

# RETROAIRE

*The Right Fit for Comfort*

## RC/RH 20 PACKAGED TERMINAL AIR CONDITIONER/HEAT PUMP

P/N# 240003254, Rev. 1.4 [02/05]

SPECIFICATIONS AND PERFORMANCE

Replacement For  
Friedrich/Climate Master 702 & 703,  
Weather Twin, TPI RA Matic, Zoneaire,  
and Others



**COOLING ONLY/HEAT PUMP**  
Nominal Capacities: 9,000 - 18,000 Btuh

### DESCRIPTION

The RetroAire RC/RH20 replacement chassis is designed to replace: Embassy Weather Twin, Friedrich/Climate Master 702 & 703, TPI RA-Matic, Zoneaire S, SC, RM as well as other manufacturer's units.

The unit is available in cooling only as well as heat pump configurations and will fit into an existing wall sleeve. The RH20 (heat pump) provides heat with when outside temperatures are as low as 35° F.

The RC/RH20 also offers an EER rating as high as 10.0. This can result in immediate energy savings over an older unit. The RC/RH20 features a two speed fan and an outdoor fan that conserves energy by not running in vent or electric heat modes.

Whisper-quiet operation adds to room ambiance and the permanent, washable filter makes service a snap. The 20 gauge, galvanized steel chassis construction ensures long unit life.

All RetroAire products are backed by EMI and ECR International.

The units are tested and rated in accordance with ARI standards: 310/380 and UL 484. We also stock a full inventory of parts.

▲ **Capacities** – The RC/RH replacement chassis are available in nominal capacities of 9,000, 12,000, 15,000 and 18,000 Btuh.

### ▲ **Air Systems:**

- Fans: Forward curve type, mounted on motor shafts
- PSC motors with overheat protection
- Air surfaces insulated with 1/4" fiberglass
- Easy access permanent, washable air filter

▲ **Heat Exchanger** – Staggered seamless, rifled copper tubing w/aluminum fins tested to 460 psig. Tubing is mechanically expanded for secure bonding to fin shoulders.

### ▲ **Refrigeration Circuit:**

- High efficiency, rotary compressor w/standard 5 year warranty
- Automatic expansion valve metering for low ambient protection

### ▲ **Heat Pumps:**

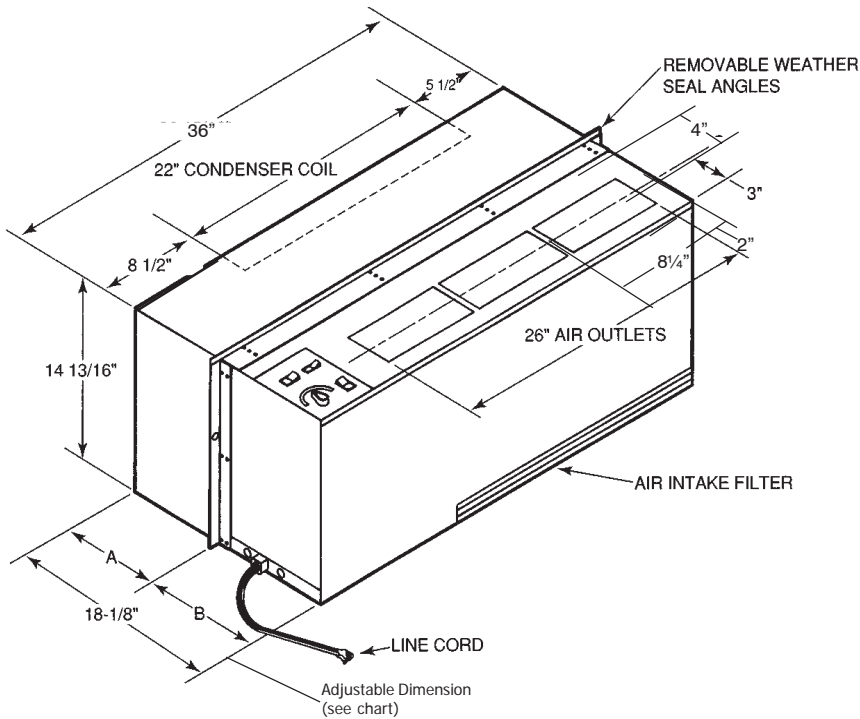
- Heat pumps operate at outdoor temperatures as low as 35° F.
- Standard temperature actuated drain pan valve for heat cycle condensate disposal

### ▲ **Options & accessories:**

- Custom enclosure (when needed)
- Motorized fresh air damper
- Electric heat (2, 3, 4 or 5kw)
- Remote thermostat
- Fan cycle switch
- Hydronic heat only, high Volt normally open/closed valve-switch (standard)

