ALLIED RADIO

INTERNATIONAL MORSE
CODE COURSE

78 R.P.M.

TEN LESSONS

Up to
Fifteen Words Per Minute

ALLIED RADIO CORPORATION
CHICAGO 80, ILLINOIS

This Code Study Course is dedicated

to the young men and women of

America, who aim, by this means,

to increase their usefulness to their

communities and to their Country.

THE INTERNATIONAL MORSE CODE

WHAT IS IT?

Perhaps you have, at some time or other, heard on your radio, buzzing or whistling sounds which seemed to come in rhythmic patterns . . . and you may have wondered what they were.

This is the *International Morse Code* — language of Radio Operators the world over — a method for transmitting letters, numerals and punctuation marks by means of groups of "dots" and "dashes" forming certain patterns of sound.

WHY USE THE CODE?

Surely it would seem easier to transmit and receive messages by means of the spoken word. Why then is Code used? Firstly, the equipment required for transmitting and receiving Code is much simpler, less costly, less bulky. Second, the high pitched single tone of the Code cuts through static and radio interference and can be received intelligibly where voice transmission with its complicated sounds just wouldn't get thru. Third, the transmission of the Code by "CW" (continuous wave) requires a much narrower frequency space than does the transmission of speech (radiotelephony). This is important in the crowded 'Ham' (Radio Amateur) Frequency Bands.

In general, the distance range of Code transmission, for a given amount of power output, is substantially greater than that of voice transmission.
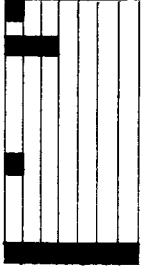
2195 B

"DIT-DAH" — NOT "DOT-DASH"

In learning the Code it is essential to think of *"DITS"* and *"DAHS"* rather than "Dots" and "Dashes." The letter "A" (.-) for example, should be thought of as *"DIT-DAH"* because that is just about how it sounds in Code; whereas "dot-dash" would be clumsy and retarding. The letter "B" (-...) must be thought of as *"DAH-DI-DI-DIT,"* which can obviously be said, (and thought of) much more rapidly and accurately than Dash-Dot-Dot-Dot.

HERE'S HOW THE CODE IS MADE UP:

Think of a dot as . . . "DIT"
Think of a dash as . . . "DAH"

The Basic Time Unit

Think of the time interval between the elements of a letter or number as . . .

Equivalent to three dits in time length.

Equivalent to one dit in time length.

Think of the time interval between words or groups as . . .

Equivalent to seven dits in time length.

WHEN YOU BEGIN TO MEMORIZE THE CODE:

Look over the alphabet and numerals on the following pages. Don't count the dots and dashes that make up each character as you memorize it—that would be a faulty and futile procedure. Think of the letter or numeral rather as a complete sound. Thus you will soon perceive that each character has its own individual sound cadence or rhythm. And when you hear that particular sound rhythm, the letter or numeral it stands for will pop instantly into your mind!

THESE HINTS WILL HELP YOU LEARN THE CODE FAST!

1. When practicing Code copying, *concentrate on that and nothing else.* This is especially important when you are first memorizing the code. To get the characters firmly fixed in your mind during the opening lessons, you must clear your mind of everything else, — and *concentrate!*

2. Do not study the Code for more than one and a half hours a day. You will learn faster if you study *each day* for a reasonable time, rather than "leave-it-all" for a few days now and then, trying to "catch up" by prolonged study periods.

3. There is no magic short cut to learning the Code. You must study consistently, and your progress will be directly proportional to the amount of time you spend practicing.

4. Be patient, be confident. You *WILL learn the Code* if you apply yourself to it. Don't worry about developing speed at first. Be sure of one thing: speed comes with practice. In general, you should be copying 13 words per minute after about sixty hours of study.

