Technical Bulletin

Date: 5/21/04
To: KVH TracVision Customers
From: KVH Technical Service Group
Bulletin Ref #: 04_T_MAR_LND_2

Subject: DIRECTV® Launches New Satellite, Configuration Change Required for Some TracVision® Antennas

Products Affected

Products	Serial Numbers
Marine:	
TracVision 4, G4	Lower than 04050065
TracVision 6, G6	Lower than 04050031
TracVision G8	Lower than 04060001
TracVision C3	Lower than 04050722
Land Mobile:	
TracVision L3, S3	Lower than 04050722

You can find the antenna's serial number on the first page of your Owner's Manual or on the antenna baseplate.

Problem Description

DIRECTV has launched a new satellite at 72° West that will significantly expand local TV coverage throughout the United States. This new satellite is scheduled to become active in mid-June 2004. Unfortunately, this new DIRECTV satellite's position and identification signature may cause DVB-compatible TracVision systems to experience difficulties locking onto the correct DIRECTV satellite at 101° West.

Problem Solution

Based on KVH's close consultations with DIRECTV, it has been determined that a minor configuration change must be made to DVB-compatible TracVision systems to prevent any disruption in DIRECTV service. KVH is implementing this change now in all new products. Systems already in the field, however, need to be updated. **You can update your system at any time…you do not need to wait until the satellite becomes active.**

This configuration change is **NOT** required for DISH Network or ExpressVu customers.

KVH Industries, Inc.
50 Enterprise Center
Middletown, RI 02842
U.S.A.
Tel: 401.847.3327
Fax: 401.849.0045
www.kvh.com

To update your TracVision system for the new DIRECTV satellite configuration, you will need to enter several commands using a PC (running any version of Windows) connected to the antenna system's maintenance port.

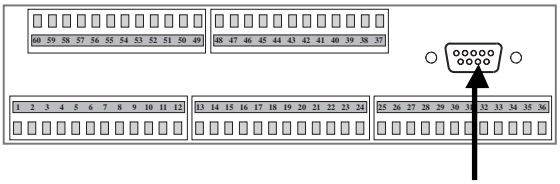
Note: Because this change is the result of a change by DIRECTV, it is not covered under KVH's standard warranty. If you require dealer assistance to update your system, the dealer may charge a nominal fee.

Connecting Your PC to the Antenna System's Maintenance Port

Your PC must have Windows HyperTerminal (or other terminal emulation software, such as PROCOMM) installed. To connect the PC to the maintenance port, you will need a DB9 male-to-female serial data cable, such as Radio Shack P/N 26-117. If your PC doesn't have a DB9 port, you can use a USB-to-DB9 adapter, such as Belkin P/N F5U109 (you will need to install the adapter before proceeding).

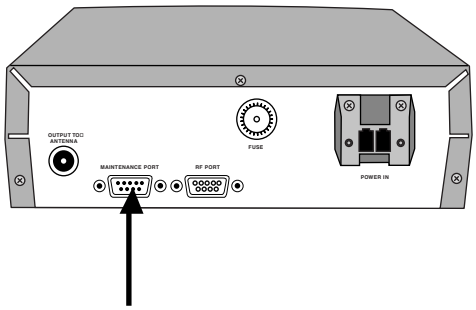
1. Connect one end of a serial data cable to the DB9 maintenance port on the TracVision control unit or switchplate. The illustrations below show the maintenance port locations for each type of TracVision system.

