

December, 1959
25 Cents
Vol. 7, No. 12

RTTY

16

RTTY



HORSE TRADES

This page of the Bulletin is for use of amateurs who have RTTY EQUIPMENT FOR SALE OR TRADE and those looking for equipment to buy or trade. It is a free service and may be the means of getting someone on the air.

FOR SALE: Set of Tape equipment, (Model 14 tape perf, 1-A tape head with WU model 3 B distributor sold as a unit — \$145.00..... K6LYM

FOR SALE: Collins 32 V. — \$250 W6GFY

FOR SALE OR TRADE: Westport Model WE 110 L Electronic Frequency meter, — \$325.00 or trade for 14 Typing reperf and 14 TD W6JCK

FOR SALE: Model 26, Manuals: TM 11-353 14, 15 W6EHz

WANTED: FSK unit for BC 339 Transmitter K4KKZ

WANTED: Keyboard for Model 15 K6PJR

FOR SALE: Two Model 26s at \$57.50 each K6SEX

FOR SALE: Model 26 at \$57.50 W6CJY

FOR SALE: Model 15 \$100.00 W6OTW

FOR SALE: Model 15 \$125.00 W6MXJ

FOR SALE: Model 14 Non Typing reperf — \$100.00 W6ASJ

FOR SALE: Model 14 keyboard perf — \$50.00 W6VPC

FOR SALE: Paper and Tape K6LJF

FOR SALE: Model 14 TD and Model 15 W6MTJ

RTTY, Inc.
372 WEST WARREN WAY
Arcadia, California 91709
Return Postage Guaranteed



QST: TO ALL MODEL 26 OWNERS . . .

By SAM GOLDISH, W5TVG

One weak point in the otherwise excellent metallurgy of the Model 26 is apparently causing troubles for an increasing number of owners of this machine. Last year, the writer submitted an article (See June, 1958, RTTY) describing erratic operation that developed in his Model 26, which was traced to wear in the soft steel gear at the bottom of the main shaft, the hub of which forms the "race" for the five hardened steel rollers of the overriding clutch.

In the article referred to above, the writer suggested a temporary remedy by expanding the five tiny springs which preload the rollers against their race, to take up the wear in the race, but this expedient does not seem to hold for very many hours of operation. The obvious solution is to replace the worn gear (TELETYPE Part No. 92633 GEAR) with a NEW one. In the event that you are unable to obtain this replacement thru the usual channels (See back cover of RTTY), an alternate procedure is to have a machinist chuck the gear in a lathe and bore out the hub, or race, to within a few thousandths of the three tapped 6-40 holes in the gear. A steel ring of the same thickness as the gear can then be press-fitted and the new hub bored out to 1.063". (The I.D. of the race of a new gear).

For the benefit of those readers who do not have this back issue for reference, the symptom of wear in this clutch is a gradual deterioration in the performance of the typing unit from normal operation to a point where certain letters, or combinations of letters will misprint, or garble. This is more noticeable at full sync speed, such as from a tape, than at hunt-and-peck speeds. The trouble is also accompanied by an increased noisiness and jarring in the typing unit.

A visual inspection of the gear will quickly indicate if it is worn. The internal race of a new gear is PERFECTLY ROUND; when worn, it appears to have a five-petal pattern beaten out by the five hardened rollers (See Figs. 1 & 2). Furthermore, with the selector magnet armature held in the marking position, and by rotating the machine over slowly by hand, the rollers can be seen to weave in and out slightly as they traverse the worn race. After removing the main shaft assembly† (not a difficult job), hold the gear assembly in position in one hand, and attempt to rotate the overriding clutch in both directions. The clutch is supposed to LOCK FIRMLY IN ANY POSITION in one direction of rotation and free-wheel in the opposite direction. If any slippage is detected, or if the race shows visual signs of wear, it should be replaced or reworked per the drawings below.

One other suggestion: In order to prolong the life of your new gear, you might want to have the hub case-hardened. Furthermore, keep the clutch well lubricated with LIGHT oil.

†Proper procedure for removing the Main Shaft:

Remove 3 thumb screws mounting typing unit to keyboard, disconnect motor and remove typing unit from keyboard.

Unhook printer arm spring, front shaft clutch throwout lever spring and the lifting bail yield spring. Make sure the first two springs won't fall off their hooks.

Rotate the motor until the type wheel lifting bail auxiliary cam roller is on the peak of its cam. (See Bulletin 159, Fig. 14. Reprints available from RTTY.) Remove 2 screws mounting front shaft

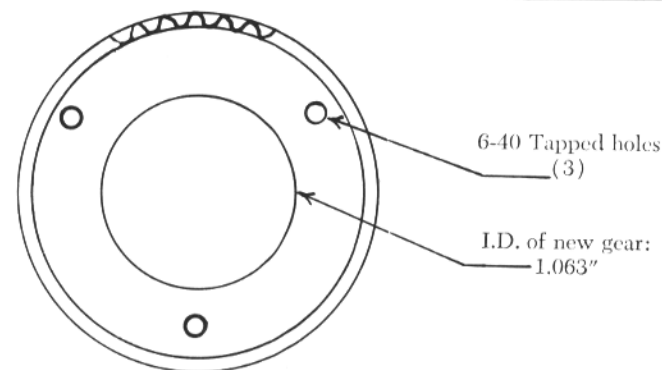


Fig. 1 92633 Gear

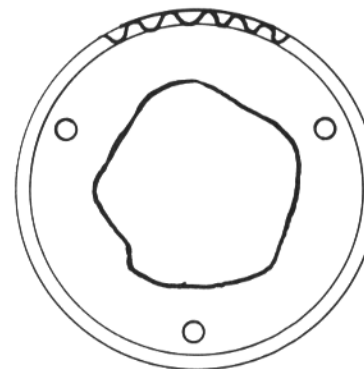


Fig. 2 92633 Gear

Showing wear in hub race
(Slightly exaggerated)

