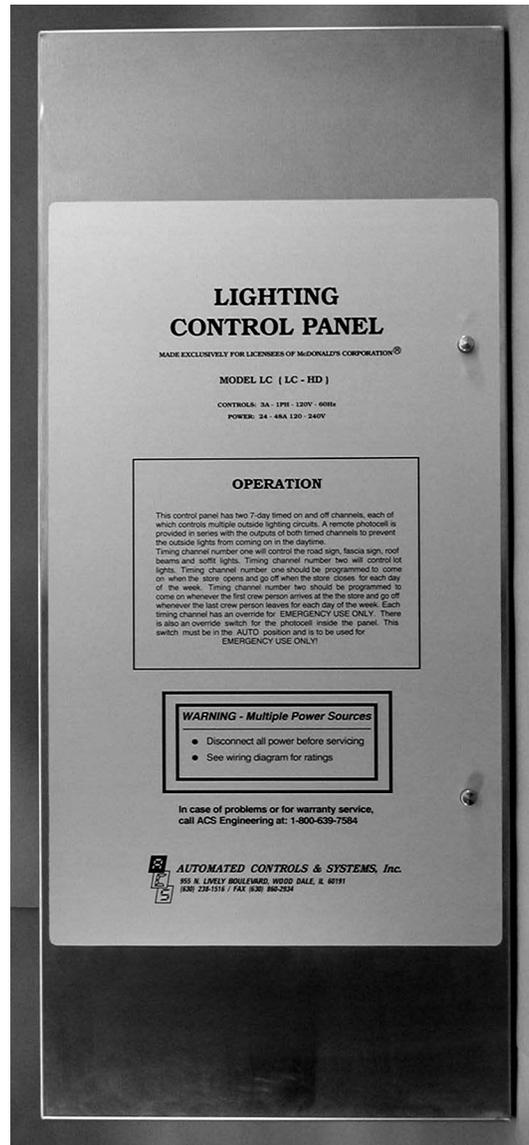


LIGHTING CONTROL PANEL



Installation Guide & User Manual

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WARRANTY STATEMENT

Automated Controls & Systems (ACS) warrants its equipment against defects in workmanship and materials for a period of **90 days (labor) and 12 months (parts)** from date of installation.

Warranty applies only to original installation and to equipment subject to normal use and service when such equipment is used in accordance with instructions furnished by ACS.

Warranty does not cover against damage by abuse, faulty installation, improper electric current or alterations made after shipment.

ACS's liability under this warranty shall be limited to the replacement or repair of any equipment or part which has been returned, prepaid to the factory, and which has been determined, upon examination by ACS to be defective.

Under no circumstances shall ACS be liable to Buyer or any third party for any loss of profits or other direct or indirect costs, expenses, losses or consequential damages arising out of or as a result of parts or components incorporated in ACS's equipment but not supplied by ACS.

Operation of this unit on any voltage other than the specified operating voltage will void warranty.

THIS WARRANTY IS IN LIEU OF ANY OTHER WARRANTY, EITHER EXPRESSED OR IMPLIED, AS TO DESCRIPTION, QUALITY, MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE OR USE, OR ANY OTHER MATTER.

LIGHTING CONTROL PANEL User Manual

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SPECIFICATIONS

ELECTRICAL

Controls: 3A 1PH 120V 50/60HZ

Power: Model **LC**
24A 120 - 240V - 28 Circuits

Model **LC-HD**
48A 120 - 240V - 4 Circuits
24A 120 - 240V - 24 Circuits

Model **LC-EC**
24A 120 - 240V - 32 Circuits

Model **LC-HD-EC**
48A 120 - 240V - 4 Circuits
24A 120 - 240V - 28 Circuits

ENVIRONMENTAL

Operating Temperature: 0 - 60 Degrees Centigrade
(32 - 140 Degrees Fahrenheit)

Humidity: 10 - 90% Relative Humidity

PRINCIPLE OF OPERATION

The Lighting Control Panel is used to control the outside lights of the restaurant. It does this by turning the parking lot lights ON or OFF as a group via a program on one channel of the “GRASSLIN 7 Day Time Switch.” The other channel is used to control the outside signage lights as a group. The program is modified by the condition of the ambient light via the Photo Control. If the program calls for the lights to be on and it is still light outside, the Photo Control inhibits the operation of the lights until it is dark. Conversely, when the lights are on and daybreak occurs, the lights will turn off. The BY-PASS SWITCH must be in the PHOTO CONTROL position for this to happen. If it is in the MANUAL position, the lights are fully controlled by the hand symbol 1 and hand symbol 2 keys.

GENERAL DESCRIPTION

ACS’s Lighting Control (LC) Panel is an industrial control panel with contactors and other control elements including a user friendly microcomputer based two channel electronic time switch (timer). This allows for the automatic control of the exterior lights of the restaurant.

- Channel 1 includes Road Sign(s), Facia Signs, Roof Signs, Roof Beams and Soffit Lights.
- Channel 2 is assigned to the Parking Lot Lights.

Timed parking lot light control gives employees leaving the building at night the security of being able to walk to their cars in a lighted environment.

The LC Panel uses a roof mounted Photo Control which prevents the exterior lighting system from turning ON while daylight is present. The Photo Control has a sliding cover which controls the amount of light sensed by the photocell. The electronic time switch in conjunction with the roof mounted Photo Control control the ON/OFF cycling of the building’s exterior lights. To successfully turn any lighting control channel ON, the Photo Control must sense a “dark” condition and the particular timed channel must be in an ON state.

The LC Panel also provides a Photo Control bypass switch. This switch, labelled MANUAL/PHOTO CONTROL, allows one to bypass the Photo Control control feature of the lighting control system. When the switch is in the MAN (manual) position, the Photo Control no longer has any effect on the exterior lights.

INSTALLATION

This unit may only be installed by a **licensed electrical contractor**. It should be installed as specified in the electrical drawings provided to the construction contractor. All wiring must meet both NEC and local electrical codes.

The LC Lighting Control Panel consists of three parts: a rough-in box (enclosure); an outer door, inner door and mounting collar assembly; and a subplate containing the actual controls and contactors.

The unit is designed to be mounted between standard wall studs (16" on center). Placement is to be as specified in the contractor's drawings. All input power wiring comes from the "LP" circuit breaker panel and enters the lighting control panel from either side of the rough-in box (enclosure) or the top/bottom. Knock-outs are provided at these locations.



