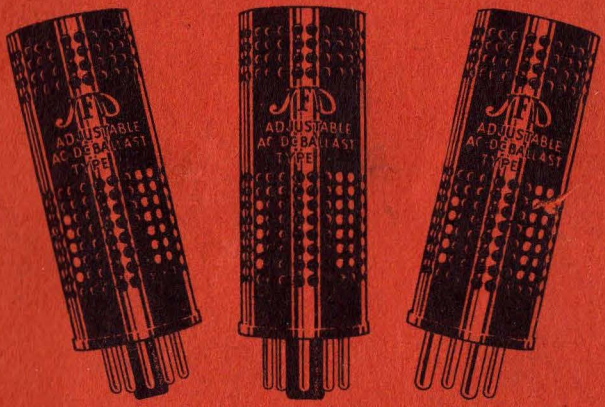
Price $1.50

1947 EDITION
JFD BALLAST MANUAL

Just 3 *Adjustable Ballasts*
Replace Over 3000
Exact Duplicate AC-DC Resistance Tubes!



Type A
8 Prong

Type B
8 Prong

Type C
4 Prong

JFD *Improved Air-Cooled*
Adjustable AC-DC Ballasts

Have These *Improvements:*

- ✓ **1.** Air-Cooled Perforated Shell
- ✓ **2.** Larger Insulating Surface
- ✓ **3.** Longer Life, Heavier Resistance Wire
- ✓ **4.** Exact Adjustments made

List Price
$1.50
each

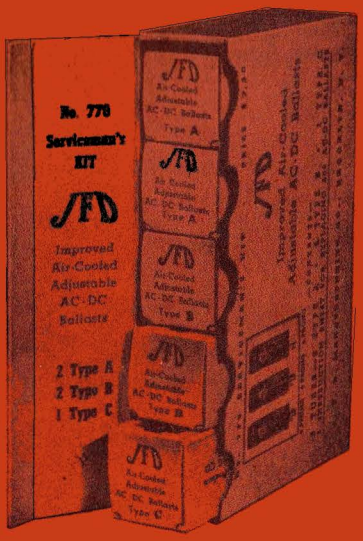
J F D MANUFACTURING CO.
4109-4123 FORT HAMILTON PARKWAY, BROOKLYN 19, N. Y.

JFD
PRECISION MADE

Dealer's and Serviceman's Kit

Improved • Air-Cooled

AC-DC Adjustable Ballasts



No. 770

SERVICEMEN'S KIT contains 5 Ballasts, 2 Type A, 2 Type B, 1 Type C Ballasts together with listing of over 2500 replacements and complete instructions.

List Price
$7.50

No. 780

JOBBER'S ASSORTMENT contains 50 Ballasts: 10 Type A, 30 Type B, 10 Type C Ballasts together with guide book and complete instructions. **List Price**
$75.00

Over 3,000,000 JFD Adjustable Ballasts have been sold since 1934 — practically every one still in use, giving service and satisfaction.

3 for 1 Replaces 3000!

1947 EDITION

BALLAST MANUAL

This new JFD Reference Work contains the most complete listing of replacement radio ballast tubes compiled to date!

In this gold-mine of information you will find data on more than 3000 different types of AC-DC Ballast Tubes, used in TEN MILLION radio sets at the present time.

Also included is valuable up-to-the-minute information on 220 to 110 volts stepdown ballasts of all types, for Radios, Phono-Radio Combinations, Electric Razors, Fluorescent Lamps, and other electrical appliances.

J. F. D. MANUFACTURING COMPANY

4109-4123 FORT HAMILTON PARKWAY

BROOKLYN 19, NEW YORK CITY

Entire Contents of this Book

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PRINTED IN U. S. A.

FORM NO. 572—4-47

INSTRUCTIONS

As will be noted in the pages following, the three types of J.F.D. adjustable Ballasts illustrated will serve to replace upward of two thousand of the ordinary types of ballast now in use.

Once adjusted, these ballasts will deliver the exact voltage of the ballasts replaced and will remain accuarte permanently.

No great stock is necessary nor will obsolete merchandise remain on your shelves as these three types will take the place of 99% of all ballasts requiring replacement.

With one simple motion the proper place to cut the foil and remove the prongs is clearly indicated.

No tools or experience is necessary.

For the convenience of our customers, we also list those special type ballasts which may be replaced by J.F.D. Exact duplicates (see page 47)

Before removing prongs or cutting foil, be sure that instructions are correctly followed and foil cut cleanly so that no electrical connections remain.

Ballasts are guaranteed only against factory defects and will not be replaced unless adjustments have been correctly made and the type ballast for which substitution was intended, is stated.

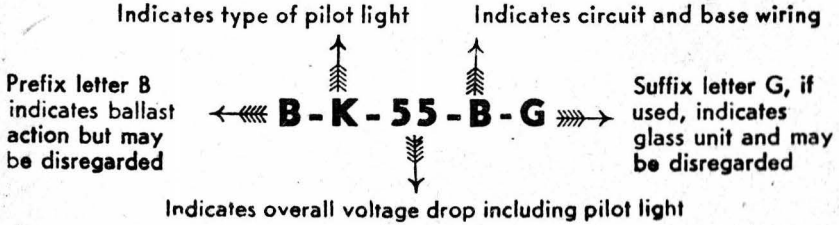
Adjust ballasts only according to instructions following—disregard all those previously issued.

Ballasts in AC-DC receivers are designed to function not only as voltage dropping resistors for the filament supply but also as voltage dividers for supplying current to the dial lamps. It is the voltage divider service that has caused the development of such a large number of different circuit arrangements and register values.

When ballasts were first introduced, no standardized system was made, resulting in a chaotic condition.

In order to alleviate this, the RMA has made efforts to standardize ballasts.

The RMA system for designating of type numbers is as follows.



When the unit is equipped with a 4 prong base this is indicated by inserting the letter "X" between the light designating letter and voltage drop numeral as LX55B.

With glass 4 prong base resistors a much used system was to have a number indicating the overall resistance as in type 185R4, i;e; the unit has an overall resistance of 185 ohms.

To convert this to the RMA code multiply the resistance by .3 to get voltage drop thus; 185X3=55.5 volt. This will be equivalent to a type KX55B. To find the resistance value of a ballast divide the voltage drop by .3.

To obtain voltage drop multiply .3 by resistance.

To get resistance divide voltage drop by .3.

Standard practice has envolved about 14 standard ballast circuits. These take the circuit letters A, B, C, D, E, EI, F, H, J, S, X, Y and Z illustrated in diagrams on pages 7-8 and are self-explanatory.

How to figure voltage drops.

The following seven voltage drops are included here as a guide to illustrate possible tube combinations with regard to voltage drop in the ballasts.

Voltage drop in ballast	Tube Combination
90	1-25 volt tube
80	2-6.3 volt and 1-25 volt tube
55	2-6.3 volt and 2.25 volt tube
49	3-6.3 volt and 2.25 volt tube
42	4-6.3 volt and 2-25 volt tube
36	5-6.3 volt and 2-25 volt tube
23	3-6.3 volt and 3-25 volt tubes.

As an example; in a 5 tube AC-DC set using 2-78, 1-75, 1-43 and 1 25Z5 a 49 volt ballast will be required.

It should be possible to figure a replacement for any ballast, even those not listed providing the voltage drop required and the base connection are known.

When ballast is not listed but is an R.M.A. number use nearest voltage drop as in the case K-48-B, cut as in K-49-B.

Notes

A BALLAST

The black section has no resistance shunt across it.

C BALLAST

There is a resistance connected between pins 3 and 4 at all times. This corresponds to the gray in A and B ballasts which vary in value as explained below.

*GRAY AND BROWN

The pilot lights are usually placed across the Brown and Gray section. Resistance of these will vary according to the conditions under which they are used.

The actual cold resistance of either Brown or Gray section is 30 ohms but varies either higher or lower when in actual use.

In operation with a pilot light in shunt the resistance is 20 ohms. When either one of these sections (Brown or Gray) is used alone with no other shunt cut, resistance value can be figured at 50 ohms. When either Brown or Gray is used without pilot light in shunt and with about 50% of the shunts or colors cut, the values of these sections will be about 60 ohms and will increase to 70 ohms if more are cut. (These are values when ballast is in actual use.)

Green strip has no resistance but can be used to isolate the pilot light section so that types such as J, H, and F ballasts can be replaced.

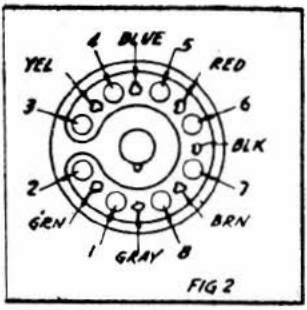


FIG 2

8 Prong

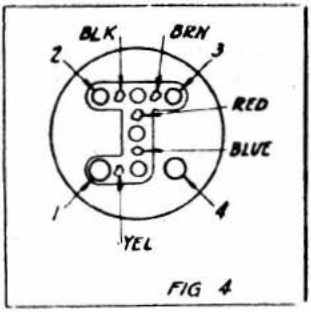


FIG 4

4 Prong

NOTE: In several cases the same number is used for 4 prong and 8 prong ballasts. Before replacing, check carefully to see which was used as original equipment.

It is our purpose to keep this list complete and up to date.

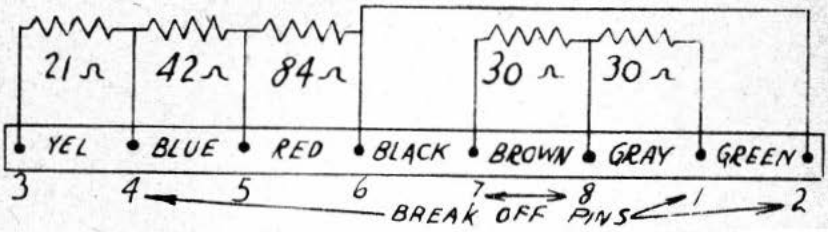
•

Fill out the enclosed slip and return to us — the latest changes and additions will be promptly mailed to you.

We are indebted to the Radio & Technical Publishing Co. of New York for assistance in preparing the technical data.

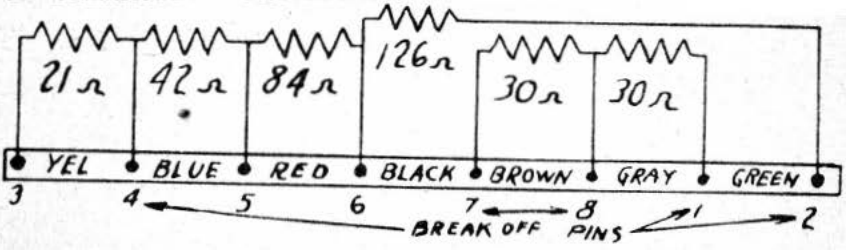
We show below schematic diagrams of the A, B and C ballasts. The color on foil between the pins shows the various resistance values between them. The values for the different colors are as follows.

A BALLAST — OCTAL BASE.



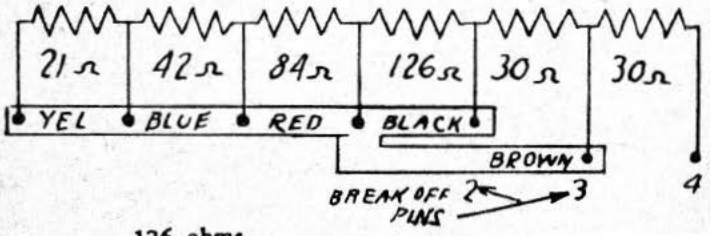
Black ..... 0 ohms
Yellow .....21 ohms
Blue .....42 ohms
Red .....84 ohms
Brown .....various ohmage; see explanation below
Gray same as Brown
Green ..... 0 ohms

B BALLASTS — OCTAL BASE.



Black .....126 ohms
Yellow ..... 21 ohms
Blue ..... 42 ohms
Red ..... 84 ohms
Brown, Gray differ in type of resistance—see explanation below.*
Green ..... 0 ohms

C BALLASTS — 4 PRONG UX BASE.



Black .....126 ohms
Red ..... 84 ohms
Blue ..... 42 ohms
Yellow ..... 21 ohms
Brown depends on type ballast see explanation below.*

JFD BASE WIRING CHANGES

Note 1

Make changes on set socket as shown below.

Original Wiring

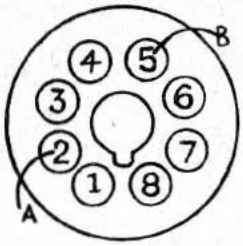


Fig. 1—Bottom View

New Wiring

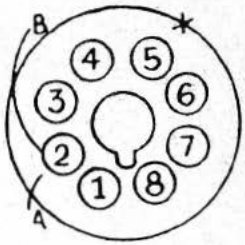


Fig. 2—Bottom View

Remove all wires from Lug **2** and tape up to prevent shorting.
Remove all wires from Lug **5** and solder to Lug **2.**

Note 2

Make changes on set socket as shown below.

Original Wiring

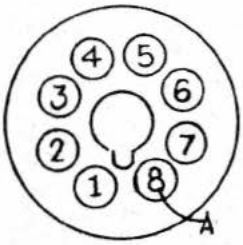


Fig. 1—Bottom View

New Wiring

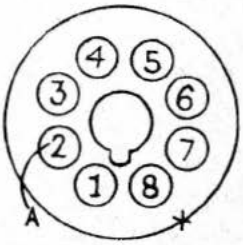


Fig. 2—Bottom View

Remove all wires from Lug **8** and solder to Lug **2.**

Note 3

Make changes on set socket as shown below.

Original Wiring

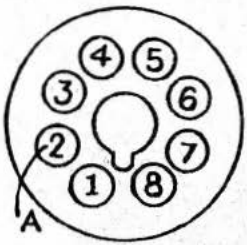


Fig. 1—Bottom View

New Wiring

Fig. 2—Bottom View

Remove all wires from Lug **2** and solder to Lug **3.**

JFD BASE WIRING CHANGES

Note 4 Make changes on set socket as shown below.

Original Wiring

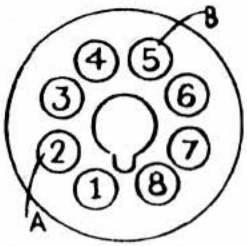


Fig. 1—Bottom View

New Wiring

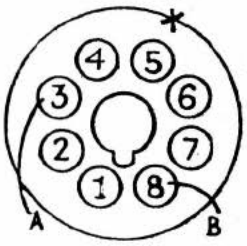


Fig. 2—Bottom View

Remove all wires from Lug **2** and solder to Lug **3.** If Lug 3 has any wires, remove and tape up to prevent shorting.

Remove all wires from Lug **5** and solder to Lug **8.** If Lug 8 has any wires, remove and tape up to prevent shorting.

Note 5 Make changes on set socket as shown below.

Original Wiring

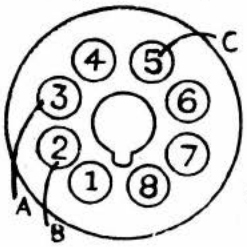


Fig. 1—Bottom View

New Wiring

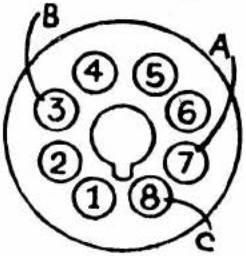


Fig. 2—Bottom View

Remove all wires from Lug **3** and solder to Lug **7.** Do not remove wires from Lug 7.

Remove all wires from Lug **2** and solder to Lug **3.**

Remove all wires from Lug **5** and solder to Lug **8.** If Lug 8 has any wires, remove and tape up to prevent shorting.

Note 6 Make changes on set socket as shown below.

Original Wiring

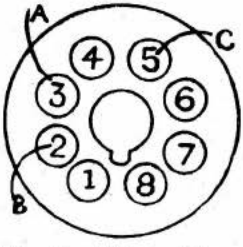


Fig. 1—Bottom View

New Wiring

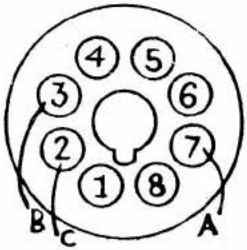


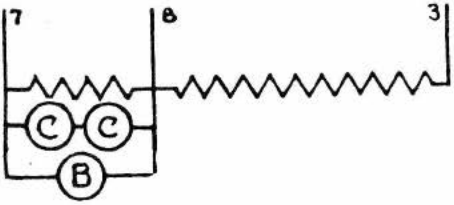
Fig. 2—Bottom View

Remove all wires from Lug **3** and solder to Lug **7.** Do not remove wires from Lug 7.

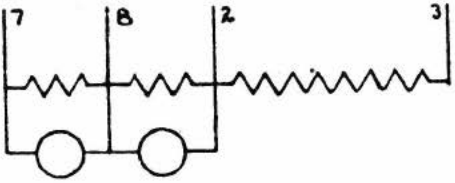
Remove all wires from Lug **2** and solder to Lug **3.**

Remove all wires from Lug **5** and solder to Lug **2.**

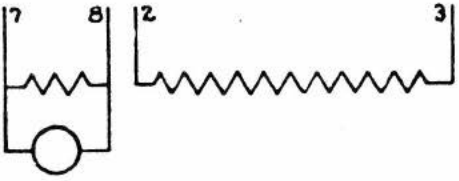
A Circuit



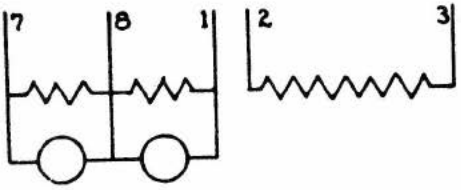
B or C Circuit



D Circuit

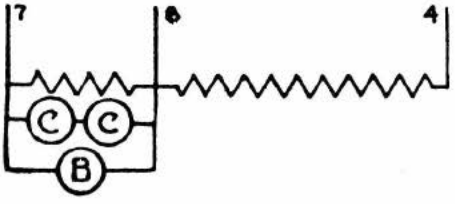


F Circuit



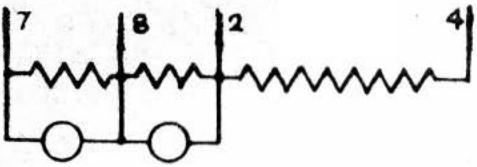
H Circuit

AJ Circuit



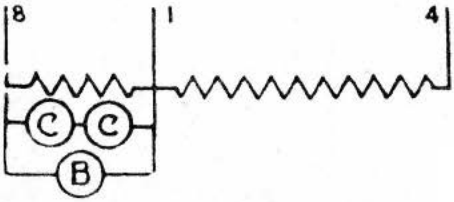
BJ or CJ Circuit

JFD R. M. A. BASE WIRING DIAGRAMS

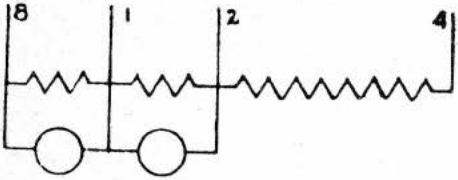


DJ Circuit

Y-A Circuit

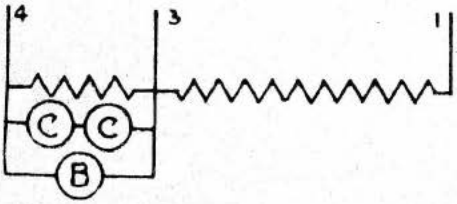


Y-B or C Circuit

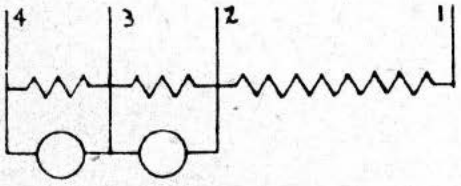


Y-D Circuit

X-A Circuit



X-B or C Circuit

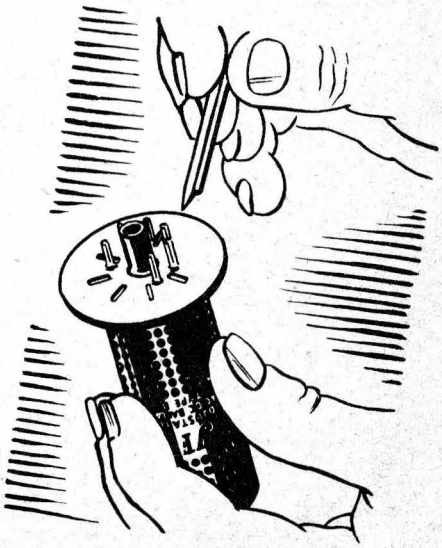


X-D Circuit

JFD TEMPLATE AND CUTTER

just do this —

then this



simple, isn't it?

JFD AC–DC ADJUSTABLE BALLASTS

Nos. 2 to 6

Ballast No.	Use J.F.D. Type	Break off Pins	CUT	STRIP AT	COLORS					See Notes
2LR212	B	1-2-4	BLACK	BROWN		BLUE				
2UR224	B	1-2-4	BLACK	BROWN	YELLOW					
2VR215	B	1-2-4	BLACK	BROWN		BLUE				
3,25	C	2	BLACK	BROWN	YELLOW					
3CR241	A	1-4	BLACK	BROWN		BLUE	RED	GRAY		
3ER248	B	1	BLACK	BROWN				GRAY		
3MR-253*										
03G*										
4SR-311*										
4XR308	B	1-4	BLACK	BROWN	YELLOW	BLUE		GRAY		
C4B*										
5B	C	2			YELLOW	BLUE	RED			
C-5-B*										
D5-B*										
WRL-5*										
6.125	B	1	BLACK	BROWN				GRAY		
6.126	A	1	BLACK	BROWN			RED	GRAY		
6.128*										
6.129	B	1	BLACK	BROWN				GRAY		
6.130*										
6.133	B	1-2-8	BLACK			BLUE				
6.134*										
6.135	A	1-2-8	BLACK	BROWN		BLUE				
6.141*										
6.142*										
6A	A	1-2-4-8			YELLOW					
6B	C	2			YELLOW	BLUE	RED			
D6B*										
E6B*										
K6A	A	1-2-4-8			YELLOW					
K6B	A	1-2-4	BLACK	BROWN						
K6BJ	A	1-2	BLACK	BROWN						
K6C	A	1-2-4	BLACK	BROWN						
K6CJ	A	1-2	BLACK	BROWN						
K6F	A	1-4	BLACK	BROWN					GREEN	
K6S1	A	1-2-4	BLACK	BROWN						5
K6S2	A	1-2-4	BLACK	BROWN						5
KY6B	A	2-7	BLACK					GRAY		
KY6C	A	2-7	BLACK					GRAY		
KY6D	A	1-7	BLACK					GRAY		
KZ6B	A	1-2-4	BLACK	BROWN						4
KZ6C	A	1-2-4	BLACK	BROWN						4
L6A	A	1-2-4-8			YELLOW					
L6B	A	1-2-4	BLACK	BROWN						
L6BJ	A	1-2	BLACK	BROWN						
L6C	A	1-2-4	BLACK	BROWN						
L6CJ	A	1-2	BLACK	BROWN						
L6F	A	1-4	BLACK	BROWN					GREEN	
L6S1	A	1-2-4	BLACK	BROWN						5
L6S2	A	1-2-4	BLACK	BROWN						5
LY6B	A	2-7	BLACK					GRAY		
LY6C	A	2-7	BLACK					GRAY		
LY6D	A	1-7	BLACK					GRAY		
LZ6B	A	1-2-4	BLACK	BROWN						4
LZ6C	A	1-2-4	BLACK	BROWN						4
M6A	A	1-2-4-8			YELLOW					
M6B	A	1-2-4	BLACK	BROWN						
M6BJ	A	1-2	BLACK	BROWN						
M6C	A	1-2-4	BLACK	BROWN						
M6CJ	A	1-2	BLACK	BROWN						
M6F	A	1-4	BLACK	BROWN					GREEN	

*See pages 47-50

NOTES: See pages 5-6

JFD AC–DC ADJUSTABLE BALLASTS

Nos. 6 to 11

Ballast No.	Use J.F.D. Type	Break off Pins	CUT STRIP AT		COLORS					See Notes
M6S1	A	1-2-4	BLACK	BROWN						5
M6S2	A	1-2-4	BLACK	BROWN						5
MY6B	A	2-7	BLACK				GRAY			
MY6C	A	2-7	BLACK				GRAY			
MY6D	A	1-7	BLACK				GRAY			
MZ6B	A	1-2-4	BLACK	BROWN						4
MZ6C	A	1-2-4	BLACK	BROWN						4
Z6A	A	1-2-4-8			YELLOW					3
YTU9	B	1-2-4	BLACK	BROWN		BLUE				
10*23	A	1-4	BLACK	BROWN	YELLOW	BLUE			GREEN	
10.610*										
10.800*										
11A	A	1-2-4-8				BLUE				
11AJ	A	1-2-8				BLUE				
11KA	A	1-2-4-8				BLUE				
11KB	A	1-2-4	BLACK	BROWN	YELLOW					
11KC	A	1-2-4	BLACK	BROWN	YELLOW					
11KD	A	1-4	BLACK	BROWN			GRAY			
11LB	A	1-2-4	BLACK	BROWN	YELLOW					
11LC	A	1-2-4	BLACK	BROWN	YELLOW					
11LD	A	1-4	BLACK	BROWN			GRAY			
BK11B	A	1-2-4	BLACK	BROWN	YELLOW					
BK11C	A	1-2-4	BLACK	BROWN	YELLOW					
BK11D	A	1-4	BLACK	BROWN			GRAY			
K11A	A	1-2-4-8				BLUE				
K11AJ	A	1-2-8				BLUE				
K11B	A	1-2-4	BLACK	BROWN	YELLOW					
K11BJ	A	1-2	BLACK	BROWN						
K11C	A	1-2-4	BLACK	BROWN	YELLOW					
K11CJ	A	1-2	BLACK	BROWN						
K11D	A	1-4	BLACK	BROWN			GRAY			
K11DJ	A	1	BLACK	BROWN			GRAY			
K11E	A	1-4-8	BLACK	BROWN			GRAY			1
K11E1	A	1-4-8	BLACK	BROWN			GRAY			2
K11F	A	1-4	BLACK	BROWN	YELLOW				GREEN	
K11H	A	4	BLACK	BROWN			GRAY		GREEN	
K11S1	A	1-2-4	BLACK	BROWN	YELLOW					5
K11S2	A	1-2-4	BLACK	BROWN	YELLOW					5
K11S3	A	1-4-8	BLACK	BROWN			GRAY			6
KY11A	A	1-2-7	BLACK			BLUE				
KY11B	A	2-7	BLACK			BLUE	GRAY			
KY11C	A	2-7	BLACK			BLUE	GRAY			
KY11D	A	1-7	BLACK			BLUE	GRAY			
KZ11B	A	1-2-4	BLACK	BROWN	YELLOW					4
KZ11C	A	1-2-4	BLACK	BROWN	YELLOW					4
L11A	A	1-2-4-8				BLUE				
L11AJ	A	1-2-8				BLUE				
L11B	A	1-2-4	BLACK	BROWN	YELLOW					
L11BJ	A	1-2	BLACK	BROWN						
L11C	A	1-2-4	BLACK	BROWN	YELLOW					
L11CJ	A	1-2	BLACK	BROWN						
L11D	A	1-4	BLACK	BROWN			GRAY			
L11DJ	A	1	BLACK	BROWN			GRAY			
L11E	A	1-4-8	BLACK	BROWN			GRAY			1
L11E1	A	1-4-8	BLACK	BROWN			GRAY			2
L11F	A	1-4	BLACK	BROWN	YELLOW				GREEN	
L11H	A	4	BLACK	BROWN			GRAY		GREEN	
L11S1	A	1-2-4	BLACK	BROWN	YELLOW					5
L11S2	A	1-2-4	BLACK	BROWN	YELLOW					5
L11S3	A	1-4-8	BLACK	BROWN			GRAY			6
LY11A	A	1-2-7	BLACK			BLUE				

