

APPENDIX 1: Descending Heavy Grade Job Aid

1.0 Purpose

This Job Aid is to provide train handling guidelines while descending grades. All CROR, GOI and Time Table Special Instructions remain in effect.

2.0 Descending Heavy Grades

The following tables list the grades that are heavy grades (1.0 % to 1.8 % for a distance of two miles or more.

Note 1: Those descending grades indicated by the *shaded rows* may require the brake to be set for longer than 10 minutes with a 10 psi brake pipe reduction or more, where time table speeds may be greater than those required by item 4.1 (B).

Item 4.1 (B) speeds are indicate by either ³⁰ or ³⁵.

Examples: 1.00%³⁵ or 1.30%³⁰

Note 2: Each table lists the descending grades where ALL items apply and those where all except item 4.1 (B) applies.

Vancouver Service Area			
Subdivision	Location	Max. Grade	Train Direction
ITEMS 3.0 TO 8.0 APPLY			
Cascade	MP 40.6 – 42.7	1.30% ³⁰	Westward

BC Interior Service Area			
Subdivision	Location	Max. Grade	Train Direction
ITEMS 3.0 TO 8.0 APPLY, EXCEPT ITEM 4.1 (B)			
Fording River	MP 33.5 - 31.3	1.80%	Southward
Fording River	MP 30.3 - 27.0	1.70%	Southward
Fording River	MP 22.2 - 12.7	1.80%	Southward
Fording River	MP 11.6 - 8.5	1.80%	Southward
Byron Creek	MP 10.9 - 0.0*	1.70%*	Northward
* Note: MP 11.4 - 10.9% is 2%			
Cranbrook	MP 1.8 - 17.7	1.20%	Westward
Cranbrook	MP 54.4 - 60.2	1.00%	Westward
Cranbrook	MP 63.6 - 67.3	1.00%	Westward
Cranbrook	MP 105.2 - 95.5	1.00%	Eastward
Mountain	MP 1.5 - 7.0	1.10%	Westward
Mountain	MP 21.2 - 24.7	1.10%	Westward
Mountain	MP 31.3 - 34.5	1.20%	Westward
Mountain – MacDonald Track	MP 77.0 - 68.3	1.00%	Eastward
Mountain – Connaught Track	MP 84.9 - 79.3	1.00%	Eastward
Mountain	MP 93.9 - 95.9	1.80%	Westward
Mountain	MP 98.9 - 101.8	1.80%	Westward
Mountain	MP 106.6 - 110.0	1.20%	Westward
Mountain	MP 113.8 - 119.8	1.20%	Westward
Mountain	MP 122.5 - 125.5	1.20%	Westward
Boundary	MP 8.9 - 14.2	1.30%	Westward
Rossland	MP 18.2 - 14.6	1.40%	Northward
Shuswap North Track	MP 5.0 - 1.9	1.40%	Eastward
Shuswap South Track	MP 6.1 - 1.9	1.00%	Eastward
Shuswap	MP 9.5 - 12.5	1.10%	Westward
Shuswap	MP 15.1-20.1	1.50%	Westward
Shuswap	MP 21.2 - 24.3	1.00%	Westward
Shuswap North Track	MP 79.4 - 70.9	1.00%	Eastward
Shuswap South Track	MP 79.4 - 70.9	1.60%	Eastward
Shuswap	MP 79.4 - 89.9	1.10%	Westward

