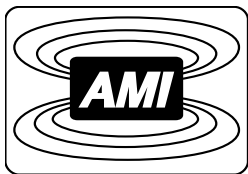


# INSTRUCTION SHEET



**American Magnetics, Inc.**

**CABLE  
KIT**  
219-0528

## **CABLE KIT 219-0528**

### **MODEL 4Q06125PS (2) IN PARALLEL**

#### **I. DESCRIPTION**


This kit contains the cables and terminations required to operate two identical 750 Watt Model 4Q06125PS power supplies in parallel, effectively multiplying the output current capacity by two.

**TABLE 1. EQUIPMENT SUPPLIED**

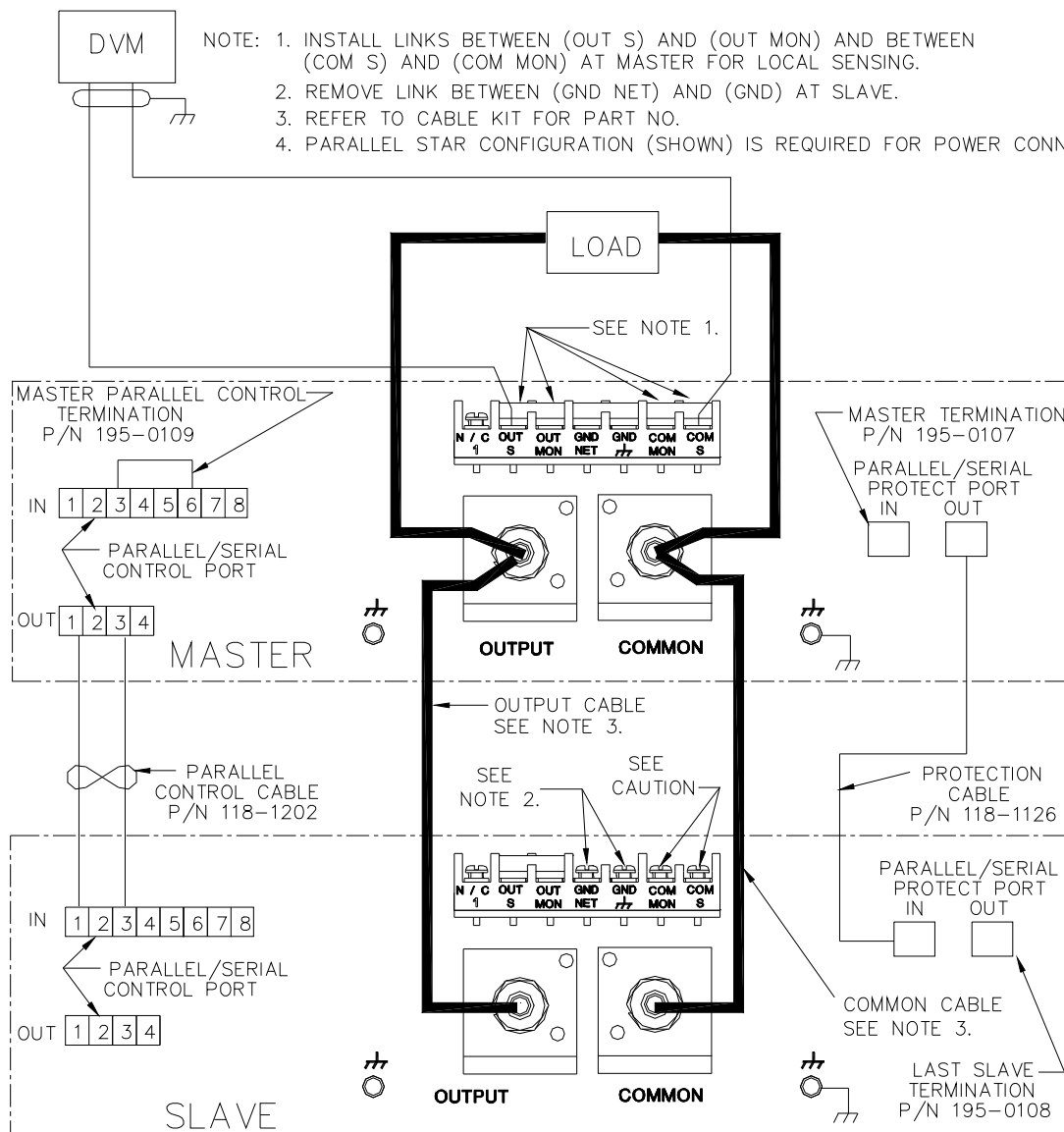
| Item                                     | Quantity | Purpose   | Marking  |
|--|----------|---|----------|
| Output and Common Power cable (1.5 ft.)  | 2        | Connects the OUTPUT and COMMON terminal of the Master to the OUTPUT and COMMON terminals of the Slave.  | _____    |
| Parallel Control Cable (1.5 ft.)         | 1        | Provides control signals required for parallel operation.   | 118-1202 |
| Protection Cable (1 ft.)                 | 1        | Provides interlock protection signals required for multiple unit operation.   | 118-1126 |
| Master - IN Parallel Control Termination | 1        | Provides proper termination for Parallel Control Cable.   | 195-0109 |
| Protection - OUT Termination (Slave)     | 1        | Provides proper termination for the slave connection to the Protection Cable.   | 195-0108 |
| Protection - IN Termination (Master)     | 1        | Provides proper termination for the master connection to the Protection Cable.  | 195-0107 |
| Instruction Manual                       | 1        | Lists material supplied.  | _____    |
| Nut                                      | 2        | Overcomes tight space for output cable connections. After securing bottom cable to output terminal stud using one nut, additional cables can be oriented for best layout and secured with separate nut. | _____    |

