ideal HEATING

SCHEMATICS

LOGIC AIR MONOBLOC HEAT PUMP SYSTEM

SCAN
for Installation & Servicing Guide

SCAN
for Schematics Guide

When replacing any part on this appliance, use only spare parts that you can be assured conform to the safety and performance specification that we require. Do not use reconditioned or copy parts that have not been clearly authorised by Ideal Heating.

For the very latest copy of literature for specification and maintenance practices visit our website idealheating.com where you can download the relevant information in PDF format.

03/2025
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WEEE DIRECTIVE 2012/19/EU
Waste Electrical and Electronic Equipment Directive

- At the end of the product life, dispose of the packaging and product in a corresponding recycle centre.
- Do not dispose of the unit with the usual domestic refuse.
- Do not burn the product.
- Remove the batteries.
- Dispose of the batteries according to the local statutory requirements and not with the usual domestic refuse.

benchmark
COLLECTIVE MARK
THE MARK OF QUALITY FOR THE INSTALLATION, COMMISSIONING AND SERVICING OF DOMESTIC HEATING AND HOT WATER SYSTEMS

The code of practice for the installation, commissioning& servicing of central heating systems

UK CA

CE

Ideal Heating reserve the right to vary specification without notice

CONTENTS

ⓘ IMPORTANT: PLEASE USE THIS MANUAL IN CONJUNCTION WITH THE LOGIC AIR MONOBLOC HEAT PUMP SYSTEM – INSTALLATION & SERVICING MANUAL

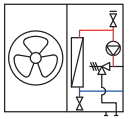
Figure 1. Legend

LEGEND

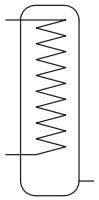
- CH WATER FLOW PIPEWORK
- CH WATER RETURN PIPEWORK
- DHW HOT WATER OUTLET PIPEWORK
- DHW COLD WATER INLET PIPEWORK
- SYSTEM BOUNDARY

COMPONENT SYMBOLS

- GATE VALVE
- BALL VALVE
- CHECK VALVE
- DOUBLE CHECK VALVE
- AUTOMATIC AIR VENT
- PRESSURE RELIEF VALVE
- PRESSURE REDUCING VALVE
- AUTOMATIC BY–PASS VALVE
- ANTI–FREEZE VALVE
- 2 WAY VALVE
- 3 WAY VALVE
- CIRCULATING PUMP
- FLEXIBLE HOSE
- IMMERSION HEATER
- PLATE HEAT EXCHANGER
- PIPE INSULATION
- MF MAGNETIC FILTER
- STRAINER
- REDUCER
- FLOW BALANCING VALVE WITH WATER FLOW INDICATOR (10 – 50 l/min)



MONOBLOCK HEAT PUMP

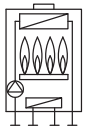


INDIRECT DHW CYLINDER

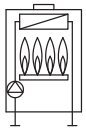
HEAT EMITTER

EXPANSION VESSEL

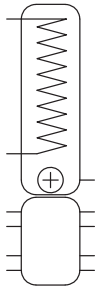
VOLUMISER



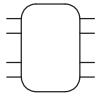
COMBINATION BOILER



SYSTEM BOILER



INDIRECT DHW CYLINDER WITH INTEGRATED BUFFER TANK



MULTI CONNECTION BUFFER TANK

MULTI CONNECTION HYDRAULIC SEPARATOR

HYDRAULIC SEPARATOR

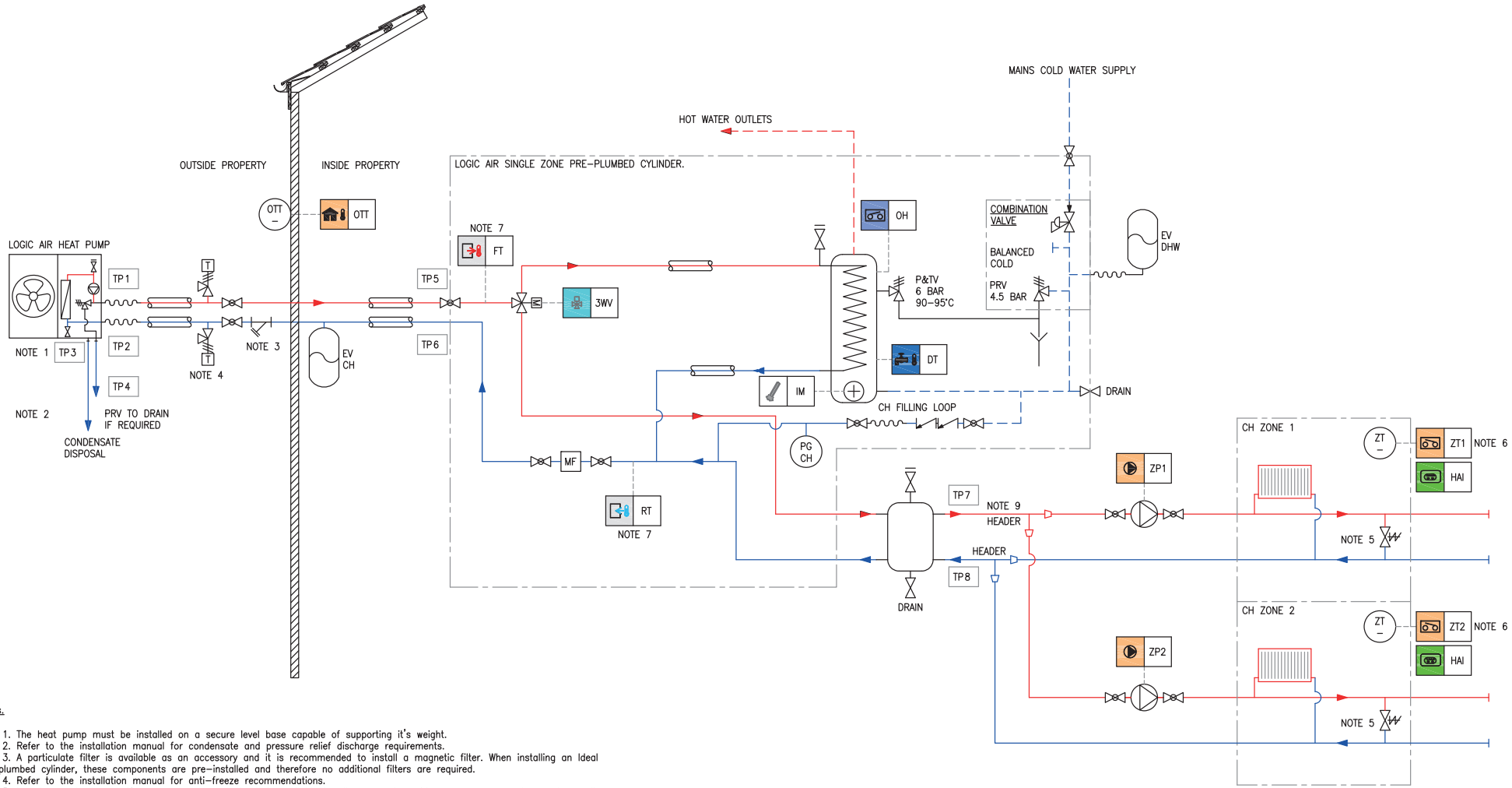
INSTRUMENT ABBREVIATIONS
(LOGIC AIR CONTROL BOX CONNECTIONS)

- FT — FLOW THERMISTOR
- RT — RETURN THERMISTOR
- HT — HEADER THERMISTOR
- DT — DHW THERMISTOR
- OTT — OUTDOOR TEMPERATURE THERMISTOR
- ZT1 — ZONE 1 ON/OFF THERMOSTAT
- ZT2 — ZONE 2 ON/OFF THERMOSTAT
- HAI — HALO AIR INTERFACE
- OH — OVERHEAT THERMOSTAT
- ZP1 — HEATING ZONE PUMP 1
- ZP2 — HEATING ZONE PUMP 2
- IM — IMMERSION HEATER
- DP — DHW PUMP
- 3WV — 3 WAY VALVE
- 2WV — 2 WAY VALVE
- BLR — GAS BOILER

Refer to Logic Air monobloc heat pump system installation and maintenance manual in conjunction with these schematic drawings.

CONNECTION POINT LIST				
TP No	DESCRIPTION	SIZE	MATERIAL	TYPE
1	HEAT PUMP FLOW	1" BSP	BRASS	BSP MALE
2	HEAT PUMP RETURN	1" BSP	BRASS	BSP MALE
3	HEAT PUMP CONDENSATE DISPOSAL	–	–	–
4	PRESSURE RELIEF VALVE (PRV)	15MM	COPPER	COPPER PIPE OUTLET
5	HEAT PUMP FLOW	28MM	BRASS	COMPRESSION
6	HEAT PUMP RETURN	28MM	BRASS	COMPRESSION
7	ZONE FLOWS	28MM	BRASS	COMPRESSION
8	ZONE RETURNS	28MM	BRASS	COMPRESSION

Figure 2. Logic Air + Single Zone Pre-Plumbed Cylinder + External Buffer with Two Zones



Notes.

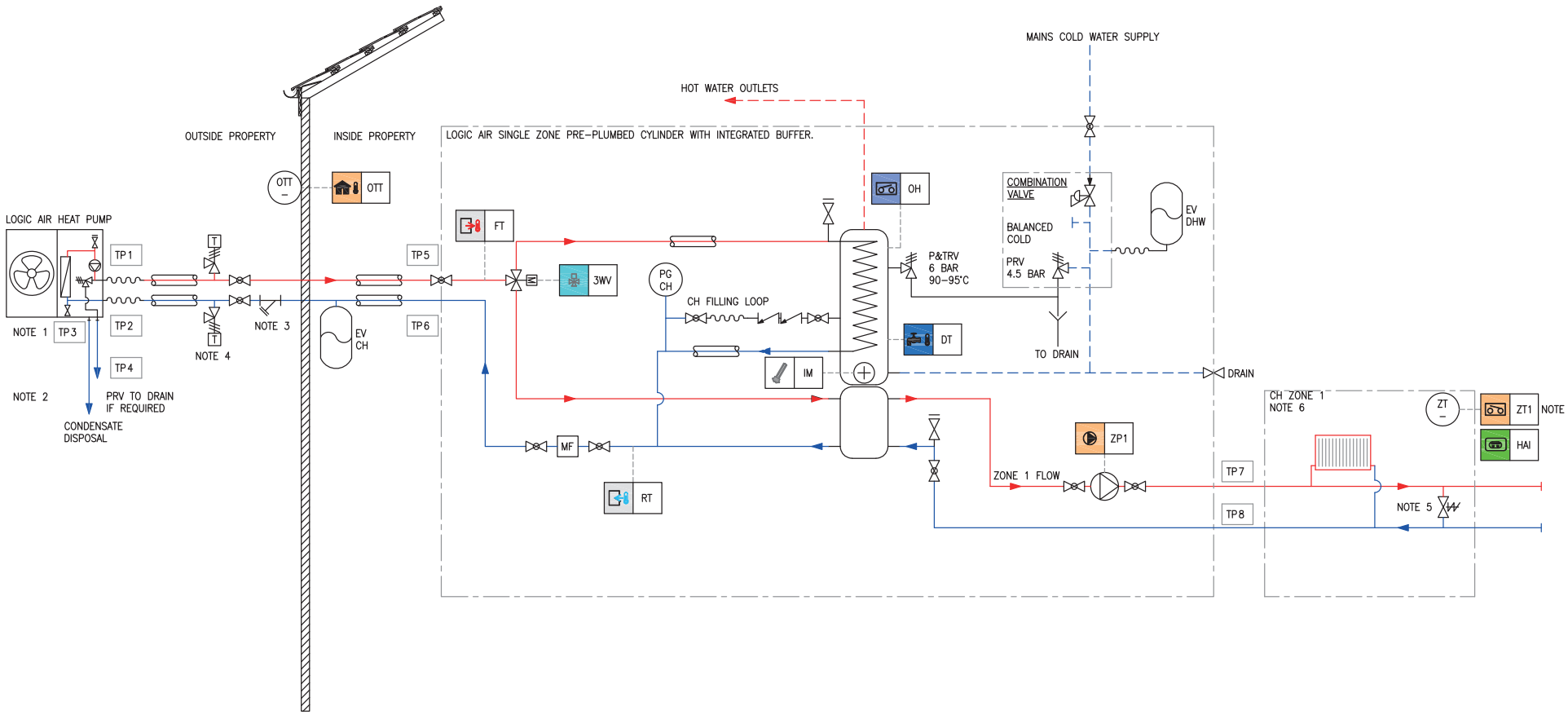
Note 1. The heat pump must be installed on a secure level base capable of supporting it's weight.
Note 2. Refer to the installation manual for condensate and pressure relief discharge requirements.
Note 3. A particulate filter is available as an accessory and it is recommended to install a magnetic filter. When installing an Ideal Pre–plumbed cylinder, these components are pre–installed and therefore no additional filters are required.
Note 4. Refer to the installation manual for anti–freeze recommendations.
Note 5. Install an auto–bypass if no permanent open circuit is available to allow secondary side pump overrun and normal operation.
Note 6. Refer to the installation manual for smart or ON/OFF thermostat connection.
Note 7. Flow and return pipe clip–on sensors must be installed on the 28mm copper pipe work.
Note 8. Ensure the correct pipe size is installed. Refer to the Logic Air heat pump installation manuals.
Note 9. The buffer tank common flow header needs to be appropriately sized to meet the overall system flow requirements of both zones. Make sure both zones are balanced, or single zone if applicable.
Note 10. Free volume must be considered as any part of the un–valved system volume with sections of pipework and radiators without thermostatic radiator valves.

This drawing is for information and guidance only. It is the heating designer/installers responsibility to adhere to the latest relevant standards.

Refer to Logic Air monobloc heatpump system installation and maintenance manual in conjunction with these schematic drawings.