*See pages 47-50

NOTES: See pages 5-6

JFD AC–DC ADJUSTABLE BALLASTS

Nos. 11 to 17

No. Ballast	Use Type J.F.D.	Break Pins off	CUT STRIP AT COLORS								See Notes
LY11B	A	2-7	BLACK			BLUE		GRAY			
LY11C	A	2-7	BLACK			BLUE		GRAY			
LY11D	A	1-7	BLACK			BLUE		GRAY			
LZ11B	A	1-2-4	BLACK	BROWN	YELLOW						4
LZ11C	A	1-2-4	BLACK	BROWN	YELLOW						4
M11A	A	1-2-4-8				BLUE					
M11AJ	A	1-2-8				BLUE					
M11B	A	1-2-4	BLACK	BROWN	YELLOW						
M11BJ	A	1-2	BLACK	BROWN							
M11C	A	1-2-4	BLACK	BROWN	YELLOW						
M11CJ	A	1-2	BLACK	BROWN							
M11D	A	1-4	BLACK	BROWN				GRAY			
M11DJ	A	1	BLACK	BROWN				GRAY			
M11E	A	1-4-8	BLACK	BROWN				GRAY			1
M11E1	A	1-4-8	BLACK	BROWN				GRAY			2
M11F	A	1-4	BLACK	BROWN	YELLOW					GREEN	
M11H	A	4	BLACK	BROWN				GRAY		GREEN	
M11S1	A	1-2-4	BLACK	BROWN	YELLOW						5
M11S2	A	1-2-4	BLACK	BROWN	YELLOW						5
M11S3	A	1-4-8	BLACK	BROWN				GRAY			6
MY11A	A	1-2-7	BLACK			BLUE					
MY11B	A	2-7	BLACK			BLUE		GRAY			
MY11C	A	2-7	BLACK			BLUE		GRAY			
MY11D	A	1-7	BLACK			BLUE		GRAY			
MZ11B	A	1-2-4	BLACK	BROWN	YELLOW						4
MZ11C	A	1-2-4	BLACK	BROWN	YELLOW						4
Y11A	A	1-2-7	BLACK			BLUE					
Z11A	A	1-2-4-8				BLUE					3
K13J36	B	1-2-4	BLACK	BROWN	YELLOW						
14LD	C	NONE		BROWN	YELLOW		RED				
BK15B	A	1-2-4	BLACK	BROWN			RED				
17A	A	1-2-4-8		BROWN							
17AJ	A	1-2-8	BLACK	BROWN							
17KA	A	1-2-4-8		BROWN							
17KB	A	1-2-4	BLACK	BROWN		BLUE					
17KC	A	1-2-4	BLACK	BROWN		BLUE					
17KD	A	1-4	BLACK	BROWN	YELLOW			GRAY			
17KE	A	1-4-8	BLACK	BROWN	YELLOW			GRAY			1
17LB	A	1-2-4	BLACK	BROWN		BLUE					
17LC	A	1-2-4	BLACK	BROWN		BLUE					
17LD	A	1-4	BLACK	BROWN	YELLOW			GRAY			
17MB	A	1-2-4	BLACK	BROWN		BLUE					
17MC	A	1-2-4	BLACK	BROWN		BLUE					
17MD	A	1-4	BLACK	BROWN	YELLOW			GRAY			
BK17B	A	1-2-4	BLACK	BROWN		BLUE					
BK17C	A	1-2-4	BLACK	BROWN		BLUE					
BK17D	A	1-4	BLACK	BROWN	YELLOW			GRAY			
BM17B	A	1-2-4	BLACK	BROWN		BLUE					
BM17C	A	1-2-4	BLACK	BROWN		BLUE					
BM17D	A	1-4	BLACK	BROWN	YELLOW			GRAY			
K17A	A	1-2-4-8		BROWN							
K17AG	A	1-2-4-8		BROWN							
K17AJ	A	1-2-8	BLACK	BROWN							
K17B	A	1-2-4	BLACK	BROWN		BLUE					
K17BG	A	1-2-4	BLACK	BROWN		BLUE					
K17BJ	A	1-2	BLACK	BROWN		BLUE					
K17C	A	1-2-4	BLACK	BROWN		BLUE					
K17CG	A	1-2-4	BLACK	BROWN		BLUE					
K17CJ	A	1-2	BLACK	BROWN		BLUE					
K17D	A	1-4	BLACK	BROWN	YELLOW			GRAY			
K17DG	A	1-4	BLACK	BROWN	YELLOW			GRAY			

*See pages 47-50

NOTES: See pages 5-6

JFD AC–DC ADJUSTABLE BALLASTS

No. 17

Ballast No.	Use J.F.D. Type	Break off Pins	CUT STRIP AT		COLORS				See Notes
K17DJ	A	1	BLACK	BROWN			GRAY		
K17E	A	1-4-8	BLACK	BROWN	YELLOW		GRAY		1
K17EI	A	1-4-8	BLACK	BROWN	YELLOW		GRAY		2
K17F	A	1-4	BLACK	BROWN		BLUE		GREEN	
K17H	A	4	BLACK	BROWN	YELLOW		GRAY	GREEN	
K17R*									
K17S1	A	1-2-4	BLACK	BROWN		BLUE			5
K17S2	A	1-2-4	BLACK	BROWN		BLUE			5
K17S3	A	1-4-8	BLACK	BROWN	YELLOW		GRAY		6
KY17A	A	1-2-7	BLACK				GRAY		
KY17B	A	2-7	BLACK			BLUE	GRAY		
KY17C	A	2-7	BLACK			BLUE	GRAY		
KY17D	A	1-7	BLACK			BLUE	GRAY		
KZ17A	A	1-2-4-8		BROWN					3
KZ17B	A	1-2-4	BLACK	BROWN		BLUE			4
KZ17C	A	1-2-4	BLACK	BROWN		BLUE			4
L17A	A	1-2-4-8		BROWN					
L17AJ	A	1-2-8	BLACK	BROWN					
L17B	A	1-2-4	BLACK	BROWN		BLUE			
L17BJ	A	1-2	BLACK	BROWN		BLUE			
L17C	A	1-2-4	BLACK	BROWN		BLUE			
L17CJ	A	1-2	BLACK	BROWN		BLUE			
L17D	A	1-4	BLACK	BROWN	YELLOW		GRAY		
L17DJ	A	1	BLACK	BROWN			GRAY		
L17E	A	1-4-8	BLACK	BROWN	YELLOW		GRAY		1
L17EI	A	1-4-8	BLACK	BROWN	YELLOW		GRAY		2
L17F	A	1-4	BLACK	BROWN		BLUE		GREEN	
L17H	A	4	BLACK	BROWN	YELLOW		GRAY	GREEN	
L17S1	A	1-2-4	BLACK	BROWN		BLUE			5
L17S2	A	1-2-4	BLACK	BROWN		BLUE			5
L17S3	A	1-4-8	BLACK	BROWN	YELLOW		GRAY		6
LY17A	A	1-2-7	BLACK				GRAY		
LY17B	A	2-7	BLACK			BLUE	GRAY		
LY17C	A	2-7	BLACK			BLUE	GRAY		
LY17D	A	1-7	BLACK			BLUE	GRAY		
LZ17A	A	1-2-4-8		BROWN					3
LZ17B	A	1-2-4	BLACK	BROWN		BLUE			4
LZ17C	A	1-2-4	BLACK	BROWN		BLUE			4
M17A	A	1-2-4-8		BROWN					
M17AJ	A	1-2-8	BLACK	BROWN					
M17B	A	1-2-4	BLACK	BROWN		BLUE			
M17BG	A	1-2-4	BLACK	BROWN		BLUE			
M17BJ	A	1-2	BLACK	BROWN		BLUE			
M17C	A	1-2-4	BLACK	BROWN		BLUE			
M17CG	A	1-2-4	BLACK	BROWN		BLUE			
M17CJ	A	1-2	BLACK	BROWN		BLUE			
M17D	A	1-4	BLACK	BROWN	YELLOW		GRAY		
M17DG	A	1-4	BLACK	BROWN	YELLOW		GRAY		
M17DJ	A	1	BLACK	BROWN			GRAY		
M17E	A	1-4-8	BLACK	BROWN	YELLOW		GRAY		1
M17EI	A	1-4-8	BLACK	BROWN	YELLOW		GRAY		2
M17F	A	1-4	BLACK	BROWN		BLUE		GREEN	
M17FG	A	1-4	BLACK	BROWN		BLUE		GREEN	
M17H	A	4	BLACK	BROWN	YELLOW		GRAY	GREEN	
M17HG	A	4	BLACK	BROWN	YELLOW		GRAY	GREEN	
M17S1	A	1-2-4	BLACK	BROWN		BLUE			5
M17S2	A	1-2-4	BLACK	BROWN		BLUE			5
M17S3	A	1-4-8	BLACK	BROWN	YELLOW		GRAY		6
MY17A	A	1-2-7	BLACK				GRAY		
MY17B	A	2-7	BLACK			BLUE	GRAY		
MY17C	A	2-7	BLACK			BLUE	GRAY		

*See pages 47-50

NOTES: See pages 5-6

AC–DC ADJUSTABLE BALLASTS

Nos. 17 to 23

Ballast No.	Use J.F.D. Type	Break off Pins	CUT STRIP AT COLORS							See Notes
MY17D	A	1-7	BLACK			BLUE		GRAY		
MZ17A	A	1-2-4-8		BROWN						3
MZ17B	A	1-2-4	BLACK	BROWN		BLUE				4
MZ17C	A	1-2-4	BLACK	BROWN		BLUE				4
Y17A	A	1-2-7	BLACK					GRAY		
Z17A	A	1-2-4-8		BROWN						3
K22B	A	1-2-4	BLACK	BROWN	YELLOW	BLUE				
K22B2*										
K22C	A	1-2-4	BLACK	BROWN	YELLOW	BLUE				
23A	A	1-2-4-8					RED			
23AJ	A	1-2-8	BLACK				RED			
23KB	A	1-2-4	BLACK	BROWN	YELLOW	BLUE				
23KC	A	1-2-4	BLACK	BROWN	YELLOW	BLUE				
23KD	A	1-4	BLACK	BROWN		BLUE		GRAY		
23LB	A	1-2-4	BLACK	BROWN	YELLOW	BLUE				
BK23D	A	1-4	BLACK	BROWN		BLUE		GRAY		
BM23B	A	1-2-4	BLACK	BROWN	YELLOW	BLUE				
BM23C	A	1-2-4	BLACK	BROWN	YELLOW	BLUE				
BM23D	A	1-4	BLACK	BROWN		BLUE		GRAY		
K23A	A	1-2-4-8					RED			
K23AJ	A	1-2-8	BLACK				RED			
K23B	A	1-2-4	BLACK	BROWN	YELLOW	BLUE				
K23BJ	A	1-2	BLACK	BROWN				GRAY		
K23C	A	1-2-4	BLACK	BROWN	YELLOW	BLUE				
K23CJ	A	1-2	BLACK	BROWN				GRAY		
K23D	A	1-4	BLACK	BROWN		BLUE		GRAY		
K23DJ	A	1	BLACK	BROWN		BLUE		GRAY		
K23E	A	1-4-8	BLACK	BROWN		BLUE		GRAY		1
K23E1	A	1-4-8	BLACK	BROWN		BLUE		GRAY		2
K23F	A	1-4	BLACK	BROWN	YELLOW	BLUE			GREEN	
K23H	A	4	BLACK	BROWN		BLUE		GRAY	GREEN	
K23S1	A	1-2-4	BLACK	BROWN	YELLOW	BLUE				5
K23S2	A	1-2-4	BLACK	BROWN	YELLOW	BLUE				5
K23S3	A	1-4-8	BLACK	BROWN		BLUE		GRAY		6
KX23A	C	2-3			YELLOW					
KX23B	C	2			YELLOW	BLUE				
KX23C	C	2			YELLOW	BLUE				
KX23D	C	NONE		BROWN		BLUE				
KX23R	C	2-3				BLUE				
KY23A	A	1-2-7	BLACK				RED			
KY23B	A	2-7	BLACK			BLUE		GRAY		
KY23C	A	2-7	BLACK			BLUE		GRAY		
KY23D	A	1-7	BLACK			BLUE		GRAY		
KZ23B	A	1-2-4	BLACK	BROWN	YELLOW	BLUE				4
KZ23C	A	1-2-4	BLACK	BROWN	YELLOW	BLUE				4
L23A	A	1-2-4-8					RED			
L23AJ	A	1-2-8	BLACK				RED			
L23B	A	1-2-4	BLACK	BROWN	YELLOW	BLUE				
L23BJ	A	1-2	BLACK	BROWN				GRAY		
L23C	A	1-2-4	BLACK	BROWN	YELLOW	BLUE				
L23CJ	A	1-2	BLACK	BROWN				GRAY		
L23D	A	1-4	BLACK	BROWN		BLUE		GRAY		
L23DJ	A	1	BLACK	BROWN		BLUE		GRAY		
L23E	A	1-4-8	BLACK	BROWN		BLUE		GRAY		1
L23E1	A	1-4-8	BLACK	BROWN		BLUE		GRAY		2
L23F	A	1-4	BLACK	BROWN	YELLOW	BLUE			GREEN	
L23H	A	4	BLACK	BROWN		BLUE		GRAY	GREEN	
L23S1	A	1-2-4	BLACK	BROWN	YELLOW	BLUE				5
L23S2	A	1-2-4	BLACK	BROWN	YELLOW	BLUE				5
L23S3	A	1-4-8	BLACK	BROWN		BLUE		GRAY		6
LX23A	C	2-3			YELLOW					

*See pages 47-50

NOTES: See pages 5-6

JFD AC–DC ADJUSTABLE BALLASTS

Nos. 23 to 30

Ballast No.	Use J.F.D. Type	Break off Pins	CUT STRIP AT								See Notes
LX23B	C	2			YELLOW	BLUE					
LX23C	C	2			YELLOW	BLUE					
LX23D	C	NONE		BROWN		BLUE					
LY23A	A	1-2-7	BLACK				RED				
LY23B	A	2-7	BLACK			BLUE		GRAY			
LY23C	A	2-7	BLACK			BLUE		GRAY			
LY23D	A	1-7	BLACK			BLUE		GRAY			
LZ23B	A	1-2-4	BLACK	BROWN	YELLOW	BLUE					4
LZ23C	A	1-2-4	BLACK	BROWN	YELLOW	BLUE					4
M23A	A	1-2-4-8					RED				
M23AJ	A	1-2-8	BLACK				RED				
M23B	A	1-2-4	BLACK	BROWN	YELLOW	BLUE					
M23BG	A	1-2-4	BLACK	BROWN	YELLOW	BLUE					
M23BJ	A	1-2	BLACK	BROWN				GRAY			
M23C	A	1-2-4	BLACK	BROWN	YELLOW	BLUE					
M23CG	A	1-2-4	BLACK	BROWN	YELLOW	BLUE					
M23CJ	A	1-2	BLACK	BROWN				GRAY			
M23D	A	1-4	BLACK	BROWN		BLUE		GRAY			
M23DG	A	1-4	BLACK	BROWN		BLUE		GRAY			
M23DJ	A	1	BLACK	BROWN		BLUE		GRAY			
M23E	A	1-4-8	BLACK	BROWN		BLUE		GRAY			1
M23E1	A	1-4-8	BLACK	BROWN		BLUE		GRAY			2
M23F	A	1-4	BLACK	BROWN	YELLOW	BLUE			GREEN		
M23H	A	4	BLACK	BROWN		BLUE		GRAY	GREEN		
M23S1	A	1-2-4	BLACK	BROWN	YELLOW	BLUE					5
M23S2	A	1-2-4	BLACK	BROWN	YELLOW	BLUE					5
M23S3	A	1-4-8	BLACK	BROWN		BLUE		GRAY			6
MX23A	C	2-3			YELLOW						
MX23B	C	2			YELLOW	BLUE					
MX23C	C	2			YELLOW	BLUE					
MX23D	C	NONE		BROWN		BLUE					
MY23A	A	1-2-7	BLACK				RED				
MY23B	A	2-7	BLACK			BLUE		GRAY			
MY23D	A	2-7	BLACK			BLUE		GRAY			
MY23C	A	1-7	BLACK			BLUE		GRAY			
MZ23B	A	1-2-4	BLACK	BROWN	YELLOW	BLUE					4
MZ23C	A	1-2-4	BLACK	BROWN	YELLOW	BLUE					4
UX23	C	2-3				BLUE					
X23A	C	2-3			YELLOW						
Y23A	A	1-2-7	BLACK				RED				
Z23A	A	1-2-4-8					RED				3
K24C	A	1-2-4	BLACK	BROWN	YELLOW	BLUE					
K25B	A	1-2-4	BLACK	BROWN			RED				
L26B	A	1-2-4	BLACK	BROWN			RED				
L26CC	A	1-4	BLACK	BROWN		BLUE		GRAY			
L26-CC159*											
27A	A	1-2-4-8			YELLOW		RED				
KX27A	C	2-3				BLUE					
M27F	A	1-4	BLACK	BROWN			RED		GREEN		
M27FG	A	1-4	BLACK	BROWN			RED		GREEN		
M27H	A	4	BLACK	BROWN		BLUE		GRAY	GREEN		
BK29C	A	1-2-4	BLACK	BROWN			RED				
BK29D-10	B	1-2-4	BLACK	BROWN	YELLOW						
K29A	A	1-2-4-8			YELLOW		RED				
30A	A	1-2-4-8			YELLOW		RED				
30AJ	A	1-2-8	BLACK	BROWN		BLUE					
30KB	A	1-2-4	BLACK	BROWN			RED				
30KC	A	1-2-4	BLACK	BROWN			RED				
30KD	A	1-4	BLACK	BROWN	YELLOW	BLUE		GRAY			
30LB	A	1-2-4	BLACK	BROWN			RED				
30LC	A	1-2-4	BLACK	BROWN			RED				

*See pages 47-50

NOTES: See pages 5-6

JFD AC–DC ADJUSTABLE BALLASTS

No. 30

Ballast No.	Use J.F.D. Type	Break off Pins	CUT STRIP AT		COLORS					See Notes
30LD	A	1-4	BLACK	BROWN	YELLOW	BLUE		GRAY		
BK30B	A	1-2-4	BLACK	BROWN			RED			
BK30C	A	1-2-4	BLACK	BROWN			RED			
BK30D	A	1-4	BLACK	BROWN	YELLOW	BLUE		GRAY		
BK30H	A	4	BLACK	BROWN	YELLOW	BLUE		GRAY	GREEN	
BM30B	A	1-2-4	BLACK	BROWN			RED			
BM30C	A	1-2-4	BLACK	BROWN			RED			
BM30D	A	1-4	BLACK	BROWN	YELLOW	BLUE		GRAY		
K30A	A	1-2-4-8			YELLOW		RED			
K30AJ	A	1-2-8	BLACK	BROWN		BLUE				
K30B	A	1-2-4	BLACK	BROWN			RED			
K30B2	A	1-2-4	BLACK	BROWN			RED			
K30BG	A	1-2-4	BLACK	BROWN			RED			
K30BJ	A	1-2	BLACK	BROWN			RED			
K30C	A	1-2-4	BLACK	BROWN			RED			
K30CG	A	1-2-4	BLACK	BROWN			RED			
K30CJ	A	1-2	BLACK	BROWN			RED			
K30D	A	1-4	BLACK	BROWN	YELLOW	BLUE		GRAY		
K30DG	A	1-4	BLACK	BROWN	YELLOW	BLUE		GRAY		
K30DJ	A	1	BLACK	BROWN			RED	GRAY		
K30E	A	1-4-8	BLACK	BROWN	YELLOW	BLUE		GRAY		1
K30EI	A	1-4-8	BLACK	BROWN	YELLOW	BLUE		GRAY		2
K30F	A	1-4	BLACK	BROWN			RED		GREEN	
K30H	A	4	BLACK	BROWN	YELLOW	BLUE		GRAY	GREEN	
K30HG	A	4	BLACK	BROWN	YELLOW	BLUE		GRAY	GREEN	
K30S1	A	1-2-4	BLACK	BROWN			RED			5
K30S2	A	1-2-4	BLACK	BROWN			RED			5
K30S3	A	1-4-8	BLACK	BROWN	YELLOW	BLUE		GRAY		6
KX30A	C	2-3				BLUE				
KX30B	C	2					RED			
KX30C	C	2					RED			
KX30D	C	NONE		BROWN	YELLOW	BLUE				
KY30A	A	1-2-7	BLACK			BLUE		GRAY		
KY30B	A	2-7	BLACK				RED	GRAY		
KY30C	A	2-7	BLACK				RED	GRAY		
KY30D	A	1-7	BLACK				RED	GRAY		
KZ30B	A	1-2-4	BLACK	BROWN			RED			4
KZ30C	A	1-2-4	BLACK	BROWN			RED			4
L30A	A	1-2-4-8			YELLOW		RED			
L30AJ	A	1-2-8	BLACK	BROWN		BLUE				
L30B	A	1-2-4	BLACK	BROWN			RED			
L30BJ	A	1-2	BLACK	BROWN			RED			
L30C	A	1-2-4	BLACK	BROWN			RED			
L30CC	A	1-4	BLACK	BROWN	YELLOW	BLUE		GRAY		
L30CJ	A	1-2	BLACK	BROWN			RED			
L30D	A	1-4	BLACK	BROWN	YELLOW	BLUE		GRAY		
L30DJ	A	1	BLACK	BROWN			RED	GRAY		
L30E	A	1-4-8	BLACK	BROWN	YELLOW	BLUE		GRAY		1
L30EI	A	1-4-8	BLACK	BROWN	YELLOW	BLUE		GRAY		2
L30F	A	1-4	BLACK	BROWN			RED		GREEN	
L30H	A	4	BLACK	BROWN	YELLOW	BLUE		GRAY	GREEN	
L30S1	A	1-2-4	BLACK	BROWN			RED			5
L30S2	A	1-2-4	BLACK	BROWN			RED			5
L30S3	A	1-4-8	BLACK	BROWN	YELLOW	BLUE		GRAY		6
LX30A	C	2-3				BLUE				
LX30B	C	2					RED			
LX30C	C	2					RED			
LX30D	C	NONE		BROWN	YELLOW	BLUE				
LY30A	A	1-2-7	BLACK			BLUE		GRAY		
LY30B	A	2-7	BLACK				RED	GRAY		
LY30C	A	2-7	BLACK				RED	GRAY		

*See pages 47-50

NOTES: See pages 5-6

J.F.D. A.C.–D.C. ADJUSTABLE BALLASTS

Nos. 30 to 34

Ballast No.	Use J.F.D. Type	Break off Pins	CUT STRIP AT COLORS							See Notes
LY30D	A	1-7	BLACK				RED	GRAY		
LZ30B	A	1-2-4	BLACK	BROWN			RED			4
LZ30C	A	1-2-4	BLACK	BROWN			RED			4
M30A	A	1-2-4-8			YELLOW		RED			
M30AJ	A	1-2-8	BLACK	BROWN		BLUE				
M30B	A	1-2-4	BLACK	BROWN			RED			
M30BG	A	1-2-4	BLACK	BROWN			RED			
M30BJ	A	1-2	BLACK	BROWN			RED			
M30C	A	1-2-4	BLACK	BROWN			RED			
M30CG	A	1-2-4	BLACK	BROWN			RED			
M30CJ	A	1-2	BLACK	BROWN			RED			
M30D	A	1-4	BLACK	BROWN	YELLOW	BLUE		GRAY		
M30DG	A	1-4	BLACK	BROWN	YELLOW	BLUE		GRAY		
M30DJ	A	1	BLACK	BROWN			RED	GRAY		
M30E	A	1-4-8	BLACK	BROWN	YELLOW	BLUE		GRAY		1
M30EI	A	1-4-8	BLACK	BROWN	YELLOW	BLUE		GRAY		2
M30F	A	1-4	BLACK	BROWN			RED		GREEN	
M30FG	A	1-4	BLACK	BROWN			RED		GREEN	
M30H	A	4	BLACK	BROWN	YELLOW	BLUE		GRAY	GREEN	
M30HG	A	4	BLACK	BROWN	YELLOW	BLUE		GRAY	GREEN	
M30S1	A	1-2-4	BLACK	BROWN			RED			5
M30S2	A	1-2-4	BLACK	BROWN			RED			5
M30S3	A	1-4-8	BLACK	BROWN	YELLOW	BLUE		GRAY		6
MT30A	A	1-2-4	BLACK	BROWN			RED			
MX30A	C	2-3				BLUE				
MX30B	C	2					RED			
KX30C	C	2					RED			
MX30D	C	NONE		BROWN	YELLOW	BLUE				
MY30A	A	1-2-7	BLACK			BLUE		GRAY		
MY30B	A	2-7	BLACK				RED	GRAY		
MY30C	A	2-7	BLACK				RED	GRAY		
MY30D	A	1-7	BLACK				RED	GRAY		
MZ30B	A	1-2-4	BLACK	BROWN			RED			4
MZ30C	A	1-2-4	BLACK	BROWN			RED			4
X30A	C	2-3				BLUE				
Y30A	A	1-2-7	BLACK			BLUE		GRAY		
Z30A	A	1-2-4-8			YELLOW		RED			3
32DR	C	2-3	BLACK	BROWN			RED			
32	B	4	BLACK	BROWN	YELLOW			GRAY	GREEN	
K32D	A	1-4	BLACK	BROWN	YELLOW	BLUE		GRAY		
33-3310*										
33A	A	1-2-4-8				BLUE	RED			
33AG	A	1-2-4-8			YELLOW		RED			
33H	A	4	BLACK	BROWN	YELLOW	BLUE		GRAY	GREEN	
33HG	A	4	BLACK	BROWN	YELLOW	BLUE		GRAY	GREEN	
K33HG	A	4	BLACK	BROWN	YELLOW	BLUE		GRAY	GREEN	
M33B	A	1-2-4	BLACK	BROWN			RED			
M33C	A	1-2-4	BLACK	BROWN			RED			
M33D	A	1-4	BLACK	BROWN	YELLOW	BLUE		GRAY		
M33H	A	4	BLACK	BROWN	YELLOW	BLUE		GRAY	GREEN	
34A	A	1-2-4-8				BLUE	RED			
K34A	A	1-2-4-8				BLUE	RED			
K34B	A	1-2-4	BLACK	BROWN	YELLOW		RED			
K34C	A	1-2-4	BLACK	BROWN	YELLOW		RED			
K34D	A	1-4	BLACK	BROWN	YELLOW	BLUE		GRAY		
K34E	A	1-4-8	BLACK	BROWN	YELLOW	BLUE		GRAY		1
K34EI	A	1-4-8	BLACK	BROWN	YELLOW	BLUE		GRAY		2
L34B	A	1-2-4	BLACK	BROWN	YELLOW		RED			
L34C	A	1-2-4	BLACK	BROWN	YELLOW		RED			
L34E	A	1-4-8	BLACK	BROWN	YELLOW	BLUE		GRAY		1
M34B	A	1-2-4	BLACK	BROWN	YELLOW		RED			
M34C	A	1-2-4	BLACK	BROWN	YELLOW		RED			