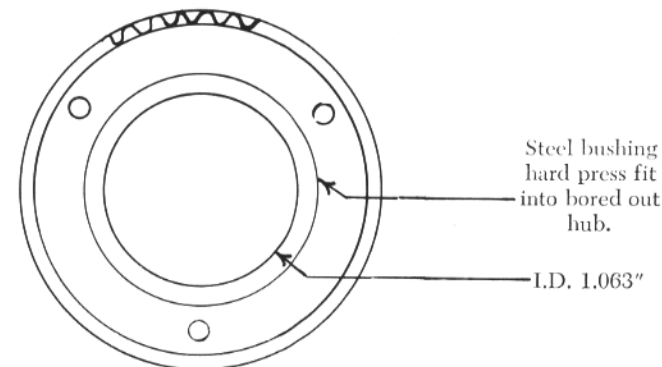


Fig. 3 92633 Gear

Reworked from worn gear.

RTTY DX

By **BUD SCHULTZ, W6CG**

Hi Gang: Here we go again on what we hope will be a regular monthly digest of DX developments. There's actually so much happening on the DX front that it's hard to figure out just where to start. It's always big news when Europe shows up on RTTY so let's start from there. Bill Brennan, G3CQE, turned up on 21,010 Kcs with a big, fat, beautiful FSK signal early in October and has been very consistent on the West Coast whenever the band is open to Europe. Bill has been keeping regular skeds with Jim, VE7KX, with excellent results. Understand that Jim is responsible, in a large degree, for Bill's appearance on FSK by a constant heckling campaign.

On November 10th G3CQE and VK3KF made history by achieving the first G/VK two way RTTY QSO. This was also accomplished on 15 meters. Congratulations, Bill and Eric!! Bill has the same complaint as the other DX stations; "not enough of the Stateside gang to talk to." G3CQE can usually be found on the low end of the 21 MC band from around 1700 GMT and has printed good copy on the West Coast as late as 2030 GMT. He also operates twenty and forty.

Eric, VK3KF, is still at the same old spot, 21,084 Kcs., every Friday and Saturday nights from about 0300 GMT until the band folds up. He has replaced his famous Yagi by a new quad which is doing a fine job. Eric reports he will lose his printer about the fifteenth of this month. He borrows it from the place where he works and they in turn rent the machines. It seems that the yearly rent on Model 15 has gone up to \$700!! Because of this his employer must make different arrangements and Eric will be without a printer. Wonder if anyone has any ideas on how we can get some gear down to him?

Good ole Bruce, ZL1WB, still on everyday with his usual good signals. Bruce had a regular Fiesta on 14095 Kcs. during the SS contest. Said his printer and his 813 were really smoking. Lots of contacts—lots of QRM—lots of fun. He still doesn't have a beam up but there's still hope. He still talks about it. There's a rumor he may be having YL QRM (her name is Ruth). Bruce reports "no luck wih G3CQE yet but still trying."

Heard via VK land that a big box of gear assigned to WØNMH/4 at Ft. Bragg went astray. For those of you who are not "hep"—WØNMH/4 is none other than that old DX stalwart KR6AK (the bird dog of the Pacific). Eric suggests that perhaps Cas is lost in the dungeons beneath Ft. Bragg. In any event we all are anxious to hear those "Alice in Wonderland" tapes again real soon. Cas, please write — all is forgiven.

CE3AGI, Dave Thompson showed up from Santiago on 15 and 20 with FSK to finally put South America on the RTTY map. Dave's sigs were tremendous and he managed to give many a happy typer a new country and a new continent. Dave's QTH is . . . "Vanguard Project, Care of U.S. Embassy, Santiago, Chile." Better get his card for WAC.

Merrill, W6AEE, reports that ZS1FD is getting set for activity on RTTY shortly. Merrill also says that CN8FQ in Morocco is still available for FSK contacts. Further dope on African activity comes by way of W4KVX's DX bulletin. Don informs us that ET2US in Ethiopia is active on RTTY at 21,015 Kcs.

ZK1BS, Bill Scarborough, came up to the States on a visit and sent back a Model 26 and a T.U. There's a juicy one for you bird dogs to chase! Bill is very active from The Cook Islands on SSB and is looking for the RTTY gang.

Bob, W6DTN/MM reports he is taking a Model 15 to VS4JI.

More on this next month—we hope.

Couple other good ones reported this month were KC4USV and KG1BO. Both operate near 14,340 Kcs.

Starting as soon as possible we are planning to publish a monthly box score of the number of countries worked by the RTTY gang. Something similar to the DX-CC in QST but on a much more modest scale. HI We are open to suggestions from all of you as to the number of countries to be required for qualification and a name for the award. After these two points have been agreed upon we are planning on issuing a certificate of membership to all who qualify. After earning he certificate, stickers for each five additional countries would be made available that could be attached to the original award. Credit for a country worked would be based on two-way RTTY QSO confirmed by a QSL. Kick this idea around for awhile and let us know your thoughts on the subject. The main thing is to drop us a card and let us know how many countries you have confirmed (remember: two-way RTTY) at the present time so we will have some basis to work from. No matter how modest your total is, we want it for our survey. Alaska and Hawaii count as countries if worked before they became States (July 4, 1959 for Alaska and July 4, 1960 for Hawaii).