CODE REQUIREMENTS FOR GOVERNMENT LICENSES:

Novice or Technician Class .... 5 Words per Minute
General Amateur Class .... 13 Words per Minute
Amateur Extra Class .... 20 Words per Minute
Commercial 2nd Class .... 16 Words per Minute
Commercial 1st Class .... 25 Words per Minute

THE INTERNATIONAL MORSE CODE

ALPHABET

Formed by:	The Letter:	Sounds Like This:
•▬	A	di-dah
▬•• •	B	dah-di-di-dit
▬•▬•	C	dah-di-dah-dit
▬••	D	dah-di-dit
•	E	dit
••▬•	F	di-di-dah-dit
▬▬•	G	dah-dah-dit
••••	H	di-di-di-dit
••	I	di-dit
•▬▬▬	J	di-dah-dah-dah
▬•▬	K	dah-di-dah
•▬••	L	di-dah-di-dit
▬▬	M	dah-dah
▬•	N	dah-dit
▬▬▬	O	dah-dah-dah
•▬▬•	P	di-dah-dah-dit
▬▬•▬	Q	dah-dah-di-dah
•▬•	R	di-dah-dit
•••	S	di-di-dit
▬	T	dah
••▬	U	di-di-dah
•••▬	V	di-di-di-dah
•▬▬	W	di-dah-dah
▬••▬	X	dah-di-di-dah
▬•▬▬	Y	dah-di-dah-dah
▬▬••	Z	dah-dah-di-dit

(Note that a **"dit"** preceding a **"dah"** or another **"dit"** is shortened to **"di-"** for speed and convenience.)

NUMERALS

Formed by:	The numeral:	Sounds Like This:
•▬▬▬▬	1	di-dah-dah-dah-dah
••▬▬▬	2	di-di-dah-dah-dah
•••▬▬	3	di-di-di-dah-dah
••••▬	4	di-di-di-di-dah
•••••	5	di-di-di-di-dit
▬••••	6	dah-di-di-di-dit
▬▬•••	7	dah-dah-di-di-dit
▬▬▬••	8	dah-dah-dah-di-dit
▬▬▬▬•	9	dah-dah-dah-dah-dit
▬▬▬▬▬	Ø	dah-dah-dah-dah-dah

(Note that the numeral Ø (zero) is always written with a **diagonal stroke**, to differentiate it from the letter "O".)

THE INTERNATIONAL MORSE CODE

PUNCTUATION MARKS

Formed by:	The Mark:	Sounds Like This:
•▬•▬•▬	Period ....(.)	di-dah-di-dah-di-dah
▬▬••▬▬	Comma ....(,)	dah-dah-di-di-dah-dah
••▬▬••	Question Mark ....(?)	di-di-dah-dah-di-dit
▬•••▬	Double Dash ....(=)	dah-di-di-di-dah
▬••••▬	Hyphen ....(-)	dah-di-di-di-di-dah
▬•▬▬•▬	Parentheses ....( )	dah-di-dah-dah-di-dah
▬▬▬•••	Colon ....(:)	dah-dah-dah-di-di-dit
▬•▬•▬•	Semicolon ....(;)	dah-di-dah-di-dah-dit
•▬•	Decimal Point ....(.)	di-dah-dit
•▬••▬•	Quotation Marks ....(")	di-dah-di-di-dah-dit
••••••••	Error Sign ....(X)	di-di-di-di-di-di-di-dit
•▬▬▬▬•	Apostrophe ....(')	di-dah-dah-dah-dah-dit
▬••▬•	Fraction Bar ....(/)	dah-di-di-dah-dit
•••▬••▬	Dollar Sign ....($)	di-di-di-dah-di-di-dah

SPECIAL SIGNALS

Formed by:	The Signal:	Sounds Like This:
•••▬▬▬•••	International Distress Call (SOS)	di-di-di-dah-dah-dah-di-di-dit
•▬•▬•	End of Message (AR)	di-dah-di-dah-dit
•••▬•▬	End of Work (VA)	di-di-di-dah-di-dah
•▬•••	Wait Sign (AS)	di-dah-di-di-dit
▬•▬	Invitation to Transmit (K)	dah-di-dah
•••▬	Sign indicating test	di-di-di-dah

LESSON NO. 1

OBJECTIVE:

1st Section: Learn		2nd Section: Learn	
•	E (dit)	▬	T (dah)
• •	I (di-dit)	▬ ▬	M (dah-dah)
• • •	S (di-di-dit)	▬ ▬ ▬	O (dah-dah-dah)
• • • •	H (di-di-di-dit)	▬ ▬ ▬ ▬ ▬	Ø (dah-dah-dah-dah-dah)
• • • • •	5 (di-di-di-di-dit)	▬ ▬ ▬ ▬ •	9 (dah-dah-dah-dah-dit)
• • • • ▬	4 (di-di-di-di-dah)	▬ • • ▬	X (dah-di-di-dah)

METHOD:

Set your record player for 78 R.P.M., and play Record Lesson No. 1 through. Each character you hear is played in the same sequence as shown below, letter for letter and number for number. Listen to the COMPLETE SOUND of each character. Play the record over as many times as necessary, till you feel you can recognize each character by its COMPLETE SOUND. Then, take a pencil and sheet of paper, close this instruction book, play the record over, and print neatly each character you hear.

Then open this book, check your copy against the characters shown below — and REPEAT this procedure until you can copy the entire lesson perfectly — that is, with no errors. When you are able to do this, you are ready for the next lesson. CAUTION: don't proceed to the next lesson till you have mastered this one!

THIS IS WHAT YOU HEAR ON RECORD LESSON NO. 1

EEEE IIII SSSS HHHH 5555 4444 E I S H 5 4 5 5

S I E 4 S 5 I H 4 S 5 H 4 H I 5 S E H I S E 4 5 H S I E S

H 5 4 H S E I 5 S 4

TTTT MMMM OOOO ØØØØ 9999 XXXX

T M O Ø 9 X 9 Ø O M T X O 9 M Ø X O 9 Ø X 9 O

T Ø M O T M X Ø O T 9 M X Ø 9 T O X 9 M Ø

LESSON NO. 2

OBJECTIVE:

1st Section: Learn		2nd Section: Learn	
• ▬	A (di-dah)	• • ▬	U (di-di-dah)
• ▬ •	R (di-dah-dit)	• • ▬ •	F (di-di-dah-dit)
• ▬ • •	L (di-dah-di-dit)	• ▬ ▬ •	P (di-dah-dah-dit)
• ▬ ▬	W (di-dah-dah)	• • • ▬	V (di-di-di-dah)
• ▬ ▬ ▬	J (di-dah-dah-dah)	• ▬ ▬ ▬ ▬	2 (di-dah-dah-dah-dah)
• ▬ ▬ ▬ ▬	1 (di-dah-dah-dah-dah)	• • • ▬ ▬	3 (di-di-di-dah-dah)

METHOD:

Set your record player for 78 R.P.M. REVIEW LESSON NO. 1. Then, play Record Lesson No. 2 through. Each character you hear is played in the same sequence as shown below, letter for letter and number for number. Listen for the COMPLETE SOUND of each character. Play the record over as many times as necessary, till you feel you can recognize each character by its complete sound. Then take pencil and paper, close this instruction book, play the record over, and print neatly each character you hear.

Then open this book, check your copy against the characters shown below — and REPEAT this procedure until you can copy the entire lesson perfectly — that is, with no errors. When you are able to do this, you are ready for the next lesson.

THIS IS WHAT YOU HEAR ON RECORD LESSON NO. 2

AAAA RRRR LLLL WWWW JJJJ 1111

A R L W W J 1 J W L R A 1 L J R W 1 L J W 1 L A W

R L A R 1 W J A L R 1 L

UUUU FFFF PPPP VVVV 2222 3333 U F P V

2 3 2 V P F U 3 P 2 F V 3 P 2 V 3 V P U F 3 2

V P F U 2 3 F V P U F 2 V P 3 U 3 F 2 V

LESSON NO. 3

OBJECTIVE:

1st Section: Learn		
▬●	N	(dah-dit)
▬●●	D	(dah-di-dit)
▬●●●	B	(dah-di-di-dit)
▬●●●●	6	(dah-di-di-di-dit)
▬▬●●●	7	(dah-dah-di-di-dit)
▬▬▬●●	8	(dah-dah-dah-di-dit)

