Emberstrip® 8AV+
With RF4CE Smart Sensor (model:RD-01) embertec ESUSAV8-ET-10D (DISH)



User manual

Quick connection guide

Setting up the Embertec Emberstrip 8AV+

- Plug AV equipment that can automatically be switched off into the Power Saving outlets on the strip (TV, Blu-ray, DVD, speakers, amplifier/stereo receiver).
- Identify equipment that requires constant power for cool down period, timers, program guides and recording features, and plug into the outlets marked Always On, or into another wall outlet (e.g. DVR, cable/hard drives/gaming etc.).
- Place the RF4CE Smart Sensor in a convenient location, close to your television is the best position and within normal operation of your existing remote control(s). The RF4CE Smart Sensor detects use of any of your remote controls to know when you are using your AV equipment.
- 4. Plug the Embertec Emberstrip® 8AV+ into the wall outlet. Power is now applied to the Power Saving outlets. The 1, 2 and M buttons on the RF4CE Smart Sensor will flash for up to 5 seconds. Once they stop flashing this indicates that the Embertec Emberstrip® has performed its initialization process and is ready.

NOTE: Other appliances such as lamps, chargers etc., may be plugged into the Always On outlets if needed, or the Power Saving outlets if only needed when your AV system is being used.



Quick operation guide

Turning ON your AV equipment

 To operate your Audio Visual (AV) components, press the volume button on any existing remote control. This will apply power to all components making them ready for use. Now use your existing remote(s) to operate your television or other Audio Visual (AV) components in the normal way.

NOTE: To reactivate your TV components, you may be required to press the power button again on the relevant remote control after power has been restored. You may hear a 'click', or notice that the TV standby light has switched on.

Turning OFF your AV equipment

• Simply turn your equipment off in the normal way. The Embertec Emberstrip® 8AV+ will then remove power from the Power Saving outlets after a delay of approximately 1 minute.

NOTE: The LED light on the RF4CE Smart Sensor will flash for about 60 seconds to warn you that power is about to be removed from the AV Power Saving outlets.

Active Powerdown®

 If your Embertec Emberstrip® 8AV+ has not detected use of a remote control for 1, 2 or 8 hours (depending on your settings), Active Powerdown® will shut down power. The LED light on the RF4CE Smart Sensor will flash for approximately 10 minutes to warn you.



A flashing light means the system is getting ready to shut down. TO CONTINUE USING YOUR EQUIPMENT



Press the volume button on your remote control.



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Your Embertec Emberstrip® 8AV+

- 1. Embertec Emberstrip® 8AV+
- RF4CE Smart Sensor (Model:RD-01)
- On/Off PowerSaving outlets indicator light
- 4. Power Saving outlets
- 5. Always On outlets
- 6. Overload protection Reset Button
- 7. Surge protection light





Using your Audio Visual equipment with the Embertec Emberstrip® 8AV+

Always On outlets

The Always On outlets are recommended for use with Audio Visual (AV) equipment that requires constant power for timers, program guide and recording features (e.g. DVR, PVR, VCR, cable box, digital TV receivers, game consoles, hard drives or bedside alarms). This also includes certain home theater projectors that require a cool down period, including rear projection televisions. This will ensure constant power is not interrupted to these devices.

Power Saving outlets – will be automatically switched off

The Power Saving outlets are recommended for Audio Visual (AV) equipment that can be automatically switched off (e.g. televisions without hard drives, amplifiers, stereos, speakers, sound bars, DVDs, CDs, Blu-ray players, lamps).

RF4CE Smart Sensor (Model:RD-01)

The RF4CE Smart Sensor activates the Power Saving outlets, monitors activity and is also used to set the Active Powerdown®. It comes with a 9.8 ft/3 m cable, LED light and two button control.

Status lights

The Protected light should be on. If this light turns off or is dim, you may have a ground-wiring problem in your home and you should contact an electrician to properly ground the outlet.

