

REPLACEMENT PARTS LIST

CAPACITORS: Value in micro (10⁻⁶) farads, other specifications as listed

RESISTORS: Value in ohms \pm 10%, 1/4 Watt Carbon Composition, except as noted

Schematic Symbol	NuTone Part No.	Description	Schematic Symbol	NuTone Part No.	Description
MODEL 466 MOMENTARY 2ND DOOR RELEASE MODULE					
	12062-900	Complete Assembly			
CAPACITORS					
C101	35100-120	.001 + 80%, - 20%, 500V Ceramic Disc	C301	35100-120	.001 + 80%, - 20%, 500V Ceramic Disc
CONNECTORS					
J101	39421-101	Receptacle, 3-pin	C302	35091-111	2.2 + 100%, - 10%, 25WVDC, Electrolytic
J102	39421-102	Receptacle, 4-pin	C303	35100-139	.01 + 80%, - 20%, 50V Ceramic Disc
DIODES			C304	35123-101	33 \pm 10%, 15WVDC, Tantalum Electrolytic
D104, D105, D107	36549-000	Silicon Rectifier type, 1 Amp DC, 100 PIV; 1N4002	C305, C306 C307	Not Used 35100-127	.1 + 80%, - 20%, 200V Ceramic Disc
RESISTORS			CONNECTORS		
R114	33081-222	2.2K	J301	39421-101	Receptacle, 3-pin
R115	33081-102	1K	J302	39421-102	Receptacle, 4-pin
SILICON CONTROLLED RECTIFIER			DIODES		
SCR101	36642-000	G.E. No. C106 F1 type 2	D304, D305, D307	36549-000	Silicon Rectifier type, 1 Amp DC, 100 PIV; 1N4002
MODEL 467 POSTAL MAIN DOOR TIMER MODULE					
	12064-900	Complete Assembly			
CAPACITORS			INTEGRATED CIRCUIT		
C201, C205	35100-127	.1 + 80%, - 20%, 200V Ceramic Disc	Z301	36640-000	TIMER: Signetics NE555V; Nat Semi Con LM 555CN; Motorola MC1455P1; Raytheon RC555DN; TexInst SN72555P
C202	35091-111	2.2 + 100%, - 10%, 25WVDC, Electrolytic	RESISTORS		
C203	35100-139	.01 + 80%, - 20%, 50V Ceramic Disc	R301	Not Used	
C204	35123-101	33 \pm 10%, 15WVDC, Tantalum Electrolytic	R302	33081-472	4.7K
CONNECTORS			R303	34069-000	500K \pm 30%, 1/4 Watt, Linear Taper, Rheostat, 290° rotation; DELAY TIME SET; Centralab TKA1 B504C
J201, J202	39421-101	Receptacle, 3-pin	R304	33081-823	82K
DIODES			R305	33081-103	10K
D201	36639-000	18V \pm 10%, Zener; 1N4746; 1N4746A	R306, R313 R314 R315	Not Used 33081-222 33081-102	2.2K 1K
D202	36549-000	Silicon Rectifier type, 1 Amp DC, 100 PIV; 1N4002	SILICON CONTROLLED RECTIFIER		
INTEGRATED CIRCUIT			SCR301	36642-000	G.E. No. C106 F1 type 2
Z201	36640-000	TIMER: Signetics NE555V; Nat Semi Con LM555CN; Motorola MC1455P1; Raytheon RC555DN; TexInst SN72555P	TRANSISTORS		
RESISTORS			Q301	36613-000	NPN Silicon, Motorola MPS A20; TexInst T1S-98
R201	33101-820	82, 1/2 Watt	MODEL 469 AUTO CALL TRANSFER MODULE		
R202	33081-472	4.7K		12066-900	Complete Assembly
R203	34069-000	500K, \pm 30%, 1/4 Watt, Linear Taper, Rheostat, 290° rotation; DELAY TIME SET; Centralab TKA1 B504C		41812-000	PC Board, Complete Assembly
R204	33081-823	83K	CAPACITORS		
R205	33081-103	10K	C501, C504	35091-111	2.2 + 100%, - 10%, 25WVDC Electrolytic
TRANSISTORS			C505, C506	35100-127	.1 + 80%, - 20%, 200V Ceramic Disc
J201	36613-000	NPN Silicon, Motorola MPS A20; TexInst T1S-98	C507, C508	35100-139	.01 + 80%, - 20%, 50V Ceramic Disc
MODEL 468 TIMED 2ND DOOR RELEASE MODULE			C509	35123-101	33 \pm 10%, 15WVDC, Tantalum Electrolytic
	12066-900	Complete Assembly	C510	35091-108	100 + 100%, - 10%, 25WVDC, Electrolytic
			CONNECTORS		
			J506	39339-103	Receptacle, 8-pin
			J507	39339-104	Receptacle, 9-pin
			P505	39338-105	Plug, 15-pin
			DIODES		
			D501-D511	36549-000	Silicon Rectifier type, 1 Amp DC, 100 PIV; 1N4002
			D512-D515	36639-000	18V \pm 10%, Zener; 1N4746; 1N4746A