MODEL LC LIGHTING CONTROL PANEL WITH MAIN DOOR OPEN

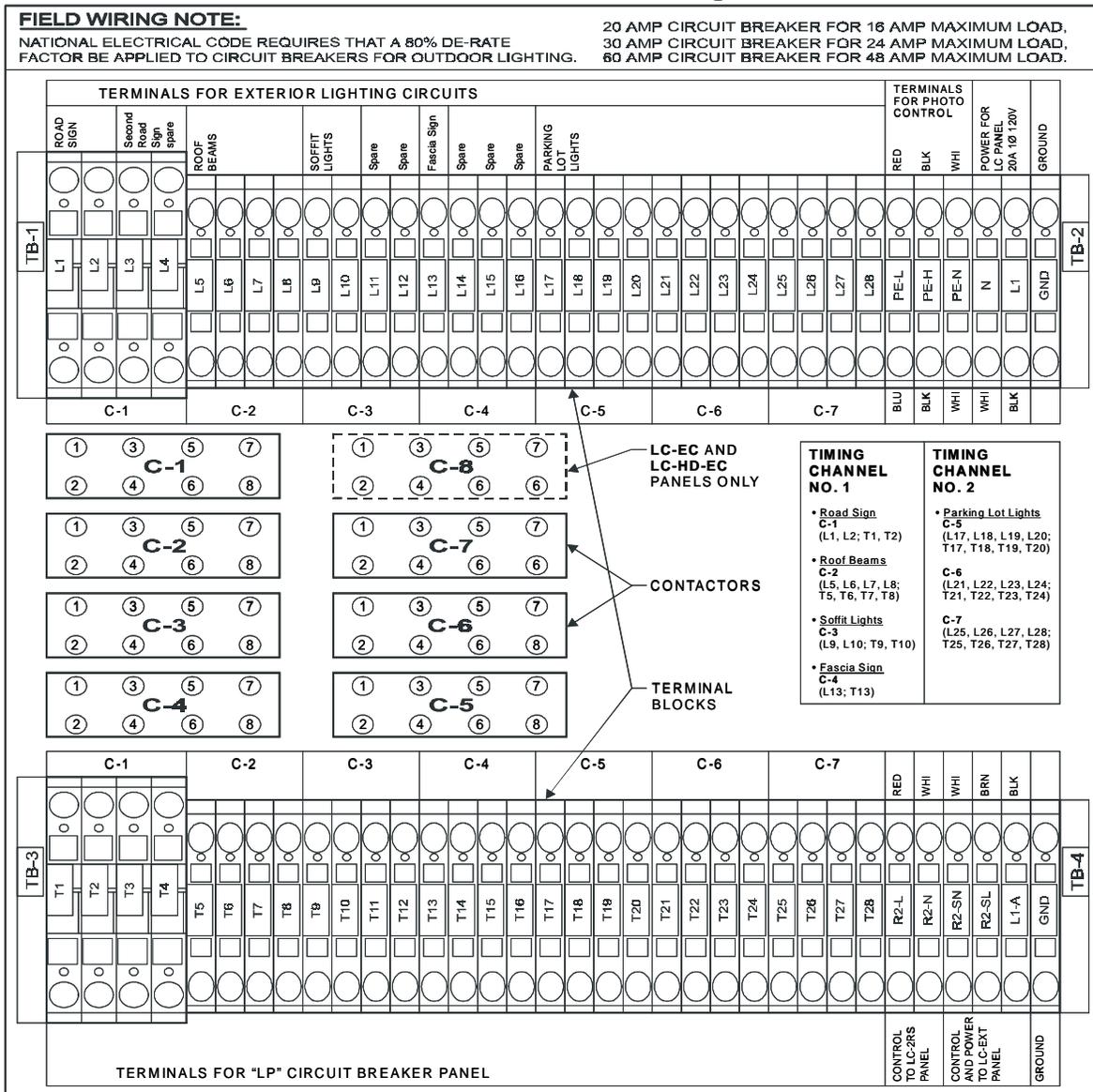
Switched power runs from the Lighting Control Panel to the Road Sign(s), Facia Signs, Roof Signs, Roof Beams and Soffit Lights(timing channel No. 1) and the Parking Lot Lights (timing channel No. 2). Each contactor is wired with a different color wire and the colors of the wire correspond to the colors of the terminal blocks. The circuit attached to the terminal block on the top portion of the unit follows through to the corresponding terminal electrical block at the bottom portion of the panel.

Each channel is independently programmed via the GRASSLIN Time Switch. Programming instructions start on page 15.

LIGHTING CONTROL PANEL Model: LC (LC-HD)

AUTOMATED CONTROLS & SYSTEMS, Inc.

Terminal Blocks Arrangement



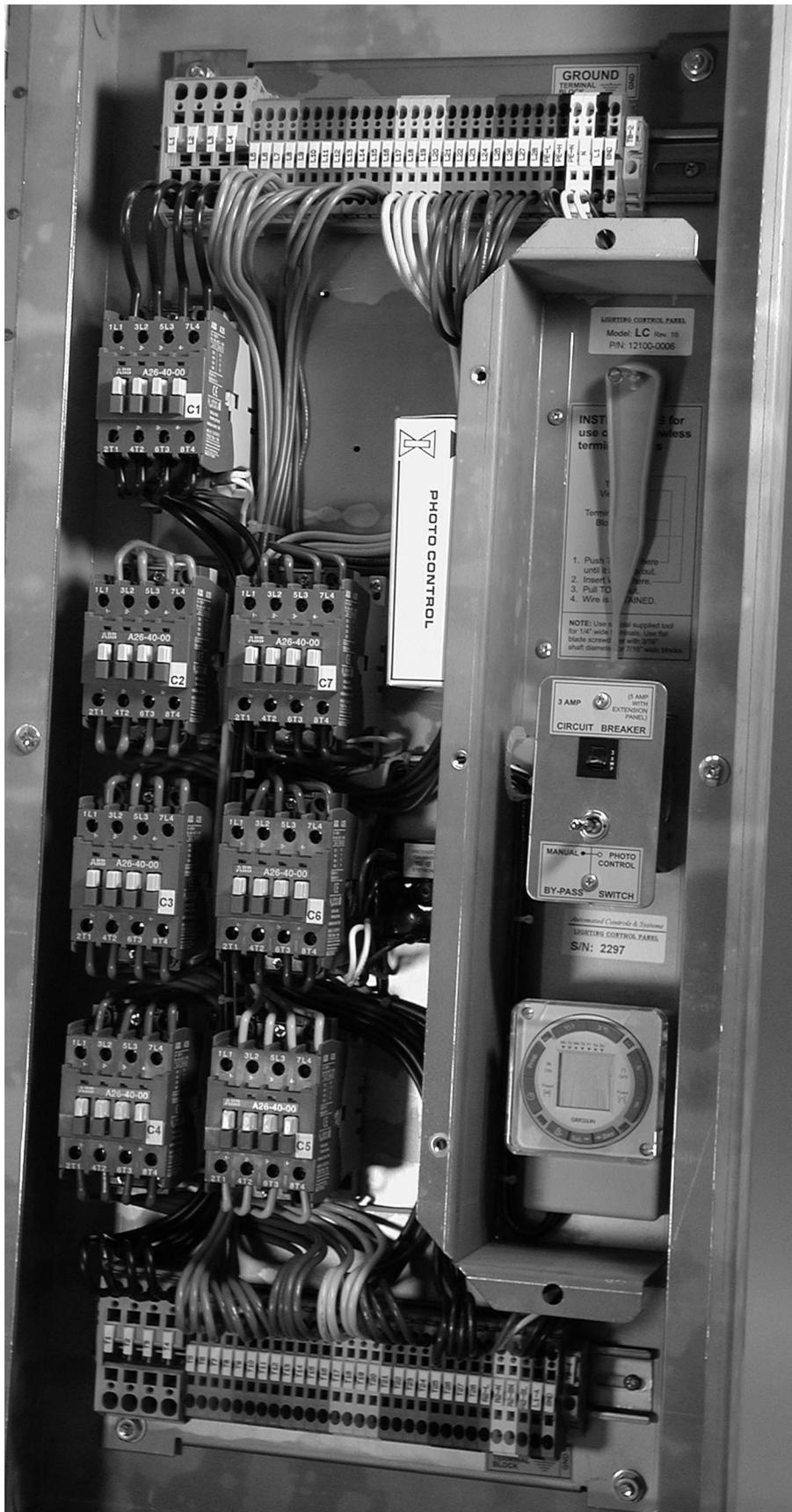
Attention: Correct Photo Control wiring and adjustment are critical for reliable Panel operation. For details see LC Panel wiring diagram and Photo Control application sheet.

