

## DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

### OPERATION OF THE BATTERY COMPUTER SYSTEM (BCS) TO GUN DISPLAY UNIT (GDU) WITH SINGGARS GROUND RADIO SETS

Headquarters, Department of the Army, Washington, DC

1 APRIL 1993

#### REPORTING OF ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this technical bulletin. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and blank forms), direct to: Commander, U.S. Army Communications-Electronics Command and Fort Monmouth, ATTN: AMSEL-LC-LM-LT, Fort Monmouth, New Jersey 07703-5007. A reply will be furnished direct to you.

1. **Purpose.** This technical bulletin provides the information and procedures for operating the BCS to GDU with the SINGGARS family of ground radios. It is necessary that the operator be properly trained in the operation of the BCS, GDU, and SINGGARS. This technical bulletin is a supplement for the purpose of interoperability.
2. **Application - Radio Sets.** The radio sets covered by this technical bulletin are AN/VRC-87, AN/VRC-87A, AN/VRC-87C, AN/VRC-88, AN/VRC-88A, AN/VRC-89, AN/VRC-89A, AN/VRC-90, AN/VRC-90A, AN/VRC-91, AN/VRC-91A, AN/VRC-92, and AN/VRC-92A.
3. **References.** Refer to the following technical publications for normal operation and maintenance of the equipment.

<u>PUBLICATION NUMBER</u>	<u>DATE</u>	<u>TITLE</u>
TM 11-7440-283-12-2	27 September 1982	Data Display Group, OD-144, P/O Computer System, Gun Direction AN/GYK-29
TM 11-5820-890-10-1	1 September 1992	SINGGARS ICOM Ground Combat Net Radio
TM 11-5820-890-10-3	1 September 1992	SINGGARS NON-ICOM Ground Combat Net Radio

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4. **Equipment Setup/Operation.** Assemble and install the radio set, BCS, and GDU. Perform Preventive Maintenance Checks and Services (PMCS) and/or Built-In-Test (BIT) functions. Load all frequencies, hopsets, and variables into the radio set and establish voice communications before connecting the GDU to the radio set. Once voice communication has been established, connect the GDU as described in the following paragraph.
5. **Cabling Instructions.** The following figure illustrates the typical configuration for the connection between the radio set and the BCS/GDU.
  - After voice communications has been established remove the CX-13314 from the RT AUD/DAT connector, (AT GDU) and connect the W33/W33A cable (from the GDU audio connector).
  - Connect the W31 cable from the Amp Adapter AUD/DATA J3 connector to the GDU connector, J3, on the BCS.

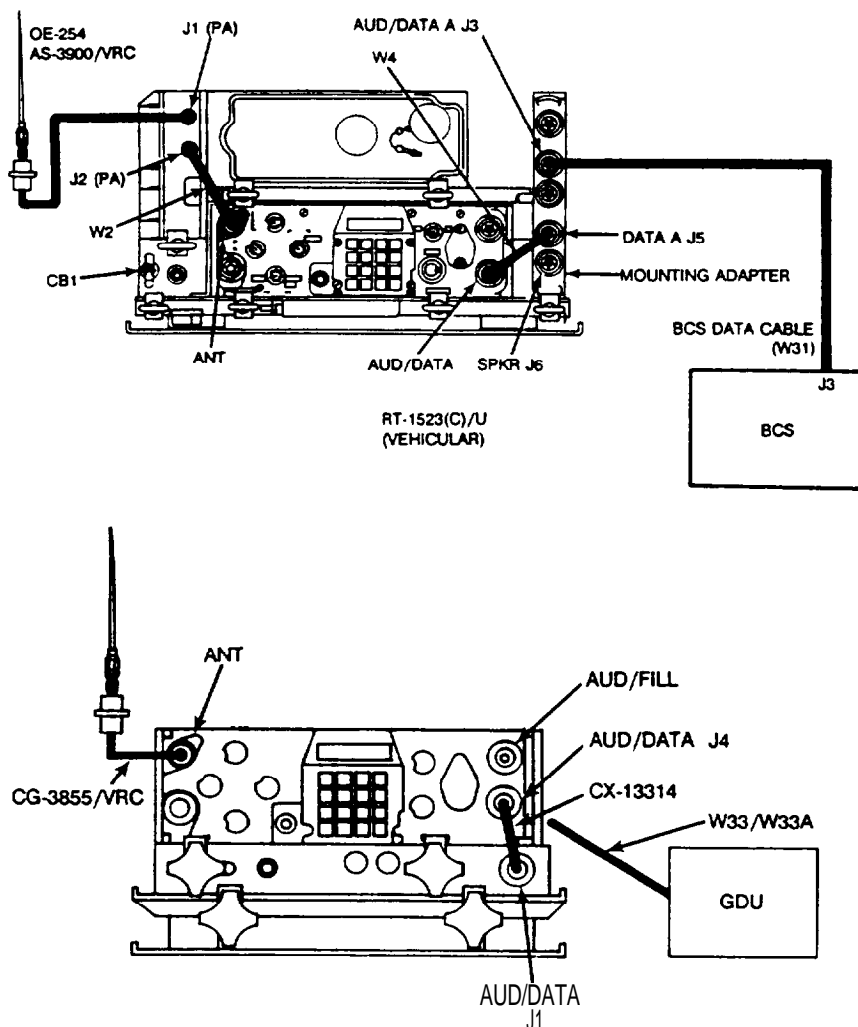


Figure 1. Cabling for BCS/GDU to SINCGARS Radio Set

6. **Switch Settings and Initialization.** The following table provides the necessary switch settings and communication parameters for the RT. Verify the switch settings for the radio and then establish communications with the guns.

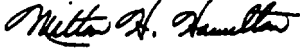
<b>SWITCH</b>	<b>ICOM RADIO</b>	<b>NON-ICOM RADIO</b>
<b>FUNCTION</b>	<b>SQ ON</b>	<b>SQ ON</b>
<b>MODE</b>	<b>SC</b>	<b>SC</b>
<b>DATA</b>	<b>OFF</b>	<b>OFF</b>
<b>COMSEC</b>	<b>OFF</b>	<b>OFF</b>
*	<b>OFF</b>	<b>N/A</b>

Table 6-1. SINCGARS Radio Set

By Order of the Secretary of the Army:

GORDON R. SULLIVAN  
*General, United States Army*  
*Chief of Staff*

Official:

  
MILTON H. HAMILTON  
*Administrative Assistant to the*  
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03820

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