Schematic Symbol	NuTone Part No.	Description
INTEGRATED CIRCUITS		
Z501	36629-000	Quad, 2-Input NOR Gates; RCA CD4001AE; Solid State Scientific SCL4001AE Series; Solitron CM4001AE Series; Motorola MC14001CP Series
Z502, Z503	36640-000	Pulser; Signetics NE555V; Control Timer and Lamp Pulser; Signetics NE555V; Nat Semi LM555CN; Motorola MC1455P1; Raytheon RC555DN; TexInst SN72555P
RELAYS		
K501	39336-000	4PDT, Coil 24VDC Nominal Operating; 14VDC Minimum Pull-in; Coil DC Resistance 700 ohm $\pm 10\%$; American Zettler AZ429-70-10L; Potter Brumfield R10-E2Z4V700
RESISTORS		
R501	33081-103	10K
R502, R503, R512	33081-102	1K
R504, R505	33081-473	47K
R506, R507, R509, R510, R511	33081-104	100K
R508	33081-824	820K
R513	33081-124	120K
R514	33081-823	82K
R515	33027-136	220, 1 Watt, Wirewound
R516	34068-000	750K $\pm 30\%$, 0.1 Watt, 255° rotation Rheostat; DELAY TIME SET: CTS Corp. U201RS; Pihor PT-15LD-750K
TRANSISTORS		
Q501	36590	NPN Planar Silicon, Darlingon; Motorola MPS A13
MISCELLANEOUS		
	41813-000	Envelope Assembly, includes three #6 \times 1/4" Ph Pan Hd screws for mounting 469 to 478 chassis.
TERMINAL BOARD (MODEL 469)		
	41811-000	Complete Assembly
	36549-000	Diode, Silicon Rectifier type, 1 Amp DC, 100 PIV; DOOR RELEASE SILENCER; 1N4002
P506	39338-103	Plug, 8-pin
P507	39338-104	Plug, 9-pin
	39564-000	Spacer, Acetal
	15448-004	Screw, #4-40 \times 5/16" LG Pan Hd., Spacer Retainer
	39209-003	Screw, #6 \times 3/8" Slit. Pan, Terminal Connector (22 required)
	31146-038	Screw, #6 \times 1/4", Hex Hd. #1; Mounting (4 required)
DOOR RELEASE/POSTAL LOCK TIMER MODULE		
	12064-900	Same as Model 467—see listing above for individual component specifications. (Model 467 Module is supplied with the Model 469.)
MODEL 478 CONTROL UNIT		
	12134-900	Complete Assembly
	39532-005	Chassis Mounting Base
	39533-005	Chassis Top
	41740-000	Chassis Top Assembly, complete with PC Board Assembly and Terminal Board Assembly
	39064-000	Spacer, PC Board Protector
MAIN PC BOARD		
	41742-000	Complete PC Assembly

