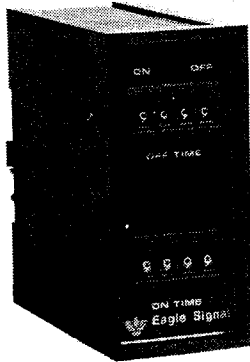# DA200 SERIES
MINIFLEX® DIGITAL SET
REPEAT CYCLE TIMER

The DA200 Series Timer is a microprocessor based repeat cycle timer housed in a 1/8 DIN style enclosure. Two 4 digit pushbutton switches on the front of the unit provide exact setting of the ON and OFF time setpoints. Four time ranges from 99.99 seconds to 99 hours: 99 minutes can be independently programmed for the ON and OFF times. Repeat or Single Cycle operation, and ON or OFF time first operation can also be programmed. All programming is done using rocker switches located on the side of the unit.

The DA200 Timer can be mounted in three ways for use in most any application. The terminal connections for the unit are 3/16 inch terminals for use with a square base relay socket. This provides a means of mounting the unit within a panel. The DA200 timer can also be mounted through the front of the panel using either an economical fixed bezel kit, or a unique plug-in housing which allows easy removal for programming changes and replacement.

DA200 timer features include:

- DPDT 5 amp relay output.

- Two LED indicators to show ON and OFF time operation.

- Recessed programming rocker switches with a protective cover to help prevent accidental switch changes.

- 0.01 second setting resolution for fast time cycles and easy to use minute:second and hour:minute time ranges.

SPECIFICATIONS

Time Ranges

SYM.	MAXIMUM RANGE	MINIMUM SETTING
1	99.99 Sec	.01 Sec
2	999.9 Sec	.1 Sec
3	99 Min:99 Sec	1 Sec
4	99 Hr:99 Min	1 Min

Setting Accuracy
.01% of setting or 35 milliseconds, whichever is larger.

Repeat Accuracy
.01% of setting or 35 milliseconds, whichever is larger.

Reset Time
35 milliseconds

Power On Response Time
35 milliseconds

Operating Voltage and Frequency
Symbol **Voltage & Frequency**
A6   120 VAC, 50/60 Hz

Operating Temperature
+32° to +122°F (0° to 50°C)

Output Rating
5 amp, 10-240 VAC resistive.

Vibration
Unit function is unaffected by 2.5G sinusoidal vibration magnitude in both directions of the perpendicular mounting axes imposed from 20 to 100 Hz.

Static Discharge
Unit function is unaffected by a constant 3600 volt peak. 60 Hz discharge applied to the front plate at a relative humidity of less than 25%.

Transient Protection
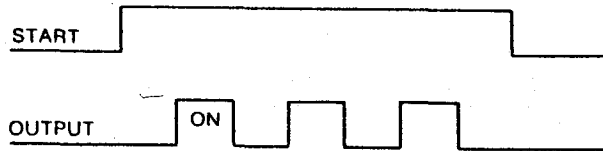Immune to 2500 volts peak transients up to 50 microseconds in duration.

Eagle Signal Controls
Industrial Control Products
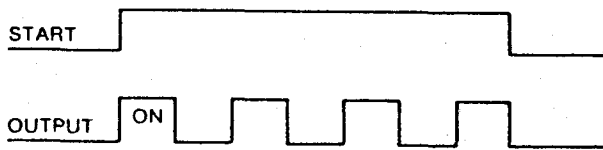8004 Cameron Road, Austin, Texas 78754

The output of the DA200 Series Timer is programmable for four basic operating modes as noted below. The Start input indicates voltage applied to terminals A and B. The high and low states on the Output indicate when the relay is energized and deenergized. This would also indicate when the normally open contacts on the output relay are closed.
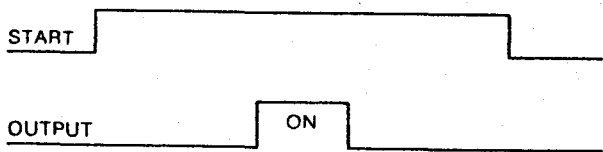
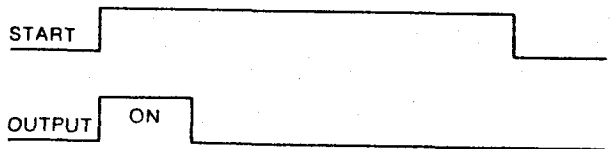### Repeat Cycle Operation — OFF Time First

