

## **Fill-Drain Time Set up**

- Obtain correct tank size
- Pump fills at approx 10 GPM
- Disconnect all battery from main boat connection for at least 30 seconds. Disconnect plug between pump and the Active Intelligence box until programming is complete. **Reconnect power from battery and immediately start toggling switch to enter program mode.**
- Push toggle to the fill position and toggle between fill and drain 5 times stopping in the off position each time (fill-off-drain-off-fill-off, Etc.) Do not rush. **This should be done in a slow methodical 1 second at each position pace.** Unit will blink when you have entered program mode and the number of blinks will indicate the current fill time in 30 second intervals.
- To increase fill time - toggle between off and the fill position, each toggle increases the fill time by 30 seconds.
- To decrease fill time - toggle between off and drain position, each toggle decreases by 30 seconds.
- Increments are 30 seconds (approx 3.5 gallons per toggle) with minimum fill time of 30 seconds and maximum of 20 minutes.
- Reconnect power to pump and run pump in drain cycle until pump stops automatically. **This must be done to reset unit to zero after programming.**

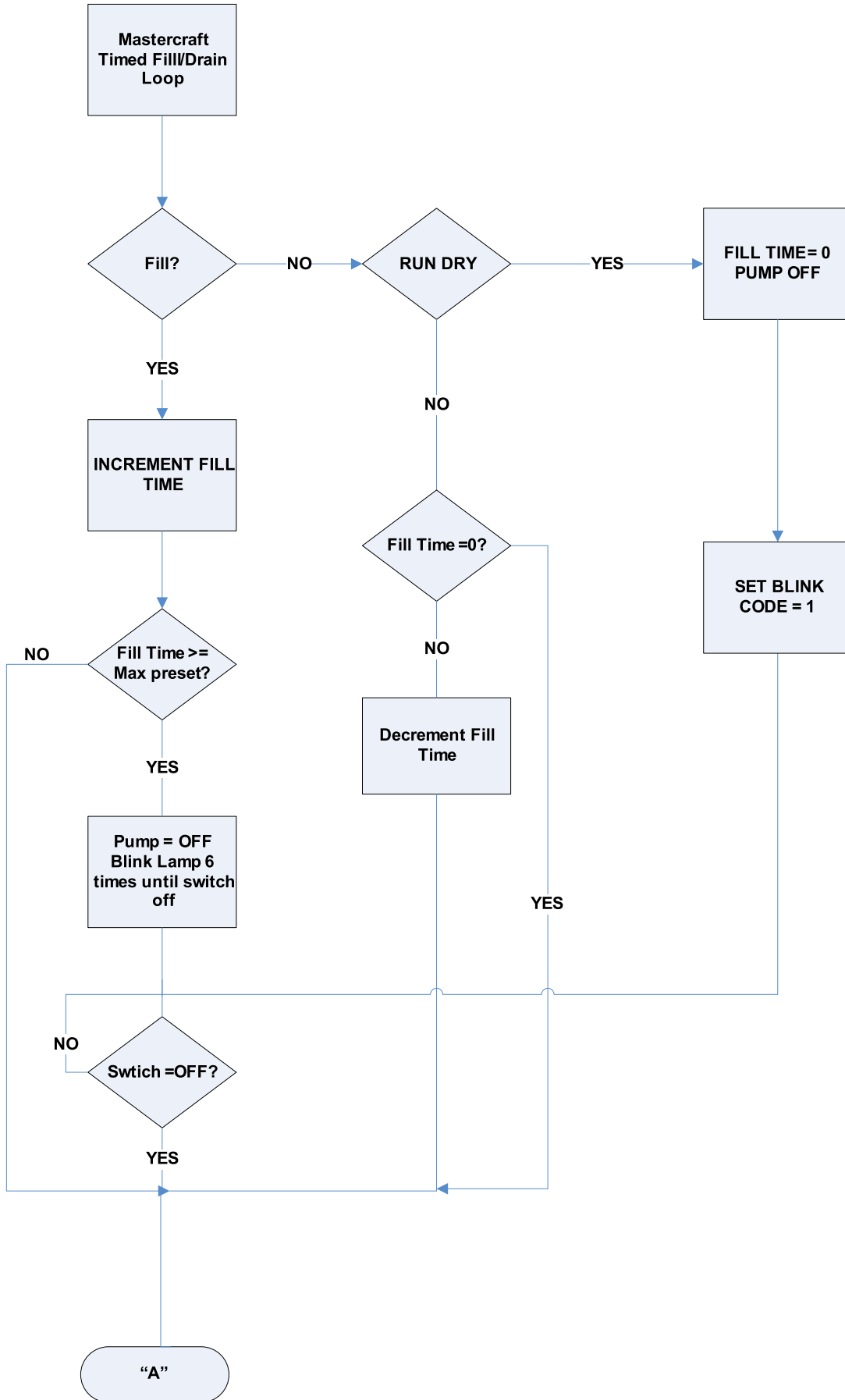
## **Normal Operation**

- The pump switch is turned to the on position.
- The first thing AI does is check battery voltage. If the battery voltage is below 9.5 VDC the switch will blink 4 times, signaling that the battery is too low to run the FIP pump. If the battery voltage is good the pump is turned on.
- The AI then checks the pump for prime, if the pump doesn't prime then the AI shuts the unit off in 12 seconds and blink the corresponding code, if the pump primes the AI checks for line blockage, if there is line blockage (High Amperage) then the unit will shut off blinking the corresponding code, if there is no blockage the unit then checks for open current, if there is an open in the motor then the unit shuts off blinking the corresponding code, if not then the unit runs normally.
- If during the operation the tank runs dry then the unit will, in seven seconds, shut off blinking 1 blink to signify run dry.
- If the unit becomes clogged then the will, instantaneously, shut off blinking 2 blinks to signify high current draw.