CONNECTION POINT LIST				
TP No	DESCRIPTION	SIZE	MATERIAL	TYPE
1	HEAT PUMP FLOW	1" BSP	BRASS	BSP MALE
2	HEAT PUMP RETURN	1" BSP	BRASS	BSP MALE
3	HEAT PUMP CONDENSATE DISPOSAL	–	–	–
4	PRESSURE RELIEF VALVE (PRV)	15MM	COPPER	COPPER PIPE OUTLET
5	CYLINDER HEAT PUMP FLOW	28MM	BRASS	COMPRESSION
6	CYLINDER HEAT PUMP RETURN	28MM	BRASS	COMPRESSION
7	ZONE 1 FLOW	28MM	BRASS	COMPRESSION
8	ZONE 1 RETURN	28MM	BRASS	COMPRESSION

Figure 3. Logic Air + Single Zone Pre-Plumbed Cylinder with Integrated Buffer



Notes.

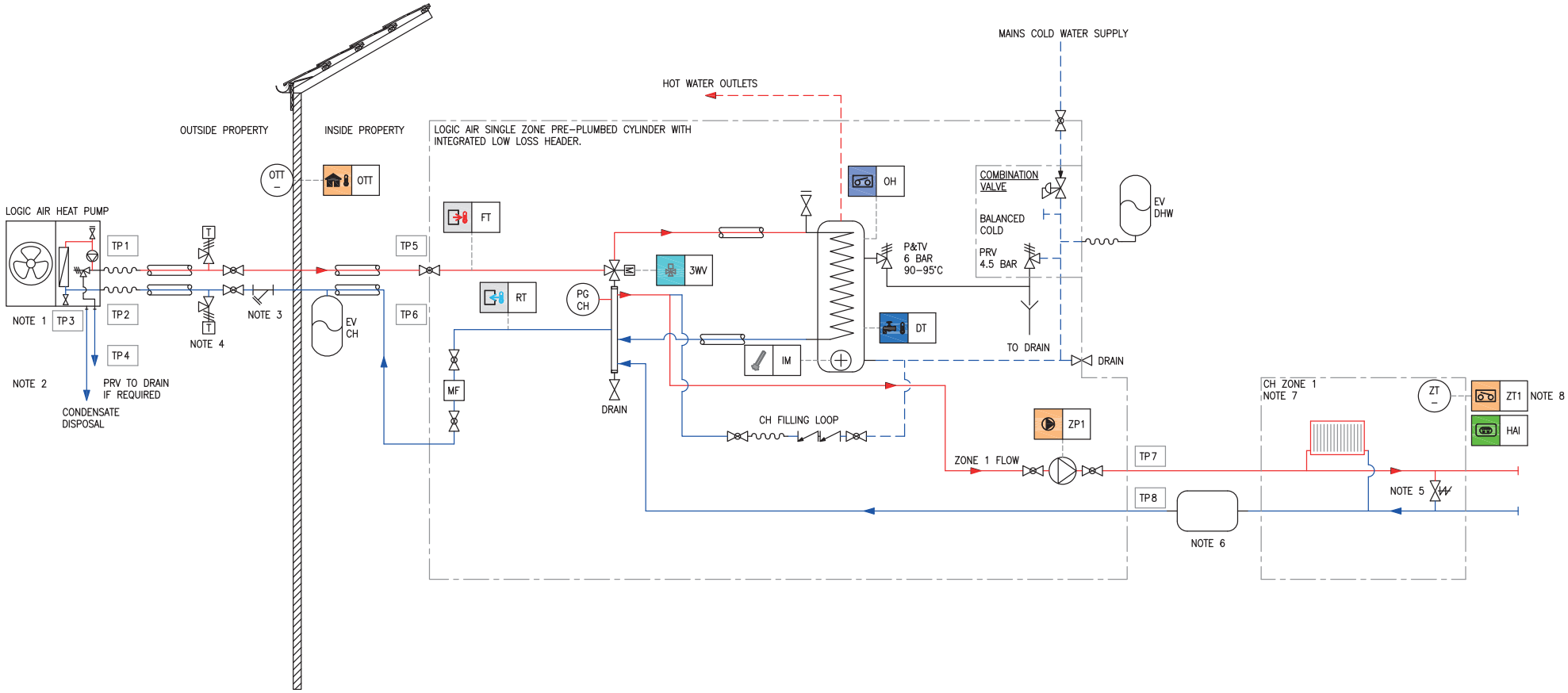
Note 1. The heat pump must be installed on a secure level base capable of supporting it's weight.
Note 2. Refer to the installation manual for condensate and pressure relief discharge requirements.
Note 3. A particulate filter is available as an accessory and it is recommended to install a magnetic filter. When installing an Ideal Pre-plumbed cylinder, these components are pre-installed and therefore no additional filters are required.
Note 4. Refer to the installation manual for anti-freeze recommendations.
Note 5. Install an auto-bypass if no permanent open circuit is available to allow secondary side pump overrun and normal operation.
Note 6. Logic Air two zone pre-plumbed arrangement is available.
Note 7. Refer to the installation manual for smart or ON/OFF thermostat connection.

This drawing is for information and guidance only. It is the heating designer/ installers responsibility to adhere to the latest relevant standards.

Refer to Logic Air monobloc heat pump system installation and maintenance manual in conjunction with these schematic drawings.

CONNECTION POINT LIST				
TP No	DESCRIPTION	SIZE	MATERIAL	TYPE
1	HEAT PUMP FLOW	1" BSP	BRASS	BSP MALE
2	HEAT PUMP RETURN	1" BSP	BRASS	BSP MALE
3	HEAT PUMP CONDENSATE DISPOSAL	–	–	–
4	PRESSURE RELIEF VALVE (PRV)	15MM	COPPER	COPPER PIPE OUTLET
5	CYLINDER HEAT PUMP FLOW	28MM	BRASS	COMPRESSION
6	CYLINDER HEAT PUMP RETURN	28MM	BRASS	COMPRESSION
7	ZONE 1 FLOW	28MM	BRASS	COMPRESSION
8	ZONE 1 RETURN	28MM	BRASS	COMPRESSION

Figure 4. Logic Air + Single Zone Pre-Plumbed Cylinder with Integrated Low Loss Header



Notes.

Note 1. The heat pump must be installed on a secure level base capable of supporting it's weight.
Note 2. Refer to the installation manual for condensate and pressure relief discharge requirements.
Note 3. A particulate filter is available as an accessory and it is recommended to install a magnetic filter. When installing an Ideal Pre-plumbed cylinder, these components are pre-installed and therefore no additional filters are required.
Note 4. Refer to the installation manual for anti-freeze recommendations.
Note 5. Install an auto-bypass if no permanent open circuit is available to allow secondary side pump overrun and normal operation.
Note 6. If minimum free system water volume cannot be met, a volumiser is required.
Note 7. Logic Air two zone pre-plumbed arrangement is available.
Note 8. Refer to the installation manual for smart or ON/OFF thermostat connection.

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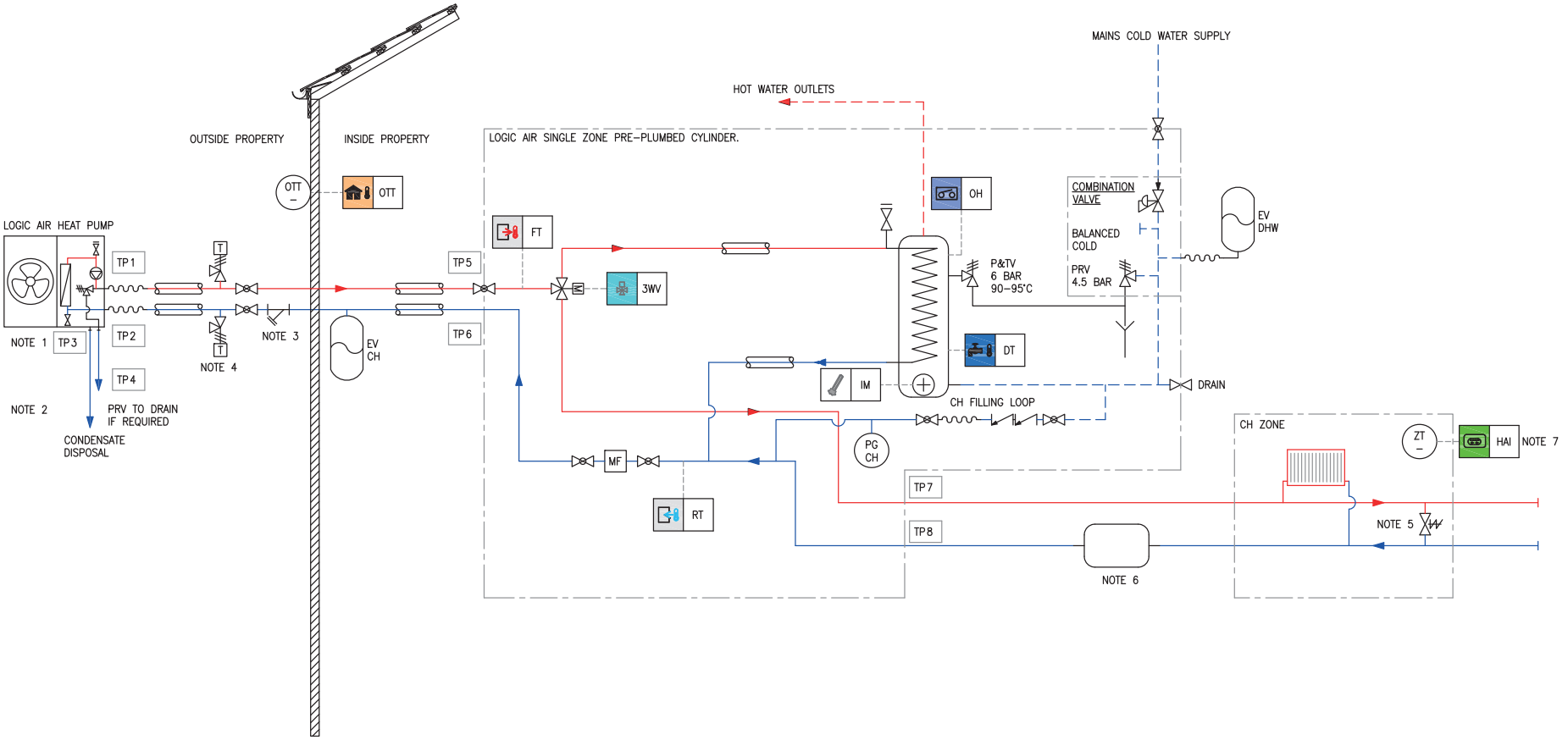
Refer to Logic Air monobloc heat pump system installation and maintenance manual in conjunction with these schematic drawings.

CONNECTION POINT LIST				
TP No	DESCRIPTION	SIZE	MATERIAL	TYPE
1	HEAT PUMP FLOW	1" BSP	BRASS	BSP MALE
2	HEAT PUMP RETURN	1" BSP	BRASS	BSP MALE
3	HEAT PUMP CONDENSATE DISPOSAL	–	–	–
4	PRESSURE RELIEF VALVE (PRV)	15MM	COPPER	COPPER PIPE OUTLET
5	CYLINDER HEAT PUMP FLOW	28MM	BRASS	COMPRESSION
6	CYLINDER HEAT PUMP RETURN	28MM	BRASS	COMPRESSION
7	ZONE 1 FLOW	28MM	BRASS	COMPRESSION
8	ZONE 1 RETURN	28MM	BRASS	COMPRESSION

Figure 5. Logic Air + Single Zone Pre-Plumbed Cylinder



Notes.

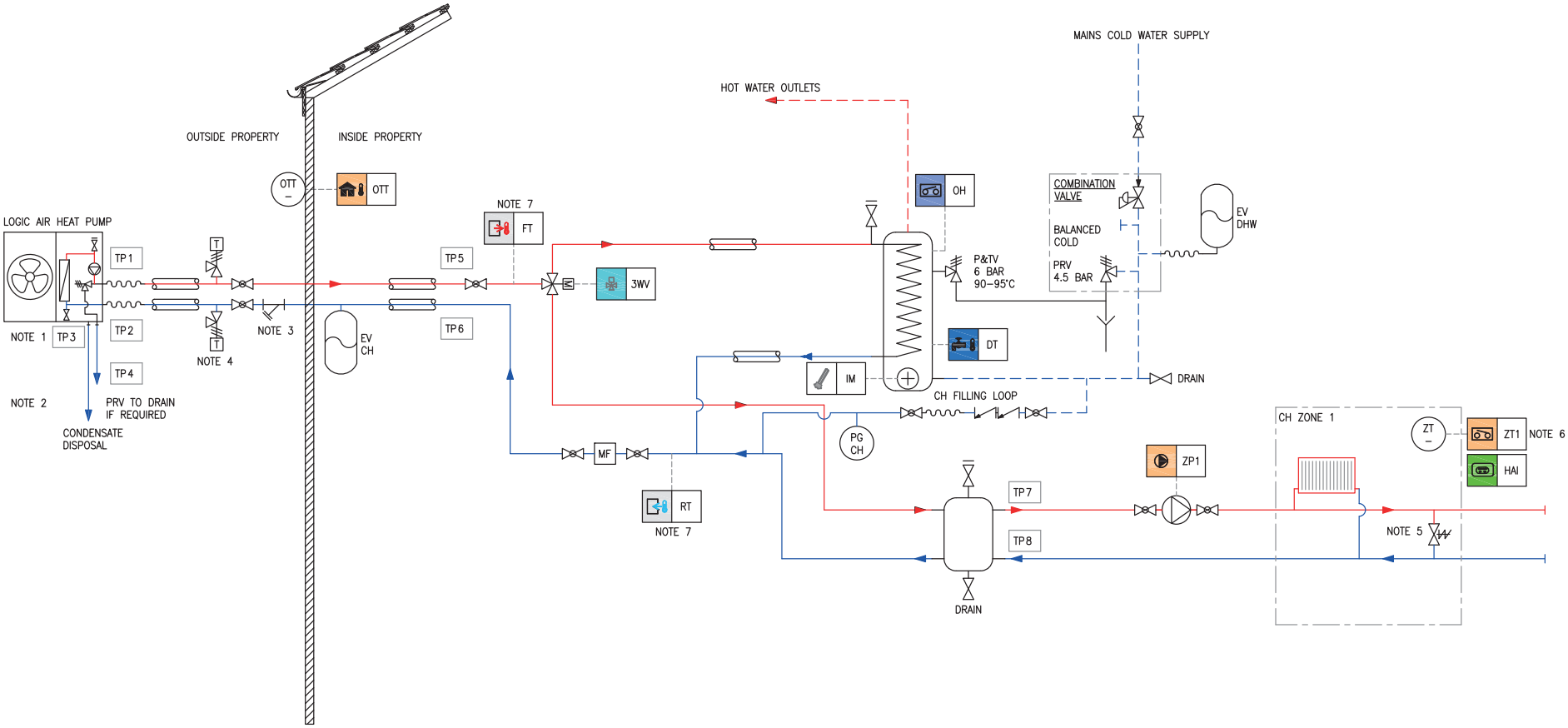
Note 1. The heat pump must be installed on a secure level base capable of supporting it's weight.
Note 2. Refer to the installation manual for condensate and pressure relief discharge requirements.
Note 3. A particulate filter is available as an accessory and it is recommended to install a magnetic filter. When installing an Ideal Pre–plumbed cylinder, these components are pre–installed and therefore no additional filters are required.
Note 4. Refer to the installation manual for anti–freeze recommendations.
Note 5. Install an auto–bypass if no permanent open circuit is available to allow primary side pump overrun and normal operation. Ensuring minimum circulating water flow rate for heat pump defrost requirements.
Note 6. If minimum free system water volume cannot be met, a volumiser is required.
Note 7. Refer to the installation manual for smart thermostat connection.