## II. CONFIGURATION

The instructions below are for installation and operation of two Model 4Q06125PS power supplies in parallel. Reference Figure 1.

- 1) Confirm master Model 4Q06125PS power switch settings: C. MODE / V. MODE switch set to V. MODE, PARALLEL / SERIES switch set to PARALLEL, MASTER / SLAVE switch set to MASTER, and ALONE / MULTIPLE switch set to MULTIPLE
- 2) Confirm master Model 4Q06125PS terminal block jumpers: jumper between OUT S and OUT MON; jumper between GND NET and GND  ; jumper between COM MON and COM S.
- 3) Confirm slave Model 4Q06125PS power switch settings: C. MODE / V. MODE switch set to V. MODE, its PARALLEL / SERIES switch set to PARALLEL, its MASTER / SLAVE switch set to SLAVE, and its ALONE / MULTIPLE switch to MULTIPLE.
- 4) Confirm slave Model 4Q06125PS terminal block jumpers: jumper between OUT S and OUT MON; no other terminal block jumpers.
- 5) Plug the KIT 219-1528 connector marked "195-0109" into the master PAR/SER CONTROL PORT IN connector.
- 6) Install the KIT 219-1528 cable marked "118-1202" between the master PAR/SER CONTROL PORT OUT connector and the slave PAR/SER CONTROL PORT IN connector.
- 7) Plug the KIT 219-1528 connector marked "195-0107" into the master PAR/SER PROTECT PORT IN connector.
- 8) Install the KIT 219-1528 cable marked "118-1126" between the master PAR/SER PROTECT PORT OUT connector and the slave PAR/SER PROTECT PORT IN connector.
- 9) Plug the KIT 219-1528 connector marked "195-0108" into the slave PAR/SER PROTECT PORT OUT connector.
- 10) Using the high-current cables supplied with KIT 219-1528 connect the master OUTPUT terminal to the slave OUTPUT terminal, and the master COMMON terminal to the slave COMMON terminal.
- 11) Make ANALOG I/O PORT connections *only* to the master Model 4Q06125PS.
- 12) Make connections to the power supply load *only* at the master Model 4Q06125PS. Use the two nuts supplied with KIT 219-1528.