Schematic Symbol	NuTone Part No.	Description
CAPACITORS		
C1	35076-103	.47 + 80%, - 20%, 3V Ceramic Disc
C2, C3	35100-127	.1 + 80%, - 20%, 200V Ceramic Disc
C4, C11, C14	35100-139	.01 + 80%, - 20%, 50V Ceramic Disc
C5	35100-166	.01 $\pm 10\%$, 500V Ceramic Disc
C6, C9	35100-155	.0027 + 80%, - 20%, 500V Ceramic Disc
C7, C13	35091-111	2.2 + 100%, - 10%, 25WVDC, Electrolytic
C8	35091-104	33 + 100%, - 10%, 25WVDC, Electrolytic
C10, C12	35100-120	.001 $\pm 20\%$, 500V Ceramic Disc
C15	35091-103	4.7 + 100%, - 10%, 25WVDC, Electrolytic
C16, C18	35091-108	100 + 100%, - 10%, 25WVDC, Electrolytic
C17	35091-101	470 + 100%, - 10%, 35WVDC, Electrolytic
COILS		
RFC1	41743-000	Radio Frequency Choke; 150 turns No. 28 wire
CONNECTORS		
J5	39339-107	Receptacle, 15-pin
P1, P3, P4	39422-101	Plug, 3-pin, locking
P2	39422-102	Plug, 4-pin, locking
DIODES		
D1, D2, D4, D5, D7-D11	36549-000	Silicon Rectifier type, 1 Amp DC, 100 PIV; 1N4002
D3, D12	36639-000	18V $\pm 10\%$, Zener; 1N4746; 1N4746A
D13	36631-000	15V $\pm 5\%$, Zener; 1N4744A
INTEGRATED CIRCUITS		
Z1	36625-000	Quad, OpAmp Comparator; Motorola MC-3301-P Nat Semi LM-3900N, LM-2900N
Z2	36640-000	RING TONE GENERATOR; Signetics NE555V; Nat Semi LM555CN; Motorola MC1455P1; Raytheon RC555DN; TexInst SN72555P
Z3	36641-000	AUDIO AMPLIFIER; Nat Semi LM380N
Z4	36618-000	Rectifier, Silicon Bridge Gen Inst KBP02
RELAYS		
K1	39336-000	4PDT, Coil 24VDC Nominal Operating; 14VDC Minimum Pull-in; Coil DC Resistance 700 ohm $\pm 10\%$; American Zettler AZ429-70-10L Potter Brumfield R10-E2Z4V700
RESISTORS		
R1	33101-102	1K, 1/2 Watt
R2	33100-681	680, $\pm 5\%$, 1/2 Watt
R3	33081-394	390K
R4	33081-104	100K
R5	33206-102	150K $\pm 2\%$, Metal Film
R6	33206-101	110K $\pm 2\%$, Metal Film
R7	33205-224	220K, $\pm 5\%$
R8, R10	33205-104	100K, $\pm 5\%$
R9	33205-564	560K, $\pm 5\%$
R11	33101-820	82, 1/2 Watt
R12	33081-103	10K
R13	33101-103	10K, 1/2 Watt
R14, R24	33081-222	2.2K
R15, R16	33081-102	1K
R17	34066-000	5K $\pm 30\%$, 0.1 Watt, 255° rotation, Rheostat; RING VOLUME: CTS Corp U-201R502B Pihor PT 15 LD 5K
R18	33081-333	33K
R19	33081-470	47
R20, R21	33081-100	10
R22, R28	33081-105	1M

