

SPECIALITIES

1. The 2M-100W is in a high efficiency and high output power at the time of transmitting and in with low noise at the time of receiving.
2. Complete automatic change-over system is applied in switching from transmit to receive and vice versa.
3. Supplied with Manual T/R Switching, which enables the easy operation of SSB or CW mode.
4. When the Power Switch is ON, the TX lamp is lit to indicate that the TX/RX circuit is in operation.
5. The 2M-100W is compact All Solid State design.

SPECIFICATION

Frequency	144MHz to 146 MHz
Mode	SSB, FM, CW, RTTY
In/Out impedance	50 Ohms
Output transistor	2SC2630 (E)
Voltage	DC13.8V (standard)
Current	about 8A to 10A
Driving power	10W to 15W
RF power	80W to 90W
RF preamplifier gain	about 13dB
Size	Approximately 146 x 200 x 58mm

NOTES FOR OPERATION

1. As the output power of the companion transceiver is to be used to drive this amplifier, it is important to ensure that the driving power should NOT exceed 15W. If the driving power is exceeded, the final transistor of the 2M-100W will be broken down.
2. The supply voltage should not exceed 13.8V. If the supply voltage is over 15V plus or minus 15%, the final transistor will be destroyed. If you use a stabilised power supply, ensure that it is capable of supplying 13A with low ripple voltage. If using a regulated power supply it may be found that the presence of VHF radio frequency energy will prevent normal operation. As a cure, connecting parallel between the plus and minus terminals of the DC output; a capacitor of 250MFD and a RF bypass of either 0.1MFD, 0.01MFD, 300PF or 100PF.
3. It is important that the SWR of the antenna be as low as possible. Under no circumstances use this amplifier with an antenna whose SWR is not below 1:1.3. Ensure that the antenna is capable of withstanding high power output.
4. Resist the temptations to open the bottom plate of the power amplifier and adjust the trimmers and coils inside.
5. Try to avoid transmitting when the ambient temperature is above 40°C.
6. When loaded in a car, try to avoid setting the amplifier in a heated place, just as an outlet of heated air or the engine room.
7. Be careful not to reverse the polarity when connecting power supplies to the amplifier.
8. The power supply cord should be directly connected to batteries. When the cord is not long enough, use one which is more than 2.0 square thick.