To get you started on what we are looking for here is a quote from a recent letter from Jim Hepburn, VE7KX. "Re the countries award, how about calling it "RTTY-XXIV?" Most of RTTY copy is Xs and the Roman numerals for 24 seem appropriate to me and a sort of take-off on DXCC. And two dozen countries is an even multiple of the six continents for WAC." Nice going, Jim and thanks a million for your interest. How about it, Gang, let's have your present box score of RTTY countries worked and your suggestions on this idea. Send 'em to 5226 N. Willmonte, Temple City, Calif. Happy hunting and Season's Greetings. 73

Bud W6CG

Many thanks indeed for your kind letter of Oct. 7th as well as the back issues of the "Bulletin." The current issue followed a few days later; many thanks for your promptness. Reading through the bulletins has given me an excellent idea of what RTTY is all about, exactly as you must have intended. It is a splendid production and as former president of S.A.R.L. I have a very good idea of how much work you are putting into it. In fact, I am almost reluctant to write to you for fear of taking up what little time you can have left to yourself for your own enjoyment.

Thank you too for the information on the available No. 26 machines. The prices seem most reasonable. However I shall not take up your offer for two reasons: As I feared these machines have synchronous motors, so that with our 50 cps supply I shall limp behind by 12% and I am afraid that won't make good copy. Another reason is the fact that nobody out here would know about the mechanical side of the true Teletype, so I may be in the soup from that angle. Only today have I received a firm promise from my friends in the Royal Navy here to make "available" to me a Creed No. 7B page printer so that things look promising. These machines, as you may know, operate also on the "International Alphabet" at 60 wpm, so there should be no trouble tying in with you fellows. In a back issue of the bulletin I noticed a letter from a G where he says that the Creed machines will not fit in and that No. 15 or 26s should be shipped to him. Unfortunately for him he does not know what he is talking about.

The AN/APW-1 I mentioned has gone forward to friend Henry WIAOF by parcel post and he should receive it around the end of November. I don't think I'll have a chance to take part in the RTTY SS, as I'll have enough headaches to get my outfit going as it is. WIAOF has sent me the Peco test-socket for converting my HT-32 and that will also take some time. But never fear, ultimately I shall be on. Thanks once more, it really was appreciated. 73

Henry, ZS1FD

"SOMETHING NEW HAS BEEN ADDED"

"Dear OM: Congratulations on working all continents using RTTY. I regret that the International Amateur Radio Union's rules do not provide any special means of recognition on the Worked-All-Continents certificate for this type of achievement, but it is one of which you can be quite proud. You'll be interested to know that yours is the second RTTY-WAC application with acceptable confirmations to be submitted. The other application was from Mr. James T. Hepburn, VE7KX, Richmond, B. C., Canada. His application was received July 8, 1959.

"You will be issued a WAC CW certificate. A record of the cards that you have submitted will be kept on file and should an RTTY endorsement become available, we shall be pleased to issue it to you."

The above paragraphs are taken from a letter dated Nov. 2, 1959 to W6CG from the I.A.R.U. At the first reading those few sentences, with their rather negative intonation, do not seem very important. Actually, they mark another big milestone in the history of Amateur RTTY. All six continents are now represented by active RTTY stations!! Jim Hepburn, VE7KX, should be congratulated by everyone who has ever punched a radio teletype keyboard for being the first to achieve this remarkable accomplishment! Only active radio teletypers can truly appreciate the blood, sweat, tears and frustrations that must be a part of such a pioneering feat.

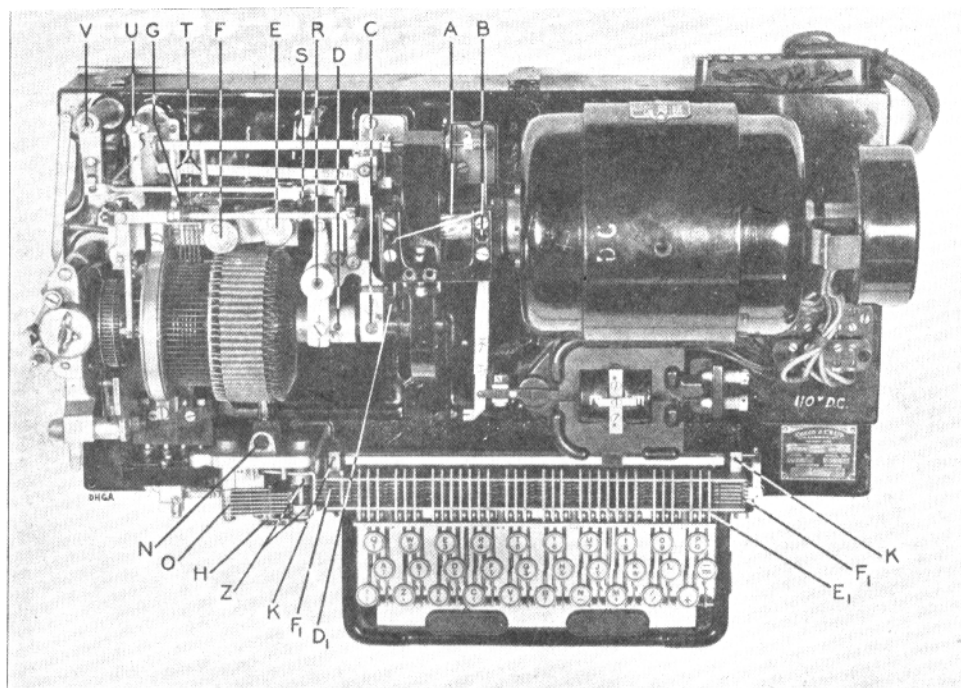
The I.A.R.U., according to the letterhead, is "The International Federation of National Non-Commercial Amateur Radio Societies for the Promotion and Coordination of Two-way Amateur Radio Communication." They issue WAC awards for CW, Phone, SSB, and 50 MC operation. At the present time they obviously do not feel that RTTY has come of age. It is hoped that in the near future they will reconsider their stand and include RTTY in their award program.

