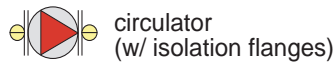


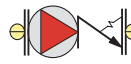
Piping Symbol Legend



circulator
(w/ isolation flanges)



pressure reducing valve



circulator w/
integral flow check



diff. pressure bypass



gate valve



globe valve



ball valve



swing-check valve



flow-check valve



spring-loaded check valve



hose bib / boiler drain



thermostatic radiator valve
TRV (straight)



thermostatic radiator valve
TRV (angle)



circuit setter



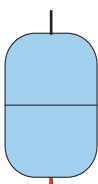
manual 3-way valve



zone valve



air separator



diaphragm-type
expansion tank



anti-scald rated
mixing valve



pressure gauge



4-way motorized
mixing valve



3-way motorized
mixing valve



pressure relief valve



backflow preventer



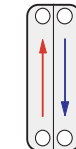
float-type
air vent



temperature /
pressure gauge



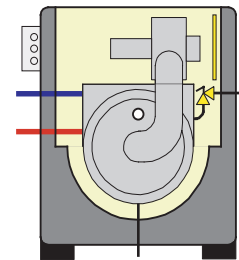
union



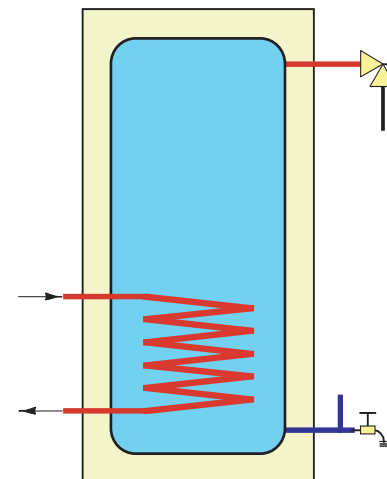
heat exchanger



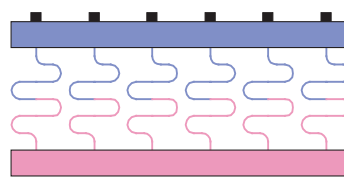
vacuum breaker



Munchkin heater



Super Stor
indirect DHW tank



radiant manifold

CAUTION

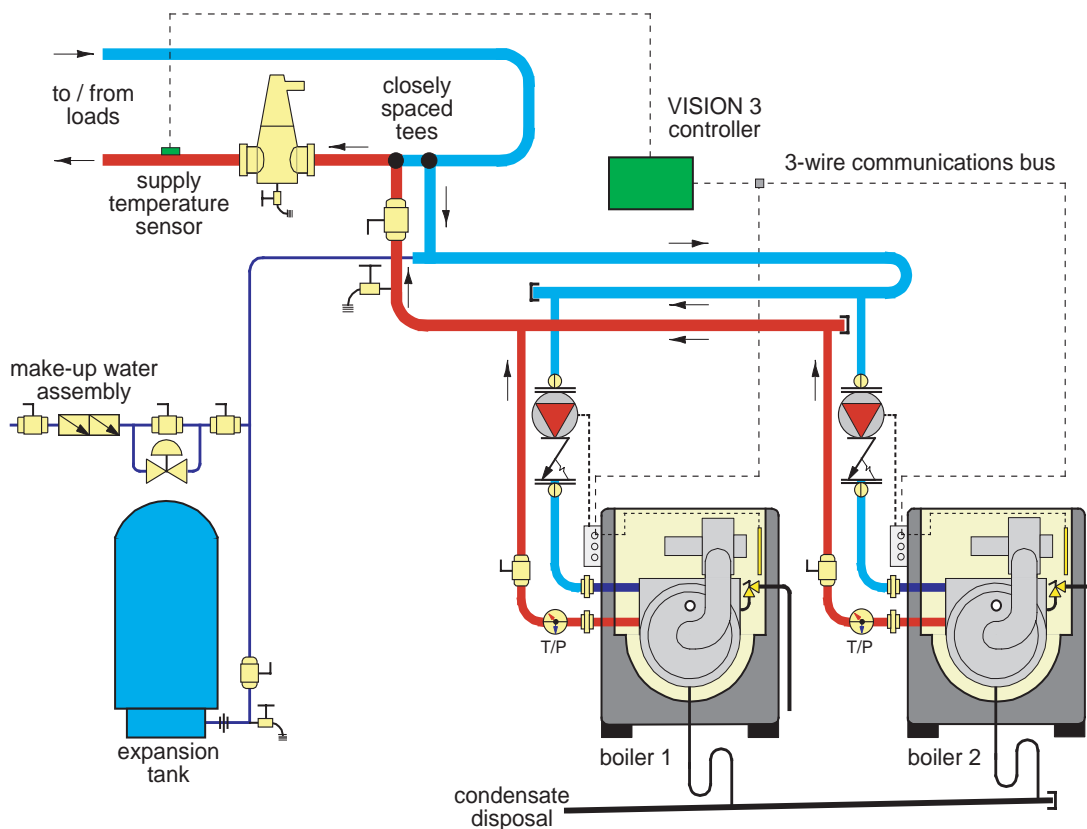
This drawing is to show the Vision contractor the correct installation guidelines. If the Vision 3 is applied to an installation that requires unique piping or wiring, it is recommended that you contact your local distributor. These drawings are for reference purpose only. It is important that installers take special notice to the notes located under each drawing that highlight important installation practices.

CAUTION

Sensitive floor coverings should have additional protection with the use of limiting devices that will shutdown the circulators on the feed lines to these floors, should there be a failure.

Munchkin VISION 3 system boiler configurations
(2 boilers in horizontal bank)

Drawing V3-BB1



NOTES:

1. This drawing is meant to show system piping concept only. Installer is responsible for all equipment & detailing required by local codes.
2. All closely spaced tees shall be within 4 pipe diameter center to center spacing.
3. A minimum of 6 pipe diameters of straight pipe shall be installed upstream and downstream of all closely spaced tees.
4. The minimum pipe size for connecting a Super Stor water heater is 1 inch.
5. The minimum pipe size for connecting a Munchkin boiler is 1.25 inches (2" for the 399M).
6. All pumps are shown with isolation flanges and integral flow check valves. The alternative is standard flanges with full port ball valves and a separate flow check valve.
7. Install a minimum of 12 diameters of straight pipe upstream of all circulators.
8. A purging valve may be used in lieu of the ball valve / hose bib combination shown.
9. All multiple boilers shall be installed with reverse return piping

CAUTION

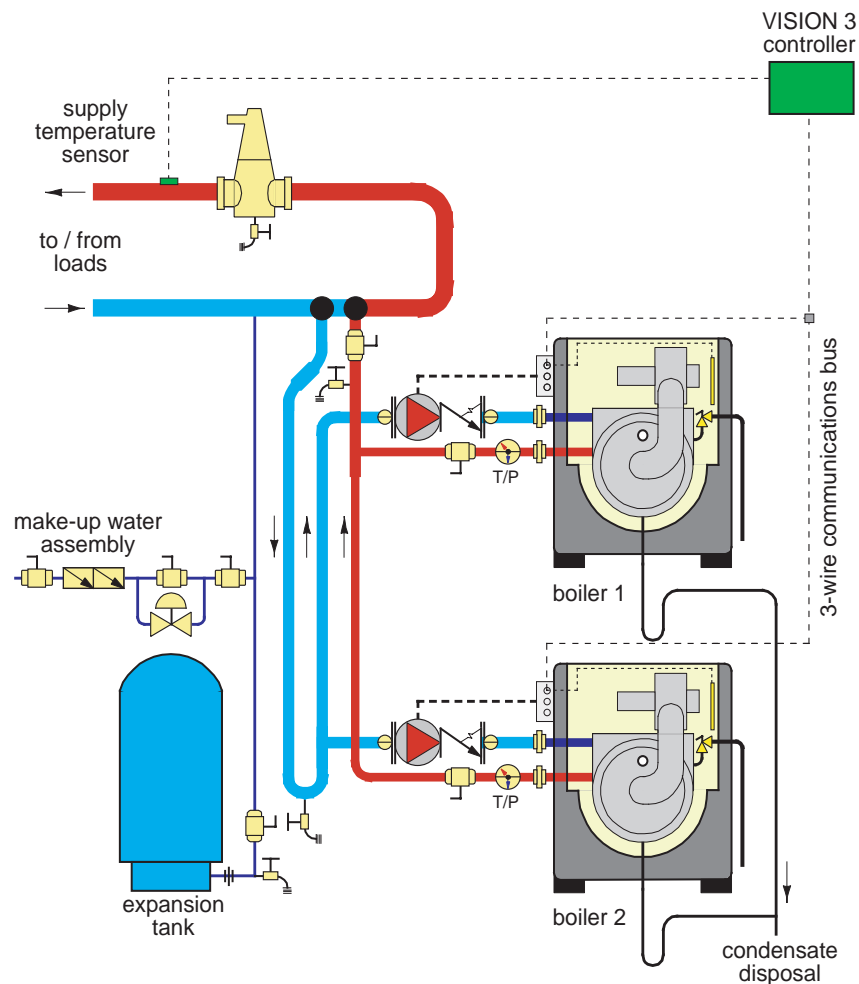
This drawing is to show the Vision contractor the correct installation guidelines. If the Vision 3 is applied to an installation that requires unique piping or wiring, it is recommended that you contact your local distributor. These drawings are for reference purpose only. It is important that installers take special notice to the notes located under each drawing that highlight important installation practices.

