REV NO. 0

224X710AA

CONT ON SHEET 2 SH NO. 1

TITLE

PHASE CONTROL CARD
TEST INSTRUCTION

FIRST MADE FOR 193X259AAG01

REVISION

1.0 SCOPE

This instruction covers the production testing of the Phase Control Card, 193X259AA. Test conditions are given in Section 3. Performance is covered in specification 224X364AA. of test (next page)

2.0 PROCEDURE

2.01 Temporarily connect a 12K resistor between tabs 5 and 26X and tabs 14 and 26X.

2.02 Connect tab 16 to tab 15 thru a 10K 1% resistor.

2.03 With an oscilloscope triggered on the positive edge of the signal at tab 28 and observing tab 29X, add resistance between tabs 25 and 26X until the negative edge of the signal at 29X is delayed by from 1 to 45 μs. Solder on equivalent resistance between posts U and V on the card.

2.04 Verify the delay is between 1 and 45 μs.

2.05 Remove resistor from tab 14 to tab 26X. Repeat steps 2.03 and 2.04 using tab 19 as the trigger point, tab 22 as the observed point, tabs 14 and 26X for resistance select, and posts X and W for permanent mounting.

2.06 Remove resistor from tab 5 to 26X. Repeat steps 2.03 and 2.04 using tab 8X as the trigger point, tab 10X as the observed point, tabs 5 and 26X for resistance select, and posts Y and Z for permanent resistor mounting.

2.07 With an oscilloscope syncronized to the 3-phase line and a minimum sweep of 17 msec., connect tab 26 to tab 6X. Tabs 28, 19 and 8X should each exhibit two distinct positive pulses. The first pulse will be 30 to 170 μs wide & the second from 80 to 120 μs wide. They will be from .9 to 1.1 ms apart.

2.08 Disconnect tabs 26 and 6X and temporarily connect tabs 26 and 27. Connect tab 6X to tab 16. Two pulses will again appear at tab 8X and will be from 2.5 to 3.5 ms. apart.

2.09 Observe tab 24. This will be a 5V signal with sharp spikes to common every 2.77 ms or 60°. Verify these spikes are below .45V

2.10 Observe tabs 30, 30X, 23X, 23, 9 and 9X. A positive block 120° wide will appear on each output. Temporarily connect tab 3 to tab 15 and the block will decrease to from 55 to 65°.

2.11 Remove the jumper from tab 16 to 6X and connect tab 16 to tab 31 thru a 2.21K resistor. With on oscilloscope synchronized on the positive edge of tab 23X, verify that the pulse on tab 28 is delayed by from 1.4 to 2.1 m sec. from the positive edge of tab 23X.

2.12 Repeat 2.11 using tab 9 for synchronizing and verify tab 19.

2.13 Repeat 2.11 using tab 30 for synchronizing and verify tab 8X.

~~1A(BW)~~
~~2A(BW)~~
~~3A(BW)~~
~~4A(BW)~~
~~6A(BW)~~
5D(BW)
5E(BW)
5K(BW)
~~5L(BW)~~
5P(BW)
5QC(2E
5R(BW)

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MADE BY C.A. Johnson 3/26/73

ISSUED C A Johnson 4-27 73

APPROVALS

SPEED VARIATOR DIV OR DEPT.

Erie, Pa. LOCATION

224X710AA

CONT ON SHEET 2 SH NO. 1

CODE IDENT

FF-803-WA (1-70)
PRINTED IN U.S.A.

3.0 TEST CONDITIONS

+20V DC ± .1V on tab 31
+15V DC ± .1V on tab 28X
-15V DC ± .1V on tab 10
+ 5V DC ± .1V on tab 4
Power Supply commons to tabs 15 and 32.

Connect 3-phase 240V AC of ABC rotation to tabs 13, 20 and 17 thru the resistance isolator card 193X263AAG01 using the 1.5 megohm. resistors.

Connect tabs 27X, ~~17~~ 18 and 6 to tab 1. Connect a 3.3K resistor between tab 24 and tab 4. USE 36C799091AAG01

Unless otherwise specified the minimum high level for all signals is 3.5 V and the maximum low level is .45 V.

4.0 REQUALIFICATION

The subject card should be requalified by Quality Control every eighteen months or after every 2000 production cards, whichever occurs first.

~~1A (BW)~~
~~2A (BW)~~
~~3A (BW)~~
~~4A (BW)~~
~~6A (BW)~~
5D (BW)
~~5E (BW)~~
5L (BW)
5K (BW)
~~5P (BW)~~
~~5QC (2)~~
5R (BW)

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