TracVision G4/G6 ADCU



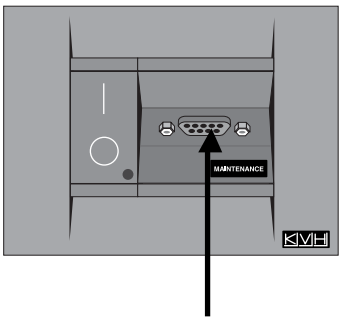
Maintenance Port

TracVision G8 MCU



Maintenance Port

TracVision 4/6/C3/L3/S3 Switchplate



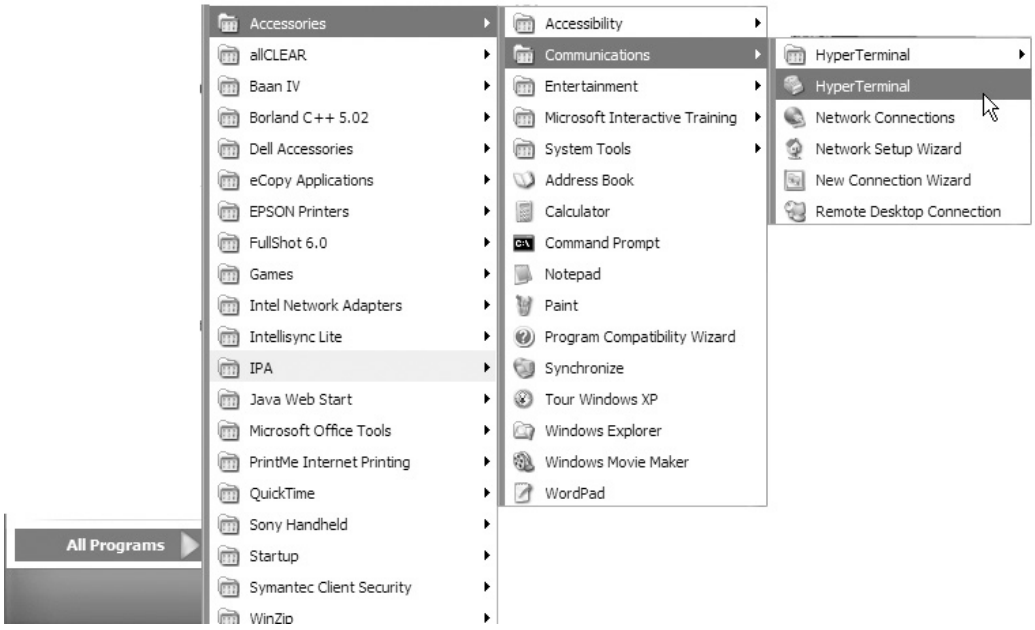
Maintenance Port

2. Connect the other end of the PC data cable to the appropriate port on your PC.

Setting Up HyperTerminal

The following instructions explain how to set up HyperTerminal for entering antenna commands. While the illustrations show screens from a Windows XP computer, the instructions are nearly identical for older versions of Windows.

1. Open HyperTerminal (or equivalent) on your PC. From the Start menu, select (All) Programs-->Accessories-->Communications-->HyperTerminal.

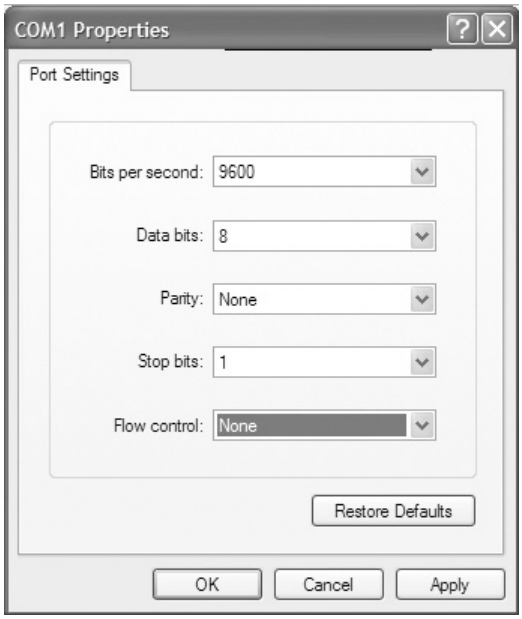


2. In the “Name” text box, type **TracVision**. Then click the **OK** button.

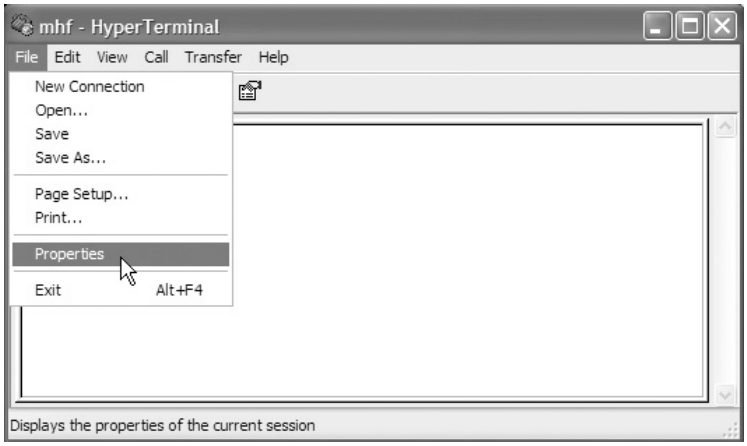
3. From the “Connect using” drop-down menu, select the COM port on your PC that you connected to the maintenance port. Then click the **OK** button.