This drawing is for information and guidance only. It is the heating designer/installers responsibility to adhere to the latest relevant standards.

Refer to Logic Air monobloc heat pump system installation and maintenance manual in conjunction with these schematic drawings.

CONNECTION POINT LIST				
TP No	DESCRIPTION	SIZE	MATERIAL	TYPE
1	HEAT PUMP FLOW	1" BSP	BRASS	BSP MALE
2	HEAT PUMP RETURN	1" BSP	BRASS	BSP MALE
3	HEAT PUMP CONDENSATE DISPOSAL	–	–	–
4	PRESSURE RELIEF VALVE (PRV)	15MM	COPPER	COPPER PIPE OUTLET
5	HEAT PUMP FLOW	28MM	BRASS	COMPRESSION
6	HEAT PUMP RETURN	28MM	BRASS	COMPRESSION
7	ZONE FLOW	28MM	BRASS	COMPRESSION
8	ZONE RETURN	28MM	BRASS	COMPRESSION

Figure 6. Logic Air + Standard Non Pre-Plumbed Heat Pump Cylinder + Buffer with Single Zone



Notes.

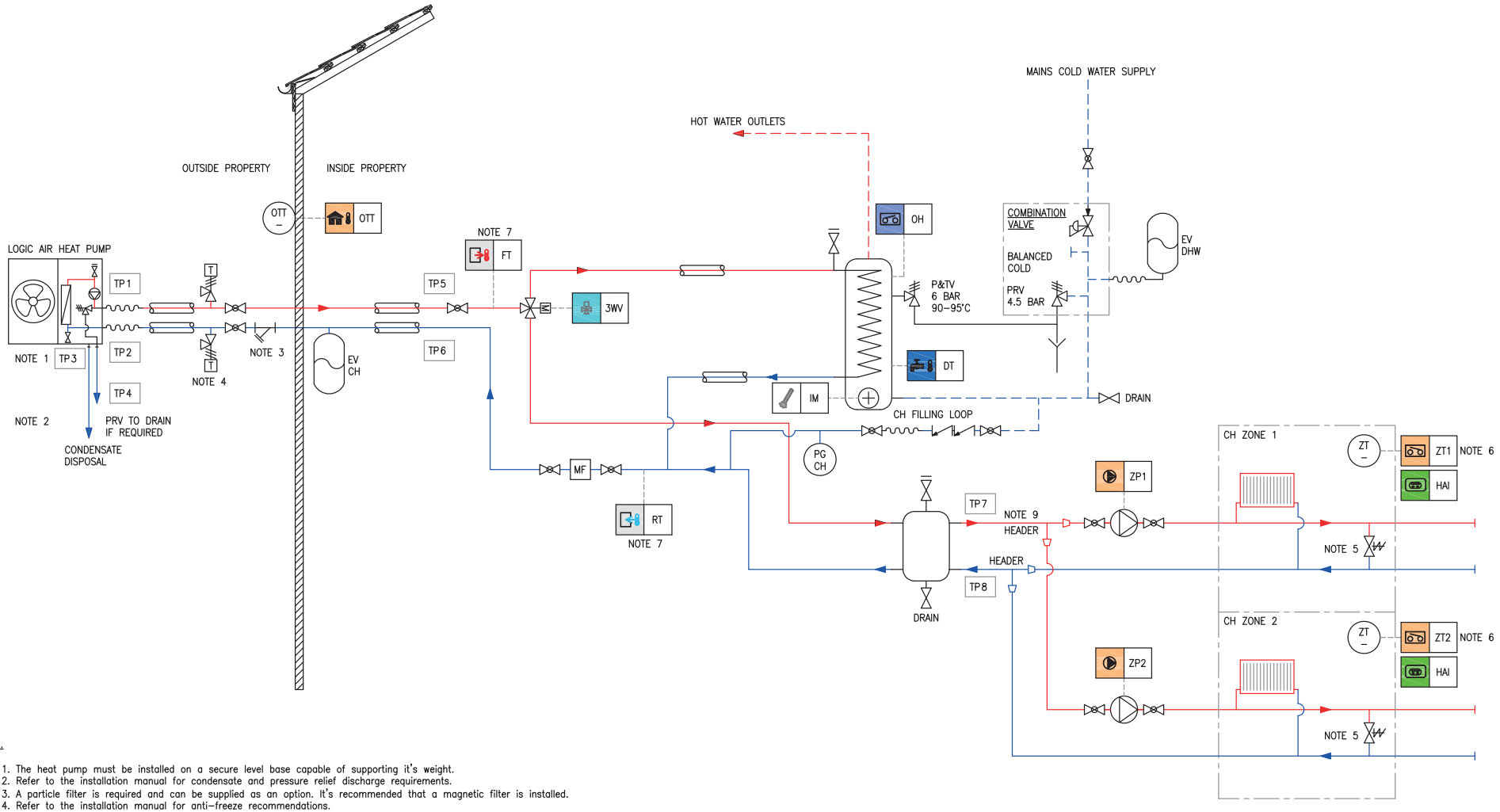
Note 1. The heat pump must be installed on a secure level base capable of supporting it's weight.
Note 2. Refer to the installation manual for condensate and pressure relief discharge requirements.
Note 3. A particle filter is required and can be supplied as an option. It's recommended that a magnetic filter is installed.
Note 4. Refer to the installation manual for anti–freeze recommendations.
Note 5. Install an auto–bypass if no permanent open circuit is available to allow secondary side pump overrun and normal operation.
Note 6. Refer to the installation manual for smart or ON/OFF thermostat connection.
Note 7. Flow and return pipe clip–on sensors must be installed on the 28mm copper pipe work.

This drawing is for information and guidance only. It is the heating designer/installers responsibility to adhere to the latest relevant standards.

Refer to Logic Air monobloc heatpump system installation and maintenance manual in conjunction with these schematic drawings.

CONNECTION POINT LIST				
TP No	DESCRIPTION	SIZE	MATERIAL	TYPE
1	HEAT PUMP FLOW	1" BSP	BRASS	BSP MALE
2	HEAT PUMP RETURN	1" BSP	BRASS	BSP MALE
3	HEAT PUMP CONDENSATE DISPOSAL	–	–	–
4	PRESSURE RELIEF VALVE (PRV)	15MM	COPPER	COPPER PIPE OUTLET
5	HEAT PUMP FLOW	28MM	BRASS	COMPRESSION
6	HEAT PUMP RETURN	28MM	BRASS	COMPRESSION
7	ZONE FLOWS	28MM	BRASS	COMPRESSION
8	ZONE RETURNS	28MM	BRASS	COMPRESSION

Figure 7. Logic Air + Standard Non Pre-Plumbed Heat Pump Cylinder + Buffer with Two Zones



Notes.

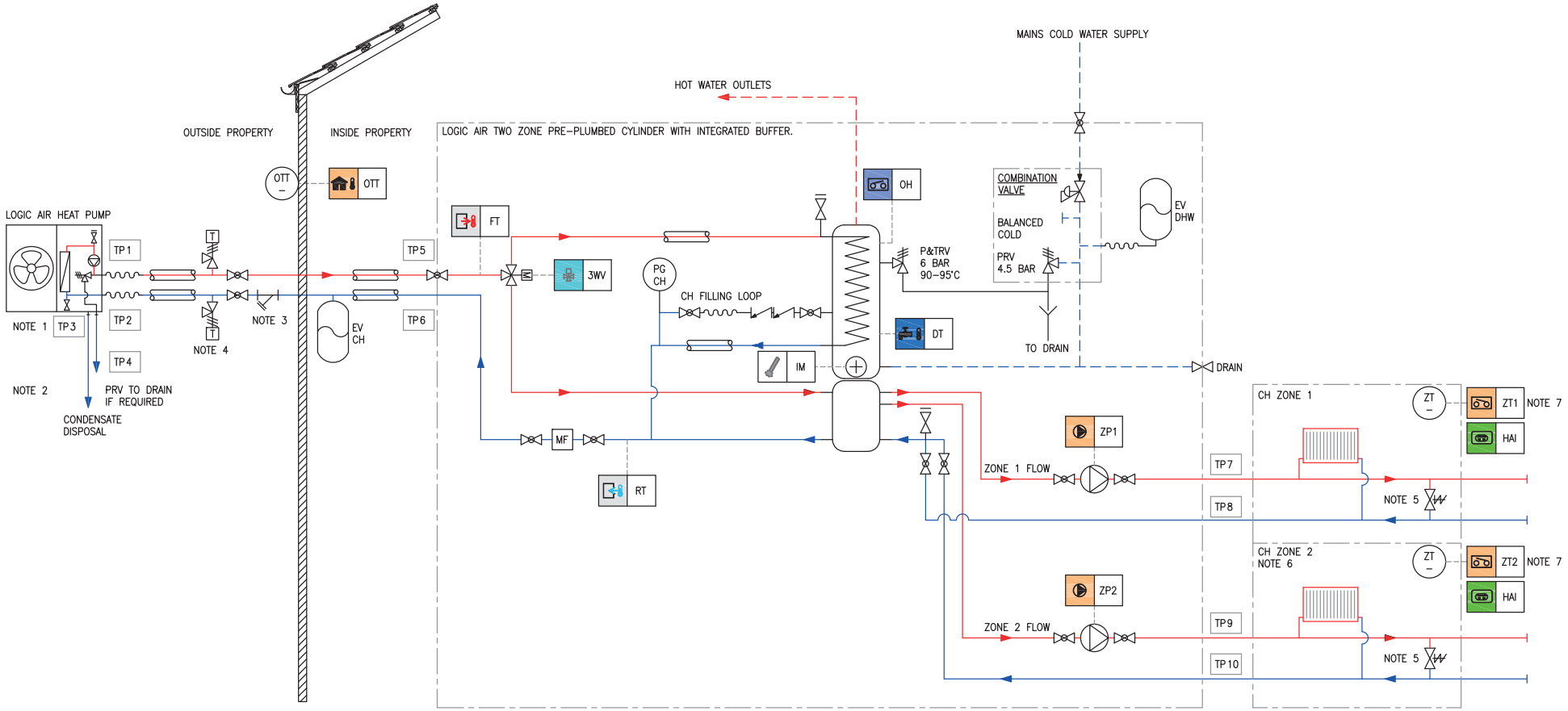
Note 1. The heat pump must be installed on a secure level base capable of supporting it's weight.
Note 2. Refer to the installation manual for condensate and pressure relief discharge requirements.
Note 3. A particle filter is required and can be supplied as an option. It's recommended that a magnetic filter is installed.
Note 4. Refer to the installation manual for anti–freeze recommendations.
Note 5. Install an auto–bypass if no permanent open circuit is available to allow secondary side pump overrun and normal operation.
Note 6. Refer to the installation manual for smart or ON/OFF thermostat connection.
Note 7. Flow and return pipe clip–on sensors must be installed on the 28mm copper pipe work.
Note 8. Ensure the correct pipe size is installed. Refer to the Logic Air heat pump installation manuals.
Note 9. The buffer tank common flow header needs to be appropriately sized to meet the overall system flow requirements of both zones. Make sure both zones are balanced.
Note 10. Free volume must be considered as any part of the un–valved system volume (excluding the zone 2 space heating circuit) with sections of pipework and radiators without thermostatic radiator valves.

This drawing is for information and guidance only. It is the heating designer/installers responsibility to adhere to the latest relevant standards.

Refer to Logic Air monobloc heatpump system installation and maintenance manual in conjunction with these schematic drawings.