START

OUTPUT | ON

Repeat Cycle Operation — ON Time First

START

OUTPUT | ON

Single Cycle Operation — OFF Time First

START

OUTPUT | ON

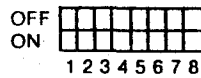### Single Cycle Operation — ON Time First

START

OUTPUT | ON

PROGRAMMING PROCEDURE

The DA200 Timer is programmed using a set of DIP rocker switches located on the bottom side of the unit. These switches are protected by a sliding cover when programming is complete.

The following table shows how to program the rocker switches for the various operating modes and time ranges.
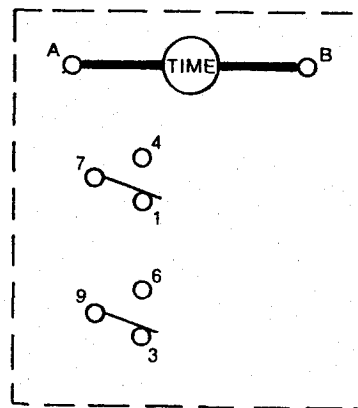
NOTE: SWITCHES 7 and 8 ARE NOT USED ON THE DA200 TIMER.
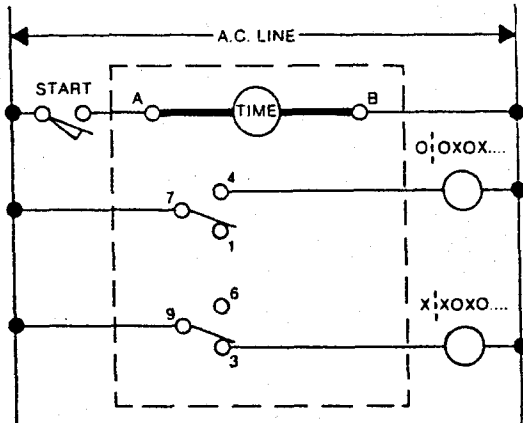
X = Switch ON   O = Switch OFF   Blank = Does Not Apply

OFF
ON
1 2 3 4 5 6 7 8

OPERATING MODE	SWITCH NUMBER							
	1	2	3	4	5	6	7	8
ON/OFF TIME FIRST								
OFF Time First	O							
ON Time First	X							
OFF TIME RANGE								
99.99 Seconds		X	X					
999.9 Seconds		O	X					
99 Min : 99 Sec		X	O					
99 Hr : 99 Min		O	O					
ON TIME RANGE								
99.99 Seconds				X	X			
999.9 Seconds				O	X			
99 Min : 99 Sec				X	O			
99 Hr : 99 Min				O	O			
CYCLE OPERATION								
Repeat Cycle						X		
Single Cycle						O		