The Power Saving Outlets On light shows the state of the Power Saving outlets. When the light is on, the Power Saving outlets are powered; if the light is off, no power is applied to the Power Saving outlets.

Other features

- Overload protection circuit breaker reset button.
- 3 pins for use with standard North American wall outlets.

What you need toknow

Please read this instruction booklet before installing your Embertec Emberstrip® 8AV+

- The Embertec Emberstrip® 8AV+ is an electrical device. Normal safety precautions for use of an electrical device must be observed.
- Do not immerse the Embertec Emberstrip® 8AV+ in water.
- Needles, knives or any other metal or conductive item must not be inserted into any Embertec Emberstrip® 8AV+ outlets.
- This device does not convert voltage. It must only be used with appliances fitted with North American configuration electrical plugs (2-pin or 3-pin) and rated at 110 – 120 V AC.
- Ensure the Embertec Emberstrip® 8AV+ is securely plugged into the wall outlet to avoid it slipping out. Ensure cords plugged into the Embertec Emberstrip® 8AV+ remain tangle free.
- It is recommended to regularly inspect the Embertec Emberstrip® 8AV+ for damage. The Embertec Emberstrip® 8AV+ must not be used if it shows any signs of damage.
- This Embertec Emberstrip® 8AV+ is for indoor use only. Do not use outdoors. Do not use this Embertec Emberstrip® 8AV+ for anything other than its intended use. Misuse may cause injury or death.
- In normal use, this device intermittently emits a green flashing light.
 People who experience photosensitive epilepsy or other forms of photosensitivity should exercise caution when using the device.
- The outlet on the side of your Embertec Emberstrip® 8AV+ (called an RJ11 outlet) is for connection of your RF4CE Smart Sensor only. It is NOT for connection of a phone, LAN communication device or any other equipment.

We recommend connecting any home theater media center computers, or appliances containing a hard drive into the Always On outlets. We recommend connecting home theater projection equipment which require a cool down period to the Always On outlets. This will prevent damage to, and extend the life of your home theater projection lamps.

Embertec Emberstrip® 8AV+ has 2 power saving functions

- Standby Powerdown automatically detects and saves power wasted when equipment is left in standby mode, by switching the power off to the equipment.
- 2. Active Powerdown® automatically switches the power off to Audio Visual (AV) equipment connected to the Power Saving outlets after 1 hour, if it has not detected any remote control use.

NOTE: The Embertec Emberstrip® 8AV+ is programmable and has an Active Powerdown® default setting of 1 hour, which can be permanently setto 2 hours, or temporarily 8 hours (MusicMode TM).

When will Active Powerdown® switch the Audio Visual (AV) equipment off?

If your Embertec Emberstrip® 8AV+ detects that your Audio Visual (AV)
equipment is on but has not been used for a period of 1, 2 or 8 hours
(depending on your settings), the LED light on the RF4CE Smart
Sensor will flash for approximately 10 minutes to warn you that
power down is imminent.

To continue using your equipment

 Simply press the volume button on ANY of your existing remote controls or press any button on the RF4CE Smart Sensor. This will cancel the Active Powerdown® and reset the timer.



A flashing light means the system is getting ready to shut down. TO CONTINUE USING YOUR EOUIPMENT



Press the volume button on your remote control.

NOTE: A flashing LED always means that your system will shut down completely in a while. Press any remote control button to stop the light flashing and continue using your system.

