



# TFTN500-600 High Efficiency Gas-Fired Condensing Boiler

**SUBMITTAL SHEET**  
Section 1 – General Specifications  
Section 2 – Product Dimensions  
Section 3 – Field Wiring

Project Name: \_\_\_\_\_ Date: \_\_\_\_\_  
Location: \_\_\_\_\_  
Engineer: \_\_\_\_\_  
Contractor: \_\_\_\_\_ Rep: \_\_\_\_\_

## 1 – GENERAL SPECIFICATIONS

### Product Features:

- ✓ Certified to ANSI Z21.13 / CSA 4.9
- ✓ SA-240 S43932 Chromium SS Fire Tube Heat Exchanger
- ✓ ASME H-stamped as a heating boiler
- ✓ Maximum operating pressure 160 psi
- ✓ Floor mounted
- ✓ Zero clearance to combustibles (clearances required for service)
- ✓ Modulating burner, 10:1 turndown ratio
- ✓ Certified as Direct Vent or for use with indoor combustion air
- ✓ Sealed cabinet with integrated air-filter
- ✓ 7 in. touch screen display
- ✓ High energy ignition transformer (spark ignition)
- ✓ Integrated LWCO (UL353 certified & CSD-1 compliant)
- ✓ Integrated high & low gas pressure switches (CSD-1 compliant)
- ✓ On/off power switch
- ✓ 120VAC convenience outlet
- ✓ WiFi remote connectivity embedded
- ✓ Integrated 3-Zone controller (3x CH inputs & outputs)
- ✓ DHW zone input (tank thermostat or sensor)
- ✓ Outdoor and 2x Auxiliary temperature sensor inputs
- ✓ 0-10V input for external temperature or burner power control
- ✓ Boiler, DHW and 2x Auxiliary pump outputs
- ✓ Variable speed pump output (0-10V / PWM)
- ✓ Boiler power output signal (0-10V)
- ✓ Alarm contact

### Factory Supplied Items:

- ✓ Outdoor & system sensors
- ✓ 50 psi ASME pressure relief valve
- ✓ Pressure & temperature gauge
- ✓ LP conversion kit
- ✓ Vent screens

### Control Features:

- ✓ Integral microprocessor safety control – flame and temperature safeguard
- ✓ Fully adjustable burner test mode
- ✓ AUTO CH boiler temperature adjustment/reset (based on outdoor and/or indoor temperature or T-stat cycles)
- ✓ Adjustable reset curve (min-T/max-T/slope/offset)
- ✓ Adjustable reset temperature boost
- ✓ Summer/Winter changeover (WWSD)
- ✓ Integrated programmable T-stat x 3 (with optional NTI Room Sensors)
- ✓ Freeze protection (on/off settable)
- ✓ Settings backup & restore options
- ✓ Cascade up to 8 TFTN-series boilers
- ✓ Manual mode operation (pumps/fan/alarm)
- ✓ Boiler statistics
- ✓ Lockout, error and warning history
- ✓ Internet outdoor temperature via WiFi connection
- ✓ Adjustable delta-T control (w/ variable speed pump)
- ✓ Adjustable high limit (CSD-1 compliant)
- ✓ DHW recirculation with adjustable schedule
- ✓ Buffer tank charging function
- ✓ 3 independently adjustable CH zones
- ✓ Adjustable CH zone priority logic
- ✓ Adjustable DHW/CH priority switching logic
- ✓ Anti-legionella function
- ✓ Adjustable system pump activation logic
- ✓ Adjustable CH anti-cycle function
- ✓ Adjustable maintenance schedule/warning
- ✓ Optional NTI 3-Zone Pump/Valve Controller (expands zone control up to six – each independently adjustable)
- ✓ Optional NTI Room Sensor

Model	Connections				Exhaust Length	Air Intake Length
	Water, NPT	Gas, NPT	Exhaust	Air Intake		
TFTN500-600	2 in. (Male)	1 in. (Male)	4 in. (PVC/CPVC)	4 in. (PVC/CPVC/PP/SS)	3 in.: 0-6 ft. 4 in.: 6-150 ft.	3 in.: NA 4 in.: 0-150 ft.

