

LETS WEAR THEM OUT
not burn them up!!



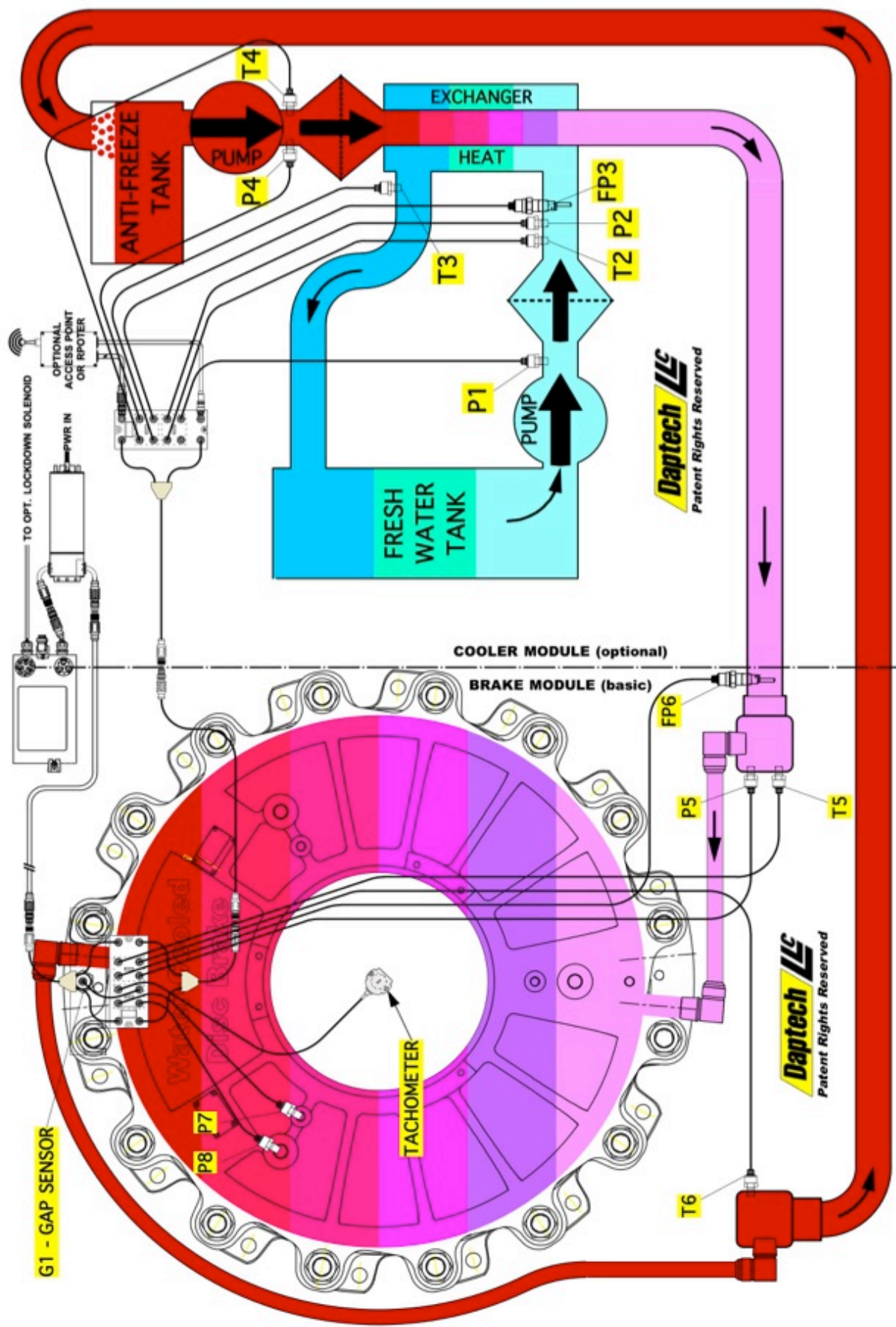
\$\$\$\$\$\$\$ up in smoke!!