RF4CE Smart Sensor setup

The following explains how to pair/un-pair an RF4CE Smart Sensor (Model:RD01) with your DISH remote:

- 1. Turn your TVoff.
- 2. Pair your DISH remote (in RF mode) with your set top box.
- Your DISH remote has built in RF4CE capability. To enable your infra-red (IR) capability, navigate to the IR section of your DISH set top box.
- 4. To ensure compatibility with your TV, select your TV model from your DISH configuration menu.
- 5. To "pair" the RF4CE Smart Sensor to your DISH remote, ensure that your set top box is powered on.
- Press and hold the Music Mode button on the RF4CE Smart Sensor (the "M" on top of the sensor) for 5 seconds, until the sensor's front LED light flashes once
- After 5-10 seconds the sensor's LED will start to pulse. This
 indicates that the RF4CE Smart Sensor is now ready to pair with
 your DISH remote control.
- Now press the "SAT" button on your DISH remote. This will activate RF mode.
- While the sensor's LED is flashing, press and hold any button on your DISH remote control (e.g. "search" or "menu") until the sensor's LED stops flashing.
- 10. Once the sensor's LED stops flashing, the pairing process is complete.

To supply power to your TV, simply use the volume or mute buttons on your DISH remote control. This will send power to your entire AV system. Then use your DISH remote control normally.

Changing settings for Active Powerdown®

Your Embertec Emberstrip® 8AV+ is equipped with a number of settings to suit your lifestyle. You can set your timer to either 1 or 2 hours, depending on usage habits. This means the RF4CE Smart Sensor will flash after the set period, warning of imminent power down. In every case you can continue using your equipment by pressing the volume button on any remote control.

The default setting is 1 hour, which is aimed to maximize your home's energy savings.

Follow these instructions to change Active Powerdown® to 2 hours, (this may be preferred for longer movies or programs where remote control activity is less frequent).

NOTE: Make sure your AV System is on before you start changing settings!

To set the Active Powerdown® timer, simply press the SET button on top of thesensor.

The 1 and 2 LED lights on top of the sensor will light up to show the current setting. Push the SET button to toggle between the 1 hour and 2 hour Active Powerdown® settings.

MusicMode[™] settings

Your Embertec Emberstrip® 8AV+ is equipped with a unique MusicMode[™] feature. This feature enables you to override the Active Powerdown® for a period of 8 hours. This feature is great for playing music, parties, video nights or any time you want to keep your appliances on for an extended period of time.

The Embertec Emberstrip® 8AV+ will revert to its previous setting of 1 or 2 hours after the 8 hour period elapses, or you switch your appliances off.

Remember

- 1. In this mode your system will stay on for 8 hours, unless you switch your appliances off.
- Your permanent Active Powerdown® timer setting will revert to 1 or 2 hours once you have switched your appliances off, or after 8 hours, whichever comes first.

NOTE: Make sure your AV System is on before you start changing settings!

Ensure your Audio Visual (AV) equipment is switched on.

To set the Active Powerdown timer to MusicModeTM (8 hours), simply press the MUSIC button on top of the sensor. The M LED will light up to show that MusicModeTM is currently selected.

BedroomMode™ settings

Your RF4CE Smart Sensor is equipped with a unique feature which enables you to reduce the brightness of the RF4CE Smart Sensor 'flash' and to reduce the length of flashing when your equipment is no longer being used.

Your device is shipped with the brightness level set to maximum, however you may wish to enable BedroomModeTM to reduce the brightness of the RF4CE Smart Sensor light in a bedroom. BedroomModeTM is not recommended for living rooms or brightly lit areas.

To set bedroom mode using the RF4CE Smart Sensor: Make sure that at least your TV is switched on before starting.

- Press and hold the SET button on the RF4CE Smart Sensor for 3 seconds then release. The LED light on the front of the sensor will flash, starting from a faint flash slowly progressing to a bright flash.
- When you are happy with the level of brightness, press the SET button on the RF4CE Smart Sensor again.
- You can change the brightness of the RF4CE Smart Sensor at any time by following the above steps.

NOTE: When BedroomMode[™] is selected, the RF4CE Smart Sensor will flash for 10 seconds once the television is turned off. Power will be cut to the power saving outlets after another 50 seconds. To adjust the RF4CE Smart Sensor to flash for one minute, press the MUSIC button instead of the SET button at step 2.