*See pages 47-50

NOTES: See pages 5-6

Nos. 34 to 36

Ballast No.	Use J.F.D. Type	Break off Pins	CUT STRIP AT		COLORS					See Notes
M34D	A	1-4	BLACK	BROWN			RED	GRAY		
D35*										
L35-5,5C	B	1-2-4	BLACK	BROWN		BLUE				
36A	A	1-2-4-8				BLUE	RED			
36AJ	B	1-2-8	BLACK							
36H	A	4	BLACK	BROWN			RED	GRAY	GREEN	
36HG	A	4	BLACK	BROWN			RED	GRAY	GREEN	
36MB	A	1-2-4	BLACK	BROWN	YELLOW		RED			
36MC	A	1-2-4	BLACK	BROWN	YELLOW		RED			
36MD	A	1-4	BLACK	BROWN			RED	GRAY		
BK36C	A	1-2-4	BLACK	BROWN	YELLOW		RED			
BK36D	A	1-4	BLACK	BROWN			RED	GRAY		
BK36H	A	4	BLACK	BROWN			RED	GRAY	GREEN	
BM36B	A	1-2-4	BLACK	BROWN	YELLOW		RED			
BM36C	A	1-2-4	BLACK	BROWN	YELLOW		RED			
BM36D	A	1-4	BLACK	BROWN			RED	GRAY		
K36A	A	1-2-4-8				BLUE	RED			
K36AG	A	1-2-4-8				BLUE	RED			
K36AJ	B	1-2-8	BLACK							
K36B	A	1-2-4	BLACK	BROWN	YELLOW		RED			
K36BG	A	1-2-4	BLACK	BROWN	YELLOW		RED			
K36BJ	A	1-2	BLACK	BROWN		BLUE		GRAY		
K36C	A	1-2-4	BLACK	BROWN	YELLOW		RED			
K36CG	A	1-2-4	BLACK	BROWN	YELLOW		RED			
K36CJ	A	1-2	BLACK	BROWN		BLUE		GRAY		
K36D	A	1-4	BLACK	BROWN			RED	GRAY		
K36DG	A	1-4	BLACK	BROWN			RED	GRAY		
K36DJ	A	1	BLACK	BROWN			RED	GRAY		
K36E	A	1-4-8	BLACK	BROWN			RED	GRAY		1
K36EI	A	1-4-8	BLACK	BROWN			RED	GRAY		2
K36F	A	1-4	BLACK	BROWN	YELLOW		RED		GREEN	
K36FG	A	1-4	BLACK	BROWN	YELLOW		RED		GREEN	
K36H	A	4	BLACK	BROWN			RED	GRAY	GREEN	
K36HA	A	4	BLACK	BROWN			RED	GRAY	GREEN	
K36HG	A	4	BLACK	BROWN			RED	GRAY	GREEN	
K36S1	A	1-2-4	BLACK	BROWN	YELLOW		RED			5
K36S2	A	1-2-4	BLACK	BROWN	YELLOW		RED			5
K36S3	A	1-4-8	BLACK	BROWN			RED	GRAY		6
KX36A	C	2-3			YELLOW	BLUE				
KX36B	C	2			YELLOW		RED			
KX36C	C	2			YELLOW		RED			
KX36D	C	NONE		BROWN			RED			
KY36A	B	1-2-7	BLACK							
KY36B	A	2-7	BLACK				RED	GRAY		
KY36C	A	2-7	BLACK				RED	GRAY		
KY36D	A	1-7	BLACK				RED	GRAY		
KZ36B	A	1-2-4	BLACK	BROWN	YELLOW		RED			4
KZ36C	A	1-2-4	BLACK	BROWN	YELLOW		RED			4
L36A	A	1-2-4-8				BLUE	RED			
L36AJ	B	1-2-8	BLACK							
L36B	A	1-2-4	BLACK	BROWN	YELLOW		RED			
L36BJ	A	1-2	BLACK	BROWN		BLUE		GRAY		
L36C	A	1-2-4	BLACK	BROWN	YELLOW		RED			
L36CJ	A	1-2	BLACK	BROWN		BLUE		GRAY		
L36D	A	1-4	BLACK	BROWN			RED	GRAY		
L36DJ	A	1	BLACK	BROWN			RED	GRAY		
L36E	A	1-4-8	BLACK	BROWN			RED	GRAY		1
L36EI	A	1-4-8	BLACK	BROWN			RED	GRAY		2
L36F	A	1-4	BLACK	BROWN	YELLOW		RED		GREEN	
L36H	A	4	BLACK	BROWN			RED	GRAY	GREEN	
L36S1	A	1-2-4	BLACK	BROWN	YELLOW		RED			5

*See pages 47-50

NOTES: See pages 5-6

JFD AC–DC ADJUSTABLE BALLASTS

Nos. 36 to 38

Ballast No.	Use J.F.D. Type	Break off Pins	CUT	STRIP AT	COLORS					See Notes
L36S2	A	1-2-4	BLACK	BROWN	YELLOW		RED			5
L36S3	A	1-4-8	BLACK	BROWN			RED	GRAY		6
LX36A	C	2-3			YELLOW	BLUE				
LX36B	C	2			YELLOW		RED			
LX36C	C	2			YELLOW		RED			
LX36D	C	NONE		BROWN			RED			
LY36A	B	1-2-7	BLACK							
LY36B	A	2-7	BLACK				RED	GRAY		
LY36C	A	2-7	BLACK				RED	GRAY		
LY36D	A	1-7	BLACK				RED	GRAY		
LZ36B	A	1-2-4	BLACK	BROWN	YELLOW		RED			4
LZ36C	A	1-2-4	BLACK	BROWN	YELLOW		RED			4
M36A	A	1-2-4-8				BLUE	RED			
M36AJ	B	1-2-8	BLACK							
M36B	A	1-2-4	BLACK	BROWN	YELLOW		RED			
M36BJ	A	1-2	BLACK	BROWN		BLUE		GRAY		
M36C	A	1-2-4	BLACK	BROWN	YELLOW		RED			
M36CJ	A	1-2	BLACK	BROWN		BLUE		GRAY		
M36D	A	1-4	BLACK	BROWN	*		RED	GRAY		
M36DJ	A	1	BLACK	BROWN			RED	GRAY		
M36E	A	1-4-8	BLACK	BROWN			RED	GRAY		1
M36EI	A	1-4-8	BLACK	BROWN			RED	GRAY		2
M36F	A	1-4	BLACK	BROWN	YELLOW		RED		GREEN	
M36FG	A	1-4	BLACK	BROWN	YELLOW		RED		GREEN	
M36H	A	4	BLACK	BROWN			RED	GRAY	GREEN	
M36S1	A	1-2-4	BLACK	BROWN	YELLOW		RED			5
M36S2	A	1-2-4	BLACK	BROWN	YELLOW		RED			5
M36S3	A	1-4-8	BLACK	BROWN			RED	GRAY		6
MX36A	C	2-3			YELLOW	BLUE				
MX36B	C	2			YELLOW		RED			
MX36C	C	2			YELLOW		RED			
MX36D	C	NONE		BROWN			RED			
MY36A	B	1-2-7	BLACK							
MY36B	A	2-7	BLACK				RED	GRAY		
MY36C	A	2-7	BLACK				RED	GRAY		
MY36D	A	1-7	BLACK				RED	GRAY		
MZ36B	A	1-2-4	BLACK	BROWN	YELLOW		RED			4
MZ36C	A	1-2-4	BLACK	BROWN	YELLOW		RED			4
X36A	C	2-3			YELLOW	BLUE				
Y36A	B	1-2-7	BLACK							
Z36A	A	1-2-4-8				BLUE	RED			3
38A	A	1-2-4-8				BLUE	RED			
K38A	A	1-2-4-8				BLUE	RED			
K38B	A	1-2-4	BLACK	BROWN	YELLOW		RED			
K38B2*										
K38BG	A	1-2-4	BLACK	BROWN	YELLOW		RED			
K38C	A	1-2-4	BLACK	BROWN	YELLOW		RED			
K38CG	A	1-2-4	BLACK	BROWN	YELLOW		RED			
K38DG	A	1-4	BLACK	BROWN			RED	GRAY		
K38DK	A	1-4	BLACK	BROWN			RED	GRAY		
K38E	A	1-4-8	BLACK	BROWN			RED	GRAY		1
K38EI	A	1-4-8	BLACK	BROWN			RED	GRAY		2
K38F	A	1-4	BLACK	BROWN	YELLOW		RED		GREEN	
K38H	A	4	BLACK	BROWN			RED	GRAY	GREEN	
K38HG	A	4	BLACK	BROWN			RED	GRAY	GREEN	
L38C	A	1-2-4	BLACK	BROWN	YELLOW		RED			
L38B	A	1-2-4	BLACK	BROWN	YELLOW		RED			
L38D	A	1-4	BLACK	BROWN			RED	GRAY		
M38B	A	1-2-4	BLACK	BROWN	YELLOW		RED			
M38C	A	1-2-4	BLACK	BROWN	YELLOW		RED			
M38D	A	1-4	BLACK	BROWN			RED	GRAY		

*See pages 47-50

NOTES: See pages 5-6

Nos. 38 to 42

Ballast No.	J.F.D. Type Use	off Pins Break	CUT	STRIP	AT	COLORS					See Notes
M38E	A	1-4-8	BLACK	BROWN			RED	GRAY			1
M38E1	A	1-4-8	BLACK	BROWN			RED	GRAY			2
M38F	A	1-4	BLACK	BROWN	YELLOW		RED		GREEN		
M38H	A	4	BLACK	BROWN			RED	GRAY	GREEN		
M38HG	A	4	BLACK	BROWN			RED	GRAY	GREEN		
L39B	A	1-2-4	BLACK	BROWN	YELLOW		RED				
L39C	A	1-2-4	BLACK	BROWN	YELLOW		RED				
L39D	A	1-4	BLACK	BROWN			RED	GRAY			
M39F	A	1-4	BLACK	BROWN		BLUE	RED		GREEN		
M39H	A	4	BLACK	BROWN	YELLOW		RED	GRAY	GREEN		
40	C	2-3					RED				
40A	B	1-2-4-8			YELLOW	BLUE	RED				3
40A2G	C	2				BLUE	RED				
40A2	C	2				BLUE	RED				
40B2	C	2				BLUE	RED				
40B2G	A	1-2-4	BLACK	BROWN		BLUE	RED				
40W	C	2-3					RED				
40X300	C	2-3					RED				
K40B	A	1-2-4	BLACK	BROWN		BLUE	RED				
K40C	A	1-2-4	BLACK	BROWN		BLUE	RED				
K40D	A	1-4	BLACK	BROWN	YELLOW		RED	GRAY			
K40F	A	1-4	BLACK	BROWN	YELLOW		RED		GREEN		
K40X	C	2				BLUE	RED				
K40Y	C	2				BLUE	RED				
L40B	A	1-2-4	BLACK	BROWN		BLUE	RED				
L40C	A	1-2-4	BLACK	BROWN		BLUE	RED				
L40D	A	1-4	BLACK	BROWN	YELLOW		RED	GRAY			
L40E	A	1-4-8	BLACK	BROWN	YELLOW		RED	GRAY			1
L40E1	A	1-4-8	BLACK	BROWN	YELLOW		RED	GRAY			2
L40F	A	1-4	BLACK	BROWN	YELLOW		RED		GREEN		
L40S1	A	1-2-4	BLACK	BROWN		BLUE	RED				5
L40S2	A	1-2-4	BLACK	BROWN		BLUE	RED				5
L40S3	A	1-4-8	BLACK	BROWN	YELLOW		RED	GRAY			6
M40B	A	1-2-4	BLACK	BROWN		BLUE	RED				
M40C	A	1-2-4	BLACK	BROWN		BLUE	RED				
M40D	A	1-4	BLACK	BROWN	YELLOW		RED	GRAY			
M40E	A	1-4-8	BLACK	BROWN	YELLOW		RED	GRAY			1
M40F	A	1-4	BLACK	BROWN	YELLOW		RED		GREEN		
M40H	A	4	BLACK	BROWN	YELLOW		RED	GRAY	GREEN		
42A	B	1-2-4-8			YELLOW	BLUE	RED				
42A1	A	1-2-7	BLACK				RED	GRAY			
42A2	B	2-7	BLACK					GRAY			
42AG	B	1-2-4-8			YELLOW	BLUE	RED				
42AJ	A	1-2-8	BLACK	BROWN			RED				
42B2	B	2-7	BLACK					GRAY			
42HA	B	1-2-4-8			YELLOW	BLUE	RED				
BK42B	A	1-2-4	BLACK	BROWN		BLUE	RED				
BK42C	A	1-2-4	BLACK	BROWN		BLUE	RED				
BK42D	A	1-4	BLACK	BROWN	YELLOW		RED	GRAY			
BL42B	A	1-2-4	BLACK	BROWN		BLUE	RED				
BL42C	A	1-2-4	BLACK	BROWN		BLUE	RED				
BL42D	A	1-4	BLACK	BROWN	YELLOW		RED	GRAY			
BM42B	A	1-2-4	BLACK	BROWN		BLUE	RED				
BM42C	A	1-2-4	BLACK	BROWN		BLUE	RED				
BM42D	A	1-4	BLACK	BROWN	YELLOW		RED	GRAY			
K42A	B	1-2-4-8			YELLOW	BLUE	RED				
K42AG	B	1-2-4-8			YELLOW	BLUE	RED				
K42AJ	A	1-2-8	BLACK	BROWN			RED				
K42B	A	1-2-4	BLACK	BROWN		BLUE	RED				
K42B	C	2				BLUE	RED				
K42B2	B	1-2-4	BLACK	BROWN	YELLOW						

*See pages 47-50

NOTES: See pages 5-6

JFD AC–DC ADJUSTABLE BALLASTS

No. 42

Ballast No.	Use J.F.D. Type	Break off Pins	CUT	STRIP AT	COLORS					See Notes
K42BG	A	1-2-4	BLACK	BROWN		BLUE	RED			
K42BJ	B	1-2	BLACK	BROWN						
K42BJ-275*										
K42C	C	2				BLUE	RED			
K42C	A	1-2-4	BLACK	BROWN		BLUE	RED			
K43CG	A	1-2-4	BLACK	BROWN		BLUE	RED			
K42CJ	B	1-2	BLACK	BROWN						
K42CS4*										
K42D	A	1-4	BLACK	BROWN	YELLOW		RED	GRAY		
K42DG	A	1-4	BLACK	BROWN	YELLOW		RED	GRAY		
K42DJ	B	1	BLACK	BROWN				GRAY		
K42E	A	1-4-8	BLACK	BROWN	YELLOW		RED	GRAY		1
K42EI	A	1-4-8	BLACK	BROWN	YELLOW		RED	GRAY		2
K42F	A	1-4	BLACK	BROWN		BLUE	RED		GREEN	
K42FG	A	1-4	BLACK	BROWN		BLUE	RED		GREEN	
K42H	A	4	BLACK	BROWN	YELLOW		RED	GRAY	GREEN	
K42HG	A	4	BLACK	BROWN	YELLOW		RED	GRAY	GREEN	
K42S1	A	1-2-4	BLACK	BROWN		BLUE	RED			5
K42S2	A	1-2-4	BLACK	BROWN		BLUE	RED			5
K42S3	A	1-4-8	BLACK	BROWN	YELLOW		RED	GRAY		6
KX42A	C	2-3					RED			
KX42B	C	2				BLUE	RED			
KX42C	C	2				BLUE	RED			
KX42D	C	NONE		BROWN	YELLOW		RED			
KY42A	A	1-2-7	BLACK				RED	GRAY		
KY42B	B	2-7	BLACK					GRAY		
KY42C	B	2-7	BLACK					GRAY		
KY42D	B	1-7	BLACK					GRAY		
KZ42B	A	1-2-4	BLACK	BROWN		BLUE	RED			4
KZ42C	A	1-2-4	BLACK	BROWN		BLUE	RED			4
L42A	B	1-2-4-8			YELLOW	BLUE	RED			
L42AJ	A	1-2-8	BLACK	BROWN			RED			
L42B	A	1-2-4	BLACK	BROWN		BLUE	RED			
L42B	C	2				BLUE	RED			
L42BG	A	1-2-4	BLACK	BROWN		BLUE	RED			
L42BJ	B	1-2	BLACK	BROWN						
L42BX*										
L42C	A	1-2-4	BLACK	BROWN		BLUE	RED			
L42C	C	2				BLUE	RED			
L42CG	A	1-2-4	BLACK	BROWN		BLUE	RED			
L42CJ	B	1-2	BLACK	BROWN						
L42D	A	1-4	BLACK	BROWN	YELLOW		RED	GRAY		
L42D	C	NONE		BROWN	YELLOW		RED			
L42DG	A	1-4	BLACK	BROWN	YELLOW		RED	GRAY		
L42DJ	B	1	BLACK	BROWN				GRAY		
L42DSX*										
L42DX*										
L42E	A	1-4-8	BLACK	BROWN	YELLOW		RED	GRAY		1
L42EI	A	1-4-8	BLACK	BROWN	YELLOW		RED	GRAY		2
L42F	A	1-4	BLACK	BROWN		BLUE	RED		GREEN	
L42FG	A	1-4	BLACK	BROWN		BLUE	RED		GREEN	
L42H	A	4	BLACK	BROWN	YELLOW		RED	GRAY	GREEN	
L42S1	A	1-2-4	BLACK	BROWN		BLUE	RED			5
L42S2	A	1-2-4	BLACK	BROWN		BLUE	RED			5
L42S3	A	1-4-8	BLACK	BROWN	YELLOW		RED	GRAY		6
LX42B	C	2				BLUE	RED			
LX42C	C	2				BLUE	RED			
LX42D	C	NONE		BROWN	YELLOW		RED			
LY42A	A	1-2-7	BLACK				RED	GRAY		
LY42B	B	2-7	BLACK					GRAY		
LY42C	B	2-7	BLACK					GRAY		

*See pages 47-50

NOTES: See pages 5-6

Nos. 42 to 49

Ballast No.	Use J.F.D. Type	Break off Pins	CUT STRIP AT COLORS							See Notes
LY42D	B	1-7	BLACK					GRAY		
LZ42B	A	1-2-4	BLACK	BROWN		BLUE	RED			4
LZ42C	A	1-2-4	BLACK	BROWN		BLUE	RED			4
M42A	B	1-2-4-8			YELLOW	BLUE	RED			
M42AJ	A	1-2-8	BLACK	BROWN			RED			
M42B	A	1-2-4	BLACK	BROWN		BLUE	RED			
M42BG	A	1-2-4	BLACK	BROWN		BLUE	RED			
M42BJ	B	1-2	BLACK	BROWN						
M42C	A	1-2-4	BLACK	BROWN		BLUE	RED			
M42CG	A	1-2-4	BLACK	BROWN		BLUE	RED			
M42CJ	B	1-2	BLACK	BROWN						
M42D	A	1-4	BLACK	BROWN	YELLOW		RED	GRAY		
M42DJ	B	1	BLACK	BROWN				GRAY		
M42E	A	1-4-8	BLACK	BROWN	YELLOW		RED	GRAY		1
M42E1	A	1-4-8	BLACK	BROWN	YELLOW		RED	GRAY		2
M42F	A	1-4	BLACK	BROWN		BLUE	RED		GREEN	
M42FG	A	1-4	BLACK	BROWN		BLUE	RED		GREEN	
M42H	A	4	BLACK	BROWN	YELLOW		RED	GRAY	GREEN	
M42HG	A	4	BLACK	BROWN	YELLOW		RED	GRAY	GREEN	
M42S1	A	1-2-4	BLACK	BROWN		BLUE	RED			5
M42S2	A	1-2-4	BLACK	BROWN		BLUE	RED			5
M42S3	A	1-4-8	BLACK	BROWN	YELLOW		RED	GRAY		6
MX42B	C	2				BLUE	RED			
MX42C	C	2				BLUE	RED			
MX42D	C	NONE		BROWN	YELLOW		RED			
MY42A	A	1-2-7	BLACK				RED	GRAY		
MY42B	B	2-7	BLACK					GRAY		
MY42C	B	2-7	BLACK					GRAY		
MY42D	B	1-7	BLACK					GRAY		
MZ42B	A	1-2-4	BLACK	BROWN		BLUE	RED			
MZ42C	A	1-2-4	BLACK	BROWN		BLUE	RED			4
X42A	C	2-3					RED			
Y42A	A	1-2-7	BLACK				RED	GRAY		
Z42A	B	1-2-4-8			YELLOW	BLUE	RED			3
K43A	B	1-2-4-8			YELLOW	BLUE	RED			
K43B	A	1-2-4	BLACK	BROWN		BLUE	RED			
K43B2	B	1-2-4	BLACK	BROWN	YELLOW					
K43F	A	1-4	BLACK	BROWN		BLUE	RED		GREEN	
K43H	A	4	BLACK	BROWN	YELLOW		RED	GRAY	GREEN	
M44B	A	1-2-4	BLACK	BROWN		BLUE	RED			
M44C	A	1-2-4	BLACK	BROWN		BLUE	RED			
45W	C	2-3					RED			
KX46A	C	2-3			YELLOW		RED			
49A	B	1-2-4-8	BLACK			BLUE				
49A	C	2-3			YELLOW		RED			
49A1	B	1-2-7	BLACK			BLUE				
49A2	A	2-7	BLACK			BLUE	RED	GRAY		
49AG	B	1-2-4-8	BLACK			BLUE				
49AJ	B	1-2-8	BLACK			BLUE				
49B	B	1-2-4	BLACK	BROWN	YELLOW					
49B2	A	2-7	BLACK			BLUE	RED	GRAY		
49KA	B	1-2-4-8	BLACK			BLUE				
49KB	B	1-2-4	BLACK	BROWN	YELLOW					
49KC	B	1-2-4	BLACK	BROWN	YELLOW					
49KD	A	1-4	BLACK	BROWN		BLUE	RED	GRAY		
49LB	B	1-2-4	BLACK	BROWN	YELLOW					
49LC	B	1-2-4	BLACK	BROWN	YELLOW					
49LD	A	1-4	BLACK	BROWN		BLUE	RED	GRAY		
BK49B	B	1-2-4	BLACK	BROWN	YELLOW					
BK49C	B	1-2-4	BLACK	BROWN	YELLOW					
BK49D	A	1-4	BLACK	BROWN		BLUE	RED	GRAY		

