote control is pointing at the infrared receiver window of the DF-120 RX (see Fig. D).
- Ensure that the location is free of excessive dust, vibration and excessive heat.
- There should be suitable mains outlets in the vicinity.

8. Connection

Connection of the transmitter

- Connect the AV-input [8] of the transmitter DF-120TX [1] with the AV-output of the source device using the AV cable [6] (yellow plug = video / red plug = audio right / white plug = audio left). If required use cinch/BNC adapters or an cinch/scart adapter (see chapter 15).
- Connect the DC-plug of the mains adapter cable [10] to the mains adapter connection [7] of the transmitter.
- Connect the mains adapter with a suitable mains outlet. The power-LED [2] and the connection-LED [4] illuminate and after approx. 3 seconds the connection-LED is extinguished.

Connection of the receiver

- Connect the AV-output [18] of the receiver DF-120RX [11] with the AV-input of the source device using the AV cable [16] (yellow plug = video / red plug = audio right / white plug = audio left).
- Connect the DC-plug of the mains adapter cable [20] to the mains adapter connection [17] of the transmitter.
- Connect the mains adapter with a suitable mains outlet. The power-LED [12] and the connection-LED [14] illuminate and after approx. 3 seconds the connection-LED is extinguished. If wireless connection is established, then the connection-LED will illuminate after approx. 4 seconds.

9. Operation

- After connection of the power supplies the set is in operation.
- Switch on the power for the source and display devices.
- Select the AV input corresponding to the connection (on some TV sets this may be depicted as VCR, channel 0, or with the ⊏◄— symbol). If a camera is connected through a recorder then select the corresponding AV channel. You will now see the picture and hear the sound from the source device.
- The orientation of the antennas [5 and 15] can be adjusted to achieve the best possible connection quality.

Note:

- If there is no wireless connection the connection-LEDs [4 and 14] will not illuminate and a message "NO SIGNAL" will appear on the display monitor. In this case relocate the transmitter and receiver, reducing the distance if possible. If there is still no connection then the transmitter and receiver must be paired again (see chapter 10.1).
- If the video stops or does not run smoothly adjust the antennas, change the positions or reduce the distance between the transmitter and receiver.
- A visual indication of the connection quality can be obtained after removing the mains adapter [20] of the receiver from the mains supply and then reconnecting this. A symbol with 0 to 4 bars will then show for approx. 10 seconds in the top right hand corner of the picture on the display monitor.

10. Functions

10.1 Connection pairing

The transmitter [1] and receiver [11] must be paired with each other to establish the wireless connection. The transmitter delivered in the set is already paired with the receiver.

If required the wireless connection can be established as follows:

- Check that the cables are correctly connected, that transmitter and receiver are powered (power LEDs [2 and 12] illuminate on the receiver DF-120RX) and that these are located within the wireless range.
- Hold the "Pairing"-button [19] on the receiver pressed until the connection LED [14] flashes. On the display monitor the following message appears: "Please press pairing button of TX device" and a timer counts down from 60 seconds.
- Within the 60 seconds you have time to establish the connection as follows. Press and hold the "pairing"-button [9] on the transmitter DF-120TX until the connection LED [4] on the transmitter flashes. When wireless connection is sucessfully established the following message will appear on the display monitor: "Pairing OK save data". This message will disappear after approx. 10 seconds and the picture from the AV-source will appear. The connection LEDs [4 and 14] will illuminate green.

10.2 Using an Infrared Remote Control

If the source device has an infrared remote control this can be used from the

location of the display device by aiming the remote control at the infrared receiver window [13] on the receiver DF-120 RX.

Note:

Ensure that the infrared transmitter window [3] of the transmitter DF-120 TX is aimed at the infrared window of the source device (usually on the front side of the device) as the DF-120 TX operates like the hand held remote control in this case.

11. Wireless range

The wireless range is dependent on many factors. In an ideal location and by free line of sight (between both antennas) a range of up to over 100 m can be possible, within buildings this is reduced to a maximum of up to 20 m.
The range cannot be guaranteed as it is dependent on the local conditions.