Fast facts

Specifications

- Surge protection is provided to all outlets. Conforms with UL 1449 and UL 1363.
- Senses total power being consumed by all controlled devices.
- Senses Infrared (IR), RF4CE (RF) and true Root Mean Squared (RMS) power to determine device usage of AV equipment.
- Hardware IR filtering technology and firmware to filter out rogue non AV equipment IR interference from compact fluorescent lights and sunlight.
- Automatically adjusts power switching threshold.

What power is wasted?

Many of today's appliances for the home and office continue to use power, even when the appliance is turned off. Appliances that are left on unintentionally waste even more power.

Overload protection

The Embertec Emberstrip® 8AV+ is fitted with a safety device that removes power in the event of overloading. Should this occur, turn off and unplug all units, and press the reset button. Then plug into the wall outlet again. Once reset, use any remote control to activate power to the Power Saving outlets. Connect one device at a time. If any of the devices cause the safety device to trip again then get the offending device serviced. If the Embertec Emberstrip® 8AV+ fails to operate, please contact Embertec on 1-800-838-9659.

Care and maintenance

To clean the outside of the Embertec Emberstrip® 8AV+ device, first remove the device from the power point. Then wipe the exterior with a soft dry cloth. Never use an abrasive cleaner or water.

Disposal/recycling

To protect the environment, the Embertec Emberstrip® 8AV+ should be recycled, or disposed of safely at the end of its life. Please return to a recycling center for safe recycling or disposal.

Electrical specifications

Physical		
Dimensions:	16.54 in L x 2.72 in W x 1.57 in D (420 mm L x 69 mm W x 40 mm D)	
Weight:	1.78 lb (810 g)	
Color:	Black body	
RF4CE Smart Sensor Cable Length:	9.8 ft (3 m)	
Power Cord Length:	4 ft (1.22 m)	
Number of Outlets: 8	Always On: 2 Power Saving: 6	
Environmental		
Temperature (operating):	32 °F to +158 °F (0 °C to +70 °C)	
Temperature (storage):	-4 °F to +185 °F (-20 °C to +85 °C)	
Humidity (operating):	95% RH at +122 °F (+50 °C)	
Protection and Safety		
Total Surge:	1,974 Joules / 45,000 Amps for all outlets	
Input Current:	15 Amps RMS via circuit breaker	
Over-Current Threshold:	15 Amps RMS	
Electrical Durability		
Relay Endurance:	Over 100,000 switching cycles	
Operating Voltage:	110 V AC +/- 10%	
Maximum Output Current:	15 Amps RMS	
Max Total Load:	1,800 W	
Maximum Power Consumption (In all modes of operation)	< 1 W @ 110 V / 60 Hz	
Comband		

Control

RF4CE Smart Sensor Infrared Interface.

Does not rely on the use of a single device in an AV environment to supply power to other devices.

Due to continual improvement in design or otherwise, the product you purchase may differ slightly from the products shown in this information sheet.

Specifications

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.

NOTE: 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 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.

WARNING: Any changes or modifications not expressly approved by Embertec Pty Ltd could void the user's authority to operate this equipment.

FCC warning

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum distance 20cm between the radiator & your body

IC warning

This device complies with Industry Canada license-exempt RSS standard(s). 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 the device.

Exposure to Radio Frequency Radiation:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

French:

Cet appareil radio est conforme au CNR d'Industrie Canada. L'utilisation de ce dispositif est autorisée seulement aux deux conditions suivantes : (1) il ne doit pas produire de brouillage, et (2) l'utilisateur du dispositif doit être prêt à accepter tout brouillage radioélectrique reçu, même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif.