Alberta Service Area			
Subdivision	Location	Max. Grade	Train Direction
ITEMS 3.0 TO 8.0 APPLY			
Crowsnest	MP 86.0 - 84.0	1.80% ³⁰	Eastward
Crowsnest	MP 78.0 - 75.0	1.10% ³⁵	Eastward
Crowsnest	MP 70.2 - 65.5	1.30% ³⁰	Eastward
Crowsnest	MP 62.0 - 58.5	1.40% ³⁰	Eastward
Laggan	MP 34.0 - 27.5	1.00% ³⁵	Eastward
Red Deer	MP 29.2 - 32.5	1.20% ³⁵	Northward
Leduc	MP 9.3 - 11.4	1.20% ³⁵	Southward
Leduc	MP 28.0 - 30.0	1.00% ³⁵	Northward
Maple Creek	MP 141.0 - 146.0	1.30% ³⁰	Westward
Brooks	MP 5.4 - 0.3	1.30% ³⁰	Eastward
ITEMS 3.0 TO 8.0 APPLY, EXCEPT ITEM 4.1 (B)			
Pecten	MP 20.0 - 16.0	1.50%	Northward
Pecten	MP 12.0 - 7.9	1.50%	Northward
Pecten	MP 5.5 - 1.3	1.50%	Northward
Laggan South Track	MP 122.3 - 117.3	1.80%	Eastward
Laggan North Track	MP 122.3 - 116.0	1.00%	Eastward
Shantz	MP 12.7 - 9.3*	1.80%	Eastward
* Note: portions between MP 12.7 - 9.3 are 2.00%			
Shantz	MP 7.2 - 9.2	1.50%	Westward
Shantz	MP 5.8 - 3.2	1.70%	Eastward
Wetaskiwin	MP 84.0 - 86.0	1.13%	Westward
Wetaskiwin	MP 90.5 - 87.5	1.03%	Eastward

Saskatchewan Service Area			
Subdivision	Location	Max. Grade	Train Direction
ITEMS 3.0 TO 8.0 APPLY			
Indian Head	MP 79.0 - 83.0	1.00% ³⁵	Westward
Weyburn	MP 152.0 - 149.2	1.00% ³⁵	Northward
ITEMS 3.0 TO 8.0 APPLY, EXCEPT ITEM 4.1 (B)			
Expanse	MP 21.0 - 25.3	1.00%	Southward
Hardisty	MP 126.5 - 130.5	1.00%	Westward
Lloydminster	MP 66.8 - 73.9	1.00%	Northward
Lloydminster	MP 80.0 - 74.0	1.00%	Southward
Radville	MP 84.6 - 81.4	1.30%	Eastward

Manitoba Service Area			
Subdivision	Location	Max. Grade	Train Direction
ITEMS 3.0 TO 8.0 APPLY			
Minnedosa	MP 74.0 - 64.6	1.43% ³⁰	Eastward
La Riviere	MP 93.0 - 81.0	1.60% ³⁰	Eastward
La Riviere	MP 107.0 - 111.0	1.50% ³⁰	Westward
ITEMS 3.0 TO 8.0 APPLY, EXCEPT ITEM 4.1 (B)			
Bredenbury	MP 3.6 - 0.0*	1.61 %*	Eastward
* Note: between mile 2.6 and 1.9 the grade is 2%			
Bredenbury	MP 53.0 - 56.0	1.13%	Westward
Bredenbury	MP 58.5 - 56.0	1.27%	Eastward
Bredenbury	MP 76.0 - 84.5	1.32%	Westward
Bredenbury	MP 89.0 - 84.5	1.38%	Eastward
Minnedosa	MP 75.5 - 77.5	1.33%	Westward
Napinka	MP 6.0 - 0.0	1.55%	Eastward

Northern Ontario Service Area			
Subdivision	Location	Max. Grade	Train Direction
ITEMS 3.0 TO 8.0 APPLY			
Nemegos	MP 4.6 - 6.9	1.10% ³⁵	Westward
Nemegos	MP 98.5 - 100.8	1.20% ³⁵	Westward
White River	MP 12.2 - 15.2	1.20% ³⁵	Westward
White River	MP 74.0 - 70.4	1.10% ³⁵	Eastward
White River	MP 96.6 - 93.7	1.10% ³⁵	Eastward
Heron Bay	MP 77.5 - 74.4	1.35% ³⁰	Eastward
Heron Bay	MP 77.6 - 81.0	1.40% ³⁰	Westward
Heron Bay	MP 109.0 - 105.4	1.38% ³⁰	Eastward
Nipigon	MP 1.8 - 9.0	1.68% ³⁰	Westward
Nipigon	MP 101.1 - 94.7	1.40% ³⁰	Eastward
Kaministiquia	MP 16.0 - 8.58	1.26% ³⁵	Eastward
Kaministiquia	MP 39.8 - 33.0*	1.11% ³⁵	Eastward
* Note: For information only, mile 38.90 to 38.71 is 1.42 %			
ITEMS 3.0 TO 8.0 APPLY, EXCEPT ITEM 4.1 (B)			
Nemegos	MP 12.1 - 14.3	1.20%	Westward
White River	MP 36.3 - 40.7	1.10%	Westward

