

This is in regards to using a Carlson Surveyor+ with a Carlson GPS pack module running the Novatel OEMV GPS receiver board.

Here is the RTK interoperability profile for the OEM6. The OEMV used in the Carlson Surveyor+ GPS will have the same interoperability of the below charts, minus the following:

1. OEMV as a rover may have issues with some **Magellan base receivers** fixing **Glonass on RTCM and RTCMV3 messages**, due to incorrect information being sent by the Magellan. Magellan can occasionally give some bad GPS correction values, resulting in the OEMV rover occasionally throwing out some messages.
2. OEMV as a rover may have issues with some **Trimble base** receivers with GPS in **RTCM 2.3** format, due to incorrect information being sent by the Trimble.




## RTK Interoperability - OEM6

### Legend

-  = RT2 GPS/GLO
-  = RT20 GPS/GLO
-  = RT2 GPS-Only
-  = Not Supported
-  = Not Tested

### NovAtel As Rover

	CMR	CMR+	RTCM1819	RTCMV3 L1L2 Ext.	RTCMV3 L1L2 Reg.	RTCMV3 L1 Ext.	RTCMV3 L1 Reg.
Trimble R7							
Magellan							
Septentrio							
Leica							
Topcon							

## Topcon GPS Base with a Carlson Surveyor+ GPS Rover:

When SurvCE configures a Topcon Base it uses the recommended message types with the two exceptions listed below:

1) SurvCE does not set Glonass message to type 3. If the user sends the command “[set,/par/cmr/base/glo/type,3](#)” in Equip / GPS Utils / “Send Command”, SurvCE will leave it that way until you Factory Reset the GPS receiver or run a Hard Reset or Clear NVRam.

2) In SurvCE RTCMV3 Extended is supported but not RTCMV3 Regular.

You will need to log the following messages on a Topcon base to get an RT2 GPS+GLONASS position at the rover:

### CMR

10,0,1 plus set Glonass message to type 3 ([set,/par/cmr/base/glo/type,3](#))

### CMR+

10,0,9 plus set Glonass message to type 3 ([set,/par/cmr/base/glo/type,3](#))

### RTCMV3 Extended:

1004, 1012, 1006, 1008

### RTCMV3 Regular:

1003, 1011, 1006, 1008




































\*\*\*Please Note: a Topcon Base **will not** allow an “L1 Only” NovAtel rover to get a fixed solution

## Here is the information for using a Carlson Surveyor+ GPS pack as a GPS Base receiver:

### Legend

-  = RT2 GPS/GLO
-  = RT20 GPS/GLO
-  = RT2 GPS-Only
-  = Not Supported
-  = Not Tested

### NovAtel As Base

	CMR	CMR+	RTCM1819	RTCMV3 L1L2 Ext.	RTCMV3 L1L2 Reg.	RTCMV3 L1 Ext.	RTCMV3 L1 Reg.
Trimble R7							
Magellan							
Septentrio							
Leica							
Topcon							
Trimble BD970	