For technical support call ACS at (630) 238-1516

INSIDE INNER DOOR LABEL DETAILING LOCATION OF CIRCUITS



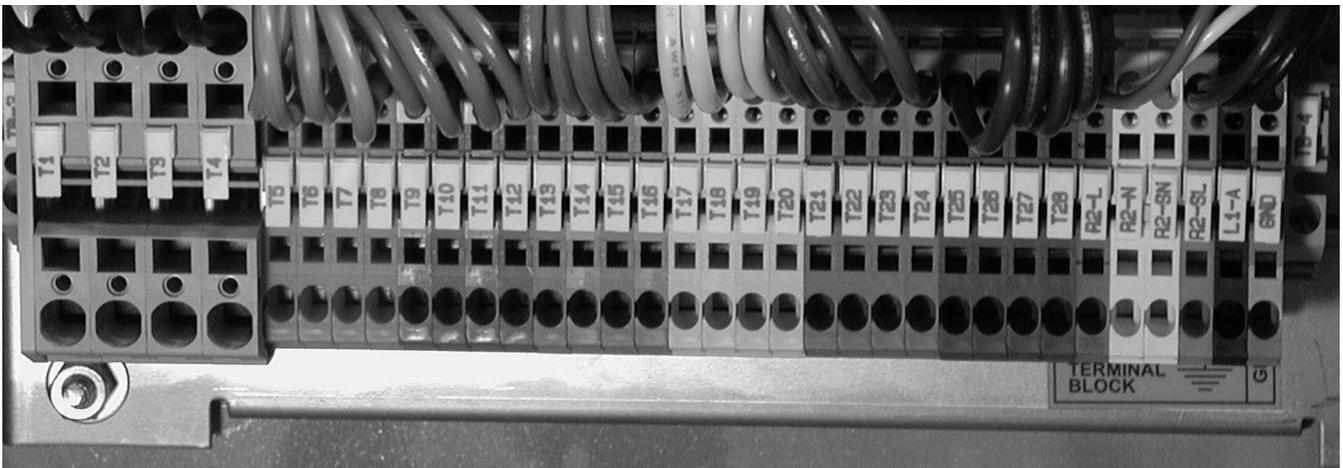
OVERALL VIEW OF LC PANEL SHOWING SUB PLATE WITH CONTACTORS



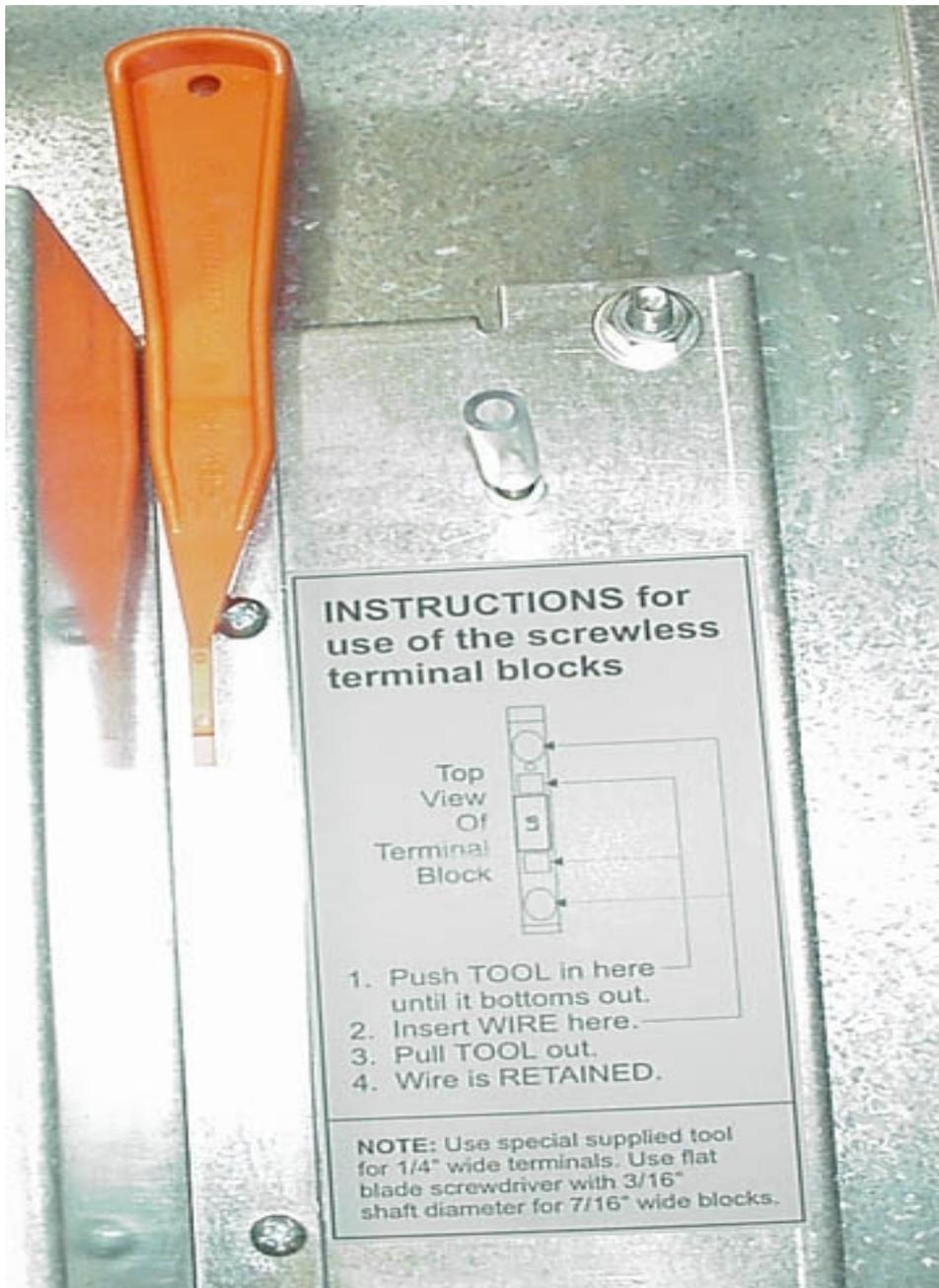
DETAILED VIEW OF CONTACTORS, WIRING AND TERMINAL BLOCKS



