

Take advantage of the comfort and efficiency of radiant heat. Buffer tanks extend burner run cycles and reduce burner short cycles for cleaner, more efficient boiler and burner operation. The large water volume and heavily insulated tanks are an ideal match for any size radiant system. Outdoor reset and warm weather shutdown controls are standard with each simple to wire package (warm weather shutdown with 10-0251 and 10-0252 only).



ISOLATED w/HEAT EXCHANGER	NON ISOLATED (10-0252)	RADIANT Using DOMESTIC TANK (10-0253)
<p>Application:</p> <ul style="list-style-type: none"> 10-0251: Up to 70,000 BTU/hr radiant heat. 10-0251-1: Up to 100,000 Btu/Hr radiant heat. 10-0251-2: Up to 200,000 Btu/Hr radiant heat. 145°F maximum delivered temperature. Provides isolation of boiler from radiant tubing. Use when water quality is not known. Use for isolation in anti-freeze systems. Use for non-oxygen barrier radiant tubing or unknown radiant tubing. 	<p>Application:</p> <ul style="list-style-type: none"> Up to 50,000 BTU/hr radiant heat. See next page for higher capacities. Boiler and Radiant systems are common. Use with Oxygen Barrier tubing only. Recommended only with known good quality water (minimal hardness, pH balanced, and treated for bacteria). 	<p>Application:</p> <ul style="list-style-type: none"> For radiant system heat loads up to 35,000 BTU/hr and maximum radiant supply temperature of 135°F. Isolates domestic hot water from radiant system using plate heat exchanger. Set domestic hot water temperature using mixing valve provided.
<p>Radiant Kit Includes:</p> <ul style="list-style-type: none"> 10-0251: 40 gallon 12 year Mixing tank with #14 Isolating Heat Exchanger, 2 qts 8-Way. 10-0251-1: 80 Gallon 12 year Mixing tank with #18 Isolating Heat Exchanger, 3 qts 8-Way. 10-0251-2: 120 Gallon 6 year Mixing tank with #18 Isolating Heat Exchanger, 4 qts 8-Way. W/R 11D18 Aquastat C.I. Injection Pump 007 C.I. Circ w/ ball valve and fittings Heat Trap Check Valve Air Vent Injection Header w/ fittings and ball valve 3/4" Zone Valve 30 psi relief valve. 8-WAY boiler treatment Erie Boiler Boss 3000 injection control Warm Weather Shutdown Relay 	<p>Radiant Kit Includes:</p> <ul style="list-style-type: none"> 40-gallon 12 Year Mixing tank as a zone off the boiler. W/R 11D18 Aquastat C.I. Injection Pump Heat Trap Check Valve Air Vent Injection Header w/fittings and ball valve 3/4" Zone Valve 2 quarts of 8-WAY boiler treatment Erie Boiler Boss 3000 injection control Warm Weather Shutdown Relay 	<p>Radiant Kit Includes:</p> <ul style="list-style-type: none"> Uses 40 gallon or larger domestic hot water tank (not included) Bronze Injection Pump with Heat Trap Check Valve #14 Isolating Heat Exchanger Injection ball valve 85°F to 145°F Mixing Valve for control of domestic water temperature 1 quart of 8-WAY boiler treatment for radiant system. W/R 11D18 Aquastat Erie Boiler Boss 3000 injection control

Optional components:

10-0432T	Taco 007 CI Radiant Loop Circulator
10-0438	Taco 0010 CI Radiant Loop Circulator
10-0151-E	3/4" Zone Valve with End Switch for radiant zones
10-0640	1 Quart 8-Way (treats 30 gallons)

10-0505	Automatic Boiler Feeder (pressure reducing valve)
10-0142	Option: upgrade to 80 gallon glass lined tank from 40 gal
10-0427	Option: upgrade to 120 gallon glass lined tank from 40 gal
10-0110	Deduct 40 gallon tank



RADIANT BUFFER TANK KITS

Radiant Kit Selection Guide

Select the part numbers needed for each application

Isolated Radiant Radiant loop fluid is isolated from boiler water and domestic water	Non-Isolated Radiant Radiant loop fluid circulates through the boiler Must use oxygen barrier tubing.
Up to 35,000 BTU/Hr	
Isolated Radiant using <u>existing</u> domestic tank <u>10-0253</u> : Domestic Radiant Kit with #14 Plate Heat Exchanger Note: Tank not included (use domestic tank)	Radiant using existing domestic tank Not available – domestic water must be isolated from radiant loop. Use non-isolated 10-0252 below.
Up to 50,000 BTU/Hr	
Isolated Radiant <u>10-0251</u> : Isolated Radiant Kit with #14 Plate Heat Exchanger and 40 gallon 12 Year Tank included	Non-Isolated Radiant <u>10-0252</u> : Non-Isolated Radiant Kit with 40 gallon 12 Year Tank included.
Up to 70,000 BTU/Hr	
Isolated Radiant <u>10-0251</u> : Isolated Radiant Kit with #14 Plate Heat Exchanger <u>10-0142-12</u> : Upgrade to 80 Gallon 12 Year Tank from 40 gallon tank	Non-Isolated Radiant <u>10-0252</u> : Non-Isolated Radiant Kit <u>10-0142-12</u> : Upgrade to 80 Gallon 12 Year Tank from 40 gallon tank
Up to 100,000 BTU/Hr	
Isolated Radiant <u>10-0251-1</u> : Isolated Radiant Kit with #18 Plate Heat Exchanger for High recovery and 80 Gallon 12 Year Warranty Tank Included	Non-Isolated Radiant <u>10-0252</u> : Non-Isolated Radiant Kit <u>10-0142-12</u> : Upgrade to 80 Gallon 12 Year Tank from 40 gallon tank
Up to 200,000 BTU/Hr	
Isolated Radiant (EK-2 Only) <u>10-0251-2</u> : Isolated Radiant Kit with #18 Plate Heat Exchanger for High recovery and 120 Gallon 6 Year Warranty Tank Included	Non-Isolated Radiant (EK-2 Only) <u>10-0252</u> : Non-Isolated Radiant Kit <u>10-0427</u> : Upgrade to 120 Gallon 6 Year Tank from 40 gallon tank

Example: 60,000 BTU/hr is needed for an isolated radiant application. Order (1) 10-0251 with #14 plate exchanger and order (1) 10-0142-12 to upgrade tank to 80 gallons from 40 gallons

- 1) All basic kits include (1) 40 gallon 12 year tank, unless otherwise noted.
- 2) All kits include one Boiler Boss 3000 injection control with indoor/outdoor reset.
- 3) Operation in a nut shell: one Manager zone is used to heat the buffer tank. The Boiler Boss 3000 controls the temperature of the radiant loop based on outdoor temperature. Each radiant zone is controlled by a thermostat that opens a zone valve with end switch. The end switch is wired into the BB3000 to tell the BB3000 there is a heating demand. The BB3000 will inject hot water from the buffer tank into the radiant loop as needed.
- 4) For piping and wiring instructions and a list of parts needed for a particular application refer to the Tech Manual for examples or call Tech Support and request system drawings.
- 5) We have drawings available for single temperature, multi-temperature with and without I/O reset, zones by zone valve, or zones by circulator. Call Tech Support and request applications help.