

**INSTRUCTION SHEET
FOR
INTELLI-FLASH™ SERIES FLASHER
MODELS 650206 AND 650201
LOW SIDE FLASHER**

SAFETY MESSAGE TO INSTALLERS

WARNING

The lives of people depend on your proper installation and servicing of Federal products. It is important to read and follow all instructions shipped with the products. In addition, listed below are some other important safety instructions and precautions you should follow:

- To properly install this kit: you must have a good understanding of automotive electrical procedures and systems, along with proficiency in the installation and use of safety warning equipment.
- When drilling into a vehicle structure, be sure that both sides of the surface are clear of anything that could be damaged. Remove all burrs from drilled holes. To prevent electrical shorts, grommet all drilled holes through which wiring passes.
- This flasher is a high current device. In order for it to function properly, a separate ground connection must be made. It must be attached to a solid metal body or chassis part that will provide an effective ground path.
- Never attempt to install aftermarket equipment, which connects to the vehicle wiring, without reviewing a vehicle wiring diagram - available from the vehicle manufacturer. Insure that your installation will not effect vehicle operation or mandated safety functions or circuits. Always check vehicle for proper operation after installation.
- Locate control so the VEHICLE and CONTROLS can be operated safely under all driving conditions.
- File these instructions in a safe place and refer to them when maintaining and/or reinstalling the product.

Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death to you or others.

I. GENERAL.

The 650200 and 650201 are electronic flashers capable of flashing two (2) light circuits with a current capacity of up to 6-amperes (maximum) per side, 12-amperes total. The unit is designed to operate from 12-24VDC (negative ground). The flasher operates as a low side switch, switching one side of the load to ground.

The unit is housed in a splash proof, high temperature housing and supplied with the necessary hardware for mounting in a variety of locations. User-supplied switches are required to activate the flasher.

II. INSTALLATION.

WARNING

DO NOT connect flasher to brake light circuit of ANY vehicle.

DO NOT connect flasher to the headlight circuit of any vehicle.

Connection of aftermarket electrical equipment into this circuit may interfere with the brake shift interlock.

This could cause the vehicle to unexpectedly move forward causing possible property damage, injury or death to the vehicle operator or others.

A. Mounting.

CAUTION

Never mount the flasher in the vehicle's engine compartment. It is recommended that the flasher is installed either under the dash, in a console, or in the trunk of the vehicle.

1. Locate a suitable mounting location for the flasher.

2. Using the flasher as a template, scribe drill position marks on the mounting surface.

CAUTION

Before drilling holes in ANY part of a vehicle, be sure that both sides of the mounting surface are clear of parts that could be damaged; such as brake lines, electrical wiring or other vital parts.

3. Drill 0.136" (#29 drill) mounting holes at the previously scribed drill position marks.

4. Use the hardware supplied in the accessory kit to secure the flasher to the vehicle.

B. Wiring.

CAUTION

The lamps WILL NOT flash if improperly grounded. Be sure that the lamp ground is isolated by attaching the lamp ground directly to the flasher.

Refer to figure 1 when performing the following procedure.

1. Connect the flasher's black wire to a good vehicle ground point.

2. Connect one of the red wires to lamp load "A"; connect the other side of load "A" to the orange wire. Connect one of the red wires to lamp load "B"; connect the other side of load "B" to the green wire. Note that the red wires connect to the LED anodes.

3. Connect the red wire to a user-supplied single pole, single-throw switch (SW1). Connect the other side of the switch to a 12/24VDC source. If two modes of operation are desired, connect the white/red wire to a user-supplied single pole, single-throw switch (SW2). Connect the other side of the switch to the 12/24VDC source as described above.

WARNING

To provide safe operation, the control switch must be capable of handling a minimum of 12-amperes DC, and fused with a user-supplied 15-ampere fuse at the source.

C. Programming (see tables 1 and 2).

Refer to figure 2 when performing the following procedure.

The flasher will provide the end user with two preselected flash patterns. The preselected flash patterns are to be chosen from the eight factory programmed patterns provided with each flasher. It is recommended that the preselected flash patterns be determined and programmed during installation.

The red/green LED as indicated in figure 2 will be illuminated green when an SAE approved flash pattern is selected. When an unapproved SAE flash pattern is selected, the LED will be illuminated red. The red/green LED may alternate between red and green for several flash patterns.

The following procedures demonstrate the programming and operating features of the flasher:

Turn on the flasher in Mode 1 (SW1). Short across the programming pins until the desired pattern is running. Allow the pattern to run for 15-seconds and it is now programmed.

Turn on the flasher in Mode 2 (SW1 and SW2). Short across the programming pins till the desired pattern is running. Allow the pattern to run for 15-seconds and the mode is now programmed.

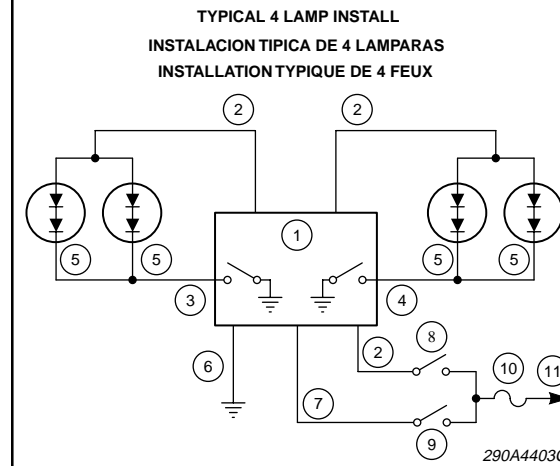
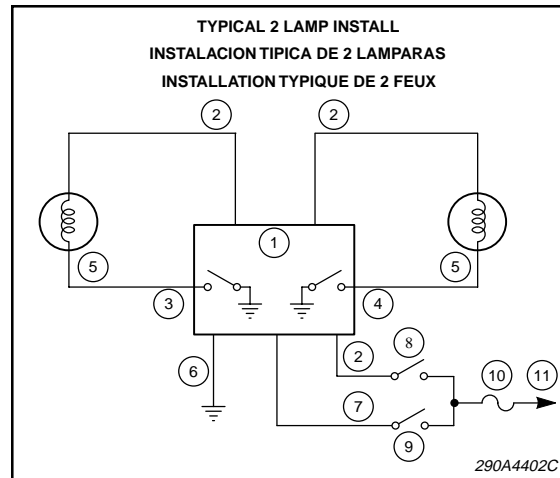
To operate the preselected pattern for Mode 1, close switch SW1. To operate the preselected pattern for Mode 2, close both switches (SW1 and SW2).

Model 650206	
Pattern 1	175 FPM Alternating Single Flash
Pattern 2	640 FPM Alternating Quad Flash
Pattern 3	640 FPM Alternating with Overlap 6 Flash
Pattern 4	640 FPM Alternating with Overlap 5/2 Flash
Pattern 5	275-550 FPM Simultaneous Modulating
Pattern 6	200 FPM Simultaneous 3/9 Flash
Pattern 7	190 FPM Alternating with Overlap Triple Flash
Pattern 8	210 FPM Alternating Double / Quad / Double Flash

Table 1.

Model 650201	
Pattern 1	2 @ 60 FPM 4 Pulse Alternating then 2 @ 60 FPM 2 Pulse Simultaneous ("R" pattern)
Pattern 2	60 FPM 5 Pulse Alternating
Pattern 3	60 FPM 4 Pulse Alternating
Pattern 4	75 FPM 3 Pulse Alternating
Pattern 5	85 FPM 2 Pulse Alternating
Pattern 6	114 FPM Alternating
Pattern 7	152 FPM Alternating
Pattern 8	1 @ 60 FPM 3 Pulse Alternating then 2 @ 60 FPM 2 Pulse Simultaneous

Table 2.



LEGEND

1. FLASHER
2. RED
3. ORANGE
4. GREEN
5. LOW
6. BLACK
7. WHITE/RED
8. SW1 (USER-SUPPLIED SWITCH)
9. SW2 (USER-SUPPLIED SWITCH)
10. 15A FUSE (USER-SUPPLIED)
11. POSITIVE 12/24 VDC

LEYENDA

1. INTERRUPTOR INTERMITENTE
2. ROJO
3. ANARANJADO
4. VERDE
5. BAJO
6. NEGRO
7. BLANCO/ROJO
8. SW1 (INTERRUPTOR SUMINISTRADO POR EL USUARIO)
9. SW2 (INTERRUPTOR SUMINISTRADO POR EL USUARIO)
10. FUSIBLE DE 15A (SUMINISTRADO POR EL USUARIO)
11. 12/24 VCC POSITIVO

LÉGENDE

1. CLIGNOTANT
2. ROUGE
3. ORANGE
4. VERT
5. BAS
6. NOIR
7. BLANC/ROUGE
8. COMMUTATEUR1 (SW1) (FOURNI PAR L'UTILISATEUR)
9. COMMUTATEUR2 (SW2) (FOURNI PAR L'UTILISATEUR)
10. FUSIBLE DE 15 A (FOURNI PAR L'UTILISATEUR)
11. POSITIF 12/24 V c.c.

Figure 1. / Figura 1. / Figure 1.

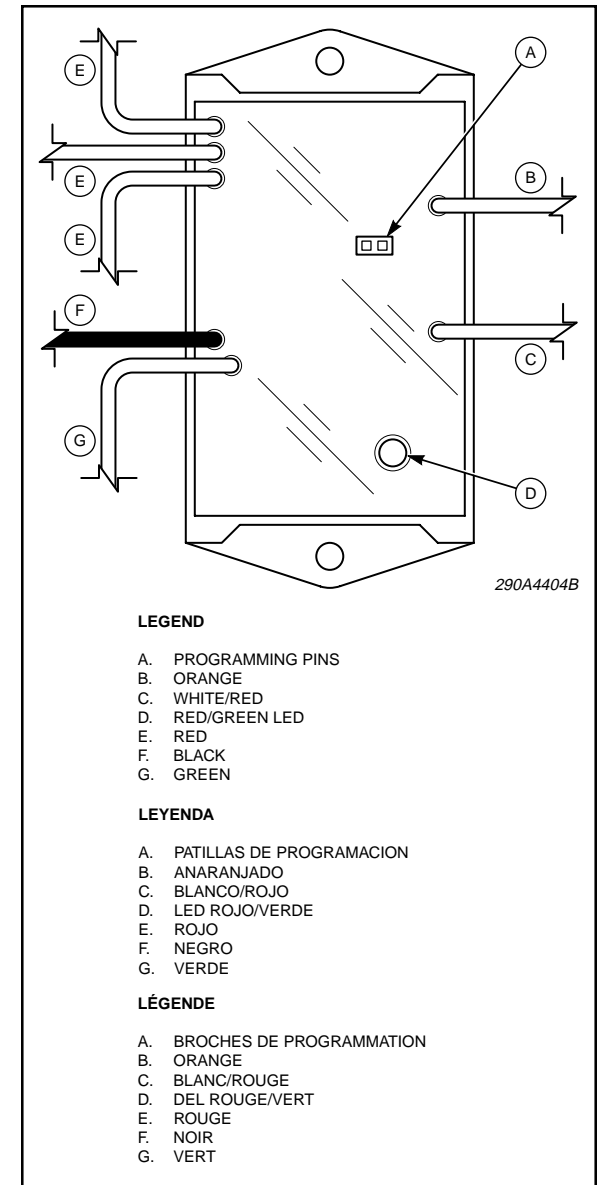


Figure 2. / Figura 2. / Figure 2.