CAUTION

Sensitive floor coverings should have additional protection with the use of limiting devices that will shutdown the circulators on the feed lines to these floors, should there be a failure.

Munchkin VISION 3 system boiler configurations
(2 boilers in vertical bank)

Drawing V3-BB2



NOTES:

1. This drawing is meant to show system piping concept only. Installer is responsible for all equipment & detailing required by local codes.
2. All closely spaced tees shall be within 4 pipe diameter center to center spacing.
3. A minimum of 6 pipe diameters of straight pipe shall be installed upstream and downstream of all closely spaced tees.
4. The minimum pipe size for connecting a Super Stor water heater is 1 inch.
5. The minimum pipe size for connecting a Munchkin boiler is 1.25 inches (2" for the 399M).
6. All pumps are shown with isolation flanges and integral flow check valves. The alternative is standard flanges with full port ball valves and a separate flow check valve.
7. Install a minimum of 12 diameters of straight pipe upstream of all circulators.
8. A purging valve may be used in lieu of the ball valve / hose bib combination shown.
9. All multiple boilers shall be installed with reverse return piping

CAUTION

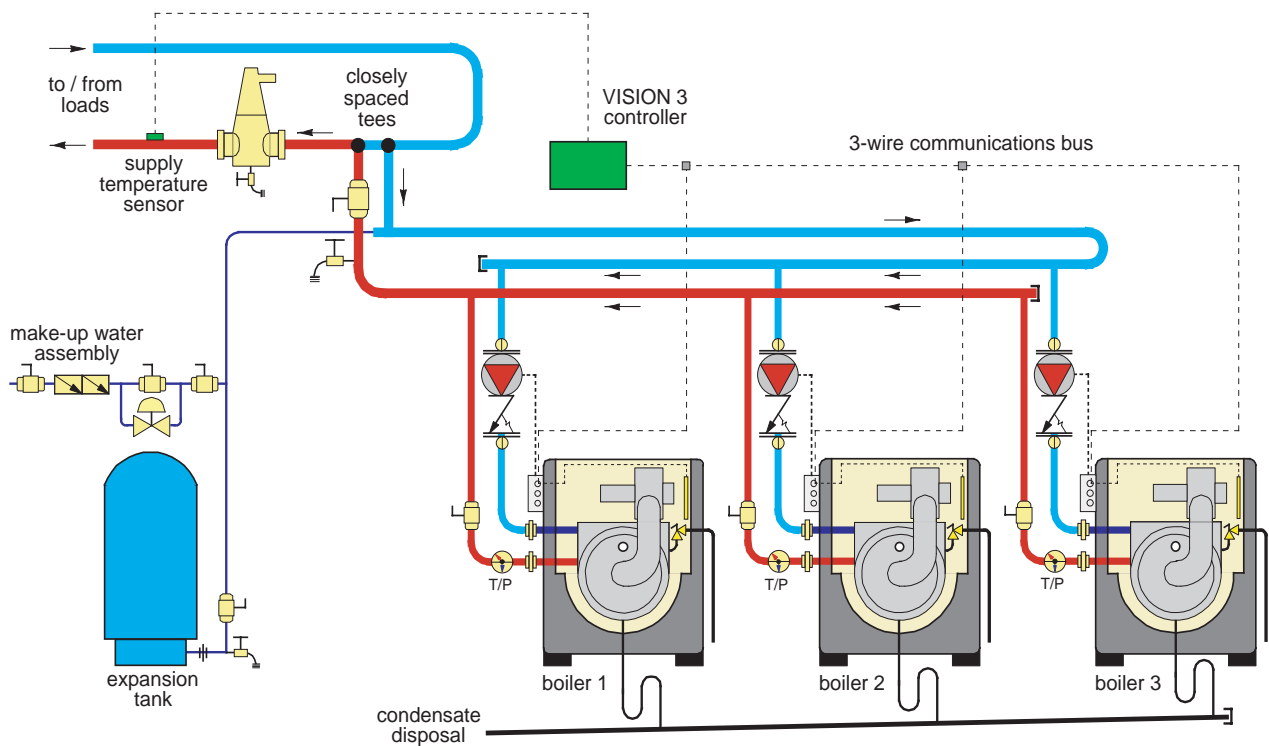
This drawing is to show the Vision contractor the correct installation guidelines. If the Vision 3 is applied to an installation that requires unique piping or wiring, it is recommended that you contact your local distributor. These drawings are for reference purpose only. It is important that installers take special notice to the notes located under each drawing that highlight important installation practices.

CAUTION

Sensitive floor coverings should have additional protection with the use of limiting devices that will shutdown the circulators on the feed lines to these floors, should there be a failure.

Munchkin VISION 3 system boiler configurations
(3 boilers in single horizontal bank)

Drawing V3-BB3



NOTES:

1. This drawing is meant to show system piping concept only. Installer is responsible for all equipment & detailing required by local codes.
2. All closely spaced tees shall be within 4 pipe diameter center to center spacing.
3. A minimum of 6 pipe diameters of straight pipe shall be installed upstream and downstream of all closely spaced tees.
4. The minimum pipe size for connecting a Super Stor water heater is 1 inch.
5. The minimum pipe size for connecting a Munchkin boiler is 1.25 inches (2" for the 399M).
6. All pumps are shown with isolation flanges and integral flow check valves. The alternative is standard flanges with full port ball valves and a separate flow check valve.
7. Install a minimum of 12 diameters of straight pipe upstream of all circulators.
8. A purging valve may be used in lieu of the ball valve / hose bib combination shown.
9. All multiple boilers shall be installed with reverse return piping

CAUTION

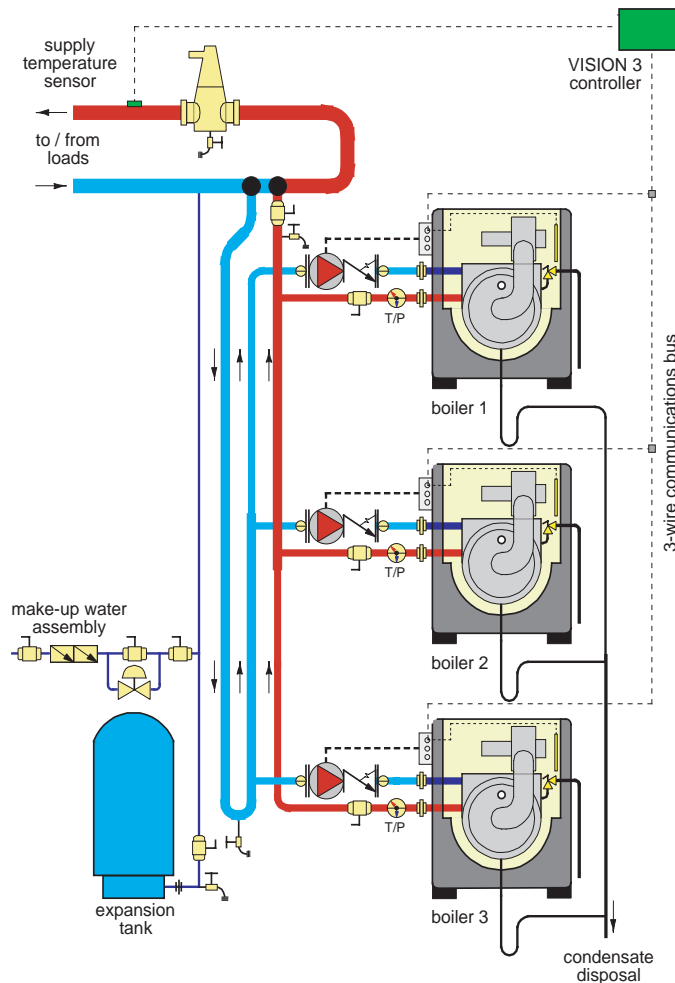
This drawing is to show the Vision contractor the correct installation guidelines. If the Vision 3 is applied to an installation that requires unique piping or wiring, it is recommended that you contact your local distributor. These drawings are for reference purpose only. It is important that installers take special notice to the notes located under each drawing that highlight important installation practices.