2nd Section: Learn		
▬▬●●	G	(dah-dah-dit)
▬▬●▬	Q	(dah-dah-di-dah)
▬▬●●	Z	(dah-dah-di-dit)
▬●▬	K	(dah-di-dah)
▬●▬●	C	(dah-di-dah-dit)
▬●▬▬	Y	(dah-di-dah-dah)

METHOD:

Set your record player for 78 R.P.M. Review Lessons No. 1 and No. 2. Then, play Record Lesson No. 3 through. Each character you hear is played in the same sequence as shown below, letter for letter and number for number. Listen for the COMPLETE SOUND of each character. Play the record over as many times as necessary, till you feel you can recognize each character by its COMPLETE SOUND. Then, closing this instruction book, play the record over, and print neatly each character you hear.

Then open this book, check your copy against the characters shown below — and repeat this procedure until you can copy all of this lesson perfectly — that is, with no errors. When you are able to do this, you are ready for the next lesson.

THIS IS WHAT YOU HEAR ON RECORD LESSON NO. 3

NNNN   DDDD   BBBB   6666   7777   8888

N D B 6 7 8 7 6 B D N 8 N B 7 D 6 8 B 7 6 8 7 N

8 D B B 6 8 B N 7 D 6 B

GGGG   QQQQ   ZZZZ   KKKK   CCCC   YYYY

G Q Z K C Y C K Z Q G Y G Z C Q K Y Z C K Y C

G Y G Y Q C Z K Y G C Q K Z Q Y Z C K Y Q C Z K G

LESSON NO. 4

OBJECTIVE:

To build up your speed of recognition and printing of all 36 characters, to about 5 words per minute. All letters of the alphabet and all numerals are included in this lesson.

METHOD:

Set your record player for 78 R.P.M. Review Lessons No. 1, No. 2, and No. 3. Then play Record Lesson No. 4 through. Each character you hear is played in the same sequence as shown below, letter for letter and number for number. Listen for the COMPLETE SOUND of each character. Play the record over as many times as necessary, till you feel you can recognize each character by its complete sound. Then, closing this instruction book, play the record over, and print neatly each character you hear.

Then open this book, check your copy against the characters shown below — and repeat this procedure until you can copy all of this lesson perfectly — that is, with no errors. When you are able to do this, you are ready for the next lesson.

THIS IS WHAT YOU HEAR ON RECORD LESSON NO. 4

T 4 6 W 8 M 1 A L 5 Y 7 Z C Ø P K H V U N E 2 J

Ø Q Z V R K P G X Z O J Y 4 U W B M J Q H P 9

3 C X 9 A 5 B 7 G 2 8 N 6 V R T 1 Q Ø S K Y D L

Z F 1 Q P J 1 A B 9 X 4 F Z V T C U Ø 7 B W L Q

LESSON NO. 5

OBJECTIVE:

To build up your speed of recognition and printing of two-character groups. When you have successfully completed this lesson, you will be copying at about 7 words per minute.

METHOD:

Set your record player for 78 R.P.M. Thoroughly review Lesson No. 4. Then play Record Lesson No. 5 through. Each character in each group you hear, is played in the same sequence as shown below, letter for letter and number for number. Repeat this playing several times, noting particularly the time spacing between characters in a group, and spacing between groups. Then, closing this instruction book, play the record over, and print neatly each group you hear.

Then, open this book, check your copy against the groups shown below — and repeat this procedure until you can copy all of this lesson perfectly — that is, with no errors. If you encounter difficulty with certain letters or numbers, review the preceding lessons in which those characters occur.

THIS IS WHAT YOU HEAR ON RECORD LESSON NO. 5

41 CJ UT 57 NR OL Ø6 29 SC BP HK QV 38 Ø4 XJ

WF 21 65 73 YZ IG BZ ND 64 Ø9 71 QD CS HT AE

65 AX JR Ø3 GW VC EQ XU 26 MB AT RS IZ Ø2 ME

NK YV NA 68 14 DC UO AK GJ HE RF DW PN IK

MQ ZO TU YX LA JP

LESSON NO. 6

OBJECTIVE:

To build up your speed of recognition and printing of three-character groups. When you have successfully completed this lesson, you will be copying at about 8 words per minute.