A reduction of the range will be caused by:

- Walls and Floors, in particular those of metal or with metal reinforcement
- Coated windows (eg. those with Insulating glass), radiators, mirrors and other metal surfaces
- Electrical cables and electrical products (eg. electrical motors, microwave ovens)
- Devices using the same or similar frequency (eg. WiFi-systems)

12. Maintenance and cleaning

- The products are maintenance-free: do not open the housings
- Check the safety and function regularly
- Remove the mains adapters from the mains sockets before cleaning
- Use a soft, slightly moist cloth or brush to clean the surfaces

13. Optional Accessoires

- CKU-SST-U, Adapter from female cinch to male scart (can be switched as input or output), Art.Nr. 25 173
- CKU-BST, adapter from female cinch to male BNC, Art. Nr. 24 241
- CKU-BKU, Adapter from female cinch to female BNC, Art. Nr. 25 170
- Coaxial-extension cables, RG 59 with BNC male to BNC male:
  1 m length, Art. Nr. 25 509
  5 m length, Art. Nr. 25 510
  10 m length, Art. Nr. 25 511
  20 m length, Art. Nr. 25 512

14. Disposal

Do not dispose of packaging material, used batteries or products as household waste. Please use your recycling system. Details are available from your local authority.

15. Legal Notices

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v1.0

16. Simplified EU declaration of conformity

CE

Hereby, INDEXA GmbH declares that the radio equipment type Set DF120 is in compliance with Directive 1995/5/EC. The full text of the EU declaration of conformity is available at the following internet address:
https://www.indexa.de/ce.htm.

17. Trouble shooting

Fault	Cause	Remedy
Message“NO SIGNAL”	Transmitter or source device not powered	Check the power supply to the devices
	A/V cables not connected	Check all connections of the A/V cables
	“Pairing has not been carried out or has been lost	See chapter 10.1
	The transmitter is out of range	Reduce the distance between transmitter and receiver
	Objects are preventing wireless connection	Remove large objects, in particular metallic objects or change the location of transmitter and/or receiver
Unstable wireless reception	Antennae are not in the optimal orientation to each other	Adjust the orientation of the antennae to get the optimal wireless connection
	Receiver and camera too far apart	Reduce the distance between transmitter and receiver
	Wireless connection is blocked	Remove objects, in particular metallic objects and/or change the location of transmitter and/or receiver
	Interference with wireless signal	Check that there are no interference sources near transmitter and receiver eg WiFi device, electrical products, Microwave ovens
Interference in picture	Transmitter and receiver are too close to each other	Ensure a minimum distance of 2 m between transmitter and receiver
Source device does not react to infrared remote control	Infrared transmitter window is not aimed at the infrared window of the source device	Aim the infrared transmitter widow of the transmitter DF-120TX at the infrared window of the source device
	Infrared remote control is not aimed at the infrared receiver window of the receiever	When using an infrared remote control aim it at the infrared receiver DF-120RX window of the receiver

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Subject to change

(I) Istruzioni per l'uso

1. Introduzione

Leggere attentamente e completamente il presente manuale di istruzioni. Il manuale delle istruzioni fa parte di questo prodotto e contiene indicazioni importanti per la messa in funzione e la manipolazione.
Osservare sempre tutte le indicazioni di sicurezza. In caso di dubbi sull'utilizzo dell'apparecchio, consultare un tecnico specializzato.
Conservare questo manuale con cura e passarlo eventualmente a terzi.

2. Utilizzo conforme

Il sistema digitale di trasmissione radio consta di emittente, DF-120TX, e di ricevitore, DF-120RX, ognuno con un alimentatore.

Il presente sistema funge da trasmissione senza fili di segnali analogici video e audio e di segnali di controllo a infrarossi e si adatta ai normali apparecchi domestici video e audio (attacco per il cavo, impianti satellitari, lettore DVD, masterizzatore DVD, videocamera con uscita analogica, telecamere di videosorveglianza):
l'emittente riceve i segnali analogici audio video dall'apparecchio sorgente AV (ad es. un lettore DVD) e li converte in segnali digitali, che vengono successivamente inviati al ricevitore per ponte radio con una frequenza di 2,4 GHz. Il ricevitore riconverte i segnali in analogici. I segnali a infrarossi di un comando a distanza dell'apparecchio sorgente vengono convertiti dal ricevitore in un segnale radio, trasmesso poi all'emittente, che lo trasferisce all'apparecchio sorgente come segnale IR. In questo modo i segnali AV di una sorgente possono essere riprodotti in un'altra stanza e si può controllare così l'apparecchio mediante un comando a distanza.

