

PHILCO

PHILCO
Factory-Supervised
Service

SERVICE

AIR CONDITIONER

SPECIFICATIONS FOR PHILCO AIR CONDITIONERS MODELS 81-KS AND 81-KSL

MODEL	CABINET FINISH	VOLTAGE SUPPLY (60 CYCLES)	POWER CORD	REPLACEMENT UNIT PART NO.
81-KS-1	Mahogany	115	2-wire	4010-105
81-KSL-1	Arctic Dawn	115	2-wire	4010-105
81-KS-2	Mahogany	115	3-wire	4010-105
81-KSL-2	Arctic Dawn	115	3-wire	4010-105
81-KS-11	Mahogany	230	3-wire	4010-106

Condenser type Air cooled
Cabinet type Window
Compressor type Hermetic, reciprocating
No. of cylinders 2
Compressor-motor rating (1725 r.p.m.) $\frac{3}{4}$ hp
Refrigerant Freon F-22
Total power input 1140 watts
Time-lag fuse rating (115 volts) 20 amperes
Time-lag fuse rating (230 volts) 15 amperes
Fan-motor power input 215 watts
Fan type, condenser Propeller
Fan type, evaporator Centrifugal

Maximum outside air intake 95 c.f.m.
Maximum room air recirculation 295 c.f.m.
*Dehumidification 1.8 pts. per hr.
Air filter $9\frac{1}{4}'' \times 16\frac{1}{2}'' \times \frac{1}{2}''$
Net shipping weight, air conditioner only 157 lbs.
Net shipping weight, replacement unit 132 lbs.
Shipping weight, air conditioner complete 204 lbs.
Shipping weight, replacement unit 167 lbs.

*Based on the following conditions:

Outside air 95°F., dry bulb; 75°F., wet bulb
Inside air 80°F., dry bulb; 67°F., wet bulb

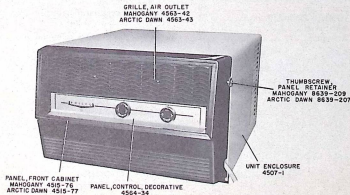


Figure 1. Cabinet and Unit Enclosure Identification

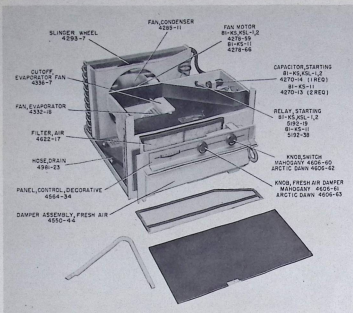
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SPECIFICATIONS—AIR CONDITIONER—MODELS 81-KS AND 81-KSL

PR-2617H

TP4-128A



794-159A

Figure 2. Major Parts Identification

INSTRUCTIONS

Information on the following subjects for the models listed on page 1 is given in the General Section of the 1954 Air Conditioner Service Manual (PR-2617) on the pages indicated.

Subject	Page	Subject	Page
Installation in Double-Hung Windows, Unit Enclosure Mounting, Type B	5	Use of Test Data for Checking Cooling Effect	32
Starting Relays, Voltage Type	19	(Use TABLE I, below.)	
Removal of Parts—Window Models, Type B	23	Power Consumption (Cooling)	32
Checking Super Power System	28	(Use TABLE II, below.)	
Cleaning Air-Flow System	31	Replacing the Unit—Window Models, Type B	34

TABLE I. COOLING RANGE

EVAPORATOR AIR-INLET TEMP. (D.B., °F.)	100	95	90	85	80	75	70
EVAPORATOR AIR-INLET TEMP. (W.B., °F.)	79 75	79 75 71 67	79 75 71 67	79 75 71 67	75 71 67 63	71 67 63 59	67 63 59
MINIMUM DROP (D.B., °F.)	16 18	14 16 18 19	11 14 16 18	8 11 14 16	8 11 14 16	7 10 13 16	6 10 13
MAXIMUM DROP (D.B., °F.)	20 22	18 20 22 24	15 18 20 22	12 15 18 20	12 15 18 20	11 14 17 20	10 14 17

TABLE II. POWER CONSUMPTION (COOLING)

CONDENSER AIR-INLET TEMPERATURE (D.B., °F.)	115	110	105	100	95	90	85	80
MINIMUM WATTS	1115	1075	1035	990	950	915	870	830
MAXIMUM WATTS	1415	1375	1345	1290	1250	1215	1070	1130

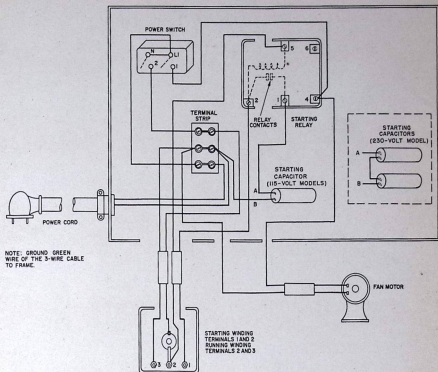


Figure 3. Wiring Diagram for Models 81-KS-1, 81-KSL-1, 81-KS-2, and 81-KSL-2. In Model 81-KS-11, capacitors are connected as shown in insert.

