



Principle of Operation

102C-315FR1 Series

Hand Held Transmitter Encoder

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1.0 Amendment Record

2.0 Product Identification and Principles of Operation

2.1 Product Identification

This Technical Construction File covers the products identified as follows:

Brand Name	Keeloq Remote Control System	
Model Range	102-315F Series Radio Hand Held Transmitter Encoder	
Part Numbers	102C1-315FR1	1 switch version
	102C2-315FR1	2 switch version
	102C4-315FR1	4 switch version
Manufacturer	<p>RF Solutions Limited Unit 21 Cliffe Industrial Estate South Street Lewes East Sussex BN8 6JL</p>	

2.2 Principles of Operation

The principles of Operation of the 102C-315FR1 range of hand held devices are given in datasheet number DS102-4 Oct '02, which is appended to this document. A copy of the datasheet is included with each product despatched.

A copy of the RF Solutions Sales Catalogue, which provides an overview of the Company and its products, is included in Appendix A of this document.

3.0 Design, Manufacture and Quality

3.1 Design and Manufacture

The 102C-315FR1 series of hand held transmitter encoders are available in 1, 2 or 4 switch product options. The product uses a commercially available transmitter module. The Keeloq encoder chip and the remaining circuitry are the same as is used on the AM-110C-433 range of pocket keyfob transmitter encoders (see Technical Construction File RFSL-TCF-001).

The design and manufacture of both options is described in the following documents, which are appended to this section of the Technical Construction File:

- SCH102-6 schematic circuit diagram covering 1 and 4 switch product options.
- A separate bill of materials for both product options.
- TID102-6 PCB layout drawing covering 1, 2 and 4 switch product options.
- FWD027_1 firmware control sheet for the HCS360/SN surface mount Keeloq encoder chip.
- TS102_2 end-of-line test specification, which includes the 1, 2 and 4 switch product options for the 102C-315R1 series of hand held transmitter encoders.

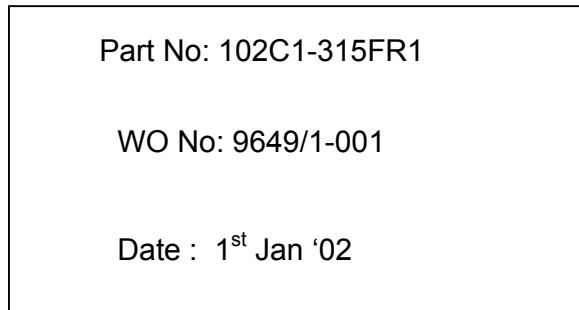
3.2 Quality System

RF Solutions is currently working towards achieving ISO 9001:2000 accreditation for its Quality System. The target date for accreditation is December 2002. A copy of the Company Quality Manual is included in Appendix B to this Technical Construction File.

4.0 Product Marking

4.1 Marking

Each product is labelled with a product ID sticker. The format is below



There are three fields:

Part No: refers to the product part number this can be

102C1-315FR1
102C2-315FR1
102C4-315FR1

WO No: refers to the Internal Manufacture Works Order Batch number from which the product can be traced.

Date: refers to the date the product was manufactured

4.2 Other Marking

In accordance with the requirements of Annex VII to the European R&TTE Directive 1999/5/EC, products are CE marked.

In accordance with clause 5 of Annex VII of the R&TTE Directive 1999/5/EC, products are also marked with an equipment class identifier. This takes the form of the Alert symbol as required by the UK Radiocommunications Agency.

Appendix A

Sales Catalogue

Appendix B

Quality Manual