

September 13, 1966

ENGINEERING MEMO #155

Rev. 10-26-66

Rev. 11-30-66

Rev. 1-9-67

TO: Memo Distribution

A- Rev. 1-25-67

B- Rev. 2-6-67 (Page 5)

FROM: S. Hori

C- Rev. 2-27-67 (Chassis No. Added)

SUBJECT: CHANGES IN BRAKE SYSTEMS TO ADAPT A.I.R. SYSTEMS TO THE ENGINES AND TO THE DUAL BRAKE SYSTEMS.

1. Due to the changes required in the brake set-up to adapt the A.I.R. systems, the necessary changes to incorporate the Dual Brake systems will also be made.
2. These changes will involve the following:
  - A. Body dash panel
  - B. Brake pedal and pedal supports.
  - C. Power brake linkages
  - D. Standard and Power Brake Master Cylinder Assemblies
  - E. Brake hydraulic lines and junctions.
  - F. Instrument and Indicator light and means to test the light bulb for failure.
3. A common power brake system will be used on all models.
  - A. The Master-Vac Assembly will be purchased without linkage.
  - B. The linkages will be "make" items and assembled to the pedal support.
4. Effective Point
 

This change incorporated at the following Chassis No. A-12W6, A-12W8, Chassis 2311 A-11, A-11E, A-12, A-12E, A-12W, Chassis 45968
---

  - A. The Dash Panel change and the new Power Brake set-up will be required immediately on cars with A.I.R. systems.
    - 1.) Hammer forms have been made to rework dash panels as required until the die changes are made.
    - 2.) The new Power Brake Master Cylinder Assembly will be required from Bendix.
    - 3.) The new Pedal Support with Linkages will be required.
  - B. The complete changeover for all jobs will be made as soon as possible with a minimum of obsolescence.
5. See Attached Sheet for list of parts to be affected.
6. Revision of effective point
  - A. Due to the fact that the Dual Master Cylinder Assemblies will not be available for a while, the single master cylinder assemblies will be used for all A.I.R. equipped jobs until the Dual Master Cylinder Assemblies are available.
  - B. The present production Standard and power brake set-up can be used on all A.I.R. equipped jobs except for 6 cylinder A.I.R. equipped jobs with power brake.
  - C. For 6 cylinder A.I.R. equipped jobs with power brakes, the present power brake assembly with the linkage removed and the shaft extended 15/16" will be required along with the part numbers shown on the accompanying lists with asterisk(\*)
7. See Pages 3 and 3A for revised tube assemblies and details.

September 13, 1966  
 Revised 10-11-66  
 Revised 10-26-66  
 A- Revised 1-25-67

ENGINEERING MEMO #155

LIST OF PARTS TO BE AFFECTED

PART NAME		OLD PART NO	NEW PART NO	I	A	REMARKS
Brkt.-Clutch Ped. Stop	M	94574	702933*	NO	YES	Rework or Scrap
Supt.-Pedal	M	98399	702924*	NO	YES	Service, Rework or Scrap
Brkt.-Clutch Pedal Supt.	M	98509	- - -	NO	YES	Service or Scrap
Guard-Master Cyl. Ped. Link	B	98593	- - -	NO	YES	Service or Scrap
Panel-Dash	M	640523	644151*	NO	NO	Scrap
Plate-Master-Vac Mtg. Inner	M	640734	- - -	NO	YES	Use
Panel A.-Dash	M	641469	643997*	NO	NO	Use
Panel & Nut A.-Dash	M	641470	643996*	NO	NO	Use
Pedal A-Brake (Welded)	M	701037	701781*	NO	YES	Service or Scrap
Pedal A-Brake (Complete)	M	701107	701788*	NO	YES	Service or Scrap
Supt. A.-Pedal	M	701480	701782*	NO	YES	Service or Scrap
Pedal Supt. A.-Auto.Tr. & Pwr. Br.	M	701482	701802*	NO	YES	Service or Scrap
Pedal Supt. A.-Auto.Tr. & Std. Br.	M	701483	701801	NO	YES	Service or Salvage
Pedal Supt. A.-Std. Tr. & Std. Br.	M	701484	701798	NO	YES	Service or Salvage
Pedal Supt. A.-Std. Tr. & Pwr. Br.	M	701485	701799*	NO	YES	Service or Salvage
Cyl. A-Brake Master	B	701583	701787	NO	YES	Service
Pedal Supt. A.-Std. Tr. & Pwr. Br.	M	701589	701800	NO	YES	Service or Salvage
Master-Vac A.-Chev. 6	B	701626	701784	NO	YES	Service
Master-Vac A.-Chev. V-8	B	701627	701784	NO	YES	Service
Plate-Master Cyl. to Dash Slg.	M	702121	- - -	NO	YES	Service or Scrap
Brkt.-Brake Pedal Stop	M	702149	- - -	NO	YES	Service or Scrap
Insulator-Brake Pedal Stop	M	702153	- - -	NO	YES	Service or Scrap
Link-Pedal	M	702826	702926*	NO	YES	Service or Scrap
Lever A.-Power Brake	M	- - -	701785*	NO	YES	New Part
Lever A-Pwr. Br. Comp.	M	- - -	701786*	NO	YES	New Part
Brkt.-Pedal Supt.	M	- - -	702925*	NO	YES	New Part
Lever-Power Brake	M	- - -	702927*	NO	YES	New Part
Switch A-Starter & Ign.	B	95739	701846	NO	YES	Use or Service
Hose A.-Brake Tube Junction	B	95088		NO	YES	Service
Hose A-Brake Tube Junct. (MV.)	B	97409		NO	YES	Service
Hose A.-Brake Tube Junct. (V-8)	B	701246		NO	YES	Service
Nut - Ignition Switch Mtg.	B	93739	-----	NO	YES	Service or Scrap

