



# Service Bulletin No. 1068A

Circulate to listed addressees

<b>COACH MODEL</b>	: T900, T2100 and C2000 Series
<b>BULLETIN TYPE</b>	: Product Improvement
<b>MANUAL &amp; SECTION</b>	: Maintenance Manual: Chapter 9 - Electrical system Spare Parts Manual: Section 782009 - Electrical equipment
<b>PARTS BOOK REVISION</b>	: Yes
<b>DATE</b>	: October 31st, 2001
<b>SUBJECT</b>	: <b>Turn signal/hazard warning flasher change</b>
<b>TERMS &amp; CONDITIONS</b>	: Parts and labor allowance will be provided as per warranty information in this Bulletin.

## THIS BULLETIN SUPERSEDES SERVICE BULLETIN 1068

### APPLICATION :

The product improvement, subject of this Bulletin, has been cut into production as from the following units :

Model	Engine	VIN
T2145	Cummins	44264
	Detroit Diesel	44575
C2045	Cummins	45342
	Detroit Diesel	45794

### DESCRIPTION :

Turn signal/hazard warning flasher operation has been improved in production on T2100 and C2045 coaches by replacing Tridon flasher VH 660762656 with Vansco electronic device

*Description continued on next page.*

*Service personnel : please read, initial and circulate*

Service Manager	Parts Manager	Warranty Administrator	Workshop Foreman	Service Technician

VH10760325. Due to its larger size, the new flasher has been relocated from the old position on the relay rack to the bottom of the Basic Electrics switchboard, both in the front junction box. The change provides for a higher load capacity, constant flasher frequency, solid state technology and a longer service life.

A procedure to retrofit the new turn signal flasher has been outlined below.

The new flasher can also be fitted to T900 units.

## **PARTS :**

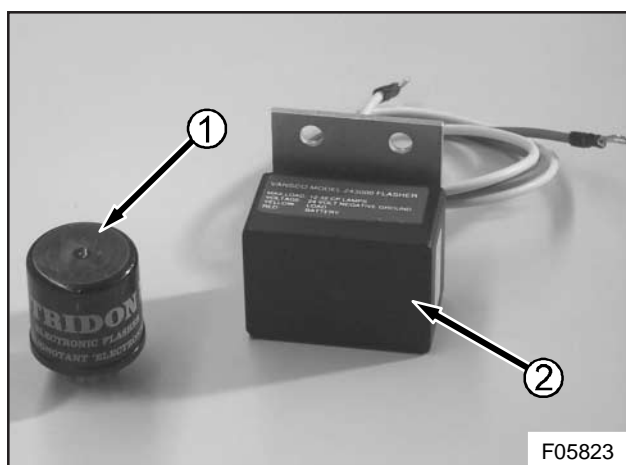
### **Old part (see 1, Figure 1) :**

<b>Part No.</b>	<b>Description</b>	<b>Qty.</b>
VH 660762656	Turn signal/hazard warning flasher Tridon	1

### **New part (see 2, Figure 1) :**

- Order one kit VH 10768112 for one coach to modify. The kit is suited for T900, T2100 and C2000 Series coaches and contains the following parts :

<b>Part No.</b>	<b>Description</b>	<b>Qty.</b>
VH 10760325	Turn signal/hazard warning flasher Vansco	1
VH 660766313	Flat blade connector, non-insulated, male	2
VH 660765190	Flat blade connector, non-insulated, female	2
VH 660768404	Plug, male	1
VH 660768403	Plug, female	1
VH 660272004	Phillips head machine screws, 4.8 x 19 mm, stainless	2



**Figure 1: Turn signal/hazard warning flashers**

- 1. Tridon VH 660762656 (old)**
- 2. Vansco VH 10760325 (new)**

- Old and new parts are not directly interchangeable.
- Only new parts will be offered as service replacements for this application.

- Parts may be obtained from your nearest International Coach Parts Inc. Dealer.
- Always use genuine maintenance products and parts. Do not accept imitations.

**PROCEDURE :**

**1. General :**

- The time required to replace the flasher unit is approximately 10 minutes.
- This job should be executed by an experienced automotive electrician.
- For more information refer to the Electrical Wiring Diagram Booklet that comes with the coach.

**2. Special tools :**

- Crimping tool to squeeze crimp the non-insulated flat blade connectors.
- Automatic wire strippers.

