Monitor Programming Quick Reference

To enter the programming mode for UII based monitors or the StreamMaster II follow these steps:

1. Turn power off to the monitor
2. Press and **HOLD** the STREAM switch (can be done on Joystick, toggle switch box or wireless controller)
3. Turn power on to the monitor while continuing to hold the STREAM switch
4. Wait 3-4 seconds and release the STREAM switch

The monitor should now be in programming mode. When it is in programming mode, the LED on the operator station(s) will be slowly blinking once about every three seconds (LED CODE 0-1 Slow blink). On a StreamMaster II, the STATUS LED on the face of the controller mounted on the monitor will also blink the programming mode status. If it is not slowly blinking, turn the power off and repeat steps 1-4.

All setup functions options except STOW and DEPLOY can be scrolled through by pressing the STREAM switch. Each time the STREAM switch is pressed, another function is active for configuration. If a function is configured and saved using the FOG switch, it will automatically move to the next available function. For example, the first time the STREAM switch is pressed, the right soft limit is ready for programming (LED CODE 1-1). If STREAM is pressed again, the right soft limit is not changed and the left soft limit is now ready for programming (LED CODE 1-2). If the left soft limit is set by pressing the FOG switch, it will automatically move to the up soft limit without having to press STREAM again (LED CODE 1-3). Alternately, activating the STREAM command will abort this mode without storing the position and forward the user to the next available programming parameter.

Entering the STOW and DEPLOY programming mode is accomplished by pressing the STOW or DEPLOY switch while at the start of the setup menu (LED CODE 0-1 Slow blink). The stow and deploy positions can be saved by pressing either the STREAM or FOG switch. If saved with the STREAM switch, the nozzle pattern motor will move to the stream position during the function, if saved with the FOG switch, the nozzle pattern motor will move to the fog pattern position during the function.

Entering the CAN valve setup function programming mode is accomplished by pressing the discharge switch while at the start of the setup menu (LED CODE 0-1 Slow blink). Move through the CAN valve setup options using the STREAM switch and enable an option using the FOG switch.

To aid in determining which setup menu the monitor is in, the LED on the operator station has been programmed to blink a different code for each function. Table 3-1 below lists the LED codes for each function. The codes have two parts. The LED code will start with either one, two, three or four short blinks, a short pause (LED off), another series of short blinks, then a long pause (LED off). The first number in the LED code is the one, two, three or four blinks and the second number is the second series of blinks before the long pause. If an OEM is using their own operator station that has no LED, the codes will also be available on pin #7 of the 29 pin interface connector on the UII logic box, or on the STATUS led on the face of the onboard control of the StreamMaster II monitor.

Any of the following functions may be configured by stopping at that function and pressing the FOG switch to save or enable that function. The availability of functions depends on the monitor configuration. Not all functions are available in all monitors. Some monitors require certain parameters be set for proper operation. The tables below outline the minimum steps needed.

Monitors can fall into three categories:

1. Monitors with position feedback (**require a certain number of parameters to be programmed for proper operation and those parameters need to be programmed in a certain order**)
2. Monitors with magnetic switches (stow/deploy programming options if required, no soft limits)
3. Monitors with no sensors (require no initial position limit programming to function)