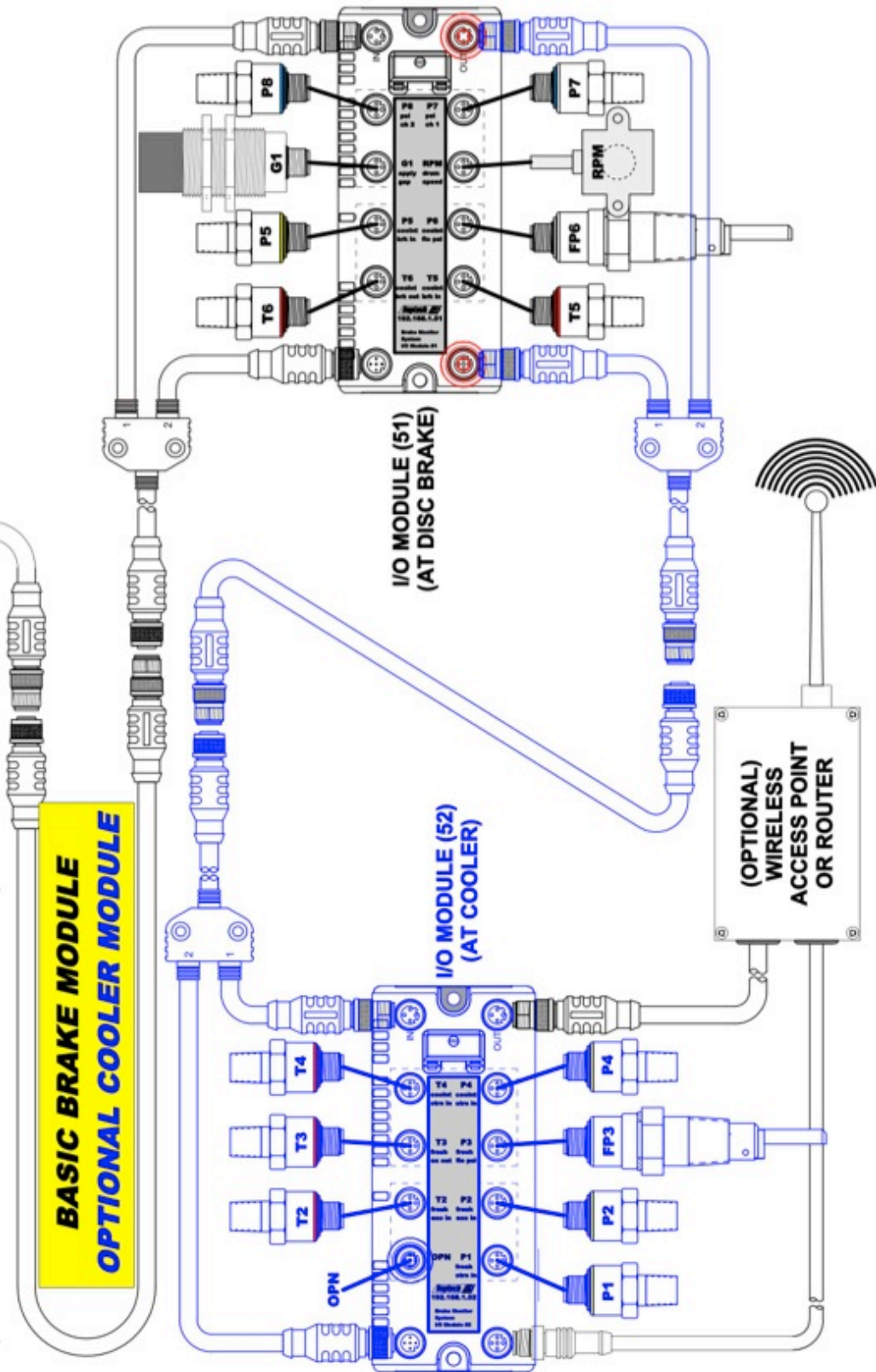
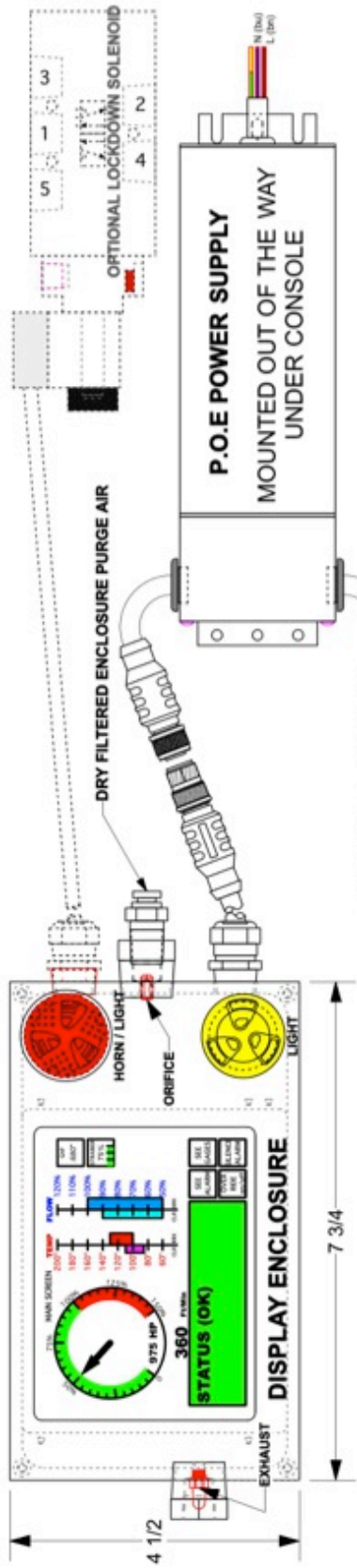
Brake Monitor System

1111 S West St Wichita KS 67213 316-943-4020 info@daptechllc.com

BRAKE MONITOR SYSTEM SCHEMATIC



It takes 15 sensors to keep track of every parameter necessary to precisely identify all critical conditions of the brake. All this data goes to a single "smart" display on the console that alerts the operator of potentially damaging conditions