Southern Ontario Service Area			
Subdivision	Location	Max. Grade	Train Direction
ITEMS 3.0 TO 8.0 APPLY			
MacTier	MP 39.0 - 41.0	1.25% ³⁵	Northward
MacTier	MP 21.0 - 10.0	1.00% ³⁵	Southward
Galt	MP 74.2 - 71.2	1.00% ³⁵	Eastward
Galt	MP 39.0 - 32.8	1.06% ³⁵	Eastward
Galt	MP 24.5 - 20.6	1.00% ³⁵	Eastward
Cartier	MP 83.6 - 85.6	1.15% ³⁵	Westward
Windsor	MP 3.0 - 1.0	1.07% ³⁵	Eastward
ITEMS 3.0 TO 8.0 APPLY, EXCEPT ITEM 4.1 (B)			
Hamilton	MP 46.7 - 52.5	1.04%	Northward
Havelock	MP 177.0 - 173.4	1.00%	Eastward
Havelock	MP 172.2 - 166.3	1.00%	Eastward
Havelock	MP 140.1 - 127.5	1.10%	Eastward
Belleville	MP 200.5 - 203.8	1.14%	Westward
Belleville	MP 206.4 - 209.1	1.75%	Westward
Nephton	MP 19.5 - 17.0	1.25%	Southward
Nephton	MP 14.7 - 12.7	1.50%	Southward
Nephton	MP 8.6 - 6.6	1.80%	Southward
Nephton	MP 8.6 - 11.0	1.22%	Northward

Montreal Service Area			
Subdivision	Location	Max. Grade	Train Direction
ITEMS 3.0 TO 8.0 APPLY, EXCEPT ITEM 4.1 (B)			
Adirondack Outremont Spur.	MP 4.0 - 1.5	1.58%	Southward

3.0 Emergency Brake Application Required

Any train moving on a descending grade listed in Item 2.0, that attains a speed 5 MPH above permissible speed is considered an uncontrolled movement. An EMERGENCY brake application must be made.

Three immediate actions are required:

- 1 - the conductor must fully open the conductor's emergency valve
- 2 - the locomotive engineer must place the automatic brake valve handle in emergency position.
- 3 - the TIBS emergency brake feature must be activated. (Not applicable to trains without TIBS)

4.0 Train Handling Guidelines

Note 1: Wherein this Job Aid it states "rear car BP pressure", it also refers to Tail End Remote locomotive BP pressure.

Note 2: The Automatic Brake, false gradient and cycle brake principles for tail end remote operated trains as instructed in GOI-2 Section 17, item 4.0 apply.

The following guidelines apply when cresting and descending a hill under normal operation.

4.1 Special Restrictions: Heavy Trains

Trains with a Weight per Operative Brake exceeding 100 tons must:

- A -** crest the hill and balance train speed at least 5 MPH below permissible speed until braking is seen to be ample.
- B -** NOT exceed the following speeds while the lead locomotive is between the mileage locations indicated by the shaded rows in item 2.0.
 - 35 MPH on grades 1.0% to 1.29%
 - 30 MPH on grades 1.3% to 1.8%

4.2 With Dynamic Brake

Step	Action
1	Crest the hill and gradually reduce the throttle to balance train speed below permissible speed.
2	Gradually move throttle to IDLE.
3	After 10 seconds, move dynamic brake handle to SET UP.
4	Advance dynamic slowly to bunch slack.
5	Control train speed by modulating dynamic brake handle to increase or decrease dynamic brake force.