La radiotrasmissione avviene su base digitale con frequenze in continuo cambiamento (frequence hopping), le quali sono sincronizzate tra emittente e ricevitore. Solo il ricevitore, "allineato" con l'emittente, può ricevere i segnali sincronizzati, garantendo così una protezione dalle intercettazioni.
La portata massima di radiotrasmissione ammonta a circa 100 m (e a 200 m con comando in condizioni ottimali) con contatto visivo tra emittente e ricevitore. Negli edifici la portata è ridotta sensibilmente (di solito a circa 20 m) dalla presenza di pareti (soprattutto in cemento armato) e di soffitti.

L'alimentazione elettrica del set DF-120 avviene tramite gli alimentatori in dotazione, collegati alla rete elettrica 230 V ~ AC, 50Hz.

I componenti sono concepiti per l'utilizzo in ambienti asciutti e in contesti domestici.

Ogni altro utilizzo o modifica all'apparecchio è da ritenersi non conforme e comporta notevoli pericoli di incidente. Il produttore non risponde per i danni derivanti da utilizzo non conforme o non corretto.

Questo apparecchio non è adatto per persone (compresi i bambini), con limitate facoltà fisiche, sensoriali o psicologiche o senza esperienza e/o senza conoscenza, a meno che non siano seguite da una persona responsabile della loro sicurezza o non ricevano da essa indicazioni su come utilizzare l'apparecchio. I bambini devono essere controllati onde evitare che giochino con l'utensile.

3. Dotazione di serie (s. A + B)

- Emittente DF-120TX
- Ricevitore DF-120RX
- 2 cavi di allaccio con presa cinch (video, audio L/R)
- 2 alimentatori 5 V DC
- Istruzioni per l'uso

4. Dotazione

Emittente DF-120TX (s. A)

1 Emittente
2 Power LED
3 Emittente a infrarossi
4 LED di collegamento
5 Antenna
6 Cavo AV
7 Cavo di collegamento dell'alimentatore
8 Ingresso AV
9 Tasto "pairing"
10 Alimentatore

Ricevitore DF-120RX (s. B)

11 Ricevitore
12 Power LED
13 Ricevitore a infrarossi
14 LED di collegamento
15 Antenna
16 Cavo AV
17 Cavo di collegamento dell'alimentatore
18 Uscita AV
19 Tasto "pairing"
20 Alimentatore

5. Specifiche tecniche

	Emittente DF-120TX	**Ricevitore DF-120RX**
Tensione di servizio	5 V ⎓ DC (alimentatore)	5 V ⎓ DC (alimentatore)
Corrente assorbita	400 mA	300 mA
Banda di frequenza	2402 -2480 MHz	2402 -2480 MHZ
Potenza massima di trasmissione irradiata	< 100 mW	< 100 mW
Modulazione	BPSK, QPSK, 16-QAM	BPSK, QPSK, 16-QAM
Livello video	1 Vp-p / 75 Ohm	1 Vp-p / 75 Ohm
Livello audio mono	1 Vp-p / 600 Ohm	1 Vp-p / 600 Ohm
Risoluzione immagine max. (pixel)	720 x 576 D1	720 x 576 D1
Quota di trasferimento immagini (max.)		25 immagini / secondo
Portata radio (max.)	100-200 m a campo libero	100-200 m a campo libero
Temperatura di esercizio	± 0° C fino a + 50° C	± 0° C fino a + 50° C
Dimensioni senza antenna (mm)	100 x 89 x 27	100 x 89 x 27
Alimentatori		
Tensione di servizio	230 V ~ 50 Hz	230 V ~ 50 Hz
Tensione in uscita	5 V ⎓ DC , 1 A	5 V ⎓ DC , 1 A

6. Avvertenze di sicurezza

Le seguenti istruzioni servono per la sicurezza e la soddisfazione dell'utente nell'utilizzo dell'apparecchio. Ricordare sempre che l'inosservanza delle istruzioni comporta pericoli di gravi incidenti.

⚠ **Pericolo!** In caso di inosservanza di questa indicazione, pericolo pervita e salute.