UPPER (INPUT) ROW OF SCREWLESS TERMINAL BLOCKS AND LABELS

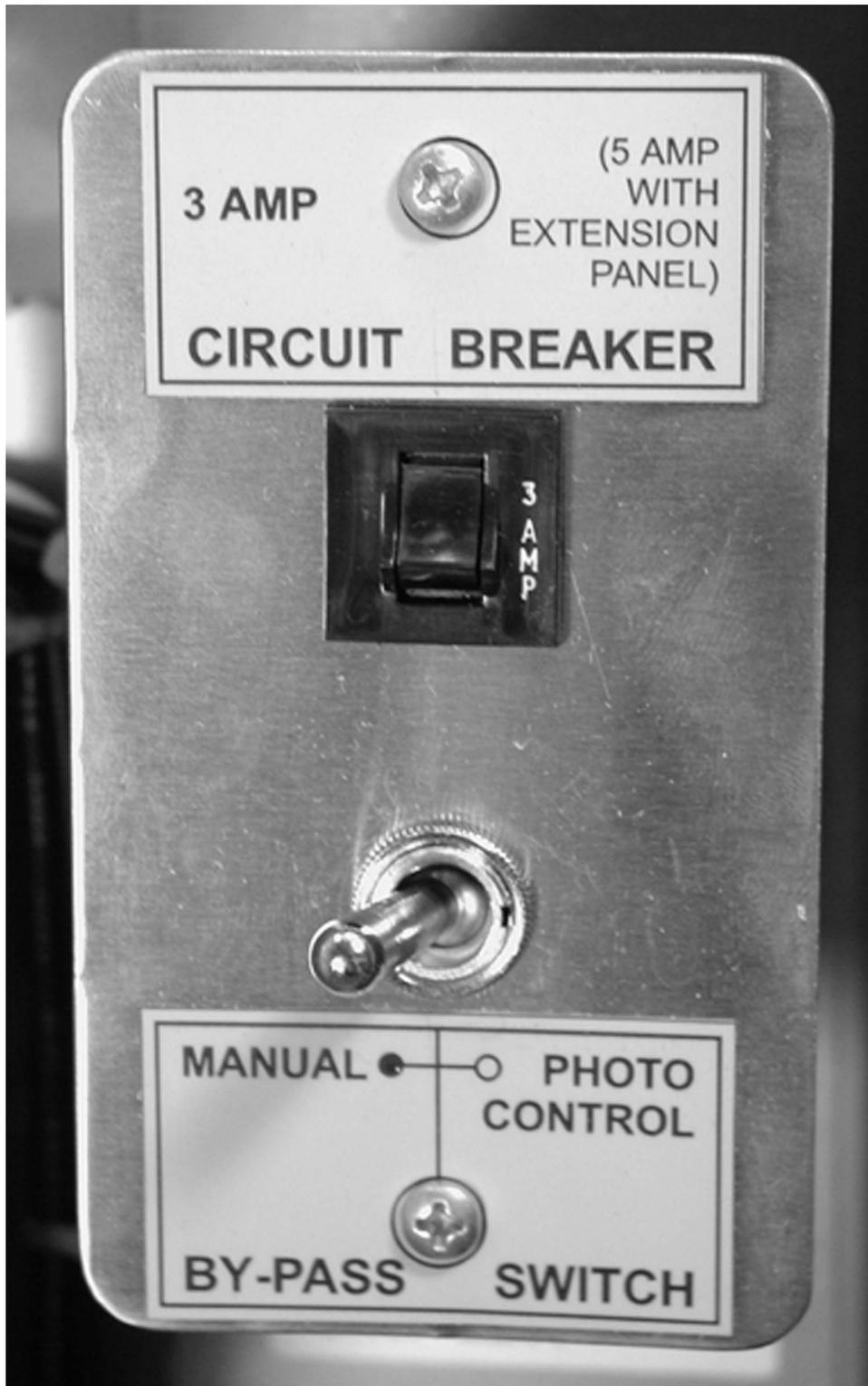


LOWER (OUTPUT) ROW OF SCREWLESS TERMINAL BLOCKS AND LABELS

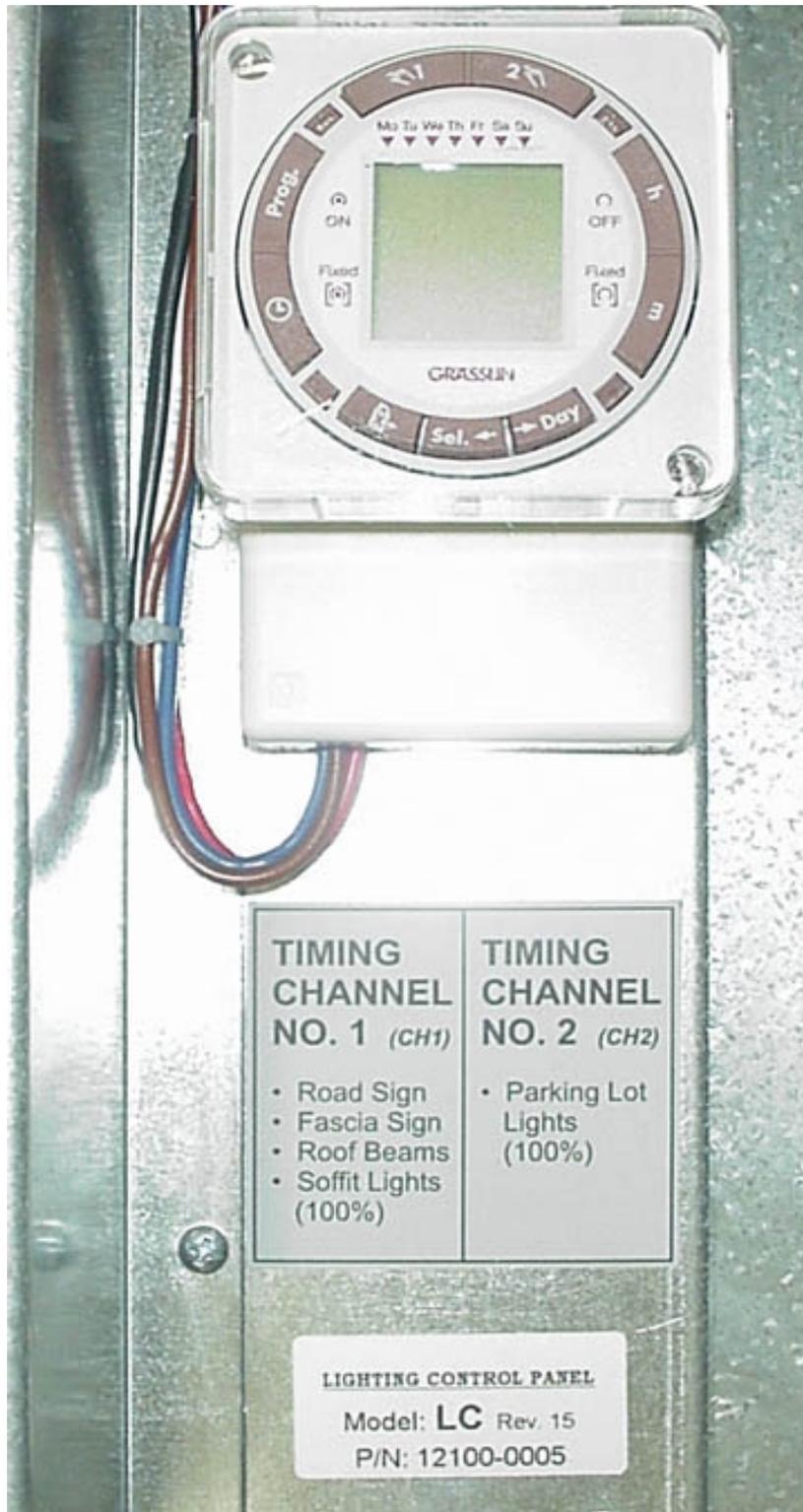


SCREWLESS TERMINAL BLOCK TOOL AND INSTRUCTIONAL LABEL FOR USE

The screwless terminal blocks are a tension clamp device. Put the special tool in the square hole as shown in the above label to open the clamp. Then insert the stripped wire into the oval hole. Now pull out the tool and the wire is securely captured by the terminal block. The large terminal blocks require a standard round shank screwdriver with a diameter of about 1/4". Otherwise operation is the same.



MANUAL/PHOTO CONTROL SWITCH AND CONTROL CIRCUIT BREAKER



PROGRAMMABLE TIME SWITCH AND CHANNEL ID LABEL



PHOTO CONTROL SUPPLIED WITH LC PANEL

The Photo Control supplied is mounted on the roof and wired to the LC Panel as follows. The black wire goes to the PE-H terminal, the white wire goes to the PE-N terminal and the red wire goes to the PE-L terminal. The sliding metal cover is adjusted to set the amount of light which will activate the photoeye. It also should be mounted so it will not be affected by the signage or the parking lot lights.

PROGRAMMABLE TIME SWITCH



ACS's Lighting Control (LC) Panel uses a two-channel programmable time switch shown above.

Up to 42 ON or OFF events, in any combination, can be programmed into the timer. If the same ON or OFF time is used on more than one day it is counted as one (1) event even though it could be used all seven days of the week.

The timer has an internal battery which saves any events programmed into its memory in the case of a power failure. The battery back up should be valid for about two weeks.

The information required for setting and programming this time switch follows.

The following information shows how to program the **GRASSLIN**, Two Circuit Electronic, 7 Day Time Switch, model **Digi 42/2**, installed in McDonald's LIGHTING CONTROL PANELS model LC and LC-HD. It is followed by a detailed example.

I. Lighting Schedule

ACS's Lighting Control Panel provides two timing channels to control exterior lights of the store. See picture on page 7 for label indentifying location of circuits and capacity (amperage).

TIMING CHANNEL NO. 1

- Road Sign
- Facia Sign
- Roof Beams
- Soffit Lights (100%)

TIMING CHANNEL NO. 2

- Parking Lot Lights (100%)

Usually, CH1 of the Time Switch for this channel should stay ON during store business hours (e.g. from 6 AM to 11 PM) and CH2 of the Time Switch for this channel should stay ON from about an hour before the store is open to about an hour after the store is closed (e.g. from 5 AM to 12 AM).

