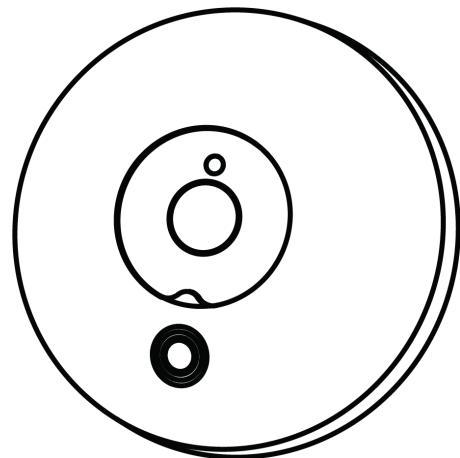
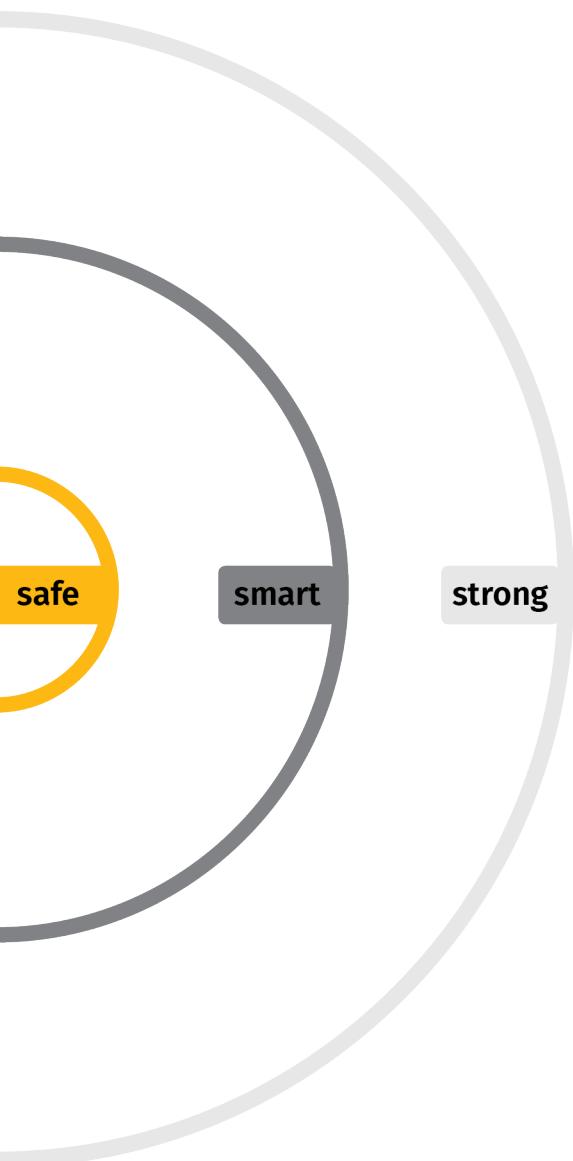


INSTALLATION INSTRUCTIONS

Receiver: R33-01



Allgon AB, Head office

August Barks gata 30A
SE-421 32 Västra Frölunda
Sweden

Phone: +46 31 207 600, Email: info@allgon.com

For more information about this product, please download the latest user or
installation instructions at **www.tele-radio.com**.

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CHAPTER 1: INTRODUCTION



**READ ALL INSTRUCTIONS AND WARNINGS CAREFULLY BEFORE MOUNTING,
INSTALLING, CONFIGURING AND OPERATING THE PRODUCTS.**

**LIRE ATTENTIVEMENT TOUTES LES INSTRUCTIONS ET LES AVERTISSEMENTS
AVANT DE MONTER, D'INSTALLER, DE CONFIGURER LES PRODUITS ET DE
UTILISER LES PRODUITS.**

These Installation instructions have been published by Allgon and are not subject to any guarantees. The Installation instructions may be withdrawn or revised by Allgon at any time and without further notice. Corrections and updates will be added to the latest version of the manual. Always download the Installation instructions from our website, www.tele-radio.com, for the latest available version. Keep the safety instructions for future reference.

