200 SERIES NIU (NETWORK INTERFACE UNIT) DESCRIPTION AND INSTALLATION

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1. GENERAL

1.01 This practice covers the description and installation of the 200 series NIU (Network Interface Unit).

1.02 When this practice is reissued, the reasons for reissue will be listed in this paragraph.

1.03 The 200 series NIU provides the following features:

- Equipped with or provisions for mounting a 123-, 125-, or 128-type station protector
- Provisions for terminating aerial or buried service wire
- Provisions for terminating subscriber wiring
- Equipped with or provisions for mounting two RJ11X network interface jacks for subscriber access to customer premises wiring and the telephone network
- Provisions for remote testing circuitry
- Provisions for additional security when desired
- Field upgrade to 2-wire service
- Extra card slot for future electronic enhancements.

The NIU provides an enclosed, secure, environmental-resistant housing for the above features.

2. DESCRIPTION

2.01 The 200 series NIUs (Fig. 1) consist of a housing with a hinged cover, provisions for two modular plugs and jacks, termination of subscriber wiring, and grommets for entry of drop wire or service wire and subscriber wiring.

2.02 The coding system for the 200 series NIU is as follows:

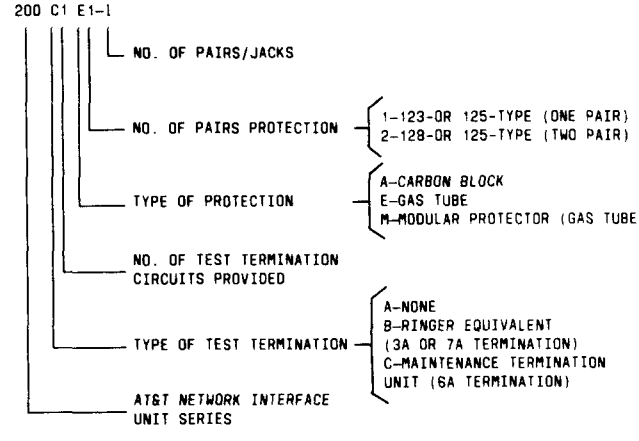


Table A lists the 200 series NIUs and their features by code.

2.03 The housing and cover are molded from rigid, high-impact, self-extinguishing, ultraviolet stabilized plastic in oxford gray. The outside hinged cover is equipped with a captive fastener having a screwdriver slot which permits the network area in the NIU to be secured while providing customer access to the replaceable bridge connector(s) and the module plug(s).

2.04 The 200 series NIU is equipped with a lock-out feature which provides a hasp for a customer-furnished lock (to inhibit unauthorized entry) and yet has provisions for entry by telephone personnel.

2.05 The removable cover inside the NIU provides access to the network side of the box. This cover has a recessed locking nut assembly to safeguard against subscriber entry.

2.06 The 200 series NIU, when equipped with a 123-, 125-, or 128-type protector (Table A), provides station protection for one or two pair(s) of wires respectively. See Practice 462-505-100 for detailed information on protectors.

2.07 The 3A or 7A termination provides a half-ringer equivalent (dummy ringer) for loop testing. The 6A termination allows mechanized loop testing (MLT) or local test desk (LTD) to automatically sectionalize premises faults from faults on the network. Faults which may be sectionalized with the 6A termination include tip-to-ring shorts or conductor-to-ground resistive faults, and open premises conditions.

2.08 Upgrade kits (Table B) are available for retrofitting and/or adding to the basic NIUs.

3. INSTALLATION

3.01 The 200 series NIU is designed for inside or outside mounting on a wall or pedestal. Mount the NIU as illustrated in Fig. 2.

3.02 To wire the 200 series NIUs, disconnect the modular plug(s) from the test jack and terminate the conductor as illustrated in Fig. 3 through 13 for the appropriate NIU.

3.03 After the wiring is completed, verify proper operation of the NIU in accordance with local procedures. Reconnect the modular plug(s) at the test jack. If the lock-out feature is required by the customer, follow procedures outlined in Fig. 2. Close the cover and secure with captive fastener.

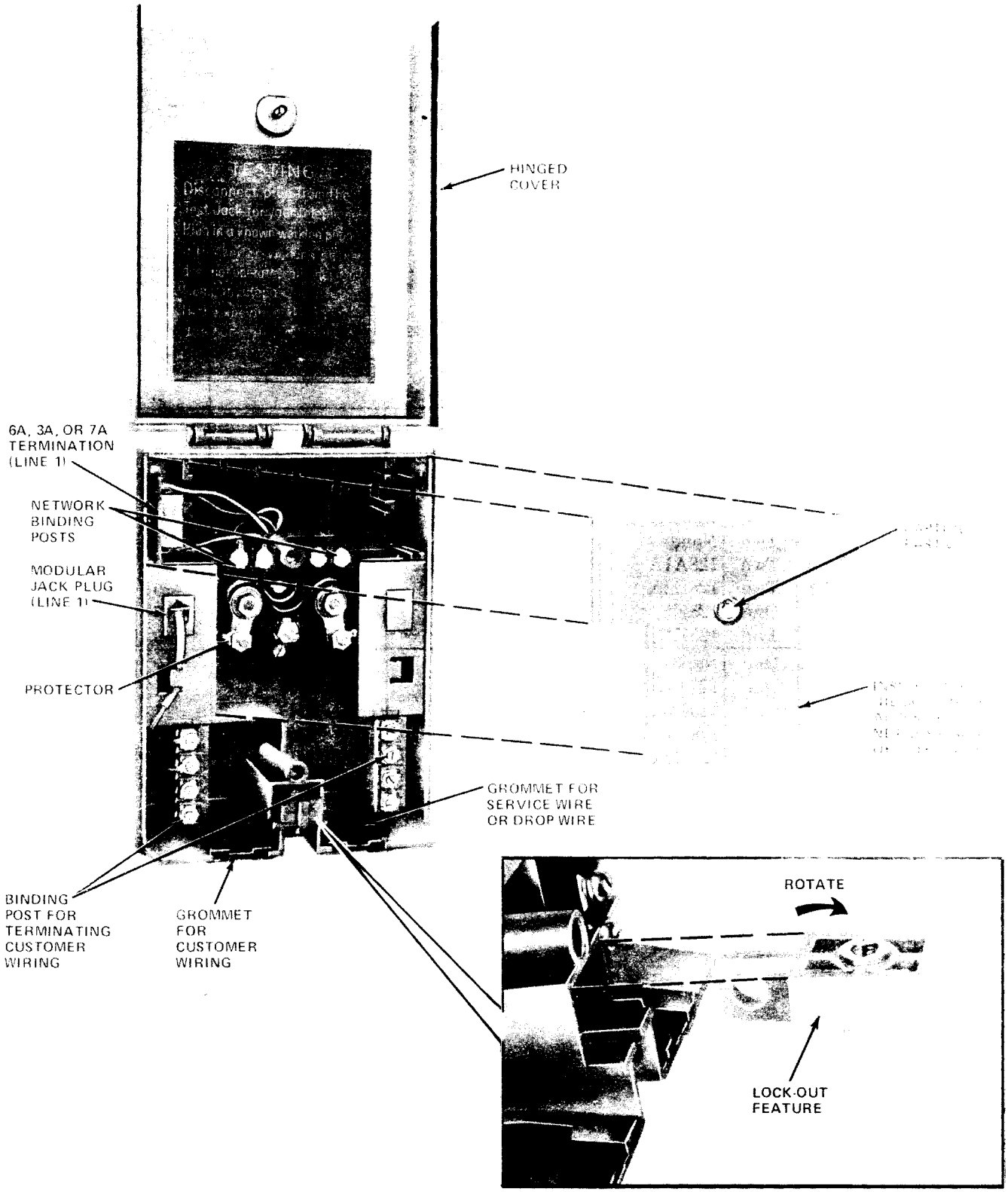


Fig. 1—200 Series NIU (Network Interface Unit)