METHOD:

Set your record player for 78 R.P.M. Thoroughly review Lessons No. 4 and No. 5. Then play Record Lesson No. 6 through. Each character in each group you hear is played in the sequence shown below. Repeat this playing several times, until you are familiar with the rhythm of the three-character groups. Then, closing this instruction book, play the record over, and print neatly each group you hear.

Then, open this book, check your copy against the groups shown below — and repeat this procedure until you can copy all of this lesson perfectly — that is, with no errors. If you encounter difficulty with certain characters, review the preceding lessons in which those characters occur.

THIS IS WHAT YOU HEAR ON RECORD LESSON NO. 6

924 385 175 FOE QHJ SPM GIW AIR 173 AZY 675

NHR QMS FOB PAV 937 483 GBW AKI TCN GZP SML

BVU OWE HYG FRJ 928 YOZ 317 VUO WEH GJF

RJD JER XBI 386 KGP TWV KSH UGM QOY 183 592

YRA BCL NJV 285 376 UXD BCO

LESSON NO. 7

OBJECTIVE:

To build up your speed of recognition and printing of four-character groups. When you have successfully completed this lesson, you will be copying at about 9 words per minute.

METHOD:

Set your record player for 78 R.P.M. Thoroughly review Lessons No. 5 and No. 6. Then play Record Lesson No. 7 through. Each character in each group you hear is played in the sequence shown below. Repeat this playing several times, until you are quite familiar with the rhythm of the four-character groups. Then, closing this instruction book, play the record over, and print neatly each group you hear.

Then, open this book, check your copy against the groups shown below — and repeat this procedure until you can copy all of this lesson perfectly — that is, with no errors.

THIS IS WHAT YOU HEAR ON RECORD LESSON NO. 7

1579 DKOA NLKJ PWVF 132Ø QESU 8641 IZXJ MVCH

GTRY YSWT KVUD 1Ø72 NOXU ERCM JBXH 5938 AILF

PQGZ 7462 VABE QUWG MKTE HLXJ 2814 STRD JYXO

569Ø IFZC MWOD PFCM UJTG MYLV SDUK QIZR BAHE

DXRK VQUC PMHN SWOS TLBI EADG

LESSON NO. 8

OBJECTIVE:

To build up your speed of recognition and printing of five-character groups. When you have successfully completed this lesson, you will be copying at about 10 words per minute.

METHOD:

Set your record player for 78 R.P.M. Thoroughly review lessons No. 6 and No. 7. Then play Record Lesson No. 8 through, following each character in each group as shown below. Repeat this playing several times, until you are quite familiar with the rhythm of the five-character groups. Then, closing this instruction book, play the record over, and print neatly each group you hear.

Then open this book, check your copy against the groups shown below — and repeat this procedure until you can copy all of this lesson perfectly — that is, with no errors.

THIS IS WHAT YOU HEAR ON RECORD LESSON NO. 8

LUYNI MQVKZ GDUJI 6158Ø BFOKV 7Ø239 TCHAW

Ø5689 GRJES 32971 TOJIM FGHNV BWRZL Ø8426

CPSUQ KAEYX DXRBW 98352 ZLYMI 647Ø1 43921

UQXVN WMBOT PACHF 678Ø5 LYZCD SREJG DNIRB

ZRUKG WXPHM KTAFC GLSEV 189Ø6 YQJZO RKPAL

UCLZD MCWIO BFGUM

LESSON NO. 9

OBJECTIVE:

To learn to receive and print code at 15 words per minute, using two, three, four and five-character groups intermixed.

METHOD:

Set your record player for 78 R.P.M. Thoroughly review Lessons No. 5, 6, 7 and 8. Then, play Record Lesson No. 9 through, following each character in each group, as shown below. When you are thoroughly familiar with the sound and spacing of these groups, close this book. Then play the record over, printing each group you hear. Space your groups properly, and strive for neatness.

Then open this book, check your copy against the groups shown below — and repeat this procedure until you can copy all of this lesson perfectly — that is, with no errors.