**NOTE:** *The distance from the condenser coil to the outdoor louver varies with sleeve depth. 2 sets of air baffles are included with each unit to accommodate most installation requirements. Other air baffle kits are available from the factory (inquire for applications). Have wall sleeve depth ready when ordering to ensure proper baffle size.*

# RC/RH 20 SPECIFICATIONS



WEATHER SEAL ANGLE POSITION ADJUSTMENTS	
Dim. A	Dim. B
8 5/8"	9 1/2"
7 7/8"	10 1/4"
9 11/16" <sup>*(1)</sup>	8 7/16" <sup>*(1)</sup>
8" <sup>*(2)</sup>	10 1/8" <sup>*(2)</sup>

\*Note: Dimensions are calculated without gaskets.  
 (1) Standard position – factory installed.  
 (2) Position for Climate Master 702, 703 replacement. May be factory installed. Advise when ordering.

HYDRONIC HEAT PERFORMANCE 104-101 (Single Row Coil)			
GPM	EWT (°F)	Capacities Btuh	P.D.
3.0	180°F Hi	16,400	4.4
	180°F Lo	15,400	4.4
	140°F Hi	10,300	4.6
	140°F Lo	9,700	4.6

ELECTRICAL SPECIFICATIONS												
Model Number	Voltage/Hz/Ph	Evap Motor		Cond Motor		Compressor		Total Amps	MCA	Max Fuse	Min Voltage	Line Cord
		FLA	Hp	FLA	Hp	RLA	LRA					
9	115/60/1	1.4	0.09	1.6	0.125	7.4	44	10.4	12.3	15	104	5-15P
	208/230/60/1	0.6	0.08	0.72	0.125	4.1	20	5.4	6.4	15	197	6-15P
	265/60/1	0.67	0.08	0.7	0.125	3.35	18	4.7	5.6	15	240	7-20P
12	115/60/1	1.4	0.09	1.6	0.125	9.7	54	12.7	15.1	20	104	5-20P
	208/230/60/1	0.6	0.08	0.72	0.125	5.1	28	6.4	7.7	15	197	6-15P
15	208/230/60/1	0.6	0.08	0.72	0.125	6.4	35	7.7	9.3	15	197	6-15P
	265/60/1	0.67	0.08	0.7	0.125	5.4	32	6.8	8.1	15	240	7-20P
18	208/230/60/1	0.6	0.08	0.71	0.09	7.6	45	8.9	10.8	15	197	6-15P
	265/60/1	0.67	0.08	0.71	0.09	6.3	32	7.7	9.3	15	240	7-20P

Note: Data will vary if alternate components (including compressor or motor) are used to meet production needs. Consult factory for current electrical specifications.

OPTIONAL ELECTRIC HEAT SPECIFICATIONS								
Heater No.	Voltage	Watts	Btuh	Amps	Total Heat	MCA	Max Fuse	Line Cord
2	208	1636	5600	7.9	8.5	10.4	15	6-15P
	230	2000	6900	8.7	9.3	11.5	15	6-15P
	265	2655	9100	10.0	10.7	13.2	15	7-20P
3	208	2454	8400	11.8	12.4	15.3	20	6-20P
	230	3000	10300	13.0	13.6	16.9	20	6-20P
	265	3983	13600	15.0	15.7	19.5	20	7-20P
4	208	3271	11200	15.7	16.3	20.3	25	6-30P
	230	4000	13700	17.4	18.0	22.3	25	6-30P
	265	5310	18200	20.0	20.7	25.7	30	7-30P
5	208	4089	14000	19.7	20.3	25.2	30	6-30P
	230	5000	17100	21.7	22.3	27.8	30	6-30P

RC/RH 20 Performance Data*						
Unit Size	Cooling Btuh	EERs	Heat Pump Btuh	COP	Evaporator CFM Hi/Lo	Fresh Air CFM
9	9,500	10	8500	2.8	385/335	40/35
12	11,900	10	11400	2.9	385/335	40/35
15	14,700	9.2	13800	2.8	385/335	40/35
18	16,900	9.1	N/A	N/A	385/335	40/35

\* Due to EMI's ongoing development programs, design, specifications, and performance data may change without notice.

NEMA Specifications Non-Locking/Receptacles									
VOLTAGE	125V			250V			265V		
	15(A)	20(A)		15(A)	20(A)	30(A)	15(A)	20(A)	30(A)
PLUG									
RECEPTACLE	5-15 R	5-20 R	6-15 R	6-20 R	6-30 R	7-15 R	7-20 R	7-30 R	



An **ECR International Brand**

ENVIROMASTER INTERNATIONAL LLC  
 5780 Success Dr., Rome, NY 13440  
 Phone: 1-800-228-9364  
 FAX: 1-800-232-9364  
 Email: info@retroaire.com