TABLE A

200 SERIES NIU (NETWORK INTERFACE UNITS)

NIU CODE	EQUIPPED WITH				WIRING DIAGRAM (FIG.)
	NO. OF RJ11 JACKS	PROTECTOR (NOTE 1)	3A OR 7A TERMINATION (RINGER EQUIVALENT) (NOTE 1)	6A TERMINATION (REMOTE TESTING) (NOTE 1)	
200A1-1	One	None			3
200A1A1-1	One	123A1A			4
200A1E1-1	One	123E2A			4
200A2-2	Two	None			3
200A2A2-1	One	128A1A			5
200A2A2-2	Two	128A1A			5
200A2E2-1	One	128E2A			5
200A2E2-2	Two	128E2A			5
200A1M1-1	One	125E*			4
200A2M2-2	Two	125E*			5
200B1-1	One	None	X(1)		6
200B1A1-1	One	123A1A	X(1)		7
200B1E1-1	One	123E2A	X(1)		7
200B1A2-1	Two	128A1A	X(1)		8
200B1E2-1	One	128E2A	X(1)		8
200B2-2	Two	None	X(2)		6
200B2A2-2	Two	128A1A	X(2)		9
200B2E2-2	Two	128E2A	X(2)		9
200B1M1-1	One	125E*	X(1)		7
200B2M2-2	Two	125E*	X(2)		9
200C1-1	One	None		X(1)	10
200C1A1-1	One	123A1A		X(1)	11
200C1E1-1	One	123E2A		X(1)	11
200C1A2-1	One	128A1A		X(1)	12
200C1E2-1	One	128E2A		X(1)	12
200C2-2	Two	None		X(2)	10
200C2A2-2	Two	128A1A		X(2)	13
200C2E2-2	Two	128E2A		X(2)	13
200C1M1-1	One	125E*		X(1)	11
200C2M2-2	Two	125E*		X(2)	13

Note:

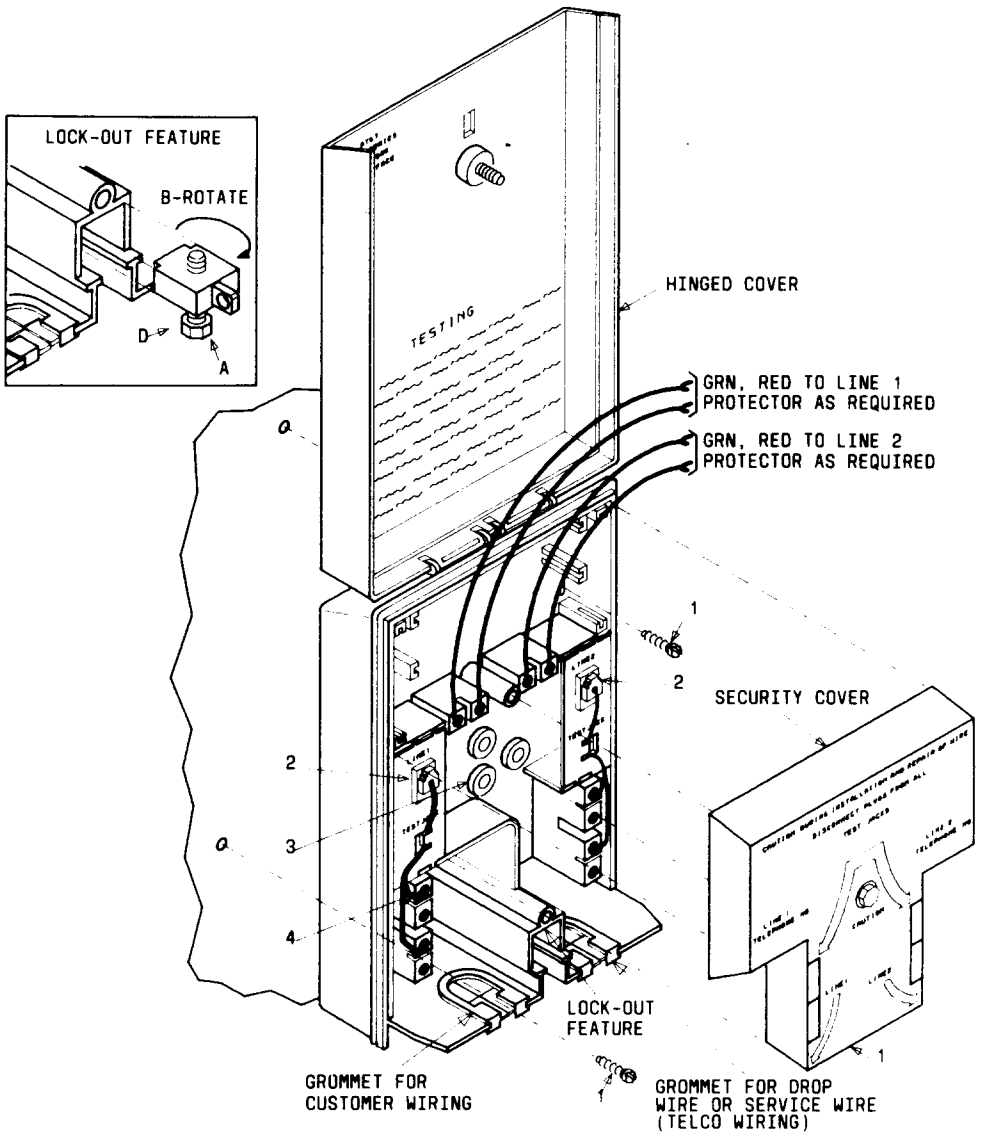
1. Number in parentheses denotes number of termination circuits provided.

* A B1 adapter is required to mount the protector(s).

TABLE B

200 SERIES NIU UPGRADE KITS

CONTENTS	KIT CODE							
	200J3B	200J6B	200G3W	200G6W	200L3M	200L6M	200L3W	200L6W
Lead Assembly Wires (1 Red and 1 Green)	X	X	X	X	X	X	X	X
645A Jack	X	X	X	X	X	X	X	X
Modular Plug	X	X	X	X	X	X	X	X
Stainless Steel Screws	X	X	X	X	X	X		
3A or 7A Termination	X		X		X		X	
6A Termination		X		X		X		X
128A1A Protector					X	X		
128E2A Protector			X	X				
125E Protector							X	X

