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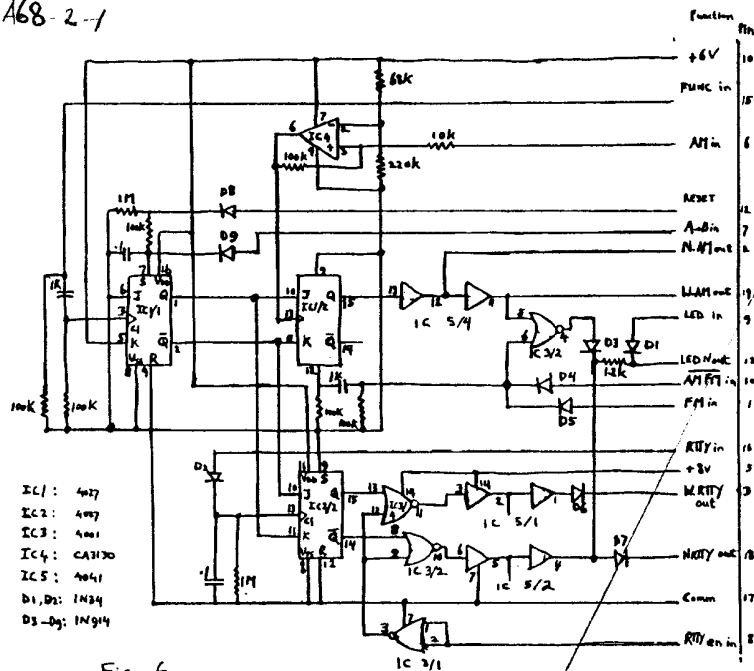


Fig. 6

Wiring connections:

From Pin #	To:	Connect to:
10	Logic board	Jumper near J12, next to D18
15	Switch board (1)	Unused S15 contact nearest PBT, grey. Also connect a short jumper from other unused S15 contact directly above R 3 2 1/P8 2 to R3 2 1/P8 2 (is +8 volts)
6	Switch board (1)	P5 1, beige
12	Logic board	Jumper near IC3, pin 13-14
7	Switch board (1)	Unused S8 contact between P5 2, red and P6 10, black
2	Main unit	Cut R75 wire, connect to body side. See AMPFM
19	Main unit	Cut R81, connect to wire side next to R78
9	Logic board	Cut jumper near C94 in middle, connect to stub near IC16. See LED N out.
13	Logic board	Jumper half near C94. See LED in.
10	Main unit	Connect to R75 wire side next to R87. See N.AM out
1	Main unit	2nd jumper "above" R130 near J9
16	Switch board (1)	P6 3, orange
5	Switch board (1)	P8 2, grey, and bare wire to R3-1 RF gain, R3-2 AF gain
3	Main unit	Cathode D41, away from J10
18	Main unit	Cathode D43, next to RTTY W-N switch, N side.
17	Switch board (1)	R3 1 2, black, board mounting bolt near phone jack
8	Logic board	L16 coil wire nearest J11

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MWDX-2B & MWDX-2C PHASERS

(Design Enhancements to the MWDX-2A Phasing Unit)

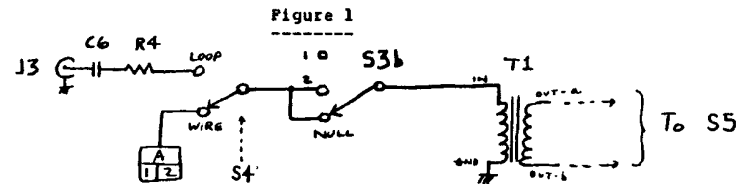
Mark Connelly -- WAIION DX Labs -- 11 FEB 1985

The MWDX-2A phasing unit design (released 25 JUN 1984) provides good output level without, in most cases, the need for amplification. (The recently-described Mini-MWDX-3, on the other hand, usually does require the use of its output amplifier.)