NOTES:

- A. If an input is missing or incomplete, the missing segments will flash when the clock symbol or Prog. key is depressed. For example, if no ON or OFF is selected, the ON symbol will flash. The missing entry must be completed before programming can resume.
- B. While programming, pressing the h or m key longer than 2 seconds will cause a rapid roll of parameter.
- C. A program consists of:
 1. ON or OFF command
 2. Hour and minute
 3. Day or multiple days on which it is to occur.

Setting Time and Day of Clock

IMPORTANT: Depress reset key (Res.) before beginning to set time and programming.

- A. Select military (24:00 hr.) or AM/PM (12:00 hr.) time by depressing and holding **h** key while pressing **+/-1h** key to toggle between military and AM/PM. (AM appears in display when in AM/PM mode.)
- B. Press and hold down **clock symbol** key.
- C. Press **+/-1h** key once if setting the timer when daylight time is in effect (+1h appears in display).
- D. Set hour with **h** key.
- E. Set minutes with **m** key.
- F. Press **Day** key repeatedly to the day of the week. (1 is Monday, 7 is Sunday)
- G. Release **clock symbol** key, colon will begin flashing.

II. Programming

- A. Press **Prog.** key, “1 2 3 4 5 6 7” and “—:—” will appear in display. (Pressing **Prog.** key again, display will show the number of free programs: “Fr 42”) Press again to advance to 1st program.
- B. Press **hand symbol 1** (for Timing Channel No. 1) or **hand symbol 2** (for Timing Channel No. 2). ON symbol will appear below CH1 or CH2. Pressing the key again will toggle to OFF. Pressing a third time clears the ON/OFF for the channel from the program. Pressing again returns to ON. Select ON or OFF for the program with the **hand symbol** key.
- C. Press **h** to select hour for switching time.
- D. Press **m** to select minute for switching time.
- E. Press **Day** key, a flashing underline appears below day 1. Pressing the **Day** key a second time advances the underline to day 2, etc. Use the **Day** key to advance to a day of the week to be omitted from the program and press the **Sel.** (select) key, the day will flash. Continue pressing **Day** and **Sel.** keys to omit days until only the desired days remain and are not flashing.
- F. Press **Prog.** key and repeat steps “B” through “E” to enter additional programs of ON and OFF times.
- G. Press **clock symbol** key to enter run mode.