CAUTION

Sensitive floor coverings should have additional protection with the use of limiting devices that will shutdown the circulators on the feed lines to these floors, should there be a failure.

Munchkin VISION 3 system boiler configurations
(3 boilers in 1 vertical bank)

Drawing V3-BB4



NOTES:

1. This drawing is meant to show system piping concept only. Installer is responsible for all equipment & detailing required by local codes.
2. All closely spaced tees shall be within 4 pipe diameter center to center spacing.
3. A minimum of 6 pipe diameters of straight pipe shall be installed upstream and downstream of all closely spaced tees.
4. The minimum pipe size for connecting a Super Stor water heater is 1 inch.
5. The minimum pipe size for connecting a Munchkin boiler is 1.25 inches (2" for the 399M).
6. All pumps are shown with isolation flanges and integral flow check valves. The alternative is standard flanges with full port ball valves and a separate flow check valve.
7. Install a minimum of 12 diameters of straight pipe upstream of all circulators.
8. A purging valve may be used in lieu of the ball valve / hose bib combination shown.
9. All multiple boilers shall be installed with reverse return piping

CAUTION

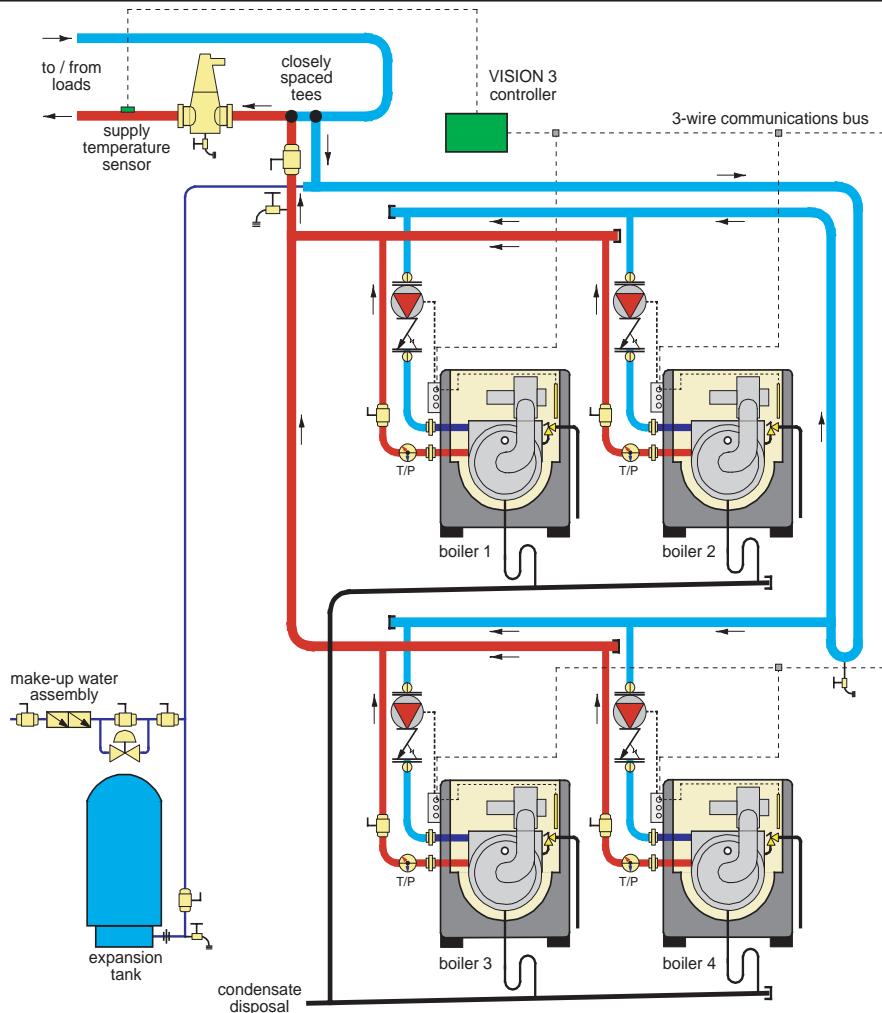
This drawing is to show the Vision contractor the correct installation guidelines. If the Vision 3 is applied to an installation that requires unique piping or wiring, it is recommended that you contact your local distributor. These drawings are for reference purpose only. It is important that installers take special notice to the notes located under each drawing that highlight important installation practices.

CAUTION

Sensitive floor coverings should have additional protection with the use of limiting devices that will shutdown the circulators on the feed lines to these floors, should there be a failure.

Munchkin VISION 3 system boiler configurations
(4 boilers in 2 horizontal banks of 2)

Drawing V3-BB5



NOTES:

1. This drawing is meant to show system piping concept only. Installer is responsible for all equipment & detailing required by local codes.
2. All closely spaced tees shall be within 4 pipe diameter center to center spacing.
3. A minimum of 6 pipe diameters of straight pipe shall be installed upstream and downstream of all closely spaced tees.
4. The minimum pipe size for connecting a Super Stor water heater is 1 inch.
5. The minimum pipe size for connecting a Munchkin boiler is 1.25 inches (2" for the 399M).
6. All pumps are shown with isolation flanges and integral flow check valves. The alternative is standard flanges with full port ball valves and a separate flow check valve.
7. Install a minimum of 12 diameters of straight pipe upstream of all circulators.
8. A purging valve may be used in lieu of the ball valve / hose bib combination shown.
9. All multiple boilers shall be installed with reverse return piping

CAUTION

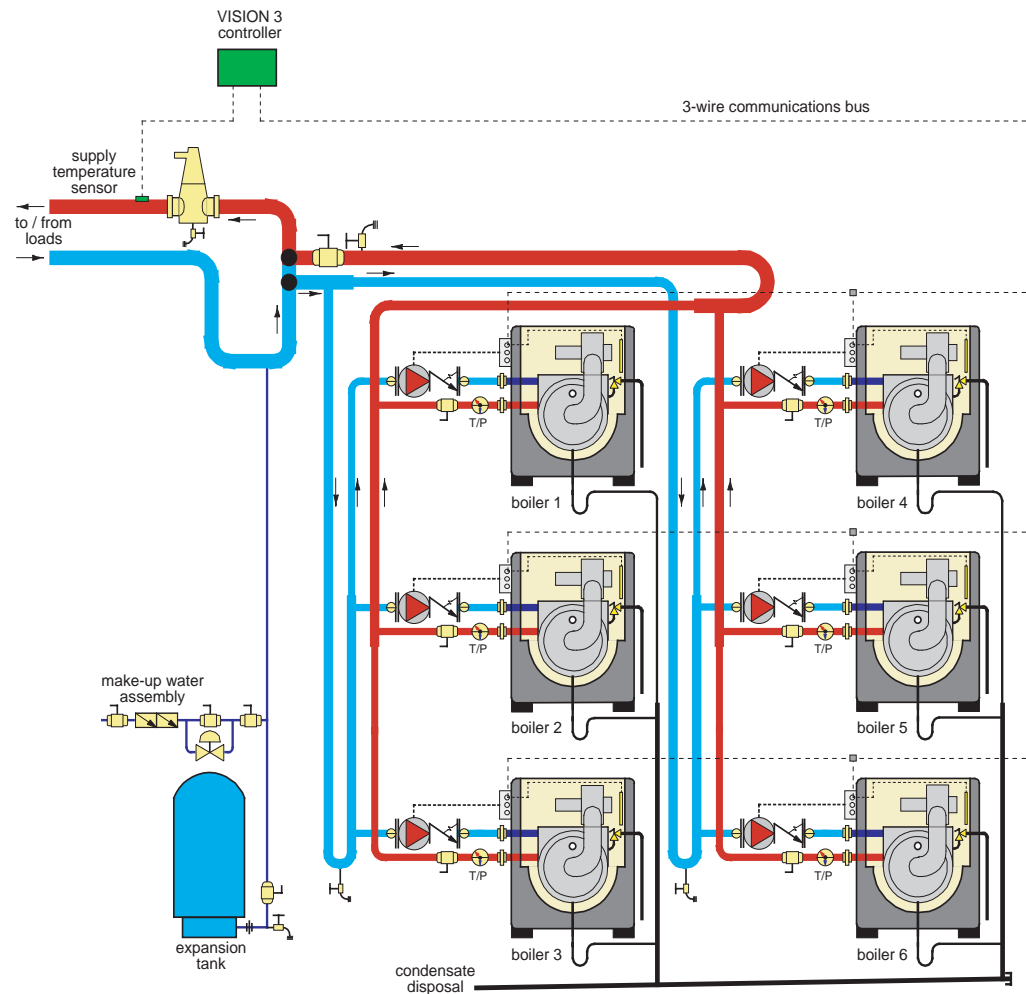
This drawing is to show the Vision contractor the correct installation guidelines. If the Vision 3 is applied to an installation that requires unique piping or wiring, it is recommended that you contact your local distributor. These drawings are for reference purpose only. It is important that installers take special notice to the notes located under each drawing that highlight important installation practices.