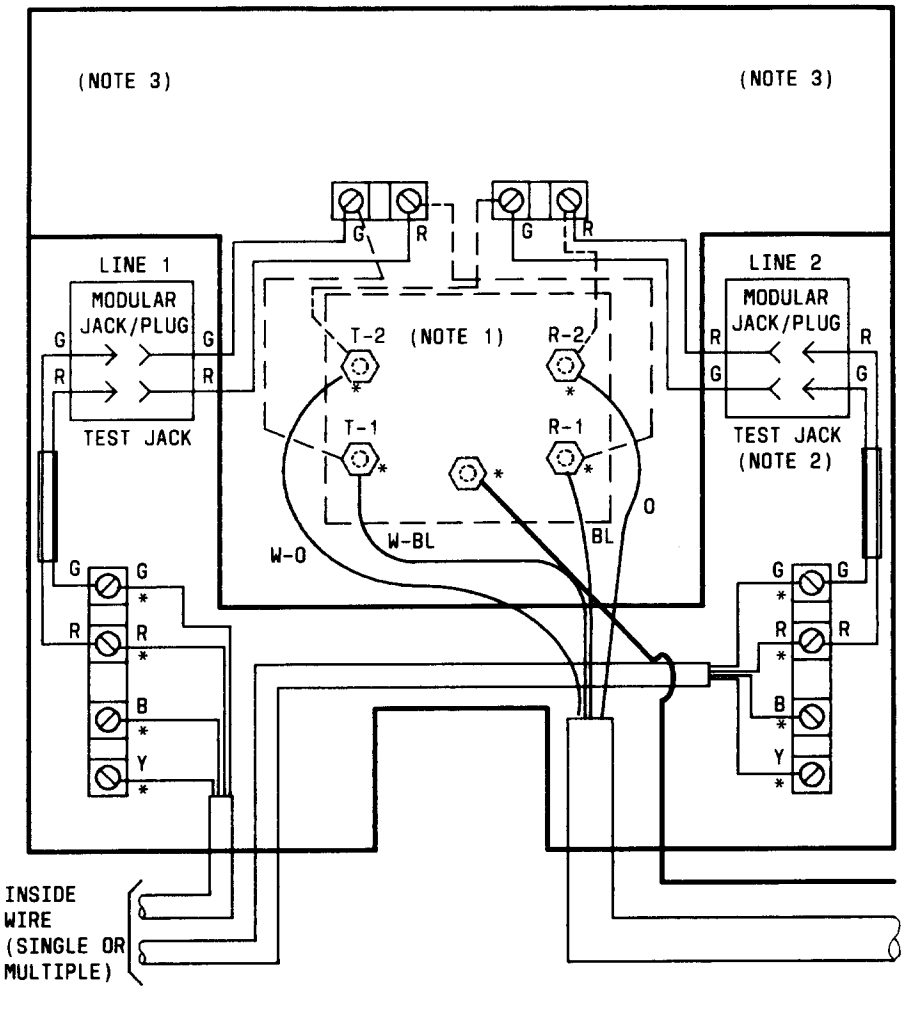


1. REMOVE THE INSIDE SECURITY COVER (USE 216-TYPE TOOL), BREAK OUT TWO OF THE SLOTTED MOUNTING HOLES AND SECURE THE HOUSING TO THE MOUNTING SURFACE.
2. DISCONNECT MODULAR PLUGS (LINE 1 AND LINE 2 IF EQUIPPED) FROM TEST JACKS.
3. IF A PROTECTOR IS REQUIRED AND IS NOT FURNISHED WITH THE NIU, A 123-TYPE PROTECTOR (1-PAIR), 125 TYPE PROTECTOR (1- OR 2-PAIR) WITH B1 ADAPTER, OR 128-TYPE PROTECTOR (2-PAIR) OR EQUIVALENT MAY BE INSTALLED IN ACCORDANCE WITH STANDARD PROCEDURES USING TWO SCREWS PROVIDED WITH UNIT.
4. TERMINATE CONDUCTORS AS REQUIRED (SEE WIRING DIAGRAM).
5. VERIFY PROPER OPERATION OF UNIT IN ACCORDANCE WITH LOCAL PROCEDURES.
6. RECONNECT MODULAR PLUGS AT TEST JACK.
7. CLOSE HINGED COVER AND SECURE THE CAPTIVE FASTENER.

LOCK-OUT FEATURE –

IF LOCK-OUT FEATURE IS REQUIRED BY CUSTOMER:
A - LOOSEN SCREW SECURING LOCKOUT WITH 216-TYPE TOOL.
B - REMOVE LOCKOUT AND ROTATE 1/2 TURN SO THAT LOCK HASP IS POSITIONED.
C - SLIDE LOCKOUT BACK IN SLOT, CLOSE COVER, INSURE HASP IS ACCESSIBLE.
D - TIGHTEN SCREW TO SECURE LOCKOUT.
NOTE: LOCK TO BE PROVIDED BY THE CUSTOMER.

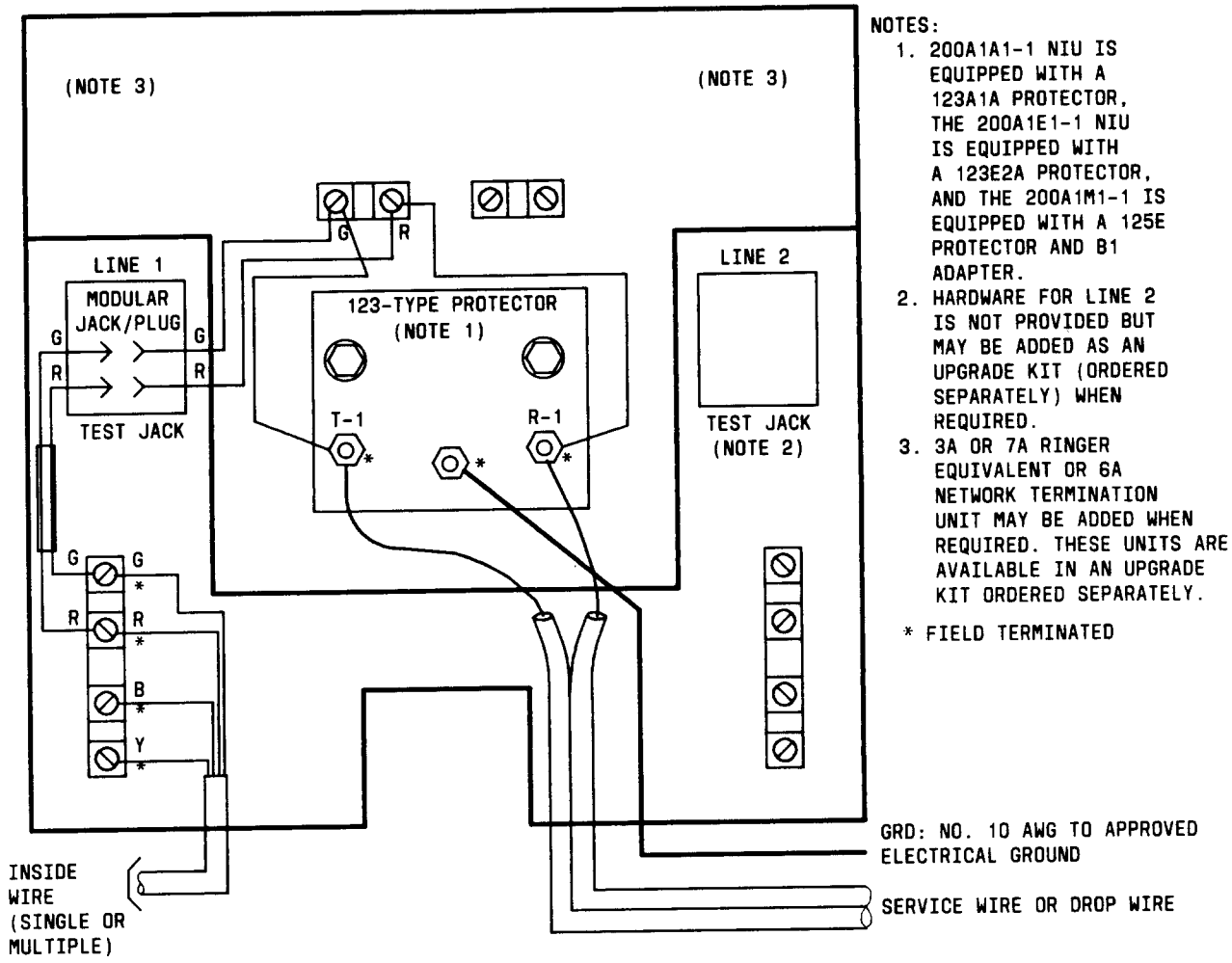
Fig. 2—200 Series NIU—Installation



NOTES:
1. PROTECTOR AND WIRING TO NETWORK TERMINALS ARE NOT FURNISHED AND MUST BE INSTALLED LOCALLY.
2. HARDWARE FOR LINE 2 IS NOT PROVIDED WITH 200A1-1 NIU.
3. 3A OR 7A RINGER EQUIVALENT OR 6A NETWORK TERMINATION UNIT MAY BE ADDED WHEN REQUIRED. THESE UNITS ARE AVAILABLE IN AN UPGRADE KIT ORDERED SEPARATELY.