CONNECTION POINT LIST				
TP No	DESCRIPTION	SIZE	MATERIAL	TYPE
1	HEAT PUMP FLOW	1" BSP	BRASS	BSP MALE
2	HEAT PUMP RETURN	1" BSP	BRASS	BSP MALE
3	HEAT PUMP CONDENSATE DISPOSAL	–	–	–
4	PRESSURE RELIEF VALVE (PRV)	15MM	COPPER	COPPER PIPE OUTLET
5	CYLINDER HEAT PUMP FLOW	28MM	BRASS	COMPRESSION
6	CYLINDER HEAT PUMP RETURN	28MM	BRASS	COMPRESSION
7	ZONE 1 FLOW	28MM	BRASS	COMPRESSION
8	ZONE 1 RETURN	28MM	BRASS	COMPRESSION
9	ZONE 2 FLOW	28MM	BRASS	COMPRESSION
10	ZONE 2 RETURN	28MM	BRASS	COMPRESSION

Figure 8. Logic Air + Two Zone Pre-Plumbed Cylinder with Integrated Buffer



Notes.

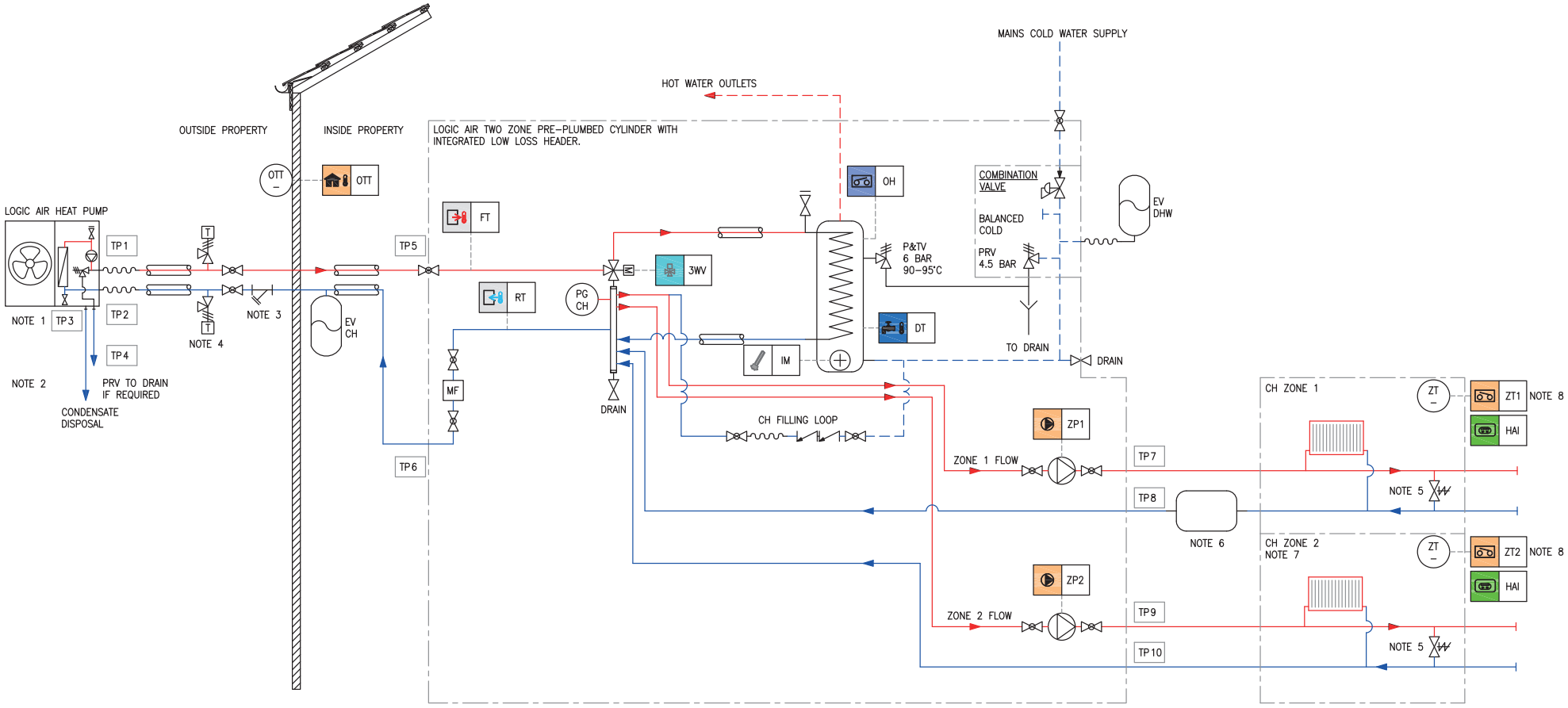
Note 1. The heat pump must be installed on a secure level base capable of supporting it's weight.
Note 2. Refer to the installation manual for condensate and pressure relief discharge requirements.
Note 3. A particulate filter is available as an accessory and it is recommended to install a magnetic filter. When installing an Ideal Pre–plumbed cylinder, these components are pre–installed and therefore no additional filters are required.
Note 4. Refer to the installation manual for anti–freeze recommendations.
Note 5. Install an auto–bypass if no permanent open circuit is available to allow secondary side pump overrun and normal operation.
Note 6. Logic Air single zone pre–plumbed arrangement is available.
Note 7. Refer to the installation manual for smart or ON/OFF thermostat connection.
Note 8. Free volume must be considered as any part of the un–valved system volume (excluding the zone 2 space heating circuit) with sections of pipework and radiators without thermostatic radiator valves.

This drawing is for information and guidance only. It is the heating designer/ installers responsibility to adhere to the latest relevant standards.

Refer to Logic Air monobloc heat pump system installation and maintenance manual in conjunction with these schematic drawings.

CONNECTION POINT LIST				
TP No	DESCRIPTION	SIZE	MATERIAL	TYPE
1	HEAT PUMP FLOW	1" BSP	BRASS	BSP MALE
2	HEAT PUMP RETURN	1" BSP	BRASS	BSP MALE
3	HEAT PUMP CONDENSATE DISPOSAL	–	–	–
4	PRESSURE RELIEF VALVE (PRV)	15MM	COPPER	COPPER PIPE OUTLET
5	CYLINDER HEAT PUMP FLOW	28MM	BRASS	COMPRESSION
6	CYLINDER HEAT PUMP RETURN	28MM	BRASS	COMPRESSION
7	ZONE 1 FLOW	28MM	BRASS	COMPRESSION
8	ZONE 1 RETURN	28MM	BRASS	COMPRESSION
9	ZONE 2 FLOW	28MM	BRASS	COMPRESSION
10	ZONE 2 RETURN	28MM	BRASS	COMPRESSION

Figure 9. Logic Air + Two Zone Pre-Plumbed Cylinder with Integrated Low Loss Header



Notes.

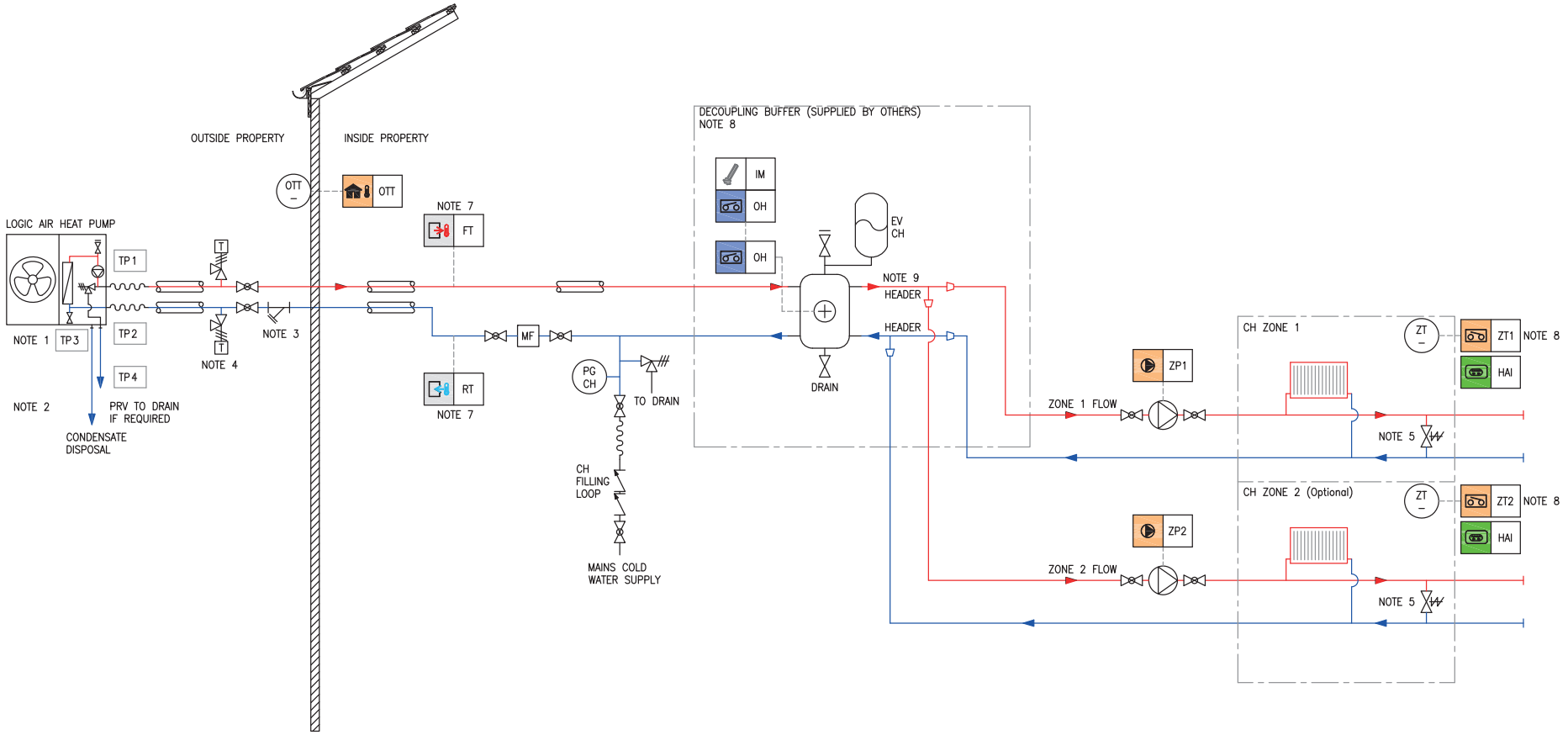
Note 1. The heat pump must be installed on a secure level base capable of supporting it's weight.
Note 2. Refer to the installation manual for condensate and pressure relief discharge requirements.
Note 3. A particulate filter is available as an accessory and it is recommended to install a magnetic filter. When installing an Ideal Pre–plumbed cylinder, these components are pre–installed and therefore no additional filters are required.
Note 4. Refer to the installation manual for anti–freeze recommendations.
Note 5. Install an auto–bypass if no permanent open circuit is available to allow secondary side pump overrun and normal operation.
Note 6. If minimum free system water volume cannot be met, a volumiser is required.
Note 7. Logic Air single zone pre–plumbed arrangement is available.
Note 8. Refer to the installation manual for smart or ON/OFF thermostat connection.
Note 9. Free volume must be considered as any part of the un–valved system volume (excluding the zone 2 space heating circuit) with sections of pipework and radiators without thermostatic radiator valves.

This drawing is for information and guidance only. It is the heating designer/installers responsibility to adhere to the latest relevant standards.

Refer to Logic Air monobloc heat pump system installation and maintenance manual in conjunction with these schematic drawings.

CONNECTION POINT LIST				
TP No	DESCRIPTION	SIZE	MATERIAL	TYPE
1	HEAT PUMP FLOW	1" BSP	BRASS	BSP MALE
2	HEAT PUMP RETURN	1" BSP	BRASS	BSP MALE
3	HEAT PUMP CONDENSATE DISPOSAL	–	–	–
4	PRESSURE RELIEF VALVE (PRV)	15MM	COPPER	COPPER PIPE OUTLET

Figure 10. Logic Air + Decoupling Buffer for Heating Only with Two Zones



Notes.