When the timer is programmed for either the Minute:Second or Hour:Minute time ranges, it is possible to set the two right digits to a value that exceeds the conventional limit of 60 seconds or minutes. When this is done, the unit will time the value set by the right two digits, and then time the value set by the left two digits. Example: A setpoint of 02 minutes and 75 seconds (195 seconds) will time for 03 minutes and 15 seconds (195 seconds).
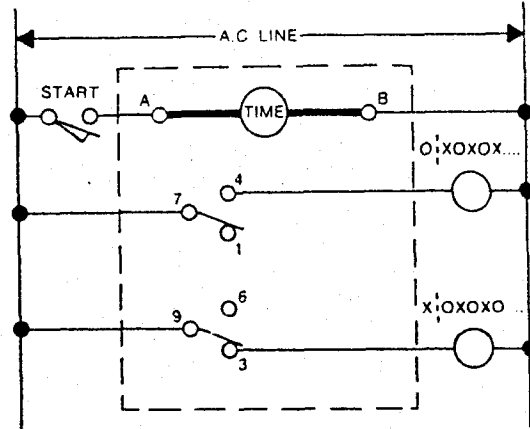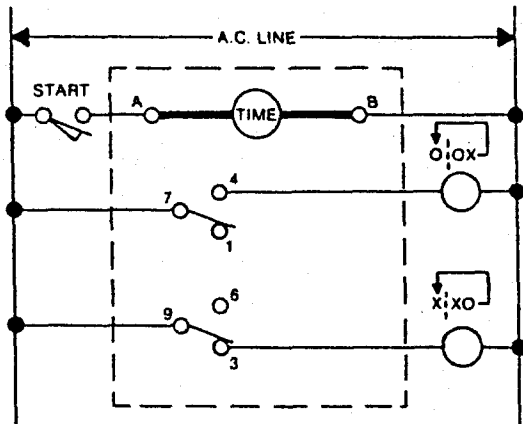
DA200 TERMINAL ASSIGNMENTS

A TIME B

7 4
1

9 6
3

WIRING DIAGRAMS
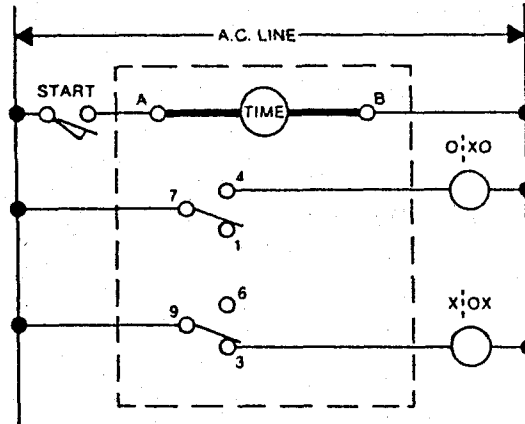### Bold Lines Are Internal Wiring

Repeat Cycle Timing, OFF Time First. Outputs connected to the normally open relay contacts will be OFF when the timer is reset, and during the first timing period after timer start. Close control switch to start timing cycle. Open control switch to reset.

Repeat Cycle Timing, ON Time First. Timer contacts are shown in reset and during the OFF-Time. Contacts transfer during ON-Time. Contacts will transfer as soon as control switch is closed. Timing cycle continues as long as control switch is closed. Timer resets when control switch is opened.

One Cycle Timing. OFF Time First. Closing the control switch starts one OFF and one ON timing period. The timer resets after the ON period has been completed. To initiate another timing cycle, the start switch must be opened and reclosed.

One Cycle Timing. ON Time First. Closing the control switch starts one ON timing period. The timer times the OFF period after the ON period has been completed. To initiate another timing cycle, the start switch must be opened and reclosed.

ACCESSORIES

DZ100-51 BEZEL KIT for panel mounting. Kit includes bezel, bezel gasket, brackets and mounting hardware.

DZ100-52 STRAIN RELIEF KIT provides cable connection to panel mounted unit. Includes H11496 strain relief and 4270-0621 socket and hardware.
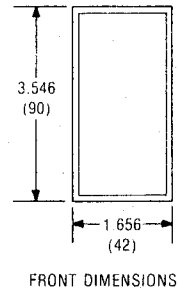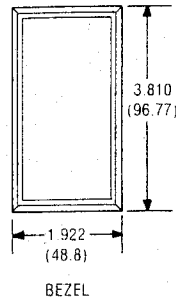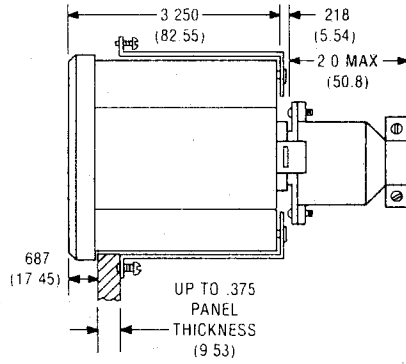
DZ100-54 PLUG-IN HOUSING for panel mounting units with plug-in convenience. Kit includes housing and mounting brackets.