NOTES:

1. A flashing display indicates either incomplete data entry or the battery is low. Check to see if days and ON or OFF times are entered, and check the power supply to the time control.
2. The output relays will switch ON (or OFF) only at programmed times. After programming is completed, if a channel should be ON, it must be manually turned ON with the **hand symbol** key. For example, programming is completed at 2PM and CH1 was programmed to be ON at 6AM and OFF at 11PM. After pressing the **clock** key, CH1 will be OFF; press **hand symbol 1** to turn it ON.

III. Review and Change of Programs

- A. To review a program at any time, press **Prog.** key. Programs will be displayed in the sequence they were entered with repeated presses of **Prog.** key.
- B. To change a program, select the program to be changed with **Prog.** key, and enter the new time of day, and/or days of week just as in the programming steps shown above. The old program is overwritten with the new selections. Press **Prog.** to store the new program.
- C. To delete an individual program, select the program as in step “A” and press the **m** key and then the **h** key until “—:—” appears in display. Press either **Prog.** or **clock symbol** key until “—:—” flashes. The program is deleted after few seconds.

IV. Manual Override

While in the Run mode, (clock symbol is displayed)

1. Pressing the hand symbol key will reverse the load status (switch load OFF if it is ON, or switch ON if it is OFF). A hand symbol appears in display to indicate the override is active. At the next scheduled switching time, automatic time control will resume, eliminating override.
2. Pressing the hand symbol key a second time, load ON symbol in square brackets appears in the display indicating the load is switched permanently ON.
3. Pressing the hand symbol key a third time, load OFF symbol in square brackets appears in the display indicating the load is switched permanently OFF.
4. Pressing the hand symbol key a fourth time returns to automatic, clock symbol appears in the display.

V. Manual Daylight Time Changeover

The Digi 42/2 offers manual daylight time changeover in the spring and fall. Depressing the +/-1h key sets clock time up or down 1 hour to change the time twice a year as required for day light savings time and standard time.

PROGRAMMING CHART

The Programming Chart shown below may be used as an aid to program the **GRASSLIN**, Two Circuit Electronic, 7 Day Time Switch model **Digi 42/2** installed in McDonald's LIGHTING CONTROL PANELS model LC and LC-HD.

Program Number	CH1 (ON/OFF)	CH2 (ON/OFF)	Switching Time	Day of the Week						
				MO (1)	TU (2)	WE (3)	TH (4)	FR (5)	SA (6)	SU (7)
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										

An Example:

The following is an example of filled out Programming Chart according to typical lighting schedule.

For TIMING CHANNEL NO. 1, from Monday to Friday Time Switch CH1 should be ON at 6:00 AM and OFF at 11:00 PM, Saturday and Sunday CH1 should be ON at 6:00 AM and OFF at 12:00 AM*.

For TIMING CHANNEL NO. 2, from Monday to Friday Time Switch CH2 should be ON at 5:00 AM and OFF at 12:00 AM, Saturday and Sunday CH2 should be ON at 5:00 AM and OFF at 1:00 AM.

Program Number	CH1 (ON/OFF)	CH2 (ON/OFF)	Switching Time	Day of the Week						
				MO (1)	TU (2)	WE (3)	TH (4)	FR (5)	SA (6)	SU (7)
1	ON		6:00 AM	1	2	3	4	5		
2	OFF		11:00 PM	1	2	3	4	5		
3	ON		6:00 AM						6	7
4	OFF		12:00 AM	1						7
5		ON	5:00 AM	1	2	3	4	5		
6		OFF	12:00 AM		2	3	4	5	6	
7		ON	5:00 AM						6	7
8		OFF	1:00 AM	1						7

* Attention: 12:00 AM is the beginning of a new day (the lights will go off the next day at 12:00 AM).

Time Switch CH1 controls TIMING CHANNEL NO. 1 (Road Sign, Facia Sign, Roof Beams and Soffit Lights) and CH2 controls TIMING CHANNEL NO. 2 (Parking Lot Lights). When CH1 and CH2 when are ON they enable Photo Control to turn the lights ON and OFF automatically with the ambient light level.

An Example No. 2

12 HOUR TIME	24 HOUR TIME	MONDAY		TUESDAY		WEDNESDAY		THURSDAY		FRIDAY		SATURDAY		SUNDAY	
		T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2
12:00 AM	2400	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF	ON
1:00 AM	0100	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF
2:00 AM	0200	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
3:00 AM	0300	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
4:00 AM	0400	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
5:00 AM	0500	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	OFF
6:00 AM	0600	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	ON
7:00 AM	0700	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
8:00 AM	0800	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
9:00 AM	0900	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
10:00 AM	1000	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
11:00 AM	1100	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
12:00 PM	1200	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
1:00 PM	1300	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
2:00 PM	1400	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
3:00 PM	1500	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
4:00 PM	1600	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
5:00 PM	1700	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
6:00 PM	1800	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
7:00 PM	1900	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
8:00 PM	2000	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
9:00 PM	2100	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
10:00 PM	2200	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
11:00 PM	2300	OFF	ON	OFF	ON	OFF	ON	OFF	ON	ON	ON	ON	ON	OFF	ON

NOTE: T1 in the above chart is TIMING CHANNEL 1 and T2 is TIMING CHANNEL 2

As detailed in the instruction sheet, we reset timer, set daylight savings time, time and date. After filling out the above chart for the restaurant’s lighting schedule, we proceed as follows: (TIMING CHANNEL 2 controls the Parking Lot Lights and TIMING CHANNEL 1 controls the Road Sign and Store Lights. Remember that the lighting is also controlled by the Photo Control on the roof and that even with the lights requested to be turned on by the Time Switch, they will only do so when it is dark enough as determined by the Photo Control. Also note that the Friday night TIMING CHANNEL 1 & TIMING CHANNEL 2 OFF times are really Saturday morning and the Saturday TIMING CHANNEL 2 OFF time is Sunday morning. 12:00am, midnight, is the next day.)