Setup Parameter	Blink Code	Position Feedback Units	Magnetic Switch Units
Beginning of setup	0-1 (One slow blink)	Programming Order (See Notes)	
Right Soft Limit	1-1	NOTE 2	N/A
Left Soft Limit	1-2	NOTE 2	N/A
Up Soft Limit	1-3	NOTE 2	N/A
Down Soft Limit	1-4	NOTE 2	N/A
Stow	1-5	NOTE 4	
Deploy	1-6	NOTE 4	
Monitor Orientation	1-7		
Zero Position Sensors	1-8	NOTE 1	N/A
Restore Factory defaults	1-9		
Obstacle avoidance Disable	2-1		N/A
Obstacle Avoidance Manual Operation	2-2	NOTE 3	N/A
Obstacle Avoidance Auto Operation	2-3	NOTE 3	N/A
Obstacle Avoidance Learn	2-4	NOTE 3	N/A
CAFS Dry valve position (3463 only)	2-5		
CAFS Wet valve position (3463 only)	2-6		
Stow rotation position (3440 with feedback only)	2-7		N/A
Ladder Avoidance On (3598, 3480/3482 only)	2-8		
Ladder Avoidance Off (3598, 3480/3482 only)	2-9		
Electric Riser disable	3-1		
Electric Riser enable	3-2		
Auto Attitude Off (3351only)	3-3		N/A
Auto Attitude On (3351only)	3-4		N/A
Reserved for future use	3-5	N/A	N/A
Ladder Avoidance position set (3480/3482)	3-6		N/A
Pulse / Stream valve off (riot control)	3-7		N/A
Pulse / Stream valve on (riot control)	3-8		N/A
CAN Valve Disable	4-1	SMII Only	
CAN Valve Enable	4-2	SMII Only	
CAN Valve Pair	4-3	SMII Only	
CAN Valve Calibrate	4-4	SMII Only	
Safe Operating Envelope ON	4-5	SMII Only	
Safe Operating Envelope OFF	4-6	SMII Only	
Stealth Mode Enable	4-9	SMII Only (E-One Mode)	
CAN Valve Preset 1	5-1	ARFF Low Flow	
CAN Valve Preset 2	5-2	ARFF High Flow	

NOTES:

1. This step only needs to be done in two cases. If there is a position indicator in the system and/or the monitor is mounted such that the physical rotational zero position is not in line with the physical center of the apparatus. If needed**, this step must be done first before setting ANY other positions**. This setting will erase any previously set positions including obstacle avoidance and stow/deploy.
2. **These steps must be performed. The soft limits must be programmed so that the monitor stops before hitting a hard limit. Hitting a hard limit will cause a sensor error code. If there is an active sensor error code, all soft limits and automatic functions (stow/deploy, oscillation and obstacle avoidance) are ignored and the monitor will move throughout its entire physical range with no restrictions which could cause collisions with the truck or truck mounted obstacles.**
3. These steps are optional and depend on the application needs.
4. Stow/Deploy position programming should be done after soft limits and obstacle avoidance (if used)

ERROR CODES

Error Codes consist of a two part blink code. The first digit can be 1, 2 or 3 short blinks followed by another set of short blinks (1-9). On the last blink of the second digit the LED remains on so it appears to be a long blink, then the code repeats itself. For example, error code 1-1 appears visually as a short blink, short pause with LED off, then a long blink, then another short pause with the LED off, then repeats.

1-1	Rotation sensor	**Mag Switch**: rotation mag switch was not detected during a stow or deploy sequence. **Pos. Feedback**: rotation sensor signal is missing or not changing while monitor is moving
1-2	Elevation sensor	**Mag Switch**: elevation mag switch was not detected during a stow or deploy sequence. **Pos. Feedback**: elevation sensor signal is missing or not changing while monitor is moving
1-3	Swing Arm sensor (3440 Only)	Monitor is in stowed or deployed mode and the swing arm sensor signal is lost or a hard stop is encountered (regardless of mode)
1-4	Attitude sensor	Auto attitude sensor signal out of limits (3351 only)
1-5	Operator Override (Emergency Stop)	During a stow sequence, a command input was received from an operator station which is interpreted as an emergency stop request and blinks the 1-5 error code. If a command input is received during a deploy sequence, the monitor will stop and go back to normal operation from its current position
1-6	Obstacle Avoidance profile missing	The obstacle avoidance feature is turned on but the avoidance profile has not been learned
1-7	Rotation hard stop (position feedback only)	A hard stop was encountered during normal rotation indicating an obstacle was hit or a soft limit was set too close to a hard stop.
1-8	Elevation hard stop (position feedback only)	A hard stop was encountered during normal elevation indicating an obstacle was hit or a soft limit was set too close to a hard stop.
1-9	Swing Arm hard stop	Hard stop encountered while stowing or deploying after leaving a valid stowed or deployed position
2-1	Electric Riser	The electric riser function has been turned on but the riser is not available on the network
2-2	CAN Valve Not Calibrated	Valve function turned on and paired but not yet calibrated.
2-3	CAN Valve Not Located	Pairing process failed during setup or valve lost power and/or CAN communications while operating
3-1	SOE Axis 1 error	SOE Axis 1 error (SMII only)
3-2	SOE Axis 2 error	SOE Axis 2 error (SMII only)
3-3	SOE No Communication	SOE enabled but not receiving messages (SMII only)