Service Bulletin [1993-3]

Dip Switch Adjustments Warner CBC-300 Adjustable Brake Control

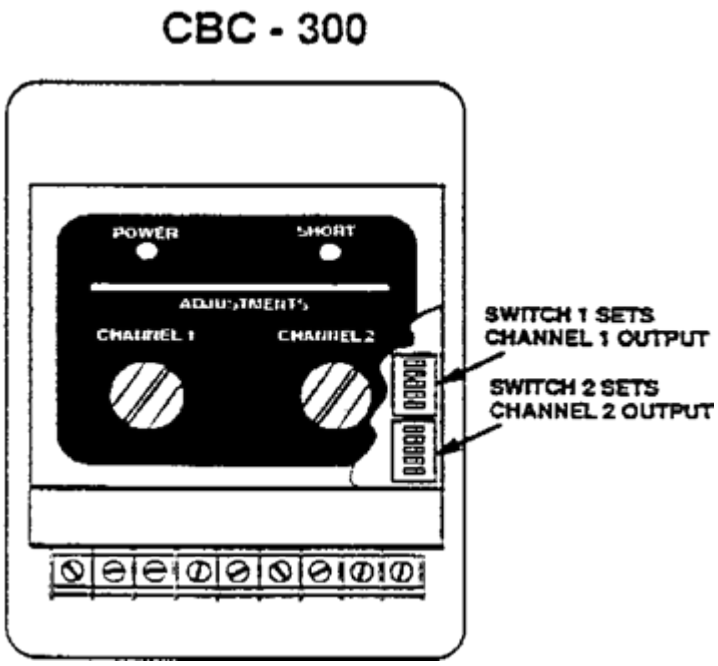
For Multi-Spade Besser-Matics

Switches listed must be tuned "ON" to make the changes shown. NOTE: Only one switch is to be set to the "ON" position per channel at any one time. They are located on the control circuit board, which is adjusted to the control of the brake coils being operated. The chart below indicates proper switch settings based on coil resistance and Warner Electric products.

(Set switches based on coil resistance)

DIP SWITCH NO.	1	2	3	4	5
Coil Resistance	NA	NA	255-300	210-250	100-175
Warner Electric Brake Models			EMFB-50 = 210ma	EMFB-180 = 300ma	EMFB-210 = 380ma

NOTE: Only one switch is to be set to the "ON" position per channel at any one time.



The 210, 310, and 380 are milliamperes readings that can be taken by your electrician during installation adjustments.

SYSTEM TROUBLESHOOTING

SYMPTOM A: GREEN LED INDICATOR MARKED "POWER" DOES NOT COME ON WHEN POWER IS APPLIED TO THE CBC-300 CONTROL

PROBABLE CAUSE	SOLUTION
No power is applied to the control	Check that AC power is applied to the control. Incorrect wiring on AC power to the control.
Optional line fuse is blown	Check for 120 VAC at Terminals 2 and 3 with an AC voltmeter. Check for blown fuse - replace.
Indicator LED is defective	Check for 120 VAC at Terminals 2 and 3 on the control. Check for output voltage at output terminals for Channel 1 and 2. If voltage is not present, replace the control.

SYMPTOM B: RED LED MARKED "SHORT" ILLUMINATES

PROBABLE CAUSE	SOLUTION
Shorted magnet coil	Check resistance of magnet coils used.
Wiring between control and magnets shorting	Check for shorted conditions in wiring between the magnets and control, and wiring to chassis ground.
Improper magnet coil voltage	Check magnets for proper coil voltage ratings.
Transient noise	Check for source of transient noise and suppress. Wire control using shielded cables. Segregate wiring runs.

SYMPTOM C: MAGNETS DO NOT DIS-ENGAGE WHEN POWER IS APPLIED

PROBABLE CAUSE	SOLUTION
External switching improperly wired	Check wiring and switch connections and rewire if necessary.
Torque adjust set at zero (0)	Set torque adjust potentiometers to maximum output level.
Current range improperly set	Check DIP switch settings per chart on page 1 and reset

switches improperly set	if required.
No power applied to the control	Refer to Symptom A above.
System incorrectly wired	Check wiring per the wiring diagram and rewire if necessary. Check polarity.

SYMPTOM D: MAGNETS DO NOT ENGAGE WHEN POWER IS APPLIED

PROBABLE CAUSE	SOLUTION
Too much gap	Check auto-gap and reset.

SYMPTOM E: MAGNETS DO NOT APPEAR TO HAVE ENOUGH TORQUE

PROBABLE CAUSE	SOLUTION
DIP switches improperly set	Check DIP switches per chart on page 1 and reset if necessary.
Magnets incorrectly wired	Check wiring between control and magnets and rewire if required.
Torque adjust potentiometer set too low	Check setting of torque adjust potentiometers and set to maximum if required.
Magnets are incorrectly sized	Verify sizing by repeating the selection process.

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SAFETY BULLETIN

This notice is issued to advise you that some previously accepted shop practices may not be keeping up with changing Federal and State Safety and Health Standards. Your current shop practices may not emphasize the need for proper precautions to insure safe operation and use of machines, tools, automatic loaders and allied equipment and/or warn against the use of certain solvents or other cleaning substances that are now considered unsafe or prohibited by law. Since many shop practices may not reflect current safety practice and procedures, particularly with regard to the safe operation of equipment, it is important that you review your practices to ensure compliance with Federal and State Safety and Health Standards.

IMPORTANT

The operation of any machine or power-operated device can be extremely hazardous unless proper safety precautions are strictly observed. Observe the following safety precautions:

ALWAYS:

- ✓ Be sure proper guarding is in place for all pinch, catch, shear, crush, and nip points.
- ✓ Be sure that all personnel are clear of the equipment before starting it.
- ✓ Be sure the equipment is properly grounded.
- ✓ Turn the main electrical panel off and lock it out in accordance with published lockout/tagout procedures prior to making adjustments, repairs, and maintenance.
- ✓ Wear appropriate protective equipment such as safety glasses, safety shoes, hearing protection, and hard hats.
- ✓ Keep chemical and flammable material away from electrical or operating equipment.
- ✓ Maintain a safe work area that is free from slipping and tripping hazards.
- ✓ Be sure appropriate safety devices are used when providing maintenance and repairs to all equipment.

NEVER:

- ✓ Exceed the rated capacity of a machine or tool.
- ✓ Modify machinery in any way without prior written approval of the Besser Engineering Department.
- ✓ Operate equipment unless proper maintenance has been regularly performed.
- ✓ Operate any equipment if unusual or excessive noise or vibration occurs.
- ✓ Operate any equipment while any part of the body is in the proximity of potentially hazardous areas.
- ✓ Use any toxic flammable substance as a solvent cleaner.
- ✓ Allow the operation or repair of equipment by untrained personnel.
- ✓ Climb or stand on equipment when it is in operation.

It is important that you review Federal and State Safety and Health Standards on a continual basis. All shop supervisors, maintenance personnel, machine operators, tool operators, and any other person involved in the setup, operation, maintenance, repair or adjustment of Besser-built equipment should read and understand this bulletin and Federal and State Safety and Health Standards on which this bulletin is based.