4.3 With Dynamic & Train Air Brake

Step	Action
1	Crest the hill and gradually reduce the throttle to balance train speed below permissible speed.
2	If it is known train air will be needed to supplement dynamic brake, make a minimum brake pipe reduction as the train crests the hill.
3	Check head-end display unit (TIBS) and observe brake pipe reduction at rear of train. (Not applicable to trains without TIBS)
4	Move throttle to IDLE.
5	Wait 10 seconds, place dynamic brake handle to SET-UP.
6	Slowly advance the dynamic brake handle to control train speed down the hill.
7	If necessary, make additional brake pipe reductions in 2-3 psi increments as the entire train moves onto the hill.

4.4 Without Dynamic Brake

Step	Action
1	Crest the hill and gradually reduce the throttle to balance train speed below permissible speed.
2	Reduce throttle to the 4 th notch or lower.
3	Make a minimum brake pipe reduction while the rear portion of the train is approaching the crest of the hill.
4	Check head-end display unit (TIBS) and observe brake pipe reduction at rear of train.
5	Balance train speed with throttle.
6	If necessary, make additional brake pipe reductions in 2-3 psi increments as the entire train moves onto the hill.
7	Continue to balance train speed down the hill with the throttle.

WARNING: If brake pipe at rear of train does not reduce it may be an indication of a blockage in the brake pipe or a closed angle cock. Stop train immediately. If necessary place the automatic brake into emergency activate the TIBS Emergency Brake Feature (if applicable) and open the Conductor's emergency brake valve.

5.0 Movement After Emergency Application

Caution: Job Briefing Required

- Before the Emergency PCS is recovered, the locomotive engineer must initiate a discussion with the conductor as regards the need for hand brakes and/or retainers. They must consider train location, amount of train on grade, proximity of lesser grade, weather, rail or any other condition that may affect train braking.
- When agreement cannot be reached, the crew must contact a road manager and be governed by his/her instructions.
- Reference must be made to applicable Emergency PCS recovery instructions **9.0** to **13.0** of this job aid.

6.0 Use of Retaining Valves

Retaining valves will be used under the following conditions:

If ...the train is standing on a grade listed in item 2.0 and;

- it is the second emergency brake application on the grade, and;
- locomotive brakes are not sufficient to prevent train movement;

Then... do not attempt to recover the emergency PCS until retaining valves or hand brakes are set as follows:

1 - on grades listed that are 1.3% to 1.8%, set retainer valves to the high pressure (HP) position on at least 50% of the loaded cars and on grades listed that are 1.0% to 1.29%, set HP retainers on at least 25% of the loaded cars.

Note: Whenever a train is moved with HP retainers applied, do not exceed 20 MPH. In addition, the train must be stopped every 20 minutes for a period of 10 minutes in order to allow the wheels and brake shoes time to cool off.

OR

2 - on grades listed that are 1.3% to 1.8%, apply handbrake on at least 50% of the loaded cars and on grades listed that are 1.0% to 1.29%, apply hand brakes on at least 25% of the loaded cars. The handbrakes must not be released until after the train air brake system is fully charged.

Note: This does not alter the requirements to apply hand brakes or retainers when conditions are such that their use is considered necessary after one emergency brake application.

7.0 Who to Contact

If train goes into emergency from any source while descending any of the grades listed in item 2.0 and the locomotive engineer is not confident he/she can move the train safely, they must contact the RTC and request to speak directly to a road manager.

8.0 Moving from a Planned Stop on a Heavy or Mountain Grade: Conventional or Locotrol Train

Note: **Heavy grades** are 1.0% to 1.8%. (See Item 2.0)
Mountain grades are greater than 1.8% (See Time Tables for specific instructions)

Important: On **Locotrol** trains, ensure all remotes are in MU, the "Front" group.

