

OPERATION: TO BEGIN, THE "POWER" TOGGLE SWITCH MUST BE IN THE "ON" POSITION. SELECT THE APPROPRIATE TANK FROM THE HMI. THE SELECTED TANK'S DETAIL SCREEN WILL APPEAR, PROVIDING THE FOLLOWING CURRENT TANK STATUS AND FILL CONTROLS.

- CURRENTLY SELECTED TANK'S STATUS
- "FILL START" HMI SOFT-KEY
- "FILL STOP" HMI SOFT KEY 3.
- TANK'S VALVE STATUS
- CURRENTLY SELECTED TANK'S LEVEL IN PERCENT AND GALLONS/LITERS

THE FILLING PROCESS CAN BE STOPPED AT ANY TIME BY PRESSING THE "FILL STOP" OPTION ON THE DISPLAY. AS THE TANK FILLS, THE TANK LEVEL IS CONTINUOUSLY UPDATED AND DISPLAYED ON THE HMI. ONCE THE TANK REACHES THE "FULL" LEVEL (TYP. 90%), THE ALARM WILL SOUND TO ALERT THE DRIVER AND THE TANK VALVE WILL CLOSE. IF THE DELIVERY HOSE NEEDS TO BE DRAINED THE FILL PROCESS MAY BE STARTED AGAIN FOR 30 SECOND INCREMENTS BY PRESSING THE "OVERRIDE" $^{(4)}$  OPTION. IF THE TANK REACHES THE "HIGH" LEVEL (TYP. 95%) THE ALARM WILL SOUND, THE FILL VALVE WILL BE CLOSED, AND ALL FILLING OPERATIONS FOR THE SELECTED TANK WILL BE PROHIBITED. ANOTHER TANK MAY BE SELECTED FOR FILL, IF APPLICABLE.

REPEAT THE PROCESS FOR ALL TANKS IN THE SYSTEM UNTIL FILLING IS COMPLETED. $^{(1)}$ 

ONCE FILLING IS COMPLETE, CLOSE ANY MANUAL VALVES, REMOVE TRUCK HOSE, AND REPLACE THE FILL CAP. REMOVE THE GROUNDING CABLE AND TURN THE "POWER" TOGGLE SWITCH BACK TO THE "OFF" POSITION

FULL LEVEL INDICATION: IF THE LEVEL IN THE SELECTED TANK REACHES THE FULL LEVEL (TYP. 90%) AN AUDIBLE AND VISUAL ALARM IS ACTIVATED AND THE AFC WILL CLOSE THE FILL VALVE. THE FILL VALVE MAY BE OPENED AGAIN BY PRESSING THE "OVERRIDE" (4) OPTION ON THE HMI. THE FILL VALVE WILL OPEN FOR 30 SECOND INTERVALS TO ALLOW DRAINING OF TRUCKER HOSE. THE "OVERRIDE" (4) OPTION WILL BE AVAILABLE UNTIL THE SELECTED TANK REACHES HIGH LEVEL (TYP. 95%).

HIGH LEVEL INDICATION: IF THE LEVEL IN THE SELECTED TANK REACHES THE HIGH LEVEL (TYP. 95%) AN AUDIBLE AND VISUAL ALARM IS ACTIVATED AND THE AFC WILL CLOSE THE FILL VALVE. THE FILL VALVE CANNOT BE REOPENED UNTIL THE LEVEL IN THE TANK IS BROUGHT BELOW THE HIGH LEVEL (TYP. 95%).

CRITICAL HIGH LEVEL INDICATION: (1) IF THE LEVEL IN ANY TANK REACHES THE CRITICAL HIGH LEVEL (TYP. 98%) THE AFC WILL CLOSE ALL FILL VALVES. THE FILL VALVES WILL REMAIN LOCKED OUT FROM USE UNTIL THE LEVEL IN ALL TANKS IS BROUGHT BELOW THE CRITICAL HIGH LEVEL. THIS PREVENTS AN OVERFLOW IN A NON-SELECTED TANK CAUSED BY A LEAKING OR MISALIGNED VALVE.

