EMC considerations for Stamford Generators with fitted AVR.

Including
Special measures for conformity with the EMC Directives.

Additional equipment required for each AVR type: -

	AVR type	SX460	SX440	SA465	SX421	MX341 MX321	MA325 MA327
BS EN 61000-6-3 (emissions)	2001	RIS	RIS	RIS	RIS	#	#
BS EN 61000-6-1 (immunity)	2001	#	#	#	#	#	#
BS EN 61000-6-4 (emissions)	2001	#	#	#	RIS	#	#
BS EN 61000-6-2 (immunity)	2001	#	#	#	#	#	#
VDE 0875 part 3 (Level G)	1984	#	#	#	#	#	#
VDE 0875 part 3 (Level N)	1984	RIS	RIS	RIS	RIS	#	#
VDE 0875 part 3 (Level K)	1984	SM	SM	SM	SM	RIS-PC	RIS-PC
New Zealand P.O.	1958	RIS	RIS	RIS	RIS	RIS	RIS
BS 1597 / 1	1975	RIS	RIS	RIS	RIS	RIS	RIS
BS 1597 / 2	1975	RIS	RIS	RIS	RIS	RIS	RIS
MIL-STD-461D	1980	SM	SM	SM	SM	RIS+HS	RIS+HS
DEF STAN 5941 B2	1971	RIS	RIS	RIS	RIS	RIS	RIS
DEF STAN 5941 A and B1	1971	SM	SM	RIS	RIS	RIS	RIS
SRDE 1400 B2	1971	RIS	RIS	RIS	RIS	RIS	RIS
SRDE 1400 A and B1	1971	SM	SM	RIS	RIS	RIS	RIS
A.S. 1044	1973	#	#	#	#	#	#

Legend: part number

#	=	No additional suppression required	
RIS	=	Radio Interference Suppression kit required	45-0605
RIS-PC	=	RIS Provides Partial Compliance - Conducted Interference Only	45-0605
RIS+HS	=	Radio Interference Suppression kit + Harness Screening required	45-0605
SM	=	Special measures must be taken by the customer.	

Notes:

1. Certain loads (in particular those employing non-linear elements) can produce high levels of RFI noise affecting the generator output. In these cases the installation may need additional suppression external to the generating equipment.

2. When the generator is incorporated into electrical apparatus the person responsible must ensure that the electrical apparatus conforms to the EMC directive before the CE mark is applied.

   Where ‘no additional suppression’ is indicated this refers to the generator and control system only, when the generator is incorporated into electrical apparatus the engineer responsible must ensure that the electrical apparatus meet the relevant standard / directives.

Hand Voltage Trimmers

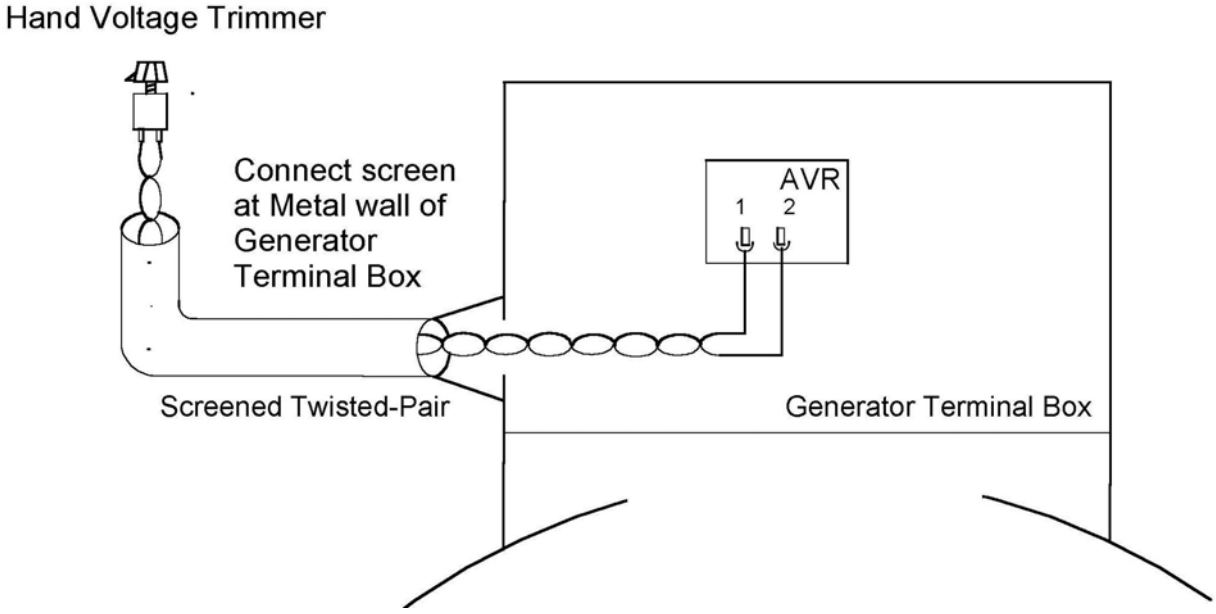
Users of Hand Voltage Trimmers are advised of the following recommendations regarding the compliance of the electrical generator with European EMC Directives.

All generators and associated AVRs produced by the company[1] have been tested and assessed for compliance with EC directive 89/336/EEC and the details of this assessment are embodied in a 'Technical Construction File' available for inspection at the company.

Tests were carried out with configurations of AVRs and Hand Voltage Trimmers which would represent typical OEM equipment/site conditions. Any wiring external to the generator and outside the company's scope of supply is the responsibility of the generator set assembler but in order to maintain compliance with the Directives the following recommendations are made:

- Hand Voltage Trimmer leads should be made up of screened twisted-pair cable.
- Cables are kept as short as possible and physically separate from other control/power wiring.
- Where the Hand Voltage Trimmer cable runs outside any earthed metalwork/conduit then the cable screen should be bonded at the metal wall of the generator terminal or control-box (preferably by 360° gland).

<u>The sketch below is by way of example only</u>:



<u>Suggested cable specification:</u>

0.75mm^2, 3A/500Vac minimum screened and jacketed twisted-pair.

[1] Newage International Ltd. Stamford. UK