*See pages 47-50

NOTES: See pages 5-6

No. 49

Ballast No.	Use J.F.D. Type	Break off Pins	CUT STRIP AT		COLORS					See Notes
BK49D-10	A	1-4	BLACK	BROWN		BLUE	RED	GRAY		
BL49D	A	1-4	BLACK	BROWN		BLUE	RED	GRAY		
BM49B	B	1-2-4	BLACK	BROWN	YELLOW					
BM49C	B	1-2-4	BLACK	BROWN	YELLOW					
BM49D	A	1-4	BLACK	BROWN		BLUE	RED	GRAY		
BM49F	B	1-4	BLACK	BROWN	YELLOW				GREEN	
BM49H	A	4	BLACK	BROWN		BLUE	RED	GRAY	GREEN	
K49	C	2				BLUE	RED			
K49A	B	1-2-4-8	BLACK			BLUE				
K49AG	B	1-2-4-8	BLACK			BLUE				
K49AJ	B	1-2-8	BLACK			BLUE				
K49B	B	1-2-4	BLACK	BROWN	YELLOW					
K49B	C	2			YELLOW	BLUE	RED			
K49BG	C	2			YELLOW	BLUE	RED			
K49BJ	B	1-2	BLACK	BROWN		BLUE				
K49C	B	1-2-4	BLACK	BROWN	YELLOW					
K49C	C	2			YELLOW	BLUE	RED			
K49CB	B	1-2-4	BLACK	BROWN	YELLOW					
K49CG	C	2			YELLOW	BLUE	RED			
K49CJ	B	1-2	BLACK	BROWN		BLUE				
K49D	A	1-4	BLACK	BROWN		BLUE	RED	GRAY		
K49DJ	B	1	BLACK	BROWN				GRAY		
K49E	A	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		1
K49EI	A	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		2
K49F	B	1-4	BLACK	BROWN	YELLOW				GREEN	
K49H	A	4	BLACK	BROWN		BLUE	RED	GRAY	GREEN	
K49S1	B	1-2-4	BLACK	BROWN	YELLOW					5
K49S2	B	1-2-4	BLACK	BROWN	YELLOW					5
K49S3	A	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		6
K49X	C	2-3			YELLOW		RED			
K49Y	B	7-1-2	BLACK			BLUE				
KX46A	C	2-3			YELLOW		RED			
KX49B	C	2			YELLOW	BLUE	RED			
KX49C	C	2			YELLOW	BLUE	RED			
KX49D	C	NONE		BROWN		BLUE	RED			
KY49A	B	1-2-7	BLACK			BLUE				
KY49B	A	2-7	BLACK			BLUE	RED	GRAY		
KY49C	A	2-7	BLACK			BLUE	RED	GRAY		
KY49D	A	1-7	BLACK			BLUE	RED	GRAY		
KZ49B	B	1-2-4	BLACK	BROWN	YELLOW					
KZ49C	B	1-2-4	BLACK	BROWN	YELLOW					4
L49-5.5C	B	1-2-4	BLACK	BROWN	YELLOW					
L49-5-5E	A	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		1
L49A	B	1-2-4-8	BLACK			BLUE				
L49AJ	B	1-2-8	BLACK			BLUE				
L49B	B	1-2-4	BLACK	BROWN	YELLOW					
L49B	C	2			YELLOW	BLUE	RED			
L49BJ	B	1-2	BLACK	BROWN		BLUE				
L49BX*										
L49C	B	1-2-4	BLACK	BROWN	YELLOW					
L49C	C	2			YELLOW	BLUE	RED			
L49CJ	B	1-2	BLACK	BROWN		BLUE				
L49D	A	1-4	BLACK	BROWN		BLUE	RED	GRAY		
L49D	C	NONE		BROWN		BLUE	RED			
L49DJ	B	1	BLACK	BROWN				GRAY		
L49E	A	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		1
L49EI	A	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		2
L49F	B	1-4	BLACK	BROWN	YELLOW				GREEN	
L49H	A	4	BLACK	BROWN		BLUE	RED	GRAY	GREEN	
L49S1	B	1-2-4	BLACK	BROWN	YELLOW					5

*See pages 47-50

NOTES: See pages 5-6

JFD AC–DC ADJUSTABLE BALLASTS

Nos. 49 to 50

Ballast No.	Use J.F.D. Type	Break off Pins	CUT STRIP AT		COLORS					See Notes
L49S2	B	1-2-4	BLACK	BROWN	YELLOW					5
L49S3	A	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		6
LX49A	C	2-3			YELLOW		RED			
LX49B	C	2			YELLOW	BLUE	RED			
LX49C	C	2			YELLOW	BLUE	RED			
LX49D	C	NONE		BROWN		BLUE	RED			
LY49A	B	1-2-7	BLACK			BLUE				
LY49B	A	2-7	BLACK			BLUE	RED	GRAY		
LY49C	A	2-7	BLACK			BLUE	RED	GRAY		
LY49D	A	1-7	BLACK			BLUE	RED	GRAY		
LZ49B	B	1-2-4	BLACK	BROWN	YELLOW					4
LZ49C	B	1-2-4	BLACK	BROWN	YELLOW					4
M49A	B	1-2-4-8	BLACK			BLUE				
M49AJ	B	1-2-8	BLACK			BLUE				
M49B	B	1-2-4	BLACK	BROWN	YELLOW					
M49BJ	B	1-2	BLACK	BROWN		BLUE				
M49C	B	1-2-4	BLACK	BROWN	YELLOW					
M49CJ	B	1-2	BLACK	BROWN		BLUE				
M49D	A	1-4	BLACK	BROWN		BLUE	RED	GRAY		
M49DJ	B	1	BLACK	BROWN				GRAY		
M49E	A	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		1
M49EI	A	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		2
M49F	B	1-4	BLACK	BROWN	YELLOW				GREEN	
M49FG	B	1-4	BLACK	BROWN	YELLOW				GREEN	
M49G	B	1-4	BLACK	BROWN	YELLOW				GREEN	
M49H	A	4	BLACK	BROWN		BLUE	RED	GRAY	GREEN	
M49HG	A	4	BLACK	BROWN		BLUE	RED	GRAY	GREEN	
M49S1	B	1-2-4	BLACK	BROWN	YELLOW					5
M49S2	B	1-2-4	BLACK	BROWN	YELLOW					5
M49S3	A	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		6
MX49A	C	2-3			YELLOW		RED			
MX49B	C	2			YELLOW	BLUE	RED			
MX49C	C	2			YELLOW	BLUE	RED			
MX49D	C	NONE		BROWN		BLUE	RED			
MY49A	B	1-2-7	BLACK			BLUE				
MY49B	A	2-7	BLACK			BLUE	RED	GRAY		
MY49C	A	2-7	BLACK			BLUE	RED	GRAY		
MY49D	A	1-7	BLACK			BLUE	RED	GRAY		
MZ49B	B	1-2-4	BLACK	BROWN	YELLOW					4
MZ49C	B	1-2-4	BLACK	BROWN	YELLOW					4
X49A	C	2-3			YELLOW		RED			
Y49A	B	1-2-7	BLACK			BLUE				
Z49A	B	1-2-4-8	BLACK			BLUE				3
50	C	2-3			YELLOW		RED			
50A	B	1-2-4-8	BLACK			BLUE				3
50A2	C	2-3			YELLOW		RED			
50A2	B	1-2-4	BLACK	BROWN	YELLOW					4
50A2MG	B	1-2-4	BLACK	BROWN	YELLOW					4
50B2	C	2			YELLOW	BLUE	RED			
50B2	B	1-2-4	BLACK	BROWN	YELLOW					4
50B2MG	B	1-2-4	BLACK	BROWN	YELLOW					4
50MG	B	1-2-4-8	BLACK			BLUE				3
50W	C	2-3			YELLOW		RED			
50X3	C	2-3				BLUE	RED			
50X3T	C	2		BROWN	YELLOW		RED			
50X300	C	2-3				BLUE	RED			
BM50B	B	1-2-4	BLACK	BROWN	YELLOW					
BM50C	B	1-2-4	BLACK	BROWN	YELLOW					
BM50D	A	1-4	BLACK	BROWN		BLUE	RED	GRAY		
K50A	B	1-2-4-8	BLACK			BLUE				
K50C	B	1-2-4	BLACK	BROWN	YELLOW					

*See pages 47-50

NOTES: See pages 5-6

Nos. 51 to 55

Ballast No.	Use J.F.D. Type	Break off Pins	CUT STRIP AT COLORS							See Notes
BKV51DJ*										
BK52H	B	4	BLACK	BROWN	YELLOW			GRAY	GREEN	
K52H	B	4	BLACK	BROWN	YELLOW			GRAY	GREEN	
M52H	B	4	BLACK	BROWN	YELLOW			GRAY	GREEN	
M52HG	B	4	BLACK	BROWN	YELLOW			GRAY	GREEN	
K54B	B	1-2-4	BLACK	BROWN		BLUE				
55A	B	1-2-4-8	BLACK		YELLOW	BLUE				
55A1	B	1-2-7	BLACK					GRAY		
55A2	B	7-2	BLACK			BLUE		GRAY		
55AJ	B	1-2-8	BLACK					GRAY		
55B2	B	7-2	BLACK			BLUE		GRAY		
55KA	B	1-2-4-8	BLACK		YELLOW	BLUE				
55KB	B	1-2-4	BLACK	BROWN		BLUE				
55LF	B	1-4	BLACK	BROWN		BLUE			GREEN	
55LH	B	4	BLACK	BROWN	YELLOW			GRAY	GREEN	
55MB	B	1-2-4	BLACK	BROWN		BLUE				
55MC	B	1-2-4	BLACK	BROWN		BLUE				
55MD	B	1-4	BLACK	BROWN	YELLOW			GRAY		
BK55C	B	1-2-4	BLACK	BROWN		BLUE				
BK55D	B	1-4	BLACK	BROWN	YELLOW			GRAY		
BK55F	B	1-4	BLACK	BROWN		BLUE			GREEN	
BL55F	B	1-4	BLACK	BROWN		BLUE			GREEN	
BM55B	B	1-2-4	BLACK	BROWN		BLUE				
BM55C	B	1-2-4	BLACK	BROWN		BLUE				
BM55D	B	1-4	BLACK	BROWN	YELLOW			GRAY		
BM55F	B	1-4	BLACK	BROWN		BLUE			GREEN	
K55A	B	1-2-4-8	BLACK		YELLOW	BLUE				
K55AG	B	1-2-4-8	BLACK		YELLOW	BLUE				
K55AJ	B	1-2-8	BLACK					GRAY		
K55B	B	1-2-4	BLACK	BROWN		BLUE				
K55BG	B	1-2-4	BLACK	BROWN		BLUE				
K55BJ	B	1-2	BLACK	BROWN		BLUE				
K55C	B	1-2-4	BLACK	BROWN		BLUE				
K55CJ	B	1-2	BLACK	BROWN		BLUE				
K55CP*										
K55CPR*										
K55D	B	1-4	BLACK	BROWN	YELLOW			GRAY		
K55DJ	B	1	BLACK	BROWN		BLUE		GRAY		
K55E	B	1-4-8	BLACK	BROWN	YELLOW			GRAY		1
K55EI	B	1-4-8	BLACK	BROWN	YELLOW			GRAY		2
K55F	B	1-4	BLACK	BROWN		BLUE			GREEN	
K55H	B	4	BLACK	BROWN	YELLOW			GRAY	GREEN	
K55HG	B	4	BLACK	BROWN	YELLOW			GRAY	GREEN	
K55J*										
K55S1	B	1-2-4	BLACK	BROWN		BLUE				5
K55S2	B	1-2-4	BLACK	BROWN		BLUE				5
K55S3	B	1-4-8	BLACK	BROWN	YELLOW			GRAY		6
KX55A	C	2-3				BLUE	RED			
KX55B	C	2		BROWN	YELLOW		RED			
KX55C	C	2		BROWN	YELLOW		RED			
KX55D	C	None		BROWN	YELLOW	BLUE	RED			
KY55A	B	1-2-7	BLACK					GRAY		
KY55B	B	2-7	BLACK			BLUE		GRAY		
KY55C	B	2-7	BLACK			BLUE		GRAY		
KY55D	B	1-7	BLACK			BLUE		GRAY		
KZ55A	B	1-2-4-8	BLACK		YELLOW	BLUE				3
KZ55B	B	1-2-4	BLACK	BROWN		BLUE				4
KZ55C	B	1-2-4	BLACK	BROWN		BLUE				4
L55-5-5E	B	1-4-8	BLACK	BROWN	YELLOW			GRAY		1
L55A	B	1-2-4-8	BLACK		YELLOW	BLUE				
L55AJ	B	1-2-8	BLACK					GRAY		
L55B	B	1-2-4	BLACK	BROWN		BLUE				

*See pages 47-50

NOTES: See pages 5-6

Nos. 55 to 58

Ballast No.	Use J.F.D. Type	Break off Pins	CUT	STRIP AT	COLORS					See Notes
L55B	C	2		BROWN	YELLOW		RED			
L55BJ	B	1-2	BLACK	BROWN		BLUE				
L55C	B	1-2-4	BLACK	BROWN		BLUE				
L55C	C	2		BROWN	YELLOW		RED			
L55CJ	B	1-2	BLACK	BROWN		BLUE				
L55D	B	1-4	BLACK	BROWN	YELLOW			GRAY		
L55DJ	B	1	BLACK	BROWN		BLUE		GRAY		
L55E	B	1-4-8	BLACK	BROWN	YELLOW			GRAY		1
L55EI	B	1-4-8	BLACK	BROWN	YELLOW			GRAY		2
L55F	B	1-4	BLACK	BROWN		BLUE			GREEN	
L55FG	B	1-4	BLACK	BROWN		BLUE			GREEN	
L55H	B	4	BLACK	BROWN	YELLOW			GRAY	GREEN	
L55HG	B	4	BLACK	BROWN	YELLOW			GRAY	GREEN	
L55S1	B	1-2-4	BLACK	BROWN		BLUE				5
L55S2	B	1-2-4	BLACK	BROWN		BLUE				5
L55S3	B	1-4-8	BLACK	BROWN	YELLOW			GRAY		6
LX55B	C	2		BROWN	YELLOW		RED			
LX55C	C	2		BROWN	YELLOW		RED			
LX55D	C	None		BROWN	YELLOW	BLUE	RED			
LY55A	B	1-2-7	BLACK					GRAY		
LY55B	B	2-7	BLACK			BLUE		GRAY		
LY55C	B	2-7	BLACK			BLUE		GRAY		
LY55D	B	1-7	BLACK			BLUE		GRAY		
LZ55A	B	1-2-4-8	BLACK		YELLOW	BLUE				3
LZ55B	B	1-2-4	BLACK	BROWN		BLUE				4
LZ55C	B	1-2-4	BLACK	BROWN		BLUE				4
M55A	B	1-2-4-8	BLACK		YELLOW	BLUE				
M55AJ	B	1-2-8	BLACK					GRAY		
M55B	B	1-2-4	BLACK	BROWN		BLUE				
M55BG	B	1-2-4	BLACK	BROWN		BLUE				
M55BJ	B	1-2	BLACK	BROWN		BLUE				
M55C	B	1-2-4	BLACK	BROWN		BLUE				
M55CG	B	1-2-4	BLACK	BROWN		BLUE				
M55CJ	B	1-2	BLACK	BROWN		BLUE				
M55D	B	1-4	BLACK	BROWN	YELLOW			GRAY		
M55DG	B	1-4	BLACK	BROWN	YELLOW			GRAY		
M55DJ	B	1	BLACK	BROWN		BLUE		GRAY		
M55E	B	1-4-8	BLACK	BROWN	YELLOW			GRAY		1
M55EI	B	1-4-8	BLACK	BROWN	YELLOW			GRAY		2
M55F	B	1-4	BLACK	BROWN		BLUE			GREEN	
M55FG	B	1-4	BLACK	BROWN		BLUE			GREEN	
M55H	B	4	BLACK	BROWN	YELLOW			GRAY	GREEN	
M55HG	B	4	BLACK	BROWN	YELLOW			GRAY	GREEN	
M55S1	B	1-2-4	BLACK	BROWN		BLUE				5
M55S2	B	1-2-4	BLACK	BROWN		BLUE				5
M55S3	B	1-4-8	BLACK	BROWN	YELLOW			GRAY		6
MX55B	C	2		BROWN	YELLOW		RED			
MX55C	C	2		BROWN	YELLOW		RED			
MX55D	C	NONE		BROWN	YELLOW	BLUE	RED			
MY55A	B	1-2-7	BLACK					GRAY		
MY55B	B	2-7	BLACK			BLUE		GRAY		
MY55C	B	2-7	BLACK			BLUE		GRAY		
MY55D	B	1-7	BLACK			BLUE		GRAY		
MZ55A	B	1-2-4-8	BLACK		YELLOW	BLUE				3
MZ55B	B	1-2-4	BLACK	BROWN		BLUE				4
MZ55C	B	1-2-4	BLACK	BROWN		BLUE				4
X55A	C	2-3				BLUE	RED			
Y55A	B	1-2-7	BLACK					GRAY		
Z55A	B	1-2-4-8	BLACK		YELLOW	BLUE				3
M58B M58B275*	B	1-4	BLACK	BROWN	YELLOW			GRAY		

*See pages 47-50

NOTES: See pages 5-6

Nos. 60 to 61

Ballast No.	Use J.F.D. Type	Break off Pins	CUT	STRIP AT	COLORS					See Notes
60R30	C	2			YELLOW	BLUE				
60R30G	C	2			YELLOW	BLUE				
K60C	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				
61A	B	1-2-4-8	BLACK				RED			
61AJ	B	1-2-8	BLACK				RED			
61KB	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				
61KC	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				
61LB	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				
61LC	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				
61LD	B	1-4	BLACK	BROWN		BLUE		GRAY		
BK61B	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				
BK61C	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				
BM61B	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				
BM61C	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				
K61A	B	1-2-4-8	BLACK				RED			
K61AJ	B	1-2-8	BLACK				RED			
K61B	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				
K61BJ	A	1-2	BLACK	BROWN		BLUE	RED	GRAY		
K61C	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				
K61CJ	A	1-2	BLACK	BROWN		BLUE	RED	GRAY		
K61D	B	1-4	BLACK	BROWN		BLUE		GRAY		
K61DJ	A	1	BLACK	BROWN		BLUE		GRAY		
K61E	B	1-4-8	BLACK	BROWN		BLUE		GRAY		1
K61EI	B	1-4-8	BLACK	BROWN		BLUE		GRAY		2
K61F	B	1-4	BLACK	BROWN	YELLOW	BLUE			GREEN	
K61H	B	4	BLACK	BROWN		BLUE		GRAY	GREEN	
K61S1	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				5
K61S2	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				5
K61S3	B	1-4-8	BLACK	BROWN		BLUE		GRAY		6
KX61A	C	2-3		BROWN			RED			
KX61B	C	2		BROWN		BLUE	RED			
KX61C	C	2		BROWN		BLUE	RED			
KX61D	C	NONE	BLACK	BROWN		BLUE				
KY61A	B	1-2-7	BLACK				RED			
KY61B	B	2-7	BLACK			BLUE		GRAY		
KY61C	B	2-7	BLACK			BLUE		GRAY		
KY61D	B	1-7	BLACK			BLUE		GRAY		
KZ61B	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				4
KZ61C	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				4
L61A	B	1-2-4-8	BLACK				RED			
L61AJ	B	1-2-8	BLACK				RED			
L61B	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				
L61BJ	A	1-2	BLACK	BROWN		BLUE	RED	GRAY		
L61C	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				
L61CJ	A	1-2	BLACK	BROWN		BLUE	RED	GRAY		
L61D	B	1-4	BLACK	BROWN		BLUE		GRAY		
L61DJ	A	1	BLACK	BROWN		BLUE		GRAY		
L61E	B	1-4-8	BLACK	BROWN		BLUE		GRAY		1
L61EI	B	1-4-8	BLACK	BROWN		BLUE		GRAY		2
L61F	B	1-4	BLACK	BROWN	YELLOW	BLUE			GREEN	
L61H	B	4	BLACK	BROWN		BLUE		GRAY	GREEN	
L61S1	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				5
L61S2	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				5
L61S3	B	1-4-8	BLACK	BROWN		BLUE		GRAY		6
LX61A	C	2-3		BROWN			RED			
LX61B	C	2		BROWN		BLUE	RED			
LX61C	C	2		BROWN		BLUE	RED			
LX61D	C	NONE	BLACK	BROWN		BLUE				
LY61A	B	1-2-7	BLACK				RED			
LY61B	B	2-7	BLACK			BLUE		GRAY		
LY61C	B	2-7	BLACK			BLUE		GRAY		
LY61D	B	1-7	BLACK			BLUE		GRAY		

*See pages 47-50

NOTES: See pages 5-6

JFD AC–DC ADJUSTABLE BALLASTS

Nos. 61 to 67

Ballast No.	Use J.F.D Type	Break off Pins	CUT STRIP AT COLORS							See Notes
LZ61B	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				4
LZ61C	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				4
M61A	B	1-2-4-8	BLACK				RED			
M61AJ	B	1-2-8	BLACK				RED			
M61B	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				
M61BJ	A	1-2	BLACK	BROWN		BLUE	RED	GRAY		
M61C	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				
M61CJ	A	1-2	BLACK	BROWN		BLUE	RED	GRAY		
M61D	B	1-4	BLACK	BROWN		BLUE		GRAY		
M61DJ	A	1	BLACK	BROWN		BLUE		GRAY		
M61E	B	1-4-8	BLACK	BROWN		BLUE		GRAY		1
M61EI	B	1-4-8	BLACK	BROWN		BLUE		GRAY		2
M61F	B	1-4	BLACK	BROWN	YELLOW	BLUE			GREEN	
M61H	B	4	BLACK	BROWN		BLUE		GRAY	GREEN	
M61S1	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				5
M61S2	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				5
M61S3	B	1-4-8	BLACK	BROWN		BLUE		GRAY		6
MX61A	C	2-3		BROWN			RED			
MX61B	C	2		BROWN		BLUE	RED			
MX61C	C	2		BROWN		BLUE	RED			
MX61D	C	NONE	BLACK	BROWN		BLUE				
MY61A	B	1-2-7	BLACK				RED			
MY61B	B	2-7	BLACK			BLUE		GRAY		
MY61C	B	2-7	BLACK			BLUE		GRAY		
MY61D	B	1-7	BLACK			BLUE		GRAY		
MZ61B	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				4
MZ61C	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				4
X61A	C	2-3		BROWN			RED			
Y61A	B	1-2-7	BLACK				RED			
Z61A	B	1-2-4-8	BLACK				RED			3
K62B	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				
64.23*										
L66B	B	1-2-4	BLACK	BROWN			RED			
67A	B	1-2-4-8	BLACK	BROWN	YELLOW					
67AJ	B	1-2-8	BLACK			BLUE		GRAY		
67KB	B	1-2-4	BLACK	BROWN			RED			
67KC	B	1-2-4	BLACK	BROWN			RED			
67KD	B	1-4	BLACK	BROWN	YELLOW	BLUE		GRAY		
BK67B	B	1-2-4	BLACK	BROWN			RED			
BK67C	B	1-2-4	BLACK	BROWN			RED			
G67B	B	1-2-4	BLACK	BROWN			RED			
K67A	B	1-2-4-8	BLACK	BROWN	YELLOW					
K67AJ	B	1-2-8	BLACK			BLUE		GRAY		
K67B	B	1-2-4	BLACK	BROWN			RED			
K67BJ	B	1-2	BLACK	BROWN			RED			
K67C	B	1-2-4	BLACK	BROWN			RED			
K67CJ	B	1-2	BLACK	BROWN			RED			
K67D	B	1-4	BLACK	BROWN	YELLOW	BLUE		GRAY		
K67DJ	B	1	BLACK	BROWN		BLUE		GRAY		
K67E	B	1-4-8	BLACK	BROWN	YELLOW	BLUE		GRAY		1
K67EI	B	1-4-8	BLACK	BROWN	YELLOW	BLUE		GRAY		2
K67F	B	1-4	BLACK	BROWN			RED		GREEN	
K67H	B	4	BLACK	BROWN	YELLOW	BLUE		GRAY	GREEN	
K67S1	B	1-2-4	BLACK	BROWN			RED			5
K67S2	B	1-2-4	BLACK	BROWN			RED			5
K67S3	B	1-4-8	BLACK	BROWN	YELLOW	BLUE		GRAY		6
KX67A	C	2-3		BROWN	YELLOW		RED			
KX67B	C	2	BLACK	BROWN						
KX67C	C	2	BLACK	BROWN						
KX67D	C	NONE	BLACK	BROWN	YELLOW	BLUE				
KY67A	B	1-2-7	BLACK			BLUE		GRAY		
KY67B	B	2-7	BLACK			BLUE		GRAY		

*See pages 47-50

NOTES: See pages 5-6

JFD AC–DC ADJUSTABLE BALLASTS

Nos. 67 to 70

Ballast No.	Use J.F.D. Type	Break off Pins	CUT STRIP AT COLORS							See Notes
KY67C	B	2-7	BLACK			BLUE		GRAY		
KY67D	B	1-7	BLACK			BLUE		GRAY		
KZ67B	B	1-2-4	BLACK	BROWN			RED			4
KZ67C	B	1-2-4	BLACK	BROWN			RED			4
L67A	B	1-2-4-8	BLACK	BROWN	YELLOW					
L67AJ	B	1-2-8	BLACK			BLUE		GRAY		
L67B	B	1-2-4	BLACK	BROWN			RED			
L67BJ	B	1-2	BLACK	BROWN			RED			
L67C	B	1-2-4	BLACK	BROWN			RED			
L67CJ	B	1-2	BLACK	BROWN			RED			
L67D	B	1-4	BLACK	BROWN	YELLOW	BLUE		GRAY		
L67DJ	B	1	BLACK	BROWN		BLUE		GRAY		
L67E	B	1-4-8	BLACK	BROWN	YELLOW	BLUE		GRAY		1
L67EI	B	1-4-8	BLACK	BROWN	YELLOW	BLUE		GRAY		2
L67F	B	1-4	BLACK	BROWN			RED		GREEN	
L67H	B	4	BLACK	BROWN	YELLOW	BLUE		GRAY	GREEN	
L67S1	B	1-2-4	BLACK	BROWN			RED			5
L67S2	B	1-2-4	BLACK	BROWN			RED			5
L67S3	B	1-4-8	BLACK	BROWN	YELLOW	BLUE		GRAY		6
LX67A	C	2-3		BROWN	YELLOW		RED			
LX67B	C	2	BLACK	BROWN						
LX67C	C	2	BLACK	BROWN						
LX67D	C	NONE	BLACK	BROWN	YELLOW	BLUE				
LY67A	B	1-2-7	BLACK			BLUE		GRAY		
LY67B	B	2-7	BLACK			BLUE		GRAY		
LY67C	B	2-7	BLACK			BLUE		GRAY		
LY67D	B	1-7	BLACK			BLUE		GRAY		
LZ67B	B	1-2-4	BLACK	BROWN			RED			4
LZ67C	B	1-2-4	BLACK	BROWN			RED			4
M67A	B	1-2-4-8	BLACK	BROWN	YELLOW					
M67AJ	B	1-2-8	BLACK			BLUE		GRAY		
M67B	B	1-2-4	BLACK	BROWN			RED			
M67BJ	B	1-2	BLACK	BROWN			RED			
M67C	B	1-2-4	BLACK	BROWN			RED			
M67CJ	B	1-2	BLACK	BROWN			RED			
M67D	B	1-4	BLACK	BROWN	YELLOW	BLUE		GRAY		
M67DJ	B	1	BLACK	BROWN		BLUE		GRAY		
M67E	B	1-4-8	BLACK	BROWN	YELLOW	BLUE		GRAY		1
M67EI	B	1-4-8	BLACK	BROWN	YELLOW	BLUE		GRAY		2
M67F	B	1-4	BLACK	BROWN			RED		GREEN	
M67H	B	4	BLACK	BROWN	YELLOW	BLUE		GRAY	GREEN	
M67S1	B	1-2-4	BLACK	BROWN			RED			5
M67S2	B	1-2-4	BLACK	BROWN			RED			5
M67S3	B	1-4-8	BLACK	BROWN	YELLOW	BLUE		GRAY		6
MX67A	C	2-3		BROWN	YELLOW		RED			
MX67B	C	2	BLACK	BROWN						
MX67C	C	2	BLACK	BROWN						
MX67D	C	NONE	BLACK	BROWN	YELLOW	BLUE				
MY67A	B	1-2-7	BLACK			BLUE		GRAY		
MY67B	B	2-7	BLACK			BLUE		GRAY		
MY67C	B	2-7	BLACK			BLUE		GRAY		
MY67D	B	1-7	BLACK			BLUE		GRAY		
MZ67B	B	1-2-4	BLACK	BROWN			RED			4
MZ67C	B	1-2-4	BLACK	BROWN			RED			4
Y67A	B	1-2-7	BLACK			BLUE		GRAY		
X67A	C	2-3		BROWN	YELLOW		RED			
Z67A	B	1-2-4-8	BLACK	BROWN	YELLOW					3
KZ68	A	1-2-4	BLACK	BROWN						4
69.2033	B	1-2-4	BLACK	BROWN	YELLOW					
69.2037	A	1-2-4	BLACK	BROWN		BLUE	RED			
L70B	B	1-2-4	BLACK	BROWN			RED			