M = Make  
 B = Buy  
 I = Interchangeable for Service  
 A = Availability After Tool Changes

A-

October 11, 1966  
 Revised 10-26-66  
 Revised 10-27-66  
 Revised 11-30-66  
 Revised 1-9-67

ENGINEERING MEMO #155  
 LIST OF PARTS TO BE AFFECTED

PART NAME	OLD PART NO	NEW PART NO	I	A	REMARKS
Connector Body-4 Contact	- - -	626773	NO	YES	New Part
Grommet-Bulkhead Conn. Body	- - -	626774	NO	YES	New Part
Conn. Body-Contact Bulkhead	- - -	626772	NO	YES	New Part
Hose-Manifold to M.V.-Chev. 6	702484	702971	NO	YES	Service
Hose-Manifold to M.V.-Chev. V-8	702294	702972	NO	YES	Service or use to make 702971
Liner Assem-Dash	641535	CHG.N,M	YES	YES	Service or Rework
Valve A.-Dual Br. Sys. Warn.	- - -	701823	NO	YES	New Part
Tube A.-M/Cyl. to Warn.Valve-Frt.	- - -	701830	NO	YES	New Part
Tube-3/16 O.D. x .025 wall x 20-1/8	- - -	94273	NO	YES	New Part
Tube A.-H/Cyl. to Warn.Valve-Rr.	- - -	701832	NO	YES	New Part
Nut-1/2-20 Inv. Flare-3/16 Tube	- - -	702966	NO	YES	New Part
Nut-7/16-24 Inv. Flare-3/16 Tube	- - -	702965	NO	YES	New Part
Nut-9/16-18 Inv. Flare-3/16 Tube	- - -	702967	NO	YES	New Part
Nut-3/8-24 Inv. Flare-3/16 Tube	137396	- - -	YES	YES	Revise Usage
Tube A.-Warn. Valve to Junk	- - -	701837	NO	YES	New Part
Tube-3/16 O.D. x .025 x 8	- - -	94274	NO	YES	New Part
Tube A.-June. to Br. Hose-LH Frt.	95006	701838	NO	YES	Service
Tube-3/16 O.D. x .025 x 12-3/4	94253	94275	NO	YES	Rework
Tube A.-June. to Br. Hose-RH Frt.	701098	701840	NO	YES	Service
Tube-3/16 O.D. x .025 x 98	94269	94276	NO	YES	Rework
Tube A.-P.B. Cyl. to Warn. V. Frt.	- - -	701893	NO	YES	New Part
Tube A.-P.B. Cyl. to Warn. V. Rr.	- - -	701894	NO	YES	New Part
Tube-3/16 O.D. x .025 x 19-1/4	- - -	94271	NO	YES	New Part
Panel-Instrument A-11	94361	CHG."H"	YES	YES	Rework
Panel-Instrument Lower LH End A-12	642689	CHG."B"	YES	YES	Rework
Panel Assem.-Inst.Complete A-11	97301	701891	NO	YES	Rework
Panel Assem.-Inst.-Lower Complete A-12	643289	CHG."A,B,C	NO	YES	Rework
Panel Assem.-Inst.-Lower Welded A-12	643290	CHG. A	NO	YES	Rework