THIS IS WHAT YOU HEAR ON RECORD LESSON NO. 9

JAGZK QESU 41 FOE CJ POFE 385 UT 957Ø8 YKXG

DIFEQ NVCH 57 VHJ NR BNVD 924 OL SAWNR JYVF

BLPFS PWVF Ø6 SPM 29 ICUT BCO SC COGUL CQOZ

PEBIT 1972 BP GZW HK WAVF DCT QV SHVXO 684Ø

FAOZX GTRY XJ AUR WF SVJE YIE YZ GNNKL AILF

TJMGA TLBI 35 QMS AP LNPM AKI QG 46132 BDSE

LESSON NO. 9A

OBJECTIVE:

To increase your code copying speed to your maximum present capabilities.

METHOD:

Using Record Lesson No. 9, speed up your record player beyond its normal 78 R.P.M., to the maximum speed at which you think you can copy. To determine "words-per-minute" speed, total up the number of letters and numerals (not groups) heard in one minute. Then divide by 5. The answer is the Code speed, in words per minute, based on an average of 5 characters per word. For example, if you hear 100 characters in one minute, the code speed is 20 words per minute, etc. It is suggested that you increase speed very gradually, advancing to the next higher speed only after you can copy solidly at the slower speed.

LESSON NO. 10

OBJECTIVE:

To learn the punctuation marks and special signals generally used in message handling. These are:

PUNCTUATION MARKS

Period	(.)	di-dah-di-dah-di-dah
Comma	(,)	dah-dah-di-di-dah-dah
Question Mark	(?)	di-di-dah-dah-di-dit
Double Dash	(=)	dah-di-di-di-dah
Hyphen	(-)	dah-di-di-di-di-dah
Parentheses	( )	dah-di-dah-dah-di-dah
Colon	(:)	dah-dah-dah-di-di-dit
Semicolon	(;)	dah-di-dah-di-dah-dit
Decimal Point	(.)	di-dah-dit
Quotation Marks	(")	di-dah-di-di-dah-dit
Error Sign	(X)	di-di-di-di-di-di-dit
Apostrophe	(')	di-dah-dah-dah-dah-dit
Fraction Bar	(/)	dah-di-di-dah-dit
Dollar Sign	($)	di-di-di-dah-di-di-dah

SPECIAL SIGNALS

International Distress Call	$\overline{SOS}$	di-di-di-dah-dah-dah-di-di-dit
End of Message	$\overline{AR}$	di-dah-di-dah-dit
End of Work	$\overline{VA}$	di-di-di-dah-di-dah
Wait Sign	$\overline{AS}$	di-dah-di-di-dit
Invitation to Transmit	K	dah-di-dah
Testing	V	di-di-di-dah

METHOD:

Set your record player for 78 R.P.M. Play the record through, following all the material shown below. Repeat until you are thoroughly familiar with each punctuation mark and special signal. Then, closing this book, play the record over, and copy it neatly on paper.

Then open this book, check your copy against the material shown below — and repeat this procedure until you can copy all of this lesson perfectly — that is, without any errors.

THIS IS WHAT YOU HEAR ON RECORD LESSON NO. 10

. . , , ? ? = = $\overline{AR}$(End of Message) $\overline{AR}$(End of Message)
$\overline{VA}$(End of Work) $\overline{VA}$(End of Work) $\overline{AS}$(Wait) $\overline{AS}$(Wait)
K(Transmit) K(Transmit) - - () : : ; ; " " EEEEEEEE(Error)
EEEEEEEE(Error) ' ' / / V(Testing) V(Testing) $ $
$\overline{SOS}$ $\overline{SOS}$

EXAMPLES: MARY WORE JANE'S SO-CALLED HAT; IT WAS 1/2 SIZE TOO SMALL. "MISFIT" WAS NO WORD FOR ST EEEEEEEE FOR IT, BUT WHY DID SHE WEAR IT?

TRANSMITTING THE CODE

As you become proficient in receiving the Code, you must begin learning to send it too. But do not start your sending practice until after you have completed Lesson No. 4 in this book. By then you will know how Code should sound.

To practice sending, you must have the required equipment. The simplest form of this equipment is a buzzer, a telegraph key, and a couple of dry cells, hooked up as shown below.