CAUTION

Sensitive floor coverings should have additional protection with the use of limiting devices that will shutdown the circulators on the feed lines to these floors, should there be a failure.

Munchkin VISION 3 system boiler configurations
(6 boilers in 2 vertical banks of 3)

Drawing V3-BB6



NOTES:

1. This drawing is meant to show system piping concept only. Installer is responsible for all equipment & detailing required by local codes.
2. All closely spaced tees shall be within 4 pipe diameter center to center spacing.
3. A minimum of 6 pipe diameters of straight pipe shall be installed upstream and downstream of all closely spaced tees.
4. The minimum pipe size for connecting a Super Stor water heater is 1 inch.
5. The minimum pipe size for connecting a Munchkin boiler is 1.25 inches (2" for the 399M).
6. All pumps are shown with isolation flanges and integral flow check valves. The alternative is standard flanges with full port ball valves and a separate flow check valve.
7. Install a minimum of 12 diameters of straight pipe upstream of all circulators.
8. A purging valve may be used in lieu of the ball valve / hose bib combination shown.
9. All multiple boilers shall be installed with reverse return piping

CAUTION

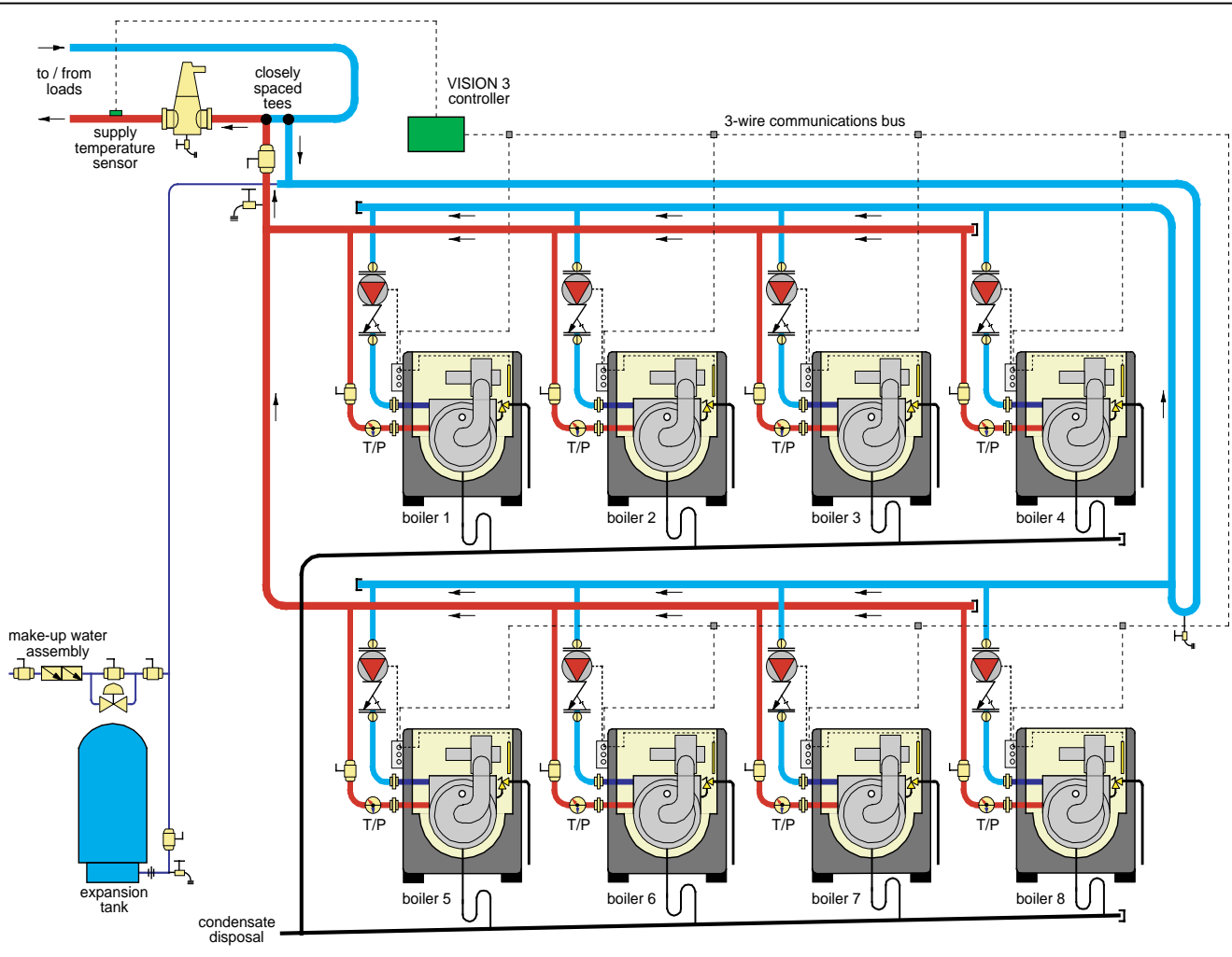
This drawing is to show the Vision contractor the correct installation guidelines. If the Vision 3 is applied to an installation that requires unique piping or wiring, it is recommended that you contact your local distributor. These drawings are for reference purpose only. It is important that installers take special notice to the notes located under each drawing that highlight important installation practices.

CAUTION

Sensitive floor coverings should have additional protection with the use of limiting devices that will shutdown the circulators on the feed lines to these floors, should there be a failure.

Munchkin VISION 3 system boiler configurations
(8 boilers in 2 horizontal banks of 4)

Drawing V3-BB7



NOTES:

1. This drawing is meant to show system piping concept only. Installer is responsible for all equipment & detailing required by local codes.
2. All closely spaced tees shall be within 4 pipe diameter center to center spacing.
3. A minimum of 6 pipe diameters of straight pipe shall be installed upstream and downstream of all closely spaced tees.
4. The minimum pipe size for connecting a Super Stor water heater is 1 inch.
5. The minimum pipe size for connecting a Munchkin boiler is 1.25 inches (2" for the 399M).
6. All pumps are shown with isolation flanges and integral flow check valves. The alternative is standard flanges with full port ball valves and a separate flow check valve.
7. Install a minimum of 12 diameters of straight pipe upstream of all circulators.
8. A purging valve may be used in lieu of the ball valve / hose bib combination shown.
9. All multiple boilers shall be installed with reverse return piping

CAUTION

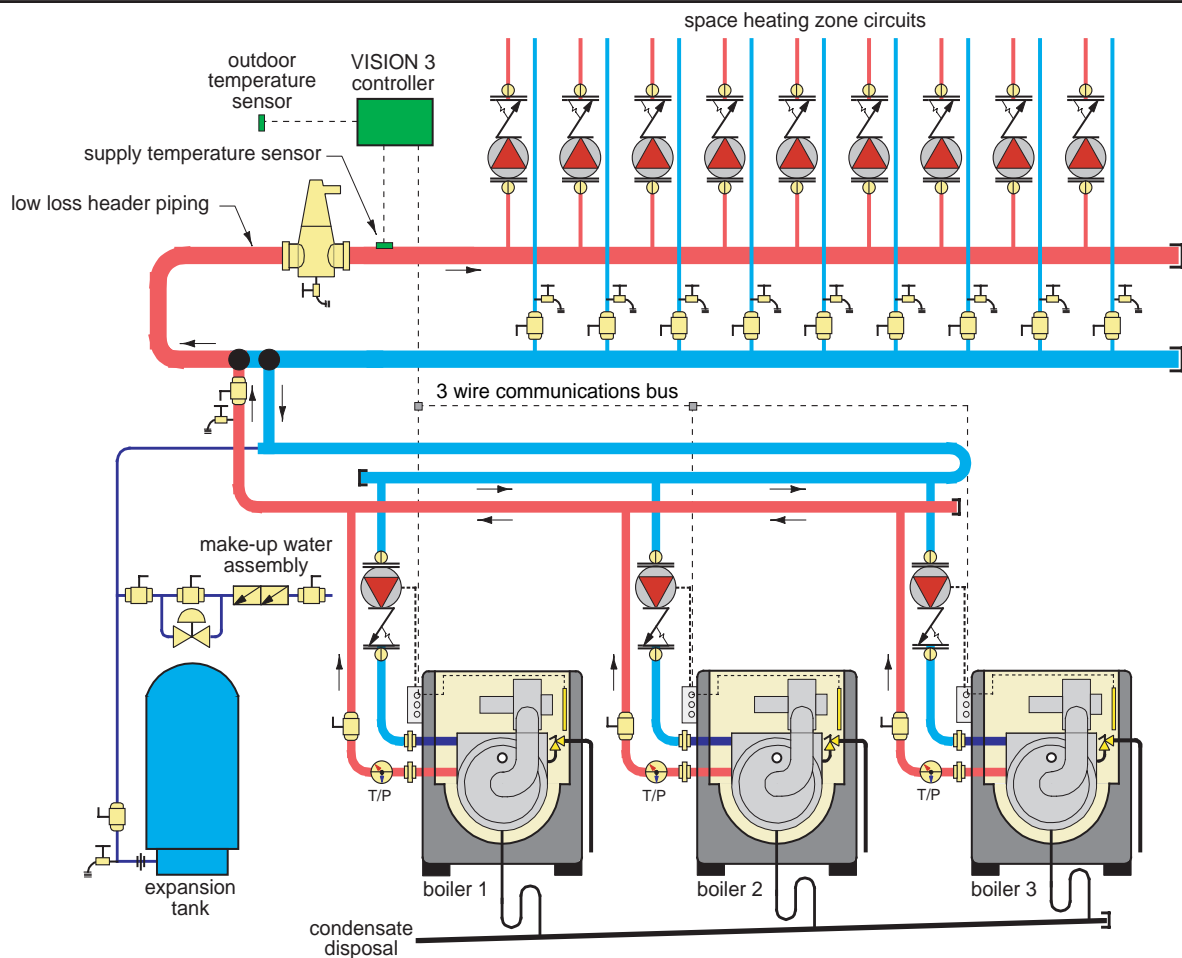
This drawing is to show the Vision contractor the correct installation guidelines. If the Vision 3 is applied to an installation that requires unique piping or wiring, it is recommended that you contact your local distributor. These drawings are for reference purpose only. It is important that installers take special notice to the notes located under each drawing that highlight important installation practices.