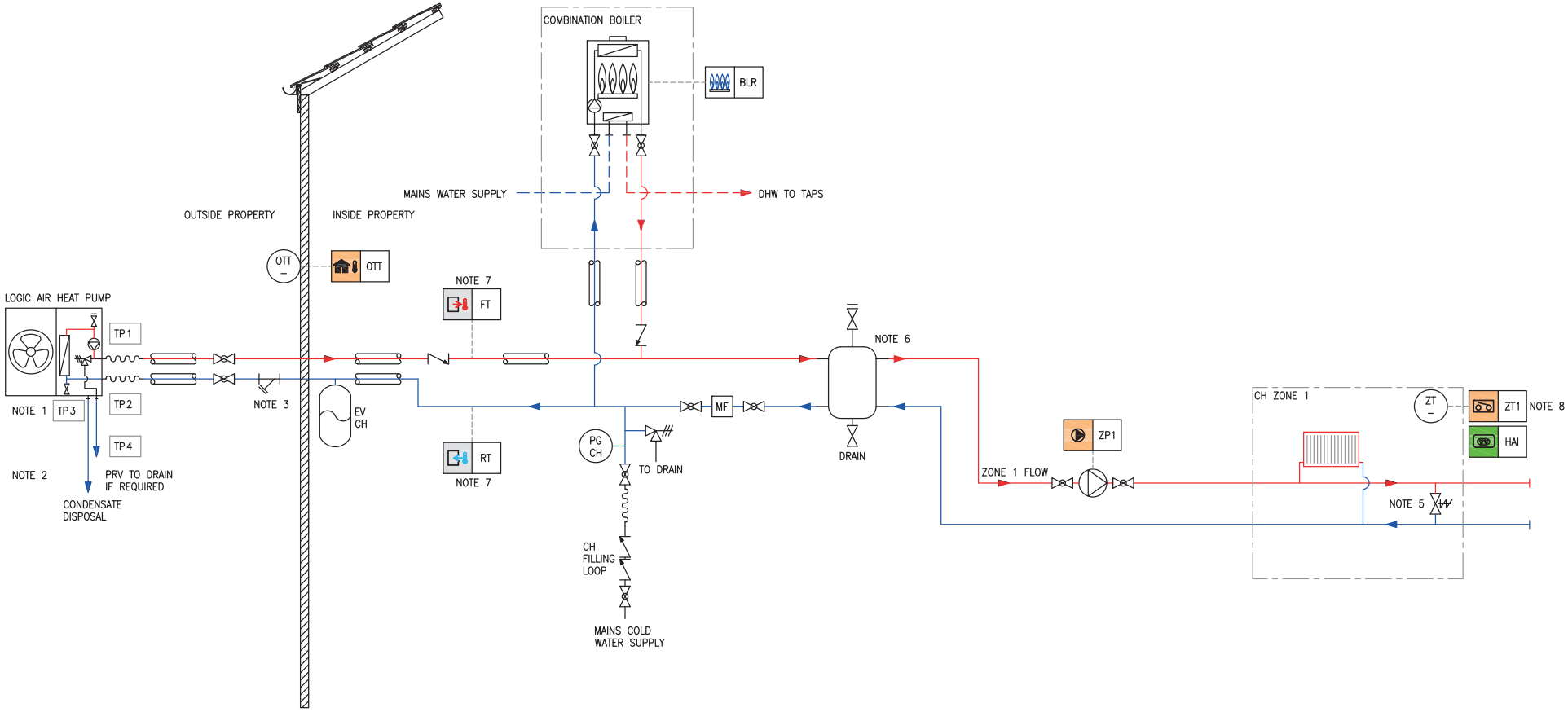
Note 1. The heat pump must be installed on a secure level base capable of supporting it's weight.
Note 2. Refer to the installation manual for condensate and pressure relief discharge requirements.
Note 3. A particulate filter is required and can be supplied as an option. A magnetic filter is recommended.
Note 4. Refer to the installation manual for anti–freeze recommendations.
Note 5. Install an auto–bypass if no permanent open circuit is available to allow secondary side pump overrun and normal operation.
Note 6. Refer to the installation manual for smart or ON/OFF thermostat connection.
Note 7. Flow and return pipe clip–on sensors must be installed on the 28mm copper pipe work.
Note 8. Decoupling buffer vessel complete with heater and safety accessories. It is the installers responsibility to ensure all relevant regulations and buffer tank manufactures installation requirements are met. Make sure a pressure relief valve is always open to the decoupling buffer vessel without means of isolation. Make sure the immersion heater control thermostat is set to less than or equal to 55°C.
Note 9. The buffer tank common flow header needs to be appropriately sized to meet the overall system flow requirements of both zones. Make sure both zones are balanced.

This drawing is for information and guidance only. It is the heating designer/ installers responsibility to adhere to the latest relevant standards.

Refer to Logic Air monobloc heatpump system installation and maintenance manual in conjunction with these schematic drawings.

CONNECTION POINT LIST				
TP No	DESCRIPTION	SIZE	MATERIAL	TYPE
1	HEAT PUMP FLOW	1" BSP	BRASS	BSP MALE
2	HEAT PUMP RETURN	1" BSP	BRASS	BSP MALE
3	HEAT PUMP CONDENSATE DISPOSAL	–	–	–
4	PRESSURE RELIEF VALVE (PRV)	15MM	COPPER	COPPER PIPE OUTLET

Figure 11. Logic Air + Combi Boiler + Buffer + Single Zone (Bivalent System)



Notes.

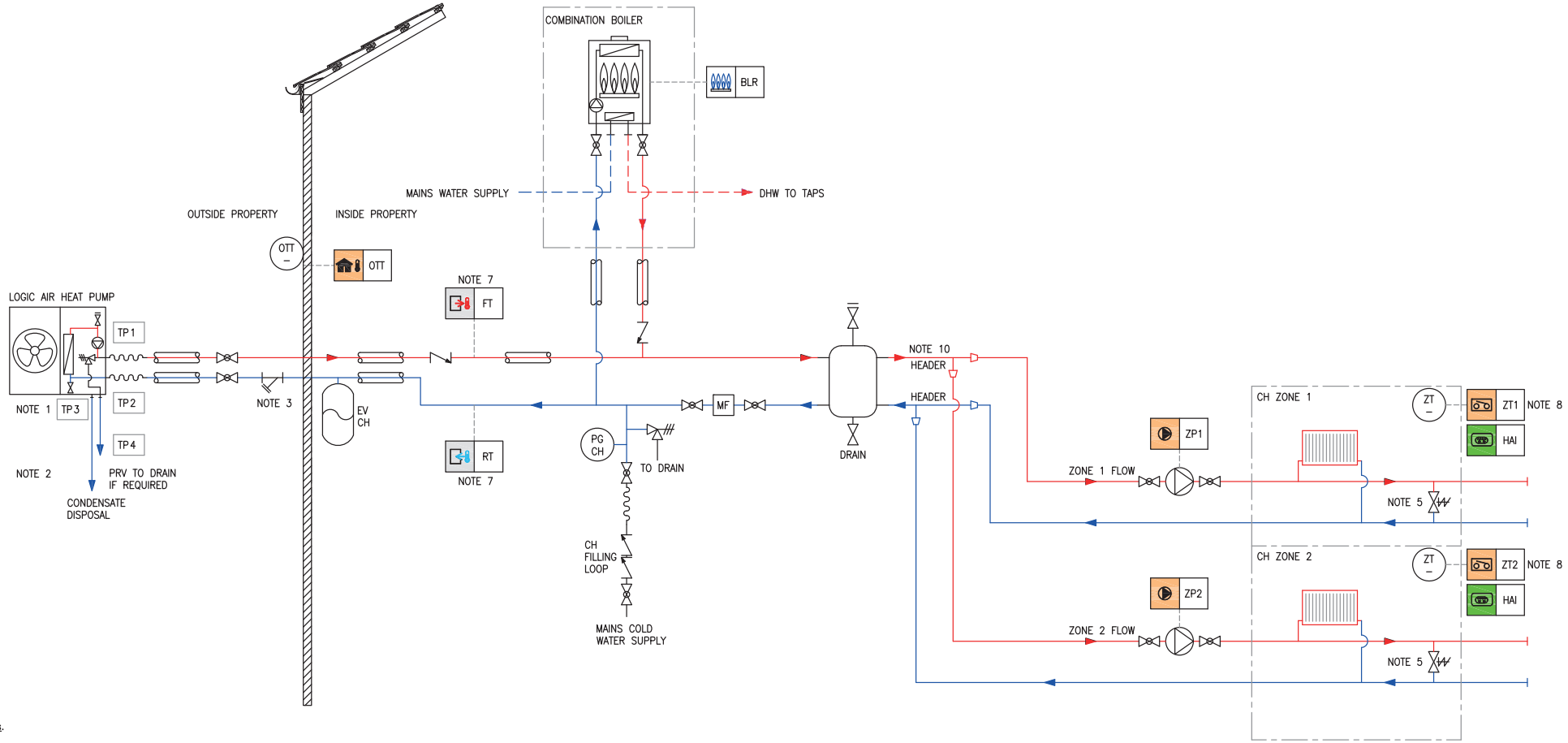
Note 1. The heat pump must be installed on a secure level base capable of supporting it's weight.
Note 2. Refer to the installation manual for condensate and pressure relief discharge requirements.
Note 3. A particulate filter is required and can be supplied as an option. A magnetic filter is recommended.
Note 4. Glycol is required for antifreeze protection on all hybrid systems.
Note 5. Install an auto–bypass if no permanent open circuit is available to allow secondary side pump overrun and normal operation.
Note 6. Boiler flow temperature should not be set above 50°C.
Note 7. Flow and return pipe clip–on sensors must be installed on the 28mm copper pipe work.
Note 8. Refer to the installation manual for smart or ON/OFF thermostat connection.
Note 9. Ensure the correct pipe size is installed. Refer to the Logic Air heat pump and boiler installation manuals.

This drawing is for information and guidance only. It is the heating designer/ installers responsibility to adhere to the latest relevant standards.

Refer to Logic Air monobloc heatpump system installation and maintenance manual in conjunction with these schematic drawings.

CONNECTION POINT LIST				
TP No	DESCRIPTION	SIZE	MATERIAL	TYPE
1	HEAT PUMP FLOW	1" BSP	BRASS	BSP MALE
2	HEAT PUMP RETURN	1" BSP	BRASS	BSP MALE
3	HEAT PUMP CONDENSATE DISPOSAL	–	–	–
4	PRESSURE RELIEF VALVE (PRV)	15MM	COPPER	COPPER PIPE OUTLET

Figure 12. Logic Air + Combi Boiler + Buffer + Two Zones (Bivalent System)



Notes.

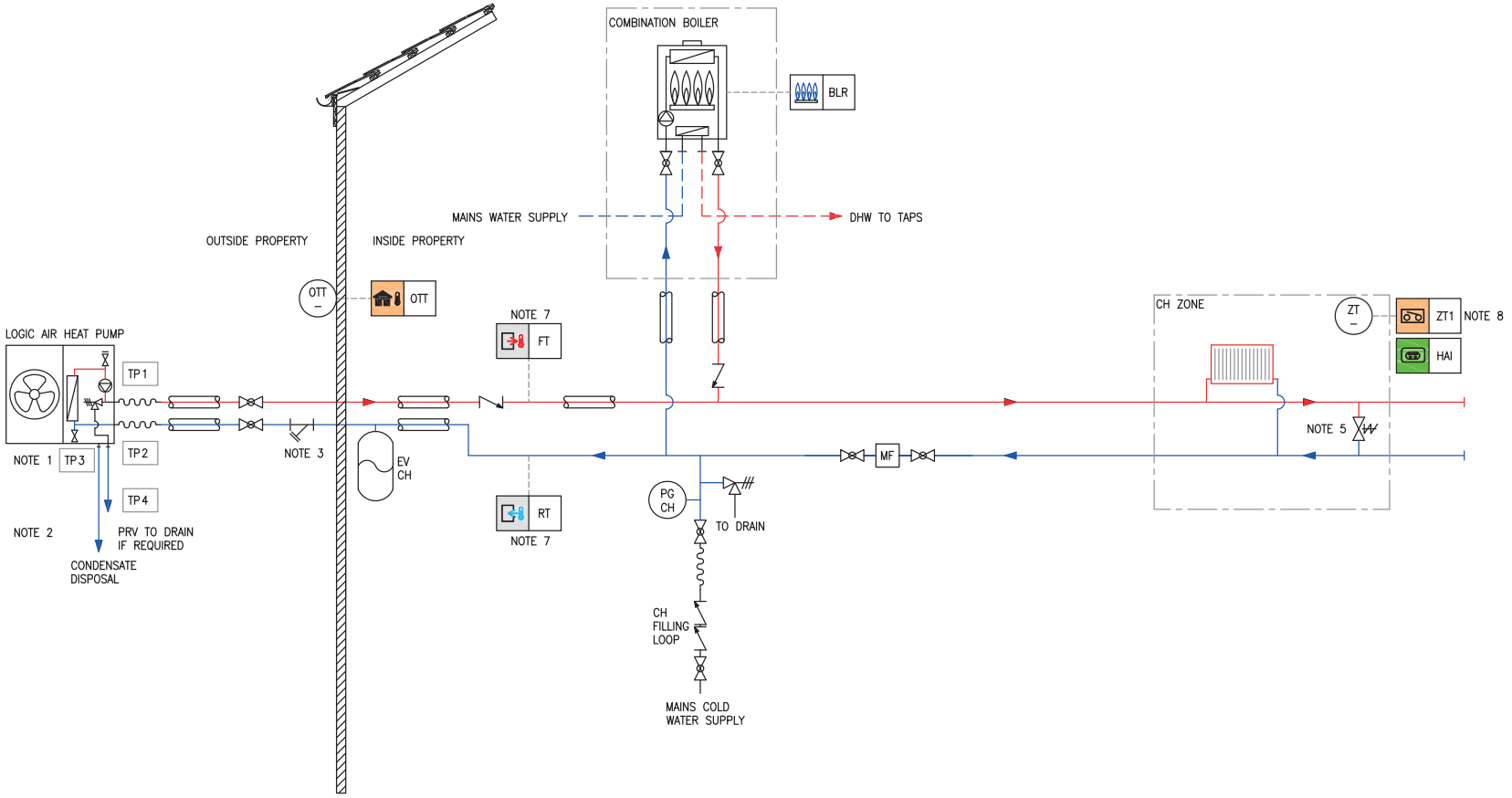
Note 1. The heat pump must be installed on a secure level base capable of supporting it's weight.
Note 2. Refer to the installation manual for condensate and pressure relief discharge requirements.
Note 3. A particulate filter is required and can be supplied as an option. A magnetic filter is recommended.
Note 4. Glycol is required for antifreeze protection on all hybrid systems.
Note 5. Install an auto–bypass if no permanent open circuit is available to allow secondary side pump overrun and normal operation.
Note 6. Boiler flow temperature should not be set above 50°C.
Note 7. Flow and return pipe clip–on sensors must be installed on the 28mm copper pipe work.
Note 8. Refer to the installation manual for smart or ON/OFF thermostat connection.
Note 9. Ensure the correct pipe size is installed. Refer to the Logic Air heat pump and boiler installation manuals.
Note 10. The buffer tank common flow header needs to be appropriately sized to meet the overall system flow requirements of both zones. Make sure both zones are balanced.
Note 11. Free volume must be considered as any part of the un–valved system volume (excluding the zone 2 space heating circuit) with sections of pipework and radiators without thermostatic radiator valves.

This drawing is for information and guidance only. It is the heating designer/ installers responsibility to adhere to the latest relevant standards.

Refer to Logic Air monobloc heatpump system installation and maintenance manual in conjunction with these schematic drawings.