Now we will program the TIMING CHANNEL 1 turn ON times for Mon., Tue., Wed., Thu., Fri., & Sat. at 6:00am;

REQUIRED INPUT

DISPLAY SHOWS:

- | | |
|---|-------------|
| Press (Prog.) key. | —:— |
| Press (hand symbol 1) key. | • |
| Press (h) key seven (7) times. | 6: |
| Press (m) key. | :00 |
| Press (Day) key seven (7) times until the underline is at Su (7). | <u>7</u> |
| Press (Sel.) key, the 7 now blinks showing that it is to be excluded. | |
| Press (Day) key. | 1 2 3 4 5 6 |

REQUIRED INPUT

DISPLAY SHOWS:

Now we will program the TIMING CHANNEL 1 turn ON time for Sun. at 7:00am;

Press (Prog.) key.	—:—
Press (hand symbol 1) key.	•
Press (h) key eight (8) times.	7:
Press (m) key.	:00
Press (Day) key. Mo (1) has the underline.	<u>1</u> 234567
Press (Sel.) key, the 1 now blinks showing that it is to be excluded.	
Press (Day) key. Tu (2) has the underline.	<u>2</u> 34567
Press (Sel.) key, the 2 now blinks showing that it is to be excluded.	
Press (Day) key. We (3) has the underline.	<u>3</u> 4567
Press (Sel.) key, the 3 now blinks showing that it is to be excluded.	
Press (Day) key. Th (4) has the underline.	<u>4</u> 567
Press (Sel.) key, the 4 now blinks showing that it is to be excluded.	
Press (Day) key. Fr (5) has the underline.	<u>5</u> 67
Press (Sel.) key, the 5 now blinks showing that it is to be excluded.	
Press (Day) key. Sa (6) has the underline.	<u>6</u> 7
Press (Sel.) key, the 6 now blinks showing that it is to be excluded.	
Press (Day) key. Su (7) has the underline.	<u>7</u>

Now we will program the TIMING CHANNEL 1 turn OFF times for Mon., Tue., Wed., Thu., & Sun. at 11:00pm;

Press (Prog.) key.	—:—
Press (hand symbol 1) key 2 times.	◦
Press (h) key twenty four (24) times.	11:
Press (m) key.	:00
Press (Day) key five (5) times until the underline is at Fr (5).	1 2 3 4 <u>5</u> 6 7
Press (Sel.) key, the 5 now blinks showing that it is to be excluded.	
Press (Day) key, the underline is at Sa (6).	1 2 3 4 <u>6</u> 7
Press (Sel.) key, the 6 now blinks showing that it is to be excluded.	
Press (Day) key. Su(7) has the underline	1 2 3 4 <u>6</u> <u>7</u>

Now we will program the TIMING CHANNEL 1 turn OFF time for Friday night at Saturday 1:00am;

Press (Prog.) key.	—:—
Press (hand symbol 1) key 2 times.	◦
Press (h) key two (2) times.	1:
Press (m) key.	:00
Press (Day) key. Mo (1) has the underline.	<u>1</u> 234567
Press (Sel.) key, the 1 now blinks showing that it is to be excluded.	
Press (Day) key. Tu (2) has the underline.	<u>2</u> 34567
Press (Sel.) key, the 2 now blinks showing that it is to be excluded.	
Press (Day) key. We (3) has the underline.	<u>3</u> 4567
Press (Sel.) key, the 3 now blinks showing that it is to be excluded.	
Press (Day) key. Th (4) has the underline.	<u>4</u> 567

REQUIRED INPUT**DISPLAY SHOWS:**

Press (Sel.) key, the 4 now blinks showing that it is to be excluded.	
Press (Day) key. Fr (5) has the underline.	<u>5</u> 67
Press (Sel.) key, the 5 now blinks showing that it is to be excluded.	
Press (Day) key. Sa (6) has the underline.	<u>6</u> 7
Press (Day) key. Su (7) has the underline.	6. <u>7</u>
Press (Sel.) key, the 7 now blinks showing that it is to be excluded.	
Press (Day) key. Mo (1) has the underline and is blinking.	<u>1</u> 6

Now we will program the TIMING CHANNEL 1 turn OFF time for Saturday night at Sunday 12:00am;

Press (Prog.) key.	—:—
Press (hand symbol 1) key 2 times.	◦
Press (h) key one (1) time.	12:
Press (m) key.	:00
Press (Day) key. Mo (1) has the underline.	<u>1</u> 234567
Press (Sel.) key, the 1 now blinks showing that it is to be excluded.	
Press (Day) key. Tu (2) has the underline.	<u>2</u> 34567
Press (Sel.) key, the 2 now blinks showing that it is to be excluded.	
Press (Day) key. We (3) has the underline.	<u>3</u> 4567
Press (Sel.) key, the 3 now blinks showing that it is to be excluded.	
Press (Day) key. Th (4) has the underline.	<u>4</u> 567
Press (Sel.) key, the 4 now blinks showing that it is to be excluded.	
Press (Day) key. Fr (5) has the underline.	<u>5</u> 67
Press (Sel.) key, the 5 now blinks showing that it is to be excluded.	
Press (Day) key. Sa (6) has the underline.	<u>6</u> 7
Press (Sel.) key, the 6 now blinks showing that it is to be excluded.	
Press (Day) key. Su (7) has the underline.	<u>7</u>

This completes the programming for TIMING CHANNEL 1.

The program can be reviewed by pressing the (Prog.) key repeatedly. First all the existing programs are shown, then the new program space by; —:— and then the amount of free space by; Fr42. The number 42 will diminish as program points are entered. Any program can be modified simply by changing the parameter when viewing that entry.

Now we will program the TIMING CHANNEL 2 turn ON times for Mon., Tue., Wed., Thu., Fri., & Sat. at 5:00am;

Press (Prog.) key until —:— appears.	—:—
Press (hand symbol 2) key.	•
Press (h) key six (6) times.	5:
Press (m) key.	:00
Press (Day) key seven (7) times until the underline is at Su (7).	<u>7</u>
Press (Sel.) key, the 7 now blinks showing that it is to be excluded.	
Press (Day) key.	1 2 3 4 5 6

Now we will program the TIMING CHANNEL 2 turn ON time for Sun. at 6:00am;

REQUIRED INPUT	DISPLAY SHOWS:
Press (Prog.) key.	—:—
Press (hand symbol 2) key.	•
Press (h) key seven (7) times.	6:
Press (m) key.	:00
Press (Day) key. Mo (1) has the underline.	<u>1</u> 234567
Press (Sel.) key, the 1 now blinks showing that it is to be excluded.	
Press (Day) key. Tu (2) has the underline.	<u>2</u> 34567
Press (Sel.) key, the 2 now blinks showing that it is to be excluded.	
Press (Day) key. We (3) has the underline.	<u>3</u> 4567
Press (Sel.) key, the 3 now blinks showing that it is to be excluded.	
Press (Day) key. Th (4) has the underline.	<u>4</u> 567
Press (Sel.) key, the 4 now blinks showing that it is to be excluded.	
Press (Day) key. Fr (5) has the underline.	<u>5</u> 67
Press (Sel.) key, the 5 now blinks showing that it is to be excluded.	
Press (Day) key. Sa (6) has the underline.	<u>6</u> 7
Press (Sel.) key, the 6 now blinks showing that it is to be excluded.	
Press (Day) key. Su (7) has the underline.	<u>7</u>

Now we will program the TIMING CHANNEL 2 turn OFF times for Mon., Tue., Wed., Thu., & Sun. at midnight, 12:00am; (the next day)

Press (Prog.) key.	—:—
Press (hand symbol 2) key 2 times.	°
Press (h) key one (1) time.	12:
Press (m) key.	:00
Press (Day) key six (6) times until the underline is at Sa (6).	1 2 3 4 5 <u>6</u> 7
Press (Sel.) key, the 6 now blinks showing that it is to be excluded.	
Press (Day) key.	1 2 3 4 5 .. <u>7</u>
Press (Sel.) key, the 7 now blinks showing that it is to be excluded.	
Press (Day) key. Mo (1) has the underline	<u>1</u> 2 3 4 5 ..