Step	Switch / Part	Setting
1	a) Independent Brake	FULLY APPLIED
	b) Reverser	FORWARD
	c) Automatic Brake (AB)	RELEASE
	d) Dynamic Brake	DB #8
2	When train starts to move	
	<p>For GM (except SD90MAC) Locomotives RELEASE* independent gradually as DB increases (*if DB equipped and working)</p> <p>For GE and SD90MAC Locomotives FULLY RELEASE* independent (*if DB working)</p>	
3	<p>Monitor speed and rear car BP pressure. On HEAVY grades, if train is accelerating in DB #8, prior to exceeding 50% of permitted speed;</p> <p>OR</p> <p>On MOUNTAIN grades, prior to exceeding 5 MPH;</p>	
	Action	
	a) Automatic Brake / Equalizing Reservoir	REDUCE 7 psi below rear Car BP pressure
<i>IF speed still increasing;</i>		
b) Automatic Brake	APPLY 2 psi supplements until grade is balanced and speed held within permissible limits	

9.0 Emergency PCS Recovery: Conventional Train

Step	Switch / Part	Setting
1	a) Independent Brake	FULLY APPLIED
	b) Retainers	SET as required
	c) Reverser	NEUTRAL
	d) Throttle	IDLE
	e) Dynamic Brake	IDLE
2	a) Reverser	FORWARD
	b) Automatic Brake	EMERGENCY
	Wait 60 Seconds	
	c) Automatic Brake	Briefly return to HANDLE OFF, then RELEASE
<i>Ensure PCS indication is extinguished and brake pipe pressure is recharging normally</i>		
d) Dynamic Brake	DB # 8	
3	When train starts to move	
	<p>For GM (except SD90MAC) locomotives RELEASE* independent gradually as DB increases (*if DB equipped and working).</p> <p>For GE and SD90MAC locomotives FULLY RELEASE* independent (*if DB working).</p>	
4	<p>Monitor speed and rear car BP pressure. On HEAVY grades, if train is accelerating in DB #8, prior to exceeding 50% of permitted speed;</p> <p>OR</p> <p>On MOUNTAIN grades, prior to exceeding 5 MPH;</p>	
	Action	
	a) Automatic Brake / Equalizing Reservoir.	REDUCE 7 psi below rear car BP pressure
<i>IF speed is still increasing;</i>		
b) Automatic Brake	APPLY 2 psi supplements until grade is balanced and speed held within permissible limits	

**10.0 Emergency PCS Recovery:
Locotrol IV Leading Locomotives**

Step	Switch / Part	Setting	
1	a) Independent Brake	FULLY APPLIED	
	b) Retainers	SET as required,	
	c) Reverser	NEUTRAL	
	d) Throttle	IDLE	
	e) Dynamic Brake	IDLE	
	f) Reverser	FORWARD	
	g) Automatic Brake (AB)	EMERGENCY	
Wait 60 seconds			
2	IF Locotrol IS NOT in "Run Mode," then;		
	a) MODE	PRESS	
	b) RUN	PRESS	
	c) EXECUTE	PRESS	
	d) MAIN	PRESS	
<i>Ensure each remote is in the FRONT GROUP</i>			
e) REMOTE	PRESS		
3	Select each remote one at a time, press NORMAL, press EXECUTE.		
	IF IFD/ICE Indicates "Go To Release," then;		
	a) Automatic Brake	Briefly return to HANDLE OFF, Then RELEASE	
	Ensure the following results:		
	b) PCS indicator on lead and PC indicator on each remote	EXTINGUISHED	
	c) Each remote	CHARGING	
	d) Rear car BP Pressure	AIR RISING and RECHARGING normally	
	e) Dynamic Brake	DB #8	
	Continue on next column...		