CONNECTION POINT LIST				
TP No	DESCRIPTION	SIZE	MATERIAL	TYPE
1	HEAT PUMP FLOW	1" BSP	BRASS	BSP MALE
2	HEAT PUMP RETURN	1" BSP	BRASS	BSP MALE
3	HEAT PUMP CONDENSATE DISPOSAL	–	–	–
4	PRESSURE RELIEF VALVE (PRV)	15MM	COPPER	COPPER PIPE OUTLET

Figure 13. Logic Air + Combi Boiler + Single Zone without Buffer (Bivalent System)



Notes.

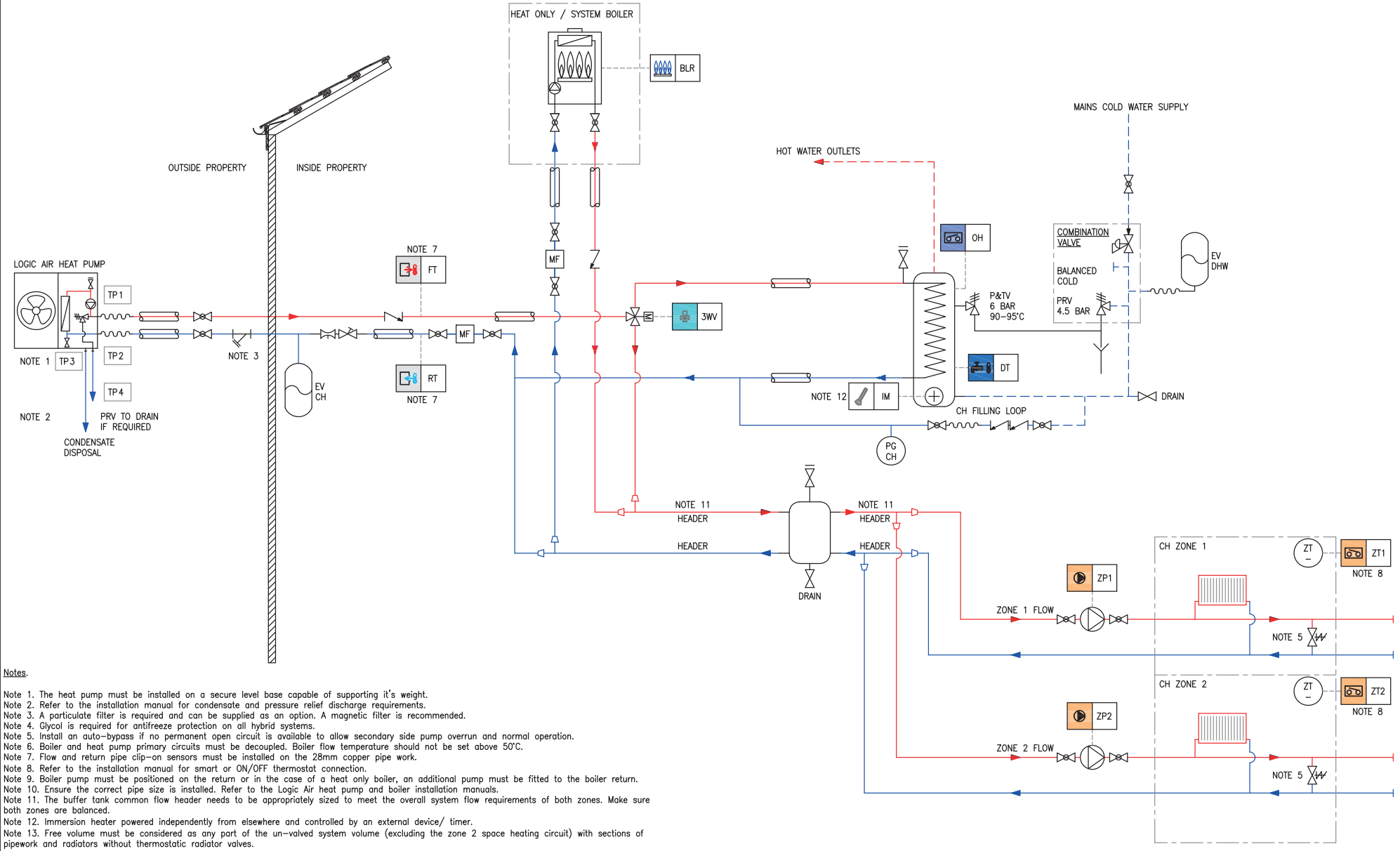
Note 1. The heat pump must be installed on a secure level base capable of supporting it's weight.
Note 2. Refer to the installation manual for condensate and pressure relief discharge requirements.
Note 3. A particulate filter is required and can be supplied as an option. A magnetic filter is recommended.
Note 4. Glycol is required for antifreeze protection on all hybrid systems.
Note 5. Install an auto–bypass if no permanent open circuit is available to allow secondary side pump overrun and normal operation.
Note 6. Boiler flow temperature should not be set above 50°C.
Note 7. Flow and return pipe clip–on sensors must be installed on the 28mm copper pipe work.
Note 8. Refer to the installation manual for smart or ON/OFF thermostat connection.
Note 9. Ensure the correct pipe size is installed. Refer to the Logic Air heat pump and boiler installation manuals.

This drawing is for information and guidance only. It is the heating designer/ installers responsibility to adhere to the latest relevant standards.

Refer to Logic Air monobloc heatpump system installation and maintenance manual in conjunction with these schematic drawings.

CONNECTION POINT LIST				
TP No	DESCRIPTION	SIZE	MATERIAL	TYPE
1	HEAT PUMP FLOW	1" BSP	BRASS	BSP MALE
2	HEAT PUMP RETURN	1" BSP	BRASS	BSP MALE
3	HEAT PUMP CONDENSATE DISPOSAL	–	–	–
4	PRESSURE RELIEF VALVE (PRV)	15MM	COPPER	COPPER PIPE OUTLET

Figure 14. Hydraulically Separated Logic Air + System Boiler + DHW + Two Zones (Bivalent System)



Notes.

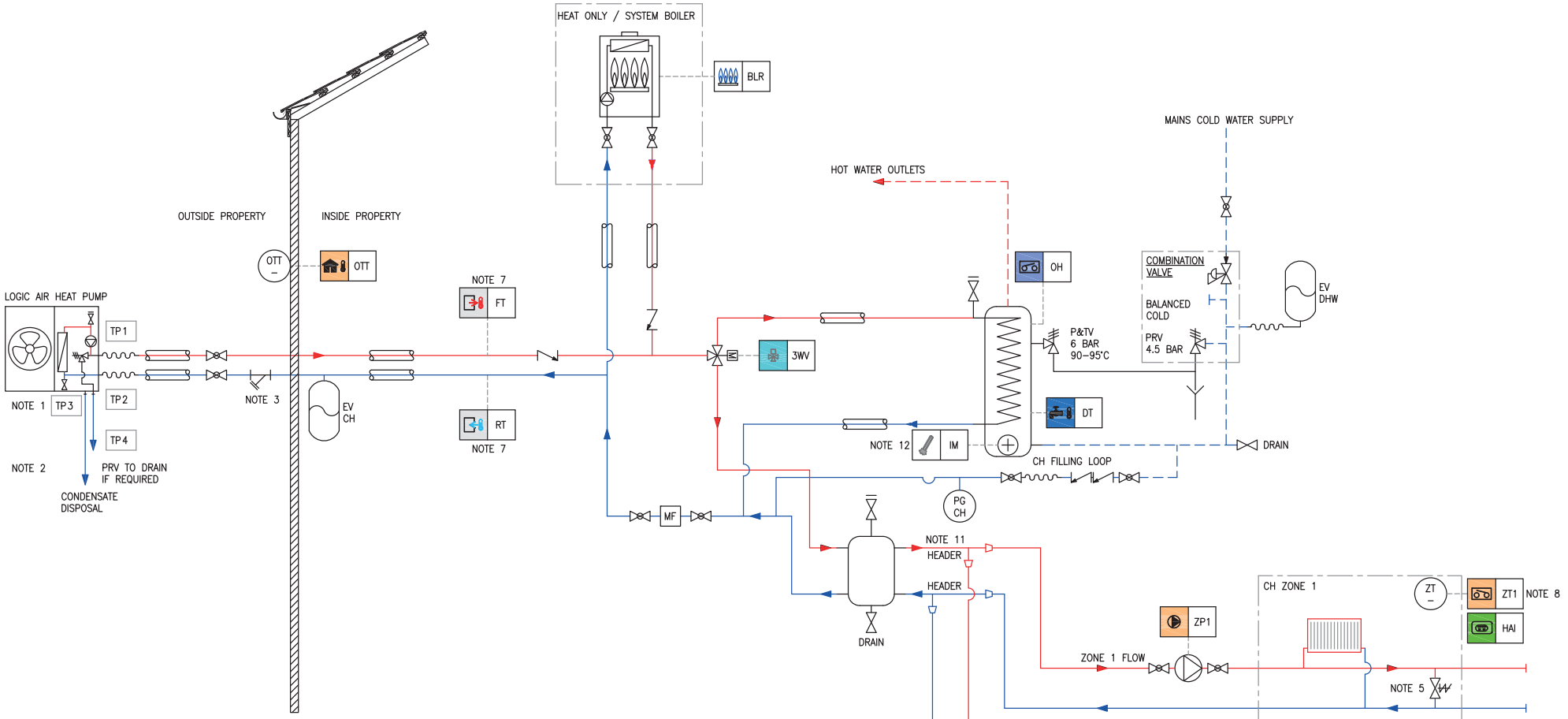
Note 1. The heat pump must be installed on a secure level base capable of supporting it's weight.
Note 2. Refer to the installation manual for condensate and pressure relief discharge requirements.
Note 3. A particulate filter is required and can be supplied as an option. A magnetic filter is recommended.
Note 4. Glycol is required for antifreeze protection on all hybrid systems.
Note 5. Install an auto–bypass if no permanent open circuit is available to allow secondary side pump overrun and normal operation.
Note 6. Boiler and heat pump primary circuits must be decoupled. Boiler flow temperature should not be set above 50°C.
Note 7. Flow and return pipe clip–on sensors must be installed on the 28mm copper pipe work.
Note 8. Refer to the installation manual for smart or ON/OFF thermostat connection.
Note 9. Boiler pump must be positioned on the return or in the case of a heat only boiler, an additional pump must be fitted to the boiler return.
Note 10. Ensure the correct pipe size is installed. Refer to the Logic Air heat pump and boiler installation manuals.
Note 11. The buffer tank common flow header needs to be appropriately sized to meet the overall system flow requirements of both zones. Make sure both zones are balanced.
Note 12. Immersion heater powered independently from elsewhere and controlled by an external device/ timer.
Note 13. Free volume must be considered as any part of the un–valved system volume (excluding the zone 2 space heating circuit) with sections of pipework and radiators without thermostatic radiator valves.

This drawing is for information and guidance only. It is the heating designer/ installers responsibility to adhere to the latest relevant standards.

Refer to Logic Air monobloc heatpump system installation and maintenance manual in conjunction with these schematic drawings.

CONNECTION POINT LIST				
TP No	DESCRIPTION	SIZE	MATERIAL	TYPE
1	HEAT PUMP FLOW	1" BSP	BRASS	BSP MALE
2	HEAT PUMP RETURN	1" BSP	BRASS	BSP MALE
3	HEAT PUMP CONDENSATE DISPOSAL	–	–	–
4	PRESSURE RELIEF VALVE (PRV)	15MM	COPPER	COPPER PIPE OUTLET

Figure 15. Logic Air + Heat Only Boiler Backup + Buffer with Two Zone



Notes.