Exposition au rayonnement radioélectrique:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

Troubleshooting guide

Problem	To check
The Embertec Emberstrip® 8AV+ is not receiving power.	The Protected light is on.
The Embertec Emberstrip® 8AV+ is not powering down my equipment in standby mode.	 Ensure the equipment is plugged into the Power Saving outlets, not into the Always On outlets. The Embertec Emberstrip® 8AV+ has not detected the equipment is in standby. Please repeat this process by switching on the Audio Visual (AV) component again, waiting 10 seconds, and switching off again making sure all appliances are in standby mode.
The RF4CE Smart Sensor is not operating.	Remove the Embertec Emberstrip® 8AV+ from the wall plug, then unplug the RF4CE Smart Sensor cable and then plug it back into the unitand plug the Embertec Emberstrip® 8AV+ back into the power point.
The RF4CE Smart Sensor flashes frequently during normal operation.	This may be an indication of unwanted infrared activity in the area. Please check the immediate area for infrared devices that maybe interfering with the Embertec Emberstrip® 8AV+, such as compact fluorescent lights, computers, mobile phones, and other portable consumer electronic devices. If possible relocate these interfering devices. Move the RF4CE Smart Sensor to another location that is within line of sight and normal operation range of your Audio Visual (AV) equipment remotecontrols.
The Protected LED on the main body of the Embertec Emberstrip® 8AV+ is on, but my RF4CE Smart Sensor LED does not work (when plugged in and powered on).	Please check your RF4CE Smart Sensor connection to the Embertec Emberstrip® 8AV+ by ensuring the RF4CE Smart Sensor cable is safely and securely connected to the side of the Embertec Emberstrip® 8AV+.
The Embertec Emberstrip® 8AV+ has stopped working.	Unplug all the appliances connected into the Embertec Emberstrip® 8AV+ adapter and then unplug from the wall outlets. Then reconnect everything again.
The TV keeps turning off after 1 hour.	 The RF4CE Smart Sensor default setting for Active Powerdown® is 60 minutes. Please see Changing settings for Active Powerdown® to change Active Powerdown® to 1 or 2 hours.

Limited warranties

Our Embertec Emberstrip® is designed and manufactured with precision and care, which is why we offer a Limited Product Warranty and a Limited \$25,000 Connected Equipment Warranty for each Embertec Emberstrip®.

LIMITED PRODUCT WARRANTY

What is covered?

Except as limited here, this product warranty covers any defect in material or workmanship with the Embertec Emberstrip®. If the initial purchase is by a utility or other entity that will not itself be using the device, this warranty is transferable to any customer of such entity who subsequently owns the device. Otherwise, this warranty is not transferable.

For how long?

This warranty runs for the lifetime of the Embertec Emberstrip®. The lifetime of the Embertec Emberstrip® is 15 years from the date of purchase.

What will we do if the device fails during the limited product warranty period and this warranty applies?

Subject to the limitations set forth in this warranty, we will elect (at our option) to either repair or replace the defective device. If we elect to replace the device and it has been discontinued, we will replace it with another device of equal or greater value. We will ship the repaired or replacement device to you, and pay for those shipping costs.

What does this limited product warranty not cover?

This warranty does not cover any damage to the Embertec Emberstrip® caused by improper use, accidents, acts of God (such as lightning strikes, floods or earthquakes), or normal wear and tear. For purposes of this warranty, "improper use" means not installing or operating the device in accordance with the manual. Any incidental, consequential, special or other indirect damages are not recoverable under this warranty. Some states do not allow the exclusion of incidental or consequential damages, so the foregoing limitation may not apply to you. You will be responsible for any shipping or other transportation costs incurred in connection with returning the defective product to us.

How do you request service under this limited product warranty?

To request service under this warranty for your Embertec Emberstrip®, (i) visit embertec.com for our address or a list of authorized service providers near you, and (ii) either pack the product carefully to prevent damage in transit and ship it, along with a brief description of the defect, to our address, or bring it into one of our authorized service providers.

This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

LIMITED \$25.000 CONNECTED EQUIPMENT WARRANTY

What is covered?

