DIRECTIONS FOR APPLICATION OF THIS NUMBERING SYSTEM

THE SYSTEM FOLLOWED IN THIS STANDARD NUMBERING OF WIRES IS THAT EACH BRANCH CIRCUIT WILL HAVE A STANDARD ASSIGNED MARKING BASED UPON ITS USE. IN THE CASE OF TROLLEY OR BATTERY FEEDS (AND RETURNS) THE ASSIGNED MARKING WILL BE A LETTER OR LETTERS. AFTER PASSING THROUGH ANY APPARATUS THE NUMERALS 1, 2, 3 ETC. WILL BE ADDED IN SEQUENCE TO THE BASIC LETTER OR LETTERS.

IN THE CASE OF CONTROL AND AUXILIARY CIRCUITS THE ASSIGNED MARKING WILL BE A NUMBER. AFTER PASSING THROUGH ANY APPARATUS THE LETTERS A, B, C, D WILL BE ADDED IN SEQUENCE TO THE BASIC NUMBER.

TRAIN LINE WIRES FOR MULTIPLE UNIT CARS WILL HAVE STANDARD NUMBER OR LETTER DESIGNATIONS, BUT NOT A COMBINATION OF THE TWO. THEY WILL NOT HAVE THE SUB-LETTERS OR SUB-NUMERALS BUT WILL BE CONSIDERED MERELY AS JUMPERS OR PARALLELING CONNECTIONS BETWEEN SIMILAR CIRCUITS ON EACH CAR.

1. TROLLEY – THIRD RAIL (OR 600V.) FEEDS

L–	MAIN THIRD RAIL LEAD
T–	MAIN TROLLEY LEAD.
T1, T2, T3	WILL BE USED AS THE MAIN TROLLEY LEAD PASSES THROUGH APPARATUS SUCH AS MAIN FUSE, MAIN SWITCH, ETC.
L1, L2, L3	WILL BE USED AS THE MAIN THIRD RAIL LEAD PASSES THROUGH APPARATUS SUCH AS MAIN FUSE, MAIN SWITCH, ETC.
TL–	600V TRAIN LINE WIRE
TA1, TA2, TA3	ARE 600V OR TROLLEY FEEDS TO THE SEVERAL AUXILIARY CIRCUITS.
LA1, LA2, LA3	ARE 600V OR THIRD RAIL FEEDS TO THE SEVERAL AUXILIARY CIRCUITS.
G–	TROLLEY GROUND OR RETURN.

2. BATTERY – (OR 32 V.) FEED

GA–	GENERATOR ARMATURE POSITIVE
GAA–	GENERATOR ARMATURE NEGATIVE
GF–	GENERATOR FIELD
GA1, GA2, GA3	IS THE SAME CIRCUIT AFTER PASSING THROUGH APPARATUS SUCH AS FUSES, CIRCUIT BREAKERS OR CONTACTOR.
B+ –	BATTERY LEAD POSITIVE
B– –	BATTERY NEGATIVE
B1, B2, B3, ETC.	ARE BATTERY FEEDS FOR VARIOUS CONTROL OR AUXILIARY CIRCUITS.

3. CONTROL AND AUXILIARY CIRCUITS (TRAIN LINE CIRCUITS IN LARGE CAPITALS)

0 TO 37 – (CONTROL AND DOOR CIRCUITS FOR SINGLE UNIT P.C.C. SURFACE CARS
(TRAIN LINE AND DOOR CIRCUITS FOR MULTIPLE UNIT P.C.C. SURFACE CARS
(TRAIN LINE CIRCUITS FOR P.C.C. RAPID TRANSIT CARS