IMPORTANT! These instructions are intended for installers and authorized service and distribution centers. The instructions containing information about the installation and configuration of the radio remote control unit on the machine are NOT intended to be passed on to users. Only information that is needed to operate the machine correctly by radio remote control may be passed on to users.

Allgon's product range is composed of transmitters, receivers, and accessories intended for use together as a system and Allgon remote controls are often built into wider applications. This documentation is not intended to replace the determination of suitability or reliability of the product for specific user applications and should not be used for this purpose. It is the responsibility of any such users or integrators to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use. Allgon shall not be responsible or liable for misuse of the information contained herein.

Always refer to the applicable local regulations for installation and safety requirements relating to cranes, hoists, material handling applications, lifting equipment, industrial machinery, and/or mobile hydraulic applications using Allgon products, e.g.:

- applicable local and industrial standards and requirements,
- applicable occupational health and safety regulations,
- applicable safety rules and procedures for the factory where the equipment is being used,

- user and safety manuals or instructions of the manufacturer of the equipment where Allgon remote control systems are installed.

Allgon Installation instructions do not include or address the specific instructions and safety warnings of the end product manufacturer.

Allgon products are covered by a warranty against material, construction, or manufacturing faults. See "Chapter 6: Warranty, service, repairs, and maintenance".

1.1 About this document

Before installing or operating the product, read the corresponding documentation carefully.

Allgon's product range is composed of transmitters, receivers, and accessories intended for use together as a system.

R33 systems are mainly intended for the hydraulic and mobile equipment markets. These systems are not standardized but customized and adapted to each customer's needs. How the outputs are connected to control the object depends on each specific installation and will not be covered in this document. For exact details, see the technical documentation provided for your specific system. Drawings, schematics and connection diagrams are unique and are also provided together with the system. Images shown in this document may therefore not show the exact position of buttons, paddles and are for illustrative purposes only.

These Installation instructions cover main technical specifications, standard installation, configuration and operating instructions, as well as general troubleshooting.

Please report any error or omission in this document, as well as any improvement or amendment suggestion to td@tele-radio.com.

1.1.1 COPYRIGHT

Information in this document is subject to change without notice. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, photographic, mechanical (including photocopying), recording or otherwise for any purpose other than the purchaser's personal use without the written permission of Allgon.

1.1.2 TERM AND SYMBOL DEFINITIONS

The capitalized terms and symbol used herein shall have the following meaning:

- **WARNING:** indicates a hazardous situation which, if not avoided, could result in death or serious injury.

- CAUTION: indicates a hazardous situation which, if not avoided, will result in minor or moderate injury.
- IMPORTANT: is used for information that requires special consideration.
- NOTE: is used to address practices not related to physical injury.



This symbol is used to call attention to safety messages that would be assigned the signal words "WARNING" or "CAUTION".

1.2 About R33 receivers

Allgon's remote control systems are suitable for a wide variety of applications for e.g. stationary or mobile equipments, hydraulic machines, construction, forestry or agriculture equipments and more. Allgon's transmitters and receivers are highly customizable and can be configured to suit the most wide-ranging application requirements & usage habits.

R33 receivers with duplex communication work in continuous mode.

There is **one** model.

	Base board
	12-24 V DC
R33-01	2 safe transistor outputs*

- Standard Optional¹ – Not available

*For more details, see " Technical data".

¹Must be purchased separately.

CHAPTER 2: SAFETY

2.1 Warnings & restrictions

Carefully read through the following safety instructions before proceeding with the installation, configuration, operation, or maintenance of the product. Failure to follow these warnings could result in death or serious injury.



Lire avec attention l'ensemble des instructions de sécurité suivantes avant d'installer, de configurer, d'utiliser ou d'entretenir le produit. Le non-respect de ces avertissements peut entraîner la mort ou des blessures graves.

This product must not be operated without having read and understood the Installation instructions, the specific technical documentation (for customized systems), and having received the appropriate training. The purchaser of this product has been instructed how to handle the system safely. The following information is intended for use as a complement to applicable local regulations and standards.

IMPORTANT! Allgon remote controls are often built into wider applications. These systems should be equipped with:

- a wired emergency stop where necessary
- a brake
- an audible or visual warning signal

2.1.1 INSTALLATION AND COMMISSIONING

IMPORTANT! Only licensed or qualified personnel should be permitted to install the product.