15 SENSORS TO 1 INTELLIGENT MONITOR SCREEN ON THE DRILLERS CONSOLE

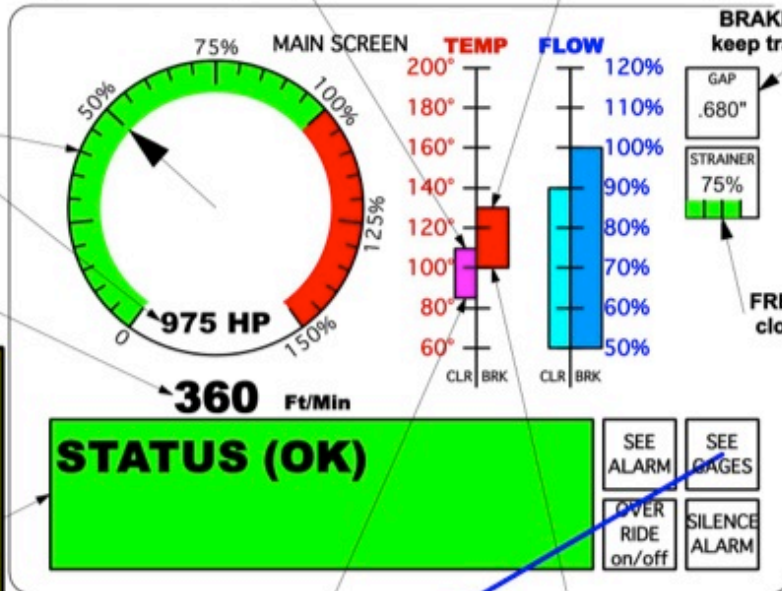


FRESH WATER EXIT TEMP
temperature of the fresh water
leaving the heat exchanger

BRAKE COOLANT EXIT TEMP
temperature of the coolant
leaving the brake

HORSEPOWER GAGE:
displays HP actually being
disapated by the brake.
(0-100% gage + digital window)

HOOK SPEED:
calibrated in Ft/Min



BRAKE STROKE
keep track of wear

FRESH WATER
clog detection

STATUS/ALARM BOX:
The computer is continuously monitoring all 15 sensors and will display a plain text alarm message that alerts the operator to any condition(s) that could be detrimental to the brake and it will activates the appropriate alerts:

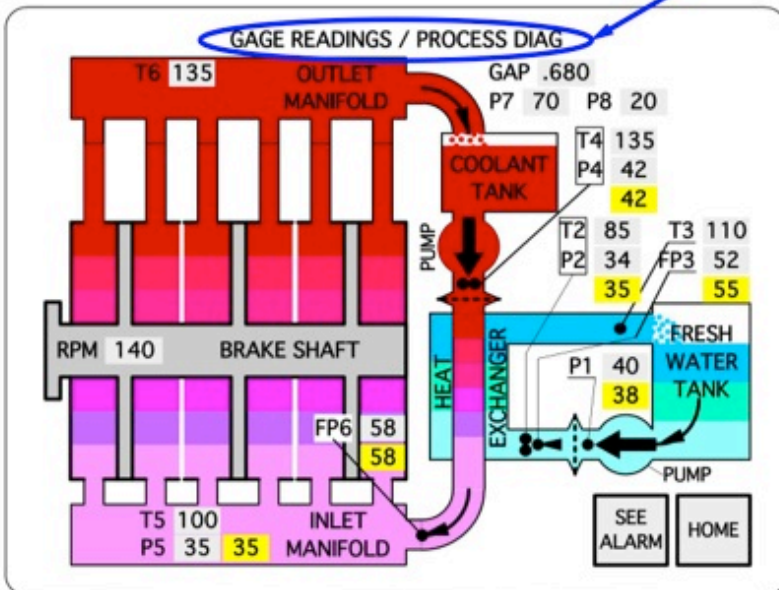
LOCKDOWN = continous horn+ y/l/rd lights (also fires optional lockdown solenoid)

DANGER = 2 sec horn alert + cont. yl light

WARNING = continous yellow light only

FRESH WATER INLET TEMP
temperature of the fresh water
entering the heat exchanger

BRAKE COOLANT INLET TEMP
temperature of the coolant
entering the brake



This screen is a process diagram showing the location and value being reported by each sensor. The 6ea yellow boxes show the original, good condition "learned values" of those 6 pressure sensors. The system uses those values as a comparison to report flow, strainer condition, etc.

There is a similar "Alarm Screen" that reports a "snapshot" of values as each alarm was posted. History is viewable via "SEE ALARM" toggle button.

STATUS / ALARM MESSAGES

- **NO COOLANT FLOW** (lockdown)
- **HIGH COOLANT TEMP** (lockdown)
- **COOLANT TEMP WARNING** (danger)
- **LOW COOLANT FLOW** (danger)
- **SYSTEM IN OVER-RIDE** (warning)
- **EXCESSIVE GAP WARNING** (warning)
- **LOW FRESH WATER FLOW** (warning)
- **HIGH FRESH WATER TEMP** (warning)
- **RESTRICTED JACKETS** (warning)
- **RESTRICTED STRAINER** (warning)

Data-Logging Included: Alarms with date/time and sensor values - Over-HP with date/time & max