WIRE NO.	SINGLE UNIT P.C.C. SURFACE CAR	MULTIPLE UNIT P.C.C. SURFACE CAR	P.C.C. RAPID TRANSIT CAR	
B+	CONTROL POSITIVE	CONTROL POSITIVE	CONTROL POSITIVE	
B–	CONTROL NEGATIVE	CONTROL NEGATIVE	CONTROL NEGATIVE	
0	RESET	RESET	RESET	
1	FORWARD POWER (IF USED)	FORWARD POWER	FORWARD POWER	
2	REVERSE POWER (IF USED)	REVERSE POWER	REVERSE POWER	
3	POWER CONTACTORS	POWER CONTACTORS	POWER CONTACTORS	
4	——	POWER CONTACTORS	POWER CONTACTORS	
5	——	RATES ACCELERATING AND BRAKING	RATES ACCELERATING AND BRAKING	1-RATE ACCELERATION, DYNAMIC & FRICN
6	——	COASTING	COASTING	2-RATE ACCELERATION, DYNAMIC & FRICN
7	PILOT MOTOR	PILOT MOTOR	PILOT MOTOR	3-RATE ACCELERATION, DYNAMIC & FRICN
X7	——	——	——	PILOT MOTOR
8	TRACK BRAKE	TRACK BRAKE	TRACK BRAKE	TRACK BRAKE
9	——	——	——	——
10	——	TRACK BRAKE	TRACK BRAKE	TRACK BRAKE
11	DRUM BRAKE	DRUM BRAKE RATE	DRUM BRAKE RATE OR ELECTRO-PNEUMATIC APPLICATION	——
12	——	DRUM BRAKE RATE	DRUM BRAKE RATE OR ELECTRO-PNEUMATIC RELEASE	——
13	DRUM BRAKE INDICATION	DRUM BRAKE INDICATION	DRUM BRAKE INDICATION OR ELECTRO-PNEUMATIC EMERGENCY	DRUM BRAKE INDICATION
14	SPARE	SPARE	DOORS	
15	SPARE	SPARE	DOORS	
16	——	EMERGENCY LOOP	EMERGENCY LOOP	
17	——	EMERGENCY LOOP	EMERGENCY LOOP	
18	——	POLE DEWIREMENT SIGNAL	CAR LIGHTS	
19	——	STOP LIGHT	DOORS	
20	——	DOOR SIGNAL	DOORS	
21	——	DOOR RELAY	DOOR RELAY	
22	——	SIGNAL-CONDUCTOR'S	SIGNAL-(GUARD TO MOTORMAN)	
23	——	SIGNAL-PASSENGER'S	SIGNAL-(MOTORMAN TO GUARD)	
24	——	SPARE	M.G. STARTING AND STOPPING	
25	——	SPARE	M.G. ALARM	
26	——	SPARE	BATTERY CONTACTOR	
27	——	SPARE	PANTOGRAPH UP	
	28-39 DOOR CONTROL	28-39 DOOR CONTROL		
28	SPARE	SPARE	PANTOGRAPH DOWN	
29	DOOR BALANCE	DOOR BALANCE	PANTOGRAPH SIGNAL	
30	DOOR OPERATOR	DOOR OPERATOR	SPARE	
31	* DOOR #1	* DOOR #1	HEAT & VENTILATION CONTROLS	
32	* DOOR #2	* DOOR #2	HEAT & VENTILATION CONTROLS	
33	* DOOR #3	* DOOR #3	HEAT & VENTILATION CONTROLS	
34	* DOOR #4	* DOOR #4	DOOR SIGNAL	
35	* DOOR #5	* DOOR #5	DOOR POWER INTERLOCK	
36	* DOOR #6	* DOOR #6	SPARE	
37	* DOOR #7	* DOOR #7	SPARE	
38	* DOOR #8	* DOOR #8	SPARE	
39	DOOR RELAY (INTERLOCK)	——	SPARE	

* THESE NUMBERS MAY BE COMBINED AS REQUIRED WHEN TWO OR MORE DOORS ARE OPERATED BY ONE GANG SWITCH. DOORS WILL BE NUMBERED CLOCKWISE STARTING AT THE NUMBER = 1 END.

	40-45 AUXILIARY CONTACTOR CONTROL
40	SANDER
41	M.G. CONTACTOR
42	T.S.T. CIRCUIT
43	AUXILIARY HEATER
44	BATTERY RELAY
45	SPARE
	46-59 LIGHTS - HIGH & LOW VOLTAGE
46	SPARE
47	NEXT CAR LIGHT
48	EMERGENCY LIGHTS
49	MARKER LIGHTS (IF SEPARATE)
50	CAR LIGHTS (BLIND SIDE)
51	CAR LIGHTS (DOOR SIDE) OR (DOOR SIDE & BLIND SIDE)
52	MARKERS, HEADLIGHT, FAREBOX LIGHT, DASH LIGHTS, STOP LIGHTS, TAIL LIGHTS & ROUTE SIGN LIGHTS.
53	STOP LIGHT
54	FUSE CABINET LIGHT - FRONT
55	FUSE CABINET LIGHT - CENTER
56	RUN NUMBER LIGHTS (IF SEPARATE)
57	SIDE SIGN LIGHTS (IF SEPARATE)
58	FOG LIGHTS
59	DASH LIGHTS (IF SEPARATE)
	60-69 HEATING AND VENTILATION
60	CAB HEATER
61	CAB HEATER FAN
62	DAMPER CONTROL (ELEC.)
63	AUXILIARY HEATERS
64	VENTILATION CONTROL
65	VENTILATION MOTORS
66	DEFROSTER
67	SPARE
68	SPARE
69	SPARE

(CONT. IN NEXT COLUMN)

	70-74 INDICATORS
70	TRACK BRAKE INDICATOR
71	HAND BRAKE INDICATOR
72	DOOR INDICATOR
73	VOLTMETER INDICATOR
74	SPARE
	75-79 SOUNDING SIGNALS
75	PASSENGER SIGNAL
76	GONG - FRONT
77	BACK-UP GONG
78	DOOR ALARM BELL
79	BUZZER ALARM
	80-89 MISCELLANEOUS
80	FARE REGISTER
81	FARE BOX
82	FARE BOX LIGHT (IF SEPARATE)
83	WINDSHIELD WIPER
84	CREW SIGNAL
85	SPARE
86	SPARE
87	HORN
88	SPARE
89	SPARE
	90-99 UNASSIGNED

STANDARD ASSIGNMENT ON WIRE NUMBERS

TRANSIT RESEARCH CORP
292 MADISON AVE. NEW YORK, N.Y.

USE DIMENSIONS ONLY | 2-9h1