- Non lasciare bambini incustoditi con l'apparecchio, il materiale d'imballo o la minuteria! Rischio di soffocamento!
- Nei lavori di perforazione e fissaggio, fare attenzione a non danneggiare condutture di gas, corrente, acqua o telecomunicazioni! Pericolo di vita e di lesioni!
- Eviti che la memoria video e l'alimentatore vengano a contatto con l'umidità e non immergere mai gli apparecchi in acqua! Pericolo di vita!
- Fare funzionare gli apparecchi solo con gli alimentatori in dotazione. Assicurarsi che prima del collegamento alla rete dell'alimentatore, la corrente di rete sia, secondo le prescrizioni, di 230 V ~, 50 Hz e che sia presente un fusibile a norma.

⚠ **Attenzione!** In caso di inosservanza di questa indicazione, pericolo di danni materiali.

- Non collocare gli apparecchi nelle vicinanze di fuoco, calore o ad alte temperature continue!
- Proteggere gli apparecchi da sollecitazioni meccaniche eccessive e scossoni!
- Proteggere gli apparecchi dai forti campi magnetici o elettrici!
- Utilizzare gli apparecchi solo con le parti originali fornite o gli accessori originali!
- Prima del montaggio e della messa in esercizio, controllare che la fornitura non presenti danni e che sia completa!
- Se l'apparecchio non viene utilizzato per molto tempo, estrarre la spina dalla presa elettrica.
- Non collegare un apparecchio danneggiato (ad es. per danni da trasporto). In caso di dubbio, chiedere al servizio clienti. Riparazioni ed interventi sugli apparecchi possono essere svolti solo da personale specializzato.

7. Posizionamento

Osservare i seguenti punti:

- La portata massima di radiotrasmissione ammonta a circa 100 m (e a 200 m con comando in condizioni ottimali) con contatto visivo tra emittente e ricevitore. Negli edifici la portata è ridotta sensibilmente (di solito a circa 20 m) dalla presenza di pareti (soprattutto in cemento armato) e di soffitti. Anche le superfici in lamiera, quali ad es. frigoriferi, ripiani, specchi e quantità di vapore schermano la trasmissione radio.
- Qualora non sussista direttamente una buona radio-connessione tra l'apparecchio sorgente e la posizione dell'apparecchio di riproduzione, è necessario allungare i cavi tra la sorgente e l'emittente e/o tra il ricevitore e l'apparecchio di riproduzione. Utilizzare in questi casi una prolunga A/V e, per la videosorveglianza, un cavo Ohm RG59/75 con relativi collegamenti BNC (vedi capitolo "accessori opzionali").
- La radiotrasmissione può essere disturbata da forti campi elettrici e da altri apparecchi radiofonici. Far attenzione a mantenere le dovute distanze da: forni a microonde, radiotelefoni, cellulari, apparecchi radio in area da 2,4 GHz, motori elettrici e cavi di corrente di forza.
- L'apparecchio deve essere montato su una superficie piana e solida, possibilmente a 1 metro dal suolo (condizioni di ricezione migliori). La ricevitore non può essere disposta tuttavia direttamente sull'apparecchio di riproduzione, altrimenti la gamma radiofonica può essere influenzata negativamente. Presti attenzione alla distanza sufficiente alle superfici di metallo o al calcestruzzo di rinforzo, poiché questi interessano negativamente la trasmissione radiofonica.
- Prestare attenzione quando si utilizza un comando a distanza a che l'emittente a infrarossi dell'emittente DF-120TX sia orientato direttamente al ricevitore a infrarossi della sorgente e che l'emittente a infrarossi del comando a distanza della sorgente sia a sua volta orientato al ricevitore a infrarossi del ricevitore DF-120RX (vedi fig. D).
- Tenere presente che il luogo di montaggio dovrebbe essere esente da polvere e vibrazioni e che dovrebbe esservi una buona ventilazione.
- Fare attenzione che nelle vicinanze non vi sia una presa di rete.

8. Montaggio e collegamento (s. C e D)

Collegamento dell'emittente

- Collegare l'ingresso AV [8] dell'emittente [1] mediante il cavo AV [6] con l'uscita video ed eventualmente audio dell'apparecchio sorgente (presa gialla = video / presa bianca = audio sinistra / presa rossa = audio destra). Servirsi eventualmente di un adattatore cinch tipo BNC (vedi capitolo 15).
- Collegare la presa di bassa tensione dell'alimentatore [10] al rispettivo collegamento [7] nell'emittente.
- Inserire l'alimentatore nella presa di corrente adeguata. I power-LED [2] e LED di collegamento [4] si illuminano. Il LED di collegamento si spegne tuttavia dopo circa 3 secondi.

