

A compact and motor-driven cam timer, the 324 precisely controls one to twelve load circuits through easily-set screwdriver adjustable cams. Each timer provides a wide range of cycle times through a set of interchangeable gears.

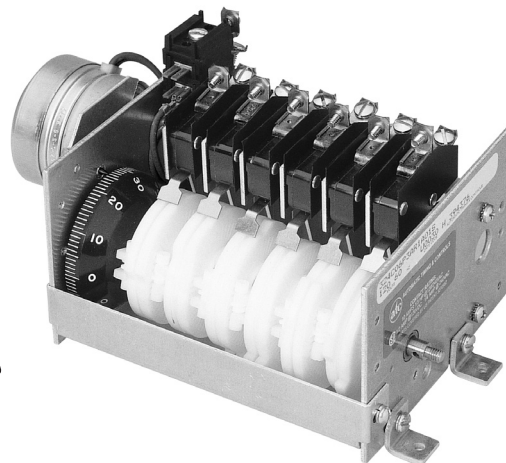
EASY AND PRECISE CAM ADJUSTMENT: With ATC's unique split-cam design, each side of the cam is separately screwdriver-adjustable in either direction: either side determines the precise instant during the cycle when the switch will actuate, the other side determines how long the switch will remain actuated. Adjustments are easy and precise: 1/4 turn of the adjusting screw equals 0.5% of cycle time. A setting disc, calibrated in 1% increments, facilitates program set-up and indicates cycle progress.

ONE TO TWELVE PRECISION SWITCHES: Whether used as a time or sequence programmer, the 324 can be ordered with any number of cam-operated switches from one to twelve. Each SPDT precision switch is rated at 10 amps, 120 VAC and is 1/3 hp rated at 120 or 240 VAC.

WIDE RANGE OF CYCLE TIMES: The 324 is available with a variety of synchronous motors. See charts for available timing ranges. Each motor provides an adjustable range of cycle times, with a ratio of over 2.5:1, through a set of interchangeable gears. Changing gears is a simple operation that takes only a few minutes.

ACCURACY: The repeat accuracy and setting accuracy of the 324 are both within $\pm 0.25\%$. Follower fingers precisely track the contour of the cams, accurately operating the precision switches with quick-break action.

SEQUENCE CONTROL: The 324 can be ordered without a motor and with a 1 inch long shaft extension on either or both ends, for use as a rotary cam limit switch.



Precision Switch Cam Programmer

SPECIFICATIONS

CYCLE TIMES	Choice of ON-Delay or OFF-Delay operation (not field-convertible). Choose from a variety of interchangeable motors and gears. See chart for available timing ranges.	LOAD SWITCHES	TYPE: Precision switches; one for each cam CONTACT ACTION: SPDT (Form C) CONTACT RATING: 10 A at 120 VAC (non-inductive). 1/3 HP at 125/250 VAC MINIMUM CONTACT ACTUATION TIME: 1% of cycle time
REPEAT ACCURACY	$\pm 0.25\%$ of cycle time.	DRIVE MOTORS	SPEED: choice of 12 TYPE: Synchronous; permanently lubricated; integral slip clutch for manual advance; anti-backup to prevent damage to switches VOLTAGE: 120 VAC, 50 or 60 cycles; 240 VAC, 50 or 60 cycles. POWER CONSUMPTION: 12 watts max DUAL DRIVE: two motors may be used, special applications TORQUE-SPEED CAPABILITIES: At cycle times of 30 SEC or longer, the 324 can drive and switch 12 contacts simultaneously; below 30 SEC, the motor may be limited in its ability to drive or switch a number of contacts simultaneously.
SETTING ACCURACY	$\pm 0.25\%$ of cycle time.	TEMPERATURE RATING	32 to 140°F (0 to 60°C)
FRAME SIZES	3, 6, 9 and 12 cam frame sizes are provided	WEIGHT	NET: from 1-1/2 lbs. for the 3 cam unit up to 3-1/2 lbs. for the 12 cam unit
CAMS	NUMBER: 1 to 12 (or multiples up to 12, by combining timer assemblies); cams may be factory-set. CUT: Standard or 50% cut, as specified (standard cams allow contact closure adjustment of 1 to 45% or 55 to 99%, 50% cut cams allow contact closure adjustment of 12 to 52% or 48 to 88%; custom cams available with 2 or 4 or cuts. CONSTRUCTION: Two-inch diameter split type; made of Delrin	ENCLOSURES	NEMA 12 molded case for one model 324 with maximum of 3 cams. (See Accessories) (Optional)
LIFE EXPECTANCY	MECHANICAL: over 10,000,000 operations CONTACTS: over 1,000,000 operations at less than 1 amp		

MODEL NUMBER	
MODEL NUMBER	324C
NUMBER OF SWITCHES	
1 Switch , 3 Cams	01
2 Switches, 3 Cams	02
3 Switches, 3 Cams	03
4 Switches, 6 Cams	04
5 Switches, 6 Cams	05
6 Switches, 6 Cams	06
7 Switches, 9 Cams	07
8 Switches, 9 Cams	08
9 Switches, 9 Cams	09
10 Switches, 12 Cams	10
11 Switches, 12 Cams	11
12 Switches, 12 Cams	12
CYCLE TIME MOTOR SPEED	
No Motor	0
5 rpm	A
150 rph	B
15 rph	E
5 rph	F
2.5 rph	G
1 rph	H
1/6 rph	L
CYCLE TIME MOTOR PINION	
No Motor	0
24 Teeth (300-495-01-00)	1
30 Teeth (300-495-02-00)	2
40 Teeth (300-495-03-00)	3
CYCLE TIME CAM SHAFT GEAR	
No Motor	0
30 Teeth (300-495-11-00)	A
36 Teeth (300-495-12-00)	B
40 Teeth (300-495-13-00)	C
45 Teeth (300-495-14-00)	D
50 Teeth (300-495-17-00)	E
55 Teeth (300-495-15-00)	F
60 Teeth (300-495-16-00)	G
OPERATION	
Repeat Cycle/Stop Cycle	R
Dynamic Brake ¹	E
Eternal Drive by user, no motor	E
Special	K

MOTORS

1 Motor	1
2 motors	2
No motor	3
Special	0

VOLTAGE & FREQUENCY

120/60	A
240/60*	B
120/50	C
240/50*	D
No motor	X

OPTIONS

None	01
1/4" dia. x 1" long shaft extension right end (Units with one or no motor)	02
1/4" dia. x 1" long shaft extension left end (Units with one or no motor)	03
1/4" dia. x 1" long shaft extension both ends (On motorless units only)	04
Special	00

FEATURES

Standard (other than cam settings) (Blades)	X
Special	K

NOTES

CAMS

Factory setting cams to 0.25% tolerance, 50% cams allow 12 to 52% or 48 to 88% adjustment of switch actuation. 2, 3, or 4 cuts equally spaced. Have limited adjustability. (Does not include 50% cams with multiple cuts) Multiple cuts, unequally spaced. Multiple cuts over 4. Specially cut or specially molded cams.

CONTACT SWITCH

Switch with Bracket 324-260-82-00

¹For Stop Cycle, or Brake operation, specify a 324 with one more switch than you need for your load circuits. (Do not exceed 12 switches total!) You interwire this switch to the motor according to the installation instruction for the unit.

² Be sure to specify shaft extension under OPTIONS

For prices and further information, consult factory.

TIME CYCLE ORDERING CODES

Select Time Cycle from table; if it is available with more than one motor and gearing combination, pick the combination which would best accommodate potential future speed changes. 3 Digit Speed Code identifies motor.

* 240 V option limited to availability

