



# Installation Instructions

Part No.: 38AP-900---011, 38AP-900---012, 38AP-900---013

## SAFETY CONSIDERATIONS

When installing this accessory, observe precautions in the literature and on any labels attached to the equipment, and all other safety precautions that may apply.

- Follow all safety codes.
- Wear safety glasses and work gloves.
- Use care in handling and installing this accessory.

### ⚠ WARNING

To avoid the possibility of electrical shock, open and tag all disconnects before installing this equipment. Failure to do so could result in severe personal injury.

## INTRODUCTION

An accessory long line check valve must be installed for:

1. Any 025-030 size dual circuit unit where the evaporator is located higher than the condensing unit and the linear line length exceeds 55 ft (16.8 m).
2. Any size dual or single circuit unit with linear line length of 100 ft (30.5 m) or more.

The kit consists of a liquid line check valve and a bypass check valve to prevent charge migration to compressor.

## INSTALLATION

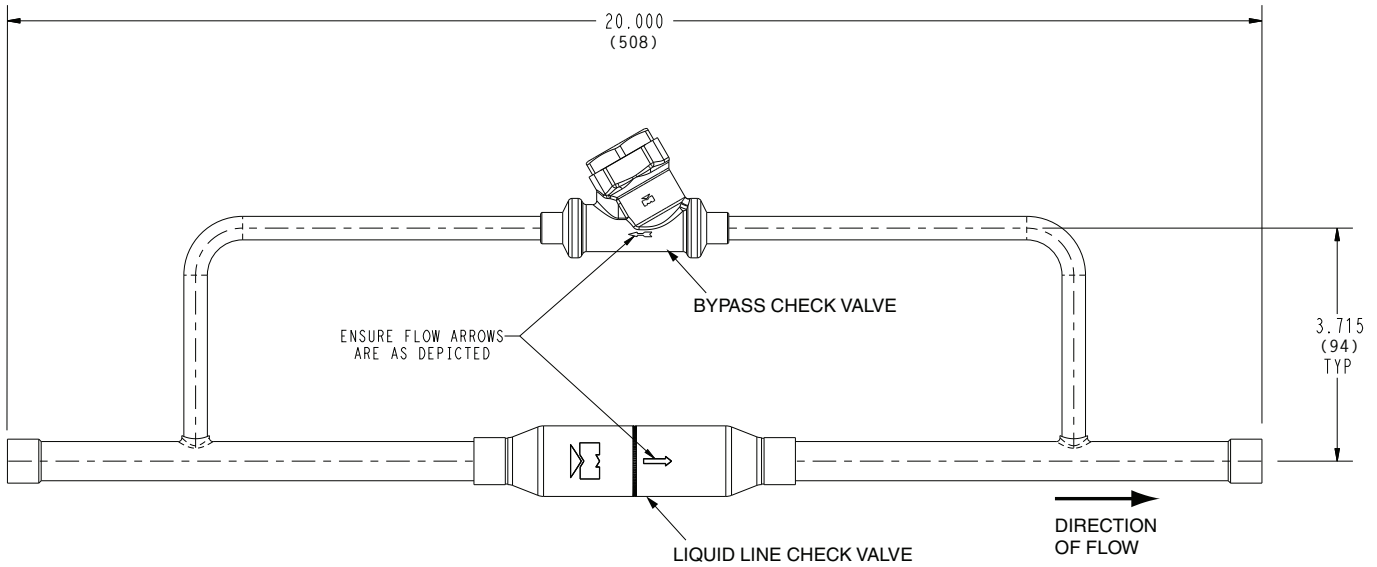
### ⚠ CAUTION

For all units with liquid lines of 100 ft (30.5 m) or more or any 025-030 size dual circuit unit application where evaporator is located higher than the condensing unit and liquid lines exceed 55 feet (16.8 m), a long line check valve must be installed to prevent compressor failure. The long line check valve accessory must be mounted in the liquid line as close as possible to the condensing unit.

