

Structural Return Loss and Singing Point

TOLL CABLE

Facility	Structural Return Loss at Various Frequencies								Structural S.P. at Critical Frequencies
	1000c	1500c	1800c	2000c	2200c	2500c	2900c	3500c	
19 ga. H-172-S	35.7	31.5	29.3	<u>27.9</u>	26.2	23.2	-	-	21.9
16 ga. "	33.4	29.4	27.3	<u>26.0</u>	24.5	21.8	-	-	20.0
19 ga. H-106-P	35.2	<u>31.0</u>	28.8	<u>27.3</u>	25.8	23.4	-	-	21.3
16 ga. "	32.8	28.9	26.8	<u>25.4</u>	24.0	21.9	-	-	19.4
19 ga. H-88-S	40.2	36.3	34.4	33.3	32.2	30.4	<u>28.2</u>	24.2	22.2
16 ga. "	37.7	33.9	32.0	30.9	29.8	28.2	<u>26.2</u>	22.4	20.2
19 ga. B-88-S	37.1	33.6	31.9	30.9	30.0	28.6	<u>27.2</u>	25.0	21.2
16 ga. "	34.8	31.4	29.8	28.8	27.9	26.7	<u>25.4</u>	23.3	19.4
19 ga. H-63-P	38.5	34.6	32.8	31.6	<u>30.5</u>	28.7	26.3	-	24.5
16 ga. "	36.1	32.3	30.4	29.4	<u>28.3</u>	26.8	24.6	-	22.3
19 ga. H-50-P	40.6	36.1	34.2	33.1	32.0	30.4	<u>28.3</u>	24.8	22.3
16 ga. "	38.1	33.6	31.7	30.7	29.6	28.1	<u>26.2</u>	22.9	20.2
19 ga. B-50-P	36.8	33.3	31.6	30.6	29.7	28.5	<u>27.0</u>	25.0	21.0
16 ga. "	34.4	31.1	29.5	28.6	27.7	26.4	<u>25.2</u>	23.3	19.2
19 ga. H-44-S	42.7	40.0	38.2	37.1	<u>36.3</u>	35.0	<u>33.3</u>	30.7	30.3-27.3
16 ga. "	40.9	37.4	35.6	34.7	<u>33.8</u>	32.4	<u>30.9</u>	28.6	27.8-24.9
19 ga. H-25-P	43.2	39.7	38.0	37.0	<u>36.0</u>	34.7	<u>33.2</u>	30.8	30.0-27.2
16 ga. "	40.5	37.2	35.4	34.4	<u>33.6</u>	32.2	<u>30.8</u>	28.6	27.6-24.8

Notes: The data of this Section are given for use in building up repeater section singing points and repeater section return losses (for echo computations) in cases where data are not available from completion tests, maintenance measurements, or otherwise. The structural return losses are 63% values; the structural singing points are 96% values, derived by subtracting 6 db from the structural return loss at the critical frequency.

The frequencies at which singing computations are usually made for the various types of facility (critical frequencies) are those shown in column headings for the underlined return loss values. The frequency for H-44-25 facilities may be 2200 or 2900 depending on the type filter used. (The critical frequencies assume that the repeaters are equipped with the filters standard for the type of facility involved - see 304-400-100.)

The values of the Section are those normally to be expected in repeater section length facilities for cable installed in 750 ft. reel lengths without deviation test splicing.

1. Short Cable Correction: Increase all values 1 db for 19 ga. cables 10 miles or less in length; and for 16 ga. cables 15 miles or less in length.
2. Reel Length Correction: Reduce all values
0.5 db for 1000 ft. reel lengths
1.5 " " 1500 " " "
2.5 " " 3000 " " "
3. Correction For Splicing Method: For cable installed with deviation test splicing and reel allocation consult Section AB23.191 or use data derived from an analysis of completion test data.