* FIELD TERMINATED

Fig. 3—200A1-1 and 200A2-2 NIU—Wiring Diagram

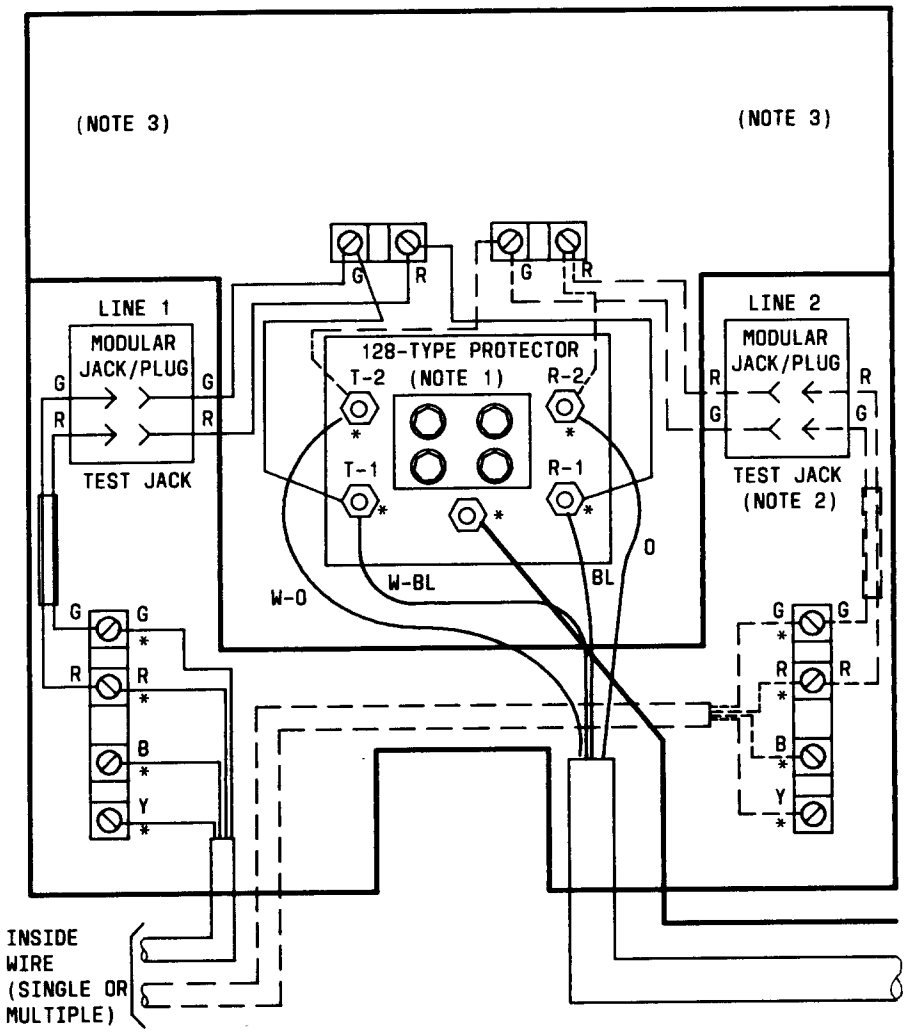


NOTES:

1. 200A1A1-1 NIU IS EQUIPPED WITH A 123A1A PROTECTOR, THE 200A1E1-1 NIU IS EQUIPPED WITH A 123E2A PROTECTOR, AND THE 200A1M1-1 IS EQUIPPED WITH A 125E PROTECTOR AND B1 ADAPTER.
2. HARDWARE FOR LINE 2 IS NOT PROVIDED BUT MAY BE ADDED AS AN UPGRADE KIT (ORDERED SEPARATELY) WHEN REQUIRED.
3. 3A OR 7A RINGER EQUIVALENT OR 6A NETWORK TERMINATION UNIT MAY BE ADDED WHEN REQUIRED. THESE UNITS ARE AVAILABLE IN AN UPGRADE KIT ORDERED SEPARATELY.

* FIELD TERMINATED

Fig. 4—200A1A1-1, 200A1E1-1, and 200A1M1-1 NIU—Wiring Diagram



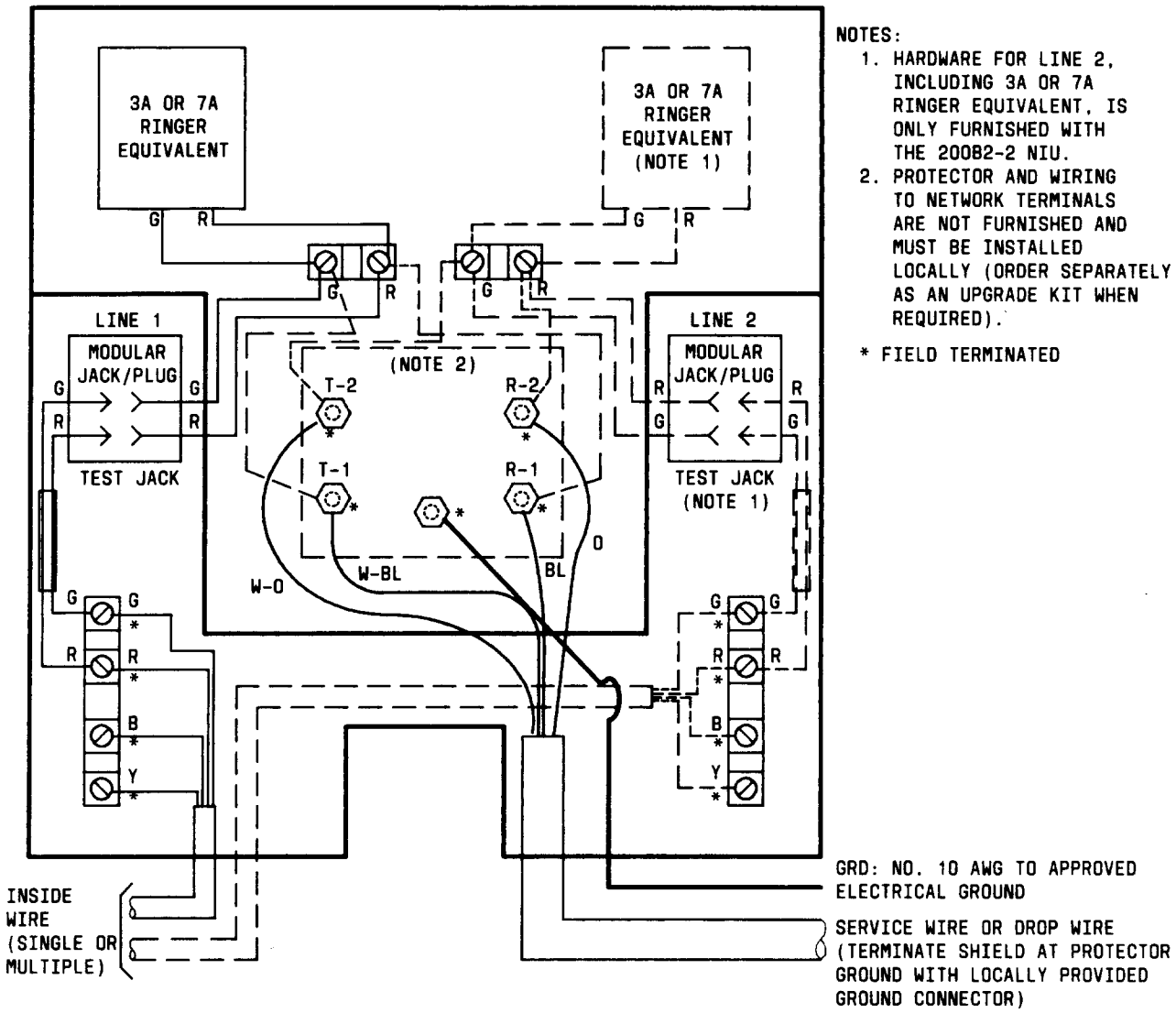
NOTES:
1. 200A2A2-1 AND 200A2A2-2 NIUs ARE EQUIPPED WITH 128A1A PROTECTORS. 200A2E2-1 AND 200A2E2-2 NIUs ARE EQUIPPED WITH 128E2A PROTECTORS. 200A2M2-2 NIUs ARE EQUIPPED WITH TWO 125E PROTECTORS AND A B1 ADAPTER.
2. 200A2A2-1 AND 200A2E2-1 NIU s ARE NOT PROVIDED WITH HARDWARE FOR LINE 2.
3. 3A OR 7A RINGER EQUIVALENT OR 6A NETWORK TERMINATION UNIT MAY BE ADDED WHEN REQUIRED. THESE UNITS ARE AVAILABLE IN AN UPGRADE KIT ORDERED SEPARATELY.