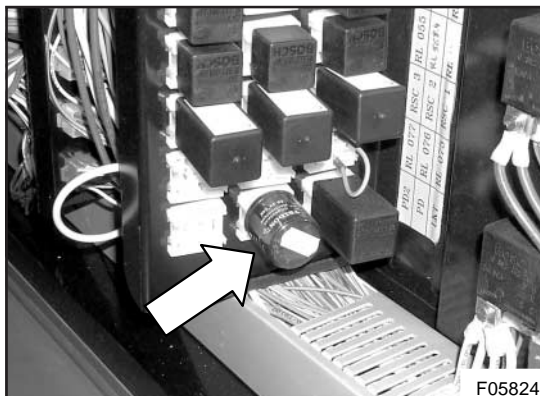
**3. Preparations :**

- Park the coach on a level surface, apply the parking brake and shut down the engine.
- Switch off all systems and turn off the battery master switch.
- Put a “DO NOT OPERATE” tag on the instrument panel.
- Read the entire procedure before beginning to work.

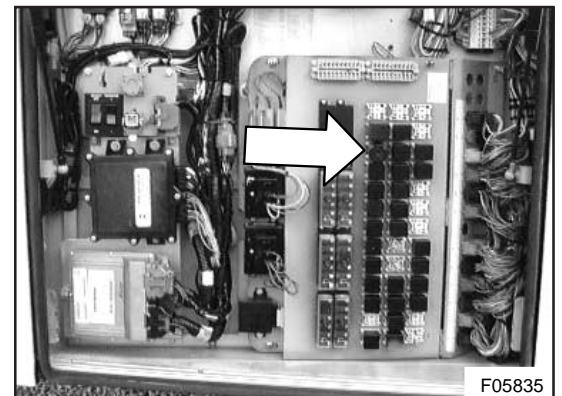
**CAUTION: Do not work on live electrical circuits. Observe safe shop practices at all times.**

**4. To remove Tridon turn signal flasher VH 660762656 :**

- 1) Open the main junction box and locate the Tridon flasher unit on the relay rack (*T2100 and C2045* : bottom row, middle relay holder, label PD – see Figure 2. *T900* : third row from the top, first relay holder - see Figure 3).



**Figure 2: Location of old flasher unit (T2100 and C2045)**



**Figure 3: Location of old flasher unit on T900 coaches**

- 2) Withdraw and discard the flasher unit.
- 3) *T2100 and C2045*: Using cutter pliers, cut off the blue-violet and violet-blue automotive wires at the back of the relay holder, right behind the flat blade connectors.

*T900*: Undo and remove the two wingnuts securing the relay and circuit breaker panel to the back of the junction box. Swing out the panel. Using cutter pliers, cut off the red-black and violet-yellow automotive wires at the back of the relay holder, right behind the flat blade connectors.

- 4) Strip back the wires to accept the female flat blade connectors.

## 5. To install Vansco turn signal flasher VH10760325:

- 1) *T2100 and C2045*: Using the machine screws from the kit, attach the Vansco flasher unit to the basic electrics switchboard as close as possible to the bottom row of the relay rack.

*T900*: Using the machine screws from the kit, attach the Vansco flasher unit to the relay and circuit breaker panel as close as possible to the old position of the Tridon flasher.

- 2) Cut-off the pre-assembled ring terminals from the Vansco leads and strip back the wires to accept the male flat blade connectors.
- 3) Install the plugs and flat blade connectors as shown in Figure 4:

*T2100 and C2045*: male connectors to Vansco leads, female connectors to blue-violet and violet-blue wires (see chart below).