Step	Switch / Part	Setting
4	When train starts to move;	
	a) Independent	FULLY RELEASE (if DB working)
	<i>Monitor speed and rear car BP pressure. Then, on HEAVY grades, prior to exceeding 50% of maximum permitted speed;</i>	
OR		
<i>on MOUNTAIN grades, prior to exceeding 5 MPH:</i>		
		Action
	b) Automatic Brake / Equalizing Res	REDUCE 7 psi below rear car BP pressure
	<i>IF speed still increasing;</i>	
	c) Automatic Brake	APPLY 2 psi supplements until grade is balanced and speed held within permissible limits

**11.0 Emergency PCS Recovery:
Locotrol LEB Leading Locomotives**

Step	Switch / Part	Setting	
1	a) Independent Brake	FULLY APPLIED	
	b) Retainers	SET as required	
	c) Reverser	NEUTRAL	
	d) Throttle	IDLE	
	e) Dynamic Brake	IDLE	
	f) Reverser	FORWARD	
	g) Automatic Brake (AB)	EMERGENCY	
Wait 60 seconds			
If Locotrol is in "Run mode, go to Step 3			
2	IF Locotrol IS NOT in "Run Mode," then;		
	a) DISTR POWER (IF DISPLAYED)	PRESS	
	b) DP MAIN	PRESS	
	c) MODE	PRESS	
	d) ECECUTE	PRESS	
e) EXIT	PRESS		
3	If all remote locomotives are in the FRONT GROUP, go to Step 4 . If not, press MOVE TO FRONT, press MORE MENU (if displayed).		
4	Press REMOTE MENU (if displayed). Select each remote one at a time, press NORMAL, press EXECUTE.		
	IF IFD/ICE Indicates "Go To Release," then;		
	a) Automatic Brake	Briefly return to HANDLE OFF, then SUPPRESSION, then RELEASE	
	Ensure the following results:		
	b) PCS indicator on lead and PC indicator on each remote	EXTINGUISHED	
	c) Each remote	Displays a value of flow CHARGING	
	d) Rear car BP Pressure	AIR RISING and RECHARGING normally	
	e) Dynamic Brake	DB #8	
	Continue on next column...		

Step	Switch / Part	Setting
5	When train starts to move;	
	a) Independent	FULLY RELEASE (if DB working)
	<i>Monitor speed and rear car BP pressure. Then, on HEAVY grades, prior to exceeding 50% of maximum permitted speed;</i>	
	OR	
	<i>on MOUNTAIN grades, prior to exceeding 5 MPH:</i>	
	Action	
	b) Automatic Brake / Equalizing Res	REDUCE 7 psi below rear car BP pressure
	<i>IF speed still increasing;</i>	
	c) Automatic Brake	APPLY 2 psi supplements until grade is balanced and speed held within permissible limits

12.0 Locotrol IV Communication Loss With Train in Emergency

IF Locotrol communication is lost with one or more remotes AND **IF** train is in emergency, then Locotrol must be shut down as per the following:

- Secure the train with hand brakes and on LOADED bulk trains,
- On **HEAVY** grades apply 50% retainers
- On **MOUNTAIN** grades apply 100% retainers

Locotrol IV Shut Down		
Note: Shut down Locotrol on the lead unit first, then remote units last.		
On Lead Locomotive		
Step	Switch / Part	Setting
1	SYSTEM Switch	PRESS
	UNLINK Switch	PRESS
	EXECUTE Switch	PRESS
2	System Module Panel (in nose)	
	Thumbwheels	0000
	Toggle Switches	
3	Locotrol/Conventional	CONVENTIONAL
	Lead/Remote	No Change
	Same/Lead or Opposite	No Change
4	Circuit Breakers	
	RELAY	OFF
	ELECT	OFF
	RADIO	OFF
5	Engine Control Panel (in cab)	
	GE's Distributed Power	
	Circuit Breaker	OFF
	GM's Locotrol Circuit Breaker	OFF
Ensure AB handle is in EMERGENCY		