Now we will program the TIMING CHANNEL 2 turn OFF time for Friday night at Saturday 2:00am;

Press (Prog.) key.	—:—
Press (hand symbol 2) key 2 times.	°
Press (h) key three (3) times.	2:
Press (m) key.	:00
Press (Day) key. Mo (1) has the underline.	<u>1</u> 234567
Press (Sel.) key, the 1 now blinks showing that it is to be excluded.	
Press (Day) key. Tu (2) has the underline.	<u>2</u> 34567
Press (Sel.) key, the 2 now blinks showing that it is to be excluded.	

REQUIRED INPUT	DISPLAY SHOWS:
Press (Day) key. We (3) has the underline.	<u>3</u> 4567
Press (Sel.) key, the 3 now blinks showing that it is to be excluded.	
Press (Day) key. Th (4) has the underline.	<u>4</u> 567
Press (Sel.) key, the 4 now blinks showing that it is to be excluded.	
Press (Day) key. Fr (5) has the underline.	<u>5</u> 67
Press (Sel.) key, the 5 now blinks showing that it is to be excluded.	
Press (Day) key. Sa (6) has the underline.	<u>6</u> 7
Press (Day) key. Su (7) has the underline.	<u>7</u>
Press (Sel.) key, the 7 now blinks showing that it is to be excluded.	
Press (Day) key. Mo (1) has the underline and is blinking	<u>1</u> 6

Now we will program the TIMING CHANNEL 2 turn OFF time for Saturday night at Sunday 1:00am;

Press (Prog.) key.	—:—
Press (hand symbol 2) key 2 times.	°
Press (h) key two (2) times.	1:
Press (m) key.	:00
Press (Day) key. Mo (1) has the underline.	<u>1</u> 234567
Press (Sel.) key, the 1 now blinks showing that it is to be excluded.	
Press (Day) key. Tu (2) has the underline.	<u>2</u> 34567
Press (Sel.) key, the 2 now blinks showing that it is to be excluded.	
Press (Day) key. We (3) has the underline.	<u>3</u> 4567
Press (Sel.) key, the 3 now blinks showing that it is to be excluded.	
Press (Day) key. Th (4) has the underline.	<u>4</u> 567
Press (Sel.) key, the 4 now blinks showing that it is to be excluded.	
Press (Day) key. Fr (5) has the underline.	<u>5</u> 67
Press (Sel.) key, the 5 now blinks showing that it is to be excluded.	
Press (Day) key. Sa (6) has the underline.	<u>6</u> 7
Press (Sel.) key, the 6 now blinks showing that it is to be excluded.	
Press (Day) key. Su (7) has the underline.	<u>7</u>

This completes the programming of the example as set forth in the sample lighting schedule program.

Press (Prog.) key.	—:—
Press (Prog.) key.	Fr33
Press (Prog.) key.	9:08

where 9:08 is the current time programmed into the timer.

Modifying an existing program

Any program is easily modified to accommodate a change in store operating hours or to correct a mistake. Assume you wish to change the Friday night OFF time for TIMING CHANNEL 1 from 1:00am Saturday night to 11:30pm Friday night.

REQUIRED INPUT

DISPLAY SHOWS:

Press (Prog.) key until the display reads 6 (Sa), (4 times).	AM 01:00
Press and hold (h) key until display reads	PM 11:00
Press and hold (m) key until display reads	:30
Press (Day) key. Mo (1) has the underline and is blinking.	<u>1</u>6.
Repeatedly press (Day) key until the 5 (Fr) is underlined and blinking. <u>5</u> .6.
Press (Sel.) key, the 5 now stops blinking showing that it is to be added.5. <u>6</u> .
Press (Day) key. Sa (6) has the underline.5. <u>6</u> .
Press (Sel.) key, the 6 now blinks showing that it is to be excluded.5.. <u>7</u>
Press (Day) key. Su (7) has the underline and is blinking5.. <u>7</u>
Press (Prog) key to view other ON and OFF times or the (clock) key to return to the run mode.	

LIGHTING SCHEDULE: *A Sample Chart for Your Restaurant*

Fill out the below chart for your restaurant's lighting schedule and program the **GRASSLIN Time Switch** TIMING CHANNEL 1 and TIMING CHANNEL 2 in the manner shown in the previous example.

12 HOUR	24 HOUR	MON	MON	TUE	TUE	WED	WED	THUR	THUR	FRI	FRI	SAT	SAT	SUN	SUN
TIME	TIME	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2
12:00 AM	2400														
1:00 AM	0100														
2:00 AM	0200														
3:00 AM	0300														
4:00 AM	0400														
5:00 AM	0500														
6:00 AM	0600														
7:00 AM	0700														
8:00 AM	0800														
9:00 AM	0900														
10:00 AM	1000														
11:00 AM	1100														
12:00 PM	1200														
1:00 PM	1300														
2:00 PM	1400														
3:00 PM	1500														
4:00 PM	1600														
5:00 PM	1700														
6:00 PM	1800														
7:00 PM	1900														
8:00 PM	2000														
9:00 PM	2100														
10:00 PM	2200														
11:00 PM	2300														

LIGHTING SCHEDULE: A *Sample Chart for Your Restaurant*

12 HOUR	24 HOUR	MON	MON	TUE	TUE	WED	WED	THUR	THUR	FRI	FRI	SAT	SAT	SUN	SUN
TIME	TIME	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2
12:00 AM	2400														
1:00 AM	0100														
2:00 AM	0200														
3:00 AM	0300														
4:00 AM	0400														
5:00 AM	0500														
6:00 AM	0600														
7:00 AM	0700														
8:00 AM	0800														
9:00 AM	0900														
10:00 AM	1000														
11:00 AM	1100														
12:00 PM	1200														
1:00 PM	1300														
2:00 PM	1400														
3:00 PM	1500														
4:00 PM	1600														
5:00 PM	1700														
6:00 PM	1800														
7:00 PM	1900														
8:00 PM	2000														
9:00 PM	2100														
10:00 PM	2200														
11:00 PM	2300														

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