## Performance Specifications

Model	Input Rating, MBH	Heating Capacity, MBH	Net AHRI Rating, Water MBH	TE %
TFTN500	50 - 500	489	425	97.7
TFTN600	60 - 600	585	509	97.5



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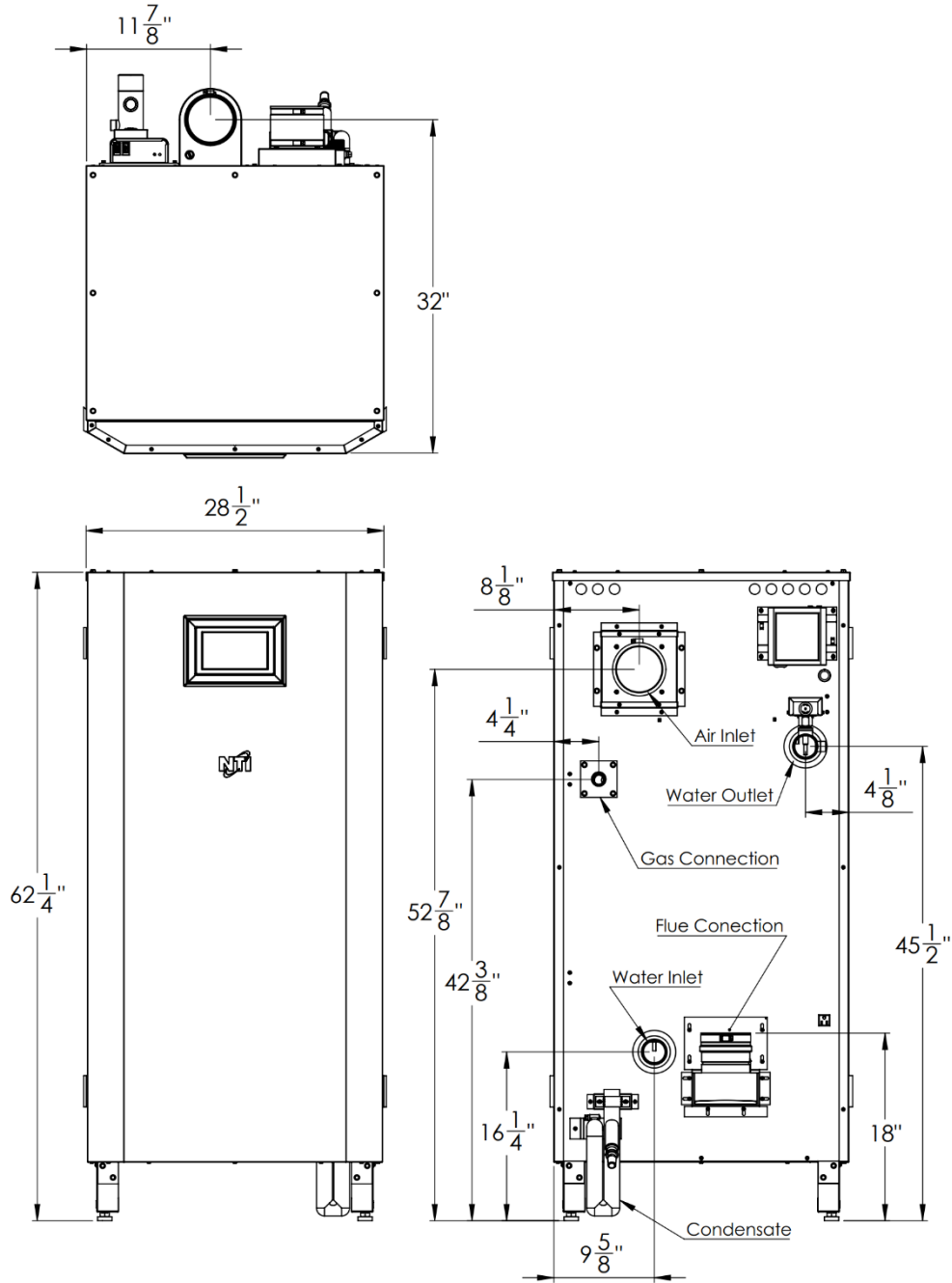
NTI Boilers Inc. 30 Stonegate Drive, Saint John, NB E2H 0A4 Canada  
Technical Services: 1-800-688-2575 Fax: 1-506-432-1135 Web: [http:// www.ntiboilers.com](http://www.ntiboilers.com)  
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2 – PRODUCT DIMENSIONS - in.