In the meantime, in order to remedy this situation and to encourage International

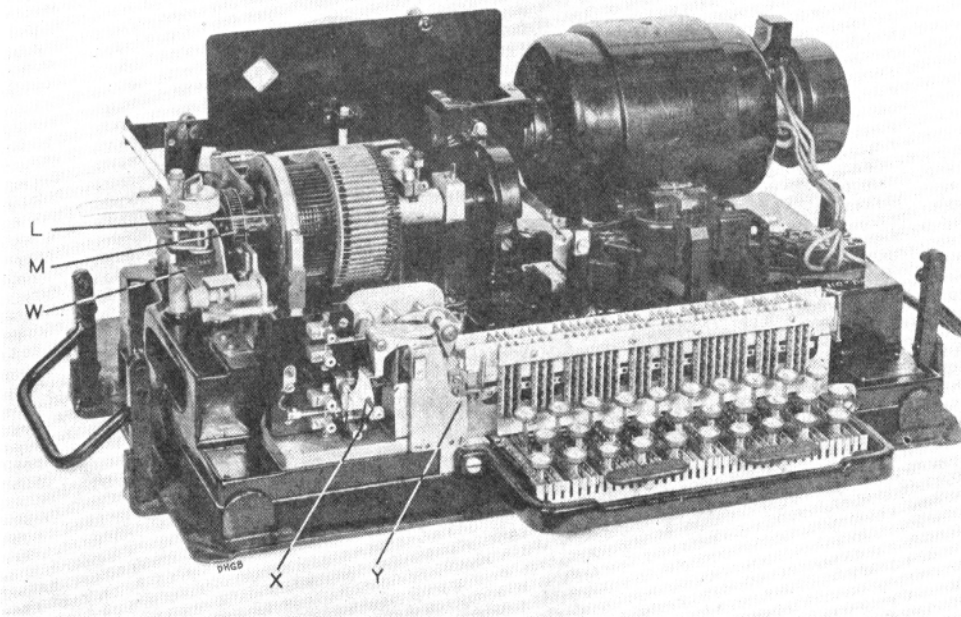
RTTY communications "RTTY, Inc." and the S.C.A.R.T.S. are proud to announce the RTTY-WAC Award. Upon receipt of confirmations showing bona-fide, two-way RTTY contacts with Amateurs in each of the Six Continental areas of the World, a beautiful three color certificate will be issued. Each award will be numbered according to its issue and the confirmations will be returned after they have been inspected by the award committee.

At the present state of Amateur Radio there are literally hundreds of certificates that enterprising award collectors can decorate their shack walls with. However, of all these, there are only about a dozen that stand out from the rest because of the strenuous requirements or the scarcity of the elements necessary to earn them. Measured by these same standards, the WAC-RTTY award should rate very high. In the first place, the number of RTTY stations throughout the world, as compared to CW, phone or SSB is extremely small. This, in itself, should make this award rate right at the top.

It is hoped that with the added incentive of a WAC-RTTY certificate to glamorize the old ham shack, interest in QSO's with our friends in other lands will be increased. In the past it has been a common complaint from the overseas stations that they are able to print so many of the "Stateside" gang but have been able to attract the attention of only a few. Help to ease this situation by tuning around for those "far away" ones. You will be giving them a lift and doing yourself a big favor at the same time. The overseas teletypers are ready and eager for all the contacts they can get so let's get under way and get those DX QSL's for the RTTY-WAC award. In order to help you in this pleasant pastime "RTTY" will publish a column in each issue telling you where, when and what gives with the DX gang.



CREED 3-A



"XEIBI"

At last here are the very much promised photos of XE1UNM; I could find the negatives between the pages of a book that I was reading and whose title I didn't remember, hi.

There is a number in the back:

#1. Siemens 37H printer; it can be seen the selector coils, range adjustment, distributor. In this model, the paper moves from right to left (as in the Model 26). If you have good eyes you can read the bulletin in the white paper.

#2. Yours truly, XE1BI, operating XE1-UNM; 32V3, 75A3, W2JAV TU, HQ-129X, Siemens 37H.

#3. Same as above, but without XE1-BI!!!