WHEN THE NG (NO GOOD) CIRCUIT WORKS

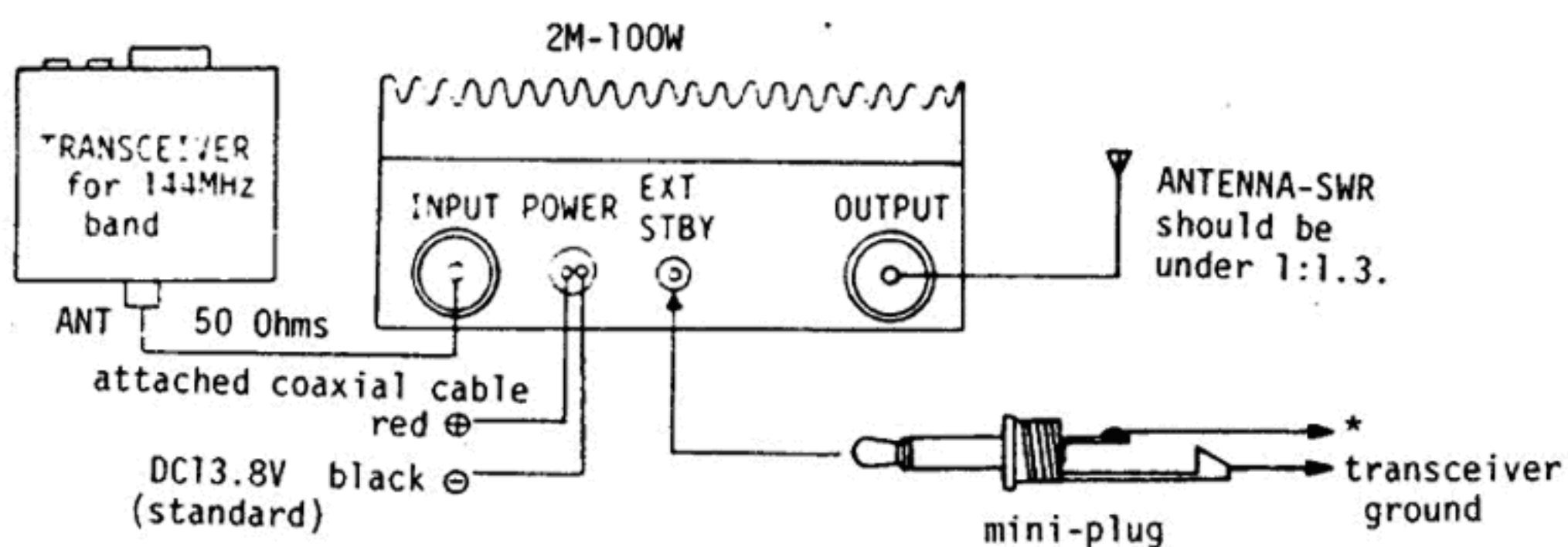
In case of the following troubles while using the 2M-100W, the NG circuit works and both the transmitting and the receiving amplifiers stop working to protect the main amplifier. (In this case the TX lamp will not light even when the companion transceiver is in the transmit mode. Or the receiving amplifier will not work when the power supply switch is in the RT position.)

1. When the supply voltage is over 15V.
(Even when the voltage temporally exceeds 15V, the NG circuit works.)
2. If the SWR of the antenna is greater than 1:1.3.

Once the NG circuit works, it can only be released and reset by switching off the power switch and setting it ON after a few seconds.

INTER CONNECTING DIAGRAM

1. The complete automatic changing circuit is built in. It works in a high efficiency just by connecting the antenna co-axial cable, the input co-axial cable and the power supplying cord. (Mode : FM, RTTY)



* is to be connected to the transceiver that supplies +5V to +13.8V in the transmit mode, and 0V in the receive mode. Some types of transceiver incorporate the terminal for this use.

2. In SSB or CW mode connect the cables as the diagram above and put the mini-plug into the EXT STBY terminal. The switching from the transmit to receive and vice versa is to be done with the ⊕ voltage of the transceiver.

FRONT PANEL

1. Power Supply Switch
With the power switch in the OFF position, the transceiver operates on a straight through basis and bypasses the power amplifier. With the switch ON, only the transmitting amplifier is in operation. With the switch in RT, both the transmitting and receiving amplifiers are in operation.
2. Mode Switch
Put the Mode Switch to the appropriate position as follows:
FM - for FM, CW, RTTY mode SSB - for SSB mode
3. Power Lamp
The lamp lights when the power switch is switched to ON.
4. RX Lamp
Lights when the receiving amplifier is in operation. (It does not light in the transmit mode or when the NG circuit is in operation.)
5. TX Lamp
Lights when the amplifier is used in transmit. (It does not light in the receive mode or when the NG circuit is in operation.)