4. Select the following settings:
   - Bits per second: 9600
   - Data bits: 8
   - Parity: None
   - Stop bits: 1
   - Flow control: None

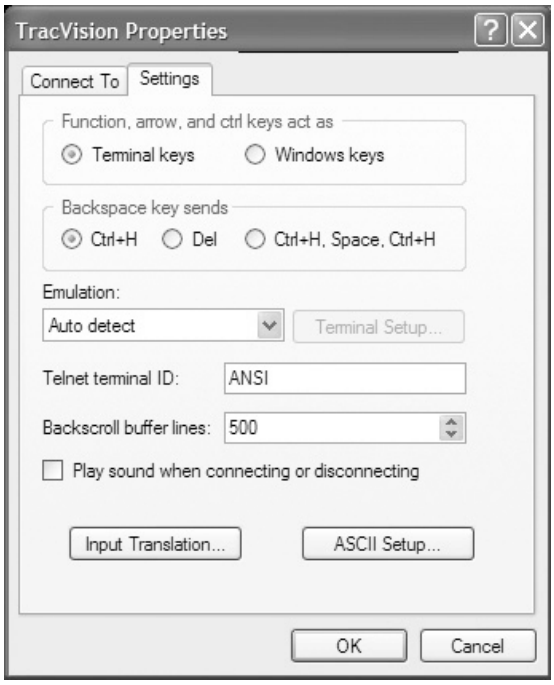
   Then click the **OK** button.



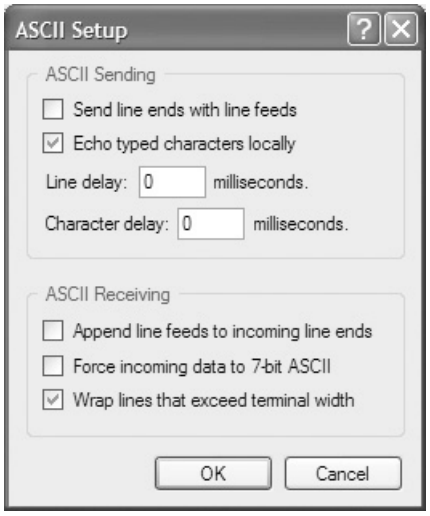
5. From the File menu, select “Properties.”



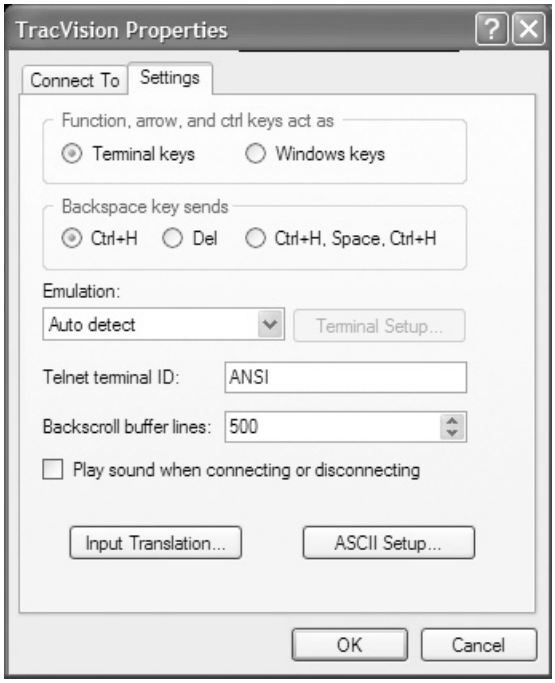
6. At the Settings tab, click the **ASCII Setup** button.



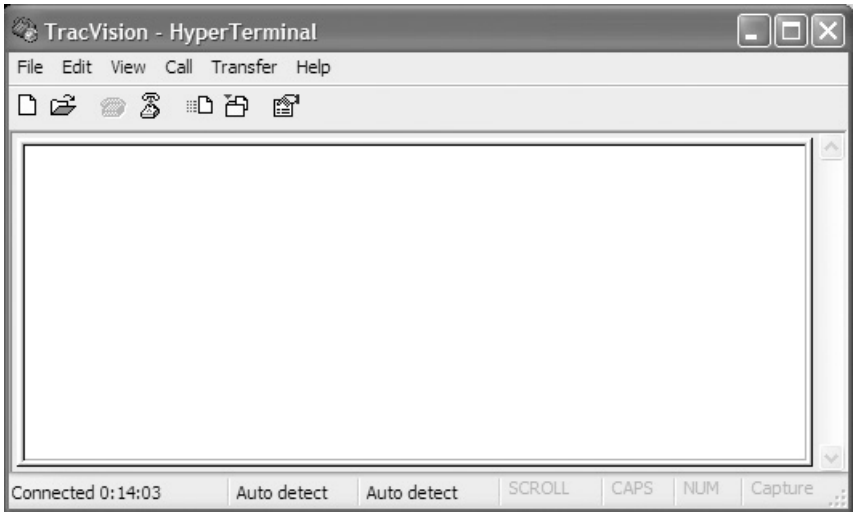
7. Select “Echo typed characters locally” *(a checkmark should appear in the box)*. Then click the **OK** button.