CAUTION

Sensitive floor coverings should have additional protection with the use of limiting devices that will shutdown the circulators on the feed lines to these floors, should there be a failure.

Munchkin VISION 3 system
Space heating only - single (reset) supply temperature
(zoning using circulators)

Drawing V3-SH1



NOTES:

1. This drawing is meant to show system piping concept only. Installer is responsible for all equipment & detailing required by local codes.
2. All closely spaced tees shall be within 4 pipe diameter center to center spacing.
3. A minimum of 6 pipe diameters of straight pipe shall be installed upstream and downstream of all closely spaced tees.
4. The minimum pipe size for connecting a Super Stor water heater is 1 inch.
5. The minimum pipe size for connecting a Munchkin boiler is 1.25 inches (2" for the 399M).
6. All pumps are shown with isolation flanges and integral flow check valves. The alternative is standard flanges with full port ball valves and a separate flow check valve.
7. Install a minimum of 12 diameters of straight pipe upstream of all circulators.
8. A purging valve may be used in lieu of the ball valve / hose bib combination shown.
9. All multiple boilers shall be installed with reverse return piping
10. Size header piping so that flow velocity does not exceed 4 ft/second under full design load

CAUTION

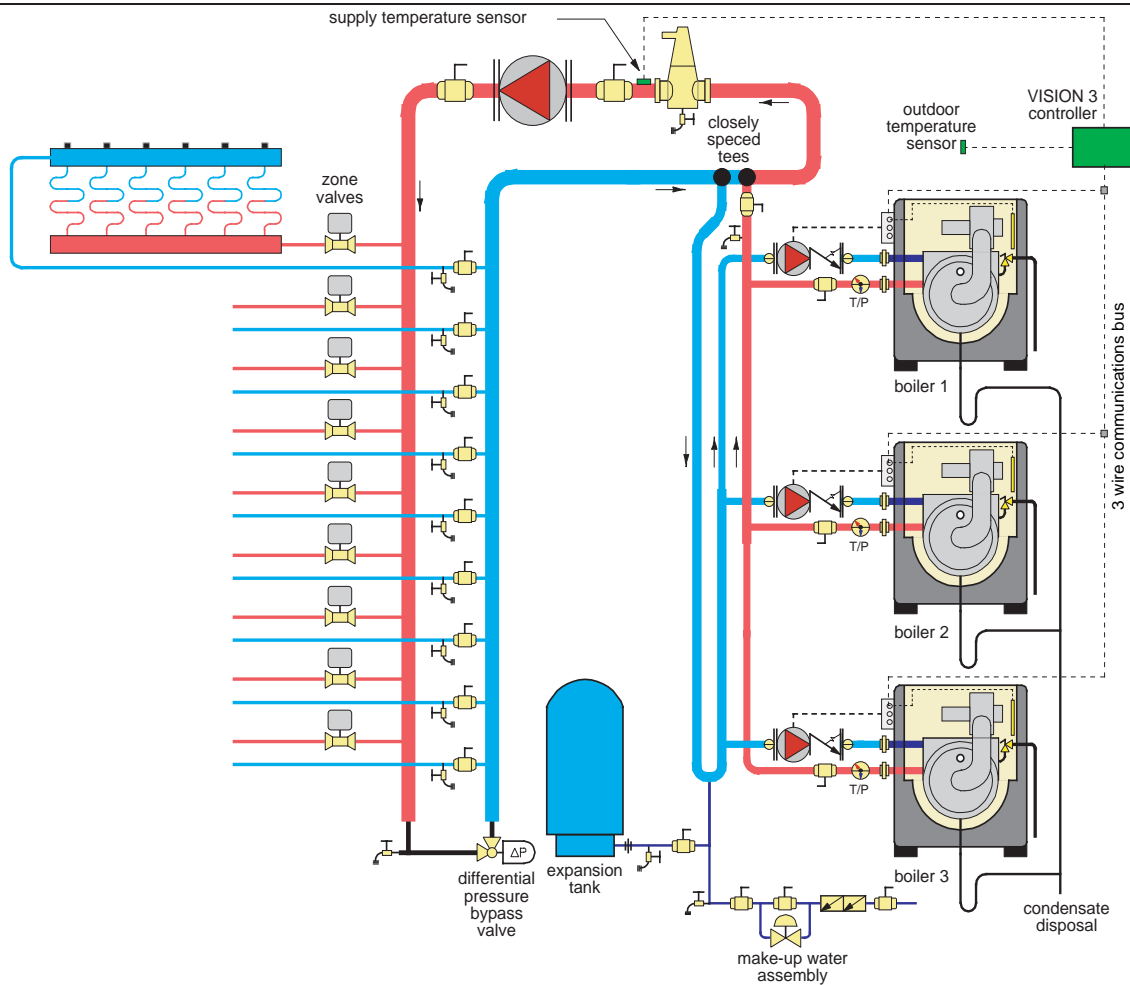
This drawing is to show the Vision contractor the correct installation guidelines. If the Vision 3 is applied to an installation that requires unique piping or wiring, it is recommended that you contact your local distributor. These drawings are for reference purpose only. It is important that installers take special notice to the notes located under each drawing that highlight important installation practices.

CAUTION

Sensitive floor coverings should have additional protection with the use of limiting devices that will shutdown the circulators on the feed lines to these floors, should there be a failure.

Munchkin VISION 3 system
Space heating only - single (reset) supply temperature
(zoning using zone valves)

Drawing V3-SH2



NOTES:

1. This drawing is meant to show system piping concept only. Installer is responsible for all equipment & detailing required by local codes.
2. All closely spaced tees shall be within 4 pipe diameter center to center spacing.
3. A minimum of 6 pipe diameters of straight pipe shall be installed upstream and downstream of all closely spaced tees.
4. The minimum pipe size for connecting a Super Stor water heater is 1 inch.
5. The minimum pipe size for connecting a Munchkin boiler is 1.25 inches (2" for the 399M).
6. All pumps are shown with isolation flanges and integral flow check valves. The alternative is standard flanges with full port ball valves and a separate flow check valve.
7. Install a minimum of 12 diameters of straight pipe upstream of all circulators.
8. A purging valve may be used in lieu of the ball valve / hose bib combination shown.
9. All multiple boilers shall be installed with reverse return piping
10. Size header piping so that flow velocity does not exceed 4 ft/second under full design load

CAUTION

This drawing is to show the Vision contractor the correct installation guidelines. If the Vision 3 is applied to an installation that requires unique piping or wiring, it is recommended that you contact your local distributor. These drawings are for reference purpose only. It is important that installers take special notice to the notes located under each drawing that highlight important installation practices.