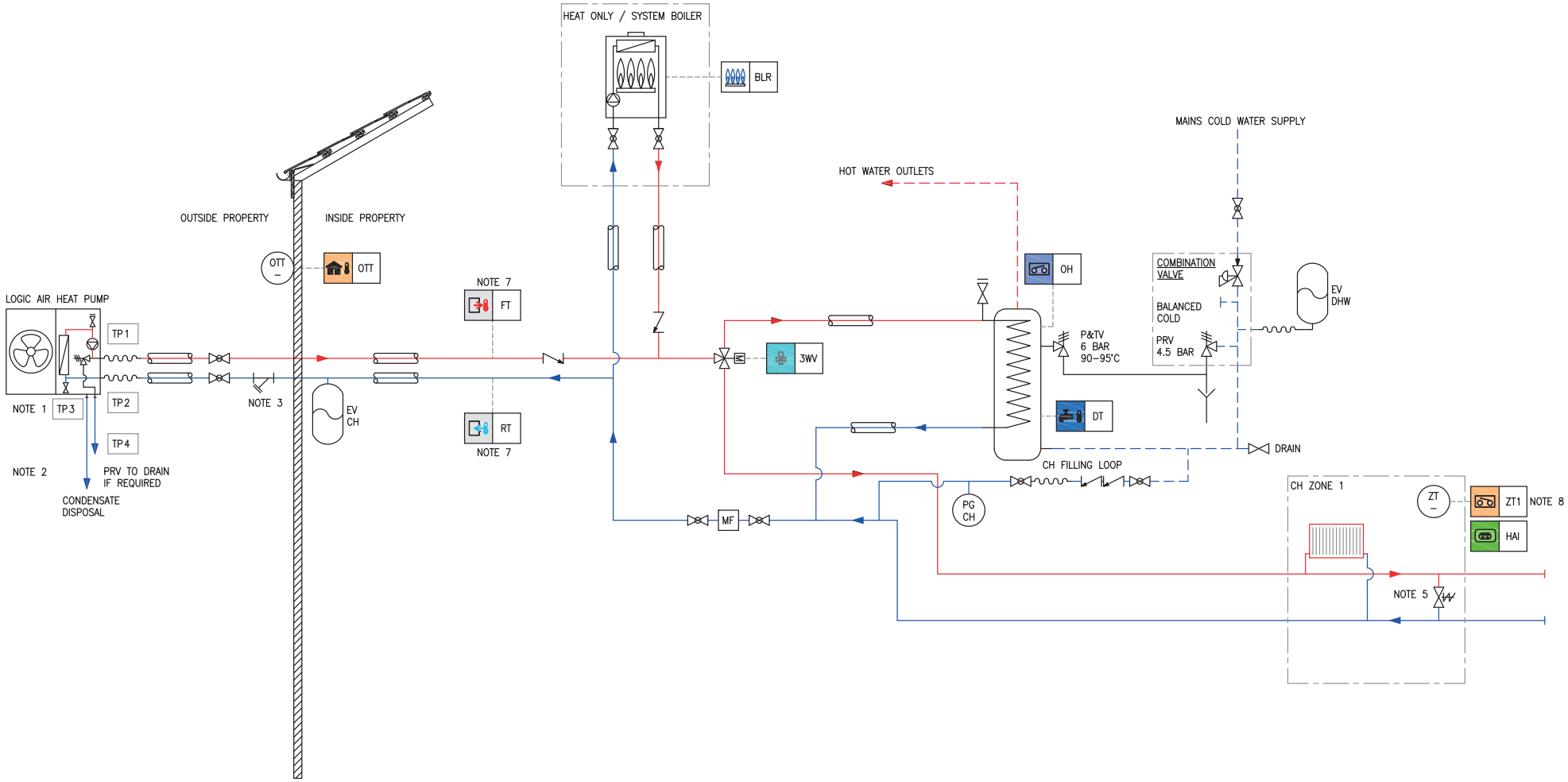
Note 1. The heat pump must be installed on a secure level base capable of supporting it's weight.
Note 2. Refer to the installation manual for condensate and pressure relief discharge requirements.
Note 3. A particulate filter is required and can be supplied as an option. A magnetic filter is recommended.
Note 4. Glycol is required for antifreeze protection on all hybrid systems.
Note 5. Install an auto–bypass if no permanent open circuit is available to allow secondary side pump overrun and normal operation.
Note 6. Boiler and heat pump primary circuits must be decoupled. Boiler flow temperature should not be set above 50°C.
Note 7. Flow and return pipe clip–on sensors must be installed on the 28mm copper pipe work.
Note 8. Refer to the installation manual for smart or ON/OFF thermostat connection.
Note 9. Boiler pump must be positioned on the return or in the case of a heat only boiler, an additional pump must be fitted to the boiler return.
Note 10. Ensure the correct pipe size is installed. Refer to the Logic Air heat pump and boiler installation manuals.
Note 11. The buffer tank common flow header needs to be appropriately sized to meet the overall system flow requirements of both zones. Make sure both zones are balanced.
Note 12. Immersion heater powered independently from elsewhere and controlled by an external device/ timer.
Note 13. Free volume must be considered as any part of the un–valved system volume (excluding the zone 2 space heating circuit) with sections of pipework and radiators without thermostatic radiator valves.

This drawing is for information and guidance only. It is the heating designer/ installers responsibility to adhere to the latest relevant standards.

Refer to Logic Air monobloc heatpump system installation and maintenance manual in conjunction with these schematic drawings.

CONNECTION POINT LIST				
TP No	DESCRIPTION	SIZE	MATERIAL	TYPE
1	HEAT PUMP FLOW	1" BSP	BRASS	BSP MALE
2	HEAT PUMP RETURN	1" BSP	BRASS	BSP MALE
3	HEAT PUMP CONDENSATE DISPOSAL	–	–	–
4	PRESSURE RELIEF VALVE (PRV)	15MM	COPPER	COPPER PIPE OUTLET

Figure 16. Logic Air + Heat Only Boiler Backup + Single Zone



Notes.

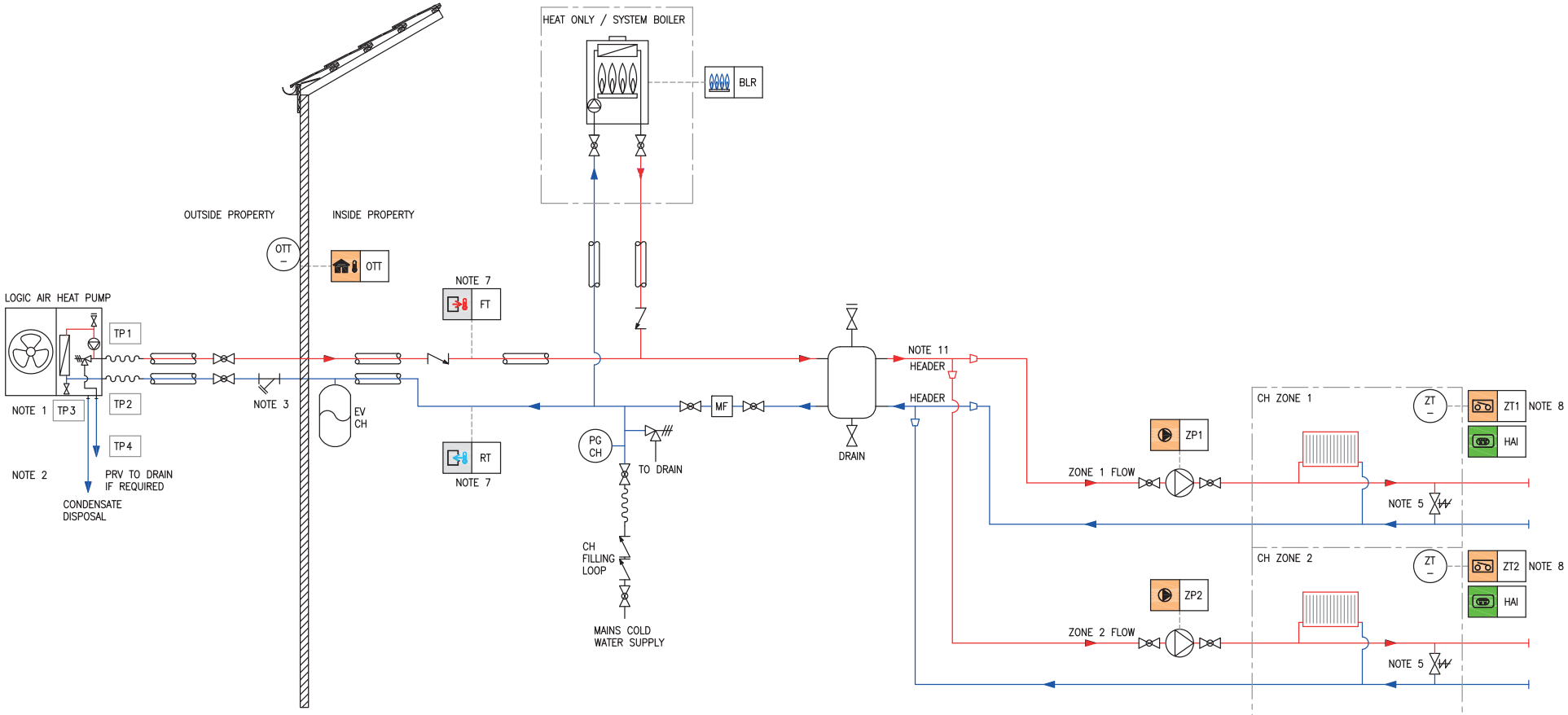
Note 1. The heat pump must be installed on a secure level base capable of supporting it's weight.
Note 2. Refer to the installation manual for condensate and pressure relief discharge requirements.
Note 3. A particulate filter is required and can be supplied as an option. A magnetic filter is recommended.
Note 4. Glycol is required for antifreeze protection on all hybrid systems.
Note 5. Install an auto–bypass if no permanent open circuit is available to allow secondary side pump overrun and normal operation.
Note 6. Boiler flow temperature must be set to 65°C to achieve DHW legionella temperature.
Note 7. Flow and return pipe clip–on sensors must be installed on the 28mm copper pipe work.
Note 8. Refer to the installation manual for smart or ON/OFF thermostat connection.
Note 9. Boiler pump must be positioned on the return or in the case of a heat only boiler, an additional pump must be fitted to the boiler return.
Note 10. Ensure the correct pipe size is installed. Refer to the Logic Air heat pump and boiler installation manuals.

This drawing is for information and guidance only. It is the heating designer/ installers responsibility to adhere to the latest relevant standards.

Refer to Logic Air monobloc heatpump system installation and maintenance manual in conjunction with these schematic drawings.

CONNECTION POINT LIST				
TP No	DESCRIPTION	SIZE	MATERIAL	TYPE
1	HEAT PUMP FLOW	1" BSP	BRASS	BSP MALE
2	HEAT PUMP RETURN	1" BSP	BRASS	BSP MALE
3	HEAT PUMP CONDENSATE DISPOSAL	–	–	–
4	PRESSURE RELIEF VALVE (PRV)	15MM	COPPER	COPPER PIPE OUTLET

Figure 17. Logic Air + Heating Only + System Boiler + Buffer + Two Zones (Bivalent System)



Notes.

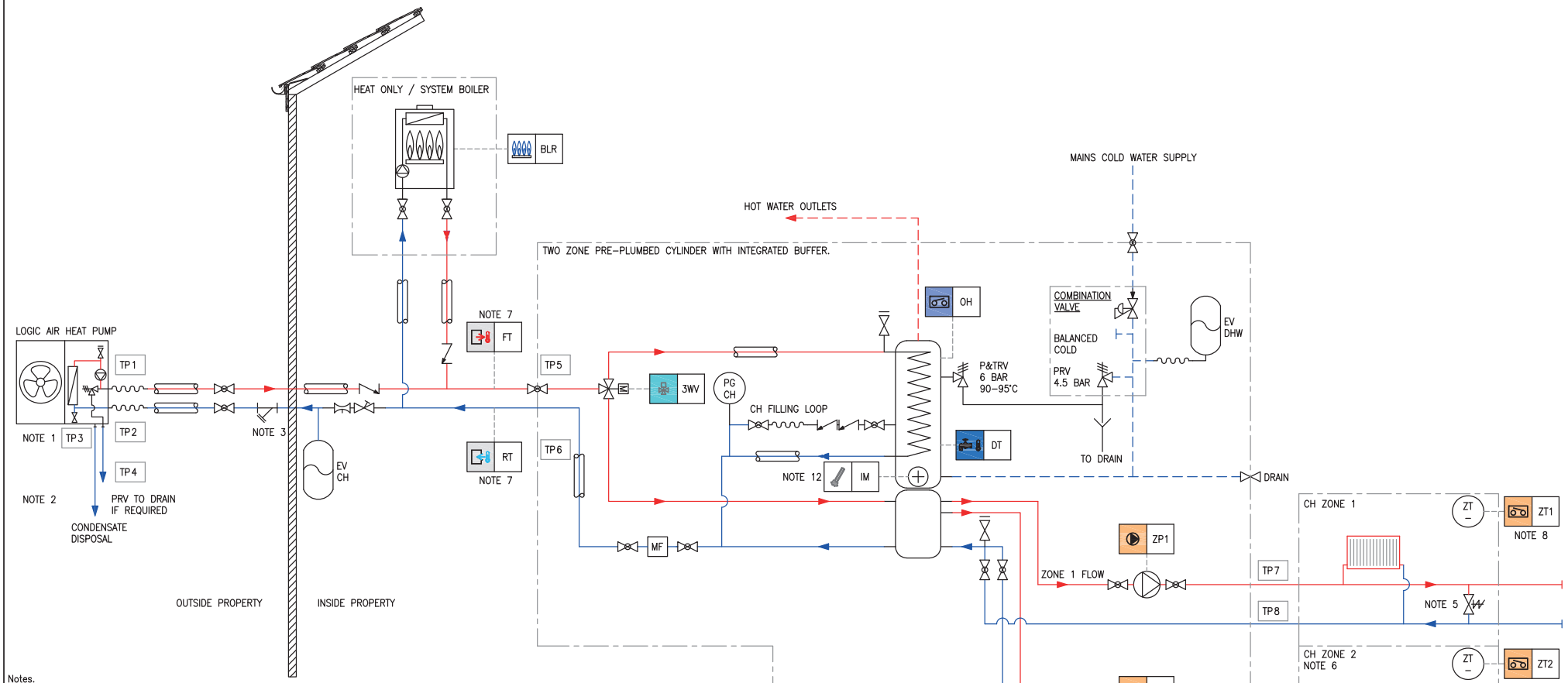
Note 1. The heat pump must be installed on a secure level base capable of supporting it's weight.
Note 2. Refer to the installation manual for condensate and pressure relief discharge requirements.
Note 3. A particulate filter is required and can be supplied as an option. A magnetic filter is recommended.
Note 4. Glycol is required for antifreeze protection on all hybrid systems.
Note 5. Install an auto–bypass if no permanent open circuit is available to allow secondary side pump overrun and normal operation.
Note 6. Boiler flow temperature should not be set above 50°C.
Note 7. Flow and return pipe clip–on sensors must be installed on the 28mm copper pipe work.
Note 8. Refer to the installation manual for smart or ON/OFF thermostat connection.
Note 9. Boiler pump must be positioned on the return or in the case of a heat only boiler, an additional pump must be fitted to the boiler return.
Note 10. Ensure the correct pipe size is installed. Refer to the Logic Air heat pump and boiler installation manuals.
Note 11. The buffer tank common flow header needs to be appropriately sized to meet the overall system flow requirements of both zones. Make sure both zones are balanced.
Note 12. Free volume must be considered as any part of the un–valved system volume (excluding the zone 2 space heating circuit) with sections of pipework and radiators without thermostatic radiator valves.

This drawing is for information and guidance only. It is the heating designer/ installers responsibility to adhere to the latest relevant standards.

Refer to Logic Air monobloc heatpump system installation and maintenance manual in conjunction with these schematic drawings.