NOTE: 1. INSTALL LINKS BETWEEN (OUT S) AND (OUT MON) AND BETWEEN (COM S) AND (COM MON) AT MASTER FOR LOCAL SENSING.  
2. REMOVE LINK BETWEEN (GND NET) AND (GND) AT SLAVE.  
3. REFER TO CABLE KIT FOR PART NO.  
4. PARALLEL STAR CONFIGURATION (SHOWN) IS REQUIRED FOR POWER CONNECTIONS



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### III. SPECIFICATIONS

Table 2 lists the general specifications for the parallel combination of two identical 750 Watt Model 4Q06125PS Power Supplies. For specifications not listed in Table 2, refer to the General Specifications provided in the associated technical manual supplied with the Model 4Q06125PS power supply.

**TABLE 2. GENERAL SPECIFICATIONS FOR TWO (2) MODEL 4Q06125PS UNITS (PARALLEL)**

| SPECIFICATION                         |                     | RATING/DESCRIPTION      | CONDITION   |
|---------------------------------------|---------------------|-------------------------|---|
| <b>INPUT CHARACTERISTICS</b>          |                     |                         |   |
| Current                               | 176 Va-c            | 15.0A a-c               | maximum   |
|                                       | 264 Va-c            | 10A a-c                 | maximum   |
| Leakage current                       |                     | 7mA a-c                 | 230V a-c, 47-63 Hz  |
| <b>OUTPUT CHARACTERISTICS</b>         |                     |                         |   |
| d-c Output Range                      | $E_O$ Max           | $\pm 6V$ d-c            |   |
|                                       | $I_O$ Max           | $\pm 250A$ d-c          |   |
| Closed Loop Gain                      | Voltage Channel     | 0.6                     |   |
|                                       | Current Channel     | 25.0                    |   |
| Source/sink adjustment range          | Voltage             | -6V to +6V              |   |
|                                       | Current             | -250A to +250A          |   |
| Programming resolution / accuracy     | Voltage             | $\pm 6mV$               |   |
|                                       | Current             | $\pm 375mA$             |   |
|                                       | Voltage Limit       | $\pm 6mV$ linearity     | $\pm 120mV$ Full Scale tolerance  |
|                                       | Current Limit       | $\pm 375mA$ linearity   | $\pm 2.75A$ Full Scale tolerance  |
|                                       |                     |                         |   |
| Readback resolution / accuracy        | Voltage             | Same as individual unit | Independent readings for each unit  |
|                                       | Current             | Same as individual unit | Independent readings for each unit  |
| Current stabilization in current mode |                     |                         |   |
|                                       | Source effect       | $\pm 125mA$             | Min - max input voltage   |
|                                       | Load effect         | $\pm 500mA$             | 0 to 100% load current  |
|                                       | Time effect (drift) | $\pm 125mA$             | 0.5 through 24 hours  |
|                                       | Temperature effect  | $\pm 125mA / ^\circ C$  | 0° to 50°C  |
|                                       | Ripple and noise    | $\pm 5A_{p-p}$          | Includes switching noise.   |
| Voltage stabilization in voltage mode |                     | Same as individual unit |   |
| Rise/Fall Time                        | Voltage             | 250 $\mu$ S/250 $\mu$ S | Nominal resistive load, measured from 10 to 90%, 0 to $\pm 100\%$ of rating |
|                                       | Current             | 1.5mS/1.5mS             | Short circuit, measured from 10% to 90%, 0 to $\pm 100\%$ of rating         |
| Frequency bandwidth                   | Voltage             | 2KHz                    | Nominal resistive load, $E_{OPK} = E_{ONOM}$ , $I_{OPK} = I_{ONOM}$ @ 60Hz  |
|                                       | Current             | 400Hz                   | Short circuit, $I_{OPK} = I_{ONOM}$ @ 60Hz                                  |