See Page 3-A

See Page 3-A

DUAL BRAKE ELECTRICAL WITH PROOF CIRCUIT IGN. SWITCH & PILOT LIGHT

PART NAME	BUY OR OLD MAKE	OLD PART NO.	NEW PART NO.	I	A	REMARKS
Bracket - Dual Brk. Sys. Warn. Vlv. Mtg	M	---	704051	NO	YES	New Part
Tube Assem.-M.C. to Warn. VLV.-Frt.	M	701831	701895	NO	YES	If ANY - Scrap
Tube-3/16 O.D.x.025x9 1/16 Long	M	701833	701895	NO	YES	If ANY - Scrap
Tube Assem.-M.C. to warn VLV.-Rear	M	94273	94277	NO	YES	Reduce Usage
Tube-3/16 O.D.x.025x12 Long	M	701832	701896	NO	YES	If ANY-Scrap
Tube Assem.-Junction to Brk.-Hose-LHFr.	M	701834	701896	NO	YES	If ANY-Scrap
Tube-3/16 O.D.x.025x18 1/4 Long	M	94273	94278	NO	YES	Reduce Usage
Tube Assem. Brk.Warn.VLV. to Junction	M	94271	94278	NO	YES	If ANY-Scrap
Tube-3/16 O.D.x.025x29 3/8 Long	M	701838	701901	NO	YES	If ANY-Scrap
Tube Assem.-Brk.Warn.VLV. to Union	M	94275	94253	NO	YES	If ANY-Scrap
Tube-3/16 O.D.x.025x25 7/8 Long	M	701837	701897	NO	YES	If ANY-Scrap
Tube Assem.-Junc. to Brk.Hose,RH.Frt.	M	94274	94279	NO	YES	If ANY-Scrap
Tube-3/16 O.D.x.025x96 1/4 Long	M	---	701898	NO	YES	New Part
Tube Assem.-Union to Rear Brk.Hose	M	---	94280	NO	YES	New Part
Tube-3/16 O.D.x.025x105 1/4 Long	M	701840	701902	NO	YES	If ANY-Scrap
Union-Inv. Flare Tube 3/16"	M	94276	94268	NO	YES	If ANY-Scrap
Plug - 1/8" Sq. Pipe	B	93953	701899	NO	YES	Rework
Bolt-1/4-20x1/2 Hex. Hd.	B	94254	94282	NO	YES	Rework
Nut-3/8-24 Hex. Lock	B	97501	701900	NO	YES	Rework
Clevis Pin - 3/8 STD.	B	94267	94281	NO	YES	Rework
Nut-1/4-20 Hex.	B	---	137412	NO	YES	Increase Usage
Lock Washer-1/4 Med. Spring	B	---	444571	NO	YES	New Part
Bolt-1/4-20x5/8 Hex. Hd.	B	120854	120706	NO	YES	Reduce Usage
Washer-13/32 I.D.x13/16 O.D. Plain	B	442828	---	NO	YES	Reduce Usage
Terminal-#10 Ring Type A	B	114785	---	NO	YES	Reduce Usage
Bolt-1/4-20x3/4 Hex. Hd.	B	---	120375	NO	YES	Increase Usage
Nut-3/8-24 Hex.	B	---	120380	NO	YES	Increase Usage
Terminal Male Blade	B	---	120854	NO	YES	Increase Usage
	B	---	120394	NO	YES	Increase Usage
	B	---	200030	NO	YES	Increase Usage
	B	121887	---	NO	YES	Increase Usage
	B	---	120369	NO	YES	Reduce Usage
	B	---	626527	NO	YES	Increase Usage
	B	---	---	NO	YES	New Part