This radio system must not be used in areas where there is a risk of explosion.

Ce système radio ne doit pas être utilisé dans des zones présentant un risque d'explosion.

This equipment is not suitable for use in locations where children are likely to be present.



Cet appareil ne doit pas être utilisé dans des lieux où des enfants sont susceptibles d'être présents.

Always switch off all electrical power from the equipment before installation procedure. Coupez toujours toute l'alimentation électrique de l'équipement avant la procédure d'installation.

RISK OF ELECTRIC SHOCK

The receiver must only be opened by qualified installers or authorized personnel.

Make sure the power supply is switched off before opening the receiver. Failure to follow these instructions could result in death, serious injury, or equipment damage.



RISQUE DE CHOC ELECTRIQUE

Le récepteur ne doit être ouvert que par des installateurs qualifiés ou du personnel autorisé. S'assurer d'avoir coupé l'alimentation électrique avant d'ouvrir le récepteur. Le non-respect de ces instructions peut entraîner la mort, des blessures graves ou l'endommagement de l'équipement.

- The receiver must be securely attached and located where it will not be hit by e.g. any moving parts.
- Do not install the product in areas affected by strong vibrations.
- Cable glands and vent plugs must face downwards to prevent water ingress.
- Ensure that the power supply is connected to the correct terminals.
- Ensure that flexible cords and cables are not damaged through friction or stress.
- Do not use damaged cables.
- Ensure cables and connectors do not hang loose.



- Le récepteur doit être fixé de manière sécurisée et placé dans un endroit à l'abri des chocs contre, par exemple, des pièces mobiles.
- N'installez pas le produit dans des zones affectées par de fortes vibrations.
- Les presse-étoupes et les bouchons d'aération doivent être orientés vers le bas pour empêcher l'eau de pénétrer.
- Assurez-vous que l'alimentation est connectée aux bornes appropriées.
- Assurez-vous que les cordons et câbles flexibles ne sont pas endommagés par le frottement ou la contrainte.
- Ne pas utiliser de câbles endommagés.
- Assurez-vous que les câbles et les connecteurs ne pendent pas.

- The receiver is designed to withstand normal weather conditions but should be protected from extreme conditions.
- Mount the receiver in a location where the LEDs are easily visible and the button on the receiver accessible.
- Make sure to install available accessories inside or on the receiver before permanently installing the receiver. A permanent installation of the product must include fuse protection of the equipment and cables against short circuits.

2.1.2 OPERATION



Only qualified personnel should be permitted to access the transmitter and operate the equipment.

Seul le personnel qualifié doit accéder à l'émetteur et utiliser.



- Make sure that the user satisfies the age requirements in your country for operating the equipment.
- Make sure that the user is not under the influence of drugs, alcohol and medications.
- Make sure that the user knows and follows operating and maintenance instructions as well as all applicable safety procedures and requirements.
- Vérifier que l'utilisateur a atteint l'âge minimum fixé dans le pays pour utiliser l'équipement.
- Vérifier que l'utilisateur n'est pas sous l'emprise de drogues, d'alcool et de médicaments.
- Vérifier que l'utilisateur connaît et respecte les instructions d'utilisation et d'entretien ainsi que les procédures et conditions de sécurité applicables.

The user should:



- Always test the transmitter stop button before operating it. This test should be done on each shift.
- Never use a transmitter if the stop button is mechanically damaged. Contact your supervisor or representative for service immediately.
- Never leave the transmitter unattended.
- Always switch the transmitter off when not in use. Store in a safe place.
- Keep a clear view of the work area at all times.
- Toujours tester le bouton d'arrêt de l'émetteur avant de l'utiliser. Ce test doit être effectué par chaque équipe et sans charge.
- Ne jamais utiliser l'émetteur si le bouton d'arrêt présente des dommages mécaniques. Contacter immédiatement un superviseur ou représentant pour une réparation.
- Ne jamais laisser l'émetteur sans surveillance.
- Toujours éteindre l'émetteur lorsqu'il n'est pas utilisé. Stocker dans un endroit sécurisé.
- Toujours avoir une vue d'ensemble de la zone d'intervention.