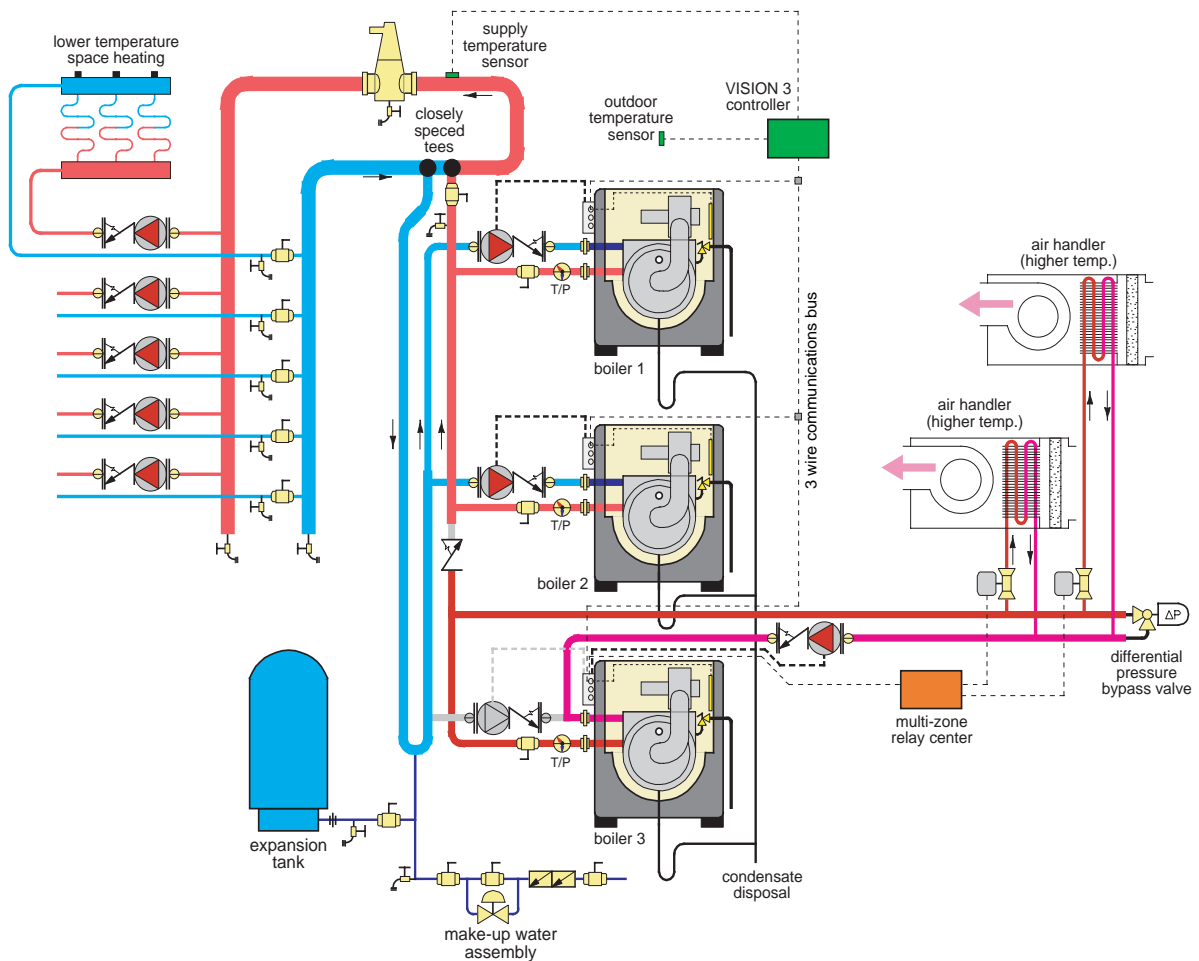
CAUTION

Sensitive floor coverings should have additional protection with the use of limiting devices that will shutdown the circulators on the feed lines to these floors, should there be a failure.

Munchkin VISION 3 system

Drawing V3-SH3

2 munchkins provide space heating with reset supply temperature
 1 munchkin provides high temperature space heating when needed,
 & reset supply temperature to low-temp space heating at other times)



NOTES:

1. This drawing is meant to show system piping concept only. Installer is responsible for all equipment & detailing required by local codes.
2. All closely spaced tees shall be within 4 pipe diameter center to center spacing.
3. A minimum of 6 pipe diameters of straight pipe shall be installed upstream and downstream of all closely spaced tees.
4. Lower boiler can be dedicated to higher temperature load when necessary.
5. The minimum pipe size for connecting a Munchkin boiler is 1.25 inches (2" for the 399M).
6. All pumps are shown with isolation flanges and integral flow check valves. The alternative is standard flanges with full port ball valves and a separate flow check valve.
7. Install a minimum of 12 diameters of straight pipe upstream of all circulators.
8. A purging valve may be used in lieu of the ball valve / hose bib combination shown.
9. All multiple boilers shall be installed with reverse return piping
10. Size header piping so that flow velocity does not exceed 4 ft/second under full design load

CAUTION

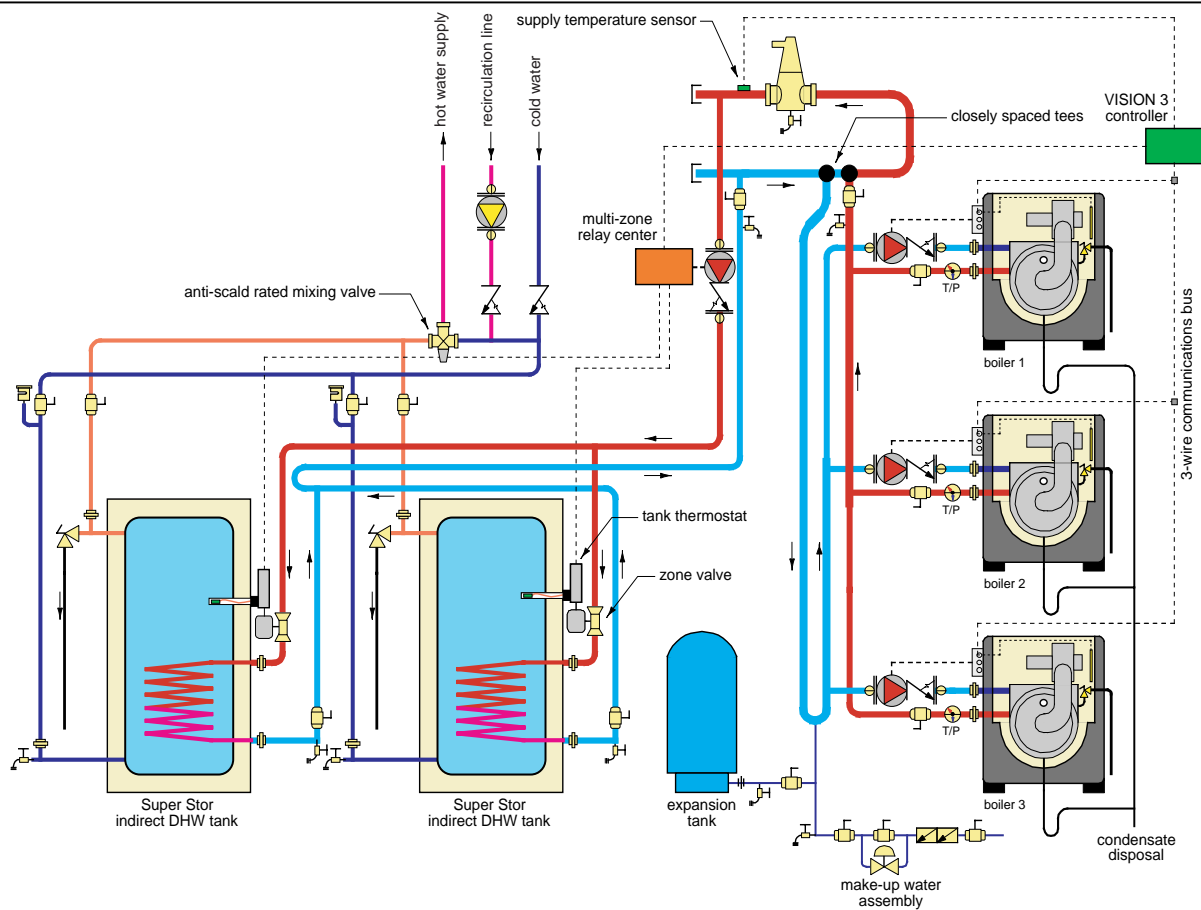
This drawing is to show the Vision contractor the correct installation guidelines. If the Vision 3 is applied to an installation that requires unique piping or wiring, it is recommended that you contact your local distributor. These drawings are for reference purpose only. It is important that installers take special notice to the notes located under each drawing that highlight important installation practices.

CAUTION

Sensitive floor coverings should have additional protection with the use of limiting devices that will shutdown the circulators on the feed lines to these floors, should there be a failure.