Except as limited here, this connected equipment warranty covers any equipment that is damaged by a transient voltage surge or spike (an "Occurrence") while properly connected to an Embertec Emberstrip® that is properly connected to an AC power line with a protective ground. If the initial purchase of the Embertec Emberstrip® is by a utility or other entity that will not itself be using the device, this warranty is transferable to any customer of such entity who subsequently owns the device. Otherwise, this warranty is not transferable.

For how long?

This warranty runs for the lifetime of the Embertec Emberstrip. The lifetime of the Embertec Emberstrip. is 15 years from the date of purchase.

What will we do if connected equipment is damaged during the limited connected equipment warranty period and this warranty applies?

Subject to the limitations set forth in this warranty, we will elect (at our option) to repair or replace any equipment damaged by an Occurrence, or to pay you an amount equal to the replacement value for such equipment, not to exceed the overall maximum set forth below. In connection with the foregoing, we reserve the right to examine the damaged equipment at the site where the damage occurred. If we elect to replace the equipment and it has been discontinued, we will replace it with similar equipment of equal or greater value, subject to the overall maximum set forth below. We will pay for all shipping costs incurred in connection with the delivery of any repaired or replacement equipment to you, subject to the overall maximum set forth below.

What does this limited connected equipment warranty not cover?

This limited connected equipment warranty does not cover:

- Any damage to connected equipment caused by improper use of the Embertec Emberstrip® or the connected equipment, accidents, acts of God (such as lightning strikes, floods or earthquakes), or normal wear and tear of the Embertec Emberstrip® or the connected equipment. For purposes of this warranty, "improper use" means not installing or operating the Embertec Emberstrip® in accordance with the manual, or not installing or operating the connected equipment in accordance with its manual.
- Any damage to equipment that is not properly connected to an Embertec Emberstrip®, or damage to equipment connected to an Embertec Emberstrip® that is not properly connected to an AC power line with a protective ground.
- Any damage to equipment connected to an Embertec Emberstrip® that had previously
 experienced another Occurrence. After each Occurrence, the Embertec Emberstrip®
 must be replaced.
- Any damaged equipment that has been disposed before we have examined the
 equipment at the site where the damage occurred (or notified you that we would not be
 visiting the site), and elected whether to repair or replace it or pay for its replacement
 value, all in accordance with the terms set forth above.
- · Any damage to satellite dishes.

THE MAXIMUM CUMULATIVE AMOUNT WE WILL PAYFOR ALL REPAIRS, REPLACEMENT AND SHIPPING COSTS FOR ANY AND ALL DAMAGED EQUIPMENT QUALIFYING UNDER THIS WARRANTY SHALL NOT EXCEED TWENTY FIVE THOUSAND DOLLARS (\$25,000).

Any incidental, consequential, special or other indirect damages are not recoverable under this warranty. Some states do not allow the exclusion of incidental or consequential damages, so the foregoing limitation may not apply to you.

If the connected equipment is covered by an applicable homeowner's or renter's insurance policy, we reserve the right to be subrogated under such policy. In addition, this warranty shall not apply to any damaged equipment covered under the manufacturer's warranty.

How do you file a claim under this limited connected equipment warranty?

To file a claim for connected equipment qualifying under this warranty, visit embertec.com or call 1-800-838-9659 and provide a full description of the damage.

This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

Important

Please retain your instruction book for future use.

In the event that you need assistance, please contact us on 1-800-838-9659 or email us at customerservice@embertec.com or, alternatively visit us on our website at embertec.com

Except as required by law, Embertec is not responsible for special, incidental, or consequential damages, or loss of data; or any loss or damage arising from intentional misuse of the product. Such damages and loss include, but are not limited to: lost business; business downtime; component/equipmentreplacementand reconfiguration; and the costs of retrieval of lost data.

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Due to continual improvement in design or otherwise, the product you purchase may differ slightly from the illustration in this book.

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