2.1.3 MAINTENANCE

Before maintenance intervention on any remote controlled equipments:

- **always remove all electrical power from the equipment.**
- **always follow lockout procedures.**



Avant toute intervention d'entretien sur un équipement télécommandé :

- **Toujours couper l'alimentation électrique de l'équipement.**
- **Toujours suivre les procédures de verrouillage.**

- Keep the Safety information for future reference. Always download the Installation instructions from our website, www.tele-radio.com, for the latest available version.
- If error messages are shown, it is very important to find out what caused them. Contact your representative for assistance.
- The functionality of the stop button should be tested at least after every 200 hours' use .
- If the stop button is mechanically damaged, do not use the transmitter. Contact your supervisor or representative for service immediately.
- Keep contacts and antennas clean.
- Wipe off dust using a clean, slightly damp cloth.
- Never use cleaning solutions.
- Check the encapsulation, foil and cable for damages every day. If the encapsulation or foil is damaged, moisture can cause serious damage to the electronics.

CHAPTER 2: TECHNICAL DATA

2.2 Receiver specifications

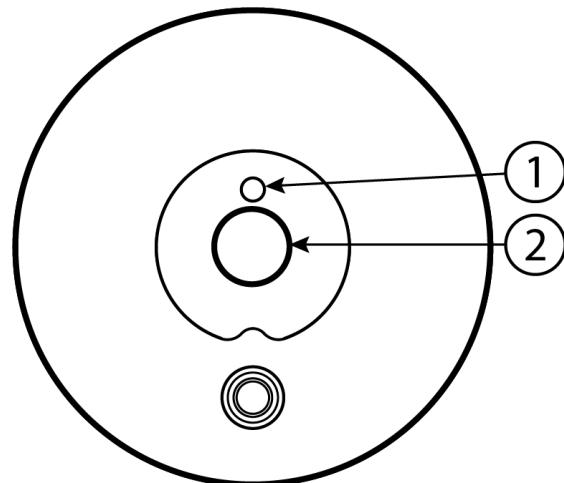
	R33-01
Nominal input voltage	12–24 V DC
Min/max operation voltage	7–45 V DC
Current consumption	150 mA (typical)
Number of Safe Transistor Port	2
Safe Transistor Port load capacity	500 mA
IP code	IP (TBD?)
Operating temperature	-20...+55 °C / -4...+131 °F
Storage temperature	-30...+80 °C (-22...+176 °F)
Safety levels	
Dimensions	~ Ø62 x 37 mm / ~ Ø2.44 x 1.46 in
Weight	90 g / 0.2 lbs (including 0.5 m / 1.6 ft cable)

Radio specifications	
Radio frequency band	2405–2480 MHz
Frequency management	Direct Sequence Spread Spectrum (DSSS)
Radio frequency output power	CE EIRP: <12 dBm (15.85 mW) FCC+IC Max EIRP: TBD
Number of channels	16 (channel 11–26)
Radio communication	Duplex

CHAPTER 3: PRODUCT GENERAL DESCRIPTION

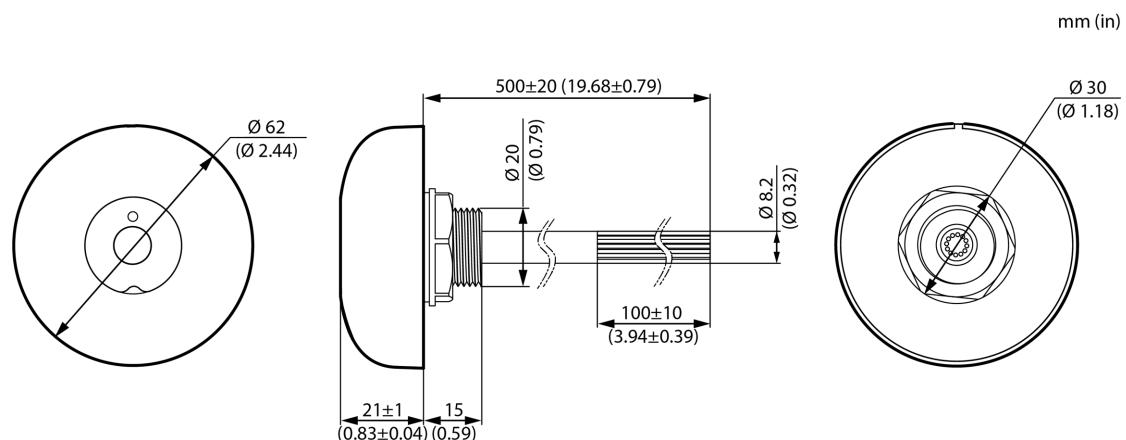
NOTE: The pictures shown in this chapter are for illustrative purposes only.
Depending on the configuration, the actual product appearance may differ from the basic model used for reference.