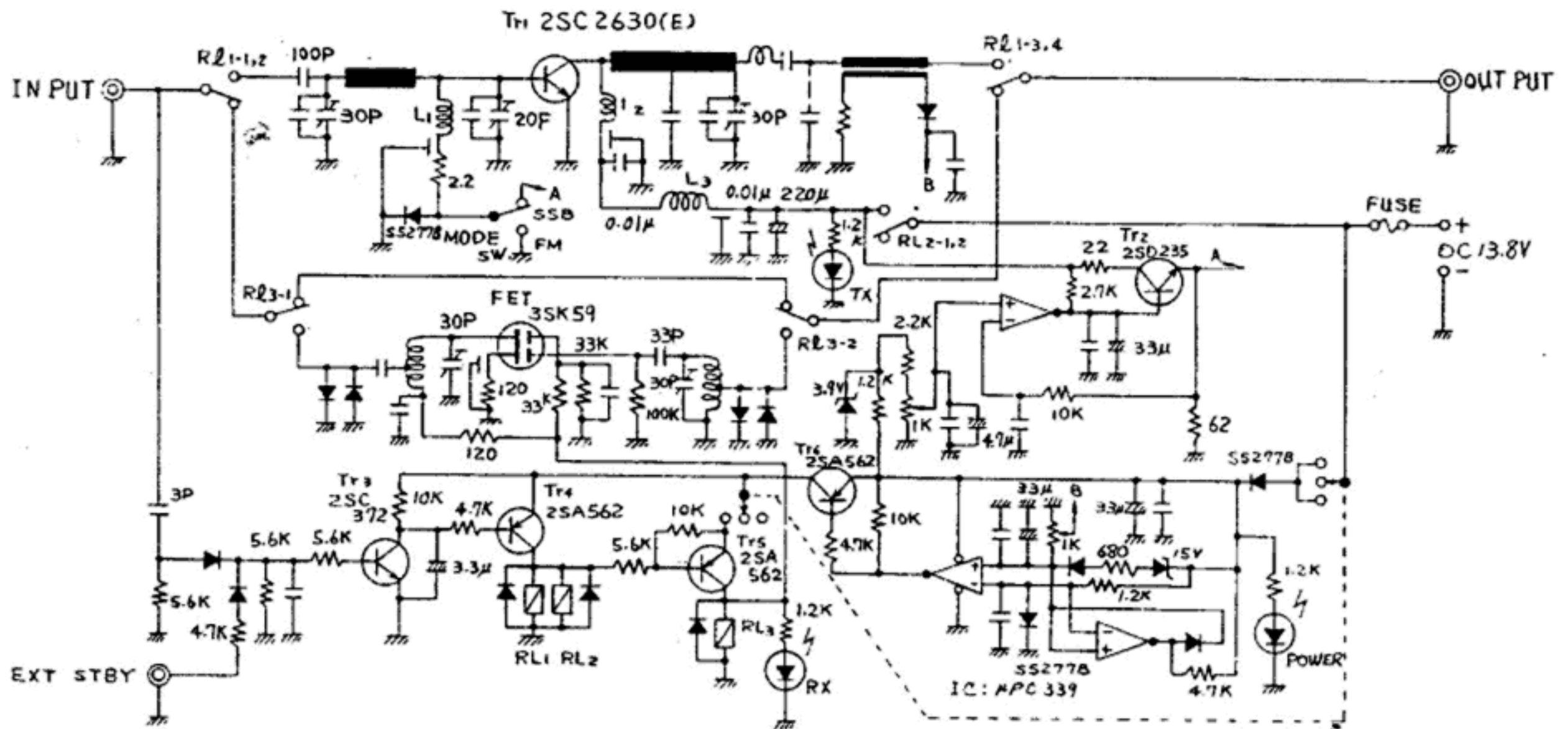
◆ 付属品

本製品には下記の様な付属品が付いています。

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|---------------|--------------|--------------|
| 取扱説明書…………… 1 | 保証書…………… 1 | ミニプラグ…………… 1 |
| 取付アングル…………… 1 | 4mmネジ…………… 4 | |

※なお本製品には接続用同軸ケーブルの付属を廃止いたしました。取付場所に合わせて1.2m以上の良質のケーブルを御使用下さい。

◆ 回路図 (2M-100W)



● 入力インピーダンスは150Ω、出力は0.01μF以下。(同調回路は0.01μFを挿入)
 ※ 普通コンデンサは0.01μF以下。
 ※ 回路図の部品は特許関係により各社から変更されたものがある。