- If the unit experiences - an open condition, winding breaks, power removed between AI and pump, the unit will within 20 seconds, shut off blinking 3 times to signify the open condition.
- If power to unit is below 9.5 VDC the unit will not turn pump on, as there is not sufficient power to run pump. The switch will blink 4 blinks. Unit will not power pump until power is restored to appropriate level.
- As long as there are no anomalies to the system the unit will allow the pump to run as long as needed. Once there is an anomaly the unit shuts down and alerts the user to the reason why.

## Troubleshooting Matrix

Problem	Possible Cause	Action	Correction
Pump will not turn on	No power to AI Module	Check power to AI module	If power to AI module and not our of module replace AI module
Pump will not turn on	Switch inoperable	Check wiring to switch	If wiring to switch is good then check power to switch
Pump will not turn on	Pump inoperable	Check wiring to pump	If power to module is good and power out of module is good replace pump
Pump will not turn on	System needs reset	Check power to all areas	Turn power off to the system and then back on and retry
<b>Switch Blink</b>			
One blink	Run Dry	Tanks empty	Pump will shut down in 14 seconds and will not restart until power is cycled
Two blinks	High Amp draw	Line blocked, pump stalled	Pump will shut down immediately and not restart until power is cycled. If problem persists unit will shut down immediately again until problem is resolved
Three blinks	Power loss between module and pump	Open condition, winding breaks, power removed between AI and pump	Module will shut down after 20 seconds of loss of power between module and pump and will not restart until cycled
Four Blinks	Low Voltage	Charge Battery	Pump will not start if power to AI is less than 9.5 VDC
Six Blinks	Timer Limit	Programmed Limit	AI has reached programmed or maximum run time.
<b>Fill Drain Time</b>			
Does not empty/fill completely	Fill-Drain time setting incorrect	Reset module fill-Drain time	To increase fill time - toggle between off and the fill position, each toggle increases the fill time by 30 seconds. To decrease fill time - toggle between off and drain position, each toggle decreases by 30 seconds. Increments are 30 seconds (approx 3.5 gallons per toggle) with minimum fill time of 2 minutes and maximum of 6 minutes

# FILL-DRAIN TIME SETUP





# NORMAL OPERATION