3.1 Receiver description



1. Indication LED
2. Registration button

3.2 Mechanical installation



3.2.1 INSTALLATION PRECAUTIONS



Before connecting the equipment, make sure that the power supply is switched off.

Avant de connecter l'équipement, assurez-vous que l'alimentation électrique est coupée.

IMPORTANT! Only authorized personnel should install the product.

Only correct installation complies with the safety levels for the product.

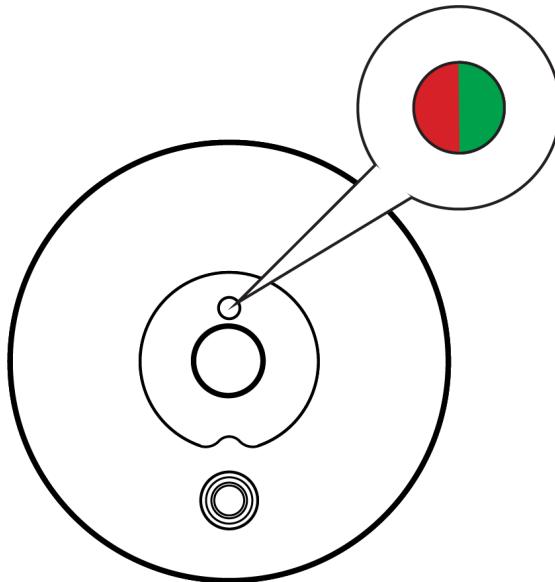
- Install the receiver in a location where the LED and button can easily be seen and accessed.
- The receiver must not be installed inside closed metal containers.
- Consider the wiring limitation and the radio communication limitation to choose the receiver location.
- Ensure no obstacle is impairing the radio communication performance between the receiver and the transmitter.
- Test the equipment before installing the receiver permanently.

3.2.2 CABLE CONNECTION



Pin (PCBA)	Cable color	Function
+	Violet	Power Supply 12-24 VDC
-	Black	GND/Common
A	Red	RS485 TX/RX (A) -
B	Blue	RS485 TX/RX (B) +
D1+	White	Digital input 1 (active high or low by conf.)
D1-	Brown	Digital input 2 (active high or low by conf.)
D2+	Yellow	Digital input 3 (active high or low by conf.)
D2-	Green	Digital input 4 (active high or low by conf.)
SR1+	Pink	Safety circuit 1 pos input (1 to 700 mA @24VDC)
SR1-	Grey	Safety circuit 1 pos output (1 to 700 mA) @24VDC)
SR2+	Red/Blue	Safety circuit 2 pos input (1 to 700 mA) @24VDC)
SR2-	Grey/Pink	Safety circuit 2 pos output (1 to 700 mA) @24VDC)

CHAPTER 4: STATUS AND ERROR INDICATIONS



Status and errors are indicated with the bi-color LED (indication LED).

4.1 LED indication in normal operation

Off	On	Flashing	Color	Description
○				The device has no registered transmitters.
		Periodic* single	Green	One or more transmitter are registered.
		Periodic* double	Green	One or more transmitters are registered and a transmitter is logged in. No active session.
	●		Green	The device has a radio link and session with a transmitter or has a IEEE 802.15 connection.
	●		Red	The device is not in normal operation (e.g., bootloader or forwarding mode, fatal error, etc.).

*Cycles every 1.5 seconds.

4.2 LED indication on button press

Off	On	Flashing	Color	Description
	●		Green	While the button is pressed.
		10 Hz	Green	Release button after 100 ms and before 4 seconds to enter registration mode. See "5.2 Register a transmitter in the receiver" for more information.
	● For ~300 ms		Red	Release button after 4 seconds to erase all transmitters. See "5.3 Erase all registered transmitters" for more information.