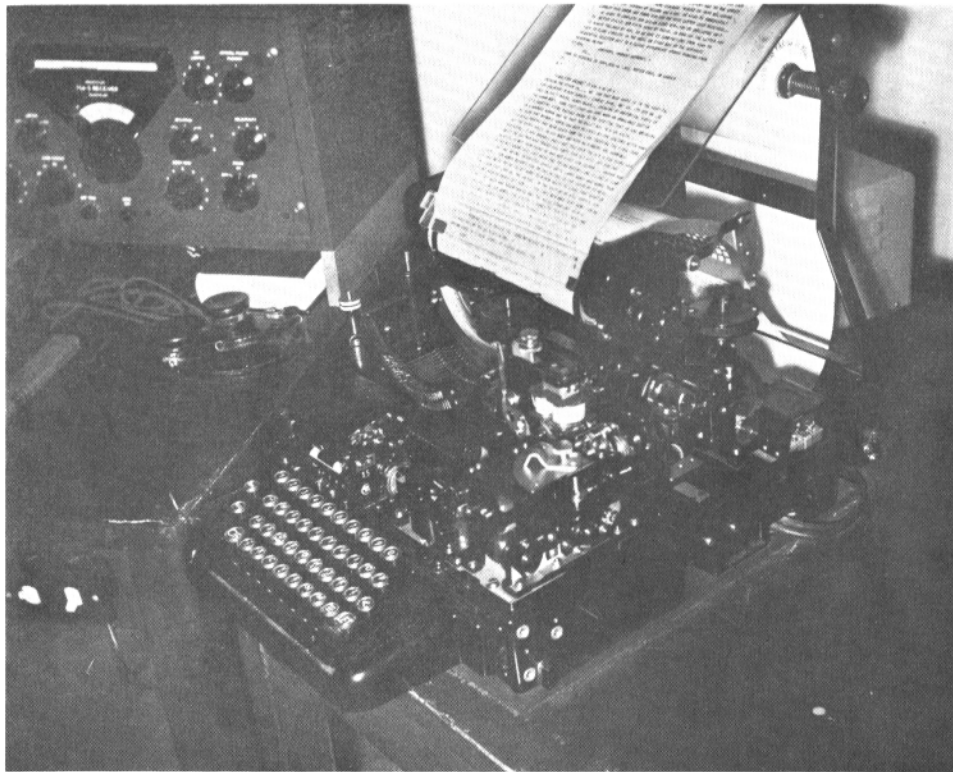
Remember about LU7BU? He wrote me again and is interested to know more about this business. I sent him as many details as possible, and he assures me that it may be possible to have authorized RTTY there in the same way SSB is; I told him about your society, RTTY, the RTTY Handbook, prices of publications, etc. He asked me about CE3AGI address . . . do you know it, Merrill? I am interested to have it also.

My machine is still in El Paso, Texas, and no news from my friend Agustin.

Best 73's,

Erosa

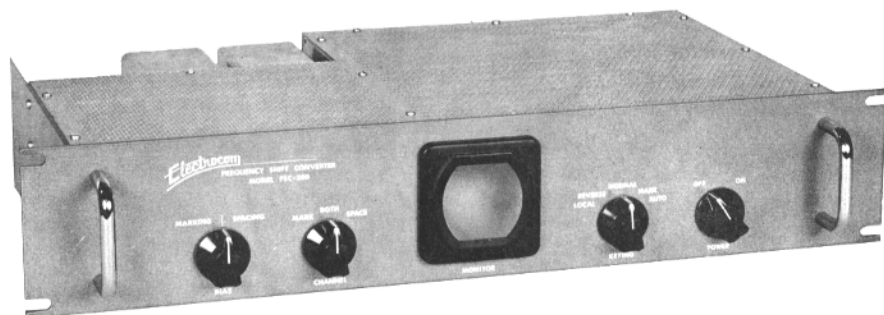
- 0 -



Electrocom
INDUSTRIES

Communications Products and Systems

**FREQUENCY SHIFT CONVERTER
MODEL FSC-250**



A highly versatile, complete radio-teletypewriter terminal unit providing outstanding performance for AMATEUR, CIVIL DEFENSE, and COMMERCIAL APPLICATIONS

FEATURES:

- Incorporates selective filters for maximum interference rejection
- Plug-in filters allow optimum performance for any frequency shift
- Scope tuning indicator for rapid, accurate receiver tuning
- Audio filter system—may be used for FSK and AFSK operation
- Electronic polar operation—no relay required
- Mark-space "bias" adjustment aids in correcting distorted incoming signals
- Self contained "loop" power supply variable from 20 to 70 milliamperes
- Mark only or space only operation available in event of interference to one channel
- Built in "autostart" operation
- Quality construction throughout—uses hermetically sealed filters and quality components for reliability

DESCRIPTION:

The Electrocom Model FSC-250 is a completely self-contained frequency shift terminal unit designed to convert audio tones to keyed direct current suitable for operating teletypewriters. The unit is complete with filters, scope monitor, and DC power supply for operating the teletypewriter selector magnets. Upon connection of the FSC-250 to the audio output of a communications receiver and to the teletypewriter, the system is ready for operation. Terminals are provided on the rear panel for operation of a Frequency Shift Keyer for transmitter keying, motor control of automatically started printers, and additional loop keyers if desired.

An effective limiter, selective filters, and electronic polar keying provide outstanding performance during periods of fading and interference. A "bias" control is also provided to aid in correcting distorted incoming signals and thus allow maximum keying range of the teletypewriter. A selector switch enables the FSC-250 to be used for local loop operation, normal or reverse keying, mark lock, and unattended autostart operation.

The built in scope monitor and precision tuned filters not only allow for rapid tuning of the receiver, but also provide a convenient monitor for frequency shift adjustment of associated transmitting equipment.

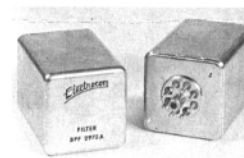
A high degree of equipment reliability is provided by the use of quality components and hermetically sealed plug-in filters. The entire assembly including filters and power supplies is attractively packaged on a standard 19 inch rack panel only 3½ inches high.

SPECIFICATIONS:

INPUT: 600 ohm, unbalanced to ground
SENSITIVITY: 100 mv. rms for limiting
SHIFT: 850 cps with filters supplied*
FILTERS: 600 ohm plug-in units with 3 db. bandwidth of 250 cps. Mark-space channel attenuation greater than 40 db.
TUNING INDICATOR (MONITOR): 2 inch CRT
OUTPUT: DC continuously variable from 20 to 70 ma. into 500 ohm loop

MAXIMUM KEYING SPEED: 200 WPM
CASE: Aluminum with clear irridite finish
OVERALL DIMENSIONS BEHIND PANEL: 3½ by 17 by 10½ inches deep
PANEL: Grey hammertone, white figures
WEIGHT: 14 pounds
POWER: 110-125 volts, 60 cps, 75 watts maximum

***OPTIONAL FILTERS AVAILABLE:**



Various input filters are available depending upon the selectivity characteristics of the associated communications receiver.