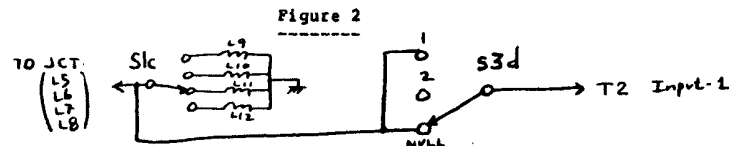
Some recent experimentation has given rise to several improvements and consequent (generally minor) modifications to the MWDX-2A design. The units having these modifications will be referred to as MWDX-2B and MWDX-2C.

MWDX-2B MODIFICATIONS

- Put the b section of S3 between the S4 arm and the T1 input: C6 will then be routed directly to R4. See Figure 1.



- Use (previously-unused) d section of S3 between S1c arm and T2 Input 1. See Figure 2.



- Delete 330 ohm resistors R5 & R6. (Replace with open.) Modifications 1 & 2 eliminate a possible cross-talk problem (Line 1 to Line 2, and vice versa) which these resistors attempted to "band-aid".
- Connect the S6a arm to the 1 & N pins of S3a instead of to the S3a arm. The S3a arm remains connected to the R3 pot CW pin. This reduces propagation of Wire #1 load-change effects across to Wire #2 when S3 is switched.
- Connect the S6b arm to 2 & N pins of S3c instead of to the S3c arm. Reason: same as for Modification 4.

These are the differences that distinguish the MWDX-2B from the earlier MWDX-2A. None of the hole locations is changed; none of the usage instructions is changed. An additional change that some may want to implement is the use of 25K linear pots, rather than 50K linear pots, for R1 & R2: this may give somewhat smoother adjustments. The presence of the vernier R and C controls should, however, provide sufficiently smooth nulling. Use of Q-pots less than 20K will not allow sufficient phase-shifting; use of pots of 100K or more will yield excessively touchy nulling.

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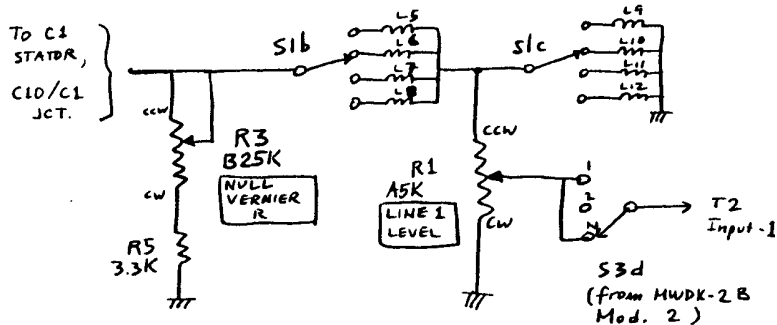
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MWDX-2C MODIFICATIONS

The MWDX-2C design came about because of the considerable difficulty encountered in obtaining 100 ohm, linear, knob-adjustable, non-inductive pots of reasonable size and price. The MWDX-2C has an alternative R1-R2-R3 pot configuration using "straight" level pots for R1 & R2 instead of the Q-skewing pots of the MWDX-2A and MWDX-2B. The new R3 vernier pot is a Q-skewer on Line 1 (see Figure 3) and Line 2 is Q-spoiled by a fixed 15K resistor. The MWDX-3C differs from the MWDX-2A in these respects:

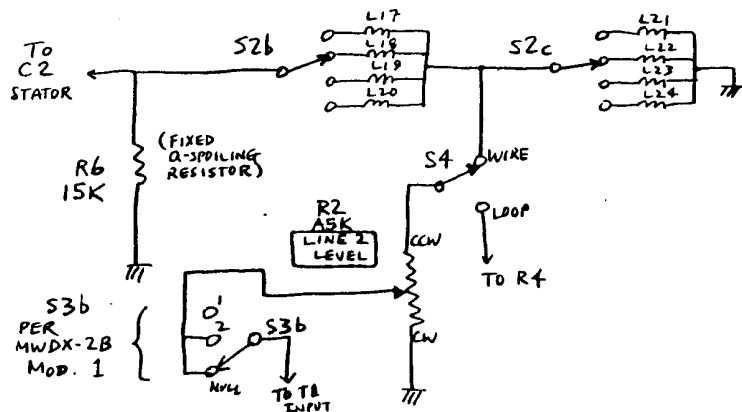
1. MWDX-2B Modifications 1, 2, 3, & 5.
2. R3 (as shown on the MWDX-2A schematic) is replaced by a direct connection from the S3a arm to the C1 rotor.
3. MWDX-2B Modification 4 is implemented with the following change: substitute "C1 rotor" for "R3 pot CCW pin" (because of step 2 above).
4. The Line 1 tuner section is changed in accordance with Figure 3:

Figure 3



5. The Line 2 tuner section is changed according to Figure 4.

Figure 4



This completes the list of MWDX-2C changes from the previously-published MWDX-2A phasing unit. Hole locations are not changed. The usage procedure changes in terms of loop-vs.-wire phasing: the loop may be outfitted with a fixed (switchable) Q-spoiling resistor in the 12K to 22K range instead of the Loop Q-Pot. The Line 2 Pot (R2) would then be utilized to vary the Line 2 Loop signal level during level-equalisation and nulling operations.

The following are available from me for those interested in MWDX-2 series phasing units.

- *****
- * MWDX-2 article (contains most hole locations used on MWDX-2A/B/C * as well as construction data for the C1, C2, T1, and T2 subassemblies.) *
- * MWDX-2A article *
- * Mini-MWDX-3 article *
- * Complete schematic diagrams for MWDX-2B and MWDX-2C. *
- *****
- >>> MARK CONNELLY -- 38 WILLIAM ROAD -- BILLERICA, MA 01866 <<<

Please send two 22-cent stamps or IRC's for each article desired. Envelope is not necessary (as long as you provide your return address).

I can advise you on component availability: the Mini-MWDX-3 article gives much parts-availability information which can be transferred to the MWDX-2 series units.

THE WORKING PRESS OF THE NATION: Volume 3 TV and Radio Directory — A Review
By Michael S. Hardester

In the mid to late 1960's, one of the most desired AM/FM radio reference books was the Broadcasting Yearbook (the BYB). One of its primary selling points (for the hobbyists) was the accurate station list and mailing addresses to which reception reports could be sent. (It should be recalled that the National Radio Club's Domestic Log was not yet in existence.) However, as desirable as the BYB was, its selling price did not permit the average hobbyist the luxury of owning a personal copy. With the coming of the NRC Domestic Log, at an affordable price, the BYB gradually declined in popularity. However, another publication has recently been located and deserves an opportunity to be recognized: Volume 3 TV and Radio Directory of The Working Press of the Nation.

Recently, while doing some radio-related research, I came across this publication and found it to be quite thorough in its presentation of information relating to both the radio and television fields. As the introductory description states, "This volume lists over 9,500 radio and TV stations plus more than 27,700 local programs by subject. Detailed information includes power, network affiliations, air time, and management and programming personnel." What does this mean to the hobbyist?

First, in looking through the TV and Radio volume, I noted far more detailed information than the BYB routinely offered. (Here, I should note that the last copy of the BYB I purchased was in 1982.) For example, how often have you heard a station long enough for detailed information, disc jockey's name, the name of the county, a farm editor's name, news announcer's name, etc., but no ID? I've had my share of these stations. One way to handle identifying the station might be to logically narrow the station down to a few "tentative" choices and either send tentative reports or send the information into a column and hope another hobbyist can identify the station. A better way would be to use the Radio Directory section.

By turning to the "Index of Radio Personnel by Subject," you will find personnel listed alphabetically under a variety of subjects (e.g., farm directors, sports directors, disc jockeys, news director/editor, news reporter, etc) according to state, then by city with the call letters of the station listed. While this listing may not prove 100% accurate, at the time of printing it was accurate - based on information supplied by each station.

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