Schematic Symbol	NuTone Part No.	Description
R23	33081-683	68K
R25	33081-473	47K
R26	33081-152	1.5K
R27	34067-000	50K $\pm 30\%$, 0.1 Watt, 255° rotation, Potentiometer; AUDIO VOLUME: CTS Corp I-20 R503B
R29	33081-027	2.7
R30	33081-682	6.8K
R31	33101-221	220, 1/2 Watt
R32	33101-470	47, 1/2 Watt
R33	34068-000	750K $\pm 30\%$, 0.1 Watt, 255° rotation, Rheostat, RING PITCH: CTS Corp U201RS; Piher PT-15LD-750K
R34	33027-132	100, 1 Watt, Wirewound
SILICON CONTROLLED RECTIFIER		
SCR1	36642-000 36643-000	G.E. No. C106 F1 type 2 (Alternate for 36642)
TRANSFORMERS		
T1	30536-000	Audio, Intercom Input Primary DC Resistance: Blue to Yellow (CT) = 2.3 ohms; Red to Yellow (CT) = 2.7 ohms. Secondary DC Resistance: Black to Green 900 (min) — 1250 (Max) ohms. Better Coil & Trans EX-4240-A
	32159-003	Bracket, Transformer T1 Mounting
TRANSISTORS		
Q1	36613-000	NPN Silicon; Motorola MPS A20; TexInst T1S-98
Q2, Q3	36580-000	NPN Planar Silicon, Low Noise; TexInst SKA-4220; Motorola SP3-1216; Nat Semi SMO-7329
Q4	36614-000	NPN Silicon Single Diffused, Power: Motorola MJE 520
	38613-000	Heat Sink, for Q4
	39360-000	Washer, Mica, Heat Sink Insulating
	31990-015	Screw, #4-40 x 1/2" Ph. Pan., Heat Sink Mounting
	11159-003	Nut, #4-40 Hex, Heat Sink Mounting
TERMINAL BOARD (MODEL 478)		
	41741-000	Complete Assembly
	36549-000	Diode, Silicon Rectifier type, 1 Amp DC, 100 PIV; DOOR RELEASE SILENCER; 1N4002
P5	41744-101 39209-003	Connector, Plug, 15-pin Screw, #6 x 3/8" Slit Pan, Terminal Connector (15 required)
	31146-038	Screw, #6 x 1/2", Hex Hd. #1; Mounting (4 required)
MISCELLANEOUS		
	5553-003	Screw, #6 x 1/4" Slit Rd., Chassis Top to Body Mounting (2 required)
	16269-003	Screw, #6 x 1/2" Slit Rd., Installation Mounting (4 required)
	47135-000	Installation Instruction Sheet
	47134-000	Label; Model & Data

Schematic Symbol	NuTone Part No.	Description
MODEL 485 APARTMENT SPEAKER		
S401	12153-900 41737-000	Complete Assembly Rocker/Switch Assembly: TALK-LISTEN
	41760-000	PC Board, Complete Assembly
	39530-000	Connector, 2-pin (3 required)
R401	33101-331	330, 1/2 Watt
R402	33101-122	1.2K
S402	34651-000	4-pole, 3-position, Slide: Door Release
	39531-000	Contact, Spring (2 required)
	39553-000	Contact, Spring (1 required)
	36076-000	Speaker, 3", 16-ohm voice coil (14-ohm DC)
	39384-003	Screw, #8 x 9/32" Ph Pan; Speaker Mounting (2 required)
	39209-003	Screw, #6 x 3/8" Slit Pan; Terminal/PC Board Mounting
	40684-000	Envelope Assembly, includes 2 #6 x 1 3/4" Ph Pan Installation Mounting Screws.
	47128-000	Installation Instructions
ENTRANCE DIRECTORIES		
	38132-000	Pushbutton (494 Series)
	39280-000	Pushbutton (495, 496, 498 Series)
	36076-000	Speaker, Weather Resistant, 3", 16-ohm voice coil (14-ohm DC)
	39397-049	Fastener, 1/4 Turn, Brass (All "BA" Directories)
	39316-000	Fastener, 1/4 Turn, Silver (All "SA" Directories)
	45771-000	Name Card (494 Series)
	46277-000	Protector, Name Card (494 Series)
	39320-000	Number Plate (495/496 Series)
	39322-000	Protector, Number Plate (495/496 Series)
	38350-000	Name Plate, Blank (495/496 Series)
	47148-000	Card, Directory Panel (498 Series)
	38700-000	Protective Window (498 Series)
	34588-000	Switch, Micro, Postal Lock (494/495/496 Series)
	36637-000	Lamp, LED (496 Series)
	41836-000	Lamp, LED, Complete Assembly (496 Series)
	36084-000	Handset, Telephone (494/495/496 Series)
	36085-000	Cradle, Telephone Handset (494/495/496 Series)
	41451-000	Telephone Handset & Cradle, Complete Assembly (494/495/496 Series)
MODEL 499 REMOTE POSTAL LOCK DOOR RELEASE SWITCH		
	12896-900	Complete Assembly (Model 499-BA)
	12897-900	Complete Assembly (Model 499-SA)
	5120-000	Pushbutton (PB-12)

NuTone

MADISON & RED BANK ROADS

CINCINNATI, OHIO 45227

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