On Each Locotrol IV Remote Locomotive		
Step	Switch / Part	Setting
1	System Module Panel (in nose)	
	Thumbwheels	0000
	Toggle Switches	
	Locotrol/Conventional	CONVENTIONAL
	Lead/Remote	No Change
	Same/Lead or Opposite	No Change
	Circuit Breakers	
	RELAY	OFF
	ELECT	OFF
	RADIO	OFF
2	Engine Control Panel (in cab)	
	GE's Distributed Power	
	Circuit Breaker	OFF
	GM's Locotrol Circuit Breaker	OFF
	Control Stand	
	Engine Run Switch	ON
3	Caution: DO NOT move AB to release in this procedure	
	Automatic Brake (AB)	EMERGENCY for 60 seconds
	AB	HANDLE OFF
	Ensure PCS is EXTINGUISHED	
4	Independent	RELEASE
	IFD Screen	
	Any F Key	TOUCH to turn on screen
	Operator Function	SELECT
	Air Brake Setup	SELECT
	IND Brake Lead/Trail	TRAIL
	AB Result	CUT-OUT
Save Setup	SELECT & CONFIRM	
4	Ensure IND Brake is in TRAIL and AB is CUT- OUT	
	Locomotives	ISOLATE
	Brake Cylinders (on each truck)	CUT-OUT

Repeat all the above steps on each remote unit On each Locotrol LEB Remote Unit, refer to Item 13.0 of this job aid.

This completes the Locotrol Shutdown Procedure. The train is now conventional and emergency PCS may be recovered on lead locomotive.

Caution: You must cut-IN the air brakes on each set of trucks when remote unit(s) are remarshalled to the head end or Locotrol is subsequently powered up again.

13.0 Locotrol LEB Communication Loss With Train in Emergency

IF Locotrol communication is lost with one or more remotes **AND IF** train is in emergency, then Locotrol must be shut down as per the following:

- Secure the train with hand brakes and on LOADED bulk trains,
- On **HEAVY** grades apply 50% retainers
- On **MOUNTAIN** grades apply 100% retainers

Locotrol LEB Shut Down		
Note: Shutdown Locotrol on the lead unit first, then remote units last.		
On LEAD Locomotive		
Step	Switch/Part	Setting
1	On locomotive screen	press DISTR POWER (if displayed) press DP MAIN press SYSTEM
2	Press UNLINK	Press EXECUTE
3	Press END DISTR PWR	press EXECUTE
4	Circuit Breakers in nose: DISTRIBUTED POWER RADIO DISTRIBUTED POWER TRAINLINE	 OFF OFF
5	CEFX 100-139 and CP 9300 - 9303 - Circuit Breakers are in the electrical cabinet: D. Pwr Radio - EAB/DP - leave	 OFF ON
6	Ensure AB handle is in EMERGENCY	

On each Locotrol LEB Remote Locomotive		
Step	Switch/Part	Setting
1	DISTR POWER END DISTR PWR EXECUTE Ensure “DP ON”, or “DP REMOTE ENABLED” indicator is out.	Press Press Press
2	Circuit Breakers in nose: DISTRIBUTED POWER RADIO DISTRIBUTED POWER TRAINLINE	 OFF OFF
3	CEFX 100-139 and CP 9300 - 9303 - Circuit Breakers are in the electrical cabinet: D. Pwr Radio - EAB/DB - leave	 OFF ON
4	Control Stand Engine Run Switch CAUTION: DO NOT move AB to release in this procedure. Automatic Brake (AB) AB Ensure PCS is EXTINGUISHED Independent	 ON EMERGENCY for 60 seconds HANDLE OFF RELEASE
5	IFD Screen Operator function (if displayed) Air Brake Setup IND Brake Lead/Trail AB Result Save Setup	 SELECT SELECT TRAIL CUTOUT SELECT& CONFIRM
6	Ensure IND Brake is in TRAIL and Auto Brk is CUT OUT Locomotives	 ISOLATE
7	Brake Cylinders (on each Truck) Repeat all the above steps on each remote unit. On each Locotrol IV remote unit, refer to item 12.0 of this job aid.	 CUT-OUT
8	This completes the Locotrol Shutdown Procedure. The train is now conventional and emergency PCS may be recovered on lead locomotive. Caution: You must cut-IN the air brakes on each set of trucks when the remote unit is marshalled to the head end or Locotrol is subsequently powered up again.	