REPORT #3

HOW TO REPROGRAM V1 RADAR DETECTORS... IF YOU REALLY WANT TO

How To Change V1 Programming

WARNING: Important radar alerts may be blocked by changes in factory settings. Features that are Essential To Full Protection are marked with the so change these at your own risk.

I. How to enter the Programming Mode.

- Starting with the Control Knob in the “off” position, Press and hold-in Knob and at the same time turn the Knob “on;” continue holding in the Knob until all front-panel lights are on (takes about 5 seconds).
- Release the Control Knob.

II. How to determine your software version.

- Press and immediately release the Control Knob to display software version. The software-version number is four digits that display one digit at a time in the Bogey Counter - example: 2.869.
- Note your software number, then see the table below for features that are programmable in your unit.
- Press and immediately release the Control Knob to exit software-version display.

III. How to reinstate Factory Default settings.

- Note for V1s with software version 3.891 and higher allow the user to reset all feature programming to factory defaults during the display of the software version. Press and hold the Control Knob until the Front Arrow is illuminated to return all programming features to the factory default.
- Press and immediately release the Control Knob to exit software-version display.

IV. How to program your desired features.

- The feature character is indicated in the “Bogey Counter”.
- To select the next Feature Character in the sequence, press and immediately release the Control Knob.
- The Feature State is indicated by direction arrows on the Radar Locator.
- The Feature State is changed by pressing and holding the Control Knob until the arrow switches to the opposite direction (takes about 3 seconds).

  NOTE: If you need to return to an earlier Character in the sequence above, we recommend you switch off the power momentarily, then restart at step I above

V. How to exit the Programming Mode.

- Switch power off, or unplug. The changes you programmed will be retained in memory.

VI. How to tell if V1 has been changed from factory settings.

- If the unit has been changed, P will appear briefly in the Bogey Counter soon after V1 is switched on (after the lamps-on test, but before the Mode indicator appears.)
- On V1s with serial numbers ending in 0600 or higher, a flashing red LED just to the right of the Bogey Counter during the sequence above indicates that Ku coverage has been activated.
- On V1s with software version 3.891 and higher, P will indicate Band Programming changes only. The Band indicators (Laser, Ka, K, X and Decimal Point for Ku) will flash if the corresponding Band is On and remain dark if the corresponding band is Off.

  NOTE FOR EURO MODE: On V1s with software version 3.891 and higher, Band Programming is indicated during the "E," "u," "r" sequence by flashing the Band Indicators that are enabled.

Feature Character (See Bogey Counter)	Arrow Direction	Description	Software Version: 2.680 - 2.695	2.849	2.869	2.879 - 2.909	3.619 - 3.802	3.812 - 3.813	3.816 - 3.817	3.818 - 3.819	3.821 - 3.863	3.864 - 3.872	3.891	3.892 - 3.893	3.8940	3.8945 - and higher
This section allows you to turn off coverage of each radar band and laser.																
		Feature Availability (✓ shows factory settings)														
1	▲	*X band on.*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	▼	*X band off.*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2	▲	*K band on.*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	▼	*K band off.*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3	▲	*Ka band on.*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	▼	*Ka band off.*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4	▲	*Laser on.*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	▼	*Laser off.*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
This section allows you to adjust the response of the signal-strength meter *for Ka band only.* V1's radar and laser sensitivity will not be changed.																
5	▲	*Normal.*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	▼	*More Responsive.*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
This section allows you to switch off the False-Alarm Guard on Ka band.																
6	▲	*Guard on.*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	▼	*Guard off.*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

This section allows you to switch on a feature that initially mutes K-band alerts under certain circumstances. Feature Characters b, C, d, E, F, and G set the specifications of those circumstances. This initial muting will happen in L and L modes only.

NOTE: Starting with version 3.894, Feature Character G will no longer be controlled by 7. Feature Character G will act independently of 7 so that when G is activated ▼, K-band rear alerts will always be muted.

Enable this feature only when planning long-term operation in an area with frequent K-band false alarms.

7																		
▲	*Features b thru G inactive.*	n/a	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	n/a	n/a
▼	*Features b thru G enabled.*	n/a	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	n/a	n/a
▲	*Features b thru F inactive.*	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	✓	✓
▼	*Features b thru F enabled.*	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	✓	✓

This section allows you to suppress the warning sound completely when you press to mute.

8															
▲	*Muted volume set by Control Lever.*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
▼	*Muted volume set to zero.*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

This section allows you to change volume of any Bogey Lock Tones that occur after you press Mute.

A															
▲	*Volume is set by Control Knob.*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
▼	*Volume is set by Control Lever.*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

This section allows you to establish a time period of automatic muting at the onset of K-band alerts, in seconds. It may be helpful to think of b, C, and d as dip switches.
The direction of the arrows in b, C, and d taken together, select the seconds of muting.
Example: If you have Software Version 2.869 and want 3 seconds of muting at the onset of a K-band alert, set the arrows downward in b, C, and d.