* FIELD TERMINATED

GRD: NO. 10 AWG TO APPROVED ELECTRICAL GROUND

SERVICE WIRE OR DROP WIRE (TERMINATE SHIELD AT PROTECTOR GROUND WITH LOCALLY PROVIDED GROUND CONNECTOR)

Fig. 5—200A2A2-1, 200A2A2-2, 200A2E2-1, 200A2E2-2, and 200A2M2-2 NIU—Wiring Diagram



NOTES:
1. HARDWARE FOR LINE 2, INCLUDING 3A OR 7A RINGER EQUIVALENT, IS ONLY FURNISHED WITH THE 200B2-2 NIU.
2. PROTECTOR AND WIRING TO NETWORK TERMINALS ARE NOT FURNISHED AND MUST BE INSTALLED LOCALLY (ORDER SEPARATELY AS AN UPGRADE KIT WHEN REQUIRED).

* FIELD TERMINATED

Fig. 6—200B1-1 and 200B2-2 NIU—Wiring Diagram

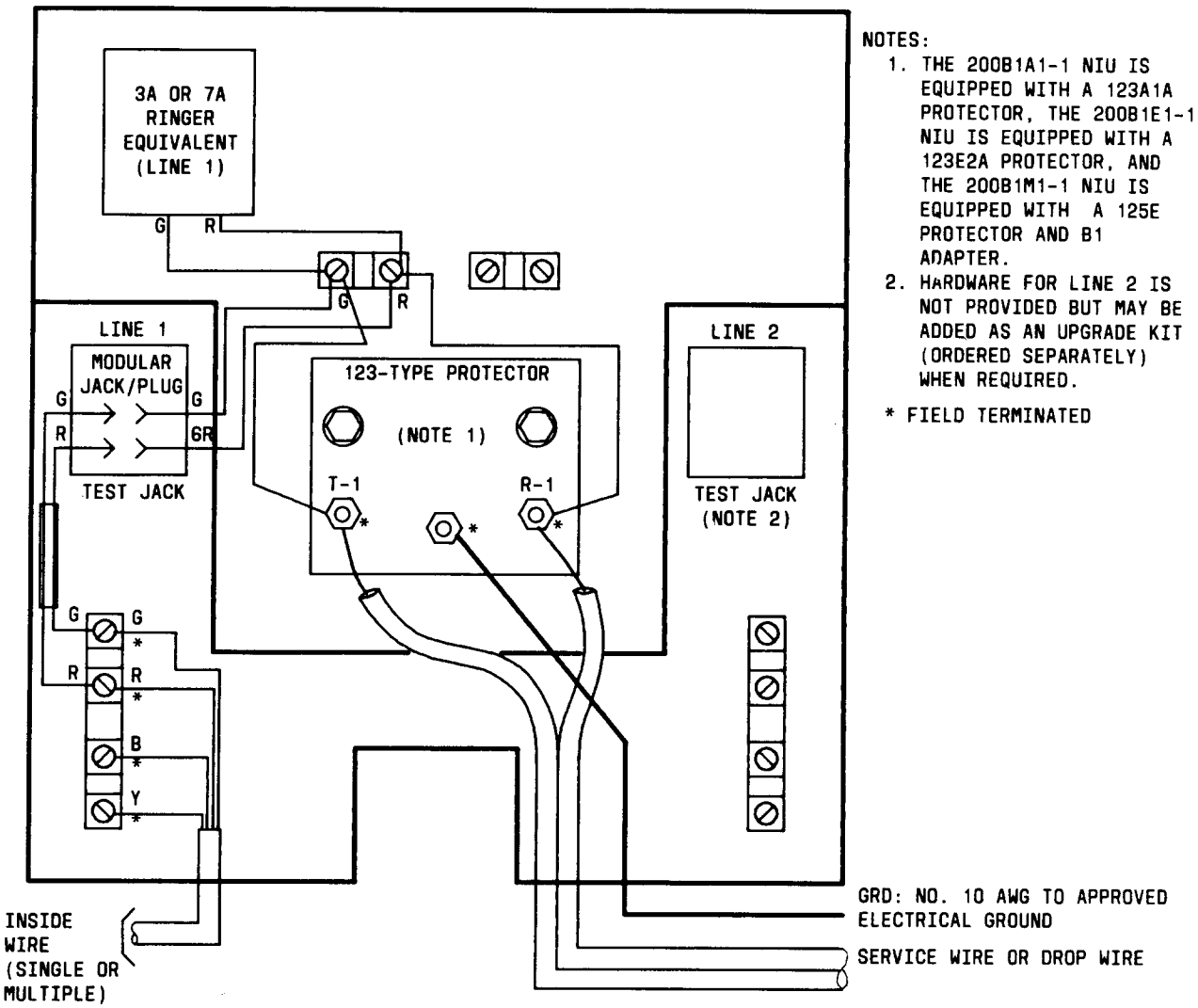