8. At the Settings tab, click the **OK** button.



9. You can now enter antenna commands in the HyperTerminal window.



Making the Configuration Change

1. Apply power to the TracVision system and allow the system to complete full initialization. Data should be scrolling on the PC's HyperTerminal window. Wait until you see "Limit Switch Status: PASS" *(this should appear in the window approximately 15 seconds after startup)*, then proceed to step 2. If you don't see any data, recheck your connections and the HyperTerminal's setup for the correct COM port.

2. Using Hyperterminal (or equivalent), type **HALT<cr>** *(<cr> indicates a carriage return/ENTER key)*. This command puts the antenna in Idle mode.

3. Type **SATINSTALL<cr>**
   This command returns the names of the satellites currently installed in the TracVision antenna as Satellite A and Satellite B.

   IMPORTANT! Write down this information exactly as you see it for later reference.

   In the example below, ExpressVu is Satellite A and DSS_101 is Satellite B.

   Sat A Sat B
   EXAMPLE: ↓ ↓
   SATINSTALL,EXPRESSVU,DSS_101

4. Type **SATINSTALL,DSS_101,DSS_119<cr>**

5. Type **@DEBUGON<cr>** to enter the DEBUG mode.

6. Type **@SATCONFIG<cr>**
   This command returns eight lines of data. Look at the third field from the right in each line. You will see either R's and L's or V's and H's, as shown in the examples below.

EXAMPLE 1:

F,A,12368,20000,67,0XFFFE,**R**,U,2
F,A,12368,20000,67,0XFFFE,**R**,U,2
F,A,12238,20000,67,0XFFFE,**L**,U,2
F,A,12238,20000,67,0XFFFE,**L**,U,2
F,B,12370,20000,56,0X1004,**R**,U,3
F,B,12370,20000,56,0X1004,**R**,U,3
F,B,12326,20000,56,0X1004,**L**,U,3
F,B,12326,20000,56,0X1004,**L**,U,3

EXAMPLE 2:

F,A,12368,20000,67,0XFFFE,**V**,U,2
F,A,12368,20000,67,0XFFFE,**V**,U,2
F,A,12238,20000,67,0XFFFE,**H**,U,2
F,A,12238,20000,67,0XFFFE,**H**,U,2
F,B,12370,20000,56,0X1004,**V**,U,3
F,B,12370,20000,56,0X1004,**V**,U,3
F,B,12326,20000,56,0X1004,**H**,U,3
F,B,12326,20000,56,0X1004,**H**,U,3

7. Based on the content of these data fields, enter the associated commands from the table below.

Data Shows:	Enter the Following Two Commands:
V's and H's	1. Type **@SATCONFIG,A,55,12368,20000,67,0X0000,V,U,2<cr>** 2. Type **@SATCONFIG,A,55,12238,20000,67,0X0000,H,U,2<cr>**
R's and L's	1. Type **@SATCONFIG,A,55,12368,20000,67,0X0000,R,U,2<cr>** 2. Type **@SATCONFIG,A,55,12238,20000,67,0X0000,L,U,2<cr>**

8. Type **@SAVE,A<cr>**
9. Type **@DEBUGOFF<cr>**
10. Wait 5 seconds, then power off the antenna system.
11. Wait 20 seconds, then apply power to the system. Allow the system to complete full initialization.

12. Check the satellite installation data you wrote down in step 3.

    If you wrote down “SATINSTALL,DSS_101,DSS_119” in step 3, no further action is necessary. The configuration update is complete.

    If you wrote down a different satellite configuration in step 3, you need to reinstall the antenna’s original satellites. Follow the additional steps below:

    A. Using Hyperterminal (or equivalent), type **HALT<cr>**

    B. Type exactly what you wrote down in step 3.
    For example: **SATINSTALL,EXPRESSVU,DSS_101<cr>**

    C. Type **ZAP<cr>** to restart the antenna. The configuration update is complete.

We will be posting additional information about this issue on our web site at **www.kvh.com/sat_info**. Please check this site often for updates. If you have any specific questions about this issue, please e-mail them to **sat_info@kvh.com**.