CHAPTER 5: OPERATION

5.1 General information

5.1.1 RECEIVERS WITH LOGIN/LOGOUT FUNCTION ACTIVATED

To control a receiver, the transmitter must be registered and logged in to the receiver. If another transmitter is already logged in to the receiver, it must be logged out before a different transmitter can be logged in.

If no transmitter is logged in to the receiver, the first registered transmitter to start controlling the receiver will automatically log in. Once a transmitter has been logged in, it will remain logged in until it is manually logged out.

More than one transmitter can be registered in the receiver, but only one transmitter can be logged in at a time.

5.2 Register a transmitter in the receiver

RISK OF UNINTENDED EQUIPMENT OPERATION

Only transmitters that are intended for use should be registered in the receiver.

Failure to follow these instructions could result in death, serious injury, or equipment damage.



RISQUE DE FONCTIONNEMENT INATTENDU DE L'ÉQUIPEMENT

Seuls les émetteurs destinés à être utilisés doivent être enregistrés dans le récepteur. Le non-respect de ces instructions peut entraîner la mort, des blessures graves ou l'endommagement de l'équipement.

RISK OF UNINTENDED EQUIPMENT OPERATION

Do not perform this action when the receiver is in a session with another transmitter. The radio communication may be interrupted or broken.

Failure to follow these instructions could result in death, serious injury, or equipment damage.



RISQUE DE FONCTIONNEMENT INATTENDU DE L'ÉQUIPEMENT

Ne pas effectuer cette opération lorsque le récepteur se trouve dans une session avec un autre émetteur. La communication radio peut être perturbée ou perdue.

Le non-respect de ces instructions peut entraîner la mort, des blessures graves ou l'endommagement de l'équipement.

NOTE: To establish a radio link between the transmitter and the receiver, both units must be set to the same radio mode and have the same radio protocol.

Transmitter:

1. Set the transmitter in registration mode. See the transmitter installation instructions.

Receiver:

1. Press and hold the button for more than 100 ms and less than 4 seconds. The LED will light solid green while the button is pressed.
2. Release the button to enter registration mode. The LED will flash green at 10 Hz while in registration mode.

If no transmitter is found within approximately 20 seconds, the receiver exits to normal operation.

5.3 Erase all registered transmitters

NOTE: The following instructions will erase all registered transmitters from the receiver.

NOTE: This can only be done when the receiver is not in an active session.

The following instructions will logout the currently logged in transmitter and erase all registered transmitters from the receiver.

1. Press and hold the button for more than 4 seconds.
The LED will light solid green while the button is pressed. After 4 seconds the LED will turn off.
2. Release the button to complete the process.
The LED will light solid red for ~300 ms to confirm the process is complete.

The receiver returns to normal operation.

5.4 Radio mode

To establish a radio link between the transmitter and the receiver, both units must be set to the same protocol and radio mode.

Duplex: The receiver is set to **continuous** radio mode by default.

5.5 Login/logout function

The login/logout functionality is used to ensure safe handover of the receiver to another transmitter. A transmitter must be logged in and have an active session with a receiver to control it. Once a transmitter has been logged in, no other transmitter can login until the current transmitter has been logged out. A transmitter will stay logged in between sessions with the receiver, even if the transmitter has been turned off by pressing the stop button.

NOTE: Only for **continuous** radio mode.

For this receiver, the login/logout function is activated by default.

NOTE: The login/logout function cannot be activated/deactivated in the receiver.

Contact your representative for assistance.

The login/logout functionality can't be deactivated for duplex receiver.

CHAPTER 6: WARRANTY, SERVICE, REPAIRS, AND MAINTENANCE

Allgon products are covered by a warranty against material, construction and manufacturing faults. During the warranty period, Allgon may replace the product or faulty parts. Work under warranty must be performed by Allgon or by an authorized service center specified by Allgon.