Fig. 7—200B1A1-1, 200B1E1-1, and 200B1M1-1 NIU—Wiring Diagram

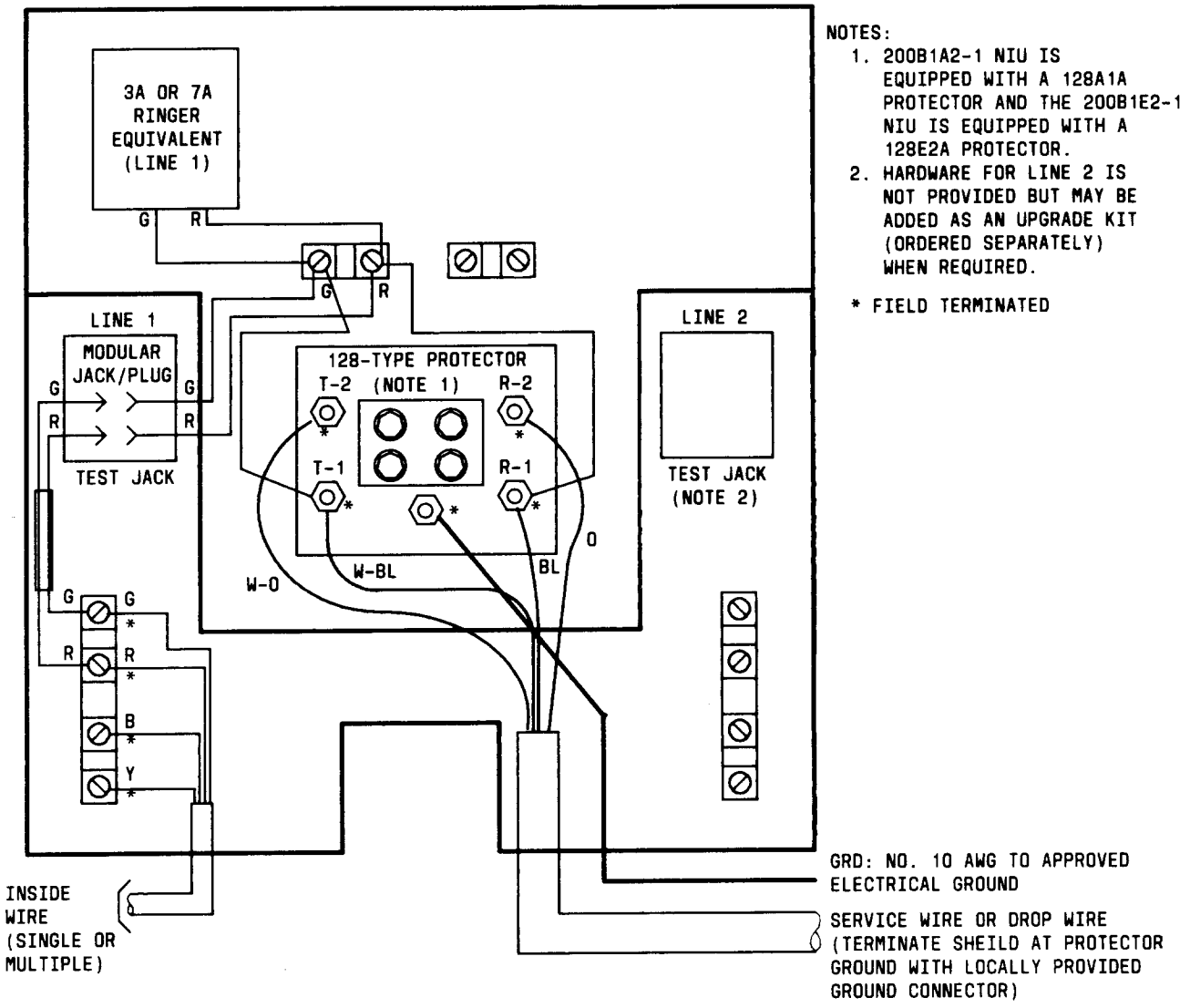


Fig. 8—200B1A2-1 and 200B1E2-1 NIU—Wiring Diagram

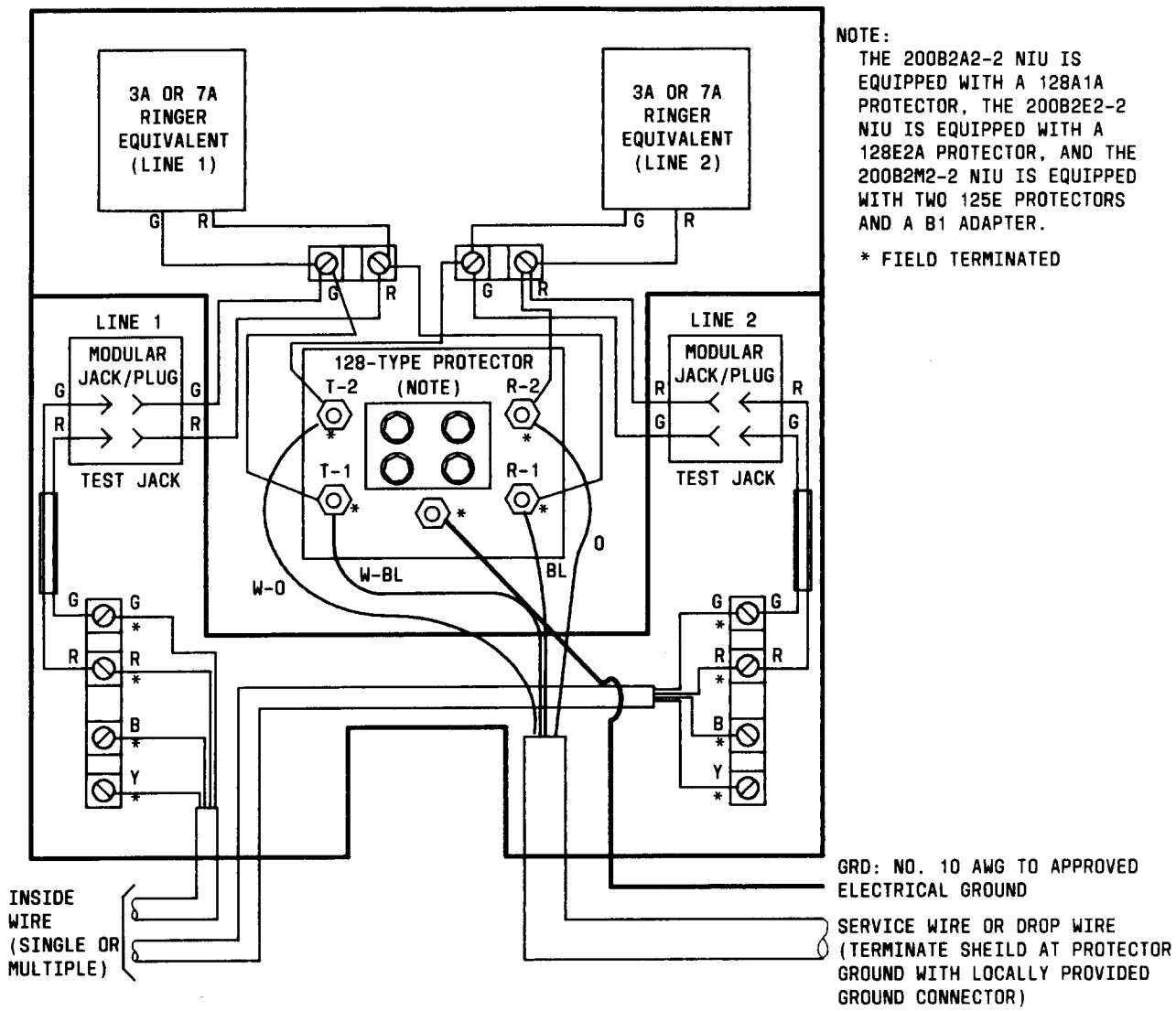


Fig. 9—200B2A2-2, 200B2E2-2, and 200B2M2-2 NIU—Wiring Diagram

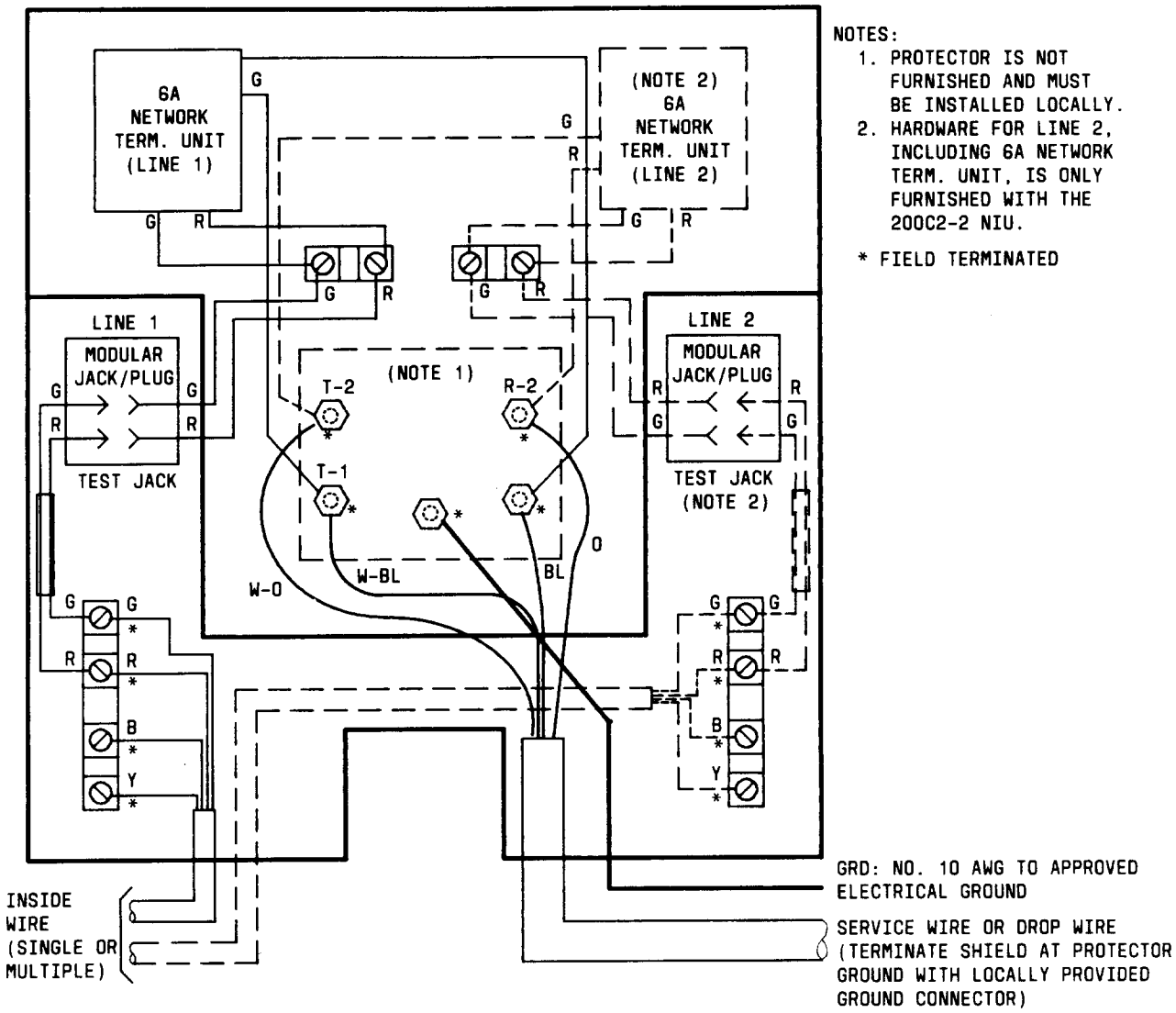


Fig. 10—200C1-1 and 200C2-2 NIU—Wiring Diagram