MAIN TANK LOW LEVEL INDICATION:  $^{(2)}$  if the level in the selected tank reaches THE LOW LEVEL (TYP. 10%) AN AUDIBLE AND VISUAL ALARM IS ACTIVATED ON THE HMI.

TANK LEAK INDICATION: IF A LEAK IS DETECTED IN THE SELECTED TANK AN AUDIBLE AND VISUAL ALARM IS ACTIVATED AND THE AFC WILL CLOSE THE SELECTED TANK'S FILL VALVE. THE AFC WILL NOT OPEN THE SELECTED TANK'S FILL VALVE UNTIL THE LEAK HAS BEEN CORRECTED AND ANY SPILLAGE HAS BEEN REMOVED FROM THE TANK'S SECONDARY LEAK BASIN.

SUMP LEAK INDICATION: (2) IF A LEAK IS DETECTED IN THE SUMP AN AUDIBLE AND VISUAL ALARM IS ACTIVATED AND THE AFC WILL CLOSE ALL TANK FILL VALVE(S). THE AFC WILL NOT OPEN THE SELECTED TANK'S FILL VALVE UNTIL THE LEAK HAS BEEN CORRECTED AND ANY SPILLAGE HAS BEEN REMOVED FROM SUMP AREA.

REMOTE ANNUNCIATION: MODBUS(STANDARD) OR BACNET (2) COMMUNICATION WITH THE BUILDING MANAGEMENT SYSTEM ALLOWS REMOTE ANNUNCIATION FOR ALL STATUS AND ALARM CONDITIONS. (REFER TO DRAWING PACKET FOR PROTOCOL SPECIFICS)

NORMAL CONDITIONS: THE FOLLOWING NORMAL OPERATING CONDITIONS ARE PROVIDED:

- CONTROL POWER AVAILABLE
- MAIN TANK LEVEL IN PERCENT/GALLONS OR LITERS (3)
- MAIN TANK FILL VALVE OPEN (3)
- MAIN TANK FULL LEVEL (3)

STANDBY CONDITIONS: THE FOLLOWING STANDBY OPERATING CONDITIONS ARE PROVIDED:

MAIN TANK FILL VALVE CLOSED (3)

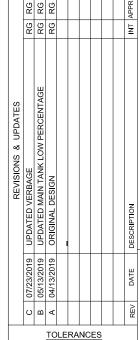
ALARM CONDITIONS: ALARM CONDITIONS ARE INDICATED BY AUDIBLE AND VISUAL ALARMS ON THE AUTOMATIC FILL CONTROLLER HMI. THE VISUAL ALARM REMAINS ILLUMINATED UNTIL THE ALARM CONDITION CLEARS AND THE PANEL RESET BUTTON IS ACTIVATED. THE AUDIBLE ALARM REMAINS ON UNTIL MANUALLY RESET. THE FOLLOWING ALARMS ARE PROVIDED:

- MAIN TANK FILL VALVE ERROR<sup>(3)</sup>
- MAIN TANK HIGH LEVEL (3)
- MAIN TANK CRITICAL HIGH LEVEL (1)
- MAIN TANK LEAK (3)
- MAIN TANK LOW LEVEL<sup>(2)</sup>

SIMPLEX, INC. 5300 RISING MOON ROAD SPRINGFIELD, ILLINOIS 62711-6228

THIRD ANGLE PROJECTION





X.XX ± 0.010"  $X.X \pm 0.020"$ FRACTIONAL ± 1/32" ANGLES ± 1° SURFACES 125/

APPROVED BY: DRAWN BY: 1:0.9884 SCALE: SHEET SIZE: ANSI B

DESCRIPTION AUTO FILL CONTROLLER SEQUENCE OF OPERATIONS

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ACD-00055712

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SHEET NUMBER REVISION

## NOTES:

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- 1 MULTI—TANK SYSTEMS ONLY
- 2 OPTIONAL ADD-ON FEATURE
- 3 TYPICAL OF ALL TANKS
- 4 OPTION IS LABELED "HOSE DRAIN" WITH 7.00" HMI UPGRADE

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