*See pages 47-50

NOTES: See pages 5-6

Nos. 70 to 74

Ballast No.	Use J.F.D. Type	Break off Pins	CUT	STRIP	AT	COLORS					See Notes
L70C	B	1-2-4	BLACK	BROWN				RED			
L70D	B	1-4	BLACK	BROWN	YELLOW	BLUE			GRAY		
K72A	B	1-2-4-8	BLACK			BLUE		RED			
K72B	B	1-2-4	BLACK	BROWN				RED			
K72C	B	1-2-4	BLACK	BROWN	YELLOW			RED			
K72D	B	1-4	BLACK	BROWN				RED	GRAY		
L75-CC*											
74A	B	1-2-4-8	BLACK			BLUE		RED			
74AJ	B	1-2-8	BLACK			BLUE		RED			
74KA	B	1-2-4-8	BLACK			BLUE		RED			
74KC	B	1-2-4	BLACK	BROWN	YELLOW			RED			
74KØ	B	1-4	BLACK	BROWN				RED	GRAY		
K74A	B	1-2-4-8	BLACK			BLUE		RED			
K74AJ	B	1-2-8	BLACK			BLUE		RED			
K74B	B	1-2-4	BLACK	BROWN	YELLOW			RED			
K74BJ	B	1-2	BLACK	BROWN				RED			
K74C	B	1-2-4	BLACK	BROWN	YELLOW			RED			
K74CJ	B	1-2	BLACK	BROWN				RED			
K74D	B	1-4	BLACK	BROWN				RED	GRAY		
K74DJ	B	1	BLACK	BROWN				RED	GRAY		
K74E	B	1-4-8	BLACK	BROWN				RED	GRAY		1
K74EI	B	1-4-8	BLACK	BROWN				RED	GRAY		2
K74F	B	1-4	BLACK	BROWN	YELLOW			RED		GREEN	
K74H	B	4	BLACK	BROWN				RED	GRAY	GREEN	
K74S1	B	1-2-4	BLACK	BROWN	YELLOW			RED			5
K74S2	B	1-2-4	BLACK	BROWN	YELLOW			RED			5
K74S3	B	1-4-8	BLACK	BROWN				RED	GRAY		6
KX74A	C	2-3	BLACK	BROWN							
KX74B	C	2	BLACK	BROWN	YELLOW						
KX74C	C	2	BLACK	BROWN	YELLOW						
KX74D	C	NONE	BLACK	BROWN				RED			
KY74A	B	1-2-7	BLACK			BLUE		RED			
KY74B	B	2-7	BLACK					RED	GRAY		
KY74C	B	2-7	BLACK					RED	GRAY		
KY74D	B	1-7	BLACK					RED	GRAY		
KZ74A	B	1-2-4-8	BLACK			BLUE		RED			3
KZ74B	B	1-2-4	BLACK	BROWN	YELLOW			RED			4
KZ74C	B	1-2-4	BLACK	BROWN	YELLOW			RED			4
L74A	B	1-2-4-8	BLACK			BLUE		RED			
L74AJ	B	1-2-8	BLACK			BLUE		RED			
L74B	B	1-2-4	BLACK	BROWN	YELLOW			RED			
L74BJ	B	1-2	BLACK	BROWN				RED			
L74C	B	1-2-4	BLACK	BROWN	YELLOW			RED			
L74CC	B	1-2-4	BLACK	BROWN	YELLOW			RED			
L74CJ	B	1-2	BLACK	BROWN				RED			
L74D	B	1-4	BLACK	BROWN				RED	GRAY		
L74DJ	B	1	BLACK	BROWN				RED	GRAY		
L74E	B	1-4-8	BLACK	BROWN				RED	GRAY		1
L74EI	B	1-4-8	BLACK	BROWN				RED	GRAY		2
L74F	B	1-4	BLACK	BROWN	YELLOW			RED		GREEN	
L74H	B	4	BLACK	BROWN				RED	GRAY	GREEN	
L74S1	B	1-2-4	BLACK	BROWN	YELLOW			RED			5
L74S2	B	1-2-4	BLACK	BROWN	YELLOW			RED			5
L74S3	B	1-4-8	BLACK	BROWN				RED	GRAY		6
LX74A	C	2-3	BLACK	BROWN							
LX74B	C	2	BLACK	BROWN	YELLOW						
LX74C	C	2	BLACK	BROWN	YELLOW						
LX74D	C	NONE	BLACK	BROWN				RED			
LY74A	B	1-2-7	BLACK			BLUE		RED			
LY74B	B	2-7	BLACK					RED	GRAY		
LY74C	B	2-7	BLACK					RED	GRAY		

*See pages 47-50

NOTES: See pages 5-6

JFD AC–DC ADJUSTABLE BALLASTS

Nos. 74 to 80

Ballast No.	Use J.F.D. Type	Break off Pins	CUT STRIP AT		COLORS					See Notes
LY74D	B	1-7	BLACK				RED	GRAY		
LZ74A	B	1-2-4-8	BLACK			BLUE	RED			3
LZ74B	B	1-2-4	BLACK	BROWN	YELLOW		RED			4
LZ74C	B	1-2-4	BLACK	BROWN	YELLOW		RED			4
M74A	B	1-2-4-8	BLACK			BLUE	RED			
M74AJ	B	1-2-8	BLACK			BLUE	RED			
M74B	B	1-2-4	BLACK	BROWN	YELLOW		RED			
M74BJ	B	1-2	BLACK	BROWN			RED			
M74C	B	1-2-4	BLACK	BROWN	YELLOW		RED			
M74CJ	B	1-2	BLACK	BROWN			RED			
M74D	B	1-4	BLACK	BROWN			RED	GRAY		
M74DJ	B	1	BLACK	BROWN			RED	GRAY		
M74E	B	1-4-8	BLACK	BROWN			RED	GRAY		1
M74EI	B	1-4-8	BLACK	BROWN			RED	GRAY		2
M74F	B	1-4	BLACK	BROWN	YELLOW		RED		GREEN	
M74H	B	4	BLACK	BROWN			RED	GRAY	GREEN	
M74S1	B	1-2-4	BLACK	BROWN	YELLOW		RED			5
M74S2	B	1-2-4	BLACK	BROWN	YELLOW		RED			5
M74S3	B	1-4-8	BLACK	BROWN			RED	GRAY		6
MX74A	C	2-3	BLACK	BROWN						
MX74B	C	2	BLACK	BROWN	YELLOW					
MX74C	C	2	BLACK	BROWN	YELLOW					
MX74D	C	NONE	BLACK	BROWN			RED			
MY74A	B	1-2-7	BLACK			BLUE	RED			
MY74B	B	2-7	BLACK				RED	GRAY		
MY74C	B	2-7	BLACK				RED	GRAY		
MY74D	B	1-7	BLACK				RED	GRAY		
MZ74A	B	1-2-4-8	BLACK			BLUE	RED			3
MZ74B	B	1-2-4	BLACK	BROWN	YELLOW		RED			4
MZ74C	B	1-2-4	BLACK	BROWN	YELLOW		RED			4
X74A	C	2-3	BLACK	BROWN						
Y74A	B	1-2-7	BLACK			BLUE	RED			
Z74A	B	1-2-4-8	BLACK			BLUE	RED			3
K75B	B	1-2-4	BLACK	BROWN	YELLOW		RED			
K75CC	B	1-2-4	BLACK	BROWN	YELLOW		RED			
L75-CC*										
K76B	B	1-2-4	BLACK	BROWN	YELLOW		RED			
77/100*										
K78A	B	1-2-4-8	BLACK			BLUE	RED			
K78B	C	2	BLACK	BROWN		BLUE				
K78B	B	1-2-4	BLACK	BROWN		BLUE	RED			
K78C	B	1-2-4	BLACK	BROWN		BLUE	RED			
K78D	B	1-4	BLACK	BROWN			RED	GRAY		
K78F	B	1-4	BLACK	BROWN	YELLOW		RED		GREEN	
K78H	B	4	BLACK	BROWN	YELLOW		RED	GRAY	GREEN	
KX78B	C	2	BLACK	BROWN		BLUE				
K79A	B	1-2-4-8	BLACK			BLUE	RED			
K79B	B	1-2-4	BLACK	BROWN		BLUE	RED			
K79B	C	2	BLACK	BROWN		BLUE				
K79C	B	1-2-4	BLACK	BROWN		BLUE	RED			
K79D	B	1-4	BLACK	BROWN	YELLOW		RED	GRAY		
80A	B	1-2-4-8	BLACK		YELLOW	BLUE	RED			
80AJ	B	1-2-8	BLACK	BROWN			RED			
80L4	C	2			YELLOW	BLUE				
80L8	C	2			YELLOW	BLUE				
80LB	B	1-2-4	BLACK	BROWN		BLUE	RED			
80LC	B	1-2-4	BLACK	BROWN		BLUE	RED			
80R	C	2-3			YELLOW					
80R4	C	2			YELLOW	BLUE				
80R8	C	2			YELLOW	BLUE				
B80	B	1-2-4	BLACK	BROWN		BLUE	RED			
K80A	B	1-2-4-8	BLACK		YELLOW	BLUE	RED			

*See pages 47-50

NOTES: See pages 5-6

JFD AC–DC ADJUSTABLE BALLASTS

No. 80

Ballast No.	Use J.F.D. Type	Break off Pins	CUT STRIP AT		COLORS					Notes See
K80AJ	B	1-2-8	BLACK	BROWN			RED			
K80B	B	1-2-4	BLACK	BROWN		BLUE	RED			
K80BJ	B	1-2	BLACK	BROWN		BLUE	RED			
K80C	B	1-2-4	BLACK	BROWN		BLUE	RED			
K80CJ	B	1-2	BLACK	BROWN		BLUE	RED			
K80D	B	1-4	BLACK	BROWN	YELLOW		RED	GRAY		
K80DJ	B	1	BLACK	BROWN			RED	GRAY		
K80E	B	1-4-8	BLACK	BROWN	YELLOW		RED	GRAY		1
K80EI	B	1-4-8	BLACK	BROWN	YELLOW		RED	GRAY		2
K80F	B	1-4	BLACK	BROWN		BLUE	RED		GREEN	
K80FG	B	1-4	BLACK	BROWN		BLUE	RED		GREEN	
K80H	B	4	BLACK	BROWN	YELLOW		RED	GRAY	GREEN	
K80HG	B	4	BLACK	BROWN	YELLOW		RED	GRAY	GREEN	
K80S1	B	1-2-4	BLACK	BROWN		BLUE	RED			5
K80S2	B	1-2-4	BLACK	BROWN		BLUE	RED			5
K80S3	B	1-4-8	BLACK	BROWN	YELLOW		RED	GRAY		6
KX80A	C	2-3	BLACK	BROWN	YELLOW					
KX80B	C	2	BLACK	BROWN		BLUE				
KX80C	C	2	BLACK	BROWN		BLUE				
KX80D	C	NONE	BLACK	BROWN			RED			
KY80A	B	1-2-7	BLACK				RED	GRAY		
KY80B	B	2-7	BLACK				RED	GRAY		
KY80C	B	2-7	BLACK				RED	GRAY		
KY80D	B	1-7	BLACK				RED	GRAY		
KZ80A	B	1-2-4-8	BLACK		YELLOW	BLUE	RED			3
KZ80B	B	1-2-4	BLACK	BROWN		BLUE	RED			4
KZ80C	B	1-2-4	BLACK	BROWN		BLUE	RED			4
L80A	B	1-2-4-8	BLACK		YELLOW	BLUE	RED			
L80AJ	B	1-2-8	BLACK	BROWN			RED			
L80B	B	1-2-4	BLACK	BROWN		BLUE	RED			
L80BJ	B	1-2	BLACK	BROWN		BLUE	RED			
L80C	B	1-2-4	BLACK	BROWN		BLUE	RED			
L80CJ	B	1-2	BLACK	BROWN		BLUE	RED			
L80D	B	1-4	BLACK	BROWN	YELLOW		RED	GRAY		
L80DJ	B	1	BLACK	BROWN			RED	GRAY		
L80E	B	1-4-8	BLACK	BROWN	YELLOW		RED	GRAY		1
L80EI	B	1-4-8	BLACK	BROWN	YELLOW		RED	GRAY		2
L80F	B	1-4	BLACK	BROWN		BLUE	RED		GREEN	
L80H	B	4	BLACK	BROWN	YELLOW		RED	GRAY	GREEN	
L80S1	B	1-2-4	BLACK	BROWN		BLUE	RED			5
L80S2	B	1-2-4	BLACK	BROWN		BLUE	RED			5
L80S3	B	1-4-8	BLACK	BROWN	YELLOW		RED	GRAY		6
LX80B	C	2	BLACK	BROWN		BLUE				
LX80C	C	2	BLACK	BROWN		BLUE				
LX80D	C	NONE	BLACK	BROWN			RED			
LY80A	B	1-2-7	BLACK				RED	GRAY		
LY80B	B	2-7	BLACK				RED	GRAY		
LY80C	B	2-7	BLACK				RED	GRAY		
LY80D	B	1-7	BLACK				RED	GRAY		
LZ80A	B	1-2-4-8	BLACK		YELLOW	BLUE	RED			3
LZ80B	B	1-2-4	BLACK	BROWN		BLUE	RED			4
LZ80C	B	1-2-4	BLACK	BROWN		BLUE	RED			4
M80A	B	1-2-4-8	BLACK		YELLOW	BLUE	RED			
M80AJ	B	1-2-8	BLACK	BROWN			RED			
M80B	B	1-2-4	BLACK	BROWN		BLUE	RED			
M80BG	B	1-2-4	BLACK	BROWN		BLUE	RED			
M80BJ	B	1-2	BLACK	BROWN		BLUE	RED			
M80C	B	1-2-4	BLACK	BROWN		BLUE	RED			
M80CG	B	1-2-4	BLACK	BROWN		BLUE	RED			
M80CJ	B	1-2	BLACK	BROWN		BLUE	RED			
M80D	B	1-4	BLACK	BROWN	YELLOW		RED	GRAY		
M80DJ	B	1	BLACK	BROWN			RED	GRAY		

*See pages 47-50

NOTES: See pages 5-6

JFD AC–DC ADJUSTABLE BALLASTS

Nos. 80 to 86

Ballast No.	Use J.F.D. Type	Break off Pins	CUT	STRIP AT	COLORS					See Notes
M80E	B	1-4-8	BLACK	BROWN	YELLOW		RED	GRAY		1
M80EI	B	1-4-8	BLACK	BROWN	YELLOW		RED	GRAY		2
M80F	B	1-4	BLACK	BROWN		BLUE	RED		GREEN	
M80H	B	4	BLACK	BROWN	YELLOW		RED	GRAY	GREEN	
M80HG	B	4	BLACK	BROWN	YELLOW		RED	GRAY	GREEN	
M80S1	B	1-2-4	BLACK	BROWN		BLUE	RED			5
M80S2	B	1-2-4	BLACK	BROWN		BLUE	RED			5
M80S3	B	1-4-8	BLACK	BROWN	YELLOW		RED	GRAY		6
MX80B	C	2	BLACK	BROWN		BLUE				
MX80C	C	2	BLACK	BROWN		BLUE				
MX80D	C	NONE	BLACK	BROWN			RED			
MY80A	B	1-2-7	BLACK				RED	GRAY		
MY80B	B	2-7	BLACK				RED	GRAY		
MY80C	B	2-7	BLACK				RED	GRAY		
MY80D	B	1-7	BLACK				RED	GRAY		
MZ80A	B	1-2-4-8	BLACK		YELLOW	BLUE	RED			3
MZ80B	B	1-2-4	BLACK	BROWN		BLUE	RED			4
MZ80C	B	1-2-4	BLACK	BROWN		BLUE	RED			4
Y80A	B	1-2-7	BLACK				RED	GRAY		
X80A	C	2-3	BLACK	BROWN	YELLOW					
Z80A	B	1-2-4-8	BLACK		YELLOW	BLUE	RED			3
L81BJ	B	1-2	BLACK	BROWN		BLUE	RED			
K82B	B	1-2-4	BLACK	BROWN		BLUE	RED			
K82C	B	1-2-4	BLACK	BROWN		BLUE	RED			
K82D	B	1-4	BLACK	BROWN	YELLOW		RED	GRAY		
K82F	B	1-4	BLACK	BROWN		BLUE	RED		GREEN	
K82H	B	4	BLACK	BROWN	YELLOW		RED	GRAY	GREEN	
K84H	B	4	BLACK	BROWN	YELLOW		RED	GRAY	GREEN	
85-L-75-CC*										
85LC	B	1-2-4	BLACK	BROWN	YELLOW	BLUE		GRAY		
85LD	B	1-4	BLACK	BROWN		BLUE	RED	GRAY		
L85CC*										
86A	B	1-2-4-8	BLACK	BROWN			RED			
86AJ	B	1-2-8	BLACK	BROWN		BLUE		GRAY		
86KB	B	1-2-4	BLACK	BROWN	YELLOW	BLUE		GRAY		
86KC	B	1-2-4	BLACK	BROWN	YELLOW	BLUE		GRAY		
86KD	B	1-4	BLACK	BROWN		BLUE	RED	GRAY		
K86A	B	1-2-4-8	BLACK	BROWN			RED			
K86AJ	B	1-2-8	BLACK	BROWN		BLUE		GRAY		
K86B	B	1-2-4	BLACK	BROWN	YELLOW	BLUE		GRAY		
K86BJ	B	1-2	BLACK	BROWN			RED	GRAY		
K86C	B	1-2-4	BLACK	BROWN	YELLOW	BLUE		GRAY		
K86CJ	B	1-2	BLACK	BROWN			RED	GRAY		
K86D	B	1-4	BLACK	BROWN		BLUE	RED	GRAY		
K86DJ	B	1	BLACK	BROWN		BLUE	RED	GRAY		
K86E	B	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		1
K86EI	B	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		2
K86F	B	1-4	BLACK	BROWN		BLUE	RED		GREEN	
K86H	B	4	BLACK	BROWN		BLUE	RED	GRAY	GREEN	
K86S1	B	1-2-4	BLACK	BROWN	YELLOW	BLUE		GRAY		5
K86S2	B	1-2-4	BLACK	BROWN	YELLOW	BLUE		GRAY		5
K86S3	B	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		6
KX86B	C	2	BLACK	BROWN	YELLOW	BLUE				
KX86C	C	2	BLACK	BROWN	YELLOW	BLUE				
KX86D	C	NONE	BLACK	BROWN	YELLOW		RED			
KY86A	B	1-2-7	BLACK				RED	GRAY		
KY86B	B	2-7	BLACK			BLUE	RED	GRAY		
KY86C	B	2-7	BLACK			BLUE	RED	GRAY		
KY86D	B	1-7	BLACK			BLUE	RED	GRAY		
KZ86A	B	1-2-4-8	BLACK	BROWN			RED			3
KZ86B	B	1-2-4	BLACK	BROWN	YELLOW	BLUE		GRAY		4
KZ86C	B	1-2-4	BLACK	BROWN	YELLOW	BLUE		GRAY		4

*See pages 47-50

NOTES: See pages 5-6

AC–DC ADJUSTABLE BALLASTS

Nos. 86 to 90

Ballast No.	Use J.F.D. Type	Break off Pins	CUT STRIP AT COLORS							See Notes
L86A	B	1-2-4-8	BLACK	BROWN			RED			
L86AJ	B	1-2-8	BLACK	BROWN		BLUE		GRAY		
L86B	B	1-2-4	BLACK	BROWN	YELLOW	BLUE		GRAY		
L86BJ	B	1-2	BLACK	BROWN			RED	GRAY		
L86C	B	1-2-4	BLACK	BROWN	YELLOW	BLUE		GRAY		
L86CJ	B	1-2	BLACK	BROWN			RED	GRAY		
L86D	B	1-4	BLACK	BROWN		BLUE	RED	GRAY		
L86DJ	B	1	BLACK	BROWN		BLUE	RED	GRAY		
L86E	B	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		1
L86EI	B	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		2
L86F	B	1-4	BLACK	BROWN		BLUE	RED		GREEN	
L86H	B	4	BLACK	BROWN		BLUE	RED	GRAY	GREEN	
L86S1	B	1-2-4	BLACK	BROWN	YELLOW	BLUE		GRAY		5
L86S2	B	1-2-4	BLACK	BROWN	YELLOW	BLUE		GRAY		5
L86S3	B	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		6
LX86B	C	2	BLACK	BROWN	YELLOW	BLUE				
LX86C	C	2	BLACK	BROWN	YELLOW	BLUE				
LX86D	C	NONE	BLACK	BROWN	YELLOW		RED			
LY86A	B	1-2-7	BLACK				RED	GRAY		
LY86B	B	2-7	BLACK			BLUE	RED	GRAY		
LY86C	B	2-7	BLACK			BLUE	RED	GRAY		
LY86D	B	1-7	BLACK			BLUE	RED	GRAY		
LZ86A	B	1-2-4-8	BLACK	BROWN			RED			3
LZ86B	B	1-2-4	BLACK	BROWN	YELLOW	BLUE		GRAY		4
LZ86C	B	1-2-4	BLACK	BROWN	YELLOW	BLUE		GRAY		4
M86A	B	1-2-4-8	BLACK	BROWN			RED			
M86AJ	B	1-2-8	BLACK	BROWN		BLUE		GRAY		
M86B	B	1-2-4	BLACK	BROWN	YELLOW	BLUE		GRAY		
M86BJ	B	1-2	BLACK	BROWN			RED	GRAY		
M86C	B	1-2-4	BLACK	BROWN	YELLOW	BLUE		GRAY		
M86CJ	B	1-2	BLACK	BROWN			RED	GRAY		
M86D	B	1-4	BLACK	BROWN		BLUE	RED	GRAY		
M86DJ	B	1	BLACK	BROWN		BLUE	RED	GRAY		
M86E	B	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		1
M86EI	B	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		2
M86F	B	1-4	BLACK	BROWN		BLUE	RED		GREEN	
M86H	B	4	BLACK	BROWN		BLUE	RED	GRAY	GREEN	
M86S1	B	1-2-4	BLACK	BROWN	YELLOW	BLUE		GRAY		5
M86S2	B	1-2-4	BLACK	BROWN	YELLOW	BLUE		GRAY		5
M86S3	B	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		6
MX86B	C	2	BLACK	BROWN	YELLOW	BLUE				
MX86C	C	2	BLACK	BROWN	YELLOW	BLUE				
MX86D	C	NONE	BLACK	BROWN	YELLOW		RED			
MY86A	B	1-2-7	BLACK				RED	GRAY		
MY86B	B	2-7	BLACK			BLUE	RED	GRAY		
MY86C	B	2-7	BLACK			BLUE	RED	GRAY		
MY86D	B	1-7	BLACK			BLUE	RED	GRAY		
MZ86A	B	1-2-4-8	BLACK	BROWN			RED			3
MZ86B	B	1-2-4	BLACK	BROWN	YELLOW	BLUE		GRAY		4
MZ86C	B	1-2-4	BLACK	BROWN	YELLOW	BLUE		GRAY		4
X86A	C	2-3	BLACK	BROWN		BLUE				
Y86A	B	1-2-7	BLACK				RED	GRAY		
Z86A	B	1-2-4-8	BLACK	BROWN			RED			3
K87A	B	1-2-4-8	BLACK	BROWN			RED			
K87B	B	1-2-4	BLACK	BROWN	YELLOW	BLUE		GRAY		
K87C	B	1-2-4	BLACK	BROWN	YELLOW	BLUE		GRAY		
88A	B	1-2-4-8	BLACK	BROWN			RED			
90A	B	1-2-4-8	BLACK	BROWN	YELLOW		RED			
90AJ	B	1-2-8	BLACK	BROWN		BLUE	RED			
90R8	C	2					RED			
K90A	B	1-2-4-8	BLACK	BROWN	YELLOW		RED			
K90AJ	B	1-2-8	BLACK	BROWN		BLUE	RED			