CONNECTION POINT LIST					
TP No	DESCRIPTION	SIZE 4.5–6kW	SIZE 8–14kW	MATERIAL	TYPE
1	HEAT PUMP FLOW	1" BSP	1. 1/4" BSP	BRASS	BSP MALE
2	HEAT PUMP RETURN	1" BSP	1. 1/4" BSP	BRASS	BSP MALE
3	HEAT PUMP CONDENSATE DISPOSAL	32MM OD	32MM OD	PLASTIC	BARBED SPIGOT
4	PRESSURE RELIEF VALVE (PRV)	9MM ID	9MM ID	PVC	HOSE
5	CYLINDER HEAT PUMP FLOW	28MM	28MM	BRASS	COMPRESSION
6	CYLINDER HEAT PUMP RETURN	28MM	28MM	BRASS	COMPRESSION
7	ZONE 1 FLOW	28MM	28MM	BRASS	COMPRESSION
8	ZONE 1 RETURN	28MM	28MM	BRASS	COMPRESSION
9	ZONE 2 FLOW	28MM	28MM	BRASS	COMPRESSION
10	ZONE 2 RETURN	28MM	28MM	BRASS	COMPRESSION

Figure 18. Logic Air + System Boiler + Two Zone Pre-Plumbed Cylinder with Integrated Buffer



Notes.

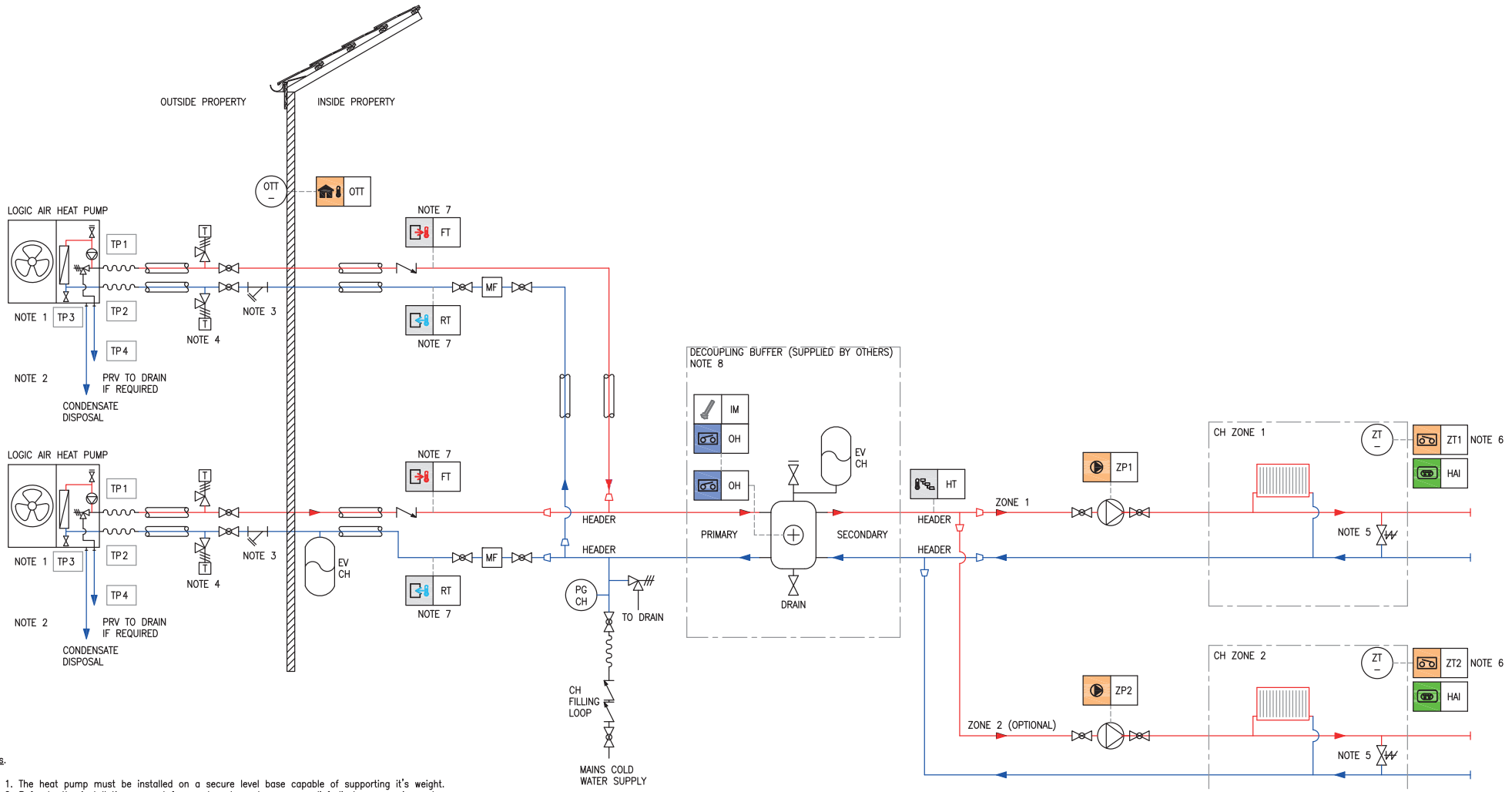
Note 1. The heat pump must be installed on a secure level base capable of supporting it's weight.
Note 2. Refer to the installation manual for condensate and pressure relief discharge requirements.
Note 3. A particulate filter is required and can be supplied as an option. A magnetic filter is recommended.
Note 4. Glycol is required for antifreeze protection on all hybrid systems.
Note 5. Install an auto–bypass if no permanent open circuit is available to allow secondary side pump overrun and normal operation.
Note 6. Boiler flow temperature should not be set above 50°C.
Note 7. Flow and return pipe clip–on sensors must be installed on the 28mm copper pipe work.
Note 8. Refer to the installation manual for smart or ON/OFF thermostat connection.
Note 9. Boiler pump must be positioned on the return or in the case of a heat only boiler, an additional pump must be fitted to the boiler return.
Note 10. Ensure the correct pipe size is installed. Refer to the Logic Air heat pump and boiler installation manuals.
Note 11. Make sure both zones are balanced.
Note 12. Immersion heater powered independently from elsewhere and controlled by an external device/ timer.
Note 13. Free volume must be considered as any part of the un–valved system volume (excluding the zone 2 space heating circuit) with sections of pipework and radiators without thermostatic radiator valves.

This drawing is for information and guidance only. It is the heating designer/ installers responsibility to adhere to the latest relevant standards.

Refer to Logic Air monobloc heatpump system installation and maintenance manual in conjunction with these schematic drawings.

CONNECTION POINT LIST				
TP No	DESCRIPTION	SIZE	MATERIAL	TYPE
1	HEAT PUMP FLOW	1" BSP	BRASS	BSP MALE
2	HEAT PUMP RETURN	1" BSP	BRASS	BSP MALE
3	HEAT PUMP CONDENSATE DISPOSAL	–	–	–
4	PRESSURE RELIEF VALVE (PRV)	15MM	COPPER	COPPER PIPE OUTLET

Figure 19. Logic Air Monobloc Cascade Heat Only, Decoupler with Two Zones



Notes.

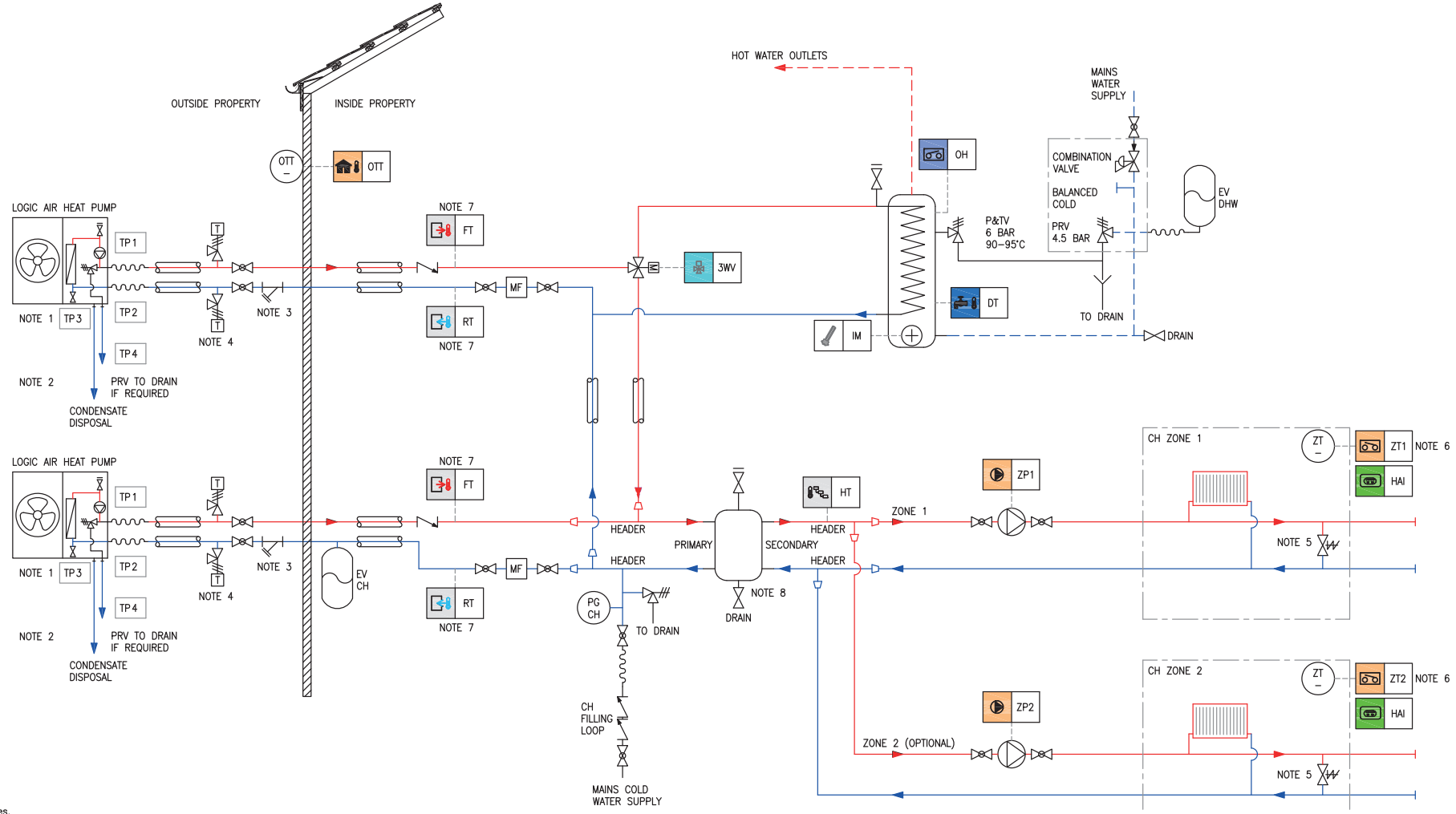
Note 1. The heat pump must be installed on a secure level base capable of supporting it's weight.
Note 2. Refer to the installation manual for condensate and pressure relief discharge requirements.
Note 3. A particulate filter is required and can be supplied as an option. A magnetic filter is recommended.
Note 4. Refer to the installation manual for anti-freeze recommendations.
Note 5. Install an auto-bypass if no permanent open circuit is available to allow secondary side pump overrun and normal operation.
Note 6. Refer to the installation manual for smart or ON/OFF thermostat connection.
Note 7. Flow and return pipe clip-on sensors must be installed on the 28mm copper pipe work. Adjustable header sensor to be positioned on the secondary side flow.
Note 8. Decoupling buffer vessel complete with heater and safety accessories. It is the installers responsibility to ensure all relevant regulations and buffer tank manufactures installation requirements are met. Make sure a pressure relief valve is always open to the decoupling buffer vessel without means of isolation. Make sure the immersion heater control thermostat is set to less than or equal to 55°C.
Note 9. The buffer tank common flow header needs to be appropriately sized to meet the overall system flow requirements of both zones. Make sure both zones are balanced.
Note 10. Free volume must be considered as any part of the un-valved system volume (excluding the zone 2 space heating circuit) with sections of pipework and radiators without thermostatic radiator valves.

This drawing is for information and guidance only. It is the heating designer/ installers responsibility to adhere to the latest relevant standards.

Refer to Logic Air monobloc heatpump system installation and maintenance manual in conjunction with these schematic drawings.

CONNECTION POINT LIST				
TP No	DESCRIPTION	SIZE	MATERIAL	TYPE
1	HEAT PUMP FLOW	1" BSP	BRASS	BSP MALE
2	HEAT PUMP RETURN	1" BSP	BRASS	BSP MALE
3	HEAT PUMP CONDENSATE DISPOSAL	–	–	–
4	PRESSURE RELIEF VALVE (PRV)	15MM	COPPER	COPPER PIPE OUTLET

Figure 20. Logic Air Monobloc Cascade, 3rd Party DHW Cylinder, Decoupler with Two Zones



Notes.

Note 1. The heat pump must be installed on a secure level base capable of supporting it's weight.
Note 2. Refer to the installation manual for condensate and pressure relief discharge requirements.
Note 3. A particulate filter is required and can be supplied as an option. A magnetic filter is recommended.
Note 4. Refer to the installation manual for anti–freeze recommendations.
Note 5. Install an auto–bypass if no permanent open circuit is available to allow secondary side pump overrun and normal operation.
Note 6. Refer to the installation manual for smart or ON/OFF thermostat connection.
Note 7. Flow and return pipe clip–on sensors must be installed on the 28mm copper pipe work. Adjustable header sensor to be positioned on the secondary side flow.
Note 8. Buffer vessel (Hydraulic decoupler).
Note 9. The hydraulic decoupler common flow header needs to be appropriately sized to meet the overall system flow requirements of both zones. Make sure both zones are balanced.
Note 10. Free volume must be considered as any part of the un–valved system volume (excluding the zone 2 space heating circuit) with sections of pipework and radiators without thermostatic radiator valves.

This drawing is for information and guidance only. It is the heating designer/ installers responsibility to adhere to the latest relevant standards.

Refer to Logic Air monobloc heatpump system installation and maintenance manual in conjunction with these schematic drawings.

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