Munchkin VISION 3 system
 Domestic Water Heating only
 (3 boilers / 2 indirect tanks shown,
 tanks are individually controlled using zone valves)

Drawing V3-DHW1



NOTES:

1. This drawing is meant to show system piping concept only.
 Installer is responsible for all equipment & detailing required by local codes.
2. All closely spaced tees shall be within 4 pipe diameter center to center spacing.
3. A minimum of 6 pipe diameters of straight pipe shall be installed upstream and downstream of all closely spaced tees.
4. The minimum pipe size for connecting a Super Stor water heater is 1 inch.
5. The minimum pipe size for connecting a Munchkin boiler is 1.25 inches (2" for the 399M).
6. All pumps are shown with isolation flanges and integral flow check valves.
 The alternative is standard flanges with full port ball valves and a separate flow check valve.
7. Install a minimum of 12 diameters of straight pipe upstream of all circulators.
8. A purging valve may be used in lieu of the ball valve / hose bib combination shown.
9. All multiple boilers shall be installed with reverse return piping
10. Anti-scald rated mixing valve must be installed between heating system and hot water distribution to building.

CAUTION

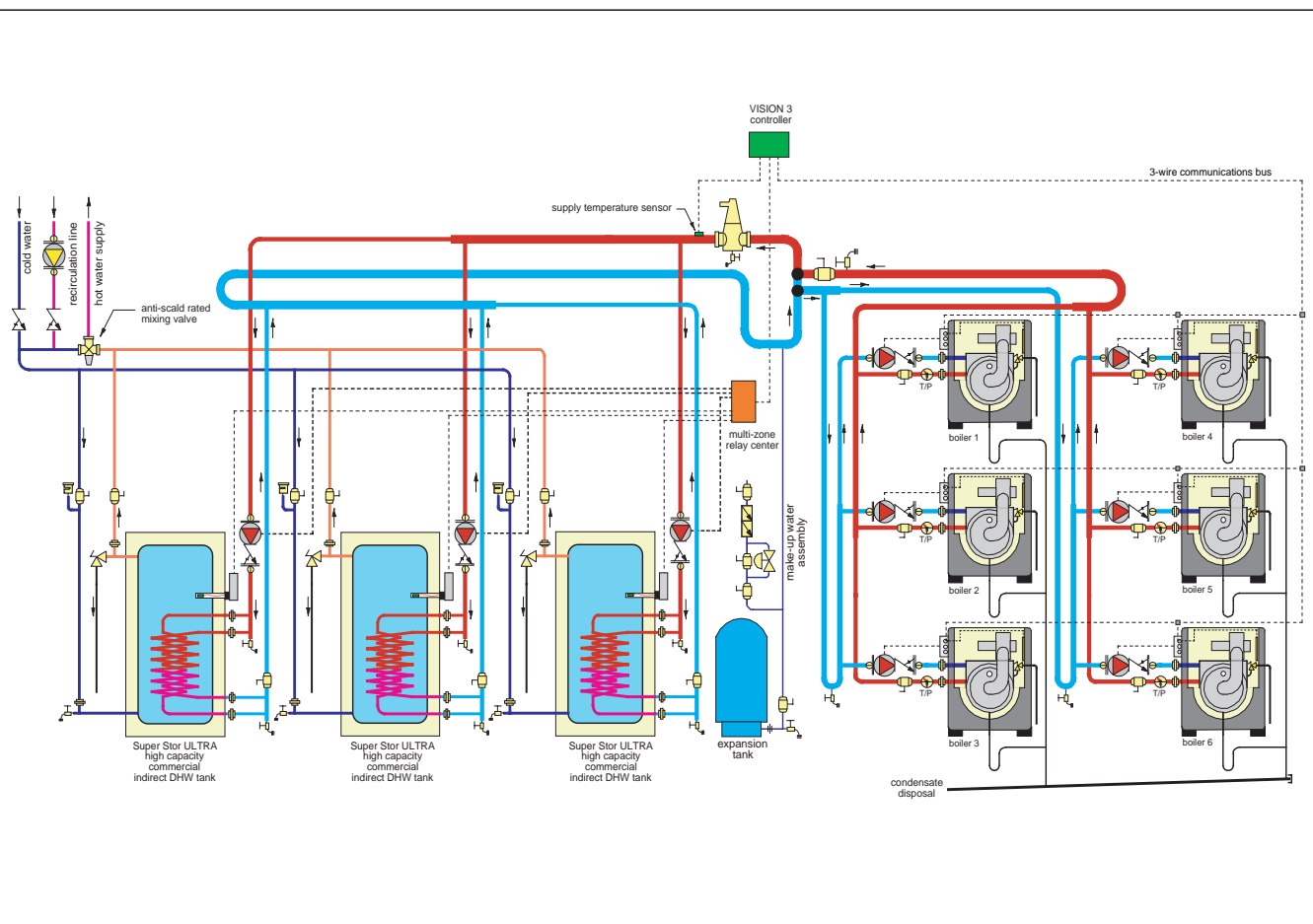
This drawing is to show the Vision contractor the correct installation guidelines. If the Vision 3 is applied to an installation that requires unique piping or wiring, it is recommended that you contact your local distributor. These drawings are for reference purpose only. It is important that installers take special notice to the notes located under each drawing that highlight important installation practices.

CAUTION

Sensitive floor coverings should have additional protection with the use of limiting devices that will shutdown the circulators on the feed lines to these floors, should there be a failure.

Munchkin VISION 3 system
Domestic Water Heating only
(3 boilers / 3 high capacity indirect tanks shown,
tanks are individually controlled using zone circulators)

Drawing V3-DHW2



NOTES:

1. This drawing is meant to show system piping concept only. Installer is responsible for all equipment & detailing required by local codes.
2. All closely spaced tees shall be within 4 pipe diameter center to center spacing.
3. A minimum of 6 pipe diameters of straight pipe shall be installed upstream and downstream of all closely spaced tees.
4. The minimum pipe size for connecting a Super Stor water heater is 1 inch.
5. The minimum pipe size for connecting a Munchkin boiler is 1.25 inches (2" for the 399M).
6. All pumps are shown with isolation flanges and integral flow check valves. The alternative is standard flanges with full port ball valves and a separate flow check valve.
7. Install a minimum of 12 diameters of straight pipe upstream of all circulators.
8. A purging valve may be used in lieu of the ball valve / hose bib combination shown.
9. All multiple boilers shall be installed with reverse return piping
10. Anti-scald rated mixing valve must be installed between heating system and hot water distribution to building.

CAUTION

This drawing is to show the Vision contractor the correct installation guidelines. If the Vision 3 is applied to an installation that requires unique piping or wiring, it is recommended that you contact your local distributor. These drawings are for reference purpose only. It is important that installers take special notice to the notes located under each drawing that highlight important installation practices.