*See pages 47-50

NOTES: See pages 5-6

JFD AC–DC ADJUSTABLE BALLASTS

Nos. 90 to 92

Ballast No.	Use J.F.D. Type	Break off Pins	CUT	STRIP AT	COLORS					See Notes
K90B	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			
K90BJ	B	1-2	BLACK	BROWN			RED	GRAY		
K90C	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			
K90CJ	B	1-2	BLACK	BROWN			RED	GRAY		
K90D	B	1-4	BLACK	BROWN		BLUE	RED	GRAY		
K90DJ	B	1	BLACK	BROWN		BLUE	RED	GRAY		
K90F	B	1-4	BLACK	BROWN	YELLOW	BLUE	RED		GREEN	
K90H	B	4	BLACK	BROWN	YELLOW	BLUE	RED	GRAY	GREEN	
KY90B	B	2-7	BLACK			BLUE	RED	GRAY		
KY90C	B	2-7	BLACK			BLUE	RED	GRAY		
KY90D	B	1-7	BLACK			BLUE	RED	GRAY		
L90A	B	1-2-4-8	BLACK	BROWN	YELLOW		RED			
L90AJ	B	1-2-8	BLACK	BROWN		BLUE	RED			
L90B	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			
L90BJ	B	1-2	BLACK	BROWN			RED	GRAY		
L90C	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			
L90-CC*										
L90CJ	B	1-2	BLACK	BROWN			RED	GRAY		
L90D	B	1-4	BLACK	BROWN		BLUE	RED	GRAY		
L90DJ	B	1	BLACK	BROWN		BLUE	RED	GRAY		
L90F	B	1-4	BLACK	BROWN	YELLOW	BLUE	RED		GREEN	
L90H	B	4	BLACK	BROWN	YELLOW	BLUE	RED	GRAY	GREEN	
LY90B	B	2-7	BLACK			BLUE	RED	GRAY		
LY90C	B	2-7	BLACK			BLUE	RED	GRAY		
LY90D	B	1-7	BLACK			BLUE	RED	GRAY		
M90A	B	1-2-4-8	BLACK	BROWN	YELLOW		RED			
M90AJ	B	1-2-8	BLACK	BROWN		BLUE	RED			
M90B	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			
M90BG	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			
M90BJ	B	1-2	BLACK	BROWN			RED	GRAY		
M90C	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			
M90CJ	B	1-2	BLACK	BROWN			RED	GRAY		
M90D	B	1-4	BLACK	BROWN		BLUE	RED	GRAY		
M90DJ	B	1	BLACK	BROWN		BLUE	RED	GRAY		
M90F	B	1-4	BLACK	BROWN	YELLOW	BLUE	RED		GREEN	
M90FG	B	1-4	BLACK	BROWN	YELLOW	BLUE	RED		GREEN	
M90H	B	4	BLACK	BROWN	YELLOW	BLUE	RED	GRAY	GREEN	
M90HG	B	4	BLACK	BROWN	YELLOW	BLUE	RED	GRAY	GREEN	
MY90B	B	2-7	BLACK			BLUE	RED	GRAY		
MY90C	B	2-7	BLACK			BLUE	RED	GRAY		
MY90D	B	1-7	BLACK			BLUE	RED	GRAY		
XB90	C	2	BLACK	BROWN			RED			
92A	B	1-2-4-8	BLACK	BROWN	YELLOW		RED			
92KB	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			
92KC	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			
92KD	B	1-4	BLACK	BROWN		BLUE	RED	GRAY		
K92A	B	1-2-4-8	BLACK	BROWN	YELLOW		RED			
K92B	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			
K92C	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			
K92D	B	1-4	BLACK	BROWN		BLUE	RED	GRAY		
K92E	B	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		1
K92EI	B	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		2
K92F	B	1-4	BLACK	BROWN	YELLOW	BLUE	RED		GREEN	
K92H	B	4	BLACK	BROWN	YELLOW	BLUE	RED	GRAY	GREEN	
K92S1	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			5
K92S2	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			5
K92S3	B	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		6
KX92B	C	2	BLACK	BROWN			RED			
KX92C	C	2	BLACK	BROWN			RED			
KX92D	C	NONE	BLACK	BROWN		BLUE	RED			
KY92C	B	7-2	BLACK			BLUE	RED	GRAY		
KZ92A	B	1-2-4-8	BLACK	BROWN	YELLOW		RED			3

*See pages 47-50

NOTES: See pages 5-6

JFD AC–DC ADJUSTABLE BALLASTS

Nos. 92 to 98

Ballast No.	Use J.F.D. Type	Break off Pins	CUT STRIP AT COLORS							See Notes
KZ92B	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			4
KZ92C	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			4
Z92A	B	1-2-4-8	BLACK	BROWN	YELLOW		RED			3
L92A	B	1-2-4-8	BLACK	BROWN	YELLOW		RED			
L92B	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			
L92C	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			
L92D	B	1-4	BLACK	BROWN		BLUE	RED	GRAY		
L92E	B	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		1
L92EI	B	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		2
L92S1	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			5
L92S2	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			5
L92S3	B	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		6
LX92B	C	2	BLACK	BROWN			RED			
LX92C	C	2	BLACK	BROWN			RED			
LX92D	C	NONE	BLACK	BROWN		BLUE	RED			
LZ92A	B	1-2-4-8	BLACK	BROWN	YELLOW		RED			3
LZ92B	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			4
LZ92C	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			4
M92A	B	1-2-4-8	BLACK	BROWN	YELLOW		RED			
M92B	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			
M92C	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			
M92D	B	1-4	BLACK	BROWN		BLUE	RED	GRAY		
M92E	B	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		1
M92EI	B	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		2
M92F	B	1-4	BLACK	BROWN	YELLOW	BLUE	RED		GREEN	
M92H	B	4	BLACK	BROWN	YELLOW	BLUE	RED	GRAY	GREEN	
M92HG	B	4	BLACK	BROWN	YELLOW	BLUE	RED	GRAY	GREEN	
M92S1	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			5
M92S2	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			5
M92S3	B	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		6
MX92B	C	2	BLACK	BROWN			RED			
MX92C	C	2	BLACK	BROWN			RED			
MX92D	C	NONE	BLACK	BROWN		BLUE	RED			
MZ92A	B	1-2-4-8	BLACK	BROWN	YELLOW		RED			3
MZ92B	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			4
MZ92C	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			4
94R8	C	2					RED			
K94A	B	1-2-4-8	BLACK	BROWN	YELLOW		RED			
K94B	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			
K94C	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			
K94D	B	1-4	BLACK	BROWN		BLUE	RED	GRAY		
K94F	B	1-4	BLACK	BROWN	YELLOW	BLUE	RED		GREEN	
K94H	B	4	BLACK	BROWN	YELLOW	BLUE	RED	GRAY	GREEN	
95K2	A	1-2-4	BLACK	BROWN		BLUE	RED			
K95A	B	1-2-4-8	BLACK	BROWN	YELLOW		RED			
K95B	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			
K95B2	B	7-2	BLACK	BROWN		BLUE	RED	GRAY		
K95C	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			
K95F	B	1-4	BLACK	BROWN	YELLOW	BLUE	RED		GREEN	
K95H	B	4	BLACK	BROWN	YELLOW	BLUE	RED	GRAY	GREEN	
M95B	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			
M95C	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			
M95D	B	1-4	BLACK	BROWN		BLUE	RED	GRAY		
M95F	B	1-4	BLACK	BROWN	YELLOW	BLUE	RED		GREEN	
M95H	B	4	BLACK	BROWN	YELLOW	BLUE	RED	GRAY	GREEN	
98A	B	1-2-4-8	BLACK			BLUE	RED	GRAY		
98AJ	B	1-2-8	BLACK	BROWN			RED	GRAY		
K98A	B	1-2-4-8	BLACK			BLUE	RED	GRAY		
K98AJ	B	1-2-8	BLACK	BROWN			RED	GRAY		
K98B	B	1-2-4	BLACK	BROWN	YELLOW		RED	GRAY		
K98BJ	B	1-2	BLACK	BROWN		BLUE	RED	GRAY		
K98C	B	1-2-4	BLACK	BROWN	YELLOW		RED	GRAY		

*See pages 47-50

NOTES: See pages 5-6

JFD AC–DC ADJUSTABLE BALLASTS

No. 98

Ballast No.	Use J.F.D. Type	Break off Pins	CUT STRIP AT COLORS							See Notes
K98CJ	B	1-2	BLACK	BROWN		BLUE	RED	GRAY		
K98D	B	1-4	BLACK	BROWN	YELLOW	BLUE	RED	GRAY		
K98E	B	1-4-8	BLACK	BROWN	YELLOW	BLUE	RED	GRAY		1
K98EI	B	1-4-8	BLACK	BROWN	YELLOW	BLUE	RED	GRAY		2
K98F	B	1-4	BLACK	BROWN	YELLOW	BLUE	RED		GREEN	
K98H	B	4	BLACK	BROWN	YELLOW	BLUE	RED	GRAY	GREEN	
K98S1	B	1-2-4	BLACK	BROWN	YELLOW		RED	GRAY		5
K98S2	B	1-2-4	BLACK	BROWN	YELLOW		RED	GRAY		5
K98S3	B	1-4-8	BLACK	BROWN	YELLOW	BLUE	RED	GRAY		6
KX98A	C	2-3	BLACK	BROWN	YELLOW	BLUE				
KX98B	C	2	BLACK	BROWN	YELLOW		RED			
KX98C	C	2	BLACK	BROWN	YELLOW		RED			
KX98D	C	NONE	BLACK	BROWN	YELLOW	BLUE	RED			
KY98A	B	1-2-7	BLACK			BLUE	RED	GRAY		
KZ98B	B	1-2-4	BLACK	BROWN	YELLOW		RED	GRAY		4
KZ98C	B	1-2-4	BLACK	BROWN	YELLOW		RED	GRAY		4
L98A	B	1-2-4-8	BLACK			BLUE	RED	GRAY		
L98AJ	B	1-2-8	BLACK	BROWN			RED	GRAY		
L98B	B	1-2-4	BLACK	BROWN	YELLOW		RED	GRAY		
L98BJ	B	1-2	BLACK	BROWN		BLUE	RED	GRAY		
L98C	B	1-2-4	BLACK	BROWN	YELLOW		RED	GRAY		
L98CJ	B	1-2	BLACK	BROWN		BLUE	RED	GRAY		
L98D	B	1-4	BLACK	BROWN	YELLOW	BLUE	RED	GRAY		
L98E	B	1-4-8	BLACK	BROWN	YELLOW	BLUE	RED	GRAY		1
L98EI	B	1-4-8	BLACK	BROWN	YELLOW	BLUE	RED	GRAY		2
L98F	B	1-4	BLACK	BROWN	YELLOW	BLUE	RED		GREEN	
L98H	B	4	BLACK	BROWN	YELLOW	BLUE	RED	GRAY	GREEN	
L98S1	B	1-2-4	BLACK	BROWN	YELLOW		RED	GRAY		5
L98S2	B	1-2-4	BLACK	BROWN	YELLOW		RED	GRAY		5
L98S3	B	1-4-8	BLACK	BROWN	YELLOW	BLUE	RED	GRAY		6
LX98A	C	2-3	BLACK	BROWN	YELLOW	BLUE				
LX98B	C	2	BLACK	BROWN	YELLOW		RED			
LX98C	C	2	BLACK	BROWN	YELLOW		RED			
LX98D	C	NONE	BLACK	BROWN	YELLOW	BLUE	RED			
LY98A	B	1-2-7	BLACK			BLUE	RED	GRAY		
LZ98B	B	1-2-4	BLACK	BROWN	YELLOW		RED	GRAY		4
LZ98C	B	1-2-4	BLACK	BROWN	YELLOW		RED	GRAY		4
M98A	B	1-2-4-8	BLACK			BLUE	RED	GRAY		
M98AJ	B	1-2-8	BLACK	BROWN			RED	GRAY		
M98B	B	1-2-4	BLACK	BROWN	YELLOW		RED	GRAY		
M98BJ	B	1-2	BLACK	BROWN		BLUE	RED	GRAY		
M98C	B	1-2-4	BLACK	BROWN	YELLOW		RED	GRAY		
M98CJ	B	1-2	BLACK	BROWN		BLUE	RED	GRAY		
M98D	B	1-4	BLACK	BROWN	YELLOW	BLUE	RED	GRAY		
M98E	B	1-4-8	BLACK	BROWN	YELLOW	BLUE	RED	GRAY		1
M98EI	B	1-4-8	BLACK	BROWN	YELLOW	BLUE	RED	GRAY		2
M98F	B	1-4	BLACK	BROWN	YELLOW	BLUE	RED		GREEN	
M98H	B	4	BLACK	BROWN	YELLOW	BLUE	RED	GRAY	GREEN	
M98S1	B	1-2-4	BLACK	BROWN	YELLOW		RED	GRAY		5
M98S2	B	1-2-4	BLACK	BROWN	YELLOW		RED	GRAY		5
M98S3	B	1-4-8	BLACK	BROWN	YELLOW	BLUE	RED	GRAY		6
MX98A	C	2-3	BLACK	BROWN	YELLOW	BLUE				
MX98B	C	2	BLACK	BROWN	YELLOW		RED			
MX98C	C	2	BLACK	BROWN	YELLOW		RED			
MX98D	C	NONE	BLACK	BROWN	YELLOW	BLUE	RED			
MY98A	B	1-2-7	BLACK			BLUE	RED	GRAY		
MZ98B	B	1-2-4	BLACK	BROWN	YELLOW		RED	GRAY		4
MZ98C	B	1-2-4	BLACK	BROWN	YELLOW		RED	GRAY		4
X98A	C	2-3	BLACK	BROWN	YELLOW	BLUE				
Y98A	B	1-2-7	BLACK			BLUE	RED	GRAY		
Z98A	B	1-2-4-8	BLACK			BLUE	RED	GRAY		3

*See pages 47-50

NOTES: See pages 5-6

Nos. 100 to 105

Ballast No.	Use J.F.D. Type	Break off Pins	CUT STRIP AT COLORS						See Notes
100.37	B	1-2	BLACK	BROWN		BLUE			
100.38	B	1-2	BLACK	BROWN					
100.45	B	1-2	BLACK	BROWN		BLUE			
100.46*									
100.47*									
100.48*									
100.49*									
100.55*									
100.56*									
100.57*									
100.58*									
100.59*									
100.60*									
100.61*									
100.62*									
100.63*									
100.64*									
100.65*									
100.66*									
100-70	B	1-2	BLACK	BROWN				GRAY	
100-76*									
100-77*									
100-79*									
100-81*									
100-82*									
100L4	C	2					RED		
100L8	C	2					RED		
100R	C	2-3				BLUE			
100R4	C	2					RED		
100R8	C	2					RED		
L100D	B	1-4	BLACK	BROWN	YELLOW	BLUE	RED	GRAY	
105A	B	1-2-4-8	BLACK	BROWN	YELLOW	BLUE	RED		
105KC	B	1-2-4	BLACK	BROWN		BLUE	RED	GRAY	
105KD	B	1-4	BLACK	BROWN	YELLOW	BLUE	RED	GRAY	
105M4	C	2					RED		
K105A	B	1-2-4-8	BLACK	BROWN	YELLOW	BLUE	RED		
K105B	B	1-2-4	BLACK	BROWN		BLUE	RED	GRAY	
K105C	B	1-2-4	BLACK	BROWN		BLUE	RED	GRAY	
K105D	B	1-4	BLACK	BROWN	YELLOW	BLUE	RED	GRAY	
K105S1	B	1-2-4	BLACK	BROWN		BLUE	RED	GRAY	5
K105S2	B	1-2-4	BLACK	BROWN		BLUE	RED	GRAY	5
KX105B	C	2	BLACK	BROWN		BLUE	RED		
KX105C	C	2	BLACK	BROWN		BLUE	RED		
KX105D	C	NONE	BLACK	BROWN	YELLOW	BLUE	RED		
KZ105A	B	1-2-4-8	BLACK	BROWN	YELLOW	BLUE	RED		3
KZ105B	B	1-2-4	BLACK	BROWN		BLUE	RED	GRAY	4
KZ105C	B	1-2-4	BLACK	BROWN		BLUE	RED	GRAY	4
L105A	B	1-2-4-8	BLACK	BROWN	YELLOW	BLUE	RED		
L105B	B	1-2-4	BLACK	BROWN		BLUE	RED	GRAY	
L105C	B	1-2-4	BLACK	BROWN		BLUE	RED	GRAY	
L105S1	B	1-2-4	BLACK	BROWN		BLUE	RED	GRAY	5
L105S2	B	1-2-4	BLACK	BROWN		BLUE	RED	GRAY	5
LX105B	C	2	BLACK	BROWN		BLUE	RED		
LX105C	C	2	BLACK	BROWN		BLUE	RED		
LX105D	C	NONE	BLACK	BROWN	YELLOW	BLUE	RED		
LZ105B	B	1-2-4	BLACK	BROWN		BLUE	RED	GRAY	4
LZ105C	B	1-2-4	BLACK	BROWN		BLUE	RED	GRAY	4
M105A	B	1-2-4-8	BLACK	BROWN	YELLOW	BLUE	RED		
M105B	B	1-2-4	BLACK	BROWN		BLUE	RED	GRAY	
M105C	B	1-2-4	BLACK	BROWN		BLUE	RED	GRAY	
M105S1	B	1-2-4	BLACK	BROWN		BLUE	RED	GRAY	5
M105S2	B	1-2-4	BLACK	BROWN		BLUE	RED	GRAY	5

*See pages 47-50

NOTES: See pages 5-6

JFD AC–DC ADJUSTABLE BALLASTS

Nos. 105 to 140

Ballast No.	Use J.F.D. Type	Break off Pins	CUT STRIP AT COLORS						See Notes
MX105B	C	2	BLACK	BROWN		BLUE	RED		
MX105C	C	2	BLACK	BROWN		BLUE	RED		
MX105D	C	NONE	BLACK	BROWN	YELLOW	BLUE	RED		
MZ105B	B	1-2-4	BLACK	BROWN		BLUE	RED	GRAY	4
MZ105C	B	1-2-4	BLACK	BROWN		BLUE	RED	GRAY	4
X105A	C	2-3	BLACK	BROWN			RED		
Z105A	B	1-2-4-8	BLACK	BROWN	YELLOW	BLUE	RED		3
K106A	B	1-2-4-8	BLACK	BROWN	YELLOW	BLUE	RED		
K106B	B	1-2-4	BLACK	BROWN		BLUE	RED	GRAY	
115.14	B	1-4	BLACK	BROWN	YELLOW	BLUE	RED	GRAY	
115.15*									
115.16*									
115.17*									
115.18*									
115.19*									
115.20*									
115.21*									
115.22	B	1-4	BLACK	BROWN	YELLOW			GRAY	
115.23*									
115.24*									
115.25*									
115.26*									
115.27*									
115.28	A	1-4	BLACK	BROWN		BLUE	RED	GRAY	
115.40	B	1-2-4-8	BLACK		YELLOW	BLUE			
115.41	B	1-2-4	BLACK	BROWN	YELLOW				
115.42	A	1-4	BLACK	BROWN	YELLOW	BLUE		GRAY	
115.42A*									
115.43*									
115.43X*									
115.44*									
115.46*									
115.47X*									
115.49*									
115.53*									
115.55*									
115.58*									
115.65*									
115.68*									
115.78*									
115.79*									
115.82*									
115.84*									
115.89*									
115.96*									
115.98*									
115.109*									
120L4	C	2			YELLOW		RED		
120L8	C	2			YELLOW		RED		
120R	C	2-3			YELLOW	BLUE			
120R4	C	2			YELLOW		RED		
120R8	C	2			YELLOW		RED		
L-120-75-CC*									
130-35*									
130R	C	2-3			YELLOW	BLUE			
R-130-180*									
R-130-T380*									
G-133	C	2-3			YELLOW		RED		
135K1	B	1-2-4	BLACK	BROWN	YELLOW				
135K1A	B	1-2	BLACK	BROWN		BLUE			
135-T-380*									
140A	C	2-3					RED		
140KB	C	2				BLUE	RED		

*See pages 47-50

NOTES: See pages 5-6

JFD AC–DC ADJUSTABLE BALLASTS

Nos. 140 to 185

Ballast No.	Use J.F.D. Type	Break off Pins	CUT STRIP AT COLORS					See Notes
140KC	C	2				BLUE	RED	
140L4	C	2				BLUE	RED	
140L8	C	2				BLUE	RED	
140L44	C	NONE		BROWN	YELLOW		RED	
140LB	C	2				BLUE	RED	
140LC	C	2				BLUE	RED	
140LR	C	2			YELLOW	BLUE	RED	
140M4	C	2				BLUE	RED	
140M8	C	2				BLUE	RED	
140R	C	2-3					RED	
140R4	C	2				BLUE	RED	
140R8	C	2				BLUE	RED	
140R44	C	None		BROWN	YELLOW		RED	
B149C	B	1-2-4	BLACK	BROWN	YELLOW			
150R	C	2-3			YELLOW		RED	
D-150*								
K150A	B	1-2-4-8	BLACK			BLUE		
L150B	B	1-2-4	BLACK	BROWN	YELLOW			
E157*								
159	A	1-2-4	BLACK	BROWN	YELLOW	BLUE		
L159B	B	1-2-4	BLACK	BROWN		BLUE		
160KB	B	1-2-4	BLACK	BROWN	YELLOW			
160LB	B	1-2-4	BLACK	BROWN	YELLOW			
160LC	B	1-2-4	BLACK	BROWN	YELLOW			
R-161-300*								
165A	C	2-3			YELLOW		RED	
165KB	C	2			YELLOW	BLUE	RED	
165KB	B	1-2-4	BLACK	BROWN	YELLOW			
165KC	C	2			YELLOW	BLUE	RED	
165L4	C	2			YELLOW	BLUE	RED	
165L8	C	2			YELLOW	BLUE	RED	
165L44	C	None		BROWN		BLUE	RED	
165LB	C	2			YELLOW	BLUE	RED	
165LC	C	2			YELLOW	BLUE	RED	
165LC	B	1-2-4	BLACK	BROWN	YELLOW			
165LD	C	NONE		BROWN		BLUE	RED	
165M4	C	2			YELLOW	BLUE	RED	
165M8	C	2			YELLOW	BLUE	RED	
165R	C	2-3			YELLOW		RED	
165R4	C	2			YELLOW	BLUE	RED	
165R8	C	2			YELLOW	BLUE	RED	
165R44	C	None		BROWN		BLUE	RED	
180KB	B	1-2-4	BLACK	BROWN		BLUE		
185A	B	1-2-4-8	BLACK		YELLOW	BLUE		
185A	C	2-3			YELLOW	BLUE	RED	
185KB	B	1-2-4	BLACK	BROWN		BLUE		
185KB	C	2		BROWN	YELLOW		RED	
185KC	B	1-2-4	BLACK	BROWN		BLUE		
185KC	C	2		BROWN	YELLOW		RED	
185KD	C	2		BROWN	YELLOW		RED	
185KD	B	1-4	BLACK	BROWN	YELLOW			GRAY
185L4	C	2		BROWN	YELLOW		RED	
185L8	C	2		BROWN	YELLOW		RED	
185L44	C	None		BROWN	YELLOW	BLUE	RED	
185LB	B	1-2-4	BLACK	BROWN		BLUE		
185LB	C	2		BROWN	YELLOW		RED	
185LC	B	1-2-4	BLACK	BROWN		BLUE		
185LC	C	2		BROWN	YELLOW		RED	
185LD	B	1-4	BLACK	BROWN	YELLOW			GRAY
185M4	C	2		BROWN	YELLOW		RED	
185M8	C	2		BROWN	YELLOW		RED	
185R	C	2-3				BLUE	RED	
185R4	C	2		BROWN	YELLOW		RED	

*See pages 47-50

NOTES: See pages 5-6

JFD AC–DC ADJUSTABLE BALLASTS

Nos. 185 to 300

Ballast No.	Use J.F.D. Type	Break off Pins	CUT STRIP AT COLORS					See Notes
185R8	C	2		BROWN	YELLOW		RED	
185R44	C	None		BROWN	YELLOW	BLUE	RED	
200L4	C	2		BROWN		BLUE	RED	
200L8	C	2		BROWN		BLUE	RED	
200R	C	2-3		BROWN			RED	
200R4	C	2		BROWN		BLUE	RED	
200R8	C	2		BROWN		BLUE	RED	
D-200*								
FM-203*								
220L4	C	2	BLACK	BROWN				
220L8	C	2	BLACK	BROWN				
220R	C	2-3		BROWN	YELLOW		RED	
220R4	C	2	BLACK	BROWN				
220R8	C	2	BLACK	BROWN				
240L4	C	2	BLACK	BROWN	YELLOW			
240L8	C	2	BLACK	BROWN	YELLOW			
240R	C	2-3	BLACK	BROWN				
240R4	C	2	BLACK	BROWN	YELLOW			
240R8	C	2	BLACK	BROWN	YELLOW			
245A	C	2-3	BLACK	BROWN				
245KA	B	1-2-4-8	BLACK			BLUE	RED	
245KB	C	2	BLACK	BROWN	YELLOW			
245KB	B	1-2-4	BLACK	BROWN	YELLOW		RED	
245KC	B	1-2-4	BLACK	BROWN	YELLOW		RED	
245KC	C	2	BLACK	BROWN	YELLOW			
245KD	B	1-4	BLACK	BROWN			RED	GRAY
250A	C	2-3	BLACK	BROWN				
250KB	C	2	BLACK	BROWN	YELLOW			
250KB	B	1-2-4	BLACK	BROWN	YELLOW		RED	
250KC	B	1-2-4	BLACK	BROWN	YELLOW		RED	
250KC	C	2	BLACK	BROWN	YELLOW			
250KD	B	1-4	BLACK	BROWN			RED	GRAY
250L4	C	2	BLACK	BROWN	YELLOW			
250L8	C	2	BLACK	BROWN	YELLOW			
250M4	C	2	BLACK	BROWN	YELLOW			
250M8	C	2	BLACK	BROWN	YELLOW			
250R	C	2-3	BLACK	BROWN				
250R4	C	2	BLACK	BROWN	YELLOW			
250R8	C	2	BLACK	BROWN	YELLOW			
FM-254*								
260*								
260L4	C	2	BLACK	BROWN		BLUE		
260L8	C	2	BLACK	BROWN		BLUE		
260R	C	2-3	BLACK	BROWN	YELLOW			
260R4	C	2	BLACK	BROWN		BLUE		
260R8	C	2	BLACK	BROWN		BLUE		
270L4	C	2	BLACK	BROWN		BLUE		
270L8	C	2	BLACK	BROWN		BLUE		
270M4	C	2	BLACK	BROWN		BLUE		
270M8	C	2	BLACK	BROWN		BLUE		
270R	C	2-3	BLACK	BROWN	YELLOW			
270R4	C	2	BLACK	BROWN		BLUE		
270R8	C	2	BLACK	BROWN		BLUE		
275*								
280L4	C	2	BLACK	BROWN	YELLOW	BLUE		
280L8	C	2	BLACK	BROWN	YELLOW	BLUE		
280R	C	2-3	BLACK	BROWN		BLUE		
280R4	C	2	BLACK	BROWN	YELLOW	BLUE		
280R8	C	2	BLACK	BROWN	YELLOW	BLUE		
FM-288*								
300L4	C	2	BLACK	BROWN			RED	

