



Digital Satellite Meter



EZ-SAT

**Instruction Manual
(English)**

Contents

Overview / Specifications	2
Your EZ-SAT / Accessories / Optional Accessories	3
Making Connections	4
Language Selection / Finding Satellites	5
Improving Your Signal	6
Software Updates	7
Downloads	9
User Notes	10
Warranty / Conformity / Contacts	Rear Cover

Overview

Thank you for your purchase of the EZ-SAT, should you require further assistance with its use it is suggested that you initially contact your supplier with enquiries.

The latest development in satellite identification technology has been packed into the EZ-SAT satellite meter.

- The clear and easy to read display ensures an excellent dish alignment.
- Satellite selections are available for download from the manufacturer's web site www.ez-sat.tv
- Your meter is ready to use out of the box (using the LNB power from your receiver).
- The EZ-SAT optional battery accessories will give you more flexibility during your installations.

The EZ-SAT is a satellite finding device. It is not designed to be permanently left in line between your LNB and set top box. Once the installation is complete remove your EZ-SAT and re-connect the LNB to the receiver.

Specifications

- Easy to use one button operation
- Small and light weight
- Receiver powered (battery optional)
- Positive satellite identification
- Clear backlit 128 x 64 pixel LCD display
- USB interface (automatic driver install)
- Downloadable updates
- 1 metre F-F connecting lead supplied
- USB cable included
- Frequency range 950 to 2150 MHz

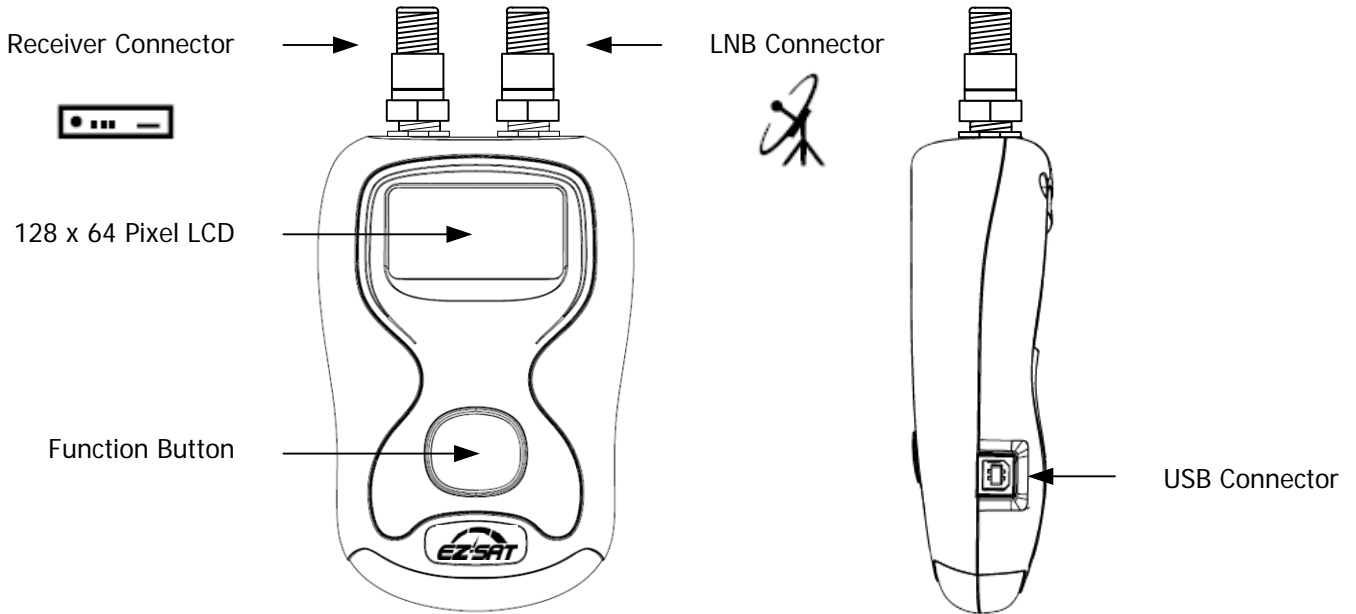


Note: The EZ-SAT is primarily designed for use with receiver power. When using batteries remember to disconnect the battery pack after use to maximize battery life.



Note: The use of non recommended batteries and/or the use of the meter without port savers fitted will invalidate your warranty! Recommended batteries are AA (LR6 or equivalent).

Your EZ-SAT



Accessories

Everything you need is supplied with your EZ-SAT including a USB cable for updates, an F to F lead for connecting to your LNB, port savers (already fitted) and a carry case.



USB Lead



F - F Lead



Port Savers (Fitted)



Carry Case

Optional Accessories



Battery connector
(for use with EZ-SAT only)



Battery Holder
(shown with connector fitted)



Note: For battery power operation 10x AA batteries are required.

The EZ-SAT is primarily designed for use with power being supplied by your satellite receiver. The battery holder and connector accessories supplied with your EZ-SAT will enable you to use battery power where required.

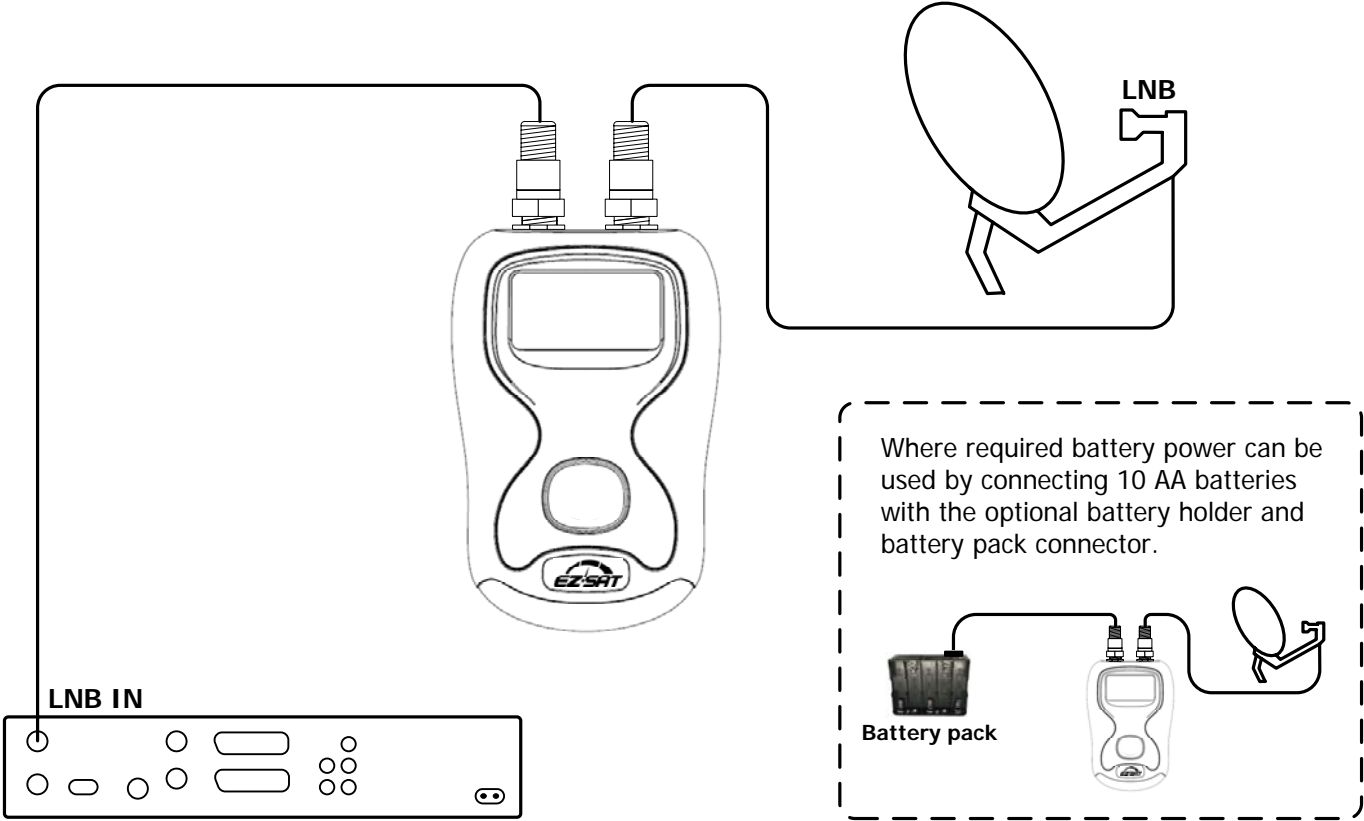
Note: An optional carry case with a battery pocket is also available.

Note: When not in use disconnect your battery pack from the EZ-SAT to maximise the battery life. *Alkaline batteries are recommended.*

Connections

Your EZ-SAT is ready to use straight out of the box. How to connect your meter is illustrated below.

Note: Always make all of your connections prior to switching your EZ-SAT on.

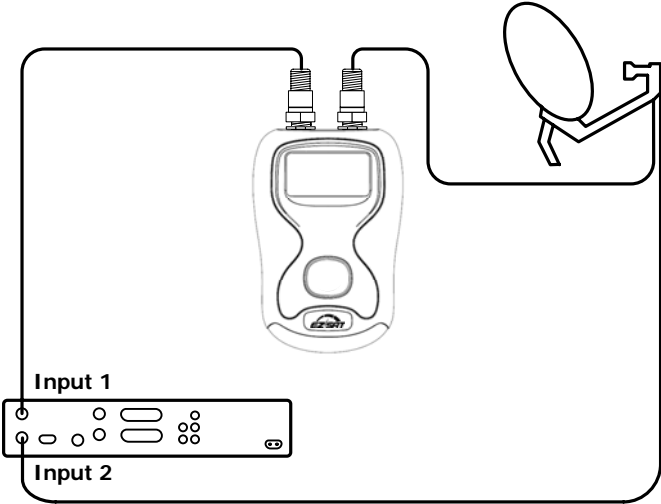


For the easiest method of connection disconnect the cable from the LNB on your dish and connect this to the Set Top Box (receiver symbol) connector on your EZ-SAT. Then use the short F cable supplied with your EZ-SAT to connect your LNB (dish symbol) connector to the LNB as shown above.

After your connections have been completed ensure that your set top box is switched on with any channel selected. **Tip:** Ensure that the F connectors are hand tight and not loose (good connections are essential).

Tip: Other types of LNB such as Quad or Dual should be connected in the fashion illustrated below.

Note: Multi LNB assemblies used by DirecTv and DishNetwork are not supported.



Language Selection

You can set the default language on your EZ-SAT by tapping the function button during the time that the EZ-SAT logo is present on the start-up screen. In the lower right hand corner of the display you will notice the language symbols change. **En** = English, **Fr** = French, **Es** = Spanish and **Po** = Portuguese. Once you have selected your language it will remain in memory (but you can change this at any time during start-up).



The screen shot on the left shows that English has been selected as the default language as indicated the lower right of the display.

Finding Satellites

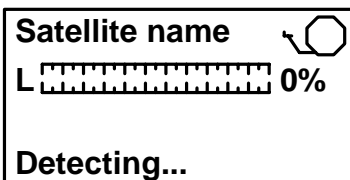
Now that you have connected your EZ-SAT you are ready to find some satellites. Your EZ-SAT will be pre-loaded with a selection of satellites, or you can download an alternative selection of satellites from the manufacturer's web site.

Before you start to set up your satellite dish ensure you have a good line of sight to the satellite required. Nearby objects such as trees, overhanging branches and buildings can block the signal path.

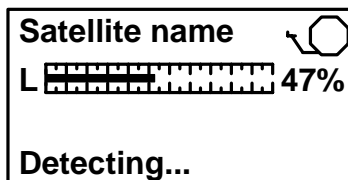
Switch on your EZ-SAT by pressing the function button. After the start-up has completed you will be presented with the satellite finding mode. Press the function button until your desired satellite is shown on the top line of the display.

Satellite finding is best done with the following technique. Ensure that your satellite dish is mounted on its fixings so that the bolts are biting just enough to allow you to move the dish and it will hold its position in both Elevation (up and down) and Azimuth (side to side). Also the LNB clamp should be tight enough to hold the LNB in place when you are adjusting the skew (clockwise and counter-clockwise rotation of the LNB). Some LNB's have a fixed position and would require no skew adjustment (typically circular type).

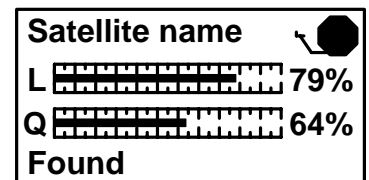
Point your dish slightly downwards from what you would estimate the satellite elevation to be and slowly move your dish from east to west across the horizon in a slow smooth motion keeping an eye on your meter display. On reaching the end of each sweep tilt the dish back a little (raising the elevation) and sweep back again in the same slow smooth manner. You will notice that the signal level display will rise and fall as you pass different satellites.



On powering up your EZ-SAT you may not have any signal shown at all.



As you pass different satellites you will see the Level bar rise and fall.

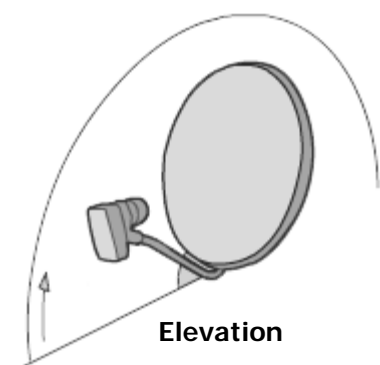
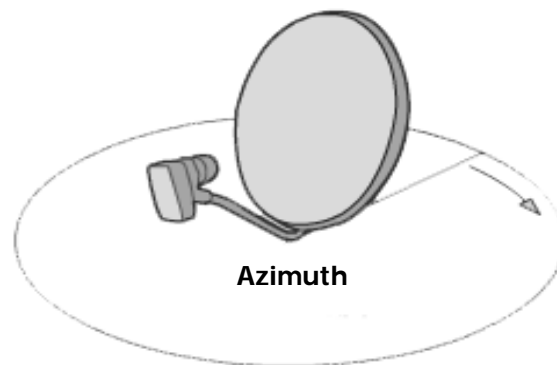


Only when you have found your selected satellite will both Level and Quality bars be present along with the audible clicker.

You can now make fine adjustments to your satellite dish to further improve your signal; more detail on how to improve your satellite signal can be found on the next page. The aim is to get the Signal and Quality bars as high as they will go.

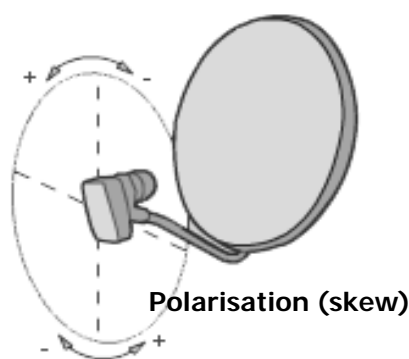
Improving Your Signal

Now that you have acquired your satellite follow these steps to further improve your signal. While the display is showing "Found" move the dish very slowly off the target satellite in either a left or right direction (Azimuth adjustment) until the signal level just starts to drop away and make a mental note of the position of your dish, now move the dish back in the opposite direction watch where the signal level peaks and continue until the level just starts to drop off again. Now move your dish back to the centre of these two points (the Azimuth is now optimised). Tighten the clamp bolts to lock the Azimuth position.



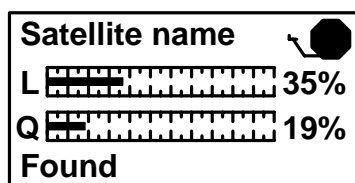
We can apply the same procedure to the up and down motion (Elevation adjustment), again we are looking to see where the signal just starts to fall away. While moving up in Elevation make a mental note of that position and then adjust the elevation down until the signal level just starts to drop off again. Then return your elevation position to the centre of these two points (the Elevation is now optimised). Tighten the Elevation bolts.

The final step for making fine adjustments to optimise your signal is the polarisation of the LNB (adjusting the skew). Depending on the style of dish you own this can take two different forms. One adjusting the skew of the whole dish (via a mounting plate on the rear of the dish) or two rotating the LNB clockwise or counter-clockwise in the LNB clamp. For the United States it is common to have the former (whole dish is rotated) where as in Europe and the rest of the world it is typically the latter (rotating the LNB in its clamp). Some LNB's are fixed by their fittings. These are typically circular polarized.



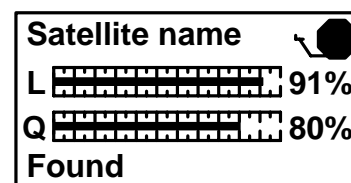
We can apply a similar procedure for the skew adjustment, again we are looking to see where the signal just starts to fall away while rotating the LNB (or dish assembly) make a mental note of that position and then adjust the skew in the opposite direction until the signal level just starts to drop off again. Then return your skew position to the centre of these two points (the polarisation is now optimised). Tighten the LNB clamp.

Following the procedures above will greatly improve the performance of your dish, and over time your familiarity with installing your own dish will enable you to complete this procedure quickly.



Before fine adjustments

While you are adjusting your dish keep an eye on the Level and Quality indicators, as small adjustments can make a big difference. Even tightening up your bolts will move your dish a little. Tighten opposite bolts to ensure even pressure and a firm fixing.



After fine adjustments

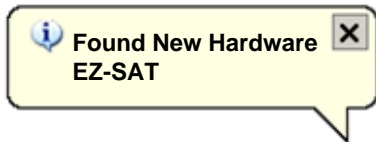
Remember

The EZ-SAT is a satellite finding device. It is not designed to be permanently left in line between your LNB and set top box. Once the installation is complete remove your EZ-SAT and re-connect the LNB to the receiver.

Software Updates

From time to time it may be necessary to update the satellite selections on your EZ-SAT satellite meter or you may wish to download an alternative satellite pack by registering your EZ-SAT satellite meter on the manufacturer's web site. Before proceeding to download new or updated settings please ensure that the USB drivers are correctly installed. This is usually an automatic process (as described below) but the drivers can also be manually downloaded and installed if required. For the automatic driver installation to take place your PC must be connected to the internet.

Connect your EZ-SAT to your PC with the USB interface lead supplied. The **"Found New Hardware"** balloon will pop-up in the lower left of your windows task bar.



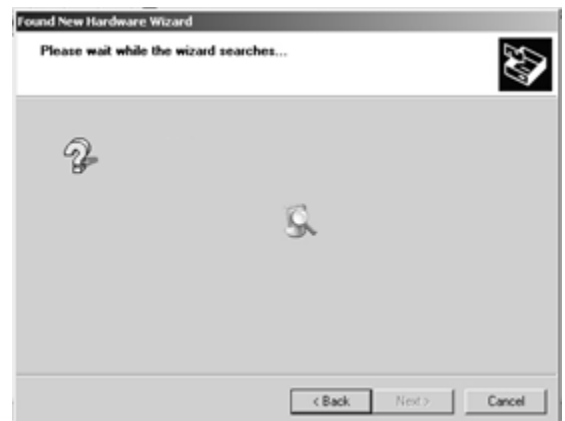
In the Found New Hardware Wizard select **"Yes, this time only"** and click on the **"Next >"** button.



Next select **"Install the software automatically"** and click on the **"Next >"** button.



While your PC is searching for and downloading the required drivers the installation wizard window will look like this. This operation may take a few seconds to complete.



Continued...

The first stage of the driver installation is now complete. Click **“Finish”** to continue the installation.



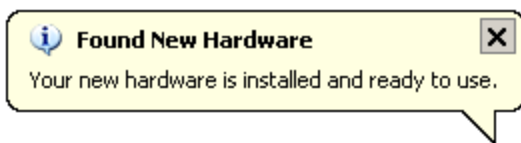
The Found New Hardware Wizard will appear again to install the second driver required.



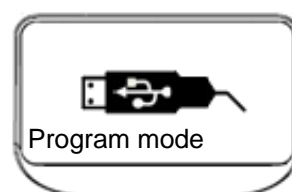
Select **“Install the software automatically”** option and click on the **“Next >”** button.



Your PC will then search for the driver required. Once this stage of the installation is complete click on **“Finish”** and a notice balloon will appear to inform you that your driver installation is complete.

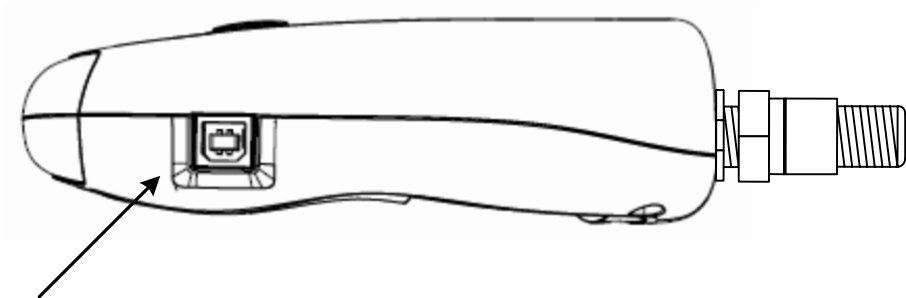


Check to see that your EZ-SAT is now in program mode as illustrated on the right and you are then ready to update your EZ-SAT with your new satellite selections downloaded from the manufacturer's web site.



Downloads

To update or load your selected satellite file to your EZ-SAT meter connect your meter via USB to your PC.

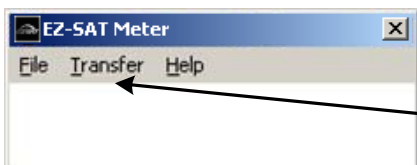
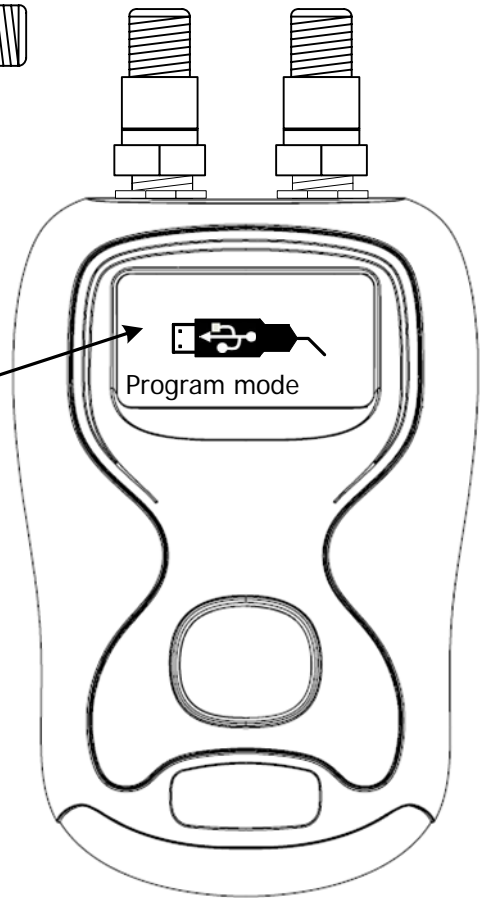


The USB port is located on the lower right side of the casing.

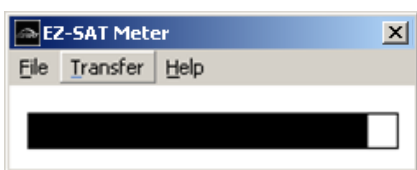
Note: When downloading new settings please disconnect from your set top box; only USB connection is required.

On connecting the EZ-SAT to your PC the LCD will flash a few times and settle into program mode after a few seconds (as shown in the diagram on the right).

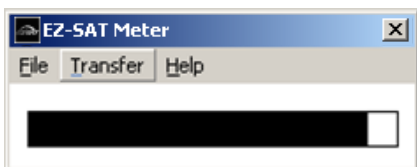
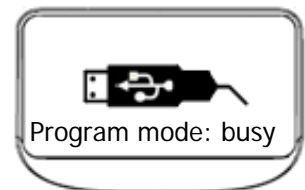
Double click the target style icon to open the loading program and follow the steps below.



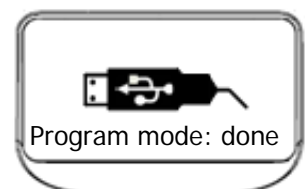
Click "**T**ransfer"



While the data transfer is taking place the LCD text will indicate that the EZ-SAT is "**busy**" receiving data.



On completion the LCD text will indicate "**done**"



Click "**O**K" and disconnect the EZ-SAT from your PC. Your meter is now ready for use with the selection you downloaded.

User Notes

User Notes

LIMITED WARRANTY

Perfect-Vision will, at our option, repair or replace any EZ-SAT satellite meter found to be defective in manufacture within the warranty period of one year.

The warranty period is determined by the date of purchase. Keep your receipt as proof of purchase. Otherwise the warranty would be determined by the date of manufacture.

This warranty does not apply to damage caused by accident, misuse, or tampering with the unit or seals. This does not affect your statutory rights.

DECLARATION OF CONFORMITY

Manufacturer: Horizon Global Electronics Ltd.

Declares that the Perfect-Vision EZ-SAT complies with the following directives and standards.

Safety: EN61010-1:2001 EMC: EN61326:1997

All Horizon Global Electronics products are ROHS compliant.

Technical Department
Horizon Global Electronics Ltd.
August 2011

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