The long line check valve accessory must be mounted in the liquid line near the condensing unit. The valve is brazed into the liquid line. Fitting adapters may be required to connect the check valve to the liquid line. The valve may be mounted in any orientation, horizontally or vertically. See Fig. 1 for dimensions. Figure 2 shows the location of the check valves on a rooftop installation. Figure 3 shows the location of the check valves on a ground level installation.

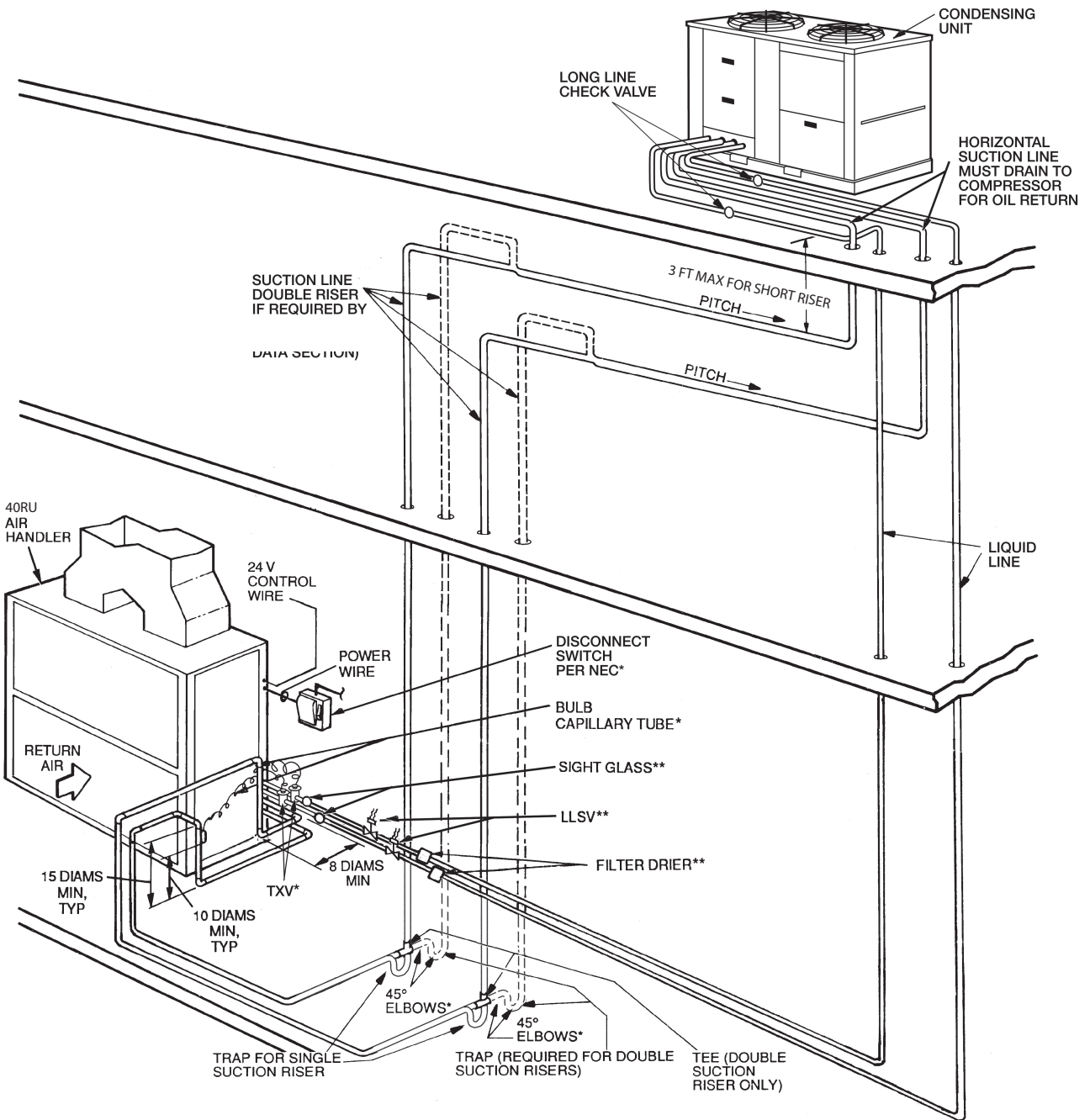
## ACCESSORY USAGE

UNIT SIZE	CIRCUIT TYPE	CHECK VALVE SIZE (in. ODF)	ACCESSORY USAGE (QUANTITY) — PART NO. 38AP-900---		
			011	012	013
38APD/S025	Dual	5/8 + 5/8	2	—	—
	Single	5/8	1	—	—
38APD/S027	Dual	5/8 + 5/8	2	—	—
	Single	5/8	1	—	—
38APD/S030	Dual	5/8 + 5/8	2	—	—
	Single	7/8	—	1	—
38APD/S040	Dual	5/8 + 5/8	2	—	—
	Single	7/8	—	1	—
38APD/S050	Dual	5/8 + 5/8	2	—	—
	Single	7/8	—	1	—
38APD060	Dual	5/8 + 7/8	1	1	—
38APS065	Single	7/8	—	1	—
38APD070	Dual	7/8 + 7/8	—	2	—
38APD080	Dual	7/8 + 7/8	—	2	—
38APD090	Dual	7/8 + 7/8	—	2	—
38APD100	Dual	7/8 + 7/8	—	2	—
38APD115	Dual	7/8 + 7/8	—	2	—
38APD130	Dual	7/8 + 1 1/8	—	1	1



NOTE: Dimensions are in inches. Dimensions in ( ) are in millimeters.

**Fig. 1 — Long Line Check Valve Accessory Dimensions (Part No. 38AP-900---011 Shown)**



**LEGEND**

- LLSV** — Liquid Line Solenoid Valve
- NEC** — National Electrical Code
- TXV** — Thermostatic Expansion Valve
- Piping
- Double Riser Piping (if required)

\*Field supplied.