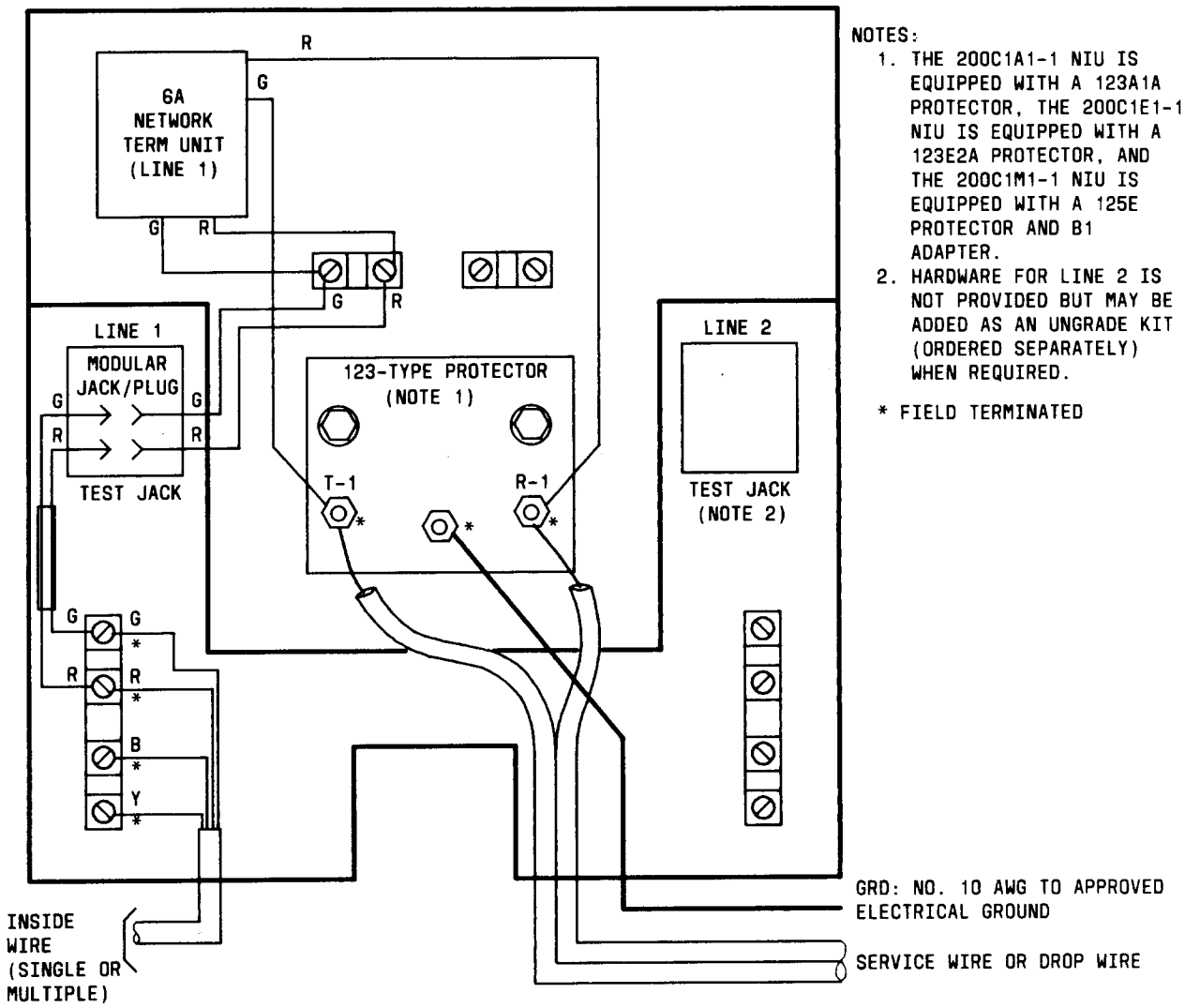


Fig. 11—200C1A1-1, 200C1E1-1, and 200C1M1-1 NIU—Wiring Diagram

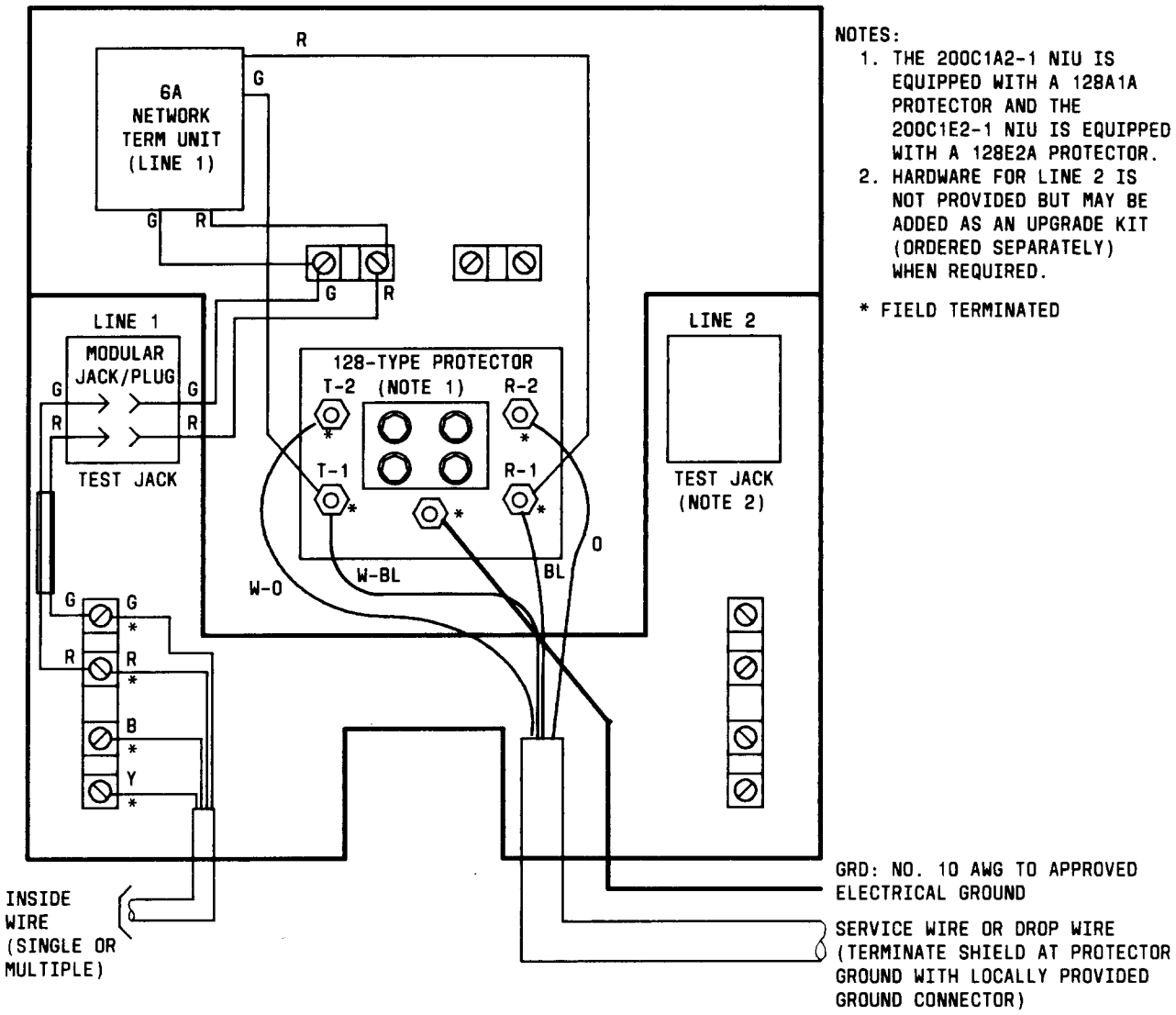


Fig. 12—200C1A2-1 and 200C1E2-1 NIU—Wiring Diagram

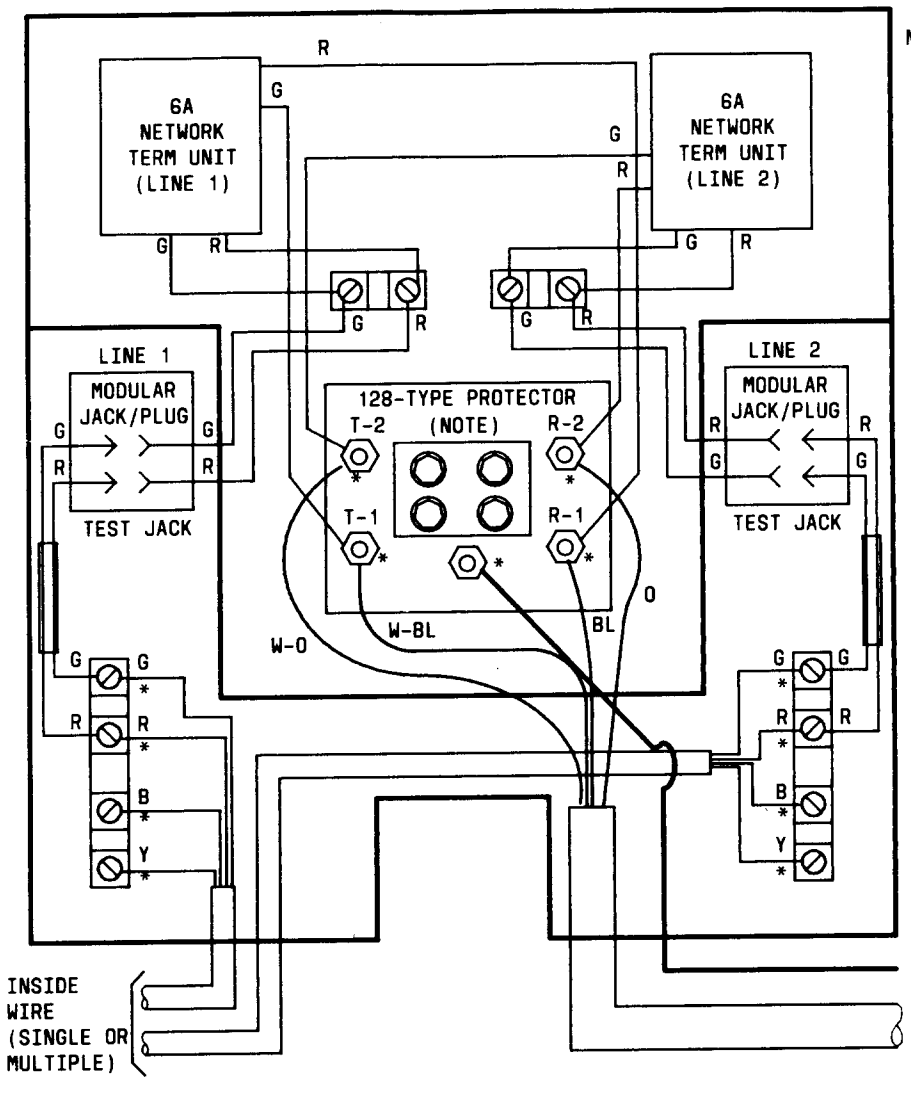


Fig. 13—200C2A2-2, 200C2E2-2, and 200C2M2-2 NIU—Wiring Diagram