The following are **not** covered by the warranty:

- Faults resulting from normal wear and tear
- Parts of a consumable nature
- Products that have been subject to unauthorized modifications
- Faults resulting from incorrect installation and use
- Damp and water damage

Maintenance

- Repairs and maintenance must be performed by qualified personnel
- Only use spare parts from Allgon
- Contact your representative for service or any other assistance
- Keep contacts and antennas clean
- Wipe off dust using a slightly damp, clean cloth

NOTE: Never use cleaning solutions or high-pressure washer.

CHAPTER 7: REGULATORY INFORMATION

7.1 Europe

Applies to: **R33-01**

7.1.1 CE MARKING



Hereby, Allgon AB, declares that the product(s) listed above is/are in compliance with the Radio Equipment Directive 2014/53/EU.

The latest version of the complete EU Declaration of Conformity is available at the following website: www.tele-radio.com.

7.1.2 WEEE DIRECTIVE



This symbol means that inoperative electrical and electronic products must not be mixed with household waste. The European Union has implemented a collection and recycling system for which producers are responsible. For proper treatment, recovery and recycling, please take this product to a designated collection point.

Allgon strives to minimize the use of hazardous materials, promotes reuse and recycling, and reduces emissions to air, soil and water. When a commercially viable alternative is available, Allgon strives to restrict or eliminate substances and materials that pose an environmental, health or safety risk.

7.2 North America

Applies to: **R33-01**

7.2.1 FCC STATEMENT

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Responsible Party – U.S. Contact Information

Company: TELE RADIO AMERICA LLC

Address: 14895 NE 20th Ave, North Miami, FL 33181, United States

Telephone and email: +001 305-459-0763, america@teleradio.com

IMPORTANT! Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

7.2.2 IC STATEMENT

This product complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

- (1) This device may not cause interference; and
- (2) This device must accept any interference, including interference that may cause undesired operation of device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- 1) l'appareil ne doit pas produire de brouillage;
- 2) l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

7.2.3 FCC/IC LABELS

FCC ID: 2BC3H2512A

IC: 31388-2512A

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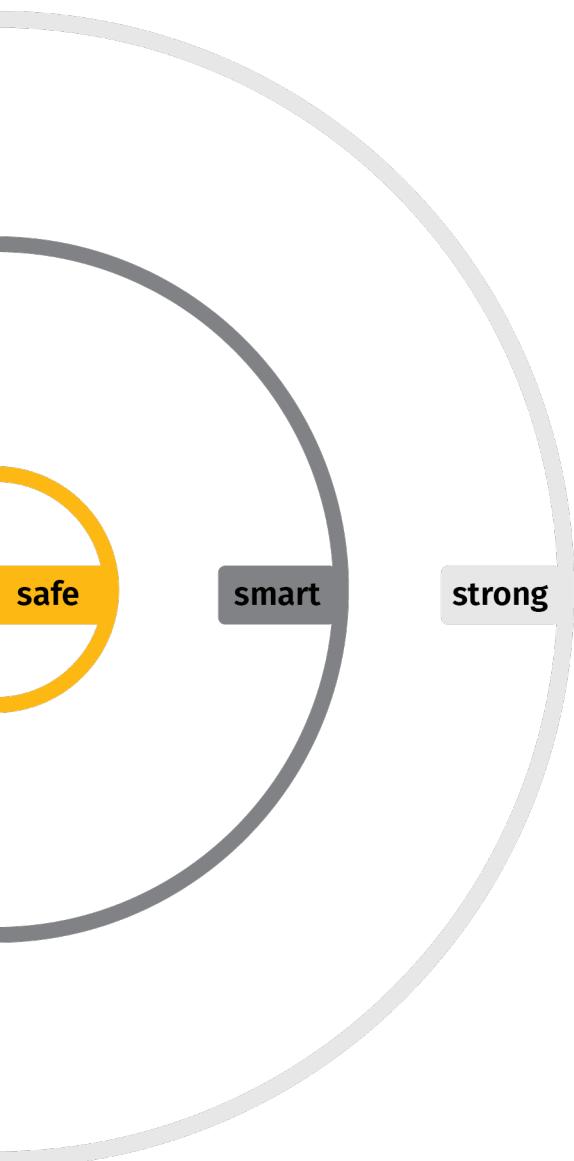
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These Installation instructions are subject to change without prior notice.

Download the latest instructions from www.tele-radio.com.