Collegamento del ricevitore

- Collegare l'uscita AV [18] dell'emittente [11] mediante il cavo AV [16] con l'ingresso video ed eventualmente audio dell'apparecchio sorgente (presa gialla = video / presa bianca = audio sinistra / presa rossa = audio destra).
- Collegare la presa di bassa tensione dell'alimentatore [20] al rispettivo collegamento [17] nell'emittente.
- Inserire l'alimentatore nella presa di corrente adeguata. I power-LED [12] e LED di collegamento [14] si illuminano. Il LED di collegamento si spegne tuttavia dopo circa 3 secondi. Se il ricevitore trova l'emittente, il LED di collegamento si riaccende per altri 4 secondi.

9. Messa in funzione

- Una volta collegati gli apparecchi all'alimentazione elettrica, questi sono in funzione.
- Accendere gli apparecchi sorgente e di riproduzione.
- Selezionare sulla TV di ricezione il relativo canale AV (in alcune televisioni denominato anche VCR, canale 0 o contrassegnato dal simbolo ⊏◄—). Se un ricevitore è collegate al videoregistratore, selezionare il corrispondente canale AV. Ora sarà possibile visualizzare l'immagine e ascoltare l'audio, se presente.
- Le antenne [5 e 15] sono regolabili per garantire la migliore qualità di trasmissione. Farle ruotare prudentemente per trovare il giusto grado di ricezione.

Istruzioni:

- In assenza di collegamento, i LED [4 e 14] non si illuminano. Sullo schermo non compare alcuna immagine ("NO SIGNAL"). Diminuire la distanza tra l'emittente [1] e il ricevitore [11]. Se non dovesse ancora comparire nulla, sarà necessario allineare nuovamente emittente e ricevitore (vedi capitolo 10.1).
- Qualora la riproduzione del segnale video non fosse fluida, cambiare la posizione dell'emittente e del ricevitore e/o diminuire la distanza che li separa.
- Per conoscere la qualità di ricezione, estrarre per un istante l'alimentazione [20] del ricevitore dalla presa e reinserirla. Quando compare l'immagine sull'apparecchio di riproduzione, in alto a destra per circa 10 secondi sarà possibile leggere la qualità di ricezione mediante le barre di misurazione (4 barre sono sinonimo di ricezione ottimale).

10. Comando

10.1 Creazione del collegamento (pairing)

L'emittente [1] e il ricevitore [11] devono essere allineati per poter creare un radiocollegamento. L'emittente fornito nel set è già allineato con il ricevitore da fabbrica.

In caso fosse necessario, si riporta di seguito come stabilire una connessione:

- Assicurarsi che tutte le connessioni siano corrette, che l'emittente e il ricevitore siano collegati alla corrente (i power LED [2 e 12] con luce rossa accesa) e che entrambi si trovino all'interno della portata di trasmissione radio.
- Tener premuto il tasto "pairing" [19] del ricevitore, finché il LED [14] di collegamento non si spegne. Sullo schermo collegato al ricevitore compare quanto segue: "Please press pairing button of TX device" e il messaggio con il conto alla rovescia a partire da 60 secondi.
- In questi 60 secondi si potrà stabilire una connessione: tener premuto il tasto "pairing" [9] dell'emittente finché il LED [4] di collegamento dell'emittente non si spegne. In caso di collegamento riuscito compare il messaggio di notifica "Pairing OK save data". Dopo circa 10 secondi il

messaggio scompare dallo schermo, i LED di collegamento [4 e 14] si illuminano di verde e l'immagine dell'apparecchio sorgente compare sullo schermo.

10.2 Uso del comando a distanza

Se si utilizza l'apparecchio sorgente mediante un comando a distanza, tale comando può essere gestito anche dall'apparecchio di riproduzione, premendo il tasto e rivolgendo l'emittente a infrarossi del comando a distanza direttamente verso il ricevitore a infrarossi [13] del ricevitore DF-120RX.

Nota:

Prestare assolutamente attenzione a che l'emittente a infrarossi [3] dell'emittente DF-120TX sia rivolto direttamente al ricevitore a infrarossi della sorgente (normalmente verso la parte anteriore dell'apparecchio), poiché in questo caso l'emittente funge da comando a distanza e trasmette i segnali IR del comando a distanza.