*See pages 47-50

NOTES: See pages 5-6

JFD AC–DC ADJUSTABLE BALLASTS

Nos. 300 to 5517

Ballast No.	Use J.F.D. Type	Break off Pins	CUT STRIP AT COLORS						See Notes
300L8	C	2	BLACK	BROWN			RED		
300R	C	2-3	BLACK	BROWN		BLUE			
300R4	C	2	BLACK	BROWN			RED		
300R8	C	2	BLACK	BROWN			RED		
FM-319*									
320L4	C	2	BLACK	BROWN	YELLOW		RED		
320L8	C	2	BLACK	BROWN	YELLOW		RED		
320R	C	2-3	BLACK	BROWN	YELLOW	BLUE			
320R4	C	2	BLACK	BROWN	YELLOW		RED		
320R8	C	2	BLACK	BROWN	YELLOW		RED		
320X4	C	2	BLACK	BROWN	YELLOW		RED		
340	C	2-3					RED		
340L4	C	2	BLACK	BROWN		BLUE	RED		
340L8	C	2	BLACK	BROWN		BLUE	RED		
340R	C	2-3	BLACK	BROWN			RED		
340R4	C	2	BLACK	BROWN		BLUE	RED		
340R8	C	2	BLACK	BROWN		BLUE	RED		
FM-370*									
#410*									
FM-458*									
495K1*									
MT-650*									
D-740*									
808-1*									
808-2*									
808-4*									
874*									
878R48	C	2-3				BLUE			
1916*									
2342*									
2342-1*									
2903	B	1-2-4	BLACK	BROWN		BLUE			
2904	B	1-2-4	BLACK	BROWN		BLUE			
2905	B	1-2-4	BLACK	BROWN	YELLOW				
2906	A	1-2-4	BLACK	BROWN		BLUE	RED		
#2911*									
#2916*									
#2917*									
#2918*									
#2919*									
R-3003*									
3035	A	1-2-8	BLACK	BROWN					
3326	A	1-4	BLACK	BROWN	YELLOW		RED	GRAY	
#3271*									
3334	A	1-4	BLACK	BROWN		BLUE	RED	GRAY	
3334	C	None		BROWN		BLUE	RED		
3334A	A	1-4	BLACK	BROWN		BLUE	RED	GRAY	
3334A	C	None		BROWN		BLUE	RED		
3613	B	1-2-4	BLACK	BROWN		BLUE			
D-4831-A*									
D-5468*									
5502	B	1-2	BLACK	BROWN		BLUE			
5503	B	1-2	BLACK	BROWN					
5507	B	1-2-4	BLACK	BROWN	YELLOW				4
5508	B	1-2-4	BLACK	BROWN	YELLOW				4
5510	C	2				BLUE	RED		
5511	B	1-2-4	BLACK	BROWN	YELLOW				
5512	C	2			YELLOW	BLUE	RED		
5514	A	1-2-4	BLACK	BROWN	YELLOW	BLUE			
5515	A	1-2-4	BLACK	BROWN	YELLOW		RED		
5516	A	1-2-4	BLACK	BROWN		BLUE	RED		
5517	A	1-4	BLACK	BROWN		BLUE	RED	GRAY	

*See pages 47-50

NOTES: See pages 5-6

JFD AC–DC ADJUSTABLE BALLASTS

Nos. 5518 to 5595

Ballast No.	Use J.F.D. Type	Break off Pins	CUT STRIP AT COLORS							See Notes
5518	A	1-4	BLACK	BROWN		BLUE	RED	GRAY		
5519	B	1-2-4	BLACK	BROWN		BLUE				
5520	A	1-2-4	BLACK	BROWN	YELLOW		RED			
5521	A	1-2-4	BLACK	BROWN		BLUE	RED			
5522	B	1-2-4	BLACK	BROWN	YELLOW					
5523	B	1-2-4	BLACK	BROWN	YELLOW					
5524	B	1-2-4	BLACK	BROWN		BLUE				
5525	B	1-2-4	BLACK	BROWN		BLUE	RED			
5527	A	1-2-4	BLACK	BROWN	YELLOW	BLUE				
5528*										
5530	A	1-2-4	BLACK	BROWN		BLUE	RED			
5531	A	1-4-8	BLACK	BROWN	YELLOW		RED	GRAY		1
5532	A	1-2-4	BLACK	BROWN		BLUE	RED			
5533	B	1-2-4	BLACK	BROWN	YELLOW					
5534	B	1-2-4	BLACK	BROWN	YELLOW					
5535	B	1-2-4	BLACK	BROWN		BLUE				
5536	B	1-2-4	BLACK	BROWN		BLUE				
5537	B	1-2-4	BLACK	BROWN			RED			
5538	B	1-2-4	BLACK	BROWN	YELLOW		RED			
5539	B	1-2-4	BLACK	BROWN		BLUE	RED			
5540	B	1-2-4	BLACK	BROWN	YELLOW	BLUE		GRAY		
5541	B	1-2-4-8	BLACK	BROWN	YELLOW		RED			
5542	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			
5543	B	1-7	BLACK					GRAY		
5544	A	1-2-4	BLACK	BROWN		BLUE	RED			
5547	A	1-2-4	BLACK	BROWN		BLUE	RED			
5548	A	1-2-4	BLACK	BROWN		BLUE	RED			
5549	A	1-4	BLACK	BROWN	YELLOW		RED	GRAY		
5550	B	1-2-4	BLACK	BROWN	YELLOW					
5551	B	1-2	BLACK	BROWN		BLUE				
5552	B	1-2-4	BLACK	BROWN	YELLOW					
5553	B	1	BLACK	BROWN				GRAY		
5554	A	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		2
5555	B	1-2-4	BLACK	BROWN		BLUE				
5556	B	1-2-4	BLACK	BROWN		BLUE				
5557	B	1-2-4	BLACK	BROWN		BLUE				5
5558	B	1-2-4	BLACK	BROWN		BLUE				5
5561	B	1-2-4	BLACK	BROWN		BLUE	RED			
5562	A	1-2-4	BLACK	BROWN		BLUE	RED			
5563	B	1-2-4	BLACK	BROWN	YELLOW					
5567	A	1-4	BLACK	BROWN		BLUE	RED	GRAY		
5571	C	2-3	BLACK	BROWN						
5574	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			
5576	A	1-2	BLACK	BROWN		BLUE				
5577	C	2			YELLOW	BLUE	RED			
5579	B	1-2-4	BLACK	BROWN	YELLOW			GRAY		
5580	B	1-2-4	BLACK	BROWN			RED			
5581	B	1-2-8	BLACK			BLUE				
5583	B	1-4-8	BLACK	BROWN	YELLOW			GRAY		2
5584	B	7-2	BLACK			BLUE		GRAY		
5586	B	4	BLACK	BROWN	YELLOW			GRAY	GREEN	
5587	B	1	BLACK	BROWN				GRAY		
5588	A	1	BLACK	BROWN			RED	GRAY		
5589	A	1-4	BLACK	BROWN			RED	GRAY		
5590	C	2				BLUE	RED			
5591	A	1-4-8	BLACK	BROWN	YELLOW		RED	GRAY		1
5592	B	2-7	BLACK					GRAY		
5593	B	2-7	BLACK					GRAY		
5594	A	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		1
5595	A	2-7	BLACK			BLUE	RED	GRAY		

*See pages 47-50

NOTES: See pages 5-6

JFD AC–DC ADJUSTABLE BALLASTS

Nos. 5596 to 5660

Ballast No.	Use J.F.D. Type	Break off Pins	CUT STRIP AT COLORS							See Notes
5596	A	2-7	BLACK			BLUE	RED	GRAY		
5597	B	1-4	BLACK	BROWN	YELLOW			GRAY		
5598	B	7-2	BLACK			BLUE		GRAY		
5600	C	2			YELLOW	BLUE				
5601	C	2				BLUE	RED			
5602	C	2				BLUE	RED			
5603	C	None		BROWN	YELLOW		RED			
5604	A	1-2-4	BLACK	BROWN	YELLOW		RED			
5605	C	None		BROWN	YELLOW		RED			
5606	C	2			YELLOW	BLUE	RED			
5607	C	2			YELLOW	BLUE	RED			
5608	C	NONE		BROWN		BLUE	RED			
5609	A	1-2-4	BLACK	BROWN	YELLOW		RED			
5610	C	NONE		BROWN		BLUE	RED			
5612	C	2		BROWN	YELLOW		RED			
5613	B	4	BLACK	BROWN	YELLOW			GRAY	GREEN	
5614	C	2		BROWN	YELLOW		RED			
5615	C	2		BROWN	YELLOW		RED			
5616	C	None		BROWN	YELLOW	BLUE	RED			
5617	C	None		BROWN	YELLOW	BLUE	RED			
5618	C	2	BLACK	BROWN	YELLOW					
5619	C	2	BLACK	BROWN	YELLOW					
5620	C	2	BLACK	BROWN			RED			
5621	B	1-4-8	BLACK	BROWN	YELLOW			GRAY		2
5622	B	1-2-4	BLACK	BROWN	YELLOW					
5623	B	1-2-4	BLACK	BROWN	YELLOW					
5624	A	1-2-4	BLACK	BROWN	YELLOW		RED			
5625	A	1-2-4	BLACK	BROWN	YELLOW		RED			
5626	A	1-4	BLACK	BROWN			RED	GRAY		
5627	A	1-4-8	BLACK	BROWN			RED	GRAY		1
5628	A	1-4-8	BLACK	BROWN			RED	GRAY		2
5629	A	1-2-4	BLACK	BROWN		BLUE	RED			
5630	A	1-4	BLACK	BROWN	YELLOW		RED	GRAY		
5632	A	1-4-8	BLACK	BROWN	YELLOW		RED	GRAY		2
5633	A	1-4	BLACK	BROWN		BLUE	RED	GRAY		
5634	A	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		1
5635	A	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		2
5636	B	1-4	BLACK	BROWN		BLUE	RED		GREEN	
5637	B	4	BLACK	BROWN	YELLOW		RED	GRAY	GREEN	
5638	B	1-4	BLACK	BROWN	YELLOW	BLUE	RED		GREEN	
5639	B	1-4-8	BLACK	BROWN	YELLOW			GRAY		1
5640	A	4	BLACK	BROWN	YELLOW		RED	GRAY	GREEN	
5641	A	4	BLACK	BROWN		BLUE	RED	GRAY	GREEN	
5642	B	1-4-8	BLACK	BROWN	YELLOW			GRAY		1
5644	B	1-4	BLACK	BROWN	YELLOW			GRAY		
5645	B	1-4-8	BLACK	BROWN	YELLOW			GRAY		1
5646	B	1-4-8	BLACK	BROWN	YELLOW			GRAY		2
5647	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				
5648	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				
5649	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				
5650	A	1-4-8	BLACK	BROWN	YELLOW			GRAY		1
5651	A	4	BLACK	BROWN			RED	GRAY	GREEN	
5652	B	1-4	BLACK	BROWN	YELLOW			GRAY		
5653	A	1-2-8	BLACK				RED			
5654	B	4	BLACK	BROWN	YELLOW		RED	GRAY	GREEN	
5655	B	4	BLACK	BROWN	YELLOW			GRAY	GREEN	
5656	A	4	BLACK	BROWN		BLUE	RED	GRAY	GREEN	
5657	B	1-2-4	BLACK	BROWN		BLUE				
5658	A	1-4	BLACK	BROWN			RED	GRAY		
5660	B	1-2-4	BLACK	BROWN			RED			

*See pages 47-50

NOTES: See pages 5-6

JFD AC–DC ADJUSTABLE BALLASTS

Nos. 5662 to 8664

Ballast No.	Use J.F.D. Type	Break off Pins	CUT STRIP AT COLORS							See Notes
5662	A	1-2	BLACK	BROWN		BLUE	RED	GRAY		
5663	B	1-2	BLACK	BROWN		BLUE		GRAY		
5664	A	1-2	BLACK	BROWN			RED			
5666	B	1-4	BLACK	BROWN			RED		GREEN	
5667	B	1-2-4	BLACK	BROWN		BLUE	RED			
5669	C	2-3			YELLOW		RED			
5671	A	1-4-8	BLACK	BROWN		BLUE	RED	GRAY		1
5672	C	2-3			YELLOW		RED			
5673	C	2-3		BROWN	YELLOW		RED			
5674	C	2				BLUE				
5675	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			
5676	B	1-2-4	BLACK	BROWN		BLUE	RED			
5678	C	2-3			YELLOW		RED			
5679	B	1-2-4-8	BLACK			BLUE	RED			
5680	C	2-3				BLUE				
5681	B	1-2-7	BLACK					GRAY		
5682	B	1-2-7	BLACK			BLUE				
5683	A	1-2-7	BLACK				RED	GRAY		
5684	B	1-2-4-8	BLACK		YELLOW	BLUE				
5685	B	1-2-4-8	BLACK			BLUE				
5686	B	1-2-4-8			YELLOW	BLUE	RED			
5687	A	1-2-4-8				BLUE	RED			
5688	A	1-4-8	BLACK	BROWN			RED	GRAY		1
5689	A	1-2-4	BLACK	BROWN		BLUE	RED			
5690	B	1-4	BLACK	BROWN		BLUE			GREEN	
5691	B	1-4	BLACK	BROWN	YELLOW	BLUE			GREEN	
5692	B	1-2	BLACK	BROWN		BLUE				
5693	A	4	BLACK	BROWN			RED	GRAY	GREEN	
5694	B	1-2	BLACK	BROWN		BLUE				
5695	B	1-2-4	BLACK	BROWN		BLUE	RED			
5696	B	1-2-4	BLACK	BROWN	YELLOW			GRAY		
5697	B	1-2-4	BLACK	BROWN	YELLOW			GRAY		
5698	B	1-2-4	BLACK	BROWN	YELLOW	BLUE	RED			
5699	B	1-4	BLACK	BROWN			RED	GRAY		
5700	B	1-2-4	BLACK	BROWN		BLUE				
5701	B	1-2-4-8	BLACK	BROWN			RED			
5702	A	4	BLACK	BROWN			RED	GRAY	GREEN	
5703	A	1-2-4	BLACK	BROWN		BLUE				
5704	B	1-4	BLACK	BROWN	YELLOW	BLUE	RED		GREEN	
5705	B	1-4	BLACK	BROWN		BLUE		GRAY		
5706	C	2		BROWN		BLUE	RED			
5707	A	1-2-4	BLACK	BROWN	YELLOW	BLUE				
5708	B	1-2-4	BLACK	BROWN	YELLOW	BLUE				
5709	A	1-2-4	BLACK	BROWN	YELLOW	BLUE				
5710	A	1-2-4	BLACK	BROWN			RED			
5711	A	4	BLACK	BROWN		BLUE	RED	GRAY	GREEN	
5712	A	1-2-4	BLACK	BROWN		BLUE	RED			
5714	B	4	BLACK	BROWN		BLUE		GRAY	GREEN	
C8064A*										
C8064B*										
C8064C*										
C8064D*										
8589	B	1-2-4	BLACK	BROWN		BLUE				
8593	B	1-2-4	BLACK	BROWN		BLUE				
8598	B	1-2-4	BLACK	BROWN	YELLOW					
8600*										
8601	A	1-4-8	BLACK	BROWN	YELLOW			GRAY		1
8663*										
8664	A	1-4-8	BLACK	BROWN	YELLOW			GRAY		1

*See pages 47-50

NOTES: See pages 5-6

Nos. 8850 to 143357

Ballast No.	Use J.F.D. Type	Break off Pins	CUT STRIP AT COLORS						
8850*									
8917*									
C9266*									
E14980	A	1-2-4	BLACK	BROWN	YELLOW	BLUE			
16032	B	1-2-4	BLACK	BROWN	YELLOW	BLUE			
16035	A	1-2-4	BLACK	BROWN		BLUE	RED		
16036	B	1-2-4	BLACK	BROWN	YELLOW				
16037	A	1-4-8	BLACK	BROWN	YELLOW			GRAY	1
16039	B	1-2-4	BLACK	BROWN		BLUE			
16041*									
A16040	B	1-2-4	BLACK	BROWN	YELLOW				
YTD16040	B	1-2-4	BLACK	BROWN	YELLOW				
A-16042*									
Y-Tu-16042*									
A-16043*									
P-17287	A	1-4-8	BLACK	BROWN		BLUE	RED	GRAY	2
P-26871*									
P-27287	A	1-4-8	BLACK	BROWN		BLUE	RED	GRAY	1
38710	B	1-2-4	BLACK	BROWN	YELLOW				
W-40655*									
W-42520*									
W-43357	B	1-2-4	BLACK	BROWN	YELLOW				
W-43506*									
W-44338*									
W-44416*									
45788	B	1-2-4	BLACK	BROWN	YELLOW				
69116	A	1-4	BLACK	BROWN		BLUE	RED	GRAY	
81963*									
819662	B	1-2-4	BLACK	BROWN	YELLOW				
W143357	B	1-2-4-8	BLACK			BLUE	RED		

It is our purpose to keep this list complete and up to date.

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*See pages 47-50

NOTES: See pages 5-6

Ballasts Replaceable Only

by JFD Exact Duplicates

ORDER BY TYPE NUMBER

TYPE NO.	LIST PRICE
1A1/5E1 Philco	$1.25
1B1 Philco	1.25
1C1 Philco	1.25
1D1 Philco	1.25
1E1 Philco	1.25
1G1 Philco	1.25
1J1 Philco	1.25
1K1 Philco	1.25
1R1G Philco	1.25
1T1G Philco	1.25
1X1 Philco	1.25
1Y1 Philco	1.25
1Z1 Philco	1.25
2 Philco	1.25
03G Air King	1.25
2LR212 Emerson	1.00
2VR215 Emerson	1.00
2UR224 Emerson	1.00
3CR241 Emerson	1.00
3ER248 Emerson	1.25
3 Philco	1.25
O3G Air King	1.25
3MR253 Emerson	1.50
4 Philco	1.25
CB4 Philco	1.25
4SR311 Emerson	1.50
5 Philco	1.25
C5B Philco	1.25
D5B Philco	1.25
WRL5	1.50
6	1.25
6 Garod	1.80
6.126 Garod	1.80
6.128 Garod	1.80
6.130 Garod	1.25
6.134 Garod	1.80
6.141 Garod	1.80
6.142 Garod	1.80
6.159 Garod	1.80
6.170 Garod	1.80
6.171 Garod	1.80
6.172 Garod	1.80
D6B	1.25
E6B	1.25
7	1.25
8	1.25
9	1.25
10.610 Jackson Bell	1.25
10.800	1.50

TYPE NO.	LIST PRICE
BKX11BJ Philco	1.25
K17R	1.25
BKX21BJ Philco	1.25
K22B2	1.25
L26CC159	1.25
33-3310	1.50
D35 Dewald	1.25
35-2 Pilot	2.40
35-3 Pilot	2.40
35-4 Pilot	2.40
35-5 Pilot	3.00
35-6 Pilot	2.40
35-7 Pilot	2.40
35-8 Pilot	2.40
35-9 Pilot	3.00
35-10 Pilot	3.00
35-11 Pilot	3.00
35-12 Pilot	3.00
35-13 Pilot	2.40
35-14 Pilot	2.40
35-15 Pilot	2.40
35-16 Pilot	$2.40
35-17 Pilot	2.40
35-18 Pilot	3.00
35-19 Pilot	3.00
35-20 Pilot	3.00
35-21 Pilot	2.40
35-22 Pilot	2.40
35-23 Pilot	3.00
35-24A Pilot	3.00
35-25 Pilot	2.40
35-26 Pilot	3.00
35-27 Pilot	3.00
35-28 Pilot	3.00
35-29 Pilot	3.00
35-30 Pilot	2.40
35-31A Pilot	2.40
35-32 Pilot	2.40
K38B2	1.25
40A2	1.25
40X300	1.25
K42BJ75	1.25
L42BX	1.25
K42CS4	1.25
L42DSX	1.25
L42DX	1.25
L42S1	1.25
L42S2	1.25
L42S3	1.25

Ballasts Replaceable Only

by JFD Exact Duplicates

ORDER BY TYPE NUMBER

TYPE NO.	LIST PRICE
43X106	3.00
43X108A Air Cooled	3.00
43X114 Air Cooled	3.00
46A1 Majestic	1.25
46B1 Majestic	1.25
49A1	1.00
49A2	1.25
49B2	1.25
L49BX	1.25
L49S1	1.25
L49S2	1.25
L49S3	1.25
50A2	1.25
50B2	1.25
50X3	1.25
50X3T	1.25
50X300	1.25
BKV51DJ Philco	1.50
K55CP	1.25
K55CPR	1.25
K55J	1.25
L55S1	1.25
L55S2	1.25
L55S3	1.25
M58B275	1.25
64-23	1.25
L75CC	1.25
77/100	1.25
85L75CC	1.25
L90CC	1.25
100-37	1.25
100-38	1.25
100-46 Zenith	1.80
100-47 Zenith	1.80
100-48 Zenith	1.80
100-49 Zenith	1.80
100-55 Zenith	1.80
100-56 Zenith	1.80
100-57 Zenith	1.80
100-58 Zenith	1.80
100-59 Zenith	1.80
100-60 Zenith	1.80
100-61 Zenith	$1.80
100-62 Zenith	1.80
100-63 Zenith	1.80
100-64 Zenith	1.80
100-65 Zenith	1.80
100-66 Zenith	1.80

TYPE NO.	LIST PRICE
100-70 Zenith	1.25
100-74 Zenith	1.25
100-76 Zenith	1.25
100-77 Zenith	1.25
100-79 Zenith	1.25
100-81 Zenith	1.25
100-82 Zenith	1.25
100-83 Zenith	1.25
100R	1.25
100R4	1.25
100R8	1.25
KX105B	1.25
115.15 Fada	1.25
115.16 Fada	1.25
115.17 Fada	2.40
115.18 Fada	1.25
115.19 Fada	2.40
115.20 Fada	1.25
115.21 Fada	1.25
115.23 Fada	1.25
115.24 Fada	1.25
115.25 Fada	1.25
115.26 Fada	1.25
115.27 Fada	1.25
115.42A Fada	1.25
115.43 Fada	1.25
115.43X Fada	1.25
115.44 Fada	1.25
115.46 Fada	1.25
115.47X Fada	1.25
115.49 Fada	1.25
115.53 Fada	1.25
115.55 Fada	1.25
115.58 Fada	2.40
115.65 Fada	1.25
115.68 Fada	1.25
115.78 Fada	1.25
115.79 Fada	2.40
115.82 Fada	1.25
115.84 Fada	1.25
115.89 Fada	1.25
115.96 Fada	1.25
115.98 Fada	2.40
115.109 Fada	2.40
120R	1.25
120R8	1.25
L120-75CC	2.40
130-35	2.40

Ballasts Replaceable Only

by JFD Exact Duplicates

ORDER BY TYPE NUMBER

TYPE NO.	LIST PRICE
R130-180	1.50
R130-T380	1.50
140L4	1.25
140L44	1.25
140L8	1.25
140M4	1.25
140M8	1.25
140R	1.25
140R4	1.25
140R8	1.25
D150 Dewald	1.25
E157 Ferguson	1.25
160A JFD	1.50
R161-300	1.25
165L4	1.25
165L8	1.25
165L44	$1.25
165MA	1.25
185M8	1.25
165R	1.25
165R4	1.25
165R8	1.25
165R44	1.25
185L4	1.25
185L8	1.25
185L44	1.25
185M4	1.25
185R	1.25
185R4	1.25
185R8	1.25
185R44	1.25
D200 Dewald	1.25
200R	1.25
200R4	1.25
200R8	1.25
FM203	1.25
250L4	1.25
250L8	1.25
250M4	1.25
250M8	1.25
FM254	1.25
165M8	1.25
250R	1.25
250R4	1.25
250R8	1.25
260	1.25
260K1 RCA Air Cooled	2.40
275	1.25
FM288	1.25

TYPE NO.	LIST PRICE
D300 Dewald	1.25
300R	1.25
300R4	1.25
300R8	1.25
FM319	1.25
320R	1.25
320R4	1.25
320R8	1.25
350R	1.25
FM370	1.25
410	1.50
J438 JFD	1.50
FM458	1.25
495K1 RCA	2.40
MT650	1.25
D740 Dewald	1.25
RR782 G. E.	1.25
808-1	1.25
808-2	1.50
808-4	1.50
874	1.25
878R48 Kadette	1.80
M1128 JFD	2.40
1916	1.25
2342	1.25
2342-1	1.50
2911	1.25
2916	1.25
2917	1.25
2918	1.25
2919	1.25
R3003G Webster	1.25
3271	1.50
D4831A	1.50
5465	1.25
D5468	1.50
5528	$1.50
C8064A	1.25
C8064B	1.25
C8064C	1.25
C8064D	1.25
8600	1.50
8663	1.25
8850	1.50
8917	1.50
C9266 Lafayette	1.25
E14980	1.25
16041	1.25
A16042	1.25

Ballasts Replaceable Only

by JFD Exact Duplicates

ORDER BY TYPE NUMBER

TYPE NO.			LIST PRICE
Y-Tu-16042			1.50
A16043			1.50
P26871	Stromberg-Carlson		2.40
W40655	Crosley		1.25
W42520	Crosley	Air Cooled	2.40
W43506	Crosley	Air Cooled	2.40
W44338	Crosley	Air Cooled	$2.40
W48669	Crosley	Air Cooled	2.40
W48670	Crosley		1.25
81963	Pilot		2.40
81966	Pilot		1.25
81967	Pilot		2.40
81971-2	Pilot		2.40
81972-2	Pilot		2.40
81974	Pilot		1.25
81975	Pilot		2.40
81978	Pilot		2.40
81985	Pilot		1.25
K83747-6	RCA		1.25
84147	Pilot		1.25
84151	Pilot		1.25
84152	Pilot		1.25
84364-2	Pilot		1.25
84428	Pilot		1.25
84430	Pilot		1.25
84431-2	Pilot		$2.40
84445	Pilot		2.40
84446	Pilot		2.40
84447	Pilot		2.40
84448	Pilot		3.00
84650	Pilot		2.40
84651	Pilot		2.40
84652	Pilot		2.40
84653	Pilot		3.00
84821	Pilot		2.40
84824	Pilot		3.00
K85277-3	RCA	Air Cooled	2.40
K85277-4	RCA	Air Cooled	2.40
K85277-5	RCA	Air Cooled	2.40
M86892-1	RCA		1.25
M86892-2	RCA	Air Cooled	2.40
M86892-3	RCA	Air Cooled	2.40
M86892-4	RCA	Air Cooled	2.40
M86892-5	RCA	Air Cooled	2.40
M86892-6	RCA	Air Cooled	$2.40
M86892-7	RCA	Air Cooled	2.40
M86892-8	RCA		1.10
M86892-9	RCA	Air Cooled	2.40
M86892-10	RCA	Air Cooled	2.40
M86892-11	RCA	Air Cooled	2.40
M91462-6	RCA	Air Cooled	2.40
M91462-7	RCA		1.37
M91462-8	RCA		1.10
M95178-10	RCA	Air Cooled	2.40
113365	Stewart-Warner		1.25
113506	Stewart-Warner		1.25
119109	Stewart-Warner		1.25
160145	Stewart-Warner		1.25
160540	Stewart-Warner		1.25
K920117-1	RCA		1.64
K920146-1	RCA		1.80