KEY
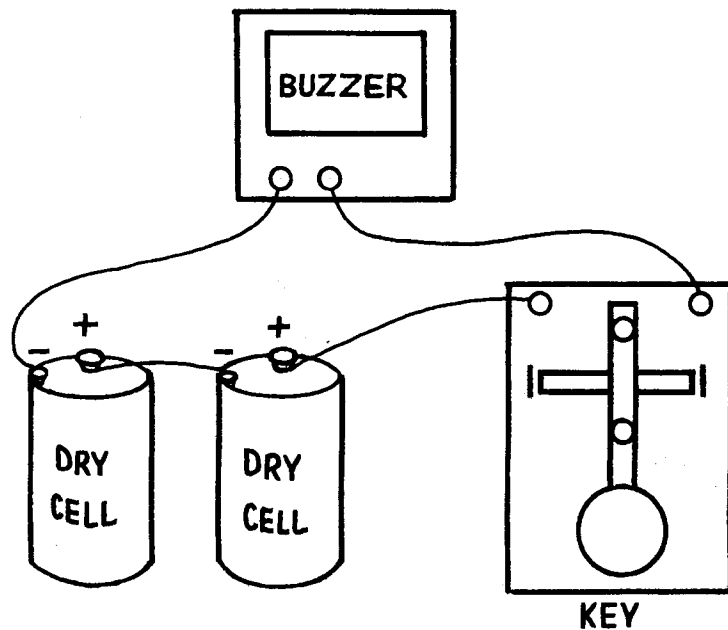
These items can generally be purchased at any electronic parts distributor, who may also have available complete code practice sets, assembled and ready for operation.

Use any single insulated wire, scraping or pushing the insulation away at the terminals. Connect the two dry cells in "series" as shown above.

TO SEND CORRECTLY:

1. Sit erect and comfortable at the code table, with line of shoulders parallel to the line of the table, both feet on floor.
2. Key should be in line with your right shoulder about 18 inches from the edge of the table. (It is desirable to fasten the key to the table or heavy flat surface, to prevent its moving around during practice.)
3. Grasp the key as shown below:
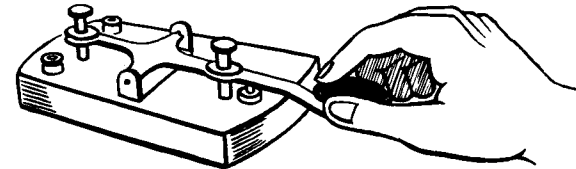
With thumb pressing against left edge of the knob, let index (first) finger rest on top rear of the knob. Curve the second finger against the rear right side of the knob. The remaining two fingers curve back, not touching the key knob.

Your arm should rest lightly on the table, the muscle of the forearm supporting the weight, with the wrist off the table. Keep the wrist flexible, allowing it to move up and down during sending. Remember that YOUR WRIST does the sending, not your fingers!

Now practice making a series of evenly spaced dots, at moderate speed, repeating to yourself, out loud preferably, "di-di-di-di-di-di-di-di-etc." Strive to make each "dit" the same length.

Then proceed to make a series of evenly spaced dashes, slowly, repeating out loud "dah-dah-dah-dah-dah-dah-dah-etc." Each "dah" should of course be the same length.

Then continue by sending a series of dots and dashes (di-dah-di-dah-di-dah-di-dah-etc.). Keep in mind two things: The wrist must be flexible. The speed of sending must be even.

PRACTICE MAKES PERFECT!

Practice sending constantly. Your sending will of course continue to improve as you practice. It will also help to increase your copying speed!

When sending, keep each character separate from the next one. Don't run them together. Don't send what sounds like a "P" if what you really want to send is "AN." Don't let "TR" sound like "C," etc.

Concentrate at first on ACCURACY in sending, not speed. The speed will come later. Take pride in sending clean easy-to-read copy. As a Radio Amateur you will make and keep contacts much more easily if your sending is good. Remember, most "Hams" prefer to copy a slow, accurate sender, rather than one who sends "sloppy" though fast.

Good Luck!