

REPLACE
WITH THE BEST...



for reliable radio communications

For top performance, reliability and long life in your two-way radio equipment, always replace with RCA power tubes from your local RCA Industrial Tube Distributor. RCA power tubes have set a standard of dependability with commercial radio, the military services and industry for more than a generation. And their typically long operating life stretches your tube dollar. You are assured of the most service for your money when you replace with RCA power tubes.

Your RCA Industrial Tube Distributor can supply a complete line of RCA tubes for fixed and mobile communications equipment. He'll give you prompt service anytime, anywhere. Call him for all your tube needs.



WHAT'S THE ANSWER?

(Continued from page 32)

position sections are run out on a tabulating type adding machine. The computed information is then transcribed on a transposition profile in line with that shown on the attached diagram.

It has been the practice of the Chespeake & Ohio to locate transpositions within 3 ft of the actual computed point. If the point does not fall within 3 ft of a pole location, a span type bracket is utilized. It has not been our practice to change the standard 8-in. pin spacing.

Telephone Switches

At telehones used by trainmen and other employees along the right of way which are located in booths or pole boxes, are your circuits so designed that the telephone can be switched from the dispatcher's to the message circuit or code line? If so, what type of switch is used and where can it be obtained?

Use Baby Knife Switch

L. D. Fry, Superintendent of Communications, Kansas City Southern, Kansas City, Mo.

We do not give trainmen access to the message phone, only to the dispatcher phone in booths or pole boxes. We use a baby knife switch to cut the phone off the line when not in use.

Dwarf Signals

Do you use any supplemental signal or device on dwarf signals to provide the indication to the engineer when he has pulled up very close to the signal?

No Supplemental Signal

F. L. CHATTEN, System Engineer, Communications and Signals, Pennsylvania, Philadelphia, Pa.

We do not find it necessary to use any supplemental signal or device on dwarf signals to provide the indication to the engineer when he has pulled up very close to the signal. On the Pennsylvania. we use position light dwarf signals which provide a satisfactory short range signal for governing slow speed train movements, both approaching the signal and when the head end of the engine is opposite the dwarf signal. Our standard dwarf signal foundations are so constructed that the lenses of the dwarf signal are tilted approximately seven degrees from the vertical. The lenses are located on eight-inch center, radially (Continued on page 36)

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WHAT'S THE ANSWER?

(Continued from page 34)

from the pivot unit and are of clear glass, four inches in diameter, behind which is a clear, sandblasted flat 20degree spreadlight roundel.

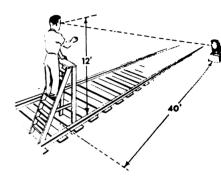
Use Close-Up Prism

A. B. BRANSON, Knoxville, Tenn.

Under normal or ordinary operating conditions the modern dwarf signal of the searchlight type does not require any supplemental device to provide a distinguishable indication to the engineer when he has pulled up very close to the signal.

One make of drawf signal of the searchlight type is always furnished complete with a flat inclined 10-deg deflecting prism cover glass turned for upward deflection. In this type assembly the prisms on the glass are on the outside instead of the inside in order to avoid surface reflection difficulties.

Dwarf signals of the searchlight type are equipped with special prisms known as close-up prisms or "hot spots" which are located between the inner and outer lenses of the signal. For maximum results in adjusting the dwarf signal for close-up indications, an observer should be stationed on the engineman's side of a locomotive at a distance of approximately 40 ft in advance of the signal. It a locomotive is not available a stepladed may be used, provided the height of the ladder is sufficient to enable the observer's eye or line of vision to be approximately 12 ft above the rail at the 40-4 distance. Adjust for maximum indication by rotating the "hot spot" prism with fingers. When proper adjustment if achieved, a very distinguishable indication will be provided for the enginema until he passes the signal.



Maintenance Costs

What are you doing to keep signal maintenance costs down?

Close Supervision

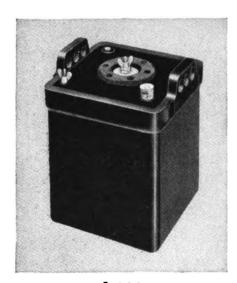
R.W. TROTH, General Superintender Communications and Signals, St. Louis San Francisco, Springfield, Mo.

There are several important factor involved, such as:

- 1) Good close inspection and super vision of both material and labor. Ou supervisors watch material closely and do not permit the maintainer's stod to be built up unless he has need for the material within 30 to 60 days. If on maintainer has a surplus of material it is moved to another section when needed. Except for emergencies, mate rial for each maintainer is ordered ever 60 days. So far as practical, mainte nance forces are kept informed of material costs. The supervisor guide the maintainer in lining up his world so there will be a minimum amount of traveling time. By doing this a main tainer can maintain more territory that would otherwise be the case.
- 2) Maintenance allowance is handled directly from the general office. Therefore, we have accurate control thereof. The labor force is practically constant and all material is charged direct from requisition when shipped. Therefore, we have knowledge of the value of material furnished in any one month, within reasonable limits.
 - 3) In our signal repair shop all re (Continued on page 38)



AD PRIMARY CELLS



Save users

LABOR, TIME, MONEY

Maximum discharge rates:
1.0 amp. continuous
2.5 amp. max. intermittent
Approximately one gallon of water
for 2500 watt hours.
No washing of jars.
No mixing of caustic.
Only one stores item.

Railway track circuits light signals—electrical aids to navigation, Telephone exchange batteries, etc.

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RAILWAY SIGNALING and COMMUNICATION

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