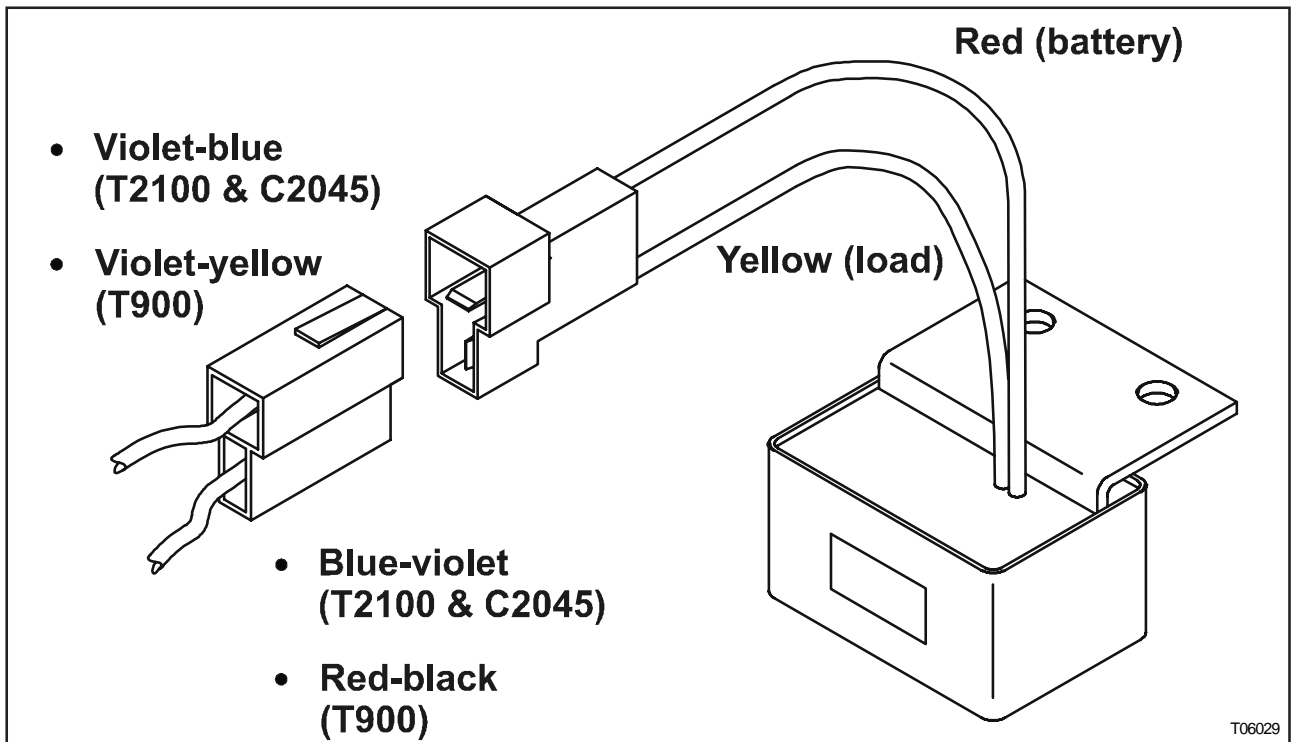
Wire color	Plug	Connector	Connector	Plug	Wire color	To
Blue-violet	VH660768403	VH660765190	VH660766313	VH660768404	Yellow	Load
Violet-blue	VH660768403	VH660765190	VH660766313	VH660768404	Red	Batt.

*T900*: male connectors to Vansco leads, female connectors to red-black and violet-yellow wires (see chart below).

Wire color	Plug	Connector	Connector	Plug	Wire color	To
Red-black	VH660768403	VH660765190	VH660766313	VH660768404	Yellow	Load
Violet-yellow	VH660768403	VH660765190	VH660766313	VH660768404	Red	Batt.

- 4) *T2100 and C2045*: Route the wires from the Vansco flasher to the back of the flasher box holder through the cable duct at the bottom of the main junction box.

*T900*: Route the wires from the Vansco flasher to the back of the flasher box holder on the relay and circuit breaker panel.



**Figure 4: Vansco turn signal/hazard warning flasher hook-up**

- 5) Connect the plugs.
- 6) Check turn signal/hazard warning flasher operation.

*Procedure complete*

**SERVICE INFORMATION :**

Service Bulletins are issued to supplement or supersede information in the Van Hool manuals. Note Service Bulletin number, date and subject on the register at the end of the relevant chapter(s). File Service Bulletin separately for future reference.

**WARRANTY INFORMATION :**

- Causal part : VH 660762656
- Job code : F40165V
- Parts disposition: discard according to applicable environmental regulations.

Van Hool will accept warranty claims for this repair as follows :

- Claims with reference to this Bulletin will only be accepted for T2145 and C2045 coaches with part VH 660762656 malfunctioning during the warranty period.

- Labor allocation: 0.25 hours.
- Expiration date: end of coach warranty period.

Contact ABC Coach Inc. for guidance on claim submission.