Additional hermetically sealed mark and space filters are available for optimum performance on shifts other than 850 cps.

CONTROLS:

Front panel:

BIAS—Marking to Spacing
CHANNEL—Mark, Both, Space
KEYING—Local, Reverse, Normal, Mark, Auto
POWER—Off, On

Rear panel:

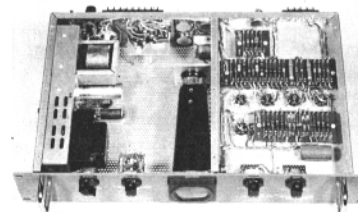
Loop Current Adjust
Horizontal, Vertical, Intensity, and Focus for monitor scope
Channel Balance

TUBES:

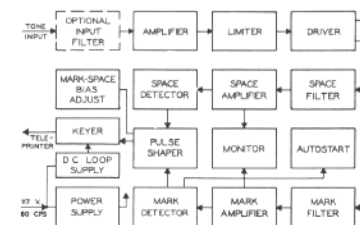
1 12AU7 Input amplifier, driver
1 12AX7 Limiter
1 12AX7 Mark-space amplifier
1 6AL5 Detector
1 12AX7 Pulse shaper

1 6W6GT Loop keyer
1 2AP1 Monitor
2 6X4 Rectifiers
1 0A2 Voltage regulator
1 12AT7 Autostart control

BOTTOM VIEW (Cover Removed)



BLOCK DIAGRAM OF FSC-250



PRICE: \$325.00 FOB South Bend, Indiana

Electrocom INDUSTRIES

1105 NORTH IRONWOOD DRIVE, SOUTH BEND 15, INDIANA

Telephone CEntal 4-3829



Boy, at ten o'clock on Sunday—the morning after—I feel “hung over.” Ray and I just finished loading all my gear into my Plymouth two door and Helen and I will be on our way back to Silver Spring in another hour. I have a bunch of Tulip and Hyacinth bulbs that I “just must” get in this week end before it's too dern late. However, before I rush off to Washington I want to drop you a note and give you some details on the week end RTTY SS operation.

Ray, as you may recall, is one of those remarkable individuals that our good Lord has given good health and lots of enthusiasm—even in his declining years. Boy—at 76 I hope I have his pep!!! He still “walks” most places on the double.

Helen, and the girls and grandchild—and often Helen's folks and I come down here during the heat of the summer to visit Ray at his home here on the Chesapeake Bay. It's about a block from the shore. This summer when we came down I promised (now if I COULD) to come down to his shack to work the fall RTTY SS. As the time for the contest drew nigh I think Ray had the feeling I would “let him down”—but things worked out as we planned and Helen and I left Washington about noon Friday with my KWS-2—75A3 and TTY converter loaded all over my little two door Plymouth (took out the back seat—hi!) We arrived here at noon and Ray had a place in the shack “cleared away” for my gear. By three—or shortly thereafter—we had two KWS-1 on the air — and away we went.

Ray's set up is well known to me—you might say I am his “chief Engineer.” He does all his work himself—except getting up the 85 foot tower for his 3 element beam. I just tell him how it should be done, and he does it—hi! So I felt right at home operating here. After all, a KWS-1 is a KWS-1, isn't it?

I had no trouble from 80 meter or 40 meter operations bothering 15 and 20. I kept my rig on those bands and put Ray's on the high bands. That way it took no time to go from the low bands to the high—and time is a premium.

I'll bet we are the only station with a log up to date at the end of the contest period!!! Ray was my bookkeeper, as I worked em, he entered them on the sheets you get. Of course I had to keep my running log so I wouldn't work fellers twice, but as I finished contacts, I would “tear off a piece” and Ray would begin entering the contacts in the attached log.

Helen kept us well fed. We had a delicious steak Saturday evening after one of her famous Martinis—honest—I wasn't contest minded at that point!!!

Well, that's the poop. The station W3-CZE, the operator W3PYW—but is there ever a one man station ??? Ray and Helen kept there ends of the deal going—didn't they? All the best to you. Frank

— 0 —

Well I didn't do so well as far as scoring, Merrill but managed to have fun in the contest. I was quite elated to be No. 1 for Bruce in the contest (ZL1WB). He was getting disgusted by not being able to break the stateside stations.

I heard you in there a few times but see we didn't get to contact you.

Thanks for another good contest. See you in February for the Anniversary contest?

Lyle, WOFQW

— 0 —

As you have probably gathered, my knowledge of the teletype field is limited. I have only had limited use of such instruments in such places as: operating RTTY in FCC Santa Ana Monitoring Station, RTTY in the U. S. Army to a small extent but have never really gone into it. All operation has been with the Model 15 printer.

Very truly yours,

James E. Sutherland, K6HID

— 0 —

Enclosed is the log, not much of a score but a lot of fun. Heard you on forty at one time but band not up to par at the time; twenty was bugged by mid-Saturday. KG1-BO was about 579 with heavy QSB.

Also enclosed is check for RTTY renewal. Hope to see you on air some of these days

Cordially,

Frank Gibson, W3MHD

— 0 —

Well another sweepstakes completed!!! Or should I say “Beepstakes”? At any rate a lot of fun even with all the frustrations.—

I was a little disappointed with the choice of dates and the times of this contest—as for the time—it started too early on a working day 1200 on a Friday (PST) until 2100 PST Saturday does not in my opinion give the West Coast stations a fair shake. I would prefer 2100 EST Friday til 0300 EST Sunday or 1800 EST Saturday til 1800 EST Sunday . . . As for the date—the past one could not have been as far as I am concerned poorer — Hi Ho for example start operating at 1800 EST til 1900 got to go to a Scout meeting—resume operation at approx 2200. Work until the late hours Friday but Saturday wow got to mind the kids as the wife is taking the oldest boy downtown on his birthday—upon return home gotta assist with the Jack-o-lantern cut out—That's a two hour job here with the four kids—dinner is long—what with the birthday celebration and all—back on the air for a few minutes then to get ready to go to a halloween party—Soo as you can see not much time for operating - - - Could not another week end be chosen that would avoid the halloween festivities that also would not interfere with other scheduled contests???