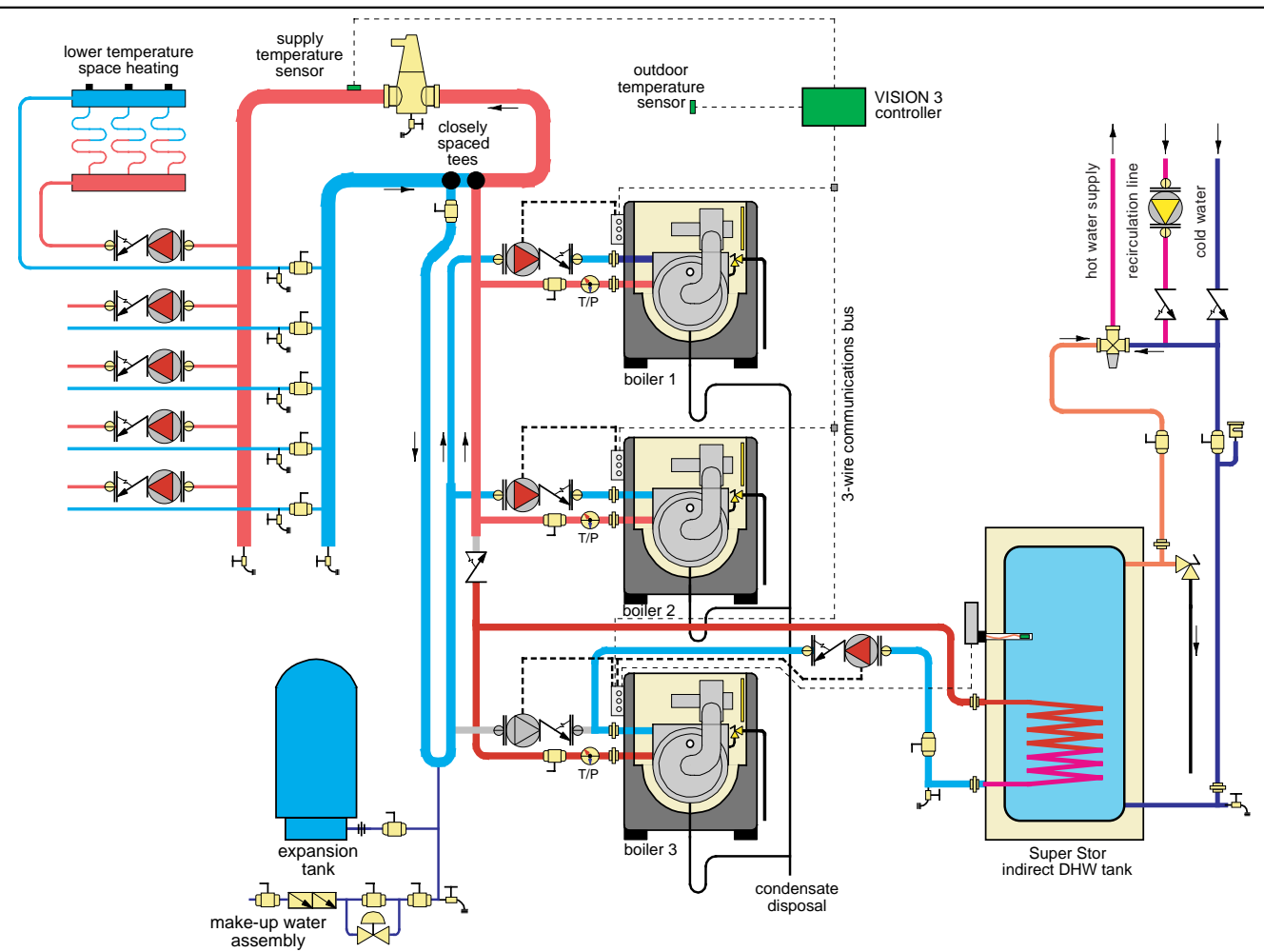
CAUTION

Sensitive floor coverings should have additional protection with the use of limiting devices that will shutdown the circulators on the feed lines to these floors, should there be a failure.

Munchkin VISION 3 system

Drawing V3-SH/DHW3

2 munchkins provide space heating with reset supply temperature
 1 munchkin provides high temperature for DHW when needed (Additional Vision 1 required),
 & reset supply temperature to low-temp space heating at other times



NOTES:

1. This drawing is meant to show system piping concept only. Installer is responsible for all equipment & detailing required by local codes.
2. All closely spaced tees shall be within 4 pipe diameter center to center spacing.
3. A minimum of 6 pipe diameters of straight pipe shall be installed upstream and downstream of all closely spaced tees.
4. Lower munchkin can be dedicated to higher temperature DHW load when necessary, space heating at other times.
5. The minimum pipe size for connecting a Munchkin boiler is 1.25 inches (2" for the 399M).
6. All pumps are shown with isolation flanges and integral flow check valves. The alternative is standard flanges with full port ball valves and a separate flow check valve.
7. Install a minimum of 12 diameters of straight pipe upstream of all circulators.
8. A purging valve may be used in lieu of the ball valve / hose bib combination shown.
9. All multiple boilers shall be installed with reverse return piping
10. Size header piping so that flow velocity does not exceed 4 ft/second under full design load

CAUTION

This drawing is to show the Vision contractor the correct installation guidelines. If the Vision 3 is applied to an installation that requires unique piping or wiring, it is recommended that you contact your local distributor. These drawings are for reference purpose only. It is important that installers take special notice to the notes located under each drawing that highlight important installation practices.

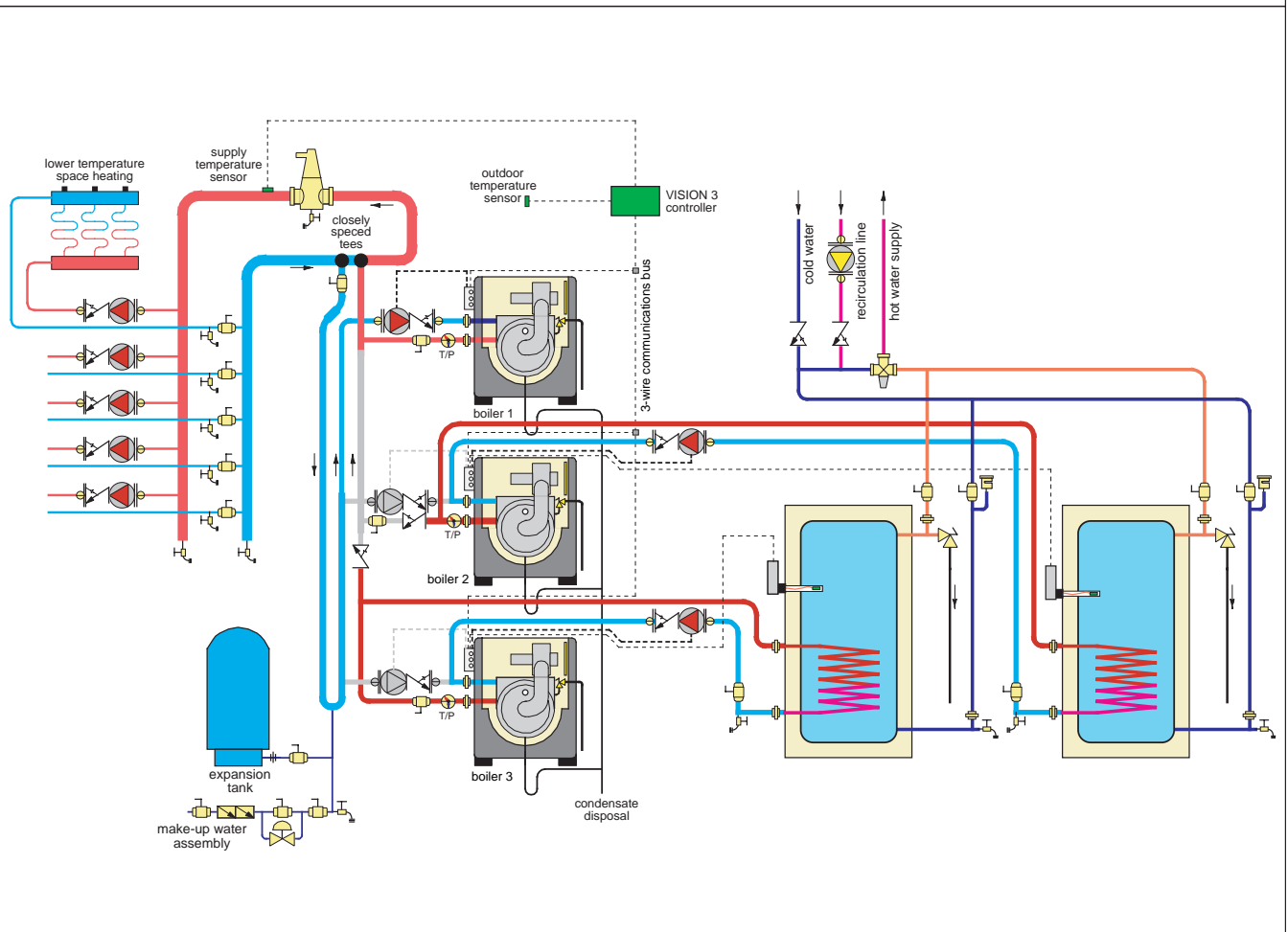
CAUTION

Sensitive floor coverings should have additional protection with the use of limiting devices that will shutdown the circulators on the feed lines to these floors, should there be a failure.

Drawing V3-SH/DHW4

Munchkin VISION 3 system

1 or 2 munchkins provide priority DHW heating when needed (Additional Vision 1 required)
 All munchkins provides low temperature (reset) space heating at other times



NOTES:

1. This drawing is meant to show system piping concept only. Installer is responsible for all equipment & detailing required by local codes.
2. All closely spaced tees shall be within 4 pipe diameter center to center spacing.
3. A minimum of 6 pipe diameters of straight pipe shall be installed upstream and downstream of all closely spaced tees.
4. Lower munchkin can be dedicated to higher temperature DHW load when necessary, space heating at other times.
5. The minimum pipe size for connecting a Munchkin boiler is 1.25 inches (2" for the 399M).
6. All pumps are shown with isolation flanges and integral flow check valves. The alternative is standard flanges with full port ball valves and a separate flow check valve.
7. Install a minimum of 12 diameters of straight pipe upstream of all circulators.
8. A purging valve may be used in lieu of the ball valve / hose bib combination shown.
9. All multiple boilers shall be installed with reverse return piping
10. Size header piping so that flow velocity does not exceed 4 ft/second under full design load