## **5517 Camera Tilt Kit Installation Instructions**

**Description**: The Camera Tilt Kit consists of the parts needed to upgrade an existing 5517 Remote Video Unit for camera tilt capability. This allows tellers to remotely tilt the lane camera using buttons on their audio console. An 8mm lens is also included in the kit to replace the existing 2.9mm lens. The 8mm lens gives a much closer view of the customer for identification purposes and also eliminates much of the surrounding background light which causes silhouette issues in some locations. Tilting the camera gives a proper view with different vehicle heights.

*Compatibility*: The Camera Tilt Kit can only be installed in 5517 version 2.0 units and 5517-SUN version 1.4 units. The version number consists of the 4<sup>th</sup> & 5<sup>th</sup> digits of the unit serial number. The serial number label is located on the inside rear bottom of the enclosure and the serial number is the 11 digit number below the bar code. You can also tell if the kit can be installed by comparing the existing camera bracket to the bracket in the photos in this document. The video matrix must also be capable of supporting tilt control. If the video matrix has a 2 position tilt connector at the lower right of each lane camera BNC connector then it supports tilt control. Camera tilt will not work with any 3000 series audio consoles or video matrixes. Contact Finetech Tech Support at 877-236-0245 with any compatibility questions.

*Installation*: Follow these steps to install the tilt control after verifying compatibility. A 2 conductor cable will be required between the video matrix and the 5517 unit for the tilt motor. 22AWG wire is sufficient for up to approximately 200 feet.

- Completely power down the 5517 unit.
- Unplug the video connector and the power connector from the cable which comes from the rear of the camera.
- Remove the camera assembly from the 5517 by removing the 4 bracket screws. The assembly can then be taken indoors if desired to complete the next several steps.
- Remove the camera from the bracket by removing 2 screws.
- Attach the tilt motor from the kit to the camera bracket using the screws which are already in the motor.
- Slide the nylon cam from the kit onto the motor shaft so it is flush with the end of the shaft. Rotate the cam until the set screw is aligned with the flat side of the shaft and then tighten. *Do not over tighten to avoid stripping the threads in the nylon cam.*
- Loosen the camera lens mounting screw and then remove the lens by unscrewing it.
- Remove the front faceplate from the camera by removing 4 screws. A small jeweler's type screwdriver will be required.
- Install the new camera faceplate from the kit using the same screws removed in the previous step. It will be necessary to temporarily remove the lens set screw during this step. Reference the photo on page 2 for proper orientation of the faceplate.
- Install the new lens from the kit but do not tighten the set screw at this time.

**Camera Bracket Screws** 



Video/Power Cable



Tilt Motor & Cam Installed

- Replace the nylon spacers in the camera mounting holes of the bracket with the new spacers from the kit.
- Making sure the camera cable exits below the camera, install the camera back into the bracket using the longer screws included in the kit. The screws should be snug but not over tightened to avoid "mushrooming" the nylon spacers. The camera should be able to freely pivot without binding.
- Attach the spring included in the kit to the camera and camera bracket.



**Completed Tilt Assembly** 

- Attach the camera cable to the bracket next to the spring using the tie-wrap included in the kit. Do not completely tighten the tie-wrap at this time. The cable should be able to slide through it.
- Re-install the camera assembly back into the 5517 unit and re-attach the video and power cables.
- Connect a cable between the lane camera tilt connector on the video matrix and the connector at the end of the tilt motor wires. Polarity for the wires is not important.
- Re-apply power to the 5517.
- Focus the lens. Use the service switch in the upper left corner of the unit to view yourself if necessary. It may take several revolutions of the lens to even obtain a recognizable image since it is probably that far out of focus to begin. Use the set screw on the side of the lens mount to hold the lens in focus. *Do not over tighten this screw or it will leave a dimple in the lens threads that will make it difficult to make a minor focus adjustment without it wanting to jump back to the original setting.*
- Have someone at the teller end activate the tilt motor while watching it move. Slide the camera cable as necessary within the tie-wrap to avoid any binding of the motor and then snug the tie-wrap to the cable.

*Operation*: At the teller audio console, while the lane is selected hold down the camera button while pressing either the volume up  $\blacktriangle$  or volume down  $\blacktriangledown$  button. On 5001 and 4001 series consoles the camera button is labeled. On 5501 series consoles, the wireless headset button is also the camera button.

The tilt motor shaft/cam will rotate the opposite direction depending on which volume button is used. Due to the cam action combined with the spring action the camera will continue to tilt up and down if the motor continues operating the same direction. If the camera tilts up while using the down button (or vice versa) just let it continue and it will change direction. This is why wire polarity is not important.