AC-DC
Standard Resistor Tubes

RMA STANDARD CODING

TYPE NO.	LIST PRICE
10A Addison	$1.00
17A	1.00
K17B	1.00
K17C	1.00
L17B	1.00
L17C	1.00
K22B	1.00
K23B	1.00
L23B	1.00
L23C	1.00
33A	1.00
33AG	1.00
36A	1.00
K36B	1.00
BK36B	1.00
K36BJ	1.25
K36C	1.00
K36D	1.00
K36H	1.00
KX36A	1.25
KX36B	1.25
KX36C	1.25
L36B	1.00
L36C	1.00
L36D	1.00
L36DJ	1.25
M36B	1.00
M36C	1.00
M36D	1.00
42A	1.00
42B2	1.25
K42B	1.00
K42BJ	1.25
BK42B	1.00
BL42B	1.00
K42C	1.00
BK42C	1.00
BL42C	1.00
K42D	1.00
BK42D	1.00
KX42A	$1.25
KX42B	1.25
KX42C	1.25
L42B	1.25
L42BJ	1.00
L42C	1.25
L42CJ	1.00
L42D	1.00
L42DJ	1.00
L42E	1.25
M42B	1.00
M42C	1.00
M42D	1.00
M42E	1.00
M42F	1.00
M42H	1.00
49A	1.00
K49B	1.00
K49BJ	1.25
BK49B	1.00
K49C	1.00
BK49C	1.00
K49CJ	1.25
K49D	1.00
BK49D	1.00
K49E	1.00
K49F	1.00
K49H	1.00
KX49A	1.00
KX49B	1.25
KX49C	1.25
KX49D	1.25
KY49A	1.25
KY49B	1.25
KY49C	1.25
KZ49A	1.25
KZ49B	1.25
KZ49C	1.25
L49B	1.00
L49BJ	1.25
L49C	$1.00
L49CJ	1.25
L49D	1.00
L49DJ	1.25
L49E	1.00
L49F	1.00
LX49B	1.25
LX49C	1.25
LX49D	1.25
M49B	1.00
M49C	1.00
M49D	1.00
M49H	1.00
50	1.00
K52H	1.00
55A	1.00

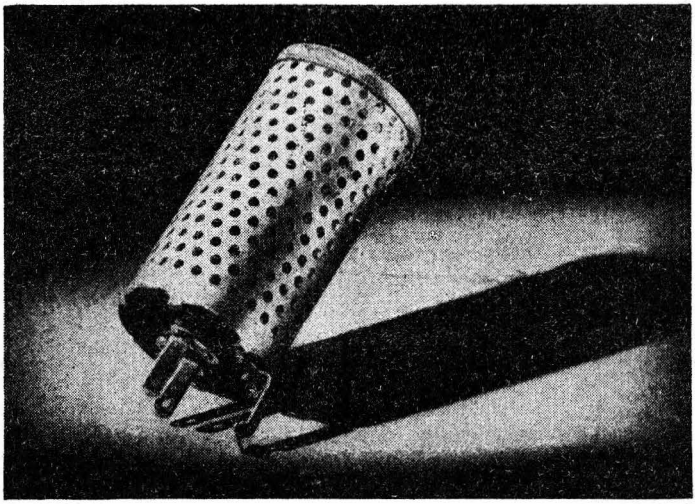
AC-DC
Standard Resistor Tubes

RMA STANDARD CODING

TYPE NO.	LIST PRICE
K55A	1.00
K55B	1.00
BK55B	1.00
BL55B	1.00
BM55B	1.00
K55C	1.00
BK55C	1.00
K55D	1.00
BK55D	1.00
K55F	1.00
K55H	1.00
KX55A	1.25
KX55B	1.25
KX55C	1.25
L55B	1.00
L55C	1.00
L55CP	1.25
L55D	1.00
L55F	1.00
L55H	1.00
M55B	1.00
M55C	1.00
M55D	1.00
M55F	1.00
M55H	$1.00
60R30	1.25
62A	1.00
K67B	1.00
K67BJ	1.25
K67C	1.00
K67D	1.00
L67C	1.00

TYPE NO.	LIST PRICE
K72B	1.00
K73C	1.00
M73B	1.00
K74B	1.00
K74C	1.00
K74D	1.00
80A	1.00
K80B	1.00
K80C	1.00
K80D	1.00
K80F	1.00
K80H	1.00
L80B	1.00
L80C	1.00
M80B	1.00
M80C	1.00
K87B	1.00
90A	1.00
K90B	1.00
K90C	1.00
92A	1.00
K92B	1.00
K92C	1.00
K92D	1.00
K92F	1.00
K92H	1.00

JFD EXACT DUPLICATE AC REPLACEMENT LINE BALLASTS

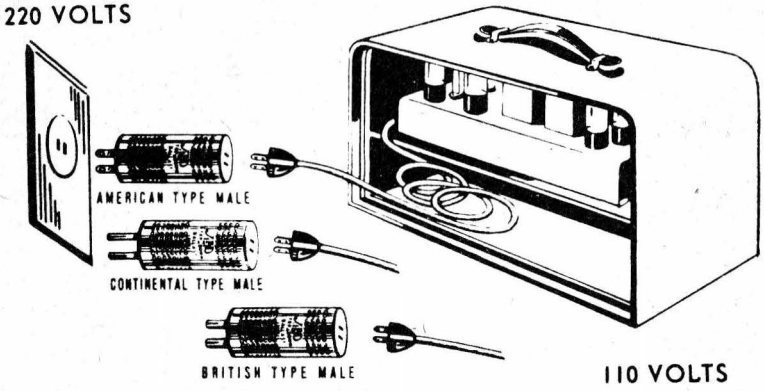


Packed in attractive individual cartons
Standard Package 10

	Cat. No.	List Price
BALDWIN	5300	$2.25
BELMONT	5400	2.25
BREMER-TULLY		
S81, S82	6000	2.25
BRUNSWICK	6100	2.25
CLARION		
51, 53, 55	6150	2.25
GREBE		
SK4	6200	2.25
HS5	6200	2.25
HAMMARLUND ROBERTS		
HIQ30	6300	2.25
HIQ31	6350	2.25
KENNEDY		
426, 526, 626, 726, 826, 632 1030	6400	2.25
MAJESTIC		
70	5000	$2.25
90	5100	2.25
180	5200	2.25
PEERLESS		
71, 72	6600	2.25
SCOTT		
AC10	6650	2.25
SILVER-MARSHALL		
30, 30B, 60	6700	2.25
60B, 75, 75B	6700	
95	6700	
SIMPLEX	6750	2.25
SONORA		
A30, A32, A40	6800	2.25
A36, A44, A46	6850	2.25
STEWART-WARNER		
900	6900	2.25
950	7000	2.25
R100	7100	2.25

JFD STEP-DOWN BALLAST FOR RADIOS

URGENTLY NEEDED FOR AMERICAN RADIOS IN FOREIGN COUNTRIES!

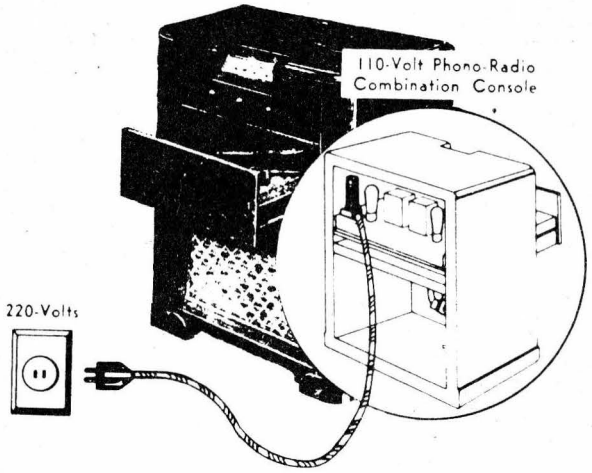


Permits use of American-Built Radios with 110V. Circuit in Foreign Countries with a 220V. Line

458—300 Mill Tubes, 300 ohm cold-resistance American Female and American Male	$2.40	List
459B—300 Mill Tubes, 300 ohm cold-resistance American Female and British Male	$2.40	List
459C—300 Mill Tubes, 300 ohm cold-resistance American Female and Continental Male	$2.40	List
464—150 Mill Tubes, 560 ohm cold-resistance American Female and American Male	$2.40	List
465B—150 Mill Tubes, 560 ohm cold-resistance American Female and British Male	$2.40	List
465C—150 Mill Tubes, 560 ohm cold-resistance American Female and Continental Male	$2.40	List
478—150 Mill Tubes, 475 ohm cold-resistance American Female and American Male	$2.40	List
479B—150 Mill Tubes, 475 ohm cold-resistance American Female and British Male	$2.40	List
479C—150 Mill Tubes, 475 ohm cold-resistance American Female and Continental Male	$2.40	List

/FD STEP-DOWN BALLASTS & ADAPTERS FOR PHONO-RADIOS

Now you can convert your stocks of 110-volt phono-radio combination consoles or table model sets, for use on 220-volt power lines. Make export models out of your standard American phono-radio combination sets—for the South American and European Markets!



STEPDOWN BALLAST

Dual Element Resistance Ballast, automatically reduces 220 volts to 110 volts, making it possible for either RADIO ALONE, or PHONO MOTOR ALONE, or BOTH to operate at will!

STEPDOWN ADAPTERS

Easily mounted inside or outside the cabinet, with hardware and instructions supplied with each adapter. Compact all metal frame, and "safety" construction thruout. Equipped with 6-ft. line cord, and plug listed below.

Model 626-F — Combination Ballast and Adapter) with **American** Plug

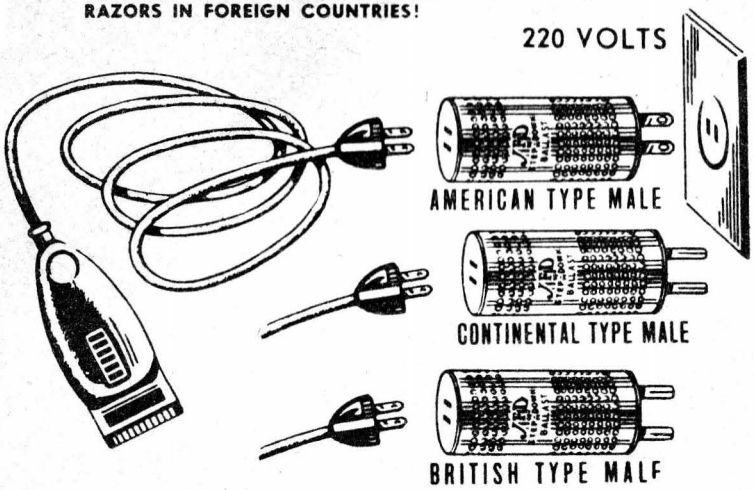
Model 626-FC — Combination (Ballast and Adapter) with **European** (Continental) Plug

Model 626-FB — Combination (Ballast and Adapter) with **British** Plug

List Price any adapter and ballast combination above.....$6.00

JED STEP-DOWN BALLASTS FOR ELECTRIC RAZORS

URGENTLY NEEDED FOR AMERICAN RAZORS IN FOREIGN COUNTRIES!



(Step-Down From 220V. to 110V.)

474—Schick Sunbeam Shave Master — Single-Head
Remington—Gem—Gillette
American Female and American Male ..... $2.40 List

475B—Schick—Sunbeam Shave Master—Single-Head
Remington—Gem—Gillette
American Female and British Male ..... $2.40 List

475C—Schick—Sunbeam Shave Master—Single-Head
Remington—Gem—Gillette
American Female and Continental Male ..... $2.40 List

476—Packard Razor—
American Female and American Male ..... $2.40 List

477B—Packard Razor
American Female and British Male ..... $2.40 List

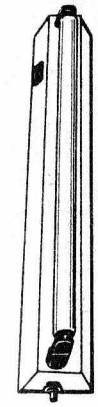
477C—Packard Razor—
American Female and Continental Male ..... $2.40 List

480—Remington-Rand Razor
American Female and American Male ..... $2.40 List

481B—Remington-Rand Razor
American Female and British Male ..... $2.40 List

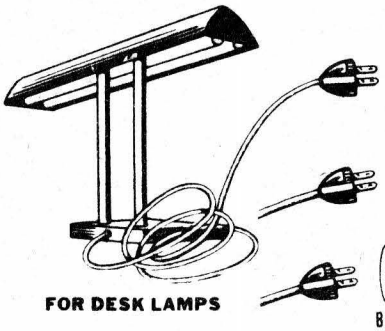
481C—Remington-Rand Razor
American Female and Continental Male ..... $2.40 List

JFD PRECISION MADE — Plug-in type RESISTOR BALLASTS for Fluorescent LIGHTING FIXTURES



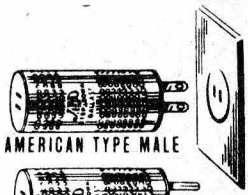
FOR WALL FIXTURES

FOR CEILING FIXTURES



FOR DESK LAMPS

110 VOLTS
OR
220 VOLTS



AMERICAN TYPE MALE

CONTINENTAL TYPE MALE

BRITISH TYPE MALE

Fluorescent wall fixtures, ceiling fixtures, and desk lamps designed for operation on AC may be used on DC of equivalent voltage by using one of these ballasts. Ballast has a receptacle at one end and a standard two-prong plug at the other.

These ballasts are designed for domestic and foreign use, and operate on 25 to 60 cycles AC, or DC.

CATALOGUE NO.	LAMP WATTS	CIRCUIT VOLTAGE	FOR USE WITH FLUORESCENT LAMPS	PLUG TYPE	NOTE	LIST PRICE
492	4	117	1-4 watt	American		**2.10**
492-2	2–4	117	2-4 watt	American	A	**2.25**
492-3	4	220*	1-4 watt	American		**2.40**

JFD PRECISION MADE — Plug-in type RESISTOR BALLASTS for Fluorescent LIGHTING FIXTURES

CATALOGUE NO.	LAMP WATTS	CIRCUIT VOLTAGE	FOR USE WITH FLUORESCENT LAMPS	PLUG TYPE	NOTE	LIST PRICE
492-3B	4	220*	1-4 watt	British		**2.40**
492-3C	4	220*	1-4 watt	Continental		**2.40**
492-4	2–4	220*	2-4 watt	American	A	**2.40**
492-4B	2–4	220*	2-4 watt	British	A	**2.40**
492-4C	2-4	220*	2-4 watt	Continental	A	**2.10**
494	6	117	1-6 watt	American	B	**2.10**
496	8	117	1-8 watt	American	B	**2.10**
486	14	117	1-14 watt	American		**2.10**
486-2	2–14	117	2-14 watt	American	A	**2.25**
486-3	14	220*	1-14 watt	American		**2.40**
486-3B	14	220*	1-14 watt	British		**2.40**
486-3C	14	220*	1-14 watt	Continental		**2.40**
486-4	2–14	220*	2-14 watt	American	A	**2.40**
486-4B	2–14	220*	2-14 watt	British	A	**2.40**

NOTE: A—Wired In Series
B—Used only for Converting from AC to DC
*—(Step down) Ballast

JFD PRECISION MADE — Plug-in type RESISTOR BALLASTS for Fluorescent LIGHTING FIXTURES

486-4C	2–14	220*	2-14 watt	Continental	A	**2.40**
454	15	117	1-15 watt	American		**2.10**
454–2	2–15	117	2-15 watt	American	A	**2.25**
454–3	15	220*	1-15 watt	American		**2.40**
454-3C	15	220*	1-15 watt	Continental		**2.40**
454-4	2–15	220*	2-15 watt	American	A	**2.40**
454–4B	2–15	220*	2-15 watt	British	A	**2.40**
454-4C	2–15	220*	2-15 watt	Continental	A	**2.40**
452	20	117	1-20 watt	American		**2.10**
452-3	20	220*	1-20 watt	American		**2.40**
452-3B	20	220*	1-20 watt	British		**2.40**
452-3C	20	220*	1-20 watt	Continental		**2.40**

NOTE: A—Wired In Series
B—Used only for Converting from AC to DC
*—(Step down) Ballast

JFD PRECISION MADE

Plug-in type

SPECIAL PURPOSE STEPDOWN BALLASTS

These special purpose ballasts are designed for any 220 to 110 volt stepdown application, within the wattages listed, as shown below. All of these ballasts are plug-in type, with male plug at one end, and female socket at other. Improved aircooled cage construction.

Cat. No.	Ohms Res.	Amps. Current	Volt. Drop.	Watts	Male End	Female End	Load
450	97	1.13	220–110	125	Amer.	Amer.	125 W Infra Red Therapeutic Lamp
451B	"	"	"	"	Brit.	"	"
451C	"	"	"	"	Cont.	"	"
456	250	.44	"	65	Amer.	"	35-65 W Radio Heating Pads
457B	"	"	"	"	Brit.	"	"
457C	"	"	"	"	Cont.	"	"
460	400	.35	250–110	50	Amer.	"	4–5 Tube AC–DC Radio .3 Amp. Tubes
461B	"	"	"	"	Brit.	"	"
461C	"	"	"	"	Cont.	"	"
462	500	.22	220–110	25	Amer.	"	General Use
463B	"	"	"	"	Brit.	"	"
463C	"	"	"	"	Cont.	"	"
466	660	.167	220–110	8	Amer.	"	General Use
467B	"	"	"	"	Brit.	"	"
467C	"	"	"	"	Cont.	"	"
468	1345	.082	"	9	Amer.	"	Electric Razor
469B	"	"	"	"	Brit.	"	"
469C	"	"	"	"	Cont.	"	"

List Price any ballast shown above..... $2.40 each

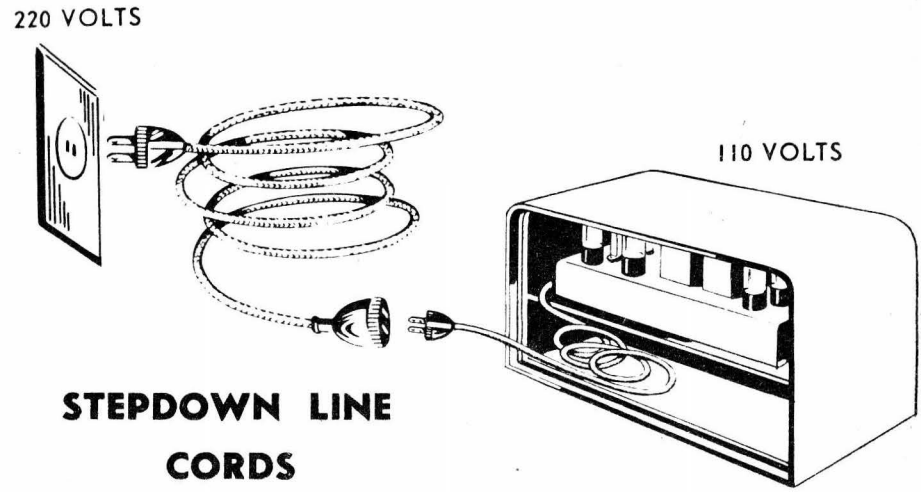
JFD PRECISION MADE

Plug-in type

SPECIAL PURPOSE STEPDOWN BALLASTS

Cat. No.	Ohms Res.	Amps. Current	Volt. Drop.	Watts	Male End	Female End	Load
470	6000	.018	"	2	Amer.	"	Electric Clock
471B	"	"	"	"	Brit.	"	"
471C	"	"	"	"	Cont.	"	"
472	110	.950	"	105	Amer.	"	15–7 Watt Xmas Lights in Parallel
473B	"	"	"	"	Brit.	"	"
473C	"	"	"	"	Cont.	"	"
480	300	.300	"	33	Amer.	"	Remington Razor
481B	"	"	"	"	Brit.	"	"
481C	"	"	"	"	Cont.	"	"
482	785	.140	"	16	Amer.	"	Portable Radio Total Current Drain .140 Amp.
483B	"	"	"	"	Brit.	"	"
483C	"	"	"	"	Cont.	"	"
484	430	.255	"	28	Amer.	"	Detrola Automatic Phono Turntable
485B	"	"	"	"	Brit.	"	"
485C	"	"	"	"	Cont.	"	"
488	2000	.055	"	6	Amer.	"	General Use
489B	"	"	"	"	Brit.	"	"
489C	"	"	"	"	Cont.	"	"
490	143	.87	"	96	Amer.	"	65–130 Watt 110 Volt Radio
491B	"	"	"	"	Brit.	"	"
191C	"	"	"	"	Cont.	"	"

List Price any ballast shown above..... $2.40 each



STEPDOWN LINE CORDS

220 to 110 VOLTS

2191 220-110 volt 300 ohm cord, with American type standard male plug and cord connector—for sets using .3 amp. tubes, allowing 50 ma. for Plate Supply, totaling .35 amp. Individually packaged.

List Price $2.40

2192 220-110 volt 560 ohm cord, with American type standard male plug and cord connector, for sets using .15 amp. tubes, allowing 50 ma. for Plate Supply, totaling .2 amp. Individually packaged.

List Price $2.40

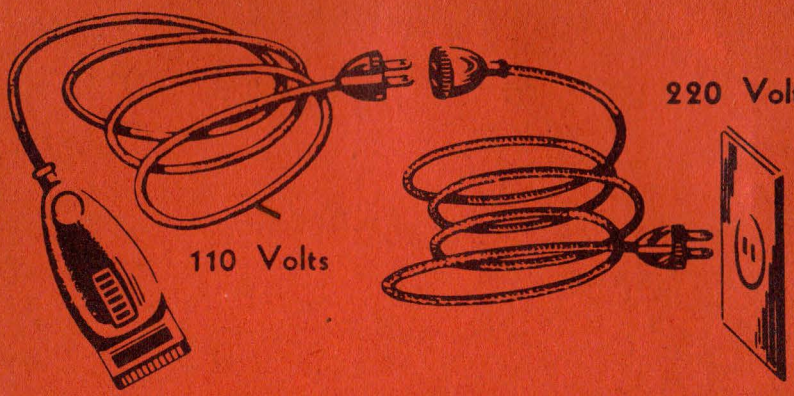
2193F 220-110 volt 300 ohm cord, with foreign male plug and American cord connector. For sets using .3 amp. tubes, allowing 50 ma. for Plate Supply totaling .35 amp. Individually packaged.

List Price $2.40

2194F 220-110 volt 560 ohm cord, with foreign male plug and American cord connector. For sets using .15 amp. tubes, allowing 50 ma. for Plate Supply totaling .2 amp. Individually packaged.

List Price $2.40

JFD STEP-DOWN RESISTANCE LINE CORDS FOR ELECTRIC RAZORS



STEPDOWN LINE CORDS 220 to 110 VOLTS

2203 — Remington-Rand Razor—15 Watt
American Female and American Male..... $2.60 List

2203B — Remington-Rand Razor—15 Watt
American Female and British Male..... $2.60 List

2203C — Remington-Rand Razor—15 Watt
American Female and Continental Male..... $2.60 List

2204 — Schick Razor—9 Watt—Sunbeam Shave Master—(15 Watt)—Gem—Gillette—Single Head Remington
American Female and American Male..... $2.60 List

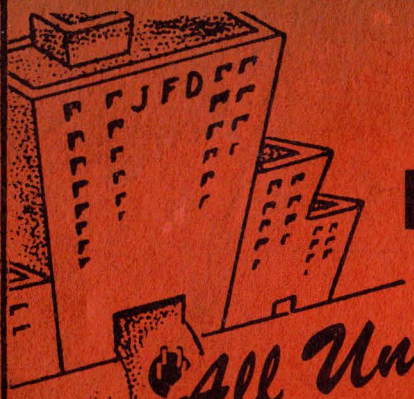
2204B — Schick Razor—9 Watt—Sunbeam Shave Master—(15 Watt)—Gem—Gillette—Single Head Remington
American Female and British Male..... $2.60 List

2204C — Schick Razor—9 Watt—Sunbeam Shave Master—(15 Watt)—Gem—Gillette—Single Head Remington
American Female and Continental Male..... $2.60 List

2205 — Packard Razor—6 Watt
American Female and American Male..... $2.60 List

2205B — Packard Razor—6 Watt
American Female and Continental Male..... $2.60 List

2205C — Packard Razor—6 Watt
American Female and Continental Male..... $2.60 List



JFD

Serving the radio trade since 1929

All Under One Roof

WE manufacture over 25 different lines for the Radio service trade and are prepared to ship

JFD "SOCKETTE" RADIO TUBE ADAPTERS
JFD EXACT DUPLICATE BALLAST TUBES
JFD PHOSPHOR BRONZE DIAL CABLE
JFD BATTERY ADAPTER HARNESSES
JFD ADJUSTABLE BALLAST TUBES
JFD RESISTANCE CORD ADAPTERS
JFD PHONO ADAPTER SWITCHES
JFD MICROPHONE CONNECTORS
JFD MIDGET JACKS & PLUGS
JFD PHONOGRAPH NEEDLES
JFD RESISTANCE CORDS
JFD AC SERVICE CORDS
JFD TOGGLE SWITCHES
JFD AUTO CONDENSERS
JFD SPEAKER CEMENT
JFD ANTENNA LOOPS
JFD AUTO ANTENNAS
JFD BATTERY PLUGS
JFD TUBE SHIELDS
JFD RADIO WIRE
JFD SUPPRESSORS
JFD DIAL BELTS
JFD DIAL CORD

UNEXCELLED PRODUCTS

Immediate Deliveries

WRITE FOR LITERATURE.

J.F.D. MANUFACTURING CO.

4111 FT. HAMILTON PARKWAY BROOKLYN 19, N. Y.