DZ100-56 LATCH AND LATCH RELEASE KIT for surface mounting. Kit includes latch, spacer, latch release and mounting hardware (Use with 60SR3B05 Relay Socket).
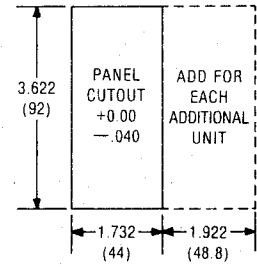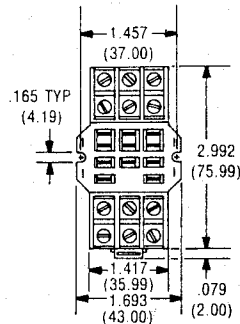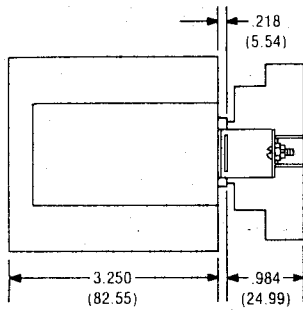
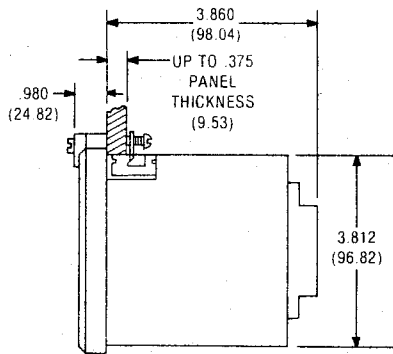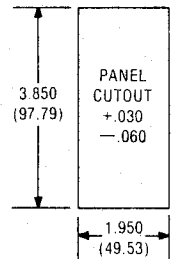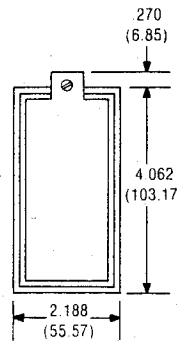60SR3B05 SQUARE BASE RELAY SOCKET

MOUNTING DIMENSIONS

Panel Mount

3 250
(82.55)

.218
(5.54)

2 0 MAX
(50.8)

687
(17 45)

UP TO .375
PANEL
THICKNESS
(9 53)

3.810
(96.77)

1.922
(48.8)

BEZEL

3.546
(90)

1 656
(42)

FRONT DIMENSIONS

Surface Mount

.218
(5.54)

3.250
(82.55)

.984
(24.99)

1.457
(37.00)

.165 TYP
(4.19)

2.992
(75.99)

1.417
(35.99)

1.693
(43.00)

.079
(2.00)

RELAY SOCKET

3.622
(92)

PANEL
CUTOUT
+0.00
−.040

ADD FOR
EACH
ADDITIONAL
UNIT

1.732
(44)

1.922
(48.8)

Plug-In Mount

3.860
(98.04)

UP TO .375
PANEL
THICKNESS
(9.53)

.980
(24 82)

3.812
(96.82)

NOTE: PANELS THICKER THAN .140" REQUIRE ENLARGEMENT OF CORNERS TO
ALLOW POSITIONING OF CORNER MOUNTING BRACKETS.

.270
(6.85)

4 062
(103.17)

2.188
(55.57)

3.850
(97.79)

PANEL
CUTOUT
+.030
−.060

1.950
(49.53)

ORDERING INFORMATION

DA2   11   A6

BASIC UNIT

SYMBOL	DESCRIPTION
11	5 Amp DPDT Relay Output

VOLTAGE & FREQUENCY

SYMBOL	DESCRIPTION
A6	120 VAC 50/60 Hz