Remember, features in this section are *not* enabled as factory settings

Feature Character b	Feature Character C	Feature Character d		Software Version Feature Availability												
				2.680 - 2.695	2.849	2.869	2.879 - 2.909	3.619 - 3.802	3.812 - 3.813	3.816 - 3.817	3.818 - 3.819	3.821 - 3.863	3.864 - 3.872	3.891	3.892 - 3.893	3.8940	3.8945 - and higher
				Seconds													
▲	▲	▲	*Factory default*	n/a	3	10	10	10	10	10	10	10	10	10	10	10	10
▼	▲	▲		n/a	4	9	30	30	30	30	30	30	30	30	30	30	30
▲	▼	▲		n/a	5	8	20	20	20	20	20	20	20	20	20	20	20
▼	▼	▲		n/a	6	7	15	15	15	15	15	15	15	15	15	15	15
▲	▲	▼		n/a	7	6	7	7	7	7	7	7	7	7	7	7	7
▼	▲	▼		n/a	8	5	5	5	5	5	5	5	5	5	5	5	5
▲	▼	▼		n/a	9	4	4	4	4	4	4	4	4	4	4	4	4
▼	▼	▼		n/a	10	3	3	3	3	3	3	3	3	3	3	3	3

K-band Initial Mute Period (seconds)

Feature Character (See Bogey Counter) / Arrow Direction	Description	Software Version: 2.680 - 2.695	2.849	2.869	2.879 - 2.909	3.619 - 3.802	3.812 - 3.813	3.816 - 3.817	3.818 - 3.819	3.821 - 3.863	3.864 - 3.872	3.891	3.892 - 3.893	3.8940	3.8945 - and higher
This section allows you to set an automatic override of the muting time you set in b, C, and d; if K-band strength exceeds four LEDs on the Signal Strength Meter at the onset of the encounter, there will be no muting.															
		Feature Availability (✓ shows factory settings)													
E	▲	*Unmute at four lights.*	n/a	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	▼	*Stay muted at four lights.*	n/a	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
This section allows you to set an automatic override of the muting time you set in b, C and d; if K-band strength slowly rises to six LED's on the Signal Strength Meter, sound will unmute.															
F	▲	*Unmute at six lights.*	n/a	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	▼	*Stay muted at six lights.*	n/a	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
This section allows you to automatically mute all K-band alerts when they are behind you.															
G	▲	*Don't mute rear K-band.*	n/a	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	▼	*Mute rear K-band.*	n/a	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
This section allows you to turn on coverage of Ku band. For more on Ku band, click here															
H	▲	*Ku off.*	n/a	n/a	n/a	n/a	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	▼	*Ku on.*	n/a	n/a	n/a	n/a	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
This section allows you to turn factory test on and off.															
I	▲	*Factory test off.*	n/a	n/a	n/a	n/a	n/a	✓	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	▼	*Factory test on.*	n/a	n/a	n/a	n/a	n/a	✓	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
This section allows you to turn POP on and off.															
J	▲	*POP on.*	n/a	n/a	n/a	n/a	n/a	n/a	n/a	✓	✓	✓	✓	✓	✓	✓	✓
	▼	*POP off.*	n/a	n/a	n/a	n/a	n/a	n/a	n/a	✓	✓	✓	✓	✓	✓	✓	✓
This section allows you to turn Euro Mode on and off. For more on Euro Mode, click here															
U	▲	*Euro off.*	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	✓	✓	✓	✓	✓	✓	✓
	▼	*Euro on.*	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	✓	✓	✓	✓	✓	✓	✓

This section allows you to turn Euro X band on and off.

U	▲	***Euro X band off.***	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	✓	✓	✓	✓	✓			
	▼	***Euro X band on.***	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	✓	✓	✓	✓	✓			

This section allows you to turn Traffic Monitor filter and Junk-K Fighter on and off.[1]

t	▲	***Filter off.***	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	✓	✓	✓	✓			
	▼	***Filter on*** [2]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	✓	✓	✓	✓			

This section allows you to force Legacy (pre-ESP) Concealed Display[3] operation.

L	▲	***Don't force display.***	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	✓	✓	✓			
	▼	***Force display.***	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	✓	✓	✓			

[1] *Traffic monitoring devices have been introduced in many cities around the US to facilitate monitoring of traffic conditions and average traffic speed. These monitoring devices create "false" alarms within the K radar band. Valentine Research has developed a filtering algorithm to suppress these unwanted monitoring devices. This feature is enabled/disabled by user feature "t".*

[2] *Enabling the "t" feature (DOWN ARROW) disables the V1s ability to detect K Pop (Ka Pop functions normally.)*

[3] *V1s with serial numbers ending in 1078 or higher (software version 3.892 or higher), include a new Extended Serial Protocol ("ESP"). ESP has been added to enhance communication with future peripheral devices. Since ESP utilizes the Valentine One's standard RJ-11 power connector, it could possibly interfere or change the operation of third party devices that have been developed for the V1 utilizing the Legacy Concealed Display output stream. Every attempt has been made to automatically detect what peripheral is connected to the Valentine One's power jack. However, to accommodate any unforeseen problems, we have added user feature "L" to insure third party devices that cease to function correctly with ESP can be made fully operational. Feature "L" is factory defaulted to OFF (FRONT ARROW) and must be enabled by setting feature "L" to REAR ARROW.*