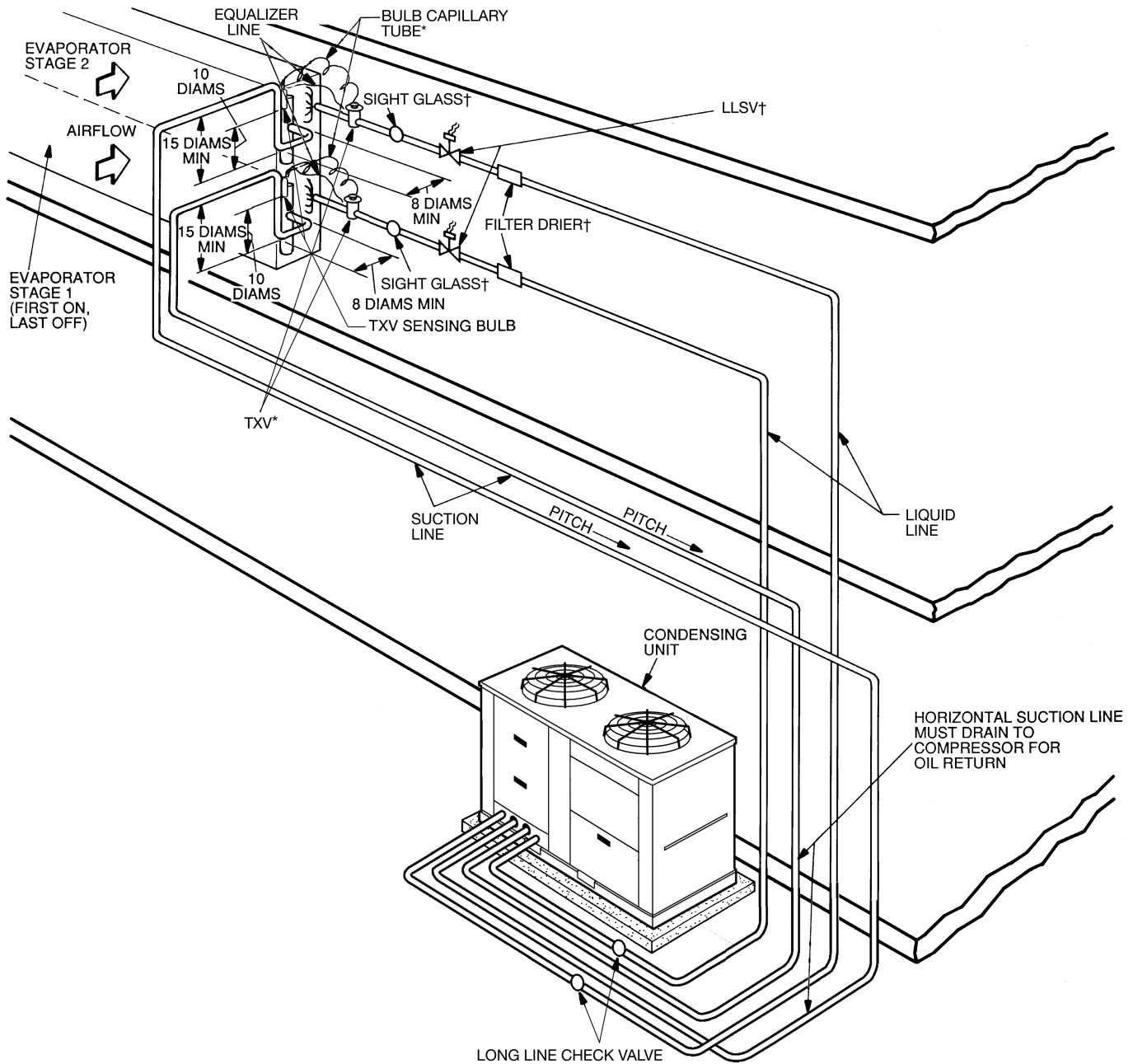
†If double suction riser is required for piping system, size short riser (3 ft [0.9 m] maximum) according to base unit installation instructions.

\*\*Field supplied. See base unit installation instructions for refrigerant specialties part numbers.

**NOTES:**

1. All piping must follow standard refrigerant piping techniques. Refer to Carrier System Design Manual for details.
2. All wiring must comply with the applicable local and national codes.
3. Wiring and piping shown are general points-of-connection guides only and are not intended for, or to include all details for, a specific installation.
4. Install field-supplied disconnect switch in accordance with all local and national electrical codes.
5. Liquid line solenoid valves (solenoid drop control) are not required but are recommended to prevent refrigerant migration to the compressor.
6. Factory-supplied accumulator not shown.
7. Dual-circuit piping shown. Single-circuit piping is similar but would only have one suction line and one liquid line.
8. A field-supplied (min. 5% up to 15%) bleed port TXV is required for every application.
9. Sight glass, LLSV, and filter drier are field supplied.
10. Long line length check valves are required for liquid line installation on all linear line length applications of more than 100 ft (30.5 m). For any 025-030 size dual-circuit unit application where evaporator is located higher than the condensing unit, check valves are required for linear line length above 55 ft (16.8 m).

**Fig. 2 — Accessory Location — 38AP Unit Rooftop Installation**



**LEGEND**

- LLSV** — Liquid Line Solenoid Valve
- NEC** — National Electrical Code
- TXV** — Thermostatic Expansion Valve
- Piping

\*Field supplied.

†Field supplied. See base unit installation instructions for refrigerant specialties part numbers.

**NOTES:**

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6. Factory-supplied accumulator not shown.
7. Dual-circuit piping shown. Single-circuit piping is similar but would only have one suction line and one liquid line.
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**Fig. 3 — Accessory Location — 38AP Unit Ground Level Installation**