BELL SYSTEM PRACTICES
Outside Plant Construction
and Maintenance

SECTION G91.210.1
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AT&T Co Standard

ELECTRIC BRAKE CAB CONTROLS

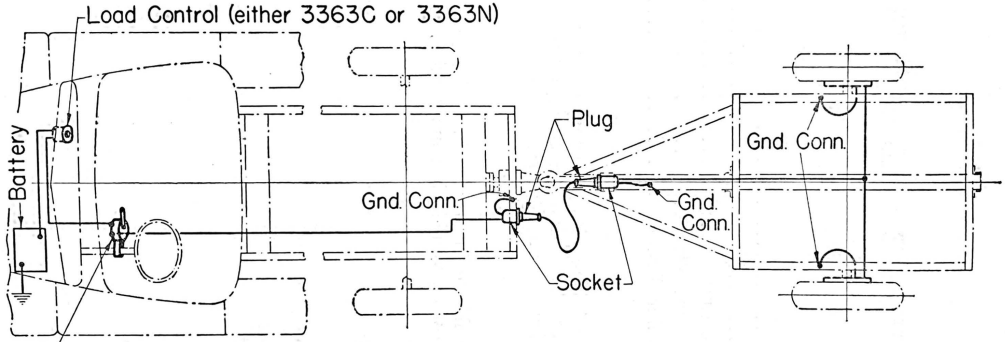
Contents **Page**

1. GENERAL

1.01 This section furnishes information for the drivers of those motor vehicles which are equipped to control the operation of electric brakes on trailers.

2. DESCRIPTION

2.01 The following figure illustrates how the control equipment on the towing vehicle is connected to the electric brakes on the trailer.


Load Control (either 3363C or 3363N)
Battery
Plug
Gnd. Conn.
Gnd. Conn.
Gnd. Conn.
Socket
Hand Controller (Foot Controller attached to Foot Brake may be used instead)
BK
SL
TL
GR
Back View of Socket
GR - Ground
BK - Electric Brakes
SL - For Trailer Stop Light
TL - For Trailer Tail Light

2.02 The **load control** is used to regulate the electric brake system to produce the most satisfactory operation for the particular load on the trailer.

2.03 The **controller** is used to apply the trailer electric brakes when slowing down or stopping.

3. LOAD CONTROL SETTINGS

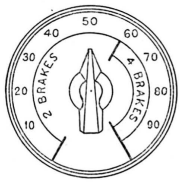
3.01 The load control can be adjusted to limit the braking effort applied, by means of the controller, to the trailer wheels. The higher the load control setting, or the farther the load control is turned in a clockwise direction, the greater the braking effort that can be produced up to the point that the brakes lock the trailer wheels and skid the tires.

3.02 The model 3363C load control has 4 operating positions numbered 1, 2, 3 and 4 on the dial, which are intended for use with the following trailer loads:

Load Control Setting	Trailer Load
1	no load
2	light load
3	medium load
4	heavy load

LOAD CONTROL

3363 C



3363 N

3.03 The model 3363N load control, instead of having four operating positions like the model 3363C, is continuously variable from a minimum position (fully counterclockwise) to a maximum position (fully clockwise). The dial has nine reference marks as shown above. Approximate settings for this load control for different trailer loads are as follows:

Load Control Setting	Trailer Load
10	no load
30	light load
60	medium load
90	heavy load

3.04 Variations in towing vehicle brakes and road conditions, such as wet or icy roads, will require deviations from the load control settings recommended in Paragraphs 3.02 and 3.03. In any case the proper setting will readily be found by testing the brakes after the trailer is connected to the towing vehicle.

4. OPERATING THE CONTROLLER

4.01 The hand type controller, which is usually mounted on the steering column, should be operated in coordination with the foot pedal for the truck brakes. The truck driver should attempt to synchronize the operation of the hand controller with the operation of the truck foot brake so that the trailer brakes will be applied slightly ahead of the towing vehicle brakes to prevent any tendency of the trailer to "jackknife." The amount of braking applied to the trailer wheels should correspond to the amount of braking applied to the truck wheels. In other words, if when slowing the truck down, it is necessary to use only about one-half the available truck braking effort, then the hand controller should only be operated far enough to use about one-half the available trailer braking effort. But if it is necessary to make a quick stop and use all the available braking effort, the hand controller should be operated the full extent of its travel.

4.02 The foot brake type controller is connected to the foot pedal of the towing vehicle and should be adjusted so that the trailer brakes operate slightly ahead of the truck brakes. If this is not the case, it should be reported for correction in accordance with local instructions.

5. TESTING THE TRAILER BRAKES

5.01 In order to obtain the safest possible operation of the trailer and maximum benefit from the electric brakes it is necessary to test the trailer brakes and adjust the load control properly each time a trailer is attached to a towing vehicle. This should be done on a paved surface before proceeding to tow the trailer any appreciable distance on public roads.

5.02 The testing procedure is as follows:

(a) Set the load control in the position recommended in Part 3 or in the position found most suitable from previous experience.

(b) Tow the trailer at a speed of about 5 to 10 m.p.h. and apply the trailer brakes. If the towing vehicle is equipped with a hand controller, move the controller the full extent of its travel in the braking direction. If the towing vehicle is equipped with a foot controller, press the foot pedal to apply full braking to the towing vehicle and the trailer.

(c) If the trailer wheels lock and slide in (b) set the load control one step lower and test again as in (b). Repeat as often as necessary until a load control position is found which is just below the point where the trailer wheels lock and slide when full braking is applied.

(d) If the trailer wheels do not lock and slide when first tested as in (b) increase the load control setting and test again as in (b). Repeat as often as necessary to find the load control position which makes the trailer wheels slide when full braking is applied, and then set the load control one step lower as the final setting.

5.03 In wet weather, or if the trailer has not been used for several days, the trailer brakes should be retested as in Paragraph 5.01, (a) to (d) later in the day, as it may be necessary to change the load control setting to make up for changes, in the braking effort, brought about by the brake linings drying out or becoming wet.