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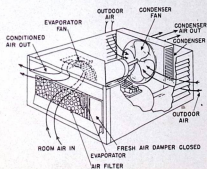


Figure 4. Air-Flow Paths, Maximum Cooling

TP3-2883A



Figure 5. Replacing Air Filter

TP4-156

REPLACEMENT PARTS LIST

MODELS 81-KS, KSL

DESCRIPTION	PART NO.	QTY.	
		81-KS-1, 2	81-KSL-1, 2
ELECTRICAL SYSTEM			
Relay, motor starting	5192-38	1	1
Capacitor, starting	5192-19	1	1
Retainer	4270-13	1	1
Retainer	4270-14	1	1
Circuit breaker, compressor	4588-52	1	1
Fan motor, evap. and cond.	5198-12	1	1
Switch, power	5198-11	1	1
Connector, power cable to terminal box	4278-59	1	1
Power cord, 2 wire, 100 ft.	4278-66	1	1
Power cord, 3 wire, 100 ft.	4320-13	1	1
Power-cord plug, for 2-wire cord	8653-4	1	1
Power-cord plug, for 3-wire cord	45-1500	1	1
Power-cord cover (light color)	45-1501	1	1
Terminal strip	8611-2	1	1
Terminal strip	8611-3	1	1
Terminal strip	4316-1	1	1
Terminal strip	5182-8	1	1
REPLACEMENT SEALED UNIT ASSEMBLY			
Isolator, rubber	4225-8	4	4
CABINET ASSEMBLY			
Panel, front, cabinet	4515-76	1	1
Angle, top	4515-77	1	1
Panel, control mounting	4542-82	1	1
Panel, control decorative	4514-3	1	1
Panel, control decorative	4564-34	1	1
GRILLES, SCREENS, DAMPERS, AND FILTERS			
Damper ass'y., fresh air	4550-44	1	1
Lever, damper control	4618-8	1	1
Control	4551-3	1	1
Grille, air outlet	4563-42	1	1
Grille, air outlet	4563-43	1	1
Filter, air	4022-17	1	1
Knob, switch	4006-60	1	1
Knob, fresh-air damper	4606-62	1	1
Knob, fresh-air damper	4606-61	1	1
Knob, fresh-air damper	4606-63	1	1
INSTALLATION MATERIAL			
Installation kit	4920-38	1	1
Bracket, window support, L.H.	4920-42	1	1
Bracket, window support, L.H.	4547-90	1	1

DESCRIPTION	PART NO.	QTY.	
		81-KS-1, 2	81-KSL-1, 2
INSTALLATION MATERIAL (Cont.)			
Bracket, window support, R.H.	4547-91	1	1
Channel, window board	4587-114	2	2
Angle ass'y., side channel, L.H.	4584-18	1	1
Angle ass'y., side channel, R.H.	4584-21	1	1
Thumbscrew, panel retainer	8639-209	2	2
Unit enclosure	8639-207	1	1
Bag assembly	4507-1	1	1
Board, filler	952-43	1	1
Molding, top (sash seal gasket)	952-35	1	1
Seal, window sash	4924-22	1	1
Plate assembly	4925-20	1	1
Gusset, L.H.	4926-184	1	1
Gusset, R.H.	4586-1	1	1
Gusset, R.H.	4539-16	1	1
Gusset, R.H.	4539-17	1	1
MISCELLANEOUS PARTS			
Fan, condenser	4285-11	1	1
Fan, evaporator (squirrel cage type) ..	4332-18	1	1
Cutoff, evaporator fan	4336-7	1	1
Slinger wheel	4293-7	1	1
Dowel pin	1W62177	1	1
Hose, drain	4981-23	1	1
MISCELLANEOUS HARDWARE			
Nut, hex, #6-32	1W20517FA3	1	1
Nut, hex, #8-32	1W20519FA3	1	1
Nut, hex, 1/4-20	1W20755FA3	1	1
Nut, hex, #6-16	1W19998FA3	1	1
Screw, machine, #8-32 x 3/4, rd., cross-recessed hd.	1W14518FA3	1	1
Screw, machine, #8-32 x 1, rd., cross-recessed hd.	1W14527FA3	1	1
Screw, machine, #6-16 x 3/4, hex. hd.	1W16198FA3	1	1
Screw, sheet metal, #8A x 3/8, rd., cross-recessed hd.	1W22389FA3	1	1
Screw, sheet metal, #4Z x 3/8, rd., cross-recessed hd.	1W23129FA3	1	1
Screw, wood, #10 x 1 1/4, slotted rd. hd.	1W24962FA3	1	1
Washer, flat, 3/8"	1W52987FA3	1	1
Washer, flat, 5/16"	1W52793FA3	1	1
Washer, lock, 3/8"	1W24518FA3	1	1
Washer, lock, 5/16"	1W24263FA3	1	1
Washer, lock, 3/8"	1W24265FA3	1	1
Washer, lock, #6	1W24514FA3	1	1
Washer, lock, #8	1W24515FA3	1	1