I also was a little disappointed with the operating technique used by most stations—for example:

1. The station who sends line after line of RY, CQ, FOX etc. before sending his call.

2. Stations who do not know what BK (break) means.

3. Stations who must at the beginning and end of each transmission must send your call at least three or four times and his call the same number of times with “The little ole thirty watter in the sunshine valley of Podunk Hollow.” All the time waiting for his message and as he is about to transmit it wham—that's it - - -

On the whole I think our RTTY operations are open for severe criticism.

Now another pet subject—I think we are a bunch of damn fools to continue to operate in the lousiest portions of the bands—Take 7140 for example—the Radio Moscow comes on at about 1700 EST and covers every five KCS from 7120 up—Let's move down away from that stuff say to 7090.

Why do we operate the high portion of the 14 MC band? I think we should use say 14090. The CW fellows will move away—at least for a contest—and besides a CW station is not as hard to copy thru as a steady phone carrier either on mark or space—.

The 3.5 and 21 MCPS bands are fine as far as I can see . . .

Oh yes, I tune my ant to 14100 KCS and I have a devil of a time with a high VSWR at the high end—arcing and all that.

Well enough of the griping—was in L.A. a couple days ago—for that matter it was beginning to look like I was a permanent resident of San Diego there for a while—I think that is over for a while—will be taking a trip there about once every two months now.

I finally worked Bruce—of course it is the first time I have been on at a time when I could work him. He put in a fine signal here—got almost solid copy from him—heard him on both 15 and 20 but worked him on 20. Oh that reminds me of another gripe Hi Ho

4. Stations who after working a rare one and knowing that others are waiting to work the rare one will call CQ on the rare stations freq. Making the rare one move and then the hunt starts all over again - - - That is a lack of common courtesy.

Also worked a G3 . . . He was putting in a fine signal on 15 during the morning hours—he was having a lot of trouble raising stations because he was sending space high - - - Don't the U. S. Hams have reversing switches on their TU's? Or they can copy on the other side of the carrier! Guess he has a little trouble with copy because of the difference in operating speeds or standards. At any rate he requests that all stations send a space after letters—why I don't know. Guess we will have some WAC on RTTY soon.

So there you are—are we going to have another contest in the spring??? One other thing—this letter is not very well organized I can see—the operating—in my opinion is so bad—that it is quite impossible to work more than six or seven stations an hour even if you come on late and are somewhat in demand. I think this is wrong—one of the best contacts I had was with W2JAV. The whole contact did not last more than 45 seconds. That is the way it should be—

Wow am I wound up tonight—Hi Ho—So thanks for the patient ear. Let's get on 20 or 15 sometime and have a rag chew—So for now 73, Roy W2TKO

— 0 —

Thanks for today's letter — was hoping by now we would have worked but seems like band conditions have different ideas on that subject!

Well I was really shaken by the state of the band during the S.S. As you know, the contest started at 2000 our time. Was on duty until 2300. Had a listen on 15m while I was at work though and heard Jim putting in a nice signal at 2000-2100. So was looking forward to having a busy time when I got off duty! I had used the last day of my vacation to get the Saturday off (when I would normally have been at work 0900-1600). Shortly after 2300 on the Friday I got down onto twenty but there was nothing doing there. So I hung around 7140 kc/s waiting for the BC QRM to clear—it did around 1 A.M. and I heard several of the boys working but they were really busy. 15m was of course dead—it closes here at around 2100-2200 normally. Anyway I went to bed at 0200 ready to make an early start in the morning. Was at it on 15m at 0800 hoping to work Bruce and Eric but things were in a pretty bad way and didn't hear them. Stayed on 15m waiting for the band to open to the USA usually around 1200. It wasn't until around 1400 that I finally hooked up with Skipper W2RUI, then came the four others listed and was in the middle of working a K1 when the band went out as though something burst in the RX—only it was the band not the RX!!! After waiting around hoping that things would come good but they didn't. So swung down onto 20m just in time to hear W2JAV working a W7. But before I could make him hear me that band flopped too. Was I sick!! Boy I could have really used a good CQ tape and TD during that test those long CQs are real hard on a fella's fingers. Can't tell you how sorry I am that I didn't hear you, Bud, Mary or Jim while I was at home Merrill. It's just back luck and guess there's no use moaning about it.

So here's my SS entry small as it is—five QSOs for 19 hours "operating"!!!
31st October—

W2RUI 15m 1330 GMT 599 both ways
Western New York—his Nr 52 0930 EST
W3CZE 15m 1415 GMT 5x9 plus both ways
Maryland—Nr 45 0915 CST
W2TKO 15m 1557 GMT 589 both.
Western New York—Nr 35 1113 EST?
W4SLT 15m 1635 GMT 599 Me Him
Virginia—Nr 19 1035 CST
W4SLT 15m 1635 GMT 599 Me 589 Him
N. Texas—Nr 1040 CST
K2TYT 15m Lost QSO half way as band faded out on us! time 1713 GMT

Sorry it's a bit messy Merrill but I didn't keep a local copy (in order to conserve tape which was in short supply their times are correct off my tape but my times may not coincide with my transmitted time—I kept a log on a sheet of paper but it's been mislaid at the moment. W4SLT actually gave me 5x9 but I have converted it to the standard code for simplicity. I found things rather difficult because of the keyboard differences in the figs to letters change. I sent them the correct sigs but it was a poor time to explain to the fellas just what they should do—not in a contest!! Be surprised the tricks that keyboard difference can play when different numbers are being sent with a space in between HI. My printer just drops back to letters and hey ho!!!