11. Portata radio

La portata di radiotrasmissione dipende da molti e variegati fattori. Nella situazione ideale, a campo libero (tra le due antenne), si possono raggiungere i 100 m, mentre all'interno degli edifici la portata diminuisce fino a 20 m.
Una garanzia per la portata non è tuttavia possibile, poiché la conformazione dell'ambiente d'uso potrebbe influenzarne negativamente i valori.

E' possibile ad es. prospettare una diminuzione della portata nei seguenti casi:

- presenza di pareti e soffitti, soprattutto in acciaio, cemento armato o metallo
- finestre a vetro doppio (ad es. a risparmio energetico), caloriferi, specchi, superfici in metallo
- condutture e apparecchi elettrici (ad es. motore elettrico, forno a microonde)
- apparecchi con stessa frequenza o con frequenze simili (ad es. un sistema WLAN)

12. Manutenzione e pulizia

- Questi apparecchi sono esenti da manutenzione. Per questo motivo non devono mai essere aperti.
- Controllare regolarmente la sicurezza tecnica ed il funzionamento.
- Prima di pulirli, scollegarli dall'alimentazione elettrica.
- Utilizzi un panno morbido e asciutto per pulire le superfici dell'apparecchio.

13. Accessori opzionali

- CKU-SST-U, adattatore con accoppiamento cinch su presa Scart (può essere commutato come l'entrata o uscita), art. n. 25 173
- CKU-BST, adattatore con accoppiamento cinch su presa BNC, art. n. 24 241
- CKU-BKU, adattatore di accoppiamento cinch su accoppiamento BNC, art. n. 25 170
- prolunga coassiale, RG 59, con presa BNC / presa BNC
  lunghezza 1, art. n. 25 509
  lunghezza 5 m, art. n. 25 510
  lunghezza 10 m, art. n. 25 511
  lunghezza 20 m, art. n. 25 512

14. Smaltimento

Non gettare i materiali di imballo o gli apparecchi obsoleti tra i rifiuti domestici, ma riciclarli. Chiedere al Comune le informazioni sul centro di raccolta o di riciclaggio a cui rivolgersi.

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16. Semplificato dichiarazione di conformità UE

CE

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17. Risoluzione problemi

Errore	Causa	
Messaggio "NO SIGNAL"	L'Emittente o l'apparecchio sorgente non è alimentato	Controllare l'alimentazione degli apparecchi.
	I cavi A/V non sono collegati	Controllare l'alimentazione degli cavi A/V
	Ancora non c'era nessun collegamento	Consideri il capitolo 10.1
	L'Emittente è fuori dalla portata	Ridurre la distanza tra emittente e ricevitore
	Il collegamento è interrotto da oggetti.	Rimuovere gli oggetti, soprattutto quelli metallici, o cambiare la posizione della telecamera e/o del ricevitore
Ricezione instabile del segnale	Antenne non orientate in modo ottimale	Mediante, se necessario, più tentativi, orientare le antenne in modo ottimale
	Emittente e ricevitore sono troppo distanti	Ridurre la distanza tra emittente e ricevitore
	Il segnale è stato bloccato	Rimuovere gli oggetti, soprattutto quelli metallici, o cambiare la posizione dell'Emittente e/o del ricevitore
	Il segnale è disturbato	Assicurarsi che non vi siano fonti di interferenza in prossimitàdell'Emittente o del ricevitore, come router WLAN, apparecchiature elettriche, forni a microonde
Guasto nelle riproduzione dell'immagine	Emittente e ricevitore sono a una distanza troppo ravvicinata	Posizionare emittente e ricevitore ad una distanza di almeno 2 m
L'apparecchio sorgente non reagisce al comando a distanza	L'emittente a infrarossi dell'emittente non è orientato al ricevitore a infrarossi della sorgente	Orientare l'emittente a infrarossi dell'emittente al ricevitore a infrarossi della sorgente
	L'emittente a infrarossi del comando a distanza non è rivolto verso il ricevitore a infrarossi del ricevitore	Premendo il tasto, rivolgere l'emittente a infrarossi del comando a distanza direttamente verso il ricevitore a infrarossi del ricevitore

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