MINIMUM SERVICE CLEARANCES - in.

Front	Top	Sides	Back	Bottom	Flue Pipe
36	24	24	24	0	1



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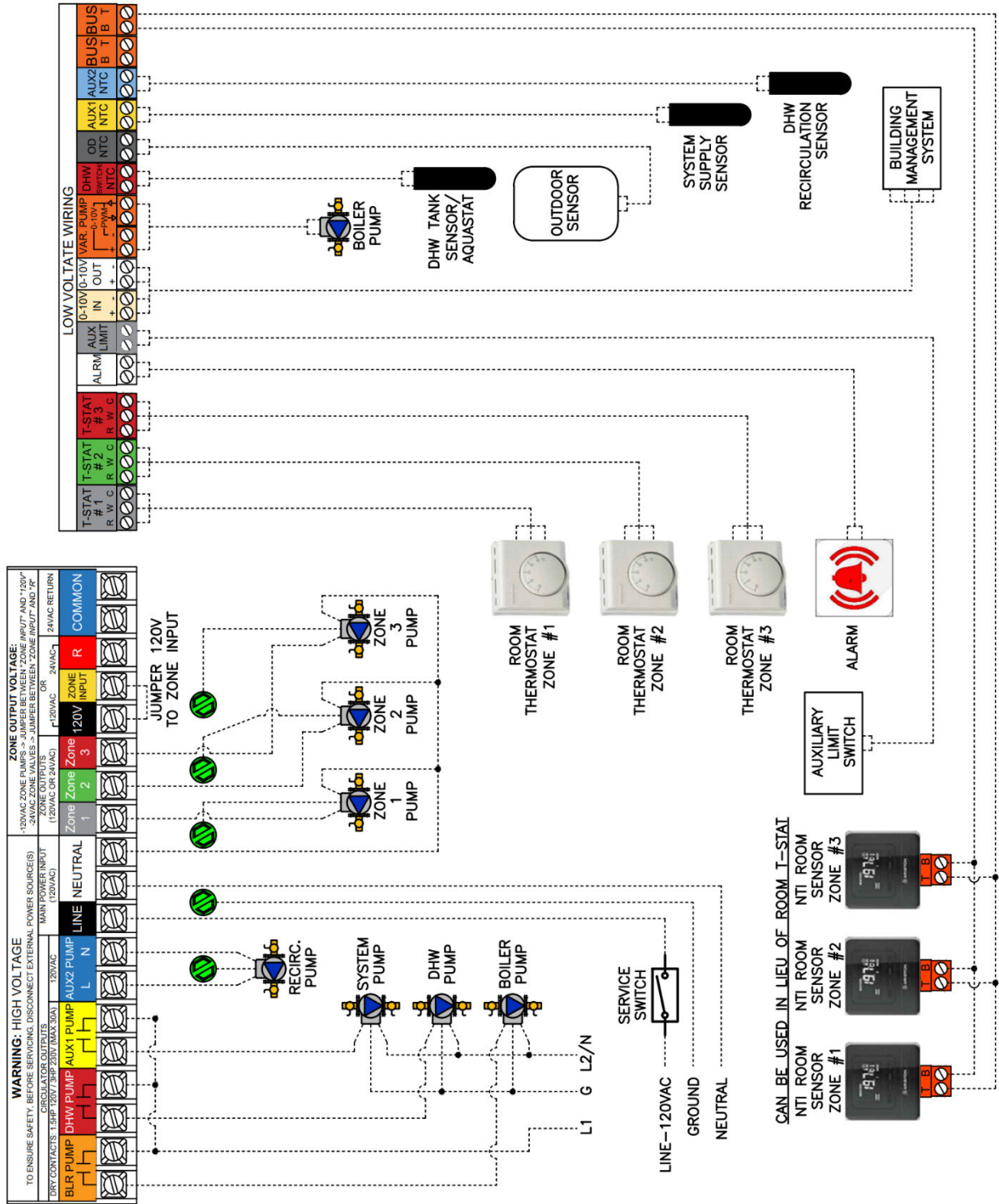
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## 3 -- FIELD WIRING



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