By the way I gave up all hopes of SS QSOs at Midnight Saturday GMT after listening to the BC QRM on the freq of 7140 for about three hours. Had to go to work Sunday morning. Think the boys just didn't use 15m much early Saturday (your time) and band conditions took care of the rest.

Thanks for the info on the ZS station—will keep an ear to the ground for him.

Think you have the printer dope OK letters to figs signal is the same as yours. Figs to letters signal is hot. The signal that your m/cs send for a space bar is OUR revert to letters signal. Your revert to letters signal merely prints a star on these m/cs and leaves em on figs until a space occurs in the transmitted text. A quick check on that crossword puzzle will give you the idea Merrill.

Haven't heard any more of the printer 26 yet wonder where it will land in the U.K.? Guess I shall have to know so that I can present the import license. Say did you say that this S. African fella had been reading my comments in the RTTY News News—can't recall ever seeing any comments of mine in there—but I may have missed something!!! Anyway a Model 7 Creed can work into anything—with slight allowances for some keyboard adjustments. It is adjustable for 3 speed working I recall.

Have now QSO-ed ten W stations one VE (guess WHO!!!) and one G so things are not too bad—looking for you though—put out a CQ tape while you eat breakfast Merrill. 15m often open for you at 1600 GMT why not give it a try—my RX is always on—would like to keep a sig on the band myself but it's darn hard work keeping that up on the keys.

Best Wishes — Bill

I finally found out how to get your gear in shape. In So. Calif. the gang is always working at top speed to get on the air and never really do the job as it should be done. The equipment is set up so you can meet the next sked and once it works the activity is such that there is little time to spend on making changes or additions. True that there are many who will tell you of your bad tones or poor printer adjustment. All you have to do is go on the air and work a few dozen stations and you have answers to all your troubles but it is so nice to make the contacts many times there is no time left to make repairs. Well here is how you overcome this problem. Move to the East Coast and set up your gear. Leave it just as it was in So. Calif. Then try and make some contacts. Should you not make any do not blame the equipment—there are just no stations on to hear you. So after several hours of trying with little response the rest of the weekend or evening can be used to put the gear in shape. This general procedure goes on every weekend so more work on the gear is accomplished. Just to prove this I would like to present the following log.

To date I have made three RTTY contacts on two meters, all with the same station. I have heard two stations on forty but they were in the middle west or south. W9's and W4's or I should say a W9 and a W4. As yet I have not heard anyone else but as I remember it from So. Calif. I worked several eastern stations. I also understand that there are some stations on 80 and 20 but have not heard them. All in all very discouraging.

Now on the other side of the ledger. Have built two terminal units which work very nicely on local loop!! They are for the most part copies of the W6CMQ developed except they use miniature tubes.

Have built a new set of tone oscillators which the gang in So. Calif. will appreciate. Have a new pan-adaptor made from parts of a surplus low freq receiver. Built a new two meter converter using a pair of 417A tubes. Must say it is a real beaut. The design came from one of the BTL gang who did a very nice job. Found several troubles that have been in the gear for years. Oh put together a new two meter transmitter.

So when you balance three two meter contacts and two receive only contacts on 40 against the new and repaired gear you can see what I mean. No time wasted on contacts as I did in So. Calif. Oh forgot I also built up a Model 15 printer and am building a Model 14 typing reperfor.

Anyway I am having a nice stay in the East and the local hams though not interested in RTTY are a nice group. There is a lot of activity here and perhaps some of the fellows will get on RTTY. I am sure that there are numerous printers in the area but perhaps they to have lost interest because of the lack of contacts. Just last weekend I ran an old tape I have giving the list of active RTTYers in the L.A. area. It is hard to believe that there were so many. The list had some 65 names and I am sure it now contains over 100. If you people still work into the east coast please let me know where these stations are.

Best to you in So. Calif. and before too many years go by I shall return!

Ed Hitchcock, W6CND/WA2CBX.

— 0 —

Enclosed is my log for the Sweepstakes. A tale of woe follows—

I was all set to get into the contest Friday evening after supper but was prevented by the presence of unwanted company. Finally at 1100 P.M. I got the rig fired up on 80 meters and made several contacts when I noticed the final plate meter was reading 0. So off the air I went, muttering to myself, and attempted to find out what had happened. The VFO antenna tuner. Scope etc was piled on top of the rig—so that took an hour to undo before I could give the innards a check. Plenty of plate voltage!! But no current!!! Well by that time I was so mad I said "---- with it" and went to bed! Next AM I intended to troubleshoot it but the XYL had other ideas and it wasn't till 2 PM that I managed to replace an open 20K screen dropping resistor in the final of the Viking Two. Got back on the air for a half hour when Bzzt!! Too much current—the antenna lead in broke in a sudden wind and rain storm!!! So out I went—got soaking wet and fixed the feeder. Then the XYL wouldn't let me down in the shack while I was wet and cold and had to knock it off till dry. By that time, a hoard of relatives descended and over-stayed their visit and it wasn't till 1030 PM (hour and a half left of contest) that I managed to return to the SS. . . Hence I only got in three and a half hours out of thirty-three!!!

All in all, I enjoyed it immensely and while I ended down in the mud, I am looking forward to the next one.

Enclosed is my check for renewal to "RTTY." 73 Carl, W2ODA