DUAL BRAKE ELECTRICAL WITH PROOF CIRCUIT IGN. SWITCH A-REVISED 1-25-67

PILOT LIGHT

PART NAME	OLD PART NO	NEW PART NO	I	A	REMARKS
Lamp Assem-Dual Brake Warning	B	701843	NO	YES	New Part
Lamp & Socket Assem-Brake Warning Light	M	701856	NO	YES	New Part
Connector-(6) Contact Ignition	D	626776	NO	YES	New Part
Cover-Accessor Circuit Breaker	D	701867	NO	YES	New Part
Wire Assem-Dual Brake Warning Light	B	645000	NO	YES	New Part
Wire Assem-Dual Brake Warning Switch	D	701857	NO	YES	New Part
Wire Assem-Access.Cir. Breaker(Long)	D	701865	NO	YES	New Part-A-11 Only
Wire Assem-Access.Cir. Breaker (Short)	B	701866	NO	YES	New Part-A-12 Only
Wire Assem-Electric W/S Washer-Switch	B	701870	NO	YES	New Part
Wire Assem-Electric W/S Washer-Motor	B	641434	NO	YES	Rework
Harness Assem- Starter Control (Auto. Trans)	B	701510	NO	YES	Rework
Cable Assem- Starter Control (Std. Trans.)	B	95635	NO	YES	Rework
Cable Assem-Ign. Switch to Heater Sw.	B	97327	NO	YES	Service or Scrap - A-12
Wiring Cable-Parking Brake Sw. to Ign.Sw.	B	95453	NO	YES	Rework - B-11
Cable Assem-Ammeter Wiring	B	95625	NO	YES	Rework - B-11
Cable Assem.-Ammeter Wiring	B	97329	NO	YES	Rework - B-12
Wiring Cable-Parking Brake Sw. to Ign. Sw.	B	97331	NO	YES	Rework
Harness Assem-Inst. Dash Wiring	B	701516	NO	YES	Rework - B-11
Harness Assem-Inst. Dash Wiring	B	701517	NO	YES	Rework - B-12
Switch & Harness Assem-Emer.Warning	B	643440	NO	YES	Rework
Lead Assem-3/8" In.	B	635279	NO	YES	Increase Usage
Bracket-Access. Cir. Breaker	B	98436		YES	Service or Scrap
Harness Assem.-Rear Evap.Front Control	B	643057	NO	YES	Rework
Cable Assem. - Feeder-Rear Evap.Pr.Control	B	643107	NO	YES	Rework
Cable Assem. - Evap.Sw.to Bulkhead Conn.	B	643026	NO	YES	Rework
Socket & Wire Assem.-Governor Indicator	B	701396	NO	YES	Rework
Wire Assem.-Governor Vacuum Switch	B	701884	NO	YES	New Part
Terminal - Female Blade	B	701883	NO	YES	New Part
Wire Assem.Frigidaire Compressor	B	626777	NO	YES	Service
Wire Assem.-York Compressor	M	701880	NO	YES	New Part
Socket & Wire Assem.Gov.Indicator	B	701881	NO	YES	New Part
Wire Assem.-Gov. Vacuum Switch	B	701396	NO	YES	Rework
Cable Assem.-Evap.Switch to Clutch	B	701883	NO	YES	New Part
Cable Assem.-Feeder-Rr.Evap.-Rr.Cont.	B	643026	NO	YES	Rework
Harness Assem.-Rear Evap.-Rr. Control	B	643107	NO	YES	Rework
Evap.Assem. Air Conditioner Complete B-11	M	643057	NO	YES	Rework
Terminal - Female	B	701271	NO	YES	Rework
	B	626641	NO	YES	Reinstate

ADDITION TO MEMO #155

January 25, 1967  
 Rev. 2-6-67  
 C Rev. 2-27-67

ADDITIONAL PARTS TO BE AFFECTED

PART NAME	BUY OR MAKE	OLD PART NO.	NEW PART NO.	I	A	REMARKS
Switch Assem. Stop Light	B	24693	701903	NO	YES	Service
Brkt. & Switch A.Mech. Stop Light	M	-----	701904	NO	YES	New Part
Brkt.-Mech.Stop Light Sw. Mtg.	M	-----	704052	NO	YES	New Part
Retainer A.-Stop Light Sw. Brkt.	M	-----	701905	NO	YES	New Part
Retainer - Stop Light Sw. Mtg. Brkt.	M	-----	704055	NO	YES	New Part
Support - Pedal	M	702924	Chg "B"	NO	YES	Rework
Cable Assem. Stop Light Sw. Feeder	M	-----	701906	NO	YES	New Part
Wiring Harness-Eng.Compartment	B	701640	Chg"B"	NO	NO	Rework
Harness Assem. Inst.Dash Wiring B-11	B	701516	Chg"F"	NO	NO	Rework
Harness Assem. Inst.Dash Wiring B-12	B	701517	Chg"C"	NO	NO	Rework
Bolt 5/16-18 x 3/4 Ohio Weld#HW 2712	B	-----	625194	NO	YES	Increase Usage
Nut - 5/16-18 Hex	B	-----	120376	NO	YES	Increase Usage
Lockwasher 5/16 Med. Spring	B	-----	120214	NO	YES	Increase Usage
Cable Assem.-Stoplite Switch Feeder	M	-----	701906	NO	YES	New Part
Connector - Line	B	-----	626584	NO	YES	Increase Usage
Cable Assem.-Ign.Sw.to Htr.Sw.	B	-----	701862	NO	YES	Increase Usage
Spring-Brake & Clutch Pedal Return	B	702089	-----	NO	YES	Reduce Usage
Panel-Dash(Checker Air Conditioning)	M	642720	644487	NO	Yes	Service or Rework
Panel-Dash(Checker Air Conditioning)	M	640598	644486	NO	Yes	Service or Rework

A A A A A A A A A A B B B B B B C D D