



Connecting External Antennas

The rear panel provides nine coaxial antenna connectors. Each connector accommodates a single external antenna. Figure 2 shows the external antenna connections to the scanner.

 *The U519 can be used with fewer than nine antennas. Install antennas sequentially, starting with the left-most connector.*

Placing the Antenna

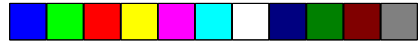
Antenna placement is critical to ensure information is written to and read from tags accurately. Observe the following guidelines when placing the antenna:

Locate the antenna away from metal objects, microwave ovens, and other devices that may induce radio frequency interference. In addition, make sure there are no metallic surfaces between, or in relative proximity to, the scanner and tag. For additional placement considerations, refer to "RF Communications" on page 23.

When reading, the antenna should be placed no more than 84 inches from the objects bearing tags. When writing, the antenna should be no more than 24 inches from objects bearing the tag. *Caution: to meet FCC RF Exposure compliance, operator(s) should not be closer than 9 inches to a transmitting antenna. See RF Exposure precautions on page 41.*

The front of the antenna must be free of obstructions. Otherwise, information may not be written to and read from tags accurately.

 *Antennas must be labelled indicating minimum separation distance per FCC RF Exposure requirements (page 41). If the information on the label is not clearly visible, a sign with the same information must be posted within 36" of the antenna. (see last page of this manual)*



Radio Frequency (RF) exposure

In order for this device to comply with FCC-adopted RF exposure limits, precautions must be taken. To meet the requirements of the FCC's Maximum Permissible Exposure (MPE) guidelines, persons should not be closer than 9 inches (23cm) to a transmitting antenna.

For installations where an operator must handle a tag or diagnostic tool closer than 9 inches to the transmitting antenna, the operator should ensure that the RF antenna is not transmitting prior to positioning the tag or tool. Once the operator has positioned the tag or diagnostic tool, and moved away a minimum of 9 inches from the antenna, the antenna can be re-activated. For all installations labels must be placed on individual antennas, or signs must be displayed, indicating "CAUTION: A minimum separation distance of 9 inches must be maintained between an antenna and persons for meeting FCC RF Exposure compliance. See Users manual for details on operation requirements."

For more information on RF Exposure, where incidental exposure may exceed the above guideline, please refer to the FCC Office of Engineering and Technology Bulletin 65, Supplement C, Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields, available online at:

<http://www.fcc.gov/oet/info/documents/bulletins/>

Disclaimer

Operation of any radio transmitting equipment, including the Scanner, may interfere with the functionality of inadequately protected medical devices. Consult a physician or the manufacturer of the medical device if you have any questions. Other electronic equipment may also be subject to interference.

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RF Exposure "Caution" Label

Purpose:

To meet FCC requirements with regard to RF Exposure, for applications where an individual antenna is used in conjunction with an SCS U519 InstaScan® scanner, the antenna must have affixed to it, a label indicating the minimum separation distance required to meet FCC RF Exposure compliance. See sample label below.

Specifications

Size: 1" x 3"
Stock: White, adhesive-backed

Sample Label:

CAUTION: A minimum separation distance of 9 inches must be maintained between an antenna and persons to meet FCC RF Exposure compliance. See Users Manual for details on operation requirements.

Placement:

Label will be placed on antenna radome surface such that it is clearly visible/legible at a distance of no less than 9 inches from the transmitting antenna, to the operator or any persons who may enter the vicinity of the antenna.

Exception:

If this is not feasible to affix a label to the antenna radome such that it is visible/legible due to the restraints of a particular application, a "Caution" sign must be posted within 36 inches of the antenna, such that the verbiage on the sign is clearly visible/legible at a distance no closer than 9 inches from the transmitting antenna, to any person who may enter the vicinity of the antenna. See *RF Exposure "Caution" Sign Specifications*.

RF Exposure "Caution" Sign

Purpose:

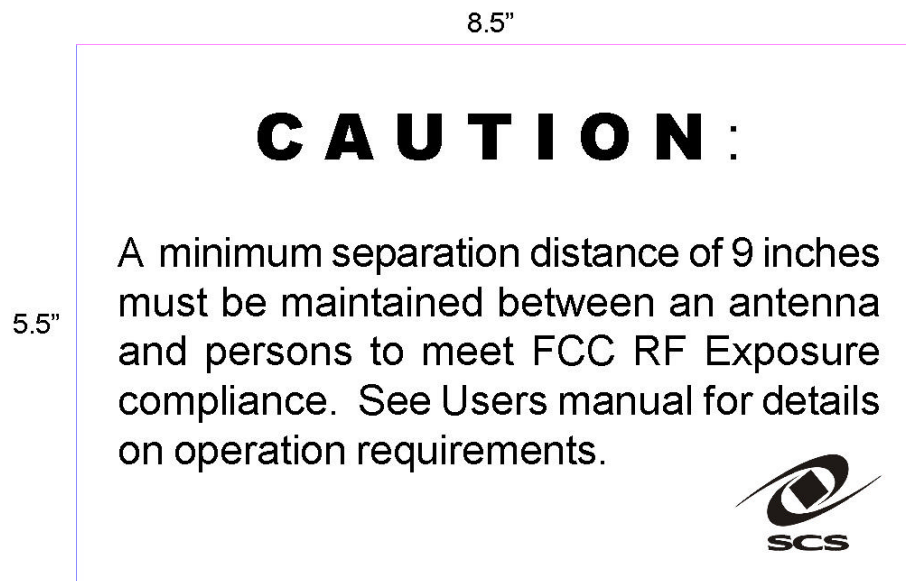
To meet FCC requirements with regard to RF Exposure, for applications where a group of RF antennas is used in conjunction with an SCS U519 InstaScan® scanner, a sign must be posted indicating the minimum separation distance required to meet FCC RF Exposure compliance. See sample sign below.

Specifications

Size: 5.5" x 8.5"

Stock: White, 90lb card stock, printed and inserted into Users Manual as back cover with perforation, to be torn out and posted as necessary

Sample Sign:



Placement:

In applications that require a group of antennas, a "Caution" sign must be posted within 36 inches of the antennas, such that the verbiage on the sign is clearly legible at a distance no closer than 